

**Supplemental Table S4**  
**Lists of eDMR-gene pair predictions**

Predictions of eDMR-gene pairs for 10 TCGA cancer types, identified using our model (see Fig. 2C and Supplemental Fig. S2H).

| #  | Abbreviation | Cancer Type                         |
|----|--------------|-------------------------------------|
| 1  | BLCA         | bladder urothelial carcinoma        |
| 2  | BRCA         | breast invasive carcinoma           |
| 3  | COAD         | colon adenocarcinoma                |
| 4  | HNSC         | head & neck squamous cell carcinoma |
| 5  | KIRP         | kidney papillary cell carcinoma     |
| 6  | LUSC         | lung squamous cell carcinoma        |
| 7  | PRAD         | prostate adenocarcinoma             |
| 8  | READ         | rectum adenocarcinoma               |
| 9  | STAD         | stomach adenocarcinoma              |
| 10 | THCA         | thyroid carcinoma                   |

| Cancer | Type | Rank | eDMR                      | Entrez | Gene symbols | Strand | Distance from TSS | Enhancer differential methylation | Promoter differential methylation | Differential gene expression | Correlation |
|--------|------|------|---------------------------|--------|--------------|--------|-------------------|-----------------------------------|-----------------------------------|------------------------------|-------------|
| BLCA   |      | 1    | chr2:51251801-51252800    | 9378   | NRXN1        | -      | -7374             | -0.42                             | 0.01                              | -5.68                        | 0.55        |
| BLCA   |      | 2    | chr7:70560625-70561624    | 64409  | WBSCR17      | +      | -36399            | -0.47                             | -0.06                             | -4.67                        | 0.59        |
| BLCA   |      | 3    | chr15:88751891-88752890   | 4916   | NTRK3        | -      | -47572            | -0.43                             | 0.04                              | -4.81                        | 0.51        |
| BLCA   |      | 4    | chr5:15509758-15510757    | 23194  | FBXL7        | +      | 9952              | -0.48                             | -0.03                             | -2.72                        | 0.61        |
| BLCA   |      | 5    | chr7:70746377-70747376    | 64409  | WBSCR17      | +      | 149353            | -0.43                             | -0.06                             | -4.67                        | 0.60        |
| BLCA   |      | 6    | chr2:63284057-63285056    | 5013   | OTX1         | +      | 7364              | 0.48                              | -0.04                             | 3.29                         | 0.46        |
| BLCA   |      | 7    | chr7:70790432-70791431    | 64409  | WBSCR17      | +      | 193408            | -0.45                             | -0.06                             | -4.67                        | 0.64        |
| BLCA   |      | 8    | chr10:11077125-11078124   | 10659  | CELF2        | +      | 30365             | -0.40                             | -0.03                             | -3.07                        | 0.77        |
| BLCA   |      | 9    | chr1:215147391-215148390  | 3776   | KCNK2        | +      | -30995            | -0.39                             | -0.03                             | -3.45                        | 0.64        |
| BLCA   |      | 10   | chr3:132772192-132773191  | 66000  | TMEM108      | +      | 15520             | -0.40                             | -0.06                             | -2.93                        | 0.65        |
| BLCA   |      | 11   | chr5:15572068-15573067    | 23194  | FBXL7        | +      | 72262             | -0.48                             | -0.03                             | -2.72                        | 0.71        |
| BLCA   |      | 12   | chr10:108917891-108918890 | 114815 | SORCS1       | -      | -6076             | -0.37                             | 0.11                              | -5.56                        | 0.51        |
| BLCA   |      | 13   | chr7:70665759-70666758    | 64409  | WBSCR17      | +      | 68735             | -0.39                             | -0.06                             | -4.67                        | 0.55        |
| BLCA   |      | 14   | chr7:70792647-70793646    | 64409  | WBSCR17      | +      | 195623            | -0.42                             | -0.06                             | -4.67                        | 0.61        |
| BLCA   |      | 15   | chr15:88843399-88844398   | 4916   | NTRK3        | -      | 43936             | -0.39                             | 0.04                              | -4.81                        | 0.50        |
| BLCA   |      | 16   | chr16:1309050-1310049     | 7177   | TPSAB1       | +      | 18871             | -0.37                             | 0.11                              | -3.45                        | 0.68        |
| BLCA   |      | 17   | chr10:11137288-11138287   | 10659  | CELF2        | +      | 90528             | -0.41                             | -0.03                             | -3.07                        | 0.71        |
| BLCA   |      | 18   | chr5:7619483-7620482      | 108    | ADCY2        | +      | 223639            | -0.50                             | -0.04                             | -3.72                        | 0.61        |
| BLCA   |      | 19   | chr12:102815429-102816428 | 3479   | IGF1         | -      | -58450            | -0.38                             | 0.03                              | -3.77                        | 0.62        |
| BLCA   |      | 20   | chr10:10944777-10945776   | 10659  | CELF2        | +      | -101983           | -0.41                             | -0.03                             | -3.07                        | 0.67        |
| BLCA   |      | 21   | chr3:29338042-29339041    | 27303  | RBMS3        | +      | 15738             | -0.42                             | -0.01                             | -2.43                        | 0.65        |
| BLCA   |      | 22   | chr4:24295954-24296953    | 10891  | PPARGC1A     | -      | -177941           | -0.41                             | 0.02                              | -3.86                        | 0.64        |
| BLCA   |      | 23   | chr12:4360635-4361634     | 894    | CCND2        | +      | -21768            | -0.40                             | -0.01                             | -2.50                        | 0.70        |
| BLCA   |      | 24   | chr5:7501514-7502513      | 108    | ADCY2        | +      | 105670            | -0.39                             | -0.04                             | -3.72                        | 0.54        |
| BLCA   |      | 25   | chr8:144301094-144302093  | 338328 | GPIHBP1      | +      | 6525              | -0.41                             | -0.07                             | -3.62                        | 0.42        |
| BLCA   |      | 26   | chr5:7462356-7463355      | 108    | ADCY2        | +      | 66512             | -0.37                             | -0.04                             | -3.72                        | 0.63        |
| BLCA   |      | 27   | chr1:66278419-66279418    | 5142   | PDE4B        | +      | 20725             | -0.39                             | 0.02                              | -2.60                        | 0.64        |
| BLCA   |      | 28   | chr2:100516380-100517379  | 3899   | AFF3         | -      | -242158           | -0.44                             | 0.01                              | -4.98                        | 0.49        |
| BLCA   |      | 29   | chr5:7685699-7686698      | 108    | ADCY2        | +      | 289855            | -0.43                             | -0.04                             | -3.72                        | 0.60        |
| BLCA   |      | 30   | chr5:15692335-15693334    | 23194  | FBXL7        | +      | 192529            | -0.46                             | -0.03                             | -2.72                        | 0.72        |
| BLCA   |      | 31   | chr7:70920832-70921831    | 64409  | WBSCR17      | +      | 323808            | -0.43                             | -0.06                             | -4.67                        | 0.60        |
| BLCA   |      | 32   | chr21:38077471-38078470   | 6493   | SIM2         | +      | 5979              | 0.45                              | -0.06                             | 1.74                         | 0.72        |
| BLCA   |      | 33   | chr21:38082113-38083112   | 6493   | SIM2         | +      | 10621             | 0.48                              | -0.06                             | 1.74                         | 0.70        |
| BLCA   |      | 34   | chr1:159060869-159061868  | 57863  | CADM3        | +      | -80009            | -0.35                             | 0.03                              | -5.79                        | 0.62        |
| BLCA   |      | 35   | chr2:50863103-50864102    | 9378   | NRXN1        | -      | -396072           | -0.44                             | 0.01                              | -5.68                        | 0.60        |
| BLCA   |      | 36   | chr2:80340877-80341876    | 347730 | LRRTM1       | -      | -190111           | -0.45                             | -0.05                             | -3.34                        | 0.50        |
| BLCA   |      | 37   | chr2:80556793-80557792    | 347730 | LRRTM1       | -      | 25805             | -0.37                             | -0.05                             | -3.34                        | 0.51        |
| BLCA   |      | 38   | chr8:106437325-106438324  | 23414  | ZFPM2        | +      | 106677            | -0.38                             | 0.00                              | -3.25                        | 0.59        |
| BLCA   |      | 39   | chr7:70576670-70577669    | 64409  | WBSCR17      | +      | -20354            | -0.37                             | -0.06                             | -4.67                        | 0.45        |
| BLCA   |      | 40   | chr1:159869826-159870825  | 57549  | IGSF9        | -      | -45061            | -0.38                             | 0.00                              | 3.20                         | -0.50       |
| BLCA   |      | 41   | chr5:154854422-154855421  | 6444   | SGCD         | +      | -280142           | -0.42                             | -0.06                             | -3.54                        | 0.57        |
| BLCA   |      | 42   | chr17:32612299-32613298   | 6347   | CCL2         | +      | 30502             | -0.42                             | -0.08                             | -2.70                        | 0.46        |
| BLCA   |      | 43   | chr1:162816461-162817460  | 4921   | DDR2         | +      | 214732            | -0.42                             | -0.04                             | -2.95                        | 0.60        |
| BLCA   |      | 44   | chr2:100691131-100692130  | 3899   | AFF3         | -      | -67407            | -0.36                             | 0.01                              | -4.98                        | 0.53        |
| BLCA   |      | 45   | chr12:24608019-24609018   | 6660   | SOX5         | -      | -106865           | -0.43                             | 0.00                              | -2.59                        | 0.52        |
| BLCA   |      | 46   | chr7:135391513-135392512  | 389558 | FAM180A      | -      | -41582            | -0.35                             | -0.02                             | -3.56                        | 0.60        |
| BLCA   |      | 47   | chr12:128993927-128994926 | 92293  | TMEM132C     | +      | 242478            | -0.44                             | 0.01                              | -5.29                        | 0.44        |
| BLCA   |      | 48   | chr16:77876074-77877073   | 10143  | CLEC3A       | +      | -179870           | -0.41                             | -0.02                             | -5.30                        | 0.44        |
| BLCA   |      | 49   | chr5:15550884-15551883    | 23194  | FBXL7        | +      | 51078             | -0.37                             | -0.03                             | -2.72                        | 0.62        |
| BLCA   |      | 50   | chr2:198814564-198815563  | 5334   | PLCL1        | +      | 145637            | -0.43                             | -0.04                             | -2.38                        | 0.61        |
| BLCA   |      | 51   | chr16:24066674-24067673   | 5579   | PRKCB        | +      | 219873            | -0.39                             | -0.04                             | -3.13                        | 0.77        |
| BLCA   |      | 52   | chr16:77909791-77910790   | 10143  | CLEC3A       | +      | -146153           | -0.41                             | -0.02                             | -5.30                        | 0.41        |
| BLCA   |      | 53   | chr7:103498066-103499065  | 5649   | RELN         | -      | -131398           | -0.36                             | -0.02                             | -4.08                        | 0.56        |
| BLCA   |      | 54   | chr8:56192221-56193220    | 114786 | XKR4         | +      | 177703            | -0.42                             | 0.09                              | -2.73                        | 0.52        |
| BLCA   |      | 55   | chr5:7314913-7315912      | 108    | ADCY2        | +      | -80931            | -0.36                             | -0.04                             | -3.72                        | 0.58        |
| BLCA   |      | 56   | chr12:131831440-131832439 | 283383 | GPR133       | +      | 393487            | -0.49                             | -0.02                             | -5.35                        | 0.49        |
| BLCA   |      | 57   | chr10:11311515-11312514   | 10659  | CELF2        | +      | 264755            | -0.40                             | -0.03                             | -3.07                        | 0.62        |
| BLCA   |      | 58   | chr13:94013007-94014006   | 10082  | GPC6         | +      | 134428            | -0.40                             | 0.00                              | -2.60                        | 0.62        |
| BLCA   |      | 59   | chr8:106594691-106595690  | 23414  | ZFPM2        | +      | 264043            | -0.40                             | 0.00                              | -3.25                        | 0.61        |
| BLCA   |      | 60   | chr5:7563292-7564291      | 108    | ADCY2        | +      | 167448            | -0.37                             | -0.04                             | -3.72                        | 0.57        |
| BLCA   |      | 61   | chr5:158251244-158252243  | 1879   | EBF1         | -      | -275045           | -0.44                             | 0.02                              | -2.74                        | 0.61        |
| BLCA   |      | 62   | chr1:85754848-85755847    | 3491   | CYR61        | +      | -291097           | -0.42                             | 0.00                              | -3.46                        | 0.51        |
| BLCA   |      | 63   | chr16:77833640-77834639   | 10143  | CLEC3A       | +      | -222304           | -0.43                             | -0.02                             | -5.30                        | 0.42        |
| BLCA   |      | 64   | chr1:240517381-240518380  | 64388  | GREM2        | -      | -257582           | -0.40                             | -0.12                             | -4.91                        | 0.49        |
| BLCA   |      | 65   | chr10:11333203-11334202   | 10659  | CELF2        | +      | 286443            | -0.40                             | -0.03                             | -3.07                        | 0.68        |
| BLCA   |      | 66   | chr12:50595847-50596846   | 23017  | FAIM2        | -      | 298586            | -0.37                             | 0.04                              | -5.05                        | 0.68        |
| BLCA   |      | 67   | chr2:183369584-183370583  | 5136   | PDE1A        | -      | -17489            | -0.38                             | 0.00                              | -3.58                        | 0.41        |
| BLCA   |      | 68   | chr5:77995551-77996550    | 23743  | BHMT2        | +      | -369497           | -0.46                             | 0.04                              | -4.64                        | 0.49        |
| BLCA   |      | 69   | chr10:10834519-10835518   | 10659  | CELF2        | +      | -122241           | -0.39                             | -0.03                             | -3.07                        | 0.56        |
| BLCA   |      | 70   | chr9:89721932-89722931    | 2619   | GAS1         | -      | 160327            | -0.42                             | 0.00                              | -2.24                        | 0.59        |
| BLCA   |      | 71   | chr10:10837318-10838317   | 10659  | CELF2        | +      | -209442           | -0.38                             | -0.03                             | -3.07                        | 0.59        |
| BLCA   |      | 72   | chr2:80362847-80363846    | 347730 | LRRTM1       | -      | -168141           | -0.40                             | -0.05                             | -3.34                        | 0.46        |
| BLCA   |      | 73   | chr5:15756578-15757577    | 23194  | FBXL7        | +      | 256772            | -0.41                             | -0.03                             | -2.72                        | 0.62        |
| BLCA   |      | 74   | chr4:176909479-176910478  | 2823   | GPM6A        | -      | -13864            | -0.34                             | 0.10                              | -3.69                        | 0.55        |
| BLCA   |      | 75   | chr17:9833556-9834555     | 8522   | GAS7         | -      | -267813           | -0.42                             | -0.03                             | -2.63                        | 0.60        |
| BLCA   |      | 76   | chr5:15750336-15751335    | 23194  | FBXL7        | +      | 250530            | -0.41                             | -0.03                             | -2.72                        | 0.61        |
| BLCA   |      | 77   | chr16:77890449-77891448   | 10143  | CLEC3A       | +      | -165495           | -0.39                             | -0.02                             | -5.30                        | 0.43        |
| BLCA   |      | 78   | chr4:19962359-19963358    | 9353   | SLIT2        | +      | -292377           | -0.39                             | -0.05                             | -4.27                        | 0.52        |

|      |     |                           |           |              |   |         |       |       |       |       |
|------|-----|---------------------------|-----------|--------------|---|---------|-------|-------|-------|-------|
| BLCA | 79  | chr10:11116964-11117963   | 10659     | CELF2        | + | 70204   | -0.36 | -0.03 | -3.07 | 0.56  |
| BLCA | 80  | chr11:133966740-133967739 | 83700     | JAM3         | + | 28419   | -0.36 | -0.04 | -2.88 | 0.53  |
| BLCA | 81  | chr2:183237287-183238286  | 5136      | PDE1A        | - | -149786 | -0.37 | 0.00  | -3.58 | 0.51  |
| BLCA | 82  | chr5:158757159-158758158  | 1879      | EBF1         | - | 230870  | -0.40 | 0.02  | -2.74 | 0.61  |
| BLCA | 83  | chr3:148425795-148426794  | 185       | AGTR1        | + | 10636   | -0.37 | -0.03 | -4.25 | 0.40  |
| BLCA | 84  | chr14:104574215-104575214 | 26153     | KIF26A       | + | -30346  | -0.41 | -0.05 | -2.14 | 0.46  |
| BLCA | 85  | chr8:72630128-72631127    | 2138      | EYA1         | - | 356160  | -0.42 | -0.01 | -3.02 | 0.65  |
| BLCA | 86  | chr21:38082599-38083648   | 6493      | SIM2         | + | 11132   | 0.38  | -0.06 | 1.74  | 0.65  |
| BLCA | 87  | chr1:240506299-240507298  | 64388     | GREM2        | - | -268664 | -0.40 | -0.12 | -4.91 | 0.45  |
| BLCA | 88  | chr1:156130326-156131325  | 57111     | RAB25        | + | 99859   | 0.40  | 0.00  | 2.56  | 0.49  |
| BLCA | 89  | chr6:69420280-69421279    | 577       | BAI3         | + | 75147   | -0.34 | -0.01 | -4.52 | 0.57  |
| BLCA | 90  | chr8:93102861-93103860    | 862       | RUNX1T1      | - | -12094  | -0.36 | -0.01 | -2.97 | 0.46  |
| BLCA | 91  | chr8:74258184-74259183    | 157869    | C8orf84      | - | 253176  | -0.47 | -0.02 | -3.58 | 0.42  |
| BLCA | 92  | chr5:7770190-7771189      | 108       | ADCY2        | + | 374346  | -0.42 | -0.04 | -3.72 | 0.52  |
| BLCA | 93  | chr6:6384159-6385158      | 2162      | F13A1        | - | 63734   | -0.37 | 0.00  | -2.75 | 0.51  |
| BLCA | 94  | chr1:18275655-18276654    | 84966     | IGSF21       | + | -158086 | -0.42 | 0.02  | -2.23 | 0.52  |
| BLCA | 95  | chr6:133583689-133584688  | 2070      | EYA4         | + | 22452   | -0.35 | 0.01  | -2.70 | 0.67  |
| BLCA | 96  | chr1:159060869-159061868  | 2532      | DARC         | + | -112435 | -0.35 | 0.00  | -4.38 | 0.49  |
| BLCA | 97  | chr11:133468693-133469692 | 4978      | OPCML        | - | 66789   | -0.44 | -0.02 | -1.84 | 0.48  |
| BLCA | 98  | chr13:31551775-31552774   | 84935     | C13orf33     | + | 71962   | -0.38 | -0.05 | -2.72 | 0.48  |
| BLCA | 99  | chr16:24174350-24175349   | 5579      | PRKCB        | + | 327549  | -0.39 | -0.04 | -3.13 | 0.71  |
| BLCA | 100 | chr11:69048137-69049136   | 116535    | MRGPRF       | - | 267786  | -0.37 | 0.00  | -3.94 | 0.53  |
| BLCA | 101 | chr5:63297115-63298114    | 285671    | RNF180       | + | -164057 | -0.41 | -0.07 | -2.86 | 0.45  |
| BLCA | 102 | chr12:24636125-24637124   | 6660      | SOX5         | - | -78759  | -0.40 | 0.00  | -2.59 | 0.44  |
| BLCA | 103 | chr10:44426303-44427302   | 6387      | CXCL12       | - | -453743 | -0.50 | -0.01 | -3.47 | 0.51  |
| BLCA | 104 | chr11:126922606-126923605 | 84623     | KIRREL3      | - | 49750   | -0.40 | 0.00  | -2.65 | 0.42  |
| BLCA | 105 | chr7:28344254-28345253    | 9586      | CREB5        | + | 5813    | -0.36 | -0.01 | -2.16 | 0.56  |
| BLCA | 106 | chr17:32682270-32683269   | 6347      | CCL2         | + | 100473  | -0.38 | -0.08 | -2.70 | 0.49  |
| BLCA | 107 | chr8:56232167-56233166    | 114786    | XKR4         | + | 217649  | -0.40 | 0.09  | -2.73 | 0.50  |
| BLCA | 108 | chr5:154892198-154893197  | 6444      | SGCD         | + | -242366 | -0.36 | -0.06 | -3.54 | 0.61  |
| BLCA | 109 | chr7:220154-221153        | 56975     | FAM20C       | + | 27684   | -0.41 | 0.03  | -1.36 | 0.69  |
| BLCA | 110 | chr12:4549003-4550002     | 894       | CCND2        | + | 166600  | -0.39 | -0.01 | -2.50 | 0.55  |
| BLCA | 111 | chr11:126602752-126603751 | 84623     | KIRREL3      | - | -270104 | -0.46 | 0.00  | -2.65 | 0.48  |
| BLCA | 112 | chr1:156130326-156131325  | 92312     | MEX3A        | + | 79036   | 0.40  | -0.06 | 3.04  | 0.40  |
| BLCA | 113 | chr5:15929938-15930937    | 23194     | FBXL7        | + | 430132  | -0.48 | -0.03 | -2.72 | 0.68  |
| BLCA | 114 | chr17:9833556-9834555     | 5957      | RCVRN        | - | 25371   | -0.42 | 0.00  | -1.48 | 0.51  |
| BLCA | 115 | chr3:29373628-29374627    | 27303     | RBMS3        | + | 51324   | -0.37 | -0.01 | -2.43 | 0.53  |
| BLCA | 116 | chr5:77995551-77996550    | 29958     | DMGDH        | - | -369399 | -0.46 | 0.13  | -3.57 | 0.45  |
| BLCA | 117 | chr11:133966740-133967739 | 100128239 | LOC100128239 | + | 65072   | -0.36 | -0.01 | -2.97 | 0.49  |
| BLCA | 118 | chr16:24197363-24198362   | 5579      | PRKCB        | + | 350562  | -0.38 | -0.04 | -3.13 | 0.71  |
| BLCA | 119 | chr7:70937327-70938326    | 64409     | WBSCR17      | + | 340303  | -0.37 | -0.06 | -4.67 | 0.63  |
| BLCA | 120 | chr1:27080098-27081097    | 126695    | C1orf172     | - | -206304 | -0.38 | -0.05 | 2.57  | -0.70 |
| BLCA | 121 | chr11:123774688-123775687 | 55800     | SCN3B        | - | 249872  | -0.44 | 0.06  | -2.20 | 0.52  |
| BLCA | 122 | chr8:109045192-109046191  | 340419    | RSPO2        | - | -50222  | -0.36 | -0.02 | -3.40 | 0.43  |
| BLCA | 123 | chr4:19777308-19778307    | 9353      | SLIT2        | + | -477428 | -0.40 | -0.05 | -4.27 | 0.59  |
| BLCA | 124 | chr14:94179347-94180346   | 51676     | ASB2         | - | -263230 | -0.36 | 0.00  | -4.13 | 0.59  |
| BLCA | 125 | chr5:15918440-15919439    | 23194     | FBXL7        | + | 418634  | -0.43 | -0.03 | -2.72 | 0.68  |
| BLCA | 126 | chr15:33872747-33873746   | 6263      | RYR3         | + | 270069  | -0.38 | 0.00  | -3.63 | 0.47  |
| BLCA | 127 | chr8:116573453-116574452  | 7227      | TRPS1        | - | -107276 | -0.38 | -0.02 | -1.95 | 0.76  |
| BLCA | 128 | chr21:38082113-38083112   | 53820     | DSCR6        | + | -295838 | 0.48  | 0.16  | 2.61  | 0.48  |
| BLCA | 129 | chr12:129034848-129035847 | 92293     | TMEM132C     | + | 283399  | -0.40 | 0.01  | -5.29 | 0.41  |
| BLCA | 130 | chr1:76572103-76573102    | 256435    | ST6GALNAC3   | + | 32213   | -0.39 | 0.00  | -1.84 | 0.51  |
| BLCA | 131 | chr7:31979900-31980899    | 5137      | PDE1C        | - | -357984 | -0.40 | 0.01  | -3.75 | 0.47  |
| BLCA | 132 | chr10:44754214-44755213   | 6387      | CXCL12       | - | -125832 | -0.34 | -0.01 | -3.47 | 0.75  |
| BLCA | 133 | chr11:113048676-113049675 | 4684      | NCAM1        | + | 217206  | -0.35 | -0.03 | -5.61 | 0.56  |
| BLCA | 134 | chr1:215130454-215131453  | 3776      | KCNK2        | + | -47932  | -0.36 | -0.03 | -3.45 | 0.43  |
| BLCA | 135 | chr2:51231149-51232148    | 9378      | NRXN1        | - | -28026  | -0.33 | 0.01  | -5.68 | 0.52  |
| BLCA | 136 | chr17:5980404-5981403     | 23302     | WSCD1        | + | 8477    | -0.38 | -0.05 | -1.50 | 0.61  |
| BLCA | 137 | chr2:239835642-239836641  | 117581    | TWIST2       | + | 79468   | -0.35 | -0.12 | -3.05 | 0.57  |
| BLCA | 138 | chr1:156130713-156131712  | 57111     | RAB25        | + | 100246  | 0.37  | 0.00  | 2.56  | 0.52  |
| BLCA | 139 | chr12:4022578-4023577     | 894       | CCND2        | + | -359825 | -0.43 | -0.01 | -2.50 | 0.62  |
| BLCA | 140 | chr8:69386718-69387717    | 116328    | C8orf34      | + | 144260  | -0.39 | 0.00  | -2.23 | 0.51  |
| BLCA | 141 | chr3:172856120-172857119  | 22871     | NLGN1        | + | -259625 | -0.37 | -0.02 | -3.59 | 0.48  |
| BLCA | 142 | chr21:38077471-38078470   | 53820     | DSCR6        | - | -300480 | 0.45  | 0.16  | 2.61  | 0.47  |
| BLCA | 143 | chr2:80723709-80724708    | 347730    | LRRTM1       | - | 192721  | -0.39 | -0.05 | -3.34 | 0.43  |
| BLCA | 144 | chr5:158285245-158286244  | 1879      | EBF1         | - | -241044 | -0.37 | 0.02  | -2.74 | 0.56  |
| BLCA | 145 | chr1:240374964-240375963  | 64388     | GREM2        | - | -399999 | -0.45 | -0.12 | -4.91 | 0.42  |
| BLCA | 146 | chr16:1309050-1310049     | 25823     | TPSG1        | - | 34295   | -0.37 | 0.02  | -2.28 | 0.46  |
| BLCA | 147 | chr11:133468693-133469692 | 83700     | JAM3         | + | -469628 | -0.44 | -0.04 | -2.88 | 0.57  |
| BLCA | 148 | chr8:118312544-118313543  | 441376    | C8orf85      | + | 362579  | -0.38 | 0.03  | -4.09 | 0.49  |
| BLCA | 149 | chr8:97137661-97138660    | 392255    | GDF6         | - | -34860  | -0.40 | -0.01 | -1.25 | 0.62  |
| BLCA | 150 | chr3:22412732-22413731    | 79750     | ZNF385D      | - | -892    | -0.36 | 0.02  | -2.33 | 0.48  |
| BLCA | 151 | chr2:10054383-10055382    | 192668    | CYS1         | - | -165656 | -0.40 | -0.01 | -2.60 | 0.45  |
| BLCA | 152 | chr6:16933316-16934315    | 221662    | RBM24        | + | -347994 | -0.39 | -0.02 | -4.42 | 0.45  |
| BLCA | 153 | chr13:93957138-93958137   | 10082     | GPC6         | + | 78559   | -0.35 | 0.00  | -2.60 | 0.61  |
| BLCA | 154 | chr11:126743969-126744968 | 84623     | KIRREL3      | - | -128887 | -0.38 | 0.00  | -2.65 | 0.46  |
| BLCA | 155 | chr2:100428377-100429376  | 3899      | AFF3         | - | -330161 | -0.37 | 0.01  | -4.98 | 0.50  |
| BLCA | 156 | chr4:176909479-176910478  | 116966    | WDR17        | + | -77007  | -0.34 | 0.05  | -2.77 | 0.73  |
| BLCA | 157 | chr5:15594686-15595685    | 23194     | FBXL7        | + | 94880   | -0.35 | -0.03 | -2.72 | 0.53  |
| BLCA | 158 | chr10:44669510-44670509   | 6387      | CXCL12       | - | -210536 | -0.36 | -0.01 | -3.47 | 0.50  |
| BLCA | 159 | chr4:5028195-5029194      | 54360     | CYTL1        | - | 7497    | -0.35 | -0.03 | -3.04 | 0.46  |
| BLCA | 160 | chr11:133468693-133469692 | 100128239 | LOC100128239 | + | -432975 | -0.44 | -0.01 | -2.97 | 0.51  |

|      |     |                           |        |           |   |         |       |       |       |       |
|------|-----|---------------------------|--------|-----------|---|---------|-------|-------|-------|-------|
| BLCA | 161 | chr10:79117196-79118195   | 3778   | KCNMA1    | - | -279882 | -0.36 | 0.09  | -3.97 | 0.55  |
| BLCA | 162 | chr1:204677373-204678372  | 10446  | LRRN2     | - | 23275   | -0.37 | -0.07 | -2.14 | 0.46  |
| BLCA | 163 | chr4:5028195-5029194      | 55351  | STK32B    | + | -24833  | -0.35 | 0.00  | -2.45 | 0.59  |
| BLCA | 164 | chr2:50876337-50877336    | 9378   | NRXN1     | - | -382838 | -0.36 | 0.01  | -5.68 | 0.61  |
| BLCA | 165 | chr12:4054055-4055054     | 894    | CCND2     | + | -328348 | -0.41 | -0.01 | -2.50 | 0.60  |
| BLCA | 166 | chr12:100002074-100003073 | 56899  | ANKS1B    | - | -375859 | -0.37 | -0.01 | -3.30 | 0.61  |
| BLCA | 167 | chr11:130667961-130668960 | 11095  | ADAMTS8   | - | 369921  | -0.42 | -0.02 | -4.39 | 0.41  |
| BLCA | 168 | chr12:77693545-77694544   | 89795  | NAV3      | + | -531025 | -0.41 | 0.02  | -3.32 | 0.62  |
| BLCA | 169 | chr16:86152425-86153424   | 2294   | FOXF1     | + | -391209 | -0.39 | 0.00  | -3.70 | 0.49  |
| BLCA | 170 | chr4:16861580-16862579    | 9079   | LDB2      | - | -38345  | -0.40 | -0.06 | -1.95 | 0.43  |
| BLCA | 171 | chr2:100594483-100595482  | 3899   | AFF3      | - | -164055 | -0.35 | 0.01  | -4.98 | 0.49  |
| BLCA | 172 | chr1:209602455-209603454  | 642587 | LOC642587 | + | 786     | -0.35 | -0.10 | 2.05  | -0.52 |
| BLCA | 173 | chr10:44774498-44775497   | 6387   | CXCL12    | - | -105548 | -0.33 | -0.01 | -3.47 | 0.66  |
| BLCA | 174 | chr5:15864864-15865863    | 23194  | FBXL7     | + | 365058  | -0.39 | -0.03 | -2.72 | 0.75  |
| BLCA | 175 | chr8:121384577-121385576  | 7373   | COL14A1   | + | 247729  | -0.39 | 0.00  | -3.67 | 0.41  |
| BLCA | 176 | chr3:89096955-89097954    | 2042   | EPHA3     | + | -59220  | -0.34 | -0.05 | -3.20 | 0.50  |
| BLCA | 177 | chr7:32059206-32060205    | 5137   | PDE1C     | - | -278678 | -0.36 | 0.01  | -3.75 | 0.53  |
| BLCA | 178 | chr2:100628797-100629796  | 3899   | AFF3      | - | -129741 | -0.34 | 0.01  | -4.98 | 0.51  |
| BLCA | 179 | chr14:101363687-101364686 | 55384  | MEG3      | + | 71741   | -0.36 | -0.05 | -2.34 | 0.52  |
| BLCA | 180 | chr11:126749666-126750665 | 84623  | KIRREL3   | - | -123190 | -0.39 | 0.00  | -2.65 | 0.42  |
| BLCA | 181 | chr16:65098352-65099351   | 1009   | CDH11     | - | -57068  | -0.41 | 0.05  | -1.47 | 0.49  |
| BLCA | 182 | chr8:106610764-106611763  | 23414  | ZFPM2     | + | 280116  | -0.38 | 0.00  | -3.25 | 0.45  |
| BLCA | 183 | chr10:117896641-117897640 | 2674   | GFRA1     | - | -135986 | -0.35 | -0.02 | -4.92 | 0.45  |
| BLCA | 184 | chr7:132218781-132219780  | 91584  | PLXNA4    | - | -114167 | -0.37 | -0.01 | -2.06 | 0.53  |
| BLCA | 185 | chr1:156130326-156131325  | 23208  | SYT11     | + | 301565  | 0.40  | -0.16 | -2.10 | -0.62 |
| BLCA | 186 | chr7:103342761-103343760  | 5649   | RELN      | - | -286703 | -0.35 | -0.02 | -4.08 | 0.51  |
| BLCA | 187 | chr8:59042971-59043970    | 90362  | FAM110B   | + | 136357  | -0.36 | -0.09 | -2.52 | 0.58  |
| BLCA | 188 | chr4:114276334-114277333  | 287    | ANK2      | + | 537594  | -0.41 | -0.05 | -4.23 | 0.48  |
| BLCA | 189 | chr12:24831619-24832618   | 6660   | SOX5      | - | 116735  | -0.38 | 0.00  | -2.59 | 0.44  |
| BLCA | 190 | chr1:27080098-27081097    | 115572 | FAM46B    | - | -258736 | -0.38 | 0.08  | -3.21 | 0.44  |
| BLCA | 191 | chr4:16773177-16774176    | 9079   | LDB2      | - | -126748 | -0.40 | -0.06 | -1.95 | 0.47  |
| BLCA | 192 | chr2:230516679-230517678  | 55022  | PID1      | - | 381121  | -0.36 | -0.06 | -3.75 | 0.59  |
| BLCA | 193 | chr10:20078231-20079230   | 84898  | PLXDC2    | + | -26642  | -0.38 | 0.02  | -1.41 | 0.53  |
| BLCA | 194 | chr8:144301094-144302093  | 114822 | RHPN1     | + | -149432 | -0.41 | -0.02 | 1.81  | -0.47 |
| BLCA | 195 | chr4:23790973-23791972    | 10891  | PPARGC1A  | - | -682922 | -0.42 | 0.02  | -3.86 | 0.60  |
| BLCA | 196 | chr1:156130713-156131712  | 92312  | MEX3A     | - | 79423   | 0.37  | -0.06 | 3.04  | 0.40  |
| BLCA | 197 | chr8:93516089-93517088    | 862    | RUNX1T1   | - | 401134  | -0.45 | -0.01 | -2.97 | 0.44  |
| BLCA | 198 | chr5:7793775-7794774      | 108    | ADCY2     | + | 397931  | -0.37 | -0.04 | -3.72 | 0.56  |
| BLCA | 199 | chr10:79079236-79080235   | 3778   | KCNMA1    | - | -317842 | -0.35 | 0.09  | -3.97 | 0.57  |
| BLCA | 200 | chr9:118905752-118906751  | 5069   | PAPPA     | + | -9820   | -0.38 | 0.01  | -1.53 | 0.50  |
| BLCA | 201 | chr1:16381550-16382549    | 27129  | HSPB7     | - | 35960   | -0.32 | 0.00  | -4.69 | 0.50  |
| BLCA | 202 | chr10:44855547-44856546   | 6387   | CXCL12    | - | -24499  | -0.33 | -0.01 | -3.47 | 0.48  |
| BLCA | 203 | chr12:8974696-8975808     | 8076   | MFAP5     | - | 159818  | -0.33 | 0.00  | -4.27 | 0.57  |
| BLCA | 204 | chr11:110066618-110067617 | 57569  | ARHGAP20  | - | -516795 | -0.41 | 0.01  | -3.60 | 0.48  |
| BLCA | 205 | chr2:127264857-127265856  | 2995   | GYPC      | + | -148155 | -0.35 | 0.00  | -2.80 | 0.57  |
| BLCA | 206 | chr12:132221169-132222168 | 283383 | GPR133    | + | 783216  | -0.48 | -0.02 | -5.35 | 0.54  |
| BLCA | 207 | chr16:86258217-86259216   | 2294   | FOXF1     | + | -285417 | -0.37 | 0.00  | -3.70 | 0.46  |
| BLCA | 208 | chr7:97983416-97984415    | 55971  | BAIAP2L1  | - | -46512  | -0.41 | -0.03 | 1.61  | -0.44 |
| BLCA | 209 | chr16:64985014-64986013   | 1009   | CDH11     | - | -170406 | -0.41 | 0.05  | -1.47 | 0.59  |
| BLCA | 210 | chr12:24493022-24494021   | 6660   | SOX5      | - | -221862 | -0.41 | 0.00  | -2.59 | 0.43  |
| BLCA | 211 | chr12:5194650-5195649     | 3741   | KCNA5     | + | 42064   | -0.34 | 0.02  | -3.40 | 0.44  |
| BLCA | 212 | chr3:116436873-116437872  | 4045   | LSAMP     | - | 272987  | -0.39 | 0.02  | -2.01 | 0.61  |
| BLCA | 213 | chr8:106581585-106582584  | 23414  | ZFPM2     | + | 250937  | -0.36 | 0.00  | -3.25 | 0.47  |
| BLCA | 214 | chr10:30340623-30341622   | 57608  | KIAA1462  | - | -63298  | -0.36 | -0.05 | -1.84 | 0.54  |
| BLCA | 215 | chr3:116503215-116504214  | 4045   | LSAMP     | - | 339329  | -0.49 | 0.02  | -2.01 | 0.51  |
| BLCA | 216 | chr12:128303930-128304929 | 92293  | TMEM132C  | + | -447519 | -0.41 | 0.01  | -5.29 | 0.41  |
| BLCA | 217 | chr11:122037345-122038344 | 399959 | LOC399959 | - | -200623 | -0.33 | -0.04 | -4.06 | 0.61  |
| BLCA | 218 | chr13:93472325-93473324   | 10082  | GPC6      | + | -406254 | -0.39 | 0.00  | -2.60 | 0.64  |
| BLCA | 219 | chr4:16795257-16796256    | 9079   | LDB2      | - | -104668 | -0.39 | -0.06 | -1.95 | 0.45  |
| BLCA | 220 | chr12:131831456-131832455 | 283383 | GPR133    | + | 393503  | -0.35 | -0.02 | -5.35 | 0.55  |
| BLCA | 221 | chr11:133966740-133967739 | 22997  | IGSF9B    | + | 140590  | -0.36 | 0.04  | -3.24 | 0.43  |
| BLCA | 222 | chr4:24295954-24296953    | 6649   | SOD3      | + | -500632 | -0.41 | -0.04 | -3.04 | 0.52  |
| BLCA | 223 | chr16:56149571-56150570   | 2775   | GNAO1     | + | -75181  | -0.33 | -0.04 | -3.73 | 0.52  |
| BLCA | 224 | chr4:17067550-17068549    | 9079   | LDB2      | - | 167625  | -0.40 | -0.06 | -1.95 | 0.47  |
| BLCA | 225 | chr4:16960438-16961437    | 9079   | LDB2      | - | 60513   | -0.39 | -0.06 | -1.95 | 0.42  |
| BLCA | 226 | chr16:24394420-24395419   | 5579   | PRKCB     | + | 547619  | -0.40 | -0.04 | -3.13 | 0.56  |
| BLCA | 227 | chr8:93580864-93581863    | 862    | RUNX1T1   | - | 465909  | -0.40 | -0.01 | -2.97 | 0.52  |
| BLCA | 228 | chr8:105987783-105988782  | 23414  | ZFPM2     | + | -342865 | -0.38 | 0.00  | -3.25 | 0.45  |
| BLCA | 229 | chr8:102015412-102016411  | 79977  | GRHL2     | + | -488757 | -0.44 | 0.01  | 2.57  | -0.54 |
| BLCA | 230 | chr2:189352310-189353309  | 51454  | GULP1     | + | 196413  | -0.36 | 0.04  | -2.21 | 0.74  |
| BLCA | 231 | chr5:7715079-7716078      | 108    | ADCY2     | + | 319235  | -0.36 | -0.04 | -3.72 | 0.49  |
| BLCA | 232 | chr8:55917895-55918894    | 114786 | XKR4      | + | -96623  | -0.34 | 0.09  | -2.73 | 0.52  |
| BLCA | 233 | chr4:5637394-5638393      | 132884 | EVC2      | - | -73382  | -0.36 | 0.02  | -1.72 | 0.62  |
| BLCA | 234 | chr8:89331337-89332336    | 4325   | MMP16     | - | -7881   | -0.37 | -0.06 | -1.74 | 0.45  |
| BLCA | 235 | chr6:35755109-35756108    | 2289   | FKBP5     | - | 59211   | -0.37 | -0.03 | -1.47 | 0.62  |
| BLCA | 236 | chr4:182888707-182889706  | 55714  | ODZ3      | + | -175934 | -0.39 | 0.01  | -1.56 | 0.64  |
| BLCA | 237 | chr21:38082599-38083648   | 53820  | DSCR6     | + | -295327 | 0.38  | 0.16  | 2.61  | 0.47  |
| BLCA | 238 | chr3:16024040-16025039    | 117248 | GALNTL2   | + | 88970   | -0.36 | -0.10 | -2.90 | 0.42  |
| BLCA | 239 | chr2:100451840-100452839  | 3899   | AFF3      | - | -306698 | -0.35 | 0.01  | -4.98 | 0.51  |
| BLCA | 240 | chr8:77711648-77712647    | 79776  | ZFXH4     | + | 118632  | -0.33 | 0.02  | -2.80 | 0.70  |
| BLCA | 241 | chr11:122179028-122180027 | 399959 | LOC399959 | - | -58940  | -0.33 | -0.04 | -4.06 | 0.48  |
| BLCA | 242 | chr8:117586578-117587577  | 441376 | C8orf85   | + | -363387 | -0.37 | 0.03  | -4.09 | 0.44  |

|      |     |                           |        |           |   |         |       |       |       |       |
|------|-----|---------------------------|--------|-----------|---|---------|-------|-------|-------|-------|
| BLCA | 243 | chr17:11631841-11632840   | 1770   | DNAH9     | + | 130592  | -0.37 | -0.07 | -1.99 | 0.51  |
| BLCA | 244 | chr2:121500569-121501568  | 2736   | GLI2      | + | 7869    | -0.34 | -0.14 | -2.29 | 0.51  |
| BLCA | 245 | chr3:99377532-99378531    | 11259  | FILIP1L   | - | -455318 | -0.39 | -0.07 | -2.86 | 0.52  |
| BLCA | 246 | chr2:189064057-189065056  | 51454  | GULP1     | + | -91840  | -0.37 | 0.04  | -2.21 | 0.45  |
| BLCA | 247 | chr8:68943866-68944865    | 80243  | PREX2     | + | 79762   | -0.36 | 0.02  | -2.62 | 0.42  |
| BLCA | 248 | chr14:101155019-101156018 | 55384  | MEG3      | + | -136927 | -0.36 | -0.05 | -2.34 | 0.51  |
| BLCA | 249 | chr10:31388136-31389135   | 6935   | ZEB1      | + | -218789 | -0.35 | -0.07 | -2.62 | 0.55  |
| BLCA | 250 | chr6:166943783-166944782  | 90632  | C6orf176  | - | 542755  | -0.49 | -0.05 | -3.17 | 0.44  |
| BLCA | 251 | chr1:159869826-159870825  | 57863  | CADM3     | + | 728948  | -0.38 | 0.03  | -5.79 | 0.69  |
| BLCA | 252 | chr2:182542733-182543732  | 375298 | CERKL     | - | -2160   | 0.44  | -0.18 | -0.78 | -0.46 |
| BLCA | 253 | chr2:1689303-1691091      | 7173   | TPO       | + | 312201  | -0.40 | 0.00  | -2.53 | 0.45  |
| BLCA | 254 | chr10:10517753-10518752   | 10659  | CELF2     | + | -529007 | -0.37 | -0.03 | -3.07 | 0.71  |
| BLCA | 255 | chr5:5086891-5087890      | 170690 | ADAMTS16  | + | -53053  | -0.35 | -0.02 | -1.76 | 0.59  |
| BLCA | 256 | chr16:77573572-77574571   | 10143  | CLEC3A    | + | -482372 | -0.40 | -0.02 | -5.30 | 0.40  |
| BLCA | 257 | chr7:157844765-157845764  | 5799   | PTPRN2    | - | -535218 | -0.47 | -0.02 | -2.55 | 0.52  |
| BLCA | 258 | chr2:100480606-100481605  | 3899   | AFF3      | - | -277932 | -0.34 | 0.01  | -4.98 | 0.51  |
| BLCA | 259 | chr5:4855773-4856772      | 170690 | ADAMTS16  | + | -284171 | -0.41 | -0.02 | -1.76 | 0.52  |
| BLCA | 260 | chr6:45890955-45891954    | 53405  | CLIC5     | - | -156631 | -0.42 | 0.06  | -1.67 | 0.45  |
| BLCA | 261 | chr12:102287875-102288874 | 3479   | IGF1      | - | -586004 | -0.37 | 0.03  | -3.77 | 0.64  |
| BLCA | 262 | chr7:158898392-158899391  | 7434   | VIPR2     | - | -38758  | -0.33 | 0.00  | -5.05 | 0.41  |
| BLCA | 263 | chr1:32155167-32156166    | 347735 | SERINC2   | + | 273254  | -0.37 | 0.00  | 2.67  | -0.46 |
| BLCA | 264 | chr1:111295245-111296244  | 3738   | KCNA3     | - | 78089   | -0.40 | 0.00  | -1.12 | 0.55  |
| BLCA | 265 | chr11:121961374-121962373 | 399959 | LOC399959 | - | -276594 | -0.33 | -0.04 | -4.06 | 0.62  |
| BLCA | 266 | chr3:13579228-13580227    | 2199   | FBLN2     | + | 5903    | -0.33 | 0.00  | -3.03 | 0.46  |
| BLCA | 267 | chr16:10101778-10102777   | 2903   | GRIN2A    | - | -174334 | -0.35 | -0.01 | -2.55 | 0.51  |
| BLCA | 268 | chr7:103556029-103557028  | 5649   | RELN      | - | -73435  | -0.32 | -0.02 | -4.08 | 0.54  |
| BLCA | 269 | chr5:15020903-15021902    | 23194  | FBXL7     | + | -478903 | -0.40 | -0.03 | -2.72 | 0.52  |
| BLCA | 270 | chr10:10345639-10346638   | 10659  | CELF2     | + | -701121 | -0.41 | -0.03 | -3.07 | 0.68  |
| BLCA | 271 | chr16:86121589-86122588   | 2294   | FOXF1     | + | -422045 | -0.38 | 0.00  | -3.70 | 0.45  |
| BLCA | 272 | chr17:33125034-33126033   | 6347   | CCL2      | + | 543237  | -0.41 | -0.08 | -2.70 | 0.53  |
| BLCA | 273 | chr10:79263678-79264677   | 3778   | KCNMA1    | - | -133400 | -0.33 | 0.09  | -3.97 | 0.52  |
| BLCA | 274 | chr12:2360163-2361162     | 775    | CACNA1C   | + | 198246  | -0.36 | -0.05 | -2.57 | 0.47  |
| BLCA | 275 | chr8:72564968-72565967    | 2138   | EYA1      | - | 291000  | -0.35 | -0.01 | -3.02 | 0.64  |
| BLCA | 276 | chr16:65235594-65236593   | 1009   | CDH11     | + | 80174   | -0.38 | 0.05  | -1.47 | 0.51  |
| BLCA | 277 | chr3:25896012-25897011    | 54995  | OXSM      | + | 64948   | -0.42 | 0.00  | 0.86  | -0.52 |
| BLCA | 278 | chr21:38078267-38080114   | 6493   | SIM2      | + | 7199    | 0.34  | -0.06 | 1.74  | 0.72  |
| BLCA | 279 | chr2:68017338-68018337    | 25927  | CNRIP1    | - | -529346 | -0.46 | -0.01 | -2.46 | 0.51  |
| BLCA | 280 | chr17:80289000-80290200   | 6398   | SECTM1    | - | -2322   | -0.38 | -0.10 | -0.89 | 0.54  |
| BLCA | 281 | chr7:132031776-132032775  | 91584  | PLXNA4    | - | -301172 | -0.39 | -0.01 | -2.06 | 0.50  |
| BLCA | 282 | chr7:96621542-96623107    | 1750   | DLX6      | + | -12966  | 0.33  | -0.03 | 2.30  | 0.64  |
| BLCA | 283 | chr1:156130713-156131712  | 23208  | SYT11     | + | 301952  | 0.37  | -0.16 | -2.10 | -0.66 |
| BLCA | 284 | chr12:62462941-62463940   | 338811 | FAM19A2   | - | -190485 | -0.37 | -0.16 | -2.82 | 0.42  |
| BLCA | 285 | chr2:79823217-79824216    | 347730 | LRRTM1    | - | -707771 | -0.45 | -0.05 | -3.34 | 0.50  |
| BLCA | 286 | chr7:70713701-70714700    | 64409  | WBSCR17   | + | 116677  | -0.33 | -0.06 | -4.67 | 0.46  |
| BLCA | 287 | chr2:80550913-80551912    | 347730 | LRRTM1    | - | 19925   | -0.32 | -0.05 | -3.34 | 0.51  |
| BLCA | 288 | chr5:155701319-155702318  | 6444   | SGCD      | + | 566755  | -0.37 | -0.06 | -3.54 | 0.72  |
| BLCA | 289 | chr5:8058946-8059945      | 108    | ADCY2     | + | 663102  | -0.46 | -0.04 | -3.72 | 0.45  |
| BLCA | 290 | chr17:32633474-32634473   | 6347   | CCL2      | + | 51677   | -0.35 | -0.08 | -2.70 | 0.41  |
| BLCA | 291 | chr11:126610924-126611923 | 84623  | KIRREL3   | - | -261932 | -0.40 | 0.00  | -2.65 | 0.41  |
| BLCA | 292 | chr10:108332382-108333381 | 114815 | SORCS1    | - | -591585 | -0.38 | 0.11  | -5.56 | 0.48  |
| BLCA | 293 | chr11:126687300-126688299 | 84623  | KIRREL3   | - | -185556 | -0.36 | 0.00  | -2.65 | 0.44  |
| BLCA | 294 | chr5:63253116-63254115    | 285671 | RNF180    | + | -208056 | -0.35 | -0.07 | -2.86 | 0.46  |
| BLCA | 295 | chr12:5575620-5576619     | 4908   | NTF3      | + | 34839   | -0.33 | -0.08 | -3.05 | 0.46  |
| BLCA | 296 | chr10:79937889-79938888   | 3778   | KCNMA1    | - | 540811  | -0.36 | 0.09  | -3.97 | 0.55  |
| BLCA | 297 | chr4:183229668-183230667  | 55714  | ODZ3      | + | 165027  | -0.37 | 0.01  | -1.56 | 0.70  |
| BLCA | 298 | chr13:94161142-94162141   | 10082  | GPC6      | + | 282563  | -0.35 | 0.00  | -2.60 | 0.59  |
| BLCA | 299 | chr8:69538927-69539926    | 116328 | C8orf34   | + | 296469  | -0.43 | 0.00  | -2.23 | 0.41  |
| BLCA | 300 | chr3:25689274-25690273    | 54995  | OXSM      | + | -141790 | -0.43 | 0.00  | 0.86  | -0.59 |
| BLCA | 301 | chr2:10054383-10055382    | 29841  | GRHL1     | + | -36910  | -0.40 | -0.03 | 1.52  | -0.41 |
| BLCA | 302 | chr15:50429329-50430328   | 79895  | ATP8B4    | - | 18409   | -0.34 | 0.00  | -2.07 | 0.53  |
| BLCA | 303 | chr1:26677600-26678599    | 10256  | CNKSR1    | + | 174118  | -0.35 | 0.02  | 2.10  | -0.72 |
| BLCA | 304 | chr5:32870631-32871630    | 4883   | NPR3      | + | 160387  | -0.40 | -0.07 | -1.35 | 0.52  |
| BLCA | 305 | chr8:144301094-144302093  | 286077 | FAM83H    | - | -514321 | -0.41 | 0.00  | 2.68  | -0.48 |
| BLCA | 306 | chr5:36608098-36609268    | 202151 | RANBP3L   | - | 306671  | -0.36 | 0.03  | -4.37 | 0.42  |
| BLCA | 307 | chr17:80289041-80290040   | 6398   | SECTM1    | - | -2381   | -0.38 | -0.10 | -0.89 | 0.50  |
| BLCA | 308 | chr12:5573920-5574919     | 4908   | NTF3      | + | 33139   | -0.32 | -0.08 | -3.05 | 0.56  |
| BLCA | 309 | chr11:126625636-126626635 | 84623  | KIRREL3   | - | -247220 | -0.37 | 0.00  | -2.65 | 0.44  |
| BLCA | 310 | chr4:5186248-5187247      | 55351  | STK32B    | + | 133220  | -0.34 | 0.00  | -2.45 | 0.62  |
| BLCA | 311 | chr3:123039331-123040330  | 111    | ADCY5     | + | -127562 | -0.32 | 0.18  | -5.31 | 0.49  |
| BLCA | 312 | chr1:111295245-111296244  | 3737   | KCNA2     | - | 121648  | -0.40 | 0.03  | -1.22 | 0.53  |
| BLCA | 313 | chr1:156130326-156131325  | 57127  | RHBG      | + | -208155 | 0.40  | 0.04  | 2.19  | 0.41  |
| BLCA | 314 | chr8:72630128-72631127    | 9242   | MSC       | - | -126104 | -0.42 | 0.07  | -1.01 | 0.51  |
| BLCA | 315 | chr8:93316932-93317931    | 862    | RUNX1T1   | - | 201977  | -0.35 | -0.01 | -2.97 | 0.48  |
| BLCA | 316 | chr8:109042662-109043661  | 340419 | RSPO2     | - | -52752  | -0.32 | -0.02 | -3.40 | 0.48  |
| BLCA | 317 | chr10:10570632-10571631   | 10659  | CELF2     | + | -476128 | -0.36 | -0.03 | -3.07 | 0.68  |
| BLCA | 318 | chr16:86152425-86153424   | 3394   | IRF8      | + | 220150  | -0.39 | 0.10  | -1.46 | 0.56  |
| BLCA | 319 | chr10:50263753-50264752   | 196740 | C10orf72  | - | -59307  | -0.33 | 0.00  | -2.93 | 0.46  |
| BLCA | 320 | chr17:41521155-41522154   | 4222   | MEOX1     | - | -217608 | -0.34 | -0.05 | -2.89 | 0.52  |
| BLCA | 321 | chr3:148614168-148615167  | 1359   | CPA3      | + | 31624   | -0.32 | 0.00  | -3.46 | 0.46  |
| BLCA | 322 | chr11:133187456-133188455 | 4978   | OPCML     | - | -214448 | -0.38 | -0.02 | -1.84 | 0.47  |
| BLCA | 323 | chr6:69717164-69718163    | 577    | BAI3      | + | 372031  | -0.34 | -0.01 | -4.52 | 0.53  |
| BLCA | 324 | chr2:106199850-106200849  | 84417  | C2orf40   | + | -481764 | -0.35 | 0.04  | -6.50 | 0.53  |

|      |     |                           |        |           |   |         |       |       |       |       |
|------|-----|---------------------------|--------|-----------|---|---------|-------|-------|-------|-------|
| BLCA | 325 | chr13:36458309-36459308   | 9201   | DCLK1     | - | -246706 | -0.33 | 0.00  | -3.39 | 0.64  |
| BLCA | 326 | chr22:48895158-48896157   | 25817  | FAM19A5   | + | 10369   | -0.40 | 0.03  | -1.12 | 0.42  |
| BLCA | 327 | chr16:86121589-86122588   | 3394   | IRF8      | + | 189314  | -0.38 | 0.10  | -1.46 | 0.61  |
| BLCA | 328 | chr14:104574215-104575214 | 400258 | C14orf180 | + | -471342 | -0.41 | -0.01 | -2.30 | 0.49  |
| BLCA | 329 | chr15:50429329-50430328   | 3067   | HDC       | - | -128334 | -0.34 | -0.01 | -3.22 | 0.45  |
| BLCA | 330 | chr14:26731196-26732195   | 4857   | NOVA1     | - | -335265 | -0.36 | -0.20 | -3.95 | 0.42  |
| BLCA | 331 | chr12:53299793-53300792   | 23371  | TENC1     | + | -140518 | -0.36 | -0.01 | -2.23 | 0.45  |
| BLCA | 332 | chr17:76133599-76134598   | 9021   | SOCS3     | - | -222060 | -0.35 | -0.09 | -2.54 | 0.50  |
| BLCA | 333 | chr2:80204627-80205626    | 347730 | LRRTM1    | - | -326361 | -0.35 | -0.05 | -3.34 | 0.47  |
| BLCA | 334 | chr16:84884730-84885729   | 83716  | CRISPLD2  | + | 31642   | -0.33 | -0.06 | -2.61 | 0.46  |
| BLCA | 335 | chr3:148050124-148051123  | 185    | AGTR1     | + | -365035 | -0.35 | -0.03 | -4.25 | 0.49  |
| BLCA | 336 | chr8:68943866-68944865    | 116328 | C8orf34   | + | -298592 | -0.36 | 0.00  | -2.23 | 0.53  |
| BLCA | 337 | chr7:28344254-28345253    | 221895 | JAZF1     | - | 124316  | -0.36 | -0.04 | -1.90 | 0.47  |
| BLCA | 338 | chr12:24228475-24229474   | 6660   | SOX5      | - | -486409 | -0.40 | 0.00  | -2.59 | 0.48  |
| BLCA | 339 | chr1:111295245-111296244  | 963    | CD53      | + | -118077 | -0.40 | 0.09  | -0.96 | 0.56  |
| BLCA | 340 | chr9:132447540-132448539  | 51450  | PRRX2     | + | 20119   | -0.35 | -0.24 | -1.39 | 0.61  |
| BLCA | 341 | chr2:97203901-97204900    | 10865  | ARID5A    | + | 1936    | 0.34  | 0.00  | -1.64 | -0.51 |
| BLCA | 342 | chr13:94519594-94520593   | 10082  | GPC6      | + | 641015  | -0.40 | 0.00  | -2.60 | 0.67  |
| BLCA | 343 | chr3:134798447-134799446  | 2047   | EPHB1     | + | 284847  | -0.37 | -0.02 | -1.79 | 0.59  |
| BLCA | 344 | chr8:144301094-144302093  | 225689 | MAPK15    | + | -496914 | -0.41 | -0.04 | 2.66  | -0.45 |
| BLCA | 345 | chr8:102015412-102016411  | 26166  | RGS22     | - | 897567  | -0.44 | -0.04 | -3.61 | 0.57  |
| BLCA | 346 | chr5:15521282-15522281    | 23194  | FBXL7     | + | 21476   | -0.32 | -0.03 | -2.72 | 0.50  |
| BLCA | 347 | chr17:76133599-76134598   | 11322  | TMC6      | - | 5610    | -0.35 | 0.00  | 1.75  | -0.44 |
| BLCA | 348 | chr12:24770023-24771022   | 6660   | SOX5      | - | 55139   | -0.35 | 0.00  | -2.59 | 0.41  |
| BLCA | 349 | chr2:100426473-100427472  | 3899   | AFF3      | - | -332065 | -0.35 | 0.01  | -4.98 | 0.43  |
| BLCA | 350 | chr4:155104500-155105499  | 54798  | DCHS2     | - | -307931 | -0.34 | 0.00  | -3.43 | 0.50  |
| BLCA | 351 | chr16:84866838-84867837   | 83716  | CRISPLD2  | + | 13750   | -0.32 | -0.06 | -2.61 | 0.55  |
| BLCA | 352 | chr11:112792259-112793258 | 4684   | NCAM1     | + | -39211  | -0.30 | -0.03 | -5.61 | 0.51  |
| BLCA | 353 | chr5:158295550-158296549  | 1879   | EBF1      | - | -230739 | -0.34 | 0.02  | -2.74 | 0.59  |
| BLCA | 354 | chr4:5637394-5638393      | 2121   | EVC       | + | -75031  | -0.36 | 0.00  | -1.68 | 0.46  |
| BLCA | 355 | chr1:155194282-155195281  | 57657  | HCN3      | + | -52437  | -0.37 | -0.03 | 1.19  | -0.51 |
| BLCA | 356 | chr13:23965701-23966700   | 6445   | SGCG      | + | 211140  | -0.33 | 0.06  | -4.50 | 0.46  |
| BLCA | 357 | chr1:243868570-243869569  | 10000  | AKT3      | - | -137817 | -0.34 | 0.10  | -1.96 | 0.71  |
| BLCA | 358 | chr3:151033509-151034508  | 9934   | P2RY14    | - | 37778   | -0.31 | -0.06 | -3.04 | 0.54  |
| BLCA | 359 | chr8:144301094-144302093  | 79943  | ZNF696    | + | -71966  | -0.41 | -0.03 | 0.68  | -0.51 |
| BLCA | 360 | chr8:68869912-68870911    | 116328 | C8orf34   | + | -372546 | -0.41 | 0.00  | -2.23 | 0.44  |
| BLCA | 361 | chr1:240689904-240690903  | 64388  | GREM2     | - | -85059  | -0.31 | -0.12 | -4.91 | 0.56  |
| BLCA | 362 | chr3:100244562-100245561  | 25890  | ABI3BP    | - | -467273 | -0.35 | -0.03 | -4.41 | 0.52  |
| BLCA | 363 | chr1:162816461-162817460  | 5999   | RGS4      | + | -221436 | -0.42 | 0.01  | -1.24 | 0.48  |
| BLCA | 364 | chr8:116230920-116231919  | 7227   | TRPS1     | - | -449809 | -0.41 | -0.02 | -1.95 | 0.50  |
| BLCA | 365 | chr7:38720126-38721125    | 273    | AMPH      | - | 49458   | -0.34 | -0.01 | -2.14 | 0.48  |
| BLCA | 366 | chr8:77317639-77318638    | 79776  | ZFH4      | + | -275377 | -0.36 | 0.02  | -2.80 | 0.44  |
| BLCA | 367 | chr1:111295245-111296244  | 9122   | SLC16A4   | - | 362040  | -0.40 | -0.01 | -2.58 | 0.43  |
| BLCA | 368 | chr8:56578122-56579121    | 114786 | XKR4      | + | 563604  | -0.39 | 0.09  | -2.73 | 0.50  |
| BLCA | 369 | chr2:979550-980549        | 7173   | TPO       | + | -397946 | -0.41 | 0.00  | -2.53 | 0.42  |
| BLCA | 370 | chr4:5186248-5187247      | 54360  | CYTL1     | - | 165550  | -0.34 | -0.03 | -3.04 | 0.45  |
| BLCA | 371 | chr3:12585868-12586867    | 80746  | TSEN2     | + | 60436   | -0.42 | -0.01 | 0.34  | -0.55 |
| BLCA | 372 | chr17:47178778-47179777   | 11248  | NXPH3     | + | -474021 | -0.35 | -0.11 | -3.52 | 0.52  |
| BLCA | 373 | chr5:154854422-154855421  | 10826  | C5orf4    | - | 624708  | -0.42 | 0.00  | -3.35 | 0.42  |
| BLCA | 374 | chr10:109910129-109911128 | 114815 | SORCS1    | - | 986162  | -0.43 | 0.11  | -5.56 | 0.52  |
| BLCA | 375 | chr1:127207947-127208946  | 84623  | KIRREL3   | - | 335091  | -0.38 | 0.00  | -2.65 | 0.41  |
| BLCA | 376 | chr4:24689804-24690803    | 6649   | SOD3      | + | -106782 | -0.32 | -0.04 | -3.04 | 0.54  |
| BLCA | 377 | chr2:109791099-109792098  | 344558 | SH3RF3    | + | 45601   | -0.34 | 0.01  | -1.53 | 0.59  |
| BLCA | 378 | chr3:66935347-66936346    | 26018  | LRIG1     | - | 385001  | -0.42 | -0.24 | -1.83 | 0.47  |
| BLCA | 379 | chr8:139144220-139145219  | 51059  | FAM135B   | - | -364346 | -0.36 | 0.00  | -3.79 | 0.41  |
| BLCA | 380 | chr8:93477037-93478036    | 862    | RUNX1T1   | - | 362082  | -0.38 | -0.01 | -2.97 | 0.41  |
| BLCA | 381 | chr12:51835419-51836418   | 5463   | POU6F1    | - | 224441  | -0.40 | -0.09 | -1.62 | 0.45  |
| BLCA | 382 | chr1:159869826-159870825  | 2532   | DARC      | + | 696522  | -0.38 | 0.00  | -4.38 | 0.49  |
| BLCA | 383 | chr16:77876074-77877073   | 283927 | NUDT7     | + | 120184  | -0.41 | -0.17 | -1.51 | 0.40  |
| BLCA | 384 | chr3:148614168-148615167  | 185    | AGTR1     | + | 199009  | -0.32 | -0.03 | -4.25 | 0.50  |
| BLCA | 385 | chr4:24011089-24012088    | 10891  | PPARGC1A  | - | -462806 | -0.34 | 0.02  | -3.86 | 0.64  |
| BLCA | 386 | chr6:166943691-166944874  | 90632  | C6orf176  | - | 542755  | -0.39 | -0.05 | -3.17 | 0.44  |
| BLCA | 387 | chr1:156130713-156131712  | 57127  | RHBG      | + | -207768 | 0.37  | 0.04  | 2.19  | 0.43  |
| BLCA | 388 | chr5:169712679-169713678  | 30820  | KCNIP1    | + | -67703  | -0.36 | -0.01 | -1.60 | 0.45  |
| BLCA | 389 | chr4:24232394-24233393    | 10891  | PPARGC1A  | - | -241501 | -0.32 | 0.02  | -3.86 | 0.57  |
| BLCA | 390 | chr12:4549003-4550002     | 3736   | KCNA1     | + | -469571 | -0.39 | -0.01 | -2.04 | 0.53  |
| BLCA | 391 | chr1:13837627-13838626    | 10630  | PDPN      | + | -72126  | -0.40 | -0.07 | -0.86 | 0.47  |
| BLCA | 392 | chr11:132964750-132965749 | 4978   | OPCML     | - | -437154 | -0.43 | -0.02 | -1.84 | 0.47  |
| BLCA | 393 | chr17:80289000-80290200   | 924    | CD7       | - | 14119   | -0.38 | -0.06 | -0.56 | 0.54  |
| BLCA | 394 | chr12:23146460-23147459   | 6489   | ST8SIA1   | - | 659311  | -0.42 | -0.06 | -3.20 | 0.44  |
| BLCA | 395 | chr17:35087042-35088041   | 6358   | CCL14     | - | 773777  | -0.38 | 0.15  | -5.21 | 0.50  |
| BLCA | 396 | chr5:155872037-155873036  | 6444   | SGCD      | + | 737473  | -0.37 | -0.06 | -3.54 | 0.62  |
| BLCA | 397 | chr6:130786970-130787969  | 114801 | TMEM200A  | + | 100043  | -0.36 | 0.13  | -1.31 | 0.53  |
| BLCA | 398 | chr2:182542733-182543732  | 5136   | PDE1A     | - | -844340 | 0.44  | 0.00  | -3.58 | -0.47 |
| BLCA | 399 | chr11:127331527-127332526 | 84623  | KIRREL3   | - | 458671  | -0.40 | 0.00  | -2.65 | 0.43  |
| BLCA | 400 | chr4:183214073-183215072  | 55714  | ODZ3      | + | 149432  | -0.35 | 0.01  | -1.56 | 0.60  |
| BLCA | 401 | chr1:156130326-156131325  | 22889  | KIAA0907  | - | 226637  | 0.40  | 0.14  | 1.08  | 0.53  |
| BLCA | 402 | chr8:105758673-105759672  | 23414  | ZFPM2     | + | -571975 | -0.40 | 0.00  | -3.25 | 0.42  |
| BLCA | 403 | chr10:101593756-101594755 | 60495  | HPSE2     | - | 598623  | -0.37 | 0.04  | -5.17 | 0.43  |
| BLCA | 404 | chr18:12040856-12041855   | 2774   | GNAL      | + | 352341  | -0.33 | -0.12 | -3.72 | 0.53  |
| BLCA | 405 | chr3:172710798-172711797  | 22871  | NLGN1     | + | -404947 | -0.34 | -0.02 | -3.59 | 0.52  |
| BLCA | 406 | chr2:20111278-20112277    | 6382   | SDC1      | - | -313417 | -0.42 | -0.07 | 2.01  | -0.41 |

|      |     |                           |           |              |   |         |       |       |       |       |
|------|-----|---------------------------|-----------|--------------|---|---------|-------|-------|-------|-------|
| BLCA | 407 | chr3:118894985-118895984  | 64091     | POPDC2       | - | -500759 | -0.37 | 0.00  | -3.19 | 0.46  |
| BLCA | 408 | chr16:84027371-84028370   | 58189     | WFDC1        | + | -300531 | -0.35 | 0.03  | -3.06 | 0.47  |
| BLCA | 409 | chr20:62048369-62049368   | 768096    | HAR1A        | + | 316224  | -0.38 | 0.02  | -1.68 | 0.56  |
| BLCA | 410 | chr3:96524693-96525692    | 285220    | EPHA6        | + | -8233   | -0.30 | -0.05 | -3.12 | 0.59  |
| BLCA | 411 | chr6:144599570-144600569  | 8676      | STX11        | + | 128415  | -0.37 | 0.00  | -1.40 | 0.50  |
| BLCA | 412 | chr5:8058946-8059945      | 79072     | FASTKD3      | - | 190295  | -0.46 | -0.08 | 0.90  | -0.47 |
| BLCA | 413 | chr8:109292471-109293470  | 340419    | RSPO2        | - | 197057  | -0.34 | -0.02 | -3.40 | 0.44  |
| BLCA | 414 | chr12:4022578-4023577     | 57097     | PARP11       | - | 40469   | -0.43 | 0.01  | -0.50 | 0.47  |
| BLCA | 415 | chr5:155876678-155877677  | 6444      | SGCD         | + | 742114  | -0.40 | -0.06 | -3.54 | 0.47  |
| BLCA | 416 | chr16:65063303-65064302   | 1009      | CDH11        | - | -92117  | -0.36 | 0.05  | -1.47 | 0.50  |
| BLCA | 417 | chr14:96410900-96411899   | 8115      | TCL1A        | - | 230866  | -0.41 | -0.04 | -1.58 | 0.42  |
| BLCA | 418 | chr7:4778408-4779724      | 55698     | RADIL        | - | -144270 | 0.36  | -0.08 | -2.35 | -0.40 |
| BLCA | 419 | chr11:126703382-126704381 | 84623     | KIRREL3      | - | -169474 | -0.35 | 0.00  | -2.65 | 0.44  |
| BLCA | 420 | chr12:51835419-51836418   | 51411     | BIN2         | - | 117466  | -0.40 | 0.07  | -0.91 | 0.49  |
| BLCA | 421 | chr10:108576071-108577070 | 114815    | SORCS1       | - | -347896 | -0.33 | 0.11  | -5.56 | 0.47  |
| BLCA | 422 | chr15:102342291-102343290 | 123283    | TARSL2       | - | 78145   | -0.41 | 0.02  | -1.18 | 0.41  |
| BLCA | 423 | chr1:159869826-159870825  | 56833     | SLAMF8       | + | 73846   | -0.38 | -0.09 | 0.72  | 0.59  |
| BLCA | 424 | chr8:91840847-91841846    | 64168     | NECAB1       | + | 37425   | -0.31 | -0.02 | -3.29 | 0.46  |
| BLCA | 425 | chr10:113243226-113244225 | 150       | ADRA2A       | + | 406935  | -0.36 | -0.02 | -2.57 | 0.54  |
| BLCA | 426 | chr15:26884779-26885778   | 2562      | GABRB3       | - | -299408 | -0.40 | 0.07  | -1.63 | 0.46  |
| BLCA | 427 | chr5:169712679-169713678  | 3937      | LCP2         | - | -11644  | -0.36 | 0.00  | -0.76 | 0.58  |
| BLCA | 428 | chr7:37438319-37439318    | 9844      | ELMO1        | - | -50077  | -0.35 | -0.02 | -1.12 | 0.62  |
| BLCA | 429 | chr7:28505916-28506915    | 9586      | CREB5        | + | 167475  | -0.34 | -0.01 | -2.16 | 0.56  |
| BLCA | 430 | chr10:17188094-17189093   | 7431      | VIM          | + | -81665  | -0.35 | -0.07 | -1.56 | 0.54  |
| BLCA | 431 | chr8:116821942-116822941  | 7227      | TRPS1        | - | 141213  | -0.33 | -0.02 | -1.95 | 0.81  |
| BLCA | 432 | chr9:16413236-16414235    | 54796     | BNC2         | - | -457051 | -0.35 | 0.00  | -2.98 | 0.57  |
| BLCA | 433 | chr5:7770190-7771189      | 79072     | FASTKD3      | - | -98461  | -0.42 | -0.08 | 0.90  | -0.44 |
| BLCA | 434 | chr12:4549003-4550002     | 3742      | KCNA6        | + | -368840 | -0.39 | -0.09 | -1.77 | 0.49  |
| BLCA | 435 | chr7:96621811-96623208    | 1750      | DLX6         | + | -12781  | 0.32  | -0.03 | 2.30  | 0.56  |
| BLCA | 436 | chr14:85983429-85984428   | 23768     | FLRT2        | + | -12560  | -0.31 | -0.01 | -2.31 | 0.61  |
| BLCA | 437 | chr1:162106332-162107331  | 4921      | DDR2         | + | -495397 | -0.35 | -0.04 | -2.95 | 0.59  |
| BLCA | 438 | chr12:24850142-24851141   | 6660      | SOX5         | - | 135258  | -0.35 | 0.00  | -2.59 | 0.43  |
| BLCA | 439 | chr2:100370523-100371522  | 3899      | AFF3         | - | -388015 | -0.35 | 0.01  | -4.98 | 0.43  |
| BLCA | 440 | chr3:100244562-100245561  | 11259     | FILIP1L      | - | 411712  | -0.35 | -0.07 | -2.86 | 0.56  |
| BLCA | 441 | chr5:169712679-169713678  | 257358    | LOC257358    | + | -45257  | -0.36 | 0.00  | -1.13 | 0.50  |
| BLCA | 442 | chr7:137084681-137085680  | 1129      | CHRM2        | + | 531781  | -0.36 | -0.01 | -5.12 | 0.43  |
| BLCA | 443 | chr14:73203626-73204625   | 8110      | DPF3         | - | -156684 | -0.35 | -0.03 | -1.58 | 0.57  |
| BLCA | 444 | chr20:61731479-61732478   | 253868    | C20orf200    | - | 583210  | -0.35 | -0.02 | -4.70 | 0.52  |
| BLCA | 445 | chr1:157938190-157939189  | 911       | CD1C         | + | -320874 | -0.38 | 0.00  | -2.18 | 0.43  |
| BLCA | 446 | chr4:1302817-1303816      | 285498    | RNF212       | - | 195964  | 0.34  | -0.04 | -2.31 | -0.56 |
| BLCA | 447 | chr11:133005419-133006418 | 4978      | OPCML        | - | -396485 | -0.45 | -0.02 | -1.84 | 0.42  |
| BLCA | 448 | chr12:114662731-114663730 | 6910      | TBX5         | - | -183017 | -0.32 | -0.04 | -3.05 | 0.61  |
| BLCA | 449 | chr17:13215054-13216053   | 93649     | MYOCD        | + | 646346  | -0.38 | -0.01 | -5.65 | 0.42  |
| BLCA | 450 | chr2:127456993-127457992  | 2995      | GYPC         | + | 43981   | -0.31 | 0.00  | -2.80 | 0.52  |
| BLCA | 451 | chr16:9827641-9828640     | 2903      | GRIN2A       | - | -448471 | -0.39 | -0.01 | -2.55 | 0.44  |
| BLCA | 452 | chr3:118894985-118895984  | 57514     | ARHGAP31     | + | -117736 | -0.37 | 0.00  | -1.11 | 0.51  |
| BLCA | 453 | chr10:50428382-50429381   | 196740    | C10orf72     | - | 105322  | -0.32 | 0.00  | -2.93 | 0.47  |
| BLCA | 454 | chr2:1689303-1691091      | 7837      | PXDN         | - | -58095  | -0.40 | 0.27  | -0.75 | 0.45  |
| BLCA | 455 | chr13:94288193-94289192   | 10082     | GPC6         | + | 409614  | -0.35 | 0.00  | -2.60 | 0.63  |
| BLCA | 456 | chr2:137199350-137200349  | 80731     | THSD7B       | + | -323266 | -0.35 | 0.09  | -2.61 | 0.48  |
| BLCA | 457 | chr2:1553297-1554296      | 7173      | TPO          | + | 175801  | -0.35 | 0.00  | -2.53 | 0.42  |
| BLCA | 458 | chr4:1302817-1303816      | 100130872 | LOC100130872 | - | 100566  | 0.34  | 0.00  | -1.84 | -0.55 |
| BLCA | 459 | chr1:200863723-200864722  | 55765     | C1orf106     | + | 3595    | -0.32 | 0.00  | 2.21  | -0.49 |
| BLCA | 460 | chr1:26677600-26678599    | 1043      | CD52         | + | 33688   | -0.35 | 0.00  | -1.15 | 0.55  |
| BLCA | 461 | chr16:84334738-84335737   | 83716     | CRISPLD2     | + | -518350 | -0.36 | -0.06 | -2.61 | 0.55  |
| BLCA | 462 | chr5:45135181-45136180    | 2255      | FGF10        | - | 746896  | -0.41 | -0.05 | -3.28 | 0.46  |
| BLCA | 463 | chr7:132230112-132231111  | 91584     | PLXNA4       | - | -102836 | -0.33 | -0.01 | -2.06 | 0.54  |
| BLCA | 464 | chr8:105994703-105995702  | 23414     | ZFPM2        | + | -335945 | -0.33 | 0.00  | -3.25 | 0.54  |
| BLCA | 465 | chr1:209825349-209826355  | 3290      | HSD11B1      | + | -33674  | -0.33 | -0.01 | -1.53 | 0.60  |
| BLCA | 466 | chr8:72595851-72596850    | 2138      | EYA1         | - | 321883  | -0.34 | -0.01 | -3.02 | 0.53  |
| BLCA | 467 | chr17:80289041-80290040   | 924       | CD7          | - | 14060   | -0.38 | -0.06 | -0.56 | 0.48  |
| BLCA | 468 | chr11:126619671-126620670 | 84623     | KIRREL3      | - | -253185 | -0.35 | 0.00  | -2.65 | 0.42  |
| BLCA | 469 | chr7:35319815-35320814    | 57057     | TBX20        | - | 26603   | -0.32 | 0.02  | -2.95 | 0.41  |
| BLCA | 470 | chr8:72533891-72534890    | 2138      | EYA1         | - | 259923  | -0.34 | -0.01 | -3.02 | 0.47  |
| BLCA | 471 | chr3:148050124-148051123  | 1359      | CPA3         | + | -532420 | -0.35 | 0.00  | -3.46 | 0.55  |
| BLCA | 472 | chr5:32767895-32768894    | 4883      | NPR3         | + | 57651   | -0.36 | -0.07 | -1.35 | 0.45  |
| BLCA | 473 | chr1:27080098-27081097    | 10256     | CNKSR1       | + | 576616  | -0.38 | 0.02  | 2.10  | -0.69 |
| BLCA | 474 | chr12:125693644-125694643 | 114795    | TMEM132B     | + | -117019 | -0.37 | -0.11 | -1.77 | 0.41  |
| BLCA | 475 | chr5:7619483-7620482      | 79072     | FASTKD3      | - | -249168 | -0.50 | -0.08 | 0.90  | -0.47 |
| BLCA | 476 | chr10:16897811-16898810   | 7431      | VIM          | + | -371948 | -0.37 | -0.07 | -1.56 | 0.72  |
| BLCA | 477 | chr11:133187456-133188455 | 83700     | JAM3         | + | -750865 | -0.38 | -0.04 | -2.88 | 0.57  |
| BLCA | 478 | chr17:80289000-80290200   | 2194      | FASN         | - | 233493  | -0.38 | -0.02 | 1.33  | -0.49 |
| BLCA | 479 | chr5:45097528-45098527    | 2255      | FGF10        | - | 709243  | -0.42 | -0.05 | -3.28 | 0.41  |
| BLCA | 480 | chr1:116854412-116855411  | 845       | CASQ2        | - | 543485  | -0.34 | 0.00  | -6.17 | 0.50  |
| BLCA | 481 | chr16:86518605-86519604   | 2294      | FOXF1        | + | -25029  | -0.30 | 0.00  | -3.70 | 0.49  |
| BLCA | 482 | chr2:162282689-162283933  | 10716     | TBR1         | + | 10690   | 0.40  | -0.01 | 0.77  | 0.41  |
| BLCA | 483 | chr4:149715175-149716174  | 4306      | NR3C2        | - | 352002  | -0.32 | -0.01 | -3.97 | 0.67  |
| BLCA | 484 | chr3:152437575-152438574  | 5028      | P2RY1        | + | -114662 | -0.38 | -0.01 | -1.37 | 0.42  |
| BLCA | 485 | chr2:189193228-189194227  | 51454     | GULP1        | + | 37331   | -0.31 | 0.04  | -2.21 | 0.70  |
| BLCA | 486 | chr4:5206812-5207811      | 55351     | STK32B       | + | 153784  | -0.32 | 0.00  | -2.45 | 0.75  |
| BLCA | 487 | chr16:64860911-64861910   | 1009      | CDH11        | - | -294509 | -0.41 | 0.05  | -1.47 | 0.45  |
| BLCA | 488 | chr12:51701479-51702478   | 51411     | BIN2         | - | -16474  | -0.35 | 0.07  | -0.91 | 0.70  |

|      |     |                           |        |            |   |         |       |       |       |       |
|------|-----|---------------------------|--------|------------|---|---------|-------|-------|-------|-------|
| BLCA | 489 | chr7:51358171-51359170    | 23242  | COBL       | - | -25845  | -0.31 | 0.00  | -2.44 | 0.68  |
| BLCA | 490 | chr2:45153529-45154528    | 6496   | SIX3       | + | -15009  | 0.35  | -0.14 | 1.09  | 0.48  |
| BLCA | 491 | chr2:1989742-1990741      | 23040  | MYT1L      | - | -344804 | -0.38 | 0.01  | -1.96 | 0.44  |
| BLCA | 492 | chr1:221212552-221213551  | 400804 | LOC400804  | - | -296587 | -0.40 | 0.01  | -1.51 | 0.44  |
| BLCA | 493 | chr1:159869826-159870825  | 343413 | FCRL6      | + | 100024  | -0.38 | 0.05  | -0.92 | 0.48  |
| BLCA | 494 | chr1:101658919-101659918  | 1901   | S1PR1      | + | -42887  | -0.33 | -0.02 | -1.93 | 0.49  |
| BLCA | 495 | chr1:122105736-122106735  | 399959 | LOC399959  | - | -132232 | -0.31 | -0.04 | -4.06 | 0.54  |
| BLCA | 496 | chr3:27352534-27353533    | 116135 | LRRC3B     | + | 688733  | -0.38 | 0.04  | -4.80 | 0.41  |
| BLCA | 497 | chr6:35755109-35756108    | 5603   | MAPK13     | + | -342653 | -0.37 | -0.08 | 2.08  | -0.47 |
| BLCA | 498 | chr2:66664928-66665927    | 4211   | MEIS1      | + | 2895    | 0.32  | 0.00  | -1.93 | -0.49 |
| BLCA | 499 | chr2:183085777-183086776  | 5136   | PDE1A      | - | -301296 | -0.33 | 0.00  | -3.58 | 0.47  |
| BLCA | 500 | chr17:32895102-32896101   | 6347   | CCL2       | + | 313305  | -0.34 | -0.08 | -2.70 | 0.51  |
| BLCA | 501 | chr12:51835419-51836418   | 160622 | GRASP      | + | -564811 | -0.40 | -0.04 | -2.10 | 0.51  |
| BLCA | 502 | chr13:31551775-31552774   | 241    | ALOX5AP    | + | 264659  | -0.38 | 0.09  | -1.19 | 0.56  |
| BLCA | 503 | chr16:86388353-86389352   | 2294   | FOXF1      | + | -155281 | -0.33 | 0.00  | -3.70 | 0.42  |
| BLCA | 504 | chr1:155194282-155195281  | 55974  | RAG1AP1    | + | 86493   | -0.37 | -0.03 | 1.34  | -0.44 |
| BLCA | 505 | chr3:99352580-99353579    | 11259  | FILIP1L    | - | -480270 | -0.34 | -0.07 | -2.86 | 0.62  |
| BLCA | 506 | chr5:113602532-113603531  | 3781   | KCNN2      | + | -94985  | -0.33 | -0.09 | -2.16 | 0.53  |
| BLCA | 507 | chr17:41521155-41522154   | 8639   | AOC3       | - | 518453  | -0.34 | -0.01 | -3.92 | 0.51  |
| BLCA | 508 | chr8:33866094-33867093    | 78986  | DUSP26     | - | 409154  | -0.38 | -0.05 | -2.14 | 0.45  |
| BLCA | 509 | chr20:56724499-56725498   | 164284 | APCDD1L    | - | -364951 | -0.34 | 0.00  | -2.61 | 0.64  |
| BLCA | 510 | chr3:113897050-113898049  | 91653  | BOC        | + | 967137  | -0.44 | 0.00  | -3.05 | 0.54  |
| BLCA | 511 | chr3:132855433-132856432  | 66000  | TMEM108    | + | 98761   | -0.32 | -0.06 | -2.93 | 0.44  |
| BLCA | 512 | chr7:30362281-30363280    | 11185  | INMT       | + | -374821 | -0.35 | -0.07 | -2.88 | 0.46  |
| BLCA | 513 | chr12:51701479-51702478   | 5463   | POU6F1     | - | 90501   | -0.35 | -0.09 | -1.62 | 0.48  |
| BLCA | 514 | chr6:155544753-155545752  | 26230  | TIAM2      | + | 391421  | -0.39 | -0.01 | -1.76 | 0.47  |
| BLCA | 515 | chr8:102015412-102016411  | 26986  | PABPC1     | - | 281596  | -0.44 | 0.01  | 0.65  | -0.57 |
| BLCA | 516 | chr10:10751442-10752441   | 10659  | CELF2      | + | -295318 | -0.33 | -0.03 | -3.07 | 0.53  |
| BLCA | 517 | chr10:10686811-10687810   | 10659  | CELF2      | + | -359949 | -0.33 | -0.03 | -3.07 | 0.56  |
| BLCA | 518 | chr5:7685699-7686698      | 79072  | FASTKD3    | - | -182952 | -0.43 | -0.08 | 0.90  | -0.44 |
| BLCA | 519 | chr10:117641941-117642940 | 2674   | GFR1       | - | -390686 | -0.32 | -0.02 | -4.92 | 0.55  |
| BLCA | 520 | chr8:106185070-106186069  | 23414  | ZFPM2      | + | -145578 | -0.32 | 0.00  | -3.25 | 0.44  |
| BLCA | 521 | chr6:45575888-45576887    | 53405  | CLIC5      | - | -471698 | -0.41 | 0.06  | -1.67 | 0.50  |
| BLCA | 522 | chr1:158155257-158156256  | 57863  | CADM3      | + | -985621 | -0.38 | 0.03  | -5.79 | 0.58  |
| BLCA | 523 | chr6:45575888-45576887    | 10231  | RCAN2      | - | -883417 | -0.41 | 0.00  | -3.56 | 0.48  |
| BLCA | 524 | chr10:108384882-108385881 | 114815 | SORCS1     | - | -539085 | -0.35 | 0.11  | -5.56 | 0.43  |
| BLCA | 525 | chr6:162831337-162832336  | 5071   | PARK2      | - | -316998 | -0.33 | 0.00  | -3.07 | 0.52  |
| BLCA | 526 | chr2:1050273-1051272      | 7173   | TPO        | + | -327223 | -0.36 | 0.00  | -2.53 | 0.45  |
| BLCA | 527 | chr1:73424538-73425537    | 257194 | NEGR1      | - | 676632  | -0.35 | 0.00  | -4.78 | 0.57  |
| BLCA | 528 | chr1:155194282-155195281  | 1196   | CLK2       | - | -52720  | -0.37 | -0.02 | 0.80  | -0.50 |
| BLCA | 529 | chr7:128368440-128369439  | 2318   | FLNC       | + | -101544 | -0.32 | -0.10 | -5.52 | 0.41  |
| BLCA | 530 | chr4:20574055-20575054    | 9353   | SLIT2      | + | 319319  | -0.31 | -0.05 | -4.27 | 0.61  |
| BLCA | 531 | chr12:10379048-10380047   | 969    | CD69       | - | 466050  | -0.35 | -0.04 | -2.63 | 0.53  |
| BLCA | 532 | chr13:23332125-23333124   | 6445   | SGCG       | + | -422436 | -0.33 | 0.06  | -4.50 | 0.47  |
| BLCA | 533 | chr17:2141341-2142340     | 3090   | HIC1       | + | 184392  | 0.33  | 0.02  | -2.20 | -0.65 |
| BLCA | 534 | chr8:56131018-56132017    | 114786 | XKR4       | + | 116500  | -0.33 | 0.09  | -2.73 | 0.44  |
| BLCA | 535 | chr1:121665083-121666082  | 399959 | LOC399959  | - | -572885 | -0.34 | -0.04 | -4.06 | 0.51  |
| BLCA | 536 | chr5:15939034-15940033    | 23194  | FBXL7      | + | 439228  | -0.34 | -0.03 | -2.72 | 0.55  |
| BLCA | 537 | chr13:94499153-94501147   | 10082  | GPC6       | + | 621071  | -0.36 | 0.00  | -2.60 | 0.61  |
| BLCA | 538 | chr13:67701792-67702791   | 5101   | PCDH9      | - | -102177 | -0.30 | 0.03  | -2.91 | 0.77  |
| BLCA | 539 | chr2:191895304-191896303  | 8436   | SDPR       | - | -816203 | -0.39 | 0.03  | -4.34 | 0.45  |
| BLCA | 540 | chr17:80289041-80290040   | 2194   | FASN       | - | 233434  | -0.38 | -0.02 | 1.33  | -0.45 |
| BLCA | 541 | chr12:8974696-8975808     | 2      | A2M        | - | -293307 | -0.33 | 0.03  | -2.76 | 0.51  |
| BLCA | 542 | chr1:76839532-76840531    | 256435 | ST6GALNAC3 | + | 299642  | -0.37 | 0.00  | -1.84 | 0.46  |
| BLCA | 543 | chr17:63652454-63653453   | 8313   | AXIN2      | - | 15770   | -0.33 | -0.01 | -2.03 | 0.42  |
| BLCA | 544 | chr11:133005419-133006418 | 83700  | JAM3       | + | -932902 | -0.45 | -0.04 | -2.88 | 0.51  |
| BLCA | 545 | chr3:113897050-113898049  | 79691  | QTRTD1     | + | 121967  | -0.44 | -0.03 | 0.67  | -0.43 |
| BLCA | 546 | chr7:84789371-84790370    | 223117 | SEMA3D     | - | -26301  | -0.31 | 0.02  | -2.47 | 0.49  |
| BLCA | 547 | chr12:131831440-131832439 | 2054   | STX2       | - | 508120  | -0.49 | -0.14 | -1.48 | 0.48  |
| BLCA | 548 | chr1:155194282-155195281  | 200185 | KRTCAP2    | - | 48977   | -0.37 | -0.02 | 0.91  | -0.46 |
| BLCA | 549 | chr2:191895304-191896303  | 6775   | STAT4      | - | -143099 | -0.39 | 0.00  | -0.60 | 0.55  |
| BLCA | 550 | chr4:5206812-5207811      | 54360  | CYTL1      | - | 186114  | -0.32 | -0.03 | -3.04 | 0.48  |
| BLCA | 551 | chr5:38670611-38671610    | 3977   | LIFR       | - | 75603   | -0.31 | -0.05 | -2.70 | 0.59  |
| BLCA | 552 | chr8:68879447-68880446    | 116328 | C8orf34    | + | -363011 | -0.36 | 0.00  | -2.23 | 0.45  |
| BLCA | 553 | chr12:23192100-23193099   | 6489   | ST8SIA1    | - | 704951  | -0.39 | -0.06 | -3.20 | 0.44  |
| BLCA | 554 | chr12:82120638-82121637   | 8499   | PPFIA2     | - | -31972  | -0.34 | 0.00  | -1.88 | 0.43  |
| BLCA | 555 | chr15:63311670-63312669   | 7168   | TPM1       | + | -22669  | -0.30 | -0.06 | -2.89 | 0.55  |
| BLCA | 556 | chr4:5028195-5029194      | 4487   | MSX1       | + | 167302  | -0.35 | 0.02  | -2.02 | 0.44  |
| BLCA | 557 | chr8:56284122-56285121    | 114786 | XKR4       | + | 269604  | -0.33 | 0.09  | -2.73 | 0.50  |
| BLCA | 558 | chr10:118430427-118431426 | 259217 | HSPA12A    | - | -178790 | -0.33 | -0.01 | -2.25 | 0.51  |
| BLCA | 559 | chr3:12585868-12586867    | 2199   | FBLN2      | + | -987457 | -0.42 | 0.00  | -3.03 | 0.55  |
| BLCA | 560 | chr2:198814564-198815563  | 130132 | RFTN2      | - | 274479  | -0.43 | 0.00  | -1.40 | 0.40  |
| BLCA | 561 | chr5:166987543-166988542  | 57451  | ODZ2       | + | 276199  | -0.42 | -0.15 | -0.97 | 0.46  |
| BLCA | 562 | chr15:33798880-33799879   | 6263   | RYR3       | + | 196202  | -0.32 | 0.00  | -3.63 | 0.46  |
| BLCA | 563 | chr10:7148562-7149561     | 57713  | SFMBT2     | - | -304387 | -0.40 | 0.00  | -1.29 | 0.46  |
| BLCA | 564 | chr3:37224766-37225765    | 3680   | ITGA9      | + | -268548 | -0.34 | -0.05 | -2.63 | 0.47  |
| BLCA | 565 | chr11:130398400-130399399 | 170689 | ADAMTS15   | + | 80030   | -0.33 | 0.07  | -2.31 | 0.46  |
| BLCA | 566 | chr6:16933316-16934315    | 6310   | ATXN1      | - | 172094  | -0.39 | 0.15  | -1.42 | 0.40  |
| BLCA | 567 | chr1:10838950-10840073    | 10218  | ANGPTL7    | + | -409835 | -0.34 | -0.13 | -4.70 | 0.43  |
| BLCA | 568 | chr17:47178778-47179777   | 4804   | NGFR       | + | -393378 | -0.35 | 0.02  | -2.73 | 0.45  |
| BLCA | 569 | chr11:132964750-132965749 | 83700  | JAM3       | + | -973571 | -0.43 | -0.04 | -2.88 | 0.54  |
| BLCA | 570 | chr4:155104500-155105499  | 6423   | SFRP2      | - | 394771  | -0.34 | -0.02 | -4.44 | 0.41  |

|      |     |                           |           |              |   |         |       |       |       |       |
|------|-----|---------------------------|-----------|--------------|---|---------|-------|-------|-------|-------|
| BLCA | 571 | chr7:81419633-81420632    | 3082      | HGF          | - | 20680   | -0.32 | -0.04 | -2.67 | 0.42  |
| BLCA | 572 | chr20:61335039-61336038   | 253868    | C20orf200    | - | 186770  | -0.32 | -0.02 | -4.70 | 0.44  |
| BLCA | 573 | chr4:24489674-24490673    | 6649      | SOD3         | + | -306912 | -0.32 | -0.04 | -3.04 | 0.59  |
| BLCA | 574 | chr7:71086208-71087207    | 64409     | WBSCR17      | + | 489184  | -0.35 | -0.06 | -4.67 | 0.42  |
| BLCA | 575 | chr5:158152861-158153860  | 1879      | EBF1         | - | -373428 | -0.34 | 0.02  | -2.74 | 0.53  |
| BLCA | 576 | chr12:125926952-125927951 | 114795    | TMEM132B     | + | 116289  | -0.35 | -0.11 | -1.77 | 0.43  |
| BLCA | 577 | chr13:93978871-93979870   | 10082     | GPC6         | + | 100292  | -0.31 | 0.00  | -2.60 | 0.60  |
| BLCA | 578 | chr10:36317546-36318545   | 8325      | FZD8         | - | 387683  | -0.42 | 0.01  | -0.91 | 0.56  |
| BLCA | 579 | chr3:115509174-115510173  | 2596      | GAP43        | + | 167522  | -0.38 | 0.02  | -1.17 | 0.45  |
| BLCA | 580 | chr7:131720032-131721031  | 91584     | PLXNA4       | - | -612916 | -0.40 | -0.01 | -2.06 | 0.49  |
| BLCA | 581 | chr20:62048369-62049368   | 253868    | C20orf200    | - | 900100  | -0.38 | -0.02 | -4.70 | 0.50  |
| BLCA | 582 | chr16:86386631-86387630   | 2294      | FOXF1        | + | -157003 | -0.31 | 0.00  | -3.70 | 0.52  |
| BLCA | 583 | chr8:133455513-133456512  | 137835    | TMEM71       | - | -316902 | -0.37 | 0.02  | -1.81 | 0.44  |
| BLCA | 584 | chr7:97983416-97984415    | 222865    | TMEM130      | - | -483758 | -0.41 | -0.05 | -1.78 | 0.44  |
| BLCA | 585 | chr1:156130713-156131712  | 22889     | KIAA0907     | - | 227024  | 0.37  | 0.14  | 1.08  | 0.53  |
| BLCA | 586 | chr14:92719773-92720772   | 10516     | FBLN5        | - | 306226  | -0.33 | -0.05 | -2.83 | 0.55  |
| BLCA | 587 | chr15:48064230-48065229   | 80031     | SEMA6D       | + | 588326  | -0.42 | -0.03 | -1.75 | 0.49  |
| BLCA | 588 | chr3:7097632-7098631      | 2917      | GRM7         | + | 195329  | -0.34 | 0.00  | -2.60 | 0.43  |
| BLCA | 589 | chr13:107852566-107853565 | 728215    | FAM155A      | - | -666395 | -0.42 | 0.03  | -1.75 | 0.54  |
| BLCA | 590 | chr8:69386718-69387717    | 80243     | PREX2        | + | 522614  | -0.39 | 0.02  | -2.62 | 0.40  |
| BLCA | 591 | chr6:73519883-73520882    | 56479     | KCNQ5        | + | 188811  | -0.31 | 0.01  | -2.92 | 0.74  |
| BLCA | 592 | chr5:45204445-45205444    | 2255      | FGF10        | - | 816160  | -0.42 | -0.05 | -3.28 | 0.43  |
| BLCA | 593 | chr6:133888879-133889878  | 2070      | EYA4         | + | 327642  | -0.33 | 0.01  | -2.70 | 0.56  |
| BLCA | 594 | chr11:103904796-103905795 | 80310     | PDGFD        | - | -129732 | -0.35 | -0.06 | -2.17 | 0.40  |
| BLCA | 595 | chr13:93942752-93943751   | 10082     | GPC6         | + | 64173   | -0.31 | 0.00  | -2.60 | 0.58  |
| BLCA | 596 | chr11:64610135-64611134   | 10235     | RASGRP2      | - | 97706   | -0.30 | -0.03 | -3.12 | 0.67  |
| BLCA | 597 | chr2:198814564-198815563  | 91526     | ANKRD44      | - | 639542  | -0.43 | -0.13 | -1.71 | 0.52  |
| BLCA | 598 | chr14:26226496-26227495   | 4857      | NOVA1        | - | -839965 | -0.38 | -0.20 | -3.95 | 0.46  |
| BLCA | 599 | chr1:162106332-162107331  | 127943    | FCRLB        | + | 415497  | -0.35 | -0.05 | 2.11  | -0.56 |
| BLCA | 600 | chr21:38078267-38080114   | 53820     | DSCR6        | + | -299260 | 0.34  | 0.16  | 2.61  | 0.47  |
| BLCA | 601 | chr12:101216096-101217095 | 121601    | ANO4         | + | 105291  | -0.31 | -0.01 | -2.42 | 0.62  |
| BLCA | 602 | chr3:29447128-29448127    | 27303     | RBMS3        | + | 124824  | -0.32 | -0.01 | -2.43 | 0.56  |
| BLCA | 603 | chr3:1546367-1547366      | 152330    | CNTN4        | + | -593684 | -0.38 | 0.08  | -2.94 | 0.41  |
| BLCA | 604 | chr13:93913265-93914264   | 10082     | GPC6         | + | 34686   | -0.30 | 0.00  | -2.60 | 0.55  |
| BLCA | 605 | chr3:64710884-64711883    | 56999     | ADAMTS9      | - | 38018   | -0.35 | -0.02 | -1.57 | 0.41  |
| BLCA | 606 | chr1:158155257-158156256  | 912       | CD1D         | + | 6019    | -0.38 | 0.01  | -0.58 | 0.44  |
| BLCA | 607 | chr17:35087042-35088041   | 79154     | DHRS11       | + | 139315  | -0.38 | -0.03 | 0.79  | -0.48 |
| BLCA | 608 | chr4:16849740-16850739    | 9079      | LDB2         | - | -50185  | -0.34 | -0.06 | -1.95 | 0.40  |
| BLCA | 609 | chr14:101660227-101661226 | 1735      | DIO3         | + | -366962 | -0.32 | 0.02  | -3.15 | 0.61  |
| BLCA | 610 | chr4:176732909-176733908  | 2823      | GPM6A        | - | -190434 | -0.32 | 0.10  | -3.69 | 0.42  |
| BLCA | 611 | chr3:29354571-29355570    | 27303     | RBMS3        | + | 32267   | -0.30 | -0.01 | -2.43 | 0.64  |
| BLCA | 612 | chr1:216144319-216145318  | 3776      | KCNK2        | + | 965933  | -0.40 | -0.03 | -3.45 | 0.50  |
| BLCA | 613 | chr17:33125034-33126033   | 6357      | CCL13        | + | 442062  | -0.41 | -0.02 | -1.25 | 0.51  |
| BLCA | 614 | chr10:45324499-45325498   | 6387      | CXCL12       | - | 444453  | -0.33 | -0.01 | -3.47 | 0.57  |
| BLCA | 615 | chr6:139047238-139048237  | 167838    | TXLNB        | - | -565471 | -0.36 | 0.00  | -2.38 | 0.53  |
| BLCA | 616 | chr2:109846646-109847645  | 344558    | SH3RF3       | + | 101148  | -0.33 | 0.01  | -1.53 | 0.61  |
| BLCA | 617 | chr8:56192221-56193220    | 64321     | SOX17        | + | 822225  | -0.42 | 0.00  | -3.08 | 0.42  |
| BLCA | 618 | chr8:117242271-117243270  | 441376    | C8orf85      | + | -707694 | -0.36 | 0.03  | -4.09 | 0.46  |
| BLCA | 619 | chr3:2939573-2940572      | 3568      | IL5RA        | - | -211986 | -0.41 | 0.00  | -0.68 | 0.48  |
| BLCA | 620 | chr3:8661019-8662018      | 29995     | LMCD1        | + | 118025  | -0.32 | 0.06  | -2.14 | 0.60  |
| BLCA | 621 | chr2:100614571-100615570  | 3899      | AFF3         | - | -143967 | -0.30 | 0.01  | -4.98 | 0.51  |
| BLCA | 622 | chr4:17317593-17318592    | 9079      | LDB2         | - | 417668  | -0.37 | -0.06 | -1.95 | 0.46  |
| BLCA | 623 | chr1:243645818-243646817  | 10000     | AKT3         | - | -360569 | 0.36  | 0.10  | -1.96 | -0.48 |
| BLCA | 624 | chr2:225875189-225876188  | 55619     | DOCK10       | - | -31642  | -0.35 | 0.00  | -0.86 | 0.54  |
| BLCA | 625 | chr2:48945875-48946874    | 3973      | LHCGR        | - | -36506  | -0.37 | -0.02 | -0.85 | 0.43  |
| BLCA | 626 | chr12:131831440-131832439 | 23504     | RIMBP2       | - | 631113  | -0.49 | -0.05 | -2.14 | 0.41  |
| BLCA | 627 | chr11:64610135-64611134   | 5837      | PYGM         | - | 82447   | -0.30 | -0.02 | -5.33 | 0.46  |
| BLCA | 628 | chr4:23775592-23776591    | 10891     | PPARGC1A     | - | -698303 | -0.34 | 0.02  | -3.86 | 0.63  |
| BLCA | 629 | chr2:43395831-43396830    | 23498     | HAAO         | - | 376579  | -0.34 | 0.04  | -3.08 | 0.44  |
| BLCA | 630 | chr16:65605713-65606712   | 1009      | CDH11        | - | 450293  | -0.40 | 0.05  | -1.47 | 0.47  |
| BLCA | 631 | chr6:130786970-130787969  | 154075    | SAMD3        | - | 100899  | -0.36 | -0.18 | -0.70 | 0.57  |
| BLCA | 632 | chr2:239437306-239438305  | 117581    | TWIST2       | + | -318868 | -0.32 | -0.12 | -3.05 | 0.69  |
| BLCA | 633 | chr19:439068-440067       | 25759     | SHC2         | - | -21429  | -0.33 | 0.00  | -1.78 | 0.46  |
| BLCA | 634 | chr12:53299793-53300792   | 3856      | KRT8         | - | -43358  | -0.36 | -0.01 | 1.07  | -0.43 |
| BLCA | 635 | chr2:79586808-79587807    | 347730    | LRRTM1       | - | -944180 | -0.44 | -0.05 | -3.34 | 0.44  |
| BLCA | 636 | chr12:23116050-23117049   | 6489      | ST8SIA1      | - | 628901  | -0.38 | -0.06 | -3.20 | 0.41  |
| BLCA | 637 | chr12:4360635-4361634     | 3736      | KCNA1        | + | -657939 | -0.40 | -0.01 | -2.04 | 0.48  |
| BLCA | 638 | chr1:192519835-192520834  | 5997      | RGS2         | + | -257835 | -0.33 | -0.03 | -3.37 | 0.42  |
| BLCA | 639 | chr11:133187456-133188455 | 100128239 | LOC100128239 | + | -174212 | -0.38 | -0.01 | -2.97 | 0.45  |
| BLCA | 640 | chr8:58137548-58138547    | 5179      | PENK         | - | 778765  | -0.37 | 0.01  | -2.75 | 0.58  |
| BLCA | 641 | chr1:27189830-27190829    | 126695    | C1orf172     | - | -96572  | -0.31 | -0.05 | 2.57  | -0.61 |
| BLCA | 642 | chr1:179074114-179075113  | 9068      | ANGPTL1      | - | 234398  | -0.30 | -0.02 | -4.50 | 0.55  |
| BLCA | 643 | chr17:41521155-41522154   | 113277    | TMEM106A     | + | 157760  | -0.34 | 0.02  | -1.29 | 0.62  |
| BLCA | 644 | chr7:96618568-96619575    | 1750      | DLX6         | + | -16219  | 0.30  | -0.03 | 2.30  | 0.55  |
| BLCA | 645 | chr11:123774688-123775687 | 79827     | ASAM         | - | 709180  | -0.44 | 0.07  | -1.91 | 0.48  |
| BLCA | 646 | chr2:218463666-218464665  | 729582    | DIRC3        | - | -157151 | -0.33 | 0.19  | -2.50 | 0.46  |
| BLCA | 647 | chr16:5282918-5283917     | 6345      | SRL          | - | 991336  | -0.42 | 0.00  | -3.36 | 0.46  |
| BLCA | 648 | chr1:209602455-209603454  | 3290      | HSD11B1      | + | -256571 | -0.35 | -0.01 | -1.53 | 0.49  |
| BLCA | 649 | chr5:45288043-45289042    | 2255      | FGF10        | - | 899758  | -0.39 | -0.05 | -3.28 | 0.48  |
| BLCA | 650 | chr17:171687687-171688686 | 54549     | SDK2         | - | 47959   | -0.34 | 0.08  | -1.34 | 0.50  |
| BLCA | 651 | chr12:10379048-10380047   | 51267     | CLEC1A       | - | 127942  | -0.35 | 0.00  | -1.39 | 0.46  |
| BLCA | 652 | chr8:69552523-69553522    | 116328    | C8orf34      | + | 310065  | -0.35 | 0.00  | -2.23 | 0.44  |

|      |     |                           |           |              |   |         |       |       |       |       |
|------|-----|---------------------------|-----------|--------------|---|---------|-------|-------|-------|-------|
| BLCA | 653 | chr3:2939573-2940572      | 152330    | CNTN4        | + | 799522  | -0.41 | 0.08  | -2.94 | 0.44  |
| BLCA | 654 | chr3:172841189-172842188  | 22871     | NLGN1        | + | -274556 | -0.31 | -0.02 | -3.59 | 0.50  |
| BLCA | 655 | chr11:64773795-64774794   | 5837      | PYGM         | - | 246107  | -0.31 | -0.02 | -5.33 | 0.44  |
| BLCA | 656 | chr6:27647213-27648840    | 10279     | PRSS16       | + | 432524  | 0.35  | -0.04 | 2.33  | 0.48  |
| BLCA | 657 | chr10:70976710-70977709   | 5552      | SRGN         | + | 129381  | -0.33 | 0.02  | -1.51 | 0.66  |
| BLCA | 658 | chr14:52836837-52837836   | 5729      | PTGDR        | + | 102905  | -0.34 | -0.02 | -1.21 | 0.59  |
| BLCA | 659 | chr1:183911805-183912804  | 23179     | RGL1         | + | 307096  | -0.37 | -0.05 | -1.52 | 0.46  |
| BLCA | 660 | chr13:94422196-94423195   | 10082     | GPC6         | + | 543617  | -0.35 | 0.00  | -2.60 | 0.56  |
| BLCA | 661 | chr8:128306448-128307447  | 5462      | POU5F1B      | + | -120910 | -0.36 | 0.01  | 1.00  | -0.49 |
| BLCA | 662 | chr1:155194282-155195281  | 80308     | FLAD1        | + | 239011  | -0.37 | 0.02  | 1.18  | -0.49 |
| BLCA | 663 | chr12:114713801-114714800 | 6910      | TBX5         | - | -131947 | -0.30 | -0.04 | -3.05 | 0.53  |
| BLCA | 664 | chr10:78945646-78946645   | 3778      | KCNMA1       | - | -451432 | -0.34 | 0.09  | -3.97 | 0.44  |
| BLCA | 665 | chr2:100160620-100161619  | 3899      | AFF3         | - | -597918 | -0.34 | 0.01  | -4.98 | 0.44  |
| BLCA | 666 | chr17:77207711-77208710   | 7077      | TIMP2        | - | 286738  | -0.34 | -0.02 | -1.87 | 0.61  |
| BLCA | 667 | chr3:99352580-99353579    | 1295      | COL8A1       | + | -4361   | -0.34 | 0.00  | -0.73 | 0.53  |
| BLCA | 668 | chr13:22979250-22980249   | 6445      | SGCG         | + | -775311 | -0.37 | 0.06  | -4.50 | 0.45  |
| BLCA | 669 | chr5:158378578-158379577  | 1879      | EBF1         | - | -147711 | -0.32 | 0.02  | -2.74 | 0.44  |
| BLCA | 670 | chr15:26045181-26046180   | 57194     | ATP10A       | - | -64637  | -0.35 | -0.05 | -0.71 | 0.56  |
| BLCA | 671 | chr8:68881508-68882507    | 116328    | C8orf34      | + | -360950 | -0.37 | 0.00  | -2.23 | 0.41  |
| BLCA | 672 | chr11:133005419-133006418 | 100128239 | LOC100128239 | + | -896249 | -0.45 | -0.01 | -2.97 | 0.43  |
| BLCA | 673 | chr8:116430058-116431057  | 7227      | TRPS1        | - | -250671 | -0.34 | -0.02 | -1.95 | 0.51  |
| BLCA | 674 | chr1:155194282-155195281  | 23208     | SYT11        | + | -634479 | -0.37 | -0.16 | -2.10 | 0.59  |
| BLCA | 675 | chr11:132745201-132746200 | 4978      | OPCML        | - | -656703 | -0.40 | -0.02 | -1.84 | 0.51  |
| BLCA | 676 | chr1:32155167-32156166    | 64129     | TINAGL1      | + | 113580  | -0.37 | 0.02  | 1.14  | -0.41 |
| BLCA | 677 | chr3:12585868-12586867    | 5468      | PPARG        | + | 257383  | -0.42 | 0.02  | 0.26  | -0.56 |
| BLCA | 678 | chr4:185016590-185017799  | 133121    | ENPP6        | - | -121920 | -0.30 | -0.12 | -3.61 | 0.53  |
| BLCA | 679 | chr3:72569818-72570817    | 727936    | GXYLT2       | + | -367068 | -0.36 | 0.00  | -1.57 | 0.53  |
| BLCA | 680 | chr4:176732909-176733908  | 116966    | WDR17        | + | -253577 | -0.32 | 0.05  | -2.77 | 0.49  |
| BLCA | 681 | chr10:109671261-109672260 | 114815    | SORCS1       | - | 747294  | -0.34 | 0.11  | -5.56 | 0.53  |
| BLCA | 682 | chr19:18118166-18119165   | 10331     | B3GNT3       | + | 212746  | 0.36  | -0.07 | 1.64  | 0.44  |
| BLCA | 683 | chr13:94176449-94177448   | 10082     | GPC6         | + | 297870  | -0.32 | 0.00  | -2.60 | 0.59  |
| BLCA | 684 | chr13:40396277-40397276   | 10186     | LHFP         | - | 219420  | -0.34 | -0.02 | -1.90 | 0.47  |
| BLCA | 685 | chr14:52836837-52837836   | 5732      | PTGER2       | + | 56320   | -0.34 | -0.02 | -1.19 | 0.51  |
| BLCA | 686 | chr1:27080098-27081097    | 1043      | CD52         | + | 436186  | -0.38 | 0.00  | -1.15 | 0.68  |
| BLCA | 687 | chr8:70101109-70102108    | 23213     | SULF1        | + | -277251 | -0.44 | 0.01  | 0.24  | 0.56  |
| BLCA | 688 | chr3:8817556-8818555      | 29995     | LMCD1        | + | 274562  | -0.33 | 0.06  | -2.14 | 0.59  |
| BLCA | 689 | chr17:33125034-33126033   | 6355      | CCL8         | + | 479467  | -0.41 | 0.01  | -1.30 | 0.49  |
| BLCA | 690 | chr3:22347599-22348598    | 79750     | ZNF385D      | - | -66025  | -0.32 | 0.02  | -2.33 | 0.42  |
| BLCA | 691 | chr16:66115353-66116352   | 1003      | CDH5         | + | -284673 | -0.41 | -0.01 | -1.07 | 0.43  |
| BLCA | 692 | chr4:183083997-183084996  | 55714     | ODZ3         | + | 19356   | -0.31 | 0.01  | -1.56 | 0.75  |
| BLCA | 693 | chr1:237996393-237997392  | 6262      | RYR2         | + | 791190  | -0.40 | 0.09  | -2.77 | 0.46  |
| BLCA | 694 | chr1:26677600-26678599    | 126695    | C1orf172     | - | -608802 | -0.35 | -0.05 | 2.57  | -0.69 |
| BLCA | 695 | chr1:155194282-155195281  | 284618    | C1orf104     | - | -99157  | -0.37 | -0.04 | 1.02  | -0.43 |
| BLCA | 696 | chr4:23549492-23550491    | 10891     | PPARGC1A     | - | -924403 | -0.37 | 0.02  | -3.86 | 0.51  |
| BLCA | 697 | chr4:24274465-24275464    | 10891     | PPARGC1A     | - | -199430 | -0.31 | 0.02  | -3.86 | 0.46  |
| BLCA | 698 | chr11:132964750-132965749 | 100128239 | LOC100128239 | + | -936918 | -0.43 | -0.01 | -2.97 | 0.45  |
| BLCA | 699 | chr2:68017338-68018337    | 5341      | PLEK         | + | -574485 | -0.46 | -0.07 | -1.07 | 0.56  |
| BLCA | 700 | chr10:6740133-6741132     | 5588      | PRKCQ        | - | 118378  | -0.44 | 0.00  | -0.40 | 0.42  |
| BLCA | 701 | chr3:2942003-2943002      | 152330    | CNTN4        | + | 801952  | -0.41 | 0.08  | -2.94 | 0.43  |
| BLCA | 702 | chr3:135086318-135087317  | 2047      | EPHB1        | + | 572718  | -0.37 | -0.02 | -1.79 | 0.56  |
| BLCA | 703 | chr13:23965701-23966700   | 26278     | SACS         | - | -41667  | -0.33 | -0.14 | -1.18 | 0.59  |
| BLCA | 704 | chr16:24150691-24151690   | 5579      | PRKCB        | + | 303890  | -0.31 | -0.04 | -3.13 | 0.55  |
| BLCA | 705 | chr14:101363687-101364686 | 1735      | DIO3         | + | -663502 | -0.36 | 0.02  | -3.15 | 0.45  |
| BLCA | 706 | chr2:189216116-189217115  | 51454     | GULP1        | + | 60219   | -0.30 | 0.04  | -2.21 | 0.71  |
| BLCA | 707 | chr2:218463666-218464665  | 7145      | TNS1         | - | -403553 | -0.33 | 0.00  | -3.85 | 0.46  |
| BLCA | 708 | chr8:144301094-144302093  | 23144     | ZC3H3        | - | -322027 | -0.41 | -0.06 | 0.67  | -0.52 |
| BLCA | 709 | chr11:123248342-123249341 | 55800     | SCN3B        | - | -276474 | -0.32 | 0.06  | -2.20 | 0.63  |
| BLCA | 710 | chr5:155801433-155802432  | 6444      | SGCD         | + | 666869  | -0.34 | -0.06 | -3.54 | 0.60  |
| BLCA | 711 | chr3:139464348-139465347  | 64084     | CLSTN2       | + | -189180 | -0.36 | -0.02 | -1.47 | 0.42  |
| BLCA | 712 | chr11:114236917-114237916 | 4837      | NNMT         | + | 108863  | -0.35 | -0.06 | -1.19 | 0.50  |
| BLCA | 713 | chr10:108272907-108273906 | 114815    | SORCS1       | - | -651060 | -0.34 | 0.11  | -5.56 | 0.48  |
| BLCA | 714 | chr1:155194282-155195281  | 54344     | DPM3         | - | 81785   | -0.37 | -0.01 | 0.60  | -0.49 |
| BLCA | 715 | chr17:11631841-11632840   | 388336    | SHISA6       | + | 487600  | -0.37 | 0.05  | -2.24 | 0.44  |
| BLCA | 716 | chr12:5917691-5918690     | 57101     | ANO2         | - | -137208 | -0.35 | 0.00  | -1.22 | 0.48  |
| BLCA | 717 | chr16:65045768-65046767   | 1009      | CDH11        | - | -109652 | -0.34 | 0.05  | -1.47 | 0.47  |
| BLCA | 718 | chr7:102631803-102632802  | 10234     | LRRH17       | + | 78958   | -0.33 | -0.01 | -1.92 | 0.44  |
| BLCA | 719 | chr13:22693606-22694605   | 2254      | FGF9         | + | 448890  | -0.34 | -0.01 | -3.89 | 0.42  |
| BLCA | 720 | chr1:8130165-8131164      | 3604      | TNFRSF9      | + | 127439  | -0.37 | 0.02  | 0.36  | 0.57  |
| BLCA | 721 | chr4:182430315-182431314  | 55714     | ODZ3         | + | -634326 | -0.39 | 0.01  | -1.56 | 0.62  |
| BLCA | 722 | chr3:137807741-137808740  | 199221    | DZIP1L       | - | -26211  | -0.35 | 0.00  | -0.90 | 0.48  |
| BLCA | 723 | chr10:112454912-112455911 | 150       | ADRA2A       | + | -381379 | -0.34 | -0.02 | -2.57 | 0.50  |
| BLCA | 724 | chr17:80289041-80290040   | 64118     | DUS1L        | - | 265843  | -0.38 | 0.02  | 1.22  | -0.43 |
| BLCA | 725 | chr4:65777981-65778980    | 2044      | EPHA5        | + | -757173 | -0.37 | 0.00  | -2.84 | 0.49  |
| BLCA | 726 | chr10:83650637-83651636   | 10718     | NRG3         | + | 16066   | -0.38 | 0.11  | -0.54 | 0.40  |
| BLCA | 727 | chr8:107218494-107219493  | 23414     | ZFPM2        | + | 887846  | -0.37 | 0.00  | -3.25 | 0.54  |
| BLCA | 728 | chr14:58567137-58568136   | 51339     | DACT1        | + | -533150 | -0.37 | -0.02 | -1.90 | 0.49  |
| BLCA | 729 | chr3:12585868-12586867    | 5894      | RAF1         | - | -119333 | -0.42 | 0.01  | 0.17  | -0.45 |
| BLCA | 730 | chr12:4360635-4361634     | 3742      | KCNA6        | + | -557208 | -0.40 | -0.09 | -1.77 | 0.44  |
| BLCA | 731 | chr7:1163049-1164141      | 2852      | GPER         | + | 41750   | 0.31  | -0.01 | -2.34 | -0.45 |
| BLCA | 732 | chr7:18548081-18549080    | 7291      | TWIST1       | - | -608715 | -0.39 | 0.00  | -1.65 | 0.53  |
| BLCA | 733 | chr16:86258217-86259216   | 3394      | IRF8         | + | 325942  | -0.37 | 0.10  | -1.46 | 0.47  |
| BLCA | 734 | chr10:20019141-20020140   | 84898     | PLXDC2       | + | -85732  | -0.34 | 0.02  | -1.41 | 0.49  |

|      |     |                           |        |               |   |         |       |       |       |       |
|------|-----|---------------------------|--------|---------------|---|---------|-------|-------|-------|-------|
| BLCA | 735 | chr1:209105388-209106387  | 3290   | HSD11B1       | + | -753638 | -0.49 | -0.01 | -1.53 | 0.53  |
| BLCA | 736 | chr1:237915868-237916867  | 6262   | RYR2          | + | 710665  | -0.36 | 0.09  | -2.77 | 0.52  |
| BLCA | 737 | chr6:27647213-27648840    | 222698 | NKAPL         | + | -579049 | 0.35  | -0.03 | -2.57 | -0.51 |
| BLCA | 738 | chr13:94206803-94207802   | 10082  | GPC6          | + | 328224  | -0.32 | 0.00  | -2.60 | 0.58  |
| BLCA | 739 | chr4:182888707-182889706  | 90768  | MGC45800      | - | -176462 | -0.39 | 0.03  | -0.13 | 0.61  |
| BLCA | 740 | chr6:56578712-56579711    | 9532   | BAG2          | + | -457893 | -0.33 | 0.07  | -2.47 | 0.62  |
| BLCA | 741 | chr7:96621542-96623107    | 285987 | DLX6AS        | - | -21053  | 0.33  | -0.08 | 1.11  | 0.55  |
| BLCA | 742 | chr12:101412643-101413642 | 121601 | ANO4          | + | 301838  | -0.33 | -0.01 | -2.42 | 0.47  |
| BLCA | 743 | chr11:123248342-123249341 | 79827  | ASAM          | - | 182834  | -0.32 | 0.07  | -1.91 | 0.54  |
| BLCA | 744 | chr6:53617201-53618200    | 55227  | LRR1C1        | + | -41834  | -0.35 | 0.06  | 0.82  | -0.47 |
| BLCA | 745 | chr11:64610135-64611134   | 9379   | NRXN2         | - | 119974  | -0.30 | -0.23 | -2.87 | 0.59  |
| BLCA | 746 | chr7:93718180-93719179    | 2791   | GNG11         | + | 167663  | -0.33 | -0.01 | -2.02 | 0.45  |
| BLCA | 747 | chr17:38666316-38667315   | 84951  | TNS4          | - | 8961    | -0.31 | -0.05 | 1.87  | -0.48 |
| BLCA | 748 | chr3:137807741-137808740  | 22808  | MRAS          | + | -258250 | -0.35 | 0.01  | -1.34 | 0.57  |
| BLCA | 749 | chr8:56232167-56233166    | 64321  | SOX17         | + | 862171  | -0.40 | 0.00  | -3.08 | 0.42  |
| BLCA | 750 | chr9:122576845-122577844  | 1620   | DBC1          | - | 445605  | -0.38 | -0.14 | -1.89 | 0.42  |
| BLCA | 751 | chr7:85157464-85158463    | 223117 | SEMA3D        | - | 341792  | -0.33 | 0.02  | -2.47 | 0.50  |
| BLCA | 752 | chr2:201216991-201217990  | 316    | AOX1          | + | -233241 | -0.30 | -0.02 | -5.05 | 0.48  |
| BLCA | 753 | chr14:92719773-92720772   | 123041 | SLC24A4       | + | -68653  | -0.33 | -0.08 | -1.44 | 0.52  |
| BLCA | 754 | chr10:20522654-20523653   | 84898  | PLXDC2        | + | 417781  | -0.36 | 0.02  | -1.41 | 0.64  |
| BLCA | 755 | chr15:88558641-88559640   | 4916   | NTRK3         | - | -240822 | -0.31 | 0.04  | -4.81 | 0.42  |
| BLCA | 756 | chr10:10561207-10562206   | 10659  | CELF2         | + | -485553 | -0.32 | -0.03 | -3.07 | 0.66  |
| BLCA | 757 | chr6:130992177-130993176  | 2037   | EPB41L2       | - | -391786 | -0.35 | -0.02 | -1.61 | 0.53  |
| BLCA | 758 | chr17:80289000-80290200   | 64118  | DUS1L         | - | 265902  | -0.38 | 0.02  | 1.22  | -0.42 |
| BLCA | 759 | chr8:144301094-144302093  | 84948  | TIGD5         | + | -378481 | -0.41 | -0.06 | 1.03  | -0.45 |
| BLCA | 760 | chr16:65016901-65017900   | 1009   | CDH11         | - | -138519 | -0.36 | 0.05  | -1.47 | 0.40  |
| BLCA | 761 | chr15:28183580-28184579   | 4948   | OCA2          | - | -160379 | -0.35 | -0.12 | -1.11 | 0.48  |
| BLCA | 762 | chr2:48827858-48828857    | 11036  | GTF2A1L       | + | -16580  | -0.30 | 0.02  | -2.65 | 0.47  |
| BLCA | 763 | chr5:15931916-15932915    | 23194  | FBXL7         | + | 432110  | -0.33 | -0.03 | -2.72 | 0.60  |
| BLCA | 764 | chr7:18548081-18549080    | 9734   | HDAC9         | + | 422008  | -0.39 | -0.03 | -1.35 | 0.46  |
| BLCA | 765 | chr8:80048024-80049023    | 3574   | IL7           | - | 330765  | -0.41 | -0.01 | -1.01 | 0.44  |
| BLCA | 766 | chr14:104574215-104575214 | 122402 | TDRD9         | + | 179897  | -0.41 | -0.03 | -0.65 | 0.42  |
| BLCA | 767 | chr10:45297960-45298959   | 6387   | CXCL12        | - | 417914  | -0.32 | -0.01 | -3.47 | 0.48  |
| BLCA | 768 | chr8:93770067-93771066    | 862    | RUNX1T1       | - | 655112  | -0.35 | -0.01 | -2.97 | 0.52  |
| BLCA | 769 | chr11:133154803-133155802 | 83700  | JAM3          | + | -783518 | -0.37 | -0.04 | -2.88 | 0.50  |
| BLCA | 770 | chr4:182609197-182610196  | 55714  | ODZ3          | + | -455444 | -0.38 | 0.01  | -1.56 | 0.46  |
| BLCA | 771 | chr5:37889650-37890649    | 3977   | LIFR          | - | -705358 | -0.36 | -0.05 | -2.70 | 0.51  |
| BLCA | 772 | chr1:157938190-157939189  | 912    | CD1D          | + | -211048 | -0.38 | 0.01  | -0.58 | 0.50  |
| BLCA | 773 | chr12:102287875-102288874 | 55332  | DRAM1         | + | 17269   | -0.37 | -0.10 | -0.28 | 0.45  |
| BLCA | 774 | chr1:159869826-159870825  | 93183  | PIGM          | - | -131458 | -0.38 | 0.03  | 0.59  | -0.46 |
| BLCA | 775 | chr4:176909479-176910478  | 132851 | SPATA4        | - | -206844 | -0.34 | -0.01 | -1.11 | 0.61  |
| BLCA | 776 | chr17:78916067-78917066   | 4884   | NPTX1         | - | 466162  | 0.35  | 0.06  | -2.94 | -0.42 |
| BLCA | 777 | chr11:12188496-12188495   | 55742  | PARVA         | + | -210031 | -0.34 | -0.07 | -1.43 | 0.51  |
| BLCA | 778 | chr10:53366657-53367656   | 5592   | PRKG1         | + | 616245  | -0.37 | -0.02 | -2.87 | 0.42  |
| BLCA | 779 | chr8:58137548-58138547    | 90362  | FAM110B       | + | -769066 | -0.37 | -0.09 | -2.52 | 0.53  |
| BLCA | 780 | chr14:52836837-52837836   | 10979  | FERMT2        | - | -580479 | -0.34 | -0.02 | -2.70 | 0.58  |
| BLCA | 781 | chr16:20302627-20303626   | 54988  | ACSM5         | + | -117730 | -0.32 | -0.06 | -2.17 | 0.46  |
| BLCA | 782 | chr8:117242271-117243270  | 7227   | TRPS1         | - | 561542  | -0.36 | -0.02 | -1.95 | 0.53  |
| BLCA | 783 | chr13:22979250-22980249   | 2254   | FGF9          | + | 734534  | -0.37 | -0.01 | -3.89 | 0.41  |
| BLCA | 784 | chr7:36566598-36567597    | 313    | AOAH          | - | -197057 | -0.36 | 0.10  | -1.36 | 0.42  |
| BLCA | 785 | chr5:158163699-158164698  | 1879   | EBF1          | - | -362590 | -0.32 | 0.02  | -2.74 | 0.62  |
| BLCA | 786 | chr3:25101407-25102406    | 5915   | RARB          | + | -113917 | -0.32 | 0.00  | -1.74 | 0.50  |
| BLCA | 787 | chr7:28505916-28506915    | 221895 | JAZF1         | - | 285978  | -0.34 | -0.04 | -1.90 | 0.49  |
| BLCA | 788 | chr8:21581410-21582409    | 2675   | GFRA2         | - | -64437  | -0.30 | -0.05 | -3.06 | 0.45  |
| BLCA | 789 | chr17:12516248-12517247   | 9912   | RICH2         | + | -176082 | -0.36 | 0.08  | -1.20 | 0.44  |
| BLCA | 790 | chr1:209825349-209826355  | 50486  | G0S2          | + | -22819  | -0.33 | -0.06 | -1.16 | 0.47  |
| BLCA | 791 | chr6:138408463-138409462  | 7128   | TNFAIP3       | + | 220637  | -0.34 | -0.01 | -1.74 | 0.48  |
| BLCA | 792 | chr5:7793775-7794774      | 79072  | FASTKD3       | - | -74876  | -0.37 | -0.08 | 0.90  | -0.41 |
| BLCA | 793 | chr5:7926192-7927191      | 108    | ADCY2         | + | 530348  | -0.35 | -0.04 | -3.72 | 0.41  |
| BLCA | 794 | chr11:72305489-72306488   | 5138   | PDE2A         | - | -79509  | -0.31 | 0.00  | -3.04 | 0.41  |
| BLCA | 795 | chr1:204891067-204892066  | 23114  | NFASC         | + | 93784   | -0.30 | -0.12 | -2.68 | 0.49  |
| BLCA | 796 | chr5:88017981-88019104    | 4208   | MEF2C         | - | -181380 | -0.33 | -0.06 | -2.00 | 0.46  |
| BLCA | 797 | chr12:10379048-10380047   | 22914  | KLRK1         | - | -164943 | -0.35 | 0.00  | -1.01 | 0.49  |
| BLCA | 798 | chr5:505629-506628        | 25845  | LOC25845      | - | 33048   | -0.35 | 0.01  | 0.69  | -0.46 |
| BLCA | 799 | chr7:51050094-51051093    | 2887   | GRB10         | - | 189434  | -0.36 | -0.13 | -1.35 | 0.42  |
| BLCA | 800 | chr1:193709542-193710541  | 5997   | RGS2          | + | 931872  | -0.37 | -0.03 | -3.37 | 0.52  |
| BLCA | 801 | chr17:31593969-31594968   | 6347   | CCL2          | + | -987828 | -0.38 | -0.08 | -2.70 | 0.59  |
| BLCA | 802 | chr17:13434961-13435960   | 9955   | HS3ST3A1      | - | -69784  | -0.36 | 0.00  | 0.18  | 0.56  |
| BLCA | 803 | chr2:119616628-119617627  | 2019   | EN1           | - | 11368   | 0.31  | -0.02 | 2.42  | 0.45  |
| BLCA | 804 | chr1:27189830-27190829    | 115572 | FAM46B        | - | -149004 | -0.31 | 0.08  | -3.21 | 0.44  |
| BLCA | 805 | chr1:159060869-159061868  | 149628 | PYHIN1        | + | 160031  | -0.35 | -0.06 | -1.05 | 0.46  |
| BLCA | 806 | chr6:127134537-127135536  | 84870  | RSPO3         | + | -305012 | -0.30 | 0.05  | -3.67 | 0.54  |
| BLCA | 807 | chr16:65612395-65613394   | 1009   | CDH11         | - | 456975  | -0.37 | 0.05  | -1.47 | 0.51  |
| BLCA | 808 | chr6:168632850-168633849  | 64094  | SMOC2         | + | -208482 | -0.31 | -0.07 | -3.99 | 0.42  |
| BLCA | 809 | chr9:132447540-132448539  | 23048  | FNBP1         | - | -357434 | -0.35 | 0.05  | -1.89 | 0.47  |
| BLCA | 810 | chr10:79187711-79188710   | 3778   | KCNMA1        | - | -209367 | -0.31 | 0.09  | -3.97 | 0.42  |
| BLCA | 811 | chr4:177106881-177107880  | 116966 | WDR17         | + | 120395  | -0.30 | 0.05  | -2.77 | 0.52  |
| BLCA | 812 | chr12:10379048-10380047   | 3824   | KLRD1         | + | -77503  | -0.35 | 0.05  | -0.53 | 0.53  |
| BLCA | 813 | chr5:7501514-7502513      | 79072  | FASTKD3       | - | -367137 | -0.39 | -0.08 | 0.90  | -0.48 |
| BLCA | 814 | chr4:16790606-16791605    | 9079   | LDB2          | - | -109319 | -0.33 | -0.06 | -1.95 | 0.41  |
| BLCA | 815 | chr2:48827858-48828857    | 286749 | STON1-GTF2A1L | + | 71293   | -0.30 | 0.00  | -3.60 | 0.42  |
| BLCA | 816 | chr16:66115353-66116352   | 6236   | RRAD          | - | -843587 | -0.41 | 0.00  | -2.25 | 0.46  |

|      |     |                           |           |              |   |         |       |       |       |       |
|------|-----|---------------------------|-----------|--------------|---|---------|-------|-------|-------|-------|
| BLCA | 817 | chr13:37880508-37881507   | 7223      | TRPC4        | - | -562932 | -0.41 | 0.01  | -1.67 | 0.42  |
| BLCA | 818 | chr14:73117834-73118833   | 8110      | DPF3         | - | -242476 | -0.33 | -0.03 | -1.58 | 0.52  |
| BLCA | 819 | chr16:51093390-51094389   | 1540      | CYLD         | + | 317928  | -0.42 | -0.03 | -0.80 | 0.43  |
| BLCA | 820 | chr7:30387454-30388453    | 11185     | INMT         | + | -349648 | -0.33 | -0.07 | -2.88 | 0.42  |
| BLCA | 821 | chr2:100577227-100578226  | 3899      | AFF3         | - | -181311 | -0.30 | 0.01  | -4.98 | 0.45  |
| BLCA | 822 | chr12:51835419-51836418   | 9498      | SLC4A8       | + | 50817   | -0.40 | -0.02 | -0.03 | 0.43  |
| BLCA | 823 | chr1:151519713-151520712  | 57530     | CGN          | + | 36350   | -0.32 | 0.00  | 1.31  | -0.55 |
| BLCA | 824 | chr8:103741280-103742279  | 83988     | NCALD        | - | 604644  | 0.37  | 0.02  | -2.41 | -0.45 |
| BLCA | 825 | chr7:51242214-51243213    | 23242     | COBL         | - | -141802 | -0.30 | 0.00  | -2.44 | 0.59  |
| BLCA | 826 | chr5:157440314-157441313  | 8728      | ADAM19       | - | 437982  | -0.40 | 0.00  | -1.06 | 0.47  |
| BLCA | 827 | chr5:155908746-155909745  | 6444      | SGCD         | + | 774182  | -0.34 | -0.06 | -3.54 | 0.57  |
| BLCA | 828 | chr13:100522621-100523620 | 1880      | GPR183       | - | 563371  | -0.34 | 0.01  | -2.31 | 0.58  |
| BLCA | 829 | chr10:50428382-50429381   | 170371    | C10orf128    | - | 32474   | -0.32 | 0.00  | -1.81 | 0.41  |
| BLCA | 830 | chr17:52600104-52601103   | 3131      | HLF          | + | -741718 | -0.34 | -0.09 | -5.48 | 0.47  |
| BLCA | 831 | chr4:150086691-150087690  | 4306      | NR3C2        | - | 723518  | -0.33 | -0.01 | -3.97 | 0.56  |
| BLCA | 832 | chr4:183229668-183230667  | 90768     | MGC45800     | - | 164499  | -0.37 | 0.03  | -0.13 | 0.68  |
| BLCA | 833 | chr10:20122464-20123463   | 84898     | PLXDC2       | + | 17591   | -0.32 | 0.02  | -1.41 | 0.50  |
| BLCA | 834 | chr1:246868582-246869581  | 149134    | LOC149134    | + | -70234  | -0.36 | -0.25 | 0.20  | -0.51 |
| BLCA | 835 | chr6:166943783-166944782  | 1235      | CCR6         | + | -468534 | -0.49 | -0.02 | -0.98 | 0.44  |
| BLCA | 836 | chr1:47910836-47911948    | 84793     | MGC12982     | - | 11078   | 0.31  | -0.03 | 1.75  | 0.53  |
| BLCA | 837 | chr5:35046492-35047491    | 5618      | PRLR         | - | -183832 | -0.37 | -0.06 | -0.63 | 0.51  |
| BLCA | 838 | chr3:2942003-2943002      | 3568      | IL5RA        | - | -209556 | -0.41 | 0.00  | -0.68 | 0.41  |
| BLCA | 839 | chr20:61731479-61732478   | 140628    | GATA5        | - | 680952  | -0.35 | -0.05 | -5.27 | 0.41  |
| BLCA | 840 | chr10:10394409-10395408   | 10659     | CELF2        | + | -652351 | -0.33 | -0.03 | -3.07 | 0.63  |
| BLCA | 841 | chr2:100483235-100484234  | 3899      | AFF3         | - | -275303 | -0.31 | 0.01  | -4.98 | 0.44  |
| BLCA | 842 | chr8:108370410-108371409  | 340419    | RSPO2        | - | -725004 | -0.35 | -0.02 | -3.40 | 0.44  |
| BLCA | 843 | chr1:155194282-155195281  | 57111     | RAB25        | + | -836185 | -0.37 | 0.00  | 2.56  | -0.56 |
| BLCA | 844 | chr1:209571389-209572388  | 642587    | LOC642587    | + | -30280  | -0.30 | -0.10 | 2.05  | -0.50 |
| BLCA | 845 | chr15:61090720-61091719   | 6095      | RORA         | - | -430283 | -0.36 | -0.01 | -1.72 | 0.45  |
| BLCA | 846 | chr7:38742730-38743729    | 273       | AMPH         | - | 72062   | -0.32 | -0.01 | -2.14 | 0.44  |
| BLCA | 847 | chr4:5637394-5638393      | 1400      | CRMP1        | - | -256892 | -0.36 | -0.02 | -0.91 | 0.49  |
| BLCA | 848 | chr1:66641468-66642467    | 5142      | PDE4B        | + | 383774  | -0.33 | 0.02  | -2.60 | 0.52  |
| BLCA | 849 | chr1:226084579-226085578  | 7044      | LEFTY2       | - | -44005  | -0.30 | 0.01  | -1.84 | 0.64  |
| BLCA | 850 | chr17:11103404-11104403   | 388335    | TMEM220      | - | 470257  | -0.33 | 0.00  | -2.70 | 0.48  |
| BLCA | 851 | chr1:246868582-246869581  | 114548    | NLRP3        | + | -710377 | -0.36 | 0.00  | -1.86 | 0.69  |
| BLCA | 852 | chr3:146497734-146498733  | 57088     | PLSCR4       | - | 529267  | -0.34 | -0.08 | -2.13 | 0.55  |
| BLCA | 853 | chr17:53628447-53629446   | 3131      | HLF          | + | 286625  | -0.31 | -0.09 | -5.48 | 0.41  |
| BLCA | 854 | chr12:5179949-5180948     | 4908      | NTF3         | + | -360832 | -0.32 | -0.08 | -3.05 | 0.47  |
| BLCA | 855 | chr8:33847004-33848003    | 78986     | DUSP26       | - | 390064  | -0.34 | -0.05 | -2.14 | 0.46  |
| BLCA | 856 | chr1:27080098-27081097    | 84958     | SYTL1        | + | -587886 | -0.38 | -0.03 | 1.73  | -0.47 |
| BLCA | 857 | chr10:50263753-50264752   | 170371    | C10orf128    | - | -132155 | -0.33 | 0.00  | -1.81 | 0.42  |
| BLCA | 858 | chr12:132221169-132222168 | 2054      | STX2         | - | 897849  | -0.48 | -0.14 | -1.48 | 0.63  |
| BLCA | 859 | chr10:35958277-35959276   | 8325      | FZD8         | - | 28414   | -0.33 | 0.01  | -0.91 | 0.51  |
| BLCA | 860 | chr12:5194650-5195649     | 3742      | KCNA6        | + | 276807  | -0.34 | -0.09 | -1.77 | 0.45  |
| BLCA | 861 | chr11:133154803-133155802 | 100128239 | LOC100128239 | + | -746865 | -0.37 | -0.01 | -2.97 | 0.43  |
| BLCA | 862 | chr15:26446791-26447790   | 57194     | ATP10A       | - | 336973  | -0.39 | -0.05 | -0.71 | 0.50  |
| BLCA | 863 | chr14:58615837-58616836   | 51339     | DACT1        | + | -484450 | -0.34 | -0.02 | -1.90 | 0.56  |
| BLCA | 864 | chr10:112484191-112485190 | 150       | ADRA2A       | + | -352100 | -0.34 | -0.02 | -2.57 | 0.41  |
| BLCA | 865 | chr8:55917895-55918894    | 64321     | SOX17        | + | 547899  | -0.34 | 0.00  | -3.08 | 0.42  |
| BLCA | 866 | chr17:14366585-14367584   | 9953      | HS3ST3B1     | + | 162578  | -0.38 | -0.07 | -0.31 | 0.48  |
| BLCA | 867 | chr3:115509174-115510173  | 4045      | LSAMP        | - | -654712 | -0.38 | 0.02  | -2.01 | 0.45  |
| BLCA | 868 | chr7:31727975-31728974    | 11185     | INMT         | + | 990873  | -0.42 | -0.07 | -2.88 | 0.43  |
| BLCA | 869 | chr8:93285104-93286103    | 862       | RUNX1T1      | - | 170149  | -0.32 | -0.01 | -2.97 | 0.41  |
| BLCA | 870 | chr1:246868582-246869581  | 51097     | SCCPDH       | + | -18297  | -0.36 | 0.00  | -0.04 | -0.47 |
| BLCA | 871 | chr5:14816429-14817428    | 23194     | FBXL7        | + | -683377 | -0.35 | -0.03 | -2.72 | 0.46  |
| BLCA | 872 | chr11:132672999-132673998 | 4978      | OPCML        | - | -728905 | -0.40 | -0.02 | -1.84 | 0.45  |
| BLCA | 873 | chr10:134691667-134692905 | 85442     | KNDC1        | + | -281686 | -0.34 | -0.08 | -1.58 | 0.48  |
| BLCA | 874 | chr12:131831456-131832455 | 23504     | RIMBP2       | - | 631129  | -0.35 | -0.05 | -2.14 | 0.52  |
| BLCA | 875 | chr4:53704046-53705045    | 5156      | PDGFRA       | + | -539275 | -0.34 | 0.01  | -2.59 | 0.47  |
| BLCA | 876 | chr12:22951957-22952956   | 10060     | ABCC9        | - | 858120  | -0.38 | -0.13 | -2.72 | 0.45  |
| BLCA | 877 | chr13:94870287-94871286   | 10082     | GPC6         | + | 991708  | -0.38 | 0.00  | -2.60 | 0.55  |
| BLCA | 878 | chr7:96621542-96623107    | 1749      | DLX5         | - | -31819  | 0.33  | -0.02 | 1.72  | 0.41  |
| BLCA | 879 | chr12:2220804-2221803     | 775       | CACNA1C      | + | 58887   | -0.31 | -0.05 | -2.57 | 0.40  |
| BLCA | 880 | chr1:155194282-155195281  | 23623     | RUSC1        | + | -95859  | -0.37 | 0.00  | 0.77  | -0.41 |
| BLCA | 881 | chr1:159869826-159870825  | 114836    | SLAMF6       | - | -622727 | -0.38 | -0.14 | -1.23 | 0.69  |
| BLCA | 882 | chr3:62534530-62535529    | 8618      | CADPS        | - | -326035 | -0.36 | 0.00  | -1.20 | 0.50  |
| BLCA | 883 | chr5:166956133-166957132  | 57451     | ODZ2         | + | 244789  | -0.37 | -0.15 | -0.97 | 0.45  |
| BLCA | 884 | chr16:87026822-87027821   | 2294      | FOXF1        | + | 483188  | -0.34 | 0.00  | -3.70 | 0.40  |
| BLCA | 885 | chr12:47427291-47428290   | 347902    | AMIGO2       | - | -45944  | -0.37 | -0.06 | 0.63  | -0.41 |
| BLCA | 886 | chr13:77030145-77031144   | 115207    | KCTD12       | - | -429896 | -0.36 | -0.04 | -1.56 | 0.47  |
| BLCA | 887 | chr17:16419085-16420084   | 51393     | TRPV2        | + | 100728  | -0.35 | -0.13 | -0.70 | 0.49  |
| BLCA | 888 | chr20:62048369-62049368   | 50861     | STMN3        | + | -236095 | -0.38 | -0.06 | -1.06 | 0.41  |
| BLCA | 889 | chr6:44133566-44134565    | 221421    | RSPH9        | + | 521298  | -0.43 | 0.00  | -1.27 | 0.41  |
| BLCA | 890 | chr8:70474888-70475887    | 23213     | SULF1        | + | 96528   | -0.35 | 0.01  | 0.24  | 0.59  |
| BLCA | 891 | chr11:112370038-112371037 | 4684      | NCAM1        | + | -461432 | -0.31 | -0.03 | -5.61 | 0.50  |
| BLCA | 892 | chr1:69551791-69552790    | 57554     | LRRC7        | + | -480578 | -0.34 | -0.12 | -3.03 | 0.42  |
| BLCA | 893 | chr12:6324548-6325547     | 25900     | IFFO1        | - | -340202 | -0.33 | 0.05  | -1.74 | 0.73  |
| BLCA | 894 | chr1:208444090-208445089  | 1378      | CR1          | + | 775116  | -0.38 | 0.00  | -1.80 | 0.54  |
| BLCA | 895 | chr12:128993927-128994926 | 144423    | GLT1D1       | + | -343655 | -0.44 | -0.01 | -0.49 | 0.45  |
| BLCA | 896 | chr20:61335039-61336038   | 140893    | C20orf151    | + | 332909  | -0.32 | -0.07 | 2.53  | -0.58 |
| BLCA | 897 | chr17:80289000-80290200   | 26502     | NARF         | + | -126461 | -0.38 | -0.03 | 0.54  | -0.42 |
| BLCA | 898 | chr3:2462034-2463033      | 152330    | CNTN4        | + | 321983  | -0.33 | 0.08  | -2.94 | 0.41  |

|      |     |                           |           |              |   |         |       |       |       |       |
|------|-----|---------------------------|-----------|--------------|---|---------|-------|-------|-------|-------|
| BLCA | 899 | chr4:20659598-20660597    | 9353      | SLIT2        | + | 404862  | -0.30 | -0.05 | -4.27 | 0.54  |
| BLCA | 900 | chr17:11631841-11632840   | 93649     | MYOCD        | + | -936867 | -0.37 | -0.01 | -5.65 | 0.41  |
| BLCA | 901 | chr6:6384159-6385158      | 9450      | LY86         | + | -204276 | -0.37 | -0.03 | -0.89 | 0.43  |
| BLCA | 902 | chr12:31902003-31903002   | 441631    | TSPAN11      | + | 823140  | -0.36 | 0.00  | -2.38 | 0.59  |
| BLCA | 903 | chr2:24931116-24932115    | 5443      | POMC         | - | -459944 | -0.38 | -0.06 | -0.84 | 0.54  |
| BLCA | 904 | chr8:70649820-70650819    | 81796     | SLCO5A1      | - | -96980  | -0.41 | -0.07 | -0.09 | 0.40  |
| BLCA | 905 | chr1:203670640-203671639  | 54900     | LAX1         | + | -63145  | -0.32 | -0.01 | -1.43 | 0.50  |
| BLCA | 906 | chr17:80289041-80290040   | 26502     | NARF         | + | -126520 | -0.38 | -0.03 | 0.54  | -0.41 |
| BLCA | 907 | chr7:128368440-128369439  | 64753     | CCDC136      | + | -62525  | -0.32 | -0.02 | -2.22 | 0.41  |
| BLCA | 908 | chr15:80728593-80729592   | 3603      | IL16         | + | -746001 | -0.39 | 0.00  | -1.49 | 0.56  |
| BLCA | 909 | chr12:50595847-50596846   | 5630      | PRPH         | + | 907437  | -0.37 | 0.00  | -3.12 | 0.45  |
| BLCA | 910 | chr12:130354328-130355327 | 23504     | RIMBP2       | - | -845999 | -0.39 | -0.05 | -2.14 | 0.48  |
| BLCA | 911 | chr20:62048369-62049368   | 140628    | GATA5        | - | 997842  | -0.38 | -0.05 | -5.27 | 0.42  |
| BLCA | 912 | chr1:178029756-178030755  | 9068      | ANGPTL1      | - | -809960 | -0.34 | -0.02 | -4.50 | 0.51  |
| BLCA | 913 | chr2:102716938-102717937  | 8807      | IL18RAP      | + | -317817 | -0.35 | 0.00  | -1.16 | 0.53  |
| BLCA | 914 | chr5:4544834-4545833      | 170690    | ADAMTS16     | + | -595110 | -0.37 | -0.02 | -1.76 | 0.49  |
| BLCA | 915 | chr17:14941629-14942628   | 5376      | PMP22        | - | -226516 | -0.30 | -0.04 | -2.58 | 0.61  |
| BLCA | 916 | chr14:101351197-101352196 | 55384     | MEG3         | + | 59251   | -0.31 | -0.05 | -2.34 | 0.41  |
| BLCA | 917 | chr6:130786970-130787969  | 2037      | EPB41L2      | - | -596993 | -0.36 | -0.02 | -1.61 | 0.54  |
| BLCA | 918 | chr14:73212077-73213076   | 8110      | DPF3         | - | -148233 | -0.31 | -0.03 | -1.58 | 0.60  |
| BLCA | 919 | chr13:73742877-73743876   | 688       | KLF5         | + | 114262  | -0.34 | 0.03  | 0.84  | -0.53 |
| BLCA | 920 | chr3:118894985-118895984  | 941       | CD80         | - | -382997 | -0.37 | 0.00  | 1.07  | 0.48  |
| BLCA | 921 | chr4:1302817-1303816      | 10417     | SPON2        | - | 100566  | 0.34  | -0.03 | -0.89 | -0.51 |
| BLCA | 922 | chr1:64773795-64774794    | 9379      | NRXN2        | - | 283634  | -0.31 | -0.23 | -2.87 | 0.46  |
| BLCA | 923 | chr1:27080098-27081097    | 8289      | ARID1A       | + | 58075   | -0.38 | -0.04 | 0.05  | -0.43 |
| BLCA | 924 | chr1:64773795-64774794    | 10235     | RASGRP2      | - | 261366  | -0.31 | -0.03 | -3.12 | 0.42  |
| BLCA | 925 | chr1:155194282-155195281  | 3782      | KCNN3        | - | 352027  | -0.37 | 0.00  | -1.26 | 0.44  |
| BLCA | 926 | chr12:52484929-52485928   | 160622    | GRASP        | + | 84699   | -0.31 | -0.04 | -2.10 | 0.44  |
| BLCA | 927 | chr10:11368545-11369544   | 10659     | CELF2        | + | 321785  | -0.31 | -0.03 | -3.07 | 0.50  |
| BLCA | 928 | chr4:122110406-122111405  | 11107     | PRDM5        | - | 266892  | -0.33 | 0.03  | -1.91 | 0.44  |
| BLCA | 929 | chr5:4294848-4295847      | 170690    | ADAMTS16     | + | -845096 | -0.44 | -0.02 | -1.76 | 0.46  |
| BLCA | 930 | chr15:84167959-84168958   | 6457      | SH3GL3       | + | 52367   | -0.30 | -0.03 | -2.03 | 0.54  |
| BLCA | 931 | chr5:159381690-159382689  | 114898    | C1QTNF2      | - | -415459 | -0.33 | -0.12 | -2.65 | 0.43  |
| BLCA | 932 | chr11:123236371-123237370 | 79827     | ASAM         | - | 170863  | -0.31 | 0.07  | -1.91 | 0.55  |
| BLCA | 933 | chr8:1759315-1760314      | 9920      | KBTBD11      | + | -162230 | -0.32 | 0.05  | -2.34 | 0.42  |
| BLCA | 934 | chr10:6740133-6741132     | 57713     | SFMBT2       | - | -712816 | -0.44 | 0.00  | -1.29 | 0.47  |
| BLCA | 935 | chr6:130992177-130993176  | 114801    | TMEM200A     | + | 305250  | -0.35 | 0.13  | -1.31 | 0.46  |
| BLCA | 936 | chr11:75314616-75315615   | 4135      | MAP6         | - | -64364  | -0.31 | 0.00  | -2.33 | 0.44  |
| BLCA | 937 | chr6:53617201-53618200    | 401265    | KLHL31       | - | 87194   | -0.35 | 0.01  | 0.35  | -0.52 |
| BLCA | 938 | chr15:80728593-80729592   | 58489     | FAM108C1     | + | -258560 | -0.39 | 0.02  | 0.71  | -0.42 |
| BLCA | 939 | chr7:37438319-37439318    | 54749     | EPDR1        | + | -521345 | -0.35 | -0.01 | -1.60 | 0.55  |
| BLCA | 940 | chr16:20054721-20055720   | 54988     | ACSM5        | + | -365636 | -0.32 | -0.06 | -2.17 | 0.57  |
| BLCA | 941 | chr1:47910836-47911948    | 2306      | FOXO2        | + | 9702    | 0.31  | 0.00  | 1.34  | 0.60  |
| BLCA | 942 | chr8:144301094-144302093  | 51337     | C8orf55      | + | 492972  | -0.41 | 0.00  | 0.84  | -0.47 |
| BLCA | 943 | chr4:65883472-65884471    | 2044      | EPHA5        | - | -651682 | -0.34 | 0.00  | -2.84 | 0.48  |
| BLCA | 944 | chr1:76780049-76781048    | 256435    | ST6GALNAC3   | + | 240159  | -0.33 | 0.00  | -1.84 | 0.47  |
| BLCA | 945 | chr5:156119983-156120982  | 3702      | ITK          | + | -487425 | -0.34 | -0.02 | -1.74 | 0.70  |
| BLCA | 946 | chr8:34182028-34183027    | 78986     | DUSP26       | - | 725088  | -0.37 | -0.05 | -2.14 | 0.47  |
| BLCA | 947 | chr17:33125034-33126033   | 6356      | CCL11        | + | 512846  | -0.41 | 0.01  | -1.00 | 0.45  |
| BLCA | 948 | chr1:155194282-155195281  | 90780     | PYGO2        | - | 260523  | -0.37 | -0.08 | 0.75  | -0.47 |
| BLCA | 949 | chr16:55175584-55176583   | 79190     | IRX6         | + | -182388 | -0.36 | -0.01 | -0.98 | 0.43  |
| BLCA | 950 | chr1:159869826-159870825  | 962       | CD48         | - | -811316 | -0.38 | 0.00  | -1.63 | 0.73  |
| BLCA | 951 | chr17:76133599-76134598   | 147138    | TMC8         | + | 7239    | -0.35 | 0.01  | -0.23 | 0.44  |
| BLCA | 952 | chr1:26677600-26678599    | 115572    | FAM46B       | - | -661234 | -0.35 | 0.08  | -3.21 | 0.41  |
| BLCA | 953 | chr12:130204654-130205653 | 23504     | RIMBP2       | - | -995673 | -0.42 | -0.05 | -2.14 | 0.48  |
| BLCA | 954 | chr8:75424762-75425761    | 51050     | PI15         | + | -311511 | -0.34 | -0.09 | -1.89 | 0.45  |
| BLCA | 955 | chr13:47229427-47230426   | 3356      | HTR2A        | + | -241285 | 0.32  | 0.00  | -1.90 | -0.54 |
| BLCA | 956 | chr3:186781283-186782282  | 6480      | ST6GAL1      | + | 133467  | -0.33 | 0.00  | -1.03 | 0.55  |
| BLCA | 957 | chr7:30362281-30363280    | 358       | AQP1         | + | -530230 | -0.35 | -0.06 | -2.65 | 0.41  |
| BLCA | 958 | chr17:32895102-32896101   | 6357      | CCL13        | + | 212130  | -0.34 | -0.02 | -1.25 | 0.47  |
| BLCA | 959 | chr1:157557078-157558077  | 911       | CD1C         | + | -701986 | -0.39 | 0.00  | -2.18 | 0.41  |
| BLCA | 960 | chr12:129034848-129035847 | 144423    | GLT1D1       | + | -302734 | -0.40 | -0.01 | -0.49 | 0.44  |
| BLCA | 961 | chr5:155876678-155877677  | 3702      | ITK          | + | -730730 | -0.40 | -0.02 | -1.74 | 0.45  |
| BLCA | 962 | chr2:127264857-127265856  | 274       | BIN1         | - | -599547 | -0.35 | 0.00  | -2.60 | 0.45  |
| BLCA | 963 | chr1:159869826-159870825  | 6504      | SLAMF1       | - | -746756 | -0.38 | 0.00  | -1.44 | 0.69  |
| BLCA | 964 | chr4:182861870-182862869  | 55714     | ODZ3         | + | -202771 | -0.32 | 0.01  | -1.56 | 0.72  |
| BLCA | 965 | chr17:47178778-47179777   | 51225     | ABI3         | + | -108312 | -0.35 | 0.06  | -0.47 | 0.49  |
| BLCA | 966 | chr10:36569426-36570425   | 8325      | FZD8         | - | 639563  | -0.41 | 0.01  | -0.91 | 0.54  |
| BLCA | 967 | chr12:5696309-5697308     | 57101     | ANO2         | - | -358590 | -0.36 | 0.00  | -1.22 | 0.46  |
| BLCA | 968 | chr7:16700459-16701458    | 4223      | MEOX2        | - | 974650  | -0.35 | -0.07 | -3.21 | 0.63  |
| BLCA | 969 | chr5:157440314-157441313  | 3702      | ITK          | + | 832906  | -0.40 | -0.02 | -1.74 | 0.51  |
| BLCA | 970 | chr17:32895102-32896101   | 6355      | CCL8         | + | 249535  | -0.34 | 0.01  | -1.30 | 0.47  |
| BLCA | 971 | chr14:101155019-101156018 | 1735      | DIO3         | + | -872170 | -0.36 | 0.02  | -3.15 | 0.46  |
| BLCA | 972 | chr3:116734563-116735562  | 4045      | LSAMP        | - | 570677  | -0.35 | 0.02  | -2.01 | 0.46  |
| BLCA | 973 | chr5:166198192-166199191  | 57451     | ODZ2         | + | -513152 | -0.42 | -0.15 | -0.97 | 0.44  |
| BLCA | 974 | chr12:131831456-131832455 | 2054      | STX2         | - | 508136  | -0.35 | -0.14 | -1.48 | 0.54  |
| BLCA | 975 | chr5:155924286-155925285  | 6444      | SGCD         | + | 789722  | -0.34 | -0.06 | -3.54 | 0.51  |
| BLCA | 976 | chr5:153318147-153319146  | 10826     | C5orf4       | - | -911567 | -0.36 | 0.00  | -3.35 | 0.45  |
| BLCA | 977 | chr7:50602792-50603791    | 10320     | IKZF1        | + | 258913  | -0.34 | 0.02  | -1.26 | 0.47  |
| BLCA | 978 | chr8:57788042-57789041    | 5179      | PENK         | - | 429259  | -0.33 | 0.01  | -2.75 | 0.41  |
| BLCA | 979 | chr12:4022578-4023577     | 3736      | KCNA1        | + | -995996 | -0.43 | -0.01 | -2.04 | 0.48  |
| BLCA | 980 | chr13:31551775-31552774   | 100188949 | LOC100188949 | - | 604238  | -0.38 | 0.00  | -1.17 | 0.55  |

|      |      |                           |           |              |   |         |       |       |       |       |
|------|------|---------------------------|-----------|--------------|---|---------|-------|-------|-------|-------|
| BLCA | 981  | chr1:160094454-160095453  | 57863     | CADM3        | + | 953576  | -0.33 | 0.03  | -5.79 | 0.74  |
| BLCA | 982  | chr5:146218208-146219207  | 5521      | PPP2R2B      | - | -242376 | -0.31 | -0.03 | -2.63 | 0.46  |
| BLCA | 983  | chr15:48104627-48105626   | 80031     | SEMA6D       | + | 628723  | -0.35 | -0.03 | -1.75 | 0.57  |
| BLCA | 984  | chr8:1241782-1242781      | 9172      | MYOM2        | + | -750877 | -0.35 | -0.03 | -3.22 | 0.42  |
| BLCA | 985  | chr6:112305829-112306828  | 2534      | FYN          | - | 111673  | -0.33 | -0.01 | -1.46 | 0.43  |
| BLCA | 986  | chr6:56578712-56579711    | 51715     | RAB23        | - | -507890 | -0.33 | -0.02 | -2.03 | 0.55  |
| BLCA | 987  | chr2:202097757-202098756  | 316       | AOX1         | + | 647525  | -0.31 | -0.02 | -5.05 | 0.58  |
| BLCA | 988  | chr11:64773795-64774794   | 55561     | CDC42BPG     | - | 162253  | -0.31 | 0.00  | 1.95  | -0.48 |
| BLCA | 989  | chr4:5186248-5187247      | 4487      | MSX1         | + | 325355  | -0.34 | 0.02  | -2.02 | 0.42  |
| BLCA | 990  | chr17:35087042-35088041   | 388372    | CCL4L2       | + | 549073  | -0.38 | 0.18  | -0.94 | 0.54  |
| BLCA | 991  | chr10:20142489-20143488   | 84898     | PLXDC2       | + | 37616   | -0.31 | 0.02  | -1.41 | 0.51  |
| BLCA | 992  | chr10:16897811-16898810   | 8029      | CUBN         | - | -273506 | -0.37 | 0.01  | -0.89 | 0.42  |
| BLCA | 993  | chr8:77711648-77712647    | 100192378 | LOC100192378 | - | 116637  | -0.33 | 0.00  | -1.49 | 0.41  |
| BLCA | 994  | chr14:96315669-96316668   | 8115      | TCL1A        | - | 135635  | -0.33 | -0.04 | -1.58 | 0.45  |
| BLCA | 995  | chr3:21719900-21720899    | 79750     | ZNF385D      | - | -693724 | -0.34 | 0.02  | -2.33 | 0.57  |
| BLCA | 996  | chr12:23069255-23070254   | 6489      | ST8SIA1      | - | 582106  | -0.33 | -0.06 | -3.20 | 0.45  |
| BLCA | 997  | chr10:18333934-18334933   | 9200      | PTPLA        | - | 675060  | -0.36 | -0.07 | -2.26 | 0.44  |
| BLCA | 998  | chr10:125401243-125402242 | 119587    | CPXM2        | - | -298037 | -0.30 | 0.06  | -3.19 | 0.49  |
| BLCA | 999  | chr6:138426212-138427211  | 7128      | TNFAIP3      | + | 238386  | -0.32 | -0.01 | -1.74 | 0.52  |
| BLCA | 1000 | chr15:81546511-81547510   | 3603      | IL16         | + | 71917   | -0.31 | 0.00  | -1.49 | 0.53  |
| BLCA | 1001 | chr3:116496201-116497200  | 4045      | LSAMP        | - | 332315  | -0.32 | 0.02  | -2.01 | 0.51  |
| BLCA | 1002 | chr1:237976509-237977508  | 6262      | RYR2         | + | 771306  | -0.35 | 0.09  | -2.77 | 0.45  |
| BLCA | 1003 | chr12:4273263-4274262     | 894       | CCND2        | + | -109140 | 0.31  | -0.01 | -2.50 | -0.41 |
| BLCA | 1004 | chr3:151643011-151644010  | 9934      | P2RY14       | - | 647280  | -0.33 | -0.06 | -3.04 | 0.52  |
| BLCA | 1005 | chr6:112305829-112306828  | 619208    | C6orf225     | + | -102346 | -0.33 | -0.04 | -1.57 | 0.40  |
| BLCA | 1006 | chr1:181577347-181578346  | 57710     | KIAA1614     | + | 695533  | -0.36 | -0.09 | -2.14 | 0.45  |
| BLCA | 1007 | chr4:14745810-14746809    | 132864    | CPEB2        | + | -257989 | -0.35 | -0.16 | -1.66 | 0.40  |
| BLCA | 1008 | chr7:29608810-29609809    | 54504     | CPVL         | - | 374417  | -0.32 | 0.06  | -1.76 | 0.67  |
| BLCA | 1009 | chr11:126743969-126744968 | 50937     | CDON         | - | 811281  | -0.38 | 0.00  | -2.71 | 0.40  |
| BLCA | 1010 | chr14:101521012-101522930 | 55384     | MEG3         | + | 229525  | -0.32 | -0.05 | -2.34 | 0.42  |
| BLCA | 1011 | chr17:47178778-47179777   | 2793      | GNGT2        | - | -108659 | -0.35 | -0.02 | -0.22 | 0.51  |
| BLCA | 1012 | chr7:30387454-30388453    | 358       | AQP1         | + | -505057 | -0.33 | -0.06 | -2.65 | 0.45  |
| BLCA | 1013 | chr15:88751891-88752890   | 4240      | MFGE8        | - | -704273 | -0.43 | -0.06 | -0.86 | 0.54  |
| BLCA | 1014 | chr13:31551775-31552774   | 84056     | KATNAL1      | - | 670650  | -0.38 | -0.05 | -1.51 | 0.49  |
| BLCA | 1015 | chr4:24025761-24026760    | 10891     | PPARGC1A     | - | -448134 | -0.31 | 0.02  | -3.86 | 0.47  |
| BLCA | 1016 | chr1:85754848-85755847    | 255231    | MCOLN2       | - | 292551  | -0.42 | -0.05 | 0.28  | 0.42  |
| BLCA | 1017 | chr7:150810845-150811844  | 55340     | GIMAP5       | + | 376908  | -0.33 | -0.09 | -1.68 | 0.62  |
| BLCA | 1018 | chr2:48949653-48950652    | 3973      | LHCGR        | - | -32728  | -0.33 | -0.02 | -0.85 | 0.44  |
| BLCA | 1019 | chr17:14366585-14367584   | 84815     | MGC12916     | + | 160027  | -0.38 | -0.03 | 0.25  | 0.43  |
| BLCA | 1020 | chr4:183214073-183215072  | 90768     | MGC45800     | - | 148904  | -0.35 | 0.03  | -0.13 | 0.59  |
| BLCA | 1021 | chr16:82735095-82736094   | 1012      | CDH13        | + | 75195   | -0.36 | -0.02 | -0.33 | 0.45  |
| BLCA | 1022 | chr20:61731479-61732478   | 768097    | HAR1B        | - | -1693   | -0.35 | 0.03  | -0.35 | 0.43  |
| BLCA | 1023 | chr8:102015412-102016411  | 169166    | SNX31        | - | 354018  | -0.44 | -0.01 | -0.62 | -0.41 |
| BLCA | 1024 | chr1:60216131-60217130    | 1573      | CYP2J2       | - | -175793 | -0.33 | -0.04 | 1.29  | -0.46 |
| BLCA | 1025 | chr1:208465657-208466656  | 1378      | CR1          | + | 796683  | -0.39 | 0.00  | -1.80 | 0.46  |
| BLCA | 1026 | chr2:239437306-239438305  | 10267     | RAMP1        | + | 669618  | -0.32 | 0.02  | -3.44 | 0.65  |
| BLCA | 1027 | chr1:209825349-209826355  | 80342     | TRAF3IP3     | + | -103543 | -0.33 | 0.00  | -0.71 | 0.55  |
| BLCA | 1028 | chr4:182659624-182660623  | 55714     | ODZ3         | + | -405017 | -0.33 | 0.01  | -1.56 | 0.61  |
| BLCA | 1029 | chr11:123236371-123237370 | 55800     | SCN3B        | - | -288445 | -0.31 | 0.06  | -2.20 | 0.54  |
| BLCA | 1030 | chr4:177106881-177107880  | 2823      | GPM6A        | - | 183538  | -0.30 | 0.10  | -3.69 | 0.41  |
| BLCA | 1031 | chr12:5211361-5212360     | 4908      | NTF3         | + | -329420 | -0.31 | -0.08 | -3.05 | 0.46  |
| BLCA | 1032 | chr3:123039331-123040330  | 4638      | MYLK         | - | -563319 | -0.32 | 0.02  | -4.11 | 0.44  |
| BLCA | 1033 | chr8:134594169-134595168  | 6503      | SLA          | - | 479358  | -0.35 | -0.01 | -1.05 | 0.71  |
| BLCA | 1034 | chr8:72564968-72565967    | 9242      | MSC          | - | -191264 | -0.35 | 0.07  | -1.01 | 0.45  |
| BLCA | 1035 | chr6:74442802-74443801    | 135228    | CD109        | + | 37793   | -0.35 | 0.00  | -0.23 | 0.47  |
| BLCA | 1036 | chr17:14366585-14367584   | 5376      | PMP22        | - | -801560 | -0.38 | -0.04 | -2.58 | 0.41  |
| BLCA | 1037 | chr17:2141341-2142340     | 5176      | SERPINF1     | + | 476581  | 0.33  | 0.12  | -2.19 | -0.54 |
| BLCA | 1038 | chr3:3079838-3081120      | 3568      | IL5RA        | - | -71580  | -0.33 | 0.00  | -0.68 | 0.54  |
| BLCA | 1039 | chr5:156119983-156120982  | 6444      | SGCD         | + | 985419  | -0.34 | -0.06 | -3.54 | 0.72  |
| BLCA | 1040 | chr2:80069106-80070105    | 347730    | LRRTM1       | - | -461882 | -0.32 | -0.05 | -3.34 | 0.45  |
| BLCA | 1041 | chr12:132074716-132075715 | 283383    | GPR133       | + | 636763  | -0.31 | -0.02 | -5.35 | 0.58  |
| BLCA | 1042 | chr12:2552233-2553232     | 775       | CACNA1C      | + | 390316  | -0.32 | -0.05 | -2.57 | 0.45  |
| BLCA | 1043 | chr12:51835419-51836418   | 94        | ACVRL1       | + | -464774 | -0.40 | 0.00  | -1.20 | 0.41  |
| BLCA | 1044 | chr3:118894985-118895984  | 141       | ADPRH        | + | -403039 | -0.37 | 0.04  | -0.69 | 0.54  |
| BLCA | 1045 | chr8:101773565-101774564  | 26166     | RGS22        | - | 655720  | -0.32 | -0.04 | -3.61 | 0.48  |
| BLCA | 1046 | chr1:221989885-221990884  | 400804    | LOC400804    | - | 480746  | -0.35 | 0.01  | -1.51 | 0.48  |
| BLCA | 1047 | chr14:93724877-93725876   | 51676     | ASB2         | - | -717700 | -0.32 | 0.00  | -4.13 | 0.57  |
| BLCA | 1048 | chr8:1759315-1760314      | 9639      | ARHGEF10     | + | -12335  | -0.32 | -0.16 | -1.18 | 0.44  |
| BLCA | 1049 | chr15:48064230-48065229   | 2200      | FBN1         | - | -873256 | -0.42 | -0.01 | -1.77 | 0.45  |
| BLCA | 1050 | chr12:130275651-130276650 | 23504     | RIMBP2       | - | -924676 | -0.41 | -0.05 | -2.14 | 0.43  |
| BLCA | 1051 | chr7:135391513-135392512  | 800       | CALD1        | + | 927848  | -0.35 | 0.07  | -2.45 | 0.65  |
| BLCA | 1052 | chr7:96621811-96623208    | 285987    | DLX6AS       | - | -20868  | 0.32  | -0.08 | 1.11  | 0.49  |
| BLCA | 1053 | chr2:52221168-52222167    | 9378      | NRXN1        | - | 961993  | -0.33 | 0.01  | -5.68 | 0.53  |
| BLCA | 1054 | chr13:109269571-109270570 | 10673     | TNFSF13B     | + | 348093  | -0.38 | 0.00  | -0.84 | 0.43  |
| BLCA | 1055 | chr4:24274465-24275464    | 6649      | SOD3         | + | -522121 | -0.31 | -0.04 | -3.04 | 0.65  |
| BLCA | 1056 | chr13:109269571-109270570 | 728215    | FAM155A      | - | 750610  | -0.38 | 0.03  | -1.75 | 0.47  |
| BLCA | 1057 | chr2:202097107-202098515  | 316       | AOX1         | + | 647079  | -0.31 | -0.02 | -5.05 | 0.61  |
| BLCA | 1058 | chr2:137199350-137200349  | 7852      | CXCR4        | - | 324124  | -0.35 | -0.05 | -1.34 | 0.44  |
| BLCA | 1059 | chr12:51701479-51702478   | 160622    | GRASP        | + | -698751 | -0.35 | -0.04 | -2.10 | 0.56  |
| BLCA | 1060 | chr17:52350446-52351445   | 3131      | HLF          | + | -991376 | -0.34 | -0.09 | -5.48 | 0.51  |
| BLCA | 1061 | chr7:150810845-150811844  | 83590     | TMUB1        | - | 30724   | -0.33 | 0.00  | 1.06  | -0.43 |
| BLCA | 1062 | chr11:65374163-65375162   | 5837      | PYGM         | - | 846475  | 0.33  | -0.02 | -5.33 | -0.46 |

|      |      |                           |           |              |   |         |       |       |       |       |
|------|------|---------------------------|-----------|--------------|---|---------|-------|-------|-------|-------|
| BLCA | 1063 | chr3:118734256-118735255  | 64091     | POPDC2       | - | -661488 | -0.33 | 0.00  | -3.19 | 0.45  |
| BLCA | 1064 | chr9:90042768-90043767    | 2619      | GAS1         | - | 481163  | -0.32 | 0.00  | -2.24 | 0.58  |
| BLCA | 1065 | chr5:88432040-88433039    | 4208      | MEF2C        | - | 232617  | -0.32 | -0.06 | -2.00 | 0.46  |
| BLCA | 1066 | chr5:155872037-155873036  | 3702      | ITK          | + | -735371 | -0.37 | -0.02 | -1.74 | 0.50  |
| BLCA | 1067 | chr4:24232394-24233393    | 6649      | SOD3         | + | -564192 | -0.32 | -0.04 | -3.04 | 0.50  |
| BLCA | 1068 | chr16:1309050-1310049     | 197335    | WDR90        | + | 610186  | -0.37 | -0.03 | 1.08  | -0.54 |
| BLCA | 1069 | chr6:13174941-13175940    | 221692    | PHACTR1      | + | 458403  | -0.33 | 0.00  | -1.75 | 0.54  |
| BLCA | 1070 | chr9:137036033-137037032  | 10439     | OLFM1        | + | -930557 | -0.35 | -0.18 | -3.55 | 0.49  |
| BLCA | 1071 | chr16:1309050-1310049     | 9894      | TELO2        | + | -233803 | -0.37 | 0.01  | 0.59  | -0.43 |
| BLCA | 1072 | chr17:41521155-41522154   | 1845      | DUSP3        | - | -334714 | -0.34 | -0.01 | -1.06 | 0.57  |
| BLCA | 1073 | chr17:76133599-76134598   | 7077      | TIMP2        | - | -787374 | -0.35 | -0.02 | -1.87 | 0.65  |
| BLCA | 1074 | chr12:24577404-24578403   | 6660      | SOX5         | - | -137480 | -0.31 | 0.00  | -2.59 | 0.41  |
| BLCA | 1075 | chr12:10379048-10380047   | 64581     | CLEC7A       | - | 96679   | -0.35 | -0.03 | 0.66  | 0.42  |
| BLCA | 1076 | chr4:154036328-154037327  | 6423      | SFRP2        | - | -673401 | -0.31 | -0.02 | -4.44 | 0.71  |
| BLCA | 1077 | chr9:137036033-137037032  | 2219      | FCN1         | - | -773274 | -0.35 | -0.01 | -2.33 | 0.56  |
| BLCA | 1078 | chr14:21175338-21176337   | 6039      | RNASE6       | + | -73373  | -0.31 | -0.13 | -1.11 | 0.72  |
| BLCA | 1079 | chr6:166943691-166944874  | 1235      | CCR6         | + | -468534 | -0.39 | -0.02 | -0.98 | 0.43  |
| BLCA | 1080 | chr2:23837916-23838915    | 114818    | KLHL29       | + | 230117  | -0.33 | 0.03  | -1.23 | 0.51  |
| BLCA | 1081 | chr1:155194282-155195281  | 57198     | ATP8B2       | + | 896745  | -0.37 | -0.08 | -1.85 | 0.63  |
| BLCA | 1082 | chr17:63652454-63653453   | 8787      | RGS9         | + | 519497  | -0.33 | 0.00  | -2.68 | 0.43  |
| BLCA | 1083 | chr12:47427291-47428290   | 100233209 | LOC100233209 | - | -182436 | -0.37 | -0.19 | -0.41 | 0.44  |
| BLCA | 1084 | chr15:25936077-25937076   | 57194     | ATP10A       | - | -173741 | -0.34 | -0.05 | -0.71 | 0.49  |
| BLCA | 1085 | chr1:203670640-203671639  | 493       | ATP2B4       | + | 75224   | -0.32 | -0.04 | -1.65 | 0.42  |
| BLCA | 1086 | chr7:131432549-131433548  | 91584     | PLXNA4       | - | -900399 | -0.37 | -0.01 | -2.06 | 0.51  |
| BLCA | 1087 | chr1:244763041-244764040  | 10000     | AKT3         | - | 756654  | -0.35 | 0.10  | -1.96 | 0.56  |
| BLCA | 1088 | chr1:61792785-61793784    | 5866      | RAB31L1      | - | 105543  | -0.30 | 0.00  | -1.63 | 0.54  |
| BLCA | 1089 | chr16:30101180-30102179   | 79153     | GDPD3        | - | -23199  | -0.31 | -0.02 | 1.75  | -0.41 |
| BLCA | 1090 | chr15:93902288-93903287   | 56963     | RGMA         | - | 270344  | -0.32 | -0.10 | -2.44 | 0.41  |
| BLCA | 1091 | chr1:156130326-156131325  | 4914      | NTRK1        | + | -654717 | 0.40  | -0.07 | -0.72 | -0.58 |
| BLCA | 1092 | chr5:4399120-4400119      | 170690    | ADAMTS16     | + | -740824 | -0.39 | -0.02 | -1.76 | 0.44  |
| BLCA | 1093 | chr16:51093390-51094389   | 124460    | SNX20        | - | 378625  | -0.42 | 0.00  | -0.45 | 0.43  |
| BLCA | 1094 | chr15:63220152-63221151   | 388125    | C2CD4B       | - | 763169  | -0.35 | -0.04 | -3.09 | 0.42  |
| BLCA | 1095 | chr11:125217050-125218049 | 63876     | PKNOX2       | + | 182990  | -0.31 | 0.02  | -2.86 | 0.40  |
| BLCA | 1096 | chr2:26578008-26579007    | 3777      | KCNK3        | + | -337074 | -0.30 | -0.01 | -3.54 | 0.45  |
| BLCA | 1097 | chr14:53959906-53960905   | 10979     | FERMT2       | - | 542590  | -0.33 | -0.02 | -2.70 | 0.45  |
| BLCA | 1098 | chr9:122789526-122790525  | 1620      | DBC1         | - | 658286  | -0.37 | -0.14 | -1.89 | 0.43  |
| BLCA | 1099 | chr10:36137046-36138045   | 8325      | FZD8         | - | 207183  | -0.33 | 0.01  | -0.91 | 0.53  |
| BLCA | 1100 | chr7:99638591-99639590    | 29992     | PILRA        | + | -331978 | -0.35 | -0.01 | -0.86 | 0.55  |
| BLCA | 1101 | chr3:173740427-173741426  | 22871     | NLGN1        | + | 624682  | -0.32 | -0.02 | -3.59 | 0.50  |
| BLCA | 1102 | chr3:117074524-117075523  | 4045      | LSAMP        | - | 910638  | -0.37 | 0.02  | -2.01 | 0.52  |
| BLCA | 1103 | chr8:33800782-33801781    | 78986     | DUSP26       | - | 343842  | -0.32 | -0.05 | -2.14 | 0.47  |
| BLCA | 1104 | chr1:19794869-19795868    | 5322      | PLA2G5       | + | -559304 | -0.33 | -0.13 | -3.04 | 0.44  |
| BLCA | 1105 | chr5:166732108-166733107  | 57451     | ODZ2         | + | 20764   | -0.31 | -0.15 | -0.97 | 0.53  |
| BLCA | 1106 | chr1:180491030-180492029  | 57710     | KIAA1614     | + | -390784 | -0.32 | -0.09 | -2.14 | 0.50  |
| BLCA | 1107 | chr12:4054055-4055054     | 3736      | KCNA1        | + | -964519 | -0.41 | -0.01 | -2.04 | 0.45  |
| BLCA | 1108 | chr8:134657312-134658311  | 6503      | SLA          | - | 542501  | -0.40 | -0.01 | -1.05 | 0.43  |
| BLCA | 1109 | chr6:90845352-90846351    | 60468     | BACH2        | - | -160776 | -0.33 | -0.01 | -1.23 | 0.44  |
| BLCA | 1110 | chr6:39915611-39916610    | 23500     | DAAM2        | + | 155951  | -0.31 | 0.00  | -2.14 | 0.42  |
| BLCA | 1111 | chr8:88711503-88712502    | 4325      | MMP16        | - | -627715 | -0.35 | -0.06 | -1.74 | 0.49  |
| BLCA | 1112 | chr20:61731479-61732478   | 140893    | C20orf151    | - | 729349  | -0.35 | -0.07 | 2.53  | -0.47 |
| BLCA | 1113 | chr17:73679483-73680482   | 2125      | EVPL         | - | -343525 | -0.32 | -0.05 | 2.22  | -0.46 |
| BLCA | 1114 | chr8:134594169-134595168  | 8840      | WISP1        | + | 391386  | -0.35 | 0.00  | 0.98  | 0.51  |
| BLCA | 1115 | chr7:69732545-69733544    | 64409     | WBSCR17      | + | -864479 | -0.35 | -0.06 | -4.67 | 0.41  |
| BLCA | 1116 | chr13:77386518-77387517   | 115207    | KCTD12       | - | -73523  | -0.31 | -0.04 | -1.56 | 0.45  |
| BLCA | 1117 | chr6:140495307-140496306  | 167838    | TXLN8        | - | 882598  | -0.38 | 0.00  | -2.38 | 0.43  |
| BLCA | 1118 | chr12:8974696-8975808     | 10219     | KLRG1        | + | -166970 | -0.33 | -0.06 | -1.15 | 0.45  |
| BLCA | 1119 | chr1:200863723-200864722  | 3898      | LAD1         | - | -504447 | -0.32 | 0.04  | 2.83  | -0.46 |
| BLCA | 1120 | chr11:133448767-133449766 | 4978      | OPCML        | - | 46863   | -0.30 | -0.02 | -1.84 | 0.44  |
| BLCA | 1121 | chr17:35087042-35088041   | 9326      | ZNHIT3       | + | 245068  | -0.38 | 0.08  | 0.55  | -0.41 |
| BLCA | 1122 | chr17:80289000-80290200   | 1468      | SLC25A10     | + | 619199  | -0.38 | -0.04 | 1.44  | -0.43 |
| BLCA | 1123 | chr2:1553297-1554296      | 7837      | PXDN         | - | -194495 | -0.35 | 0.27  | -0.75 | 0.44  |
| BLCA | 1124 | chr17:13215054-13216053   | 9955      | HS3ST3A1     | - | -289691 | -0.38 | 0.00  | 0.18  | 0.49  |
| BLCA | 1125 | chr17:80289041-80290040   | 1468      | SLC25A10     | + | 619140  | -0.38 | -0.04 | 1.44  | -0.43 |
| BLCA | 1126 | chr4:24295954-24296953    | 55203     | LGI2         | - | -735961 | -0.41 | 0.00  | -1.23 | 0.47  |
| BLCA | 1127 | chr18:66470557-66471556   | 79839     | CCDC102B     | + | 88565   | -0.33 | 0.00  | -0.75 | 0.51  |
| BLCA | 1128 | chr14:96315669-96316668   | 623       | BDKRB1       | + | -406379 | -0.33 | 0.00  | -2.79 | 0.41  |
| BLCA | 1129 | chr14:96315669-96316668   | 624       | BDKRB2       | + | -354967 | -0.33 | -0.05 | -2.49 | 0.42  |
| BLCA | 1130 | chr17:56381168-56382167   | 4353      | MPO          | - | 23371   | -0.32 | -0.21 | -1.05 | 0.46  |
| BLCA | 1131 | chr2:48956376-48957375    | 3973      | LHCGR        | - | -26005  | -0.33 | -0.02 | -0.85 | 0.43  |
| BLCA | 1132 | chr14:101363687-101364686 | 57596     | BEGAIN       | - | 328055  | -0.36 | 0.01  | -1.24 | 0.40  |
| BLCA | 1133 | chr13:112999248-113000531 | 2159      | F10          | + | -777224 | -0.33 | -0.12 | -4.86 | 0.47  |
| BLCA | 1134 | chr3:12054627-12055626    | 5468      | PPARG        | + | -273858 | -0.36 | 0.02  | 0.26  | -0.56 |
| BLCA | 1135 | chr6:139047238-139048237  | 23593     | HEBP2        | + | 322401  | -0.36 | -0.05 | 0.33  | -0.54 |
| BLCA | 1136 | chr13:101790592-101791591 | 259232    | NALCN        | - | -277752 | -0.33 | -0.02 | -1.66 | 0.45  |
| BLCA | 1137 | chr1:26216768-26217767    | 10256     | CNKSR1       | + | -286714 | -0.30 | 0.02  | 2.10  | -0.66 |
| BLCA | 1138 | chr11:127444668-127445667 | 84623     | KIRREL3      | - | 571812  | -0.34 | 0.00  | -2.65 | 0.42  |
| BLCA | 1139 | chr11:112370038-112371037 | 1410      | CRYAB        | - | 588064  | -0.31 | 0.03  | -3.75 | 0.52  |
| BLCA | 1140 | chr21:46867592-46868591   | 54039     | PCBP3        | + | -195592 | -0.31 | -0.04 | -1.59 | 0.50  |
| BLCA | 1141 | chr10:78956448-78957447   | 3778      | KCNMA1       | - | -440630 | -0.30 | 0.09  | -3.97 | 0.46  |
| BLCA | 1142 | chr1:156130326-156131325  | 57657     | HCN3         | + | 883607  | 0.40  | -0.03 | 1.19  | 0.60  |
| BLCA | 1143 | chr11:64610135-64611134   | 55561     | CDC42BPG     | - | -1407   | -0.30 | 0.00  | 1.95  | -0.42 |
| BLCA | 1144 | chr8:144301094-144302093  | 23513     | SCRIB        | - | -595956 | -0.41 | -0.01 | 0.70  | -0.47 |

|      |      |                           |           |              |   |         |       |       |       |       |
|------|------|---------------------------|-----------|--------------|---|---------|-------|-------|-------|-------|
| BLCA | 1145 | chr1:221129045-221130044  | 400804    | LOC400804    | - | -380094 | -0.35 | 0.01  | -1.51 | 0.44  |
| BLCA | 1146 | chr17:11631841-11632840   | 388335    | TMEM220      | - | 998694  | -0.37 | 0.00  | -2.70 | 0.46  |
| BLCA | 1147 | chr9:91390047-91391046    | 286223    | C9orf47      | + | -215232 | -0.30 | 0.00  | -1.96 | 0.51  |
| BLCA | 1148 | chr1:209364850-209365849  | 3290      | HSD11B1      | + | -494176 | -0.35 | -0.01 | -1.53 | 0.45  |
| BLCA | 1149 | chr10:34816909-34817908   | 1390      | CREM         | + | -598361 | -0.36 | -0.02 | -1.38 | 0.47  |
| BLCA | 1150 | chr12:8974696-8975808     | 26253     | CLEC4E       | - | 281693  | -0.33 | 0.00  | -0.95 | 0.57  |
| BLCA | 1151 | chr12:115149560-115150559 | 6926      | TBX3         | - | 28090   | -0.33 | 0.02  | -0.41 | -0.52 |
| BLCA | 1152 | chr1:151519713-151520712  | 7286      | TUFT1        | + | 7431    | -0.32 | 0.00  | 0.54  | -0.53 |
| BLCA | 1153 | chr1:205641042-205642041  | 85414     | SLC45A3      | - | -8089   | -0.32 | 0.06  | 0.90  | -0.45 |
| BLCA | 1154 | chr1:7586910-7587909      | 3604      | TNFRSF9      | - | -415816 | -0.43 | 0.02  | 0.36  | 0.43  |
| BLCA | 1155 | chr14:73289395-73290394   | 8110      | DPF3         | - | -70915  | -0.30 | -0.03 | -1.58 | 0.51  |
| BLCA | 1156 | chr5:5979303-5980302      | 170690    | ADAMTS16     | + | 839359  | -0.37 | -0.02 | -1.76 | 0.50  |
| BLCA | 1157 | chr3:137301227-137302226  | 22808     | MRAS         | + | -764764 | -0.42 | 0.01  | -1.34 | 0.43  |
| BLCA | 1158 | chr7:150810845-150811844  | 28959     | TMEM176B     | - | 312896  | -0.33 | 0.01  | -1.07 | 0.70  |
| BLCA | 1159 | chr10:35947262-35948261   | 8325      | FZD8         | - | 17399   | -0.32 | 0.01  | -0.91 | 0.45  |
| BLCA | 1160 | chr13:47229427-47230426   | 80183     | C13orf18     | - | 217601  | 0.32  | 0.00  | -1.19 | -0.67 |
| BLCA | 1161 | chr11:133207807-133208806 | 83700     | JAM3         | + | -730514 | -0.33 | -0.04 | -2.88 | 0.49  |
| BLCA | 1162 | chr12:5194650-5195649     | 894       | CCND2        | + | 812247  | -0.34 | -0.01 | -2.50 | 0.55  |
| BLCA | 1163 | chr5:505629-506628        | 10016     | PDCD6        | + | 234392  | -0.35 | 0.04  | 0.79  | -0.43 |
| BLCA | 1164 | chr16:5282918-5283917     | 114990    | VASN         | + | 861568  | -0.42 | 0.02  | -1.28 | 0.47  |
| BLCA | 1165 | chr17:77207711-77208710   | 114897    | C1QTNF1      | + | 189194  | -0.34 | 0.00  | -0.76 | 0.50  |
| BLCA | 1166 | chr10:134691667-134692905 | 27287     | VENTX        | + | -359123 | -0.34 | 0.01  | -1.18 | 0.49  |
| BLCA | 1167 | chr11:133207807-133208806 | 100128239 | LOC100128239 | + | -693861 | -0.33 | -0.01 | -2.97 | 0.46  |
| BLCA | 1168 | chr1:154821446-154822445  | 126668    | TDRD10       | - | 347250  | -0.32 | -0.12 | -2.04 | 0.44  |
| BLCA | 1169 | chr6:44133566-44134565    | 54676     | GTPBP2       | - | 537129  | -0.43 | -0.06 | 0.75  | -0.42 |
| BLCA | 1170 | chr8:134679136-134680135  | 6503      | SLA          | - | 564325  | -0.36 | -0.01 | -1.05 | 0.57  |
| BLCA | 1171 | chr1:158326883-158327882  | 57863     | CADM3        | + | -813995 | -0.32 | 0.03  | -5.79 | 0.50  |
| BLCA | 1172 | chr1:155194282-155195281  | 126669    | SHE          | - | 720255  | -0.37 | -0.03 | -2.03 | 0.42  |
| BLCA | 1173 | chr10:6691015-6692014     | 5588      | PRKCQ        | - | 69260   | -0.34 | 0.00  | -0.40 | 0.45  |
| BLCA | 1174 | chr4:124468036-124469035  | 2247      | FGF2         | + | 720672  | -0.31 | -0.01 | -3.40 | 0.58  |
| BLCA | 1175 | chr12:4022578-4023577     | 3742      | KCNA6        | + | -895265 | -0.43 | -0.09 | -1.77 | 0.41  |
| BLCA | 1176 | chr2:173507540-173508655  | 51776     | ZAK          | + | -432468 | -0.33 | 0.00  | -2.37 | 0.44  |
| BLCA | 1177 | chr10:83639190-83640189   | 10718     | NRG3         | + | 4619    | -0.33 | 0.11  | -0.54 | 0.42  |
| BLCA | 1178 | chr7:99638591-99639590    | 79690     | GAL3ST4      | - | -127283 | -0.35 | 0.02  | -0.54 | 0.44  |
| BLCA | 1179 | chr14:52836837-52837836   | 54331     | GNG2         | + | 523384  | -0.34 | 0.02  | -1.33 | 0.68  |
| BLCA | 1180 | chr3:118734256-118735255  | 57514     | ARHGAP31     | + | -278465 | -0.33 | 0.00  | -1.11 | 0.49  |
| BLCA | 1181 | chr10:80037349-80038348   | 3778      | KCNMA1       | - | 640271  | -0.31 | 0.09  | -3.97 | 0.51  |
| BLCA | 1182 | chr14:73102373-73103372   | 8110      | DPF3         | - | -257937 | -0.31 | -0.03 | -1.58 | 0.53  |
| BLCA | 1183 | chr5:153038727-153039726  | 2890      | GRIA1        | + | 170051  | -0.31 | -0.13 | -2.25 | 0.41  |
| BLCA | 1184 | chr12:105413654-105414653 | 83468     | GLT8D2       | - | 956192  | -0.36 | -0.06 | -1.88 | 0.70  |
| BLCA | 1185 | chr1:101658919-101659918  | 7412      | VCAM1        | + | 474222  | -0.33 | -0.08 | -1.57 | 0.56  |
| BLCA | 1186 | chr3:2319391-2320390      | 152330    | CNTN4        | + | 179340  | -0.30 | 0.08  | -2.94 | 0.41  |
| BLCA | 1187 | chr5:35046492-35047491    | 79925     | SPEF2        | + | -570998 | -0.37 | 0.00  | -1.30 | 0.45  |
| BLCA | 1188 | chr12:4054055-4055054     | 3742      | KCNA6        | + | -863788 | -0.41 | -0.09 | -1.77 | 0.42  |
| BLCA | 1189 | chr13:101790592-101791591 | 9358      | ITGBL1       | + | -313853 | -0.33 | 0.03  | -1.61 | 0.45  |
| BLCA | 1190 | chr3:64627042-64628041    | 56999     | ADAMTS9      | - | -45824  | -0.31 | -0.02 | -1.57 | 0.40  |
| BLCA | 1191 | chr8:103243098-103244097  | 79977     | GRHL2        | + | 738929  | -0.33 | 0.01  | 2.57  | -0.58 |
| BLCA | 1192 | chr5:4206169-4207168      | 170690    | ADAMTS16     | + | -933775 | -0.37 | -0.02 | -1.76 | 0.56  |
| BLCA | 1193 | chr15:88843399-88844398   | 4240      | MFG8         | - | -612765 | -0.39 | -0.06 | -0.86 | 0.47  |
| BLCA | 1194 | chr13:107343892-107344891 | 55082     | ARGLU1       | - | 123877  | -0.36 | 0.04  | 0.24  | -0.42 |
| BLCA | 1195 | chr2:69148396-69149395    | 25927     | CNRIP1       | - | 601712  | -0.32 | -0.01 | -2.46 | 0.57  |
| BLCA | 1196 | chr15:47752561-47753560   | 80031     | SEMA6D       | + | 276657  | -0.32 | -0.03 | -1.75 | 0.46  |
| BLCA | 1197 | chr8:101773565-101774564  | 26986     | PABPC1       | - | 39749   | -0.32 | 0.01  | 0.65  | -0.48 |
| BLCA | 1198 | chr3:149453606-149454605  | 1359      | CPA3         | + | 871062  | -0.32 | 0.00  | -3.46 | 0.58  |
| BLCA | 1199 | chr16:66115353-66116352   | 1009      | CDH11        | - | 959933  | -0.41 | 0.05  | -1.47 | 0.50  |
| BLCA | 1200 | chr8:108392534-108393533  | 340419    | RSPO2        | - | -702880 | -0.34 | -0.02 | -3.40 | 0.40  |
| BLCA | 1201 | chr7:99638591-99639590    | 7551      | ZNF3         | - | -41081  | -0.35 | -0.16 | 0.42  | -0.41 |
| BLCA | 1202 | chr12:53299793-53300792   | 160622    | GRASP        | + | 899563  | -0.36 | -0.04 | -2.10 | 0.52  |
| BLCA | 1203 | chr12:6324548-6325547     | 939       | CD27         | + | -229004 | -0.33 | 0.19  | -0.76 | 0.63  |
| BLCA | 1204 | chr1:154821446-154822445  | 126669    | SHE          | - | 347419  | -0.32 | -0.03 | -2.03 | 0.43  |
| BLCA | 1205 | chr7:102631803-102632802  | 5649      | RELN         | - | -997661 | -0.33 | -0.02 | -4.08 | 0.57  |
| BLCA | 1206 | chr14:58615837-58616836   | 145407    | C14orf37     | - | -148519 | -0.34 | -0.01 | -0.86 | 0.41  |
| BLCA | 1207 | chr8:102015412-102016411  | 157567    | ANKRD46      | - | 443897  | -0.44 | 0.01  | 0.02  | -0.45 |
| BLCA | 1208 | chr13:31747397-31748396   | 241       | ALOX5AP      | + | 460281  | -0.35 | 0.09  | -1.19 | 0.51  |
| BLCA | 1209 | chr15:47966675-47967674   | 80031     | SEMA6D       | + | 490771  | -0.33 | -0.03 | -1.75 | 0.50  |
| BLCA | 1210 | chr1:162106332-162107331  | 25903     | OLFML2B      | - | 113187  | -0.35 | -0.01 | 0.39  | 0.43  |
| BLCA | 1211 | chr11:130631028-130632027 | 170689    | ADAMTS15     | + | 312658  | -0.30 | 0.07  | -2.31 | 0.51  |
| BLCA | 1212 | chr10:7148562-7149561     | 5588      | PRKCQ        | - | 526807  | -0.40 | 0.00  | -0.40 | 0.49  |
| BLCA | 1213 | chr14:104574215-104575214 | 122618    | PLD4         | + | -816473 | -0.41 | -0.02 | -1.60 | 0.41  |
| BLCA | 1214 | chr4:111540157-111541156  | 79071     | ELOVL6       | - | 420836  | 0.39  | -0.01 | 0.73  | 0.41  |
| BLCA | 1215 | chr1:209105388-209106387  | 50486     | G0S2         | + | -742783 | -0.49 | -0.06 | -1.16 | 0.41  |
| BLCA | 1216 | chr16:65707604-65708603   | 1009      | CDH11        | - | 552184  | -0.35 | 0.05  | -1.47 | 0.51  |
| BLCA | 1217 | chr12:130468963-130469962 | 283383    | GPR133       | + | -968990 | -0.33 | -0.02 | -5.35 | 0.46  |
| BLCA | 1218 | chr2:100483235-100484234  | 164832    | LONRF2       | - | -455461 | -0.31 | 0.00  | -4.09 | 0.42  |
| BLCA | 1219 | chr9:132447540-132448539  | 23413     | NCS1         | + | -486818 | -0.35 | 0.06  | -1.89 | 0.41  |
| BLCA | 1220 | chr5:35128887-35129886    | 5618      | PRLR         | - | -101437 | -0.35 | -0.06 | -0.63 | 0.41  |
| BLCA | 1221 | chr17:5980404-5981403     | 728392    | LOC728392    | - | 576584  | -0.38 | 0.02  | -1.38 | 0.41  |
| BLCA | 1222 | chr7:150810845-150811844  | 55365     | TMEM176A     | + | 313490  | -0.33 | -0.02 | -1.00 | 0.68  |
| BLCA | 1223 | chr1:76550008-76551007    | 256435    | ST6GALNAC3   | + | 10118   | -0.30 | 0.00  | -1.84 | 0.42  |
| BLCA | 1224 | chr15:86842130-86843129   | 123624    | AGBL1        | + | 157387  | -0.38 | 0.00  | 0.18  | 0.40  |
| BLCA | 1225 | chr1:160094454-160095453  | 114836    | SLAMF6       | - | -398099 | -0.33 | -0.14 | -1.23 | 0.63  |
| BLCA | 1226 | chr12:130354328-130355327 | 2054      | STX2         | - | -968992 | -0.39 | -0.14 | -1.48 | 0.56  |

|      |      |                           |           |              |   |         |       |       |       |       |
|------|------|---------------------------|-----------|--------------|---|---------|-------|-------|-------|-------|
| BLCA | 1227 | chr12:5917691-5918690     | 7450      | VWF          | - | -315646 | -0.35 | -0.09 | -1.06 | 0.43  |
| BLCA | 1228 | chr12:21508898-21509897   | 10060     | ABCC9        | - | -584939 | -0.32 | -0.13 | -2.72 | 0.47  |
| BLCA | 1229 | chr1:160094454-160095453  | 2532      | DARC         | + | 921150  | -0.33 | 0.00  | -4.38 | 0.49  |
| BLCA | 1230 | chr12:105413654-105414653 | 493861    | EID3         | + | 716643  | -0.36 | -0.02 | -1.42 | 0.53  |
| BLCA | 1231 | chr15:84539766-84540765   | 6457      | SH3GL3       | + | 424174  | -0.32 | -0.03 | -2.03 | 0.47  |
| BLCA | 1232 | chr12:31902003-31903002   | 58516     | FAM60A       | - | 423343  | -0.36 | -0.01 | 0.75  | -0.49 |
| BLCA | 1233 | chr10:16911291-16912290   | 7431      | VIM          | + | -358468 | -0.32 | -0.07 | -1.56 | 0.52  |
| BLCA | 1234 | chr13:40689868-40690867   | 10186     | LHFP         | - | 513011  | -0.33 | -0.02 | -1.90 | 0.52  |
| BLCA | 1235 | chr17:16419085-16420084   | 9487      | PIGL         | + | 299075  | -0.35 | -0.04 | 0.86  | -0.45 |
| BLCA | 1236 | chr2:56700951-56701950    | 114800    | CCDC85A      | + | 522196  | -0.34 | -0.01 | -1.63 | 0.46  |
| BLCA | 1237 | chr2:161503343-161504342  | 9936      | CD302        | - | 849076  | -0.39 | 0.00  | -1.77 | 0.43  |
| BLCA | 1238 | chr1:159869826-159870825  | 4063      | LY9          | + | -895539 | -0.38 | 0.00  | -1.32 | 0.65  |
| BLCA | 1239 | chr8:69496746-69497745    | 116328    | C8orf34      | + | 254288  | -0.31 | 0.00  | -2.23 | 0.41  |
| BLCA | 1240 | chr7:99638591-99639590    | 5118      | PCOLCE       | + | -560792 | -0.35 | -0.01 | -1.39 | 0.50  |
| BLCA | 1241 | chr1:155194282-155195281  | 126668    | TDRD10       | + | 720086  | -0.37 | -0.12 | -2.04 | 0.40  |
| BLCA | 1242 | chr14:92893098-92894097   | 123041    | SLC24A4      | + | 104672  | -0.31 | -0.08 | -1.44 | 0.50  |
| BLCA | 1243 | chr1:26677600-26678599    | 149420    | PDIK1L       | + | 240443  | -0.35 | 0.02  | 0.59  | -0.46 |
| BLCA | 1244 | chr17:39216177-39217176   | 3728      | JUP          | - | -726288 | -0.38 | 0.01  | 1.53  | -0.42 |
| BLCA | 1245 | chr11:133448767-133449766 | 83700     | JAM3         | + | -489554 | -0.30 | -0.04 | -2.88 | 0.55  |
| BLCA | 1246 | chr2:48927020-48928019    | 3973      | LHCGR        | - | -55361  | -0.33 | -0.02 | -0.85 | 0.40  |
| BLCA | 1247 | chr2:206646718-206647717  | 8828      | NRP2         | + | 99993   | -0.30 | 0.01  | -1.67 | 0.46  |
| BLCA | 1248 | chr2:100614571-100615570  | 164832    | LONRF2       | - | -324125 | -0.30 | 0.00  | -4.09 | 0.41  |
| BLCA | 1249 | chr7:29648385-29649384    | 54504     | CPVL         | - | 413992  | -0.31 | 0.06  | -1.76 | 0.70  |
| BLCA | 1250 | chr19:1167854-1168853     | 92840     | REEP6        | + | -322812 | -0.36 | -0.04 | 0.92  | -0.42 |
| BLCA | 1251 | chr7:1163049-1164141      | 115330    | GPR146       | + | 66453   | 0.31  | -0.04 | -1.52 | -0.41 |
| BLCA | 1252 | chr8:94668567-94669566    | 54845     | ESRP1        | + | -984298 | -0.34 | 0.06  | 2.97  | -0.51 |
| BLCA | 1253 | chr7:77779458-77780457    | 10875     | FGL2         | - | 950807  | -0.34 | -0.02 | -3.98 | 0.46  |
| BLCA | 1254 | chr8:133455513-133456512  | 6503      | SLA          | - | -659298 | -0.37 | -0.01 | -1.05 | 0.50  |
| BLCA | 1255 | chr1:111295245-111296244  | 128346    | C1orf162     | + | -720860 | -0.40 | -0.05 | -0.81 | 0.53  |
| BLCA | 1256 | chr1:208955064-208956063  | 3290      | HSD11B1      | + | -903962 | -0.40 | -0.01 | -1.53 | 0.47  |
| BLCA | 1257 | chr1:209364850-209365849  | 50486     | G0S2         | - | -483321 | -0.35 | -0.06 | -1.16 | 0.48  |
| BLCA | 1258 | chr1:242250008-242251007  | 200150    | PLD5         | - | -437491 | -0.35 | 0.05  | -0.84 | 0.49  |
| BLCA | 1259 | chr1:111295245-111296244  | 1435      | CSF1         | + | 842511  | -0.40 | 0.04  | -1.40 | 0.47  |
| BLCA | 1260 | chr17:41521155-41522154   | 100130581 | LOC100130581 | - | 55388   | -0.34 | 0.00  | 0.41  | -0.42 |
| BLCA | 1261 | chr1:203670640-203671639  | 2331      | FMOD         | - | 350850  | -0.32 | -0.05 | -1.58 | 0.53  |
| BLCA | 1262 | chr14:81796927-81797926   | 85439     | STON2        | - | -96322  | -0.31 | -0.07 | 0.80  | -0.61 |
| BLCA | 1263 | chr3:149105651-149106650  | 185       | AGTR1        | + | 690492  | -0.32 | -0.03 | -4.25 | 0.42  |
| BLCA | 1264 | chr8:134657312-134658311  | 137835    | TMEM71       | - | 884897  | -0.40 | 0.02  | -1.81 | 0.42  |
| BLCA | 1265 | chr12:108426297-108427296 | 338773    | TMEM119      | - | -565098 | -0.33 | 0.13  | -2.13 | 0.46  |
| BLCA | 1266 | chr6:163549954-163550953  | 5071      | PARK2        | - | 401619  | -0.31 | 0.00  | -3.07 | 0.43  |
| BLCA | 1267 | chr3:179171301-179172300  | 59345     | GNB4         | - | 2429    | -0.31 | -0.03 | -0.57 | 0.70  |
| BLCA | 1268 | chr20:62048369-62049368   | 140685    | ZBTB46       | - | -413729 | -0.38 | 0.04  | -0.69 | 0.44  |
| BLCA | 1269 | chr19:42592483-42593482   | 5050      | PAFAH1B3     | - | -213970 | -0.30 | -0.09 | 2.16  | -0.46 |
| BLCA | 1270 | chr12:21508898-21509897   | 3764      | KCNJ8        | - | -418358 | -0.32 | -0.01 | -1.94 | 0.48  |
| BLCA | 1271 | chr12:23737840-23738839   | 6660      | SOX5         | - | -977044 | -0.35 | 0.00  | -2.59 | 0.53  |
| BLCA | 1272 | chr10:50263753-50264752   | 57705     | WDFY4        | + | 371331  | -0.33 | 0.01  | -1.48 | 0.46  |
| BLCA | 1273 | chr17:11103404-11104403   | 1770      | DNAH9        | + | -397845 | -0.33 | -0.07 | -1.99 | 0.40  |
| BLCA | 1274 | chr4:82521120-82522119    | 153020    | RASGEF1B     | - | 128558  | -0.31 | -0.08 | -1.17 | 0.64  |
| BLCA | 1275 | chr5:10555955-10556954    | 134145    | FAM173B      | - | 306433  | -0.39 | 0.01  | 0.17  | -0.43 |
| BLCA | 1276 | chr2:199201932-199202931  | 5334      | PLCL1        | + | 533005  | -0.32 | -0.04 | -2.38 | 0.52  |
| BLCA | 1277 | chr3:151033509-151034508  | 29909     | GPR171       | - | 113020  | -0.31 | 0.13  | -1.47 | 0.44  |
| BLCA | 1278 | chr5:6133949-6134948      | 170690    | ADAMTS16     | + | 994005  | -0.40 | -0.02 | -1.76 | 0.46  |
| BLCA | 1279 | chr17:49809562-49810561   | 54799     | MBTD1        | - | 472547  | -0.42 | 0.01  | 0.31  | -0.44 |
| BLCA | 1280 | chr5:111029731-111030730  | 814       | CAMK4        | + | 470283  | -0.38 | -0.02 | -0.88 | 0.41  |
| BLCA | 1281 | chr16:86388353-86389352   | 3394      | IRF8         | + | 456078  | -0.33 | 0.10  | -1.46 | 0.64  |
| BLCA | 1282 | chr2:181155929-181156928  | 151126    | ZNF385B      | - | 430196  | -0.31 | -0.02 | -2.45 | 0.47  |
| BLCA | 1283 | chr12:6324548-6325547     | 7450      | VWF          | - | 91211   | -0.33 | -0.09 | -1.06 | 0.41  |
| BLCA | 1284 | chr20:61731479-61732478   | 54994     | C20orf11     | + | 162537  | -0.35 | 0.00  | 0.64  | -0.42 |
| BLCA | 1285 | chr11:133448767-133449766 | 100128239 | LOC100128239 | + | -452901 | -0.30 | -0.01 | -2.97 | 0.49  |
| BLCA | 1286 | chr20:62048369-62049368   | 54994     | C20orf11     | + | 479427  | -0.38 | 0.00  | 0.64  | -0.47 |
| BLCA | 1287 | chr8:39911792-39912791    | 169355    | IDO2         | + | 119817  | -0.34 | -0.06 | -0.58 | 0.44  |
| BLCA | 1288 | chr2:40845489-40846488    | 6546      | SLC8A1       | - | 106413  | -0.30 | -0.07 | -2.47 | 0.41  |
| BLCA | 1289 | chr16:30101180-30102179   | 5531      | PPP4C        | + | 14329   | -0.31 | -0.01 | 1.03  | -0.45 |
| BLCA | 1290 | chr8:72595851-72596850    | 9242      | MSC          | - | -160381 | -0.34 | 0.07  | -1.01 | 0.41  |
| BLCA | 1291 | chr1:156130713-156131712  | 4914      | NTRK1        | + | -654330 | 0.37  | -0.07 | -0.72 | -0.64 |
| BLCA | 1292 | chr1:160094454-160095453  | 962       | CD48         | - | -586688 | -0.33 | 0.00  | -1.63 | 0.68  |
| BLCA | 1293 | chr8:144301094-144302093  | 340390    | KIAA1875     | + | -861036 | -0.41 | 0.16  | 1.51  | -0.42 |
| BLCA | 1294 | chr8:101821608-101822607  | 79977     | GRHL2        | + | -682561 | 0.33  | 0.01  | 2.57  | 0.45  |
| BLCA | 1295 | chr3:37224766-37225765    | 6769      | STAC         | + | 803168  | -0.34 | -0.18 | -2.73 | 0.47  |
| BLCA | 1296 | chr15:25755544-25756543   | 57194     | ATP10A       | - | -354274 | -0.34 | -0.05 | -0.71 | 0.54  |
| BLCA | 1297 | chr5:155924286-155925285  | 3702      | ITK          | + | -683122 | -0.34 | -0.02 | -1.74 | 0.60  |
| BLCA | 1298 | chr7:29648385-29649384    | 222171    | PRR15        | + | 45457   | -0.31 | 0.00  | 0.65  | -0.54 |
| BLCA | 1299 | chr12:4740042-4741041     | 894       | CCND2        | + | 357639  | -0.31 | -0.01 | -2.50 | 0.45  |
| BLCA | 1300 | chr1:246868582-246869581  | 148823    | C1orf150     | + | -801313 | -0.36 | -0.05 | -2.43 | 0.40  |
| BLCA | 1301 | chr4:5186248-5187247      | 2121      | EVC          | + | -526177 | -0.34 | 0.00  | -1.68 | 0.46  |
| BLCA | 1302 | chr10:113596944-113597943 | 150       | ADRA2A       | + | 760653  | -0.33 | -0.02 | -2.57 | 0.50  |
| BLCA | 1303 | chr17:16419085-16420084   | 23495     | TNFRSF13B    | - | -455818 | -0.35 | -0.04 | -1.45 | 0.42  |
| BLCA | 1304 | chr21:46867592-46868591   | 80781     | COL18A1      | + | 42994   | -0.31 | 0.00  | -0.79 | 0.49  |
| BLCA | 1305 | chr17:16419085-16420084   | 57547     | ZNF624       | - | -137583 | -0.35 | -0.01 | 0.63  | -0.40 |
| BLCA | 1306 | chr15:75328336-75329335   | 3671      | ISLR         | + | 862748  | -0.34 | 0.03  | -2.27 | 0.56  |
| BLCA | 1307 | chr7:37264086-37265085    | 9844      | ELMO1        | - | -224310 | -0.31 | -0.02 | -1.12 | 0.58  |
| BLCA | 1308 | chr11:127644518-127645517 | 2313      | FLI1         | + | -911413 | -0.47 | -0.05 | -1.01 | 0.49  |

|      |      |                           |        |            |   |         |       |       |       |       |
|------|------|---------------------------|--------|------------|---|---------|-------|-------|-------|-------|
| BLCA | 1309 | chr1:226084579-226085578  | 375057 | C1orf95    | + | -651423 | -0.30 | -0.12 | -3.75 | 0.58  |
| BLCA | 1310 | chr4:5028195-5029194      | 2121   | EVC        | + | -684230 | -0.35 | 0.00  | -1.68 | 0.50  |
| BLCA | 1311 | chr5:57483708-57484707    | 202309 | GAPT       | + | -303123 | -0.31 | 0.00  | -1.52 | 0.53  |
| BLCA | 1312 | chr6:12701373-12702372    | 221692 | PHACTR1    | + | -15165  | -0.30 | 0.00  | -1.75 | 0.41  |
| BLCA | 1313 | chr8:34182028-34183027    | 79845  | RNF122     | - | 757884  | -0.37 | 0.05  | -1.81 | 0.42  |
| BLCA | 1314 | chr7:37438319-37439318    | 6424   | SFRP4      | - | -517707 | -0.35 | -0.11 | -1.68 | 0.41  |
| BLCA | 1315 | chr3:143316539-143317538  | 26577  | PCOLCE2    | - | 708993  | -0.31 | -0.06 | -4.98 | 0.50  |
| BLCA | 1316 | chr1:209825349-209826355  | 57172  | CAMK1G     | + | 68806   | -0.33 | 0.12  | 0.32  | 0.46  |
| BLCA | 1317 | chr6:130788115-130789114  | 114801 | TMEM200A   | + | 101188  | -0.31 | 0.13  | -1.31 | 0.49  |
| BLCA | 1318 | chr2:100426473-100427472  | 150590 | C2orf15    | + | 668787  | -0.35 | -0.04 | 1.37  | -0.53 |
| BLCA | 1319 | chr17:73679483-73680482   | 3993   | LLGL2      | + | 158199  | -0.32 | -0.10 | 1.56  | -0.41 |
| BLCA | 1320 | chr7:17735750-17736749    | 9734   | HDAC9      | + | -390323 | -0.35 | -0.03 | -1.35 | 0.42  |
| BLCA | 1321 | chr17:35087042-35088041   | 6362   | CCL18      | + | 695898  | -0.38 | -0.11 | 0.98  | 0.48  |
| BLCA | 1322 | chr14:32349824-32350927   | 9472   | AKAP6      | + | -448104 | -0.31 | -0.08 | -3.37 | 0.41  |
| BLCA | 1323 | chr1:160094454-160095453  | 6504   | SLAMF1     | - | -522128 | -0.33 | 0.00  | -1.44 | 0.62  |
| BLCA | 1324 | chr8:134594169-134595168  | 137835 | TMEM71     | - | 821754  | -0.35 | 0.02  | -1.81 | 0.50  |
| BLCA | 1325 | chr1:109490478-109491477  | 29899  | GPSM2      | + | 71374   | 0.32  | 0.03  | 0.76  | 0.47  |
| BLCA | 1326 | chr10:26071983-26072982   | 53904  | MYO3A      | + | -150520 | -0.35 | 0.00  | 0.27  | 0.43  |
| BLCA | 1327 | chr2:52039154-52040153    | 9378   | NRXN1      | - | 779979  | -0.31 | 0.01  | -5.68 | 0.49  |
| BLCA | 1328 | chr1:112370038-112371037  | 85458  | DIXDC1     | + | 572669  | -0.31 | -0.08 | -3.15 | 0.48  |
| BLCA | 1329 | chr10:36222304-36223303   | 8325   | FZD8       | - | 292441  | -0.33 | 0.01  | -0.91 | 0.55  |
| BLCA | 1330 | chr7:137222917-137223916  | 1129   | CHRM2      | + | 670017  | -0.31 | -0.01 | -5.12 | 0.46  |
| BLCA | 1331 | chr3:67361613-67362612    | 26018  | LRIG1      | - | 811267  | -0.34 | -0.24 | -1.83 | 0.58  |
| BLCA | 1332 | chr6:24197363-24198362    | 79728  | PALB2      | - | 545184  | -0.38 | -0.08 | 0.98  | -0.41 |
| BLCA | 1333 | chr1:209602455-209603454  | 57172  | CAMK1G     | + | -154091 | -0.35 | 0.12  | 0.32  | 0.41  |
| BLCA | 1334 | chr7:51050094-51051093    | 10320  | IKZF1      | + | 706215  | -0.36 | 0.02  | -1.26 | 0.51  |
| BLCA | 1335 | chr7:28712746-28713745    | 9586   | CREB5      | + | 374305  | -0.30 | -0.01 | -2.16 | 0.59  |
| BLCA | 1336 | chr1:204677373-204687372  | 54900  | LAX1       | + | 943588  | -0.37 | -0.01 | -1.43 | 0.58  |
| BLCA | 1337 | chr1:159869826-159870825  | 23385  | NCSTN      | + | -442738 | -0.38 | -0.03 | 0.79  | -0.41 |
| BLCA | 1338 | chr15:50429329-50430328   | 388121 | TNFAIP8L3  | - | -967645 | -0.34 | -0.02 | -2.97 | 0.51  |
| BLCA | 1339 | chr1:76734069-76735068    | 256435 | ST6GALNAC3 | + | 194179  | -0.31 | 0.00  | -1.84 | 0.44  |
| BLCA | 1340 | chr8:134679136-134680135  | 8840   | WISP1      | + | 476353  | -0.36 | 0.00  | 0.98  | 0.45  |
| BLCA | 1341 | chr1:116854412-116855411  | 914    | CD2        | + | -442175 | -0.34 | 0.00  | -0.77 | 0.65  |
| BLCA | 1342 | chr10:14427669-14428668   | 10557  | RPP38      | + | -711011 | -0.43 | 0.03  | 0.63  | -0.46 |
| BLCA | 1343 | chr3:16969367-16970366    | 23228  | PLCL2      | + | 125707  | -0.32 | 0.01  | -0.60 | 0.62  |
| BLCA | 1344 | chr2:100577227-100578226  | 164832 | LONRF2     | - | -361469 | -0.30 | 0.00  | -4.09 | 0.40  |
| BLCA | 1345 | chr17:39109951-39110950   | 3880   | KRT19      | - | -574191 | -0.33 | -0.09 | 1.88  | -0.47 |
| BLCA | 1346 | chr3:29832547-29833546    | 27303  | RBMS3      | + | 510243  | -0.31 | -0.01 | -2.43 | 0.63  |
| BLCA | 1347 | chr1:71051648-71052647    | 5733   | PTGER3     | - | -461344 | -0.31 | 0.02  | -3.18 | 0.43  |
| BLCA | 1348 | chr7:98700726-98701725    | 222865 | TMEM130    | - | 233552  | -0.32 | -0.05 | -1.78 | 0.40  |
| BLCA | 1349 | chr11:65374163-65375162   | 30008  | EFEMP2     | - | -265743 | 0.33  | 0.03  | -1.30 | -0.41 |
| BLCA | 1350 | chr10:26071983-26072982   | 54518  | APBB1IP    | + | -654784 | -0.35 | -0.04 | -1.18 | 0.54  |
| BLCA | 1351 | chr15:26416443-26417442   | 57194  | ATP10A     | - | 306625  | -0.34 | -0.05 | -0.71 | 0.49  |
| BLCA | 1352 | chr12:31902003-31903002   | 1663   | DDX11      | + | 675723  | -0.36 | -0.12 | 1.53  | -0.43 |
| BLCA | 1353 | chr8:72824012-72825011    | 9242   | MSC        | - | 67780   | -0.30 | 0.07  | -1.01 | 0.58  |
| BLCA | 1354 | chr8:80225864-80226863    | 3574   | IL7        | - | 508605  | -0.37 | -0.01 | -1.01 | 0.41  |
| BLCA | 1355 | chr1:64610135-64611134    | 4221   | MEN1       | - | 31868   | -0.30 | 0.02  | 1.27  | -0.49 |
| BLCA | 1356 | chr2:218015961-218016960  | 3488   | IGFBP5     | - | 456188  | -0.30 | -0.03 | -2.94 | 0.48  |
| BLCA | 1357 | chr1:154821446-154822445  | 57198  | ATP8B2     | + | 523909  | -0.32 | -0.08 | -1.85 | 0.49  |
| BLCA | 1358 | chr1:19794869-19795868    | 64600  | PLA2G2F    | + | -670455 | -0.33 | 0.00  | 2.20  | -0.51 |
| BLCA | 1359 | chr16:20054721-20055720   | 400506 | C16orf88   | - | 325728  | -0.32 | 0.04  | 1.36  | -0.50 |
| BLCA | 1360 | chr14:26234884-26235883   | 4857   | NOVA1      | - | -831577 | -0.33 | -0.20 | -3.95 | 0.42  |
| BLCA | 1361 | chr5:45204445-45205444    | 348980 | HCN1       | - | -491276 | -0.42 | -0.18 | -0.42 | 0.41  |
| BLCA | 1362 | chr16:51196959-51197958   | 1540   | CYLD       | + | 421497  | -0.35 | -0.03 | -0.80 | 0.46  |
| BLCA | 1363 | chr3:84258772-84259771    | 253559 | CADM2      | + | -748862 | -0.33 | 0.00  | -2.79 | 0.46  |
| BLCA | 1364 | chr12:51701479-51702478   | 3855   | KRT7       | + | -924976 | -0.35 | -0.05 | 3.04  | -0.43 |
| BLCA | 1365 | chr8:33937268-33938267    | 78986  | DUSP26     | - | 480328  | -0.32 | -0.05 | -2.14 | 0.44  |
| BLCA | 1366 | chr1:156130326-156131325  | 284618 | C1orf104   | - | 836887  | 0.40  | -0.04 | 1.02  | 0.48  |
| BLCA | 1367 | chr4:183083997-183084996  | 90768  | MGC45800   | - | 18828   | -0.31 | 0.03  | -0.13 | 0.73  |
| BLCA | 1368 | chr1:199304281-199305280  | 5788   | PTPRC      | + | 696682  | -0.35 | -0.03 | -1.46 | 0.55  |
| BLCA | 1369 | chr1:200863723-200864722  | 1465   | CSRP1      | - | -612165 | -0.32 | 0.01  | -2.79 | 0.44  |
| BLCA | 1370 | chr17:77207711-77208710   | 9021   | SOC3       | - | 852052  | -0.34 | -0.09 | -2.54 | 0.51  |
| BLCA | 1371 | chr13:100486096-100487095 | 171425 | CLYBL      | + | 227676  | -0.32 | -0.01 | -1.62 | 0.42  |
| BLCA | 1372 | chr12:6324548-6325547     | 716    | C1S        | + | -771213 | -0.33 | 0.00  | -2.04 | 0.70  |
| BLCA | 1373 | chr9:91390047-91391046    | 1903   | S1PR3      | + | -215778 | -0.30 | 0.00  | -1.37 | 0.57  |
| BLCA | 1374 | chr1:156130713-156131712  | 57657  | HCN3       | + | 883994  | 0.37  | -0.03 | 1.19  | 0.61  |
| BLCA | 1375 | chr2:68017338-68018337    | 9938   | ARHGAP25   | + | -888909 | -0.46 | -0.03 | -0.78 | 0.50  |
| BLCA | 1376 | chr7:96618568-96619575    | 285987 | DLX6AS     | - | -24306  | 0.30  | -0.08 | 1.11  | 0.45  |
| BLCA | 1377 | chr17:63652454-63653453   | 201134 | CCDC46     | - | -535259 | -0.33 | 0.01  | -1.60 | 0.48  |
| BLCA | 1378 | chr3:30287816-30288815    | 27303  | RBMS3      | + | 965512  | -0.34 | -0.01 | -2.43 | 0.55  |
| BLCA | 1379 | chr3:72387437-72388436    | 727936 | GXYLT2     | + | -549449 | -0.34 | 0.00  | -1.57 | 0.44  |
| BLCA | 1380 | chr6:44133566-44134565    | 9533   | POLR1C     | + | 649288  | -0.43 | -0.11 | 0.63  | -0.42 |
| BLCA | 1381 | chr1:77505074-77506073    | 81849  | ST6GALNAC5 | + | 172387  | -0.32 | -0.01 | -1.57 | 0.40  |
| BLCA | 1382 | chr5:177953242-177954241  | 91522  | COL23A1    | - | -63815  | -0.32 | 0.00  | -0.59 | 0.49  |
| BLCA | 1383 | chr17:47178778-47179777   | 3217   | HOXB7      | - | 490894  | -0.35 | -0.03 | 1.33  | -0.42 |
| BLCA | 1384 | chr8:102076012-102077011  | 79977  | GRHL2      | + | -428157 | -0.30 | 0.01  | 2.57  | -0.51 |
| BLCA | 1385 | chr16:80318782-80319781   | 4094   | MAF        | - | 684659  | -0.38 | 0.00  | -1.27 | 0.42  |
| BLCA | 1386 | chr12:5675005-5676004     | 57101  | ANO2       | - | -379894 | -0.34 | 0.00  | -1.22 | 0.44  |
| BLCA | 1387 | chr3:149105651-149106650  | 25937  | WWTR1      | - | -314965 | -0.32 | 0.06  | -1.56 | 0.43  |
| BLCA | 1388 | chr1:242873719-242874718  | 200150 | PLD5       | - | 186220  | -0.34 | 0.05  | -0.84 | 0.41  |
| BLCA | 1389 | chr1:180491030-180492029  | 89884  | LHX4       | + | 292096  | -0.32 | -0.05 | 1.49  | -0.44 |
| BLCA | 1390 | chr5:45288043-45289042    | 348980 | HCN1       | - | -407678 | -0.39 | -0.18 | -0.42 | 0.41  |

|      |      |                           |        |           |   |         |       |       |       |       |
|------|------|---------------------------|--------|-----------|---|---------|-------|-------|-------|-------|
| BLCA | 1391 | chr8:75424762-75425761    | 23643  | LY96      | + | 521697  | -0.34 | 0.00  | -1.06 | 0.59  |
| BLCA | 1392 | chr6:38944883-38945882    | 23500  | DAAM2     | + | -814777 | -0.34 | 0.00  | -2.14 | 0.50  |
| BLCA | 1393 | chr11:65374163-65375162   | 57124  | CD248     | - | -709853 | 0.33  | -0.05 | -1.79 | -0.53 |
| BLCA | 1394 | chr17:75738500-75739499   | 9021   | SOCS3     | - | -617159 | -0.33 | -0.09 | -2.54 | 0.42  |
| BLCA | 1395 | chr13:74512098-74513097   | 11278  | KLF12     | - | -195797 | -0.32 | -0.06 | -1.31 | 0.44  |
| BLCA | 1396 | chr1:160094454-160095453  | 343413 | FCRL6     | + | 324652  | -0.33 | 0.05  | -0.92 | 0.52  |
| BLCA | 1397 | chr11:61792785-61793784   | 221091 | LRRN4CL   | - | -664087 | -0.30 | 0.00  | -3.59 | 0.50  |
| BLCA | 1398 | chr17:39109951-39110950   | 1440   | CSF3      | + | 938836  | -0.33 | 0.02  | -4.04 | 0.44  |
| BLCA | 1399 | chr1:222340214-222341213  | 400804 | LOC400804 | - | 831075  | -0.37 | 0.01  | -1.51 | 0.47  |
| BLCA | 1400 | chr10:36197246-36198245   | 8325   | FZD8      | - | 267383  | -0.32 | 0.01  | -0.91 | 0.57  |
| BLCA | 1401 | chr19:42592483-42593482   | 5452   | POU2F2    | - | -43643  | -0.30 | 0.00  | -1.10 | 0.48  |
| BLCA | 1402 | chr14:65409159-65410158   | 376267 | RAB15     | - | -29217  | -0.31 | -0.14 | 0.51  | -0.58 |
| BLCA | 1403 | chr5:155908746-155909745  | 3702   | ITK       | + | -698662 | -0.34 | -0.02 | -1.74 | 0.51  |
| BLCA | 1404 | chr6:130992177-130993176  | 154075 | SAMD3     | - | 306106  | -0.35 | -0.18 | -0.70 | 0.42  |
| BLCA | 1405 | chr1:26083202-26084201    | 57134  | MAN1C1    | + | 139742  | -0.30 | -0.04 | -1.14 | 0.68  |
| BLCA | 1406 | chr1:27080098-27081097    | 149420 | PD1K1L    | + | 642941  | -0.38 | 0.02  | 0.59  | -0.51 |
| BLCA | 1407 | chr17:41521155-41522154   | 284119 | PTRF      | - | 946316  | -0.34 | -0.06 | -2.03 | 0.66  |
| BLCA | 1408 | chr12:42298946-42299945   | 29951  | PDZRN4    | + | 717195  | -0.31 | 0.00  | -5.45 | 0.44  |
| BLCA | 1409 | chr15:48104627-48105626   | 2200   | FBN1      | - | -832859 | -0.35 | -0.01 | -1.77 | 0.49  |
| BLCA | 1410 | chr7:37438319-37439318    | 313    | AOAH      | - | 674664  | -0.35 | 0.10  | -1.36 | 0.49  |
| BLCA | 1411 | chr1:159869826-159870825  | 8832   | CD84      | - | -678981 | -0.38 | -0.15 | -0.38 | 0.66  |
| BLCA | 1412 | chr13:39210686-39211685   | 10186  | LHFP      | - | -966171 | -0.35 | -0.02 | -1.90 | 0.52  |
| BLCA | 1413 | chr2:33735388-33736387    | 25780  | RASGRP3   | + | 74471   | -0.35 | 0.00  | -0.16 | 0.40  |
| BLCA | 1414 | chr17:39216177-39217176   | 7067   | THRA      | + | 998513  | -0.38 | 0.00  | -1.94 | 0.43  |
| BLCA | 1415 | chr4:24689804-24690803    | 55203  | LGI2      | - | -342111 | -0.32 | 0.00  | -1.23 | 0.53  |
| BLCA | 1416 | chr15:92701385-92702384   | 56963  | RGMA      | - | -930559 | -0.36 | -0.10 | -2.44 | 0.43  |
| BLCA | 1417 | chr3:137320745-137321744  | 22808  | MRAS      | + | -745246 | -0.36 | 0.01  | -1.34 | 0.47  |
| BLCA | 1418 | chr12:51701479-51702478   | 94     | ACVRL1    | + | -598714 | -0.35 | 0.00  | -1.20 | 0.51  |
| BLCA | 1419 | chr7:131792319-131793318  | 91584  | PLXNA4    | - | -540629 | -0.33 | -0.01 | -2.06 | 0.42  |
| BLCA | 1420 | chr10:36228377-36229376   | 8325   | FZD8      | - | 298514  | -0.32 | 0.01  | -0.91 | 0.53  |
| BLCA | 1421 | chr3:116799371-116800370  | 4045   | LSAMP     | - | 635485  | -0.33 | 0.02  | -2.01 | 0.50  |
| BLCA | 1422 | chr16:83036835-83037834   | 1012   | CDH13     | + | 376935  | -0.36 | -0.02 | -0.33 | 0.47  |
| BLCA | 1423 | chr10:109658780-109659779 | 114815 | SORCS1    | - | 734813  | -0.30 | 0.11  | -5.56 | 0.53  |
| BLCA | 1424 | chr12:94564592-94565591   | 10154  | PLXNC1    | + | 22592   | -0.32 | 0.06  | -0.43 | 0.47  |
| BLCA | 1425 | chr1:72057914-72058913    | 257194 | NEGR1     | - | -689992 | -0.31 | 0.00  | -4.78 | 0.42  |
| BLCA | 1426 | chr1:159060869-159061868  | 911    | CD1C      | + | 801805  | -0.35 | 0.00  | -2.18 | 0.41  |
| BLCA | 1427 | chr1:160094454-160095453  | 56833  | SLAMF8    | + | 298474  | -0.33 | -0.09 | 0.72  | 0.54  |
| BLCA | 1428 | chr14:38090900-38091899   | 3169   | FOXA1     | - | 27074   | 0.30  | -0.03 | 1.14  | 0.46  |
| BLCA | 1429 | chr8:116126506-116127505  | 7227   | TRPS1     | - | -554223 | -0.31 | -0.02 | -1.95 | 0.69  |
| BLCA | 1430 | chr12:5917691-5918690     | 25900  | IFFO1     | - | -747059 | -0.35 | 0.05  | -1.74 | 0.46  |
| BLCA | 1431 | chr1:155194282-155195281  | 51043  | ZBTB7B    | + | 219675  | -0.37 | 0.02  | 0.16  | -0.40 |
| BLCA | 1432 | chr12:50595847-50596846   | 91010  | FMNL3     | - | 495149  | -0.37 | 0.04  | 0.29  | 0.49  |
| BLCA | 1433 | chr6:163549954-163550953  | 135138 | PACRG     | + | 402289  | -0.31 | 0.01  | -2.19 | 0.47  |
| BLCA | 1434 | chr1:162106332-162107331  | 9507   | ADAMTS4   | - | 937986  | -0.35 | -0.02 | -2.14 | 0.48  |
| BLCA | 1435 | chr8:72824012-72825011    | 2138   | EYA1      | - | 550044  | -0.30 | -0.01 | -3.02 | 0.51  |
| BLCA | 1436 | chr10:20982118-20983117   | 84898  | PLXDC2    | + | 877245  | -0.36 | 0.02  | -1.41 | 0.52  |
| BLCA | 1437 | chr1:195971865-195972864  | 343450 | KCNT2     | - | -605135 | -0.33 | 0.00  | -2.31 | 0.43  |
| BLCA | 1438 | chr5:35128887-35129886    | 79925  | SPEF2     | + | -488603 | -0.35 | 0.00  | -1.30 | 0.43  |
| BLCA | 1439 | chr17:35087042-35088041   | 6348   | CCL3      | - | 670035  | -0.38 | 0.00  | -0.42 | 0.55  |
| BLCA | 1440 | chr21:46867592-46868591   | 1292   | COL6A2    | + | -649942 | -0.31 | 0.00  | -2.22 | 0.59  |
| BLCA | 1441 | chr7:123841809-123842808  | 2861   | GPR37     | - | -563771 | -0.37 | 0.00  | -0.63 | 0.50  |
| BLCA | 1442 | chr16:30101180-30102179   | 6911   | TBX6      | - | -1529   | -0.31 | -0.02 | 0.46  | -0.48 |
| BLCA | 1443 | chr12:4740042-4741041     | 3742   | KCNA6     | + | -177801 | -0.31 | -0.09 | -1.77 | 0.40  |
| BLCA | 1444 | chr12:4549003-4550002     | 57097  | PARP11    | - | 566894  | -0.39 | 0.01  | -0.50 | 0.44  |
| BLCA | 1445 | chr14:21175338-21176337   | 6035   | RNASE1    | - | -95199  | -0.31 | 0.00  | -1.13 | 0.45  |
| BLCA | 1446 | chr10:11333203-11334202   | 55526  | DHTKD1    | + | -777214 | -0.40 | -0.13 | 0.93  | -0.44 |
| BLCA | 1447 | chr11:41065294-41066293   | 57689  | LRRRC4C   | - | -415393 | -0.31 | -0.02 | -2.03 | 0.49  |
| BLCA | 1448 | chr12:51701479-51702478   | 9498   | SLC4A8    | + | -83123  | -0.35 | -0.02 | -0.03 | 0.42  |
| BLCA | 1449 | chr1:95119214-95120213    | 126969 | SLC44A3   | + | -166185 | -0.32 | -0.09 | 0.91  | -0.43 |
| BLCA | 1450 | chr8:60626836-60627835    | 9760   | TOX       | - | 595568  | -0.31 | 0.03  | -1.90 | 0.62  |
| BLCA | 1451 | chr14:92893098-92894097   | 10516  | FBLN5     | - | 479551  | -0.31 | -0.05 | -2.83 | 0.44  |
| BLCA | 1452 | chr11:65374163-65375162   | 10235  | RASGRP2   | - | 861734  | 0.33  | -0.03 | -3.12 | -0.42 |
| BLCA | 1453 | chr20:62048369-62049368   | 54345  | SOX18     | - | -632111 | -0.38 | -0.01 | -0.81 | 0.45  |
| BLCA | 1454 | chr14:54261353-54262352   | 652    | BMP4      | - | -161702 | -0.30 | -0.11 | -1.76 | 0.44  |
| BLCA | 1455 | chr4:182430315-182431314  | 90768  | MGC45800  | - | -634854 | -0.39 | 0.03  | -0.13 | 0.56  |
| BLCA | 1456 | chr13:36222976-36223975   | 26960  | NBEA      | + | 707051  | -0.30 | -0.01 | -3.43 | 0.60  |
| BLCA | 1457 | chr17:74366078-74367077   | 63893  | UBE2O     | - | -82711  | -0.33 | 0.00  | 0.64  | -0.41 |
| BLCA | 1458 | chr1:157557078-157558077  | 912    | CD1D      | + | -592160 | -0.39 | 0.01  | -0.58 | 0.45  |
| BLCA | 1459 | chr6:162258567-162259566  | 5071   | PARK2     | - | -889768 | -0.32 | 0.00  | -3.07 | 0.53  |
| BLCA | 1460 | chr1:27080098-27081097    | 6548   | SLC9A1    | - | -401024 | -0.38 | 0.04  | 0.48  | -0.40 |
| BLCA | 1461 | chr5:36608098-36609268    | 3575   | IL7R      | + | 751705  | -0.36 | 0.00  | -0.89 | 0.60  |
| BLCA | 1462 | chr12:105413654-105414653 | 50515  | CHST11    | + | 563461  | -0.36 | -0.04 | 0.66  | 0.50  |
| BLCA | 1463 | chr8:103741280-103742279  | 115908 | CTHRC1    | + | -641964 | 0.37  | 0.03  | 0.92  | -0.46 |
| BLCA | 1464 | chr15:26424586-26425585   | 57194  | ATP10A    | - | 314768  | -0.33 | -0.05 | -0.71 | 0.51  |
| BLCA | 1465 | chr1:67036449-67037448    | 200132 | TCTEX1D1  | + | -181192 | -0.32 | 0.02  | -1.11 | 0.43  |
| BLCA | 1466 | chr14:94179347-94180346   | 5104   | SERPINA5  | + | -867860 | -0.36 | 0.00  | -1.74 | 0.47  |
| BLCA | 1467 | chr11:75831215-75832214   | 2615   | LRRRC32   | - | -550077 | 0.33  | -0.02 | -1.51 | -0.52 |
| BLCA | 1468 | chr5:11851213-11852212    | 1501   | CTNND2    | - | -52398  | -0.31 | -0.01 | -1.15 | 0.43  |
| BLCA | 1469 | chr4:17029788-17030787    | 51056  | LAP3      | + | -548640 | -0.41 | 0.01  | -0.07 | 0.45  |
| BLCA | 1470 | chr2:1077939-1078938      | 7173   | TPO       | + | -299557 | -0.30 | 0.00  | -2.53 | 0.43  |
| BLCA | 1471 | chr13:36222976-36223975   | 9201   | DCLK1     | - | -482039 | -0.30 | 0.00  | -3.39 | 0.44  |
| BLCA | 1472 | chr7:50602792-50603791    | 23242  | COBL      | - | -781224 | -0.34 | 0.00  | -2.44 | 0.42  |

|      |      |                           |        |           |   |         |       |       |       |       |
|------|------|---------------------------|--------|-----------|---|---------|-------|-------|-------|-------|
| BLCA | 1473 | chr1:67036449-67037448    | 5142   | PDE4B     | + | 778755  | -0.32 | 0.02  | -2.60 | 0.54  |
| BLCA | 1474 | chr12:8974696-8975808     | 6515   | SLC2A3    | - | 886359  | -0.33 | -0.01 | -2.12 | 0.61  |
| BLCA | 1475 | chr12:130337912-130338911 | 2054   | STX2      | - | -985408 | -0.44 | -0.14 | -1.48 | 0.41  |
| BLCA | 1476 | chr12:5675005-5676004     | 3736   | KCNA1     | + | 656431  | -0.34 | -0.01 | -2.04 | 0.42  |
| BLCA | 1477 | chr3:12054627-12055626    | 80746  | TSEN2     | + | -470805 | -0.36 | -0.01 | 0.34  | -0.52 |
| BLCA | 1478 | chr6:108495960-108496959  | 256380 | SCML4     | - | 350938  | 0.34  | -0.02 | -1.32 | -0.41 |
| BLCA | 1479 | chr10:90013489-90014488   | 59     | ACTA2     | - | -737159 | -0.31 | 0.00  | -3.65 | 0.48  |
| BLCA | 1480 | chr8:56131018-56132017    | 64321  | SOX17     | + | 761022  | -0.33 | 0.00  | -3.08 | 0.41  |
| BLCA | 1481 | chr5:159381690-159382689  | 1879   | EBF1      | - | 855401  | -0.33 | 0.02  | -2.74 | 0.44  |
| BLCA | 1482 | chr1:159869826-159870825  | 149628 | PYHIN1    | + | 968988  | -0.38 | -0.06 | -1.05 | 0.63  |
| BLCA | 1483 | chr1:109490478-109491477  | 84722  | PSRC1     | - | -334831 | 0.32  | -0.04 | 1.88  | 0.40  |
| BLCA | 1484 | chr16:1309050-1310049     | 57524  | CASKIN1   | - | -936916 | -0.37 | 0.01  | 1.39  | -0.49 |
| BLCA | 1485 | chr3:132772192-132773191  | 55573  | CDV3      | + | -519743 | -0.40 | -0.01 | -0.44 | 0.41  |
| BLCA | 1486 | chr12:5575620-5576619     | 3736   | KCNA1     | + | 557046  | -0.33 | -0.01 | -2.04 | 0.41  |
| BLCA | 1487 | chr1:209105388-209106387  | 80342  | TRAF3IP3  | + | -823507 | -0.49 | 0.00  | -0.71 | 0.44  |
| BLCA | 1488 | chr10:118430427-118431426 | 6571   | SLC18A2   | + | -569658 | -0.33 | -0.04 | -2.04 | 0.42  |
| BLCA | 1489 | chr4:5206812-5207811      | 2121   | EVC       | + | -505613 | -0.32 | 0.00  | -1.68 | 0.49  |
| BLCA | 1490 | chr12:5775118-5776117     | 3741   | KCNA5     | + | 622532  | -0.31 | 0.02  | -3.40 | 0.41  |
| BLCA | 1491 | chr7:13579200-13580199    | 2115   | ETV1      | - | -451351 | -0.35 | -0.06 | -0.77 | 0.47  |
| BLCA | 1492 | chr2:69996725-69997724    | 7072   | TIA1      | - | -478555 | -0.36 | 0.06  | 0.43  | -0.47 |
| BLCA | 1493 | chr10:45324499-45325498   | 83937  | RASSF4    | + | -130221 | -0.33 | 0.00  | -0.19 | 0.52  |
| BLCA | 1494 | chr3:31316797-31317796    | 114884 | OSBPL10   | - | -706046 | -0.35 | -0.05 | -1.92 | 0.41  |
| BLCA | 1495 | chr10:19148995-19149994   | 84898  | PLXDC2    | + | -955878 | -0.42 | 0.02  | -1.41 | 0.41  |
| BLCA | 1496 | chr19:439068-440067       | 126567 | C2CD4C    | - | 30397   | -0.33 | 0.00  | -0.51 | 0.40  |
| BLCA | 1497 | chr4:177106881-177107880  | 132851 | SPATA4    | - | -9442   | -0.30 | -0.01 | -1.11 | 0.43  |
| BLCA | 1498 | chr2:1827877-1828876      | 7173   | TPO       | + | 450381  | -0.31 | 0.00  | -2.53 | 0.42  |
| BLCA | 1499 | chr15:26884779-26885778   | 57194  | ATP10A    | - | 774961  | -0.40 | -0.05 | -0.71 | 0.47  |
| BLCA | 1500 | chr3:116508511-116509510  | 4045   | LSAMP     | - | 344625  | -0.30 | 0.02  | -2.01 | 0.47  |
| BLCA | 1501 | chr11:114988276-114989275 | 23705  | CADM1     | - | -386466 | -0.33 | -0.04 | -1.34 | 0.46  |
| BLCA | 1502 | chr3:135301718-135302717  | 2047   | EPHB1     | + | 788118  | -0.33 | -0.02 | -1.79 | 0.55  |
| BLCA | 1503 | chr3:12585868-12586867    | 132001 | C3orf31   | - | 698015  | -0.42 | -0.01 | 0.30  | -0.46 |
| BLCA | 1504 | chr1:208465657-208466656  | 4179   | CD46      | + | 540773  | -0.39 | -0.03 | 0.31  | -0.44 |
| BLCA | 1505 | chr5:175607941-175608940  | 3274   | HRH2      | + | 523400  | -0.36 | 0.00  | -0.51 | 0.51  |
| BLCA | 1506 | chr1:156130326-156131325  | 1196   | CLK2      | - | 883324  | 0.40  | -0.02 | 0.80  | 0.50  |
| BLCA | 1507 | chr12:8974696-8975808     | 969    | CD69      | - | -938246 | -0.33 | -0.04 | -2.63 | 0.51  |
| BLCA | 1508 | chr8:108144138-108145137  | 340419 | RSPO2     | - | -951276 | -0.34 | -0.02 | -3.40 | 0.41  |
| BLCA | 1509 | chr1:155194282-155195281  | 22889  | KIAA0907  | - | -709407 | -0.37 | 0.14  | 1.08  | -0.45 |
| BLCA | 1510 | chr10:80327390-80328389   | 219654 | ZCCHC24   | - | -877494 | -0.32 | -0.03 | -2.83 | 0.51  |
| BLCA | 1511 | chr11:132690984-132691983 | 4978   | OPCML     | - | -710920 | -0.34 | -0.02 | -1.84 | 0.44  |
| BLCA | 1512 | chr8:105354022-105355021  | 23414  | ZFPM2     | + | -976626 | -0.33 | 0.00  | -3.25 | 0.47  |
| BLCA | 1513 | chr15:75328336-75329335   | 25989  | ULK3      | - | 193283  | -0.34 | 0.00  | 0.49  | -0.42 |
| BLCA | 1514 | chr10:112374975-112375974 | 150    | ADRA2A    | + | -461316 | -0.31 | -0.02 | -2.57 | 0.41  |
| BLCA | 1515 | chr8:117586578-117587577  | 7227   | TRPS1     | - | 905849  | -0.37 | -0.02 | -1.95 | 0.40  |
| BLCA | 1516 | chr7:154472702-154473823  | 22976  | PAXIP1    | - | -321420 | -0.35 | -0.01 | 0.53  | -0.41 |
| BLCA | 1517 | chr1:27080098-27081097    | 257101 | ZNFB63    | - | 381331  | -0.38 | 0.05  | 0.01  | 0.43  |
| BLCA | 1518 | chr5:145325728-145326727  | 153769 | SH3RF2    | + | 10101   | -0.32 | 0.00  | 0.15  | -0.47 |
| BLCA | 1519 | chr11:126507286-126508285 | 84623  | KIRREL3   | - | -365570 | -0.30 | 0.00  | -2.65 | 0.43  |
| BLCA | 1520 | chr14:101351197-101352196 | 57596  | BEGAIN    | - | 315565  | -0.31 | 0.01  | -1.24 | 0.52  |
| BLCA | 1521 | chr3:8910924-8911923      | 29995  | LMCD1     | + | 367930  | -0.30 | 0.06  | -2.14 | 0.50  |
| BLCA | 1522 | chr12:53299793-53300792   | 6895   | TARBP2    | + | -594413 | -0.36 | 0.06  | 1.15  | -0.42 |
| BLCA | 1523 | chr6:130992177-130993176  | 5169   | ENPP3     | + | -956906 | -0.35 | -0.02 | -2.21 | 0.44  |
| BLCA | 1524 | chr6:12202560-12203559    | 221692 | PHACTR1   | + | -513978 | -0.32 | 0.00  | -1.75 | 0.46  |
| BLCA | 1525 | chr1:77505074-77506073    | 91624  | NEXN      | + | -848627 | -0.32 | 0.00  | -3.26 | 0.47  |
| BLCA | 1526 | chr3:69248776-69249775    | 4286   | MITF      | + | -539311 | -0.31 | 0.02  | -2.26 | 0.47  |
| BLCA | 1527 | chr7:28505916-28506915    | 54504  | CPVL      | - | -728477 | -0.34 | 0.06  | -1.76 | 0.48  |
| BLCA | 1528 | chr20:61731479-61732478   | 50861  | STMN3     | - | -552985 | -0.35 | -0.06 | -1.06 | 0.45  |
| BLCA | 1529 | chr11:124405858-124406857 | 55800  | SCN3B     | - | 881042  | -0.34 | 0.06  | -2.20 | 0.48  |
| BLCA | 1530 | chr10:117828413-117829412 | 259217 | HSPA12A   | - | -780804 | -0.32 | -0.01 | -2.25 | 0.53  |
| BLCA | 1531 | chr20:61335039-61336038   | 768096 | HAR1A     | + | -397106 | -0.32 | 0.02  | -1.68 | 0.46  |
| BLCA | 1532 | chr12:130204654-130205653 | 144423 | GLT1D1    | + | 867072  | -0.42 | -0.01 | -0.49 | 0.51  |
| BLCA | 1533 | chr11:123236371-123237370 | 399959 | LOC399959 | + | 998403  | -0.31 | -0.04 | -4.06 | 0.62  |
| BLCA | 1534 | chr5:167331842-167332841  | 57451  | ODZ2      | + | 620498  | -0.34 | -0.15 | -0.97 | 0.59  |
| BLCA | 1535 | chr1:111295245-111296244  | 1117   | CHI3L2    | + | -474537 | -0.40 | 0.08  | -0.30 | 0.41  |
| BLCA | 1536 | chr15:102342291-102343290 | 22856  | CHSY1     | - | 550653  | -0.41 | 0.00  | -0.46 | 0.40  |
| BLCA | 1537 | chr4:111540157-111541156  | 839    | CASP6     | - | 916027  | 0.39  | -0.06 | 0.90  | 0.51  |
| BLCA | 1538 | chr1:24592334-24593333    | 25932  | CLIC4     | + | -478927 | -0.33 | -0.01 | -1.73 | 0.44  |
| BLCA | 1539 | chr12:5696309-5697308     | 3742   | KCNA6     | + | 778466  | -0.36 | -0.09 | -1.77 | 0.40  |
| BLCA | 1540 | chr4:16845797-16846796    | 83888  | FGFBP2    | - | 881437  | -0.37 | -0.02 | -1.84 | 0.41  |
| BLCA | 1541 | chr1:160094454-160095453  | 81607  | PVRL4     | - | -964432 | -0.33 | -0.08 | 2.77  | -0.50 |
| BLCA | 1542 | chr1:156130713-156131712  | 164118 | TTC24     | + | -418307 | 0.37  | 0.00  | -0.37 | -0.42 |
| BLCA | 1543 | chr16:5282918-5283917     | 84662  | GLIS2     | + | 901201  | -0.42 | 0.00  | -0.72 | 0.47  |
| BLCA | 1544 | chr3:139924205-139925204  | 64084  | CLSTN2    | + | 270677  | -0.32 | -0.02 | -1.47 | 0.40  |
| BLCA | 1545 | chr2:9540259-9541258      | 192668 | CYS1      | - | -679780 | -0.31 | -0.01 | -2.60 | 0.52  |
| BLCA | 1546 | chr3:31316797-31317796    | 7048   | TGFBR2    | + | 669302  | -0.35 | 0.00  | -1.62 | 0.42  |
| BLCA | 1547 | chr6:11805615-11806614    | 221692 | PHACTR1   | + | -910923 | -0.35 | 0.00  | -1.75 | 0.49  |
| BLCA | 1548 | chr12:23069255-23070254   | 10060  | ABCC9     | - | 975418  | -0.33 | -0.13 | -2.72 | 0.50  |
| BLCA | 1549 | chr2:1553297-1554296      | 23040  | MYT1L     | - | -781249 | -0.35 | 0.01  | -1.96 | 0.40  |
| BLCA | 1550 | chr3:61516601-61517600    | 5793   | PTPRG     | + | -30143  | -0.32 | -0.01 | -0.47 | 0.43  |
| BLCA | 1551 | chr12:5612536-5613535     | 3736   | KCNA1     | + | 593962  | -0.31 | -0.01 | -2.04 | 0.52  |
| BLCA | 1552 | chr10:107022877-107023876 | 85450  | ITPRIP    | - | 925125  | -0.41 | 0.05  | -1.27 | 0.41  |
| BLCA | 1553 | chr16:18135167-18136166   | 23204  | ARL6IP1   | - | -677191 | -0.37 | -0.06 | 0.95  | -0.44 |
| BLCA | 1554 | chr12:5675005-5676004     | 3742   | KCNA6     | + | 757162  | -0.34 | -0.09 | -1.77 | 0.48  |

|      |      |                           |        |          |   |         |       |       |       |       |
|------|------|---------------------------|--------|----------|---|---------|-------|-------|-------|-------|
| BLCA | 1555 | chr6:21277454-21278453    | 6659   | SOX4     | + | -316019 | -0.30 | -0.03 | 1.56  | -0.51 |
| BLCA | 1556 | chr2:26578008-26579007    | 11117  | EMILIN1  | + | -722928 | -0.30 | 0.00  | -2.81 | 0.58  |
| BLCA | 1557 | chr16:11690418-11691417   | 9516   | LITAF    | - | 9595    | -0.30 | 0.02  | -0.86 | 0.44  |
| BLCA | 1558 | chr12:6324548-6325547     | 920    | CD4      | + | -573591 | -0.33 | 0.06  | -1.14 | 0.62  |
| BLCA | 1559 | chr1:208444090-208445089  | 4179   | CD46     | + | 519206  | -0.38 | -0.03 | 0.31  | -0.43 |
| BLCA | 1560 | chr2:979550-980549        | 7837   | PXDN     | - | -768242 | -0.41 | 0.27  | -0.75 | 0.43  |
| BLCA | 1561 | chr2:33500389-33501388    | 4052   | LTBP1    | + | 328519  | -0.33 | 0.00  | -1.14 | 0.41  |
| BLCA | 1562 | chr10:80327390-80328389   | 3778   | KCNMA1   | - | 930312  | -0.32 | 0.09  | -3.97 | 0.44  |
| BLCA | 1563 | chr15:80878244-80879243   | 3603   | IL16     | + | -596350 | -0.32 | 0.00  | -1.49 | 0.55  |
| BLCA | 1564 | chr1:156130713-156131712  | 284618 | C1orf104 | - | 837274  | 0.37  | -0.04 | 1.02  | 0.50  |
| BLCA | 1565 | chr7:1458566-1459565      | 115330 | GPR146   | + | 361924  | -0.33 | -0.04 | -1.52 | 0.41  |
| BLCA | 1566 | chr10:31388136-31389135   | 57608  | KIAA1462 | - | 984215  | -0.35 | -0.05 | -1.84 | 0.49  |
| BLCA | 1567 | chr12:108750917-108751916 | 1240   | CMKLR1   | - | 18322   | -0.30 | -0.07 | -0.99 | 0.45  |
| BLCA | 1568 | chr1:209364850-209365849  | 80342  | TRAF3IP3 | + | -564045 | -0.35 | 0.00  | -0.71 | 0.51  |
| BLCA | 1569 | chr1:180540706-180541705  | 10228  | STX6     | - | -450841 | -0.34 | -0.01 | 0.66  | -0.55 |
| BLCA | 1570 | chr1:207205947-207206946  | 1378   | CR1      | + | -463027 | -0.30 | 0.00  | -1.80 | 0.62  |
| BLCA | 1571 | chr1:160031153-160032152  | 57863  | CADM3    | + | 890275  | -0.30 | 0.03  | -5.79 | 0.56  |
| BLCA | 1572 | chr1:113797621-113798620  | 56944  | OLFML3   | + | -723910 | -0.30 | -0.12 | -3.01 | 0.66  |
| BLCA | 1573 | chr5:157732788-157733787  | 1879   | EBF1     | - | -793501 | -0.31 | 0.02  | -2.74 | 0.60  |
| BLCA | 1574 | chr2:202097757-202098756  | 841    | CASP8    | + | 90      | -0.31 | -0.08 | 0.53  | -0.43 |
| BLCA | 1575 | chr13:108039019-108040018 | 728215 | FAM155A  | - | -479942 | -0.31 | 0.03  | -1.75 | 0.52  |
| BLCA | 1576 | chr3:187413413-187414412  | 6480   | ST6GAL1  | + | 765597  | -0.35 | 0.00  | -1.03 | 0.53  |
| BLCA | 1577 | chr16:30101180-30102179   | 11151  | CORO1A   | + | -93052  | -0.31 | -0.06 | -0.36 | 0.54  |
| BLCA | 1578 | chr13:107928282-107929281 | 728215 | FAM155A  | - | -590679 | -0.32 | 0.03  | -1.75 | 0.54  |
| BLCA | 1579 | chr3:32897862-32898861    | 1233   | CCR4     | + | -94705  | -0.30 | -0.21 | -1.05 | 0.49  |
| BLCA | 1580 | chr7:93718180-93719179    | 1278   | COL1A2   | + | -305194 | -0.33 | 0.01  | -0.93 | 0.43  |
| BLCA | 1581 | chr2:100370523-100371522  | 150590 | C2orf15  | + | 612837  | -0.35 | -0.04 | 1.37  | -0.43 |
| BLCA | 1582 | chr11:130902635-130903634 | 170689 | ADAMTS15 | + | 584265  | -0.32 | 0.07  | -2.31 | 0.41  |
| BLCA | 1583 | chr6:139047238-139048237  | 7128   | TNFAIP3  | + | 859412  | -0.36 | -0.01 | -1.74 | 0.42  |
| BLCA | 1584 | chr6:53592284-53593283    | 55227  | LRRC1    | + | -66751  | -0.31 | 0.06  | 0.82  | -0.46 |
| BLCA | 1585 | chr2:225875189-225876188  | 5270   | SERPINE2 | - | 971652  | -0.35 | -0.01 | -2.02 | 0.49  |
| BLCA | 1586 | chr10:36214339-36215338   | 8325   | FZD8     | - | 284476  | -0.32 | 0.01  | -0.91 | 0.50  |
| BLCA | 1587 | chr10:16897811-16898810   | 338596 | ST8SIA6  | - | -597944 | -0.37 | 0.00  | -0.86 | 0.41  |
| BLCA | 1588 | chr7:103342761-103343760  | 27000  | DNAJC2   | - | 357940  | -0.35 | -0.01 | 0.64  | -0.40 |
| BLCA | 1589 | chr14:94179347-94180346   | 5265   | SERPINA1 | - | -677183 | -0.36 | -0.04 | 1.18  | 0.43  |
| BLCA | 1590 | chr11:66659493-66660492   | 57124  | CD248    | - | 575477  | -0.32 | -0.05 | -1.79 | 0.46  |
| BLCA | 1591 | chr2:241458727-241459726  | 25992  | SNED1    | + | -479029 | 0.30  | -0.05 | -2.56 | -0.45 |
| BLCA | 1592 | chr14:104574215-104575214 | 4140   | MARK3    | + | 723013  | -0.41 | 0.02  | 0.29  | -0.46 |
| BLCA | 1593 | chr4:140968539-140969538  | 55534  | MAML3    | - | -106195 | -0.32 | 0.04  | -0.70 | -0.45 |
| BLCA | 1594 | chr2:86263395-86264394    | 55037  | PTCD3    | + | -69411  | 0.32  | -0.02 | 0.39  | 0.43  |
| BLCA | 1595 | chr12:50595847-50596846   | 7009   | TMBIM6   | + | 461053  | -0.37 | -0.17 | 0.19  | -0.43 |
| BLCA | 1596 | chr12:6324548-6325547     | 27239  | GPR162   | + | -605916 | -0.33 | 0.00  | -1.52 | 0.49  |
| BLCA | 1597 | chr15:55131355-55132354   | 5873   | RAB27A   | - | -450159 | -0.32 | -0.05 | -1.07 | 0.52  |
| BLCA | 1598 | chr7:150810845-150811844  | 168537 | GIMAP7   | + | 599399  | -0.33 | -0.05 | -1.22 | 0.58  |
| BLCA | 1599 | chr1:162816461-162817460  | 25903  | OLFML2B  | - | 823316  | -0.42 | -0.01 | 0.39  | 0.48  |
| BLCA | 1600 | chr2:69148396-69149395    | 9938   | ARHGAP25 | + | 242149  | -0.32 | -0.03 | -0.78 | 0.47  |
| BLCA | 1601 | chr7:120903452-120904451  | 5803   | PTPRZ1   | + | -609208 | -0.31 | -0.03 | -2.13 | 0.56  |
| BLCA | 1602 | chr11:11605582-11606581   | 10335  | MRVI1    | - | 890546  | -0.32 | -0.24 | -3.27 | 0.47  |
| BLCA | 1603 | chr16:80357522-80358521   | 4094   | MAF      | - | 723399  | -0.34 | 0.00  | -1.27 | 0.55  |
| BLCA | 1604 | chr4:182609197-182610196  | 90768  | MGC45800 | - | -455972 | -0.38 | 0.03  | -0.13 | 0.42  |
| BLCA | 1605 | chr17:41521155-41522154   | 8506   | CNTNAP1  | + | 687022  | -0.34 | 0.04  | -1.59 | 0.44  |
| BLCA | 1606 | chr21:46867592-46868591   | 1291   | COL6A1   | + | -533572 | -0.31 | -0.10 | -1.70 | 0.52  |
| BLCA | 1607 | chr11:65374163-65375162   | 9379   | NRXN2    | - | 884002  | 0.33  | -0.23 | -2.87 | -0.41 |
| BLCA | 1608 | chr1:158326883-158327882  | 2532   | DARC     | + | -846421 | -0.32 | 0.00  | -4.38 | 0.41  |
| BLCA | 1609 | chr1:162106332-162107331  | 2214   | FCGR3A   | - | 586418  | -0.35 | -0.01 | 0.75  | 0.49  |
| BLCA | 1610 | chr1:59892692-59893691    | 1573   | CYP2J2   | - | -499232 | -0.33 | -0.04 | 1.29  | -0.48 |
| BLCA | 1611 | chr1:37790543-37791542    | 54955  | C1orf109 | - | -366846 | -0.34 | 0.00  | 0.57  | -0.46 |
| BLCA | 1612 | chr7:150810845-150811844  | 5919   | RARRES2  | - | 772581  | -0.33 | -0.14 | -1.84 | 0.52  |
| BLCA | 1613 | chr2:238110329-238111328  | 10267  | RAMP1    | + | -657359 | -0.31 | 0.02  | -3.44 | 0.43  |
| BLCA | 1614 | chr15:25809018-25810017   | 57194  | ATP10A   | - | -300800 | -0.33 | -0.05 | -0.71 | 0.45  |
| BLCA | 1615 | chr12:21508898-21509897   | 6489   | ST8SIA1  | - | -978251 | -0.32 | -0.06 | -3.20 | 0.49  |
| BLCA | 1616 | chr5:32627818-32628817    | 4883   | NPR3     | + | -82426  | -0.30 | -0.07 | -1.35 | 0.43  |
| BLCA | 1617 | chr7:150810845-150811844  | 55303  | GIMAP4   | + | 546886  | -0.33 | -0.08 | -0.95 | 0.62  |
| BLCA | 1618 | chr4:24025761-24026760    | 6649   | SOD3     | + | -770825 | -0.31 | -0.04 | -3.04 | 0.49  |
| BLCA | 1619 | chr15:48338385-48339384   | 80031  | SEMA6D   | + | 862481  | -0.34 | -0.03 | -1.75 | 0.50  |
| BLCA | 1620 | chr2:218015961-218016960  | 7145   | TNS1     | - | -851258 | -0.30 | 0.00  | -3.85 | 0.55  |
| BLCA | 1621 | chr5:155801433-155802432  | 3702   | ITK      | + | -805975 | -0.34 | -0.02 | -1.74 | 0.51  |
| BLCA | 1622 | chr11:58085323-58086322   | 710    | SERPING1 | + | 720795  | -0.33 | 0.07  | -1.58 | 0.53  |
| BLCA | 1623 | chr1:156130326-156131325  | 51093  | C1orf66  | + | -567438 | 0.40  | -0.03 | 0.28  | 0.41  |
| BLCA | 1624 | chr7:81419633-81420632    | 781    | CACNA2D1 | - | -652899 | -0.32 | -0.09 | -2.74 | 0.41  |
| BLCA | 1625 | chr15:63220152-63221151   | 771    | CA12     | - | -453424 | -0.35 | 0.01  | -0.80 | -0.42 |
| BLCA | 1626 | chr1:160094454-160095453  | 4063   | LY9      | + | -670911 | -0.33 | 0.00  | -1.32 | 0.58  |
| BLCA | 1627 | chr5:158378578-158379577  | 153830 | RNF145   | - | -257984 | -0.32 | -0.04 | -1.04 | 0.42  |
| BLCA | 1628 | chr5:10701846-10702845    | 1611   | DAP      | - | -59042  | -0.32 | 0.00  | 0.31  | -0.44 |
| BLCA | 1629 | chr17:56381168-56382167   | 54903  | MKS1     | - | 84701   | -0.32 | -0.09 | 0.55  | -0.44 |
| BLCA | 1630 | chr10:106345605-106346604 | 85450  | ITPRIP1  | - | 247853  | -0.30 | 0.05  | -1.27 | 0.50  |
| BLCA | 1631 | chr6:138408463-138409462  | 23593  | HEBP2    | + | -316374 | -0.34 | -0.05 | 0.33  | -0.48 |
| BLCA | 1632 | chr1:200863723-200864722  | 7135   | TNNI1    | - | -534772 | -0.32 | 0.00  | 1.53  | -0.48 |
| BLCA | 1633 | chr16:30101180-30102179   | 6693   | SPN      | + | 427408  | -0.31 | 0.06  | -1.15 | 0.64  |
| BLCA | 1634 | chr3:99227656-99228655    | 11259  | FILIP1L  | - | -605194 | -0.31 | -0.07 | -2.86 | 0.44  |
| BLCA | 1635 | chr2:234912688-234913687  | 10123  | ARL4C    | - | -492506 | -0.37 | -0.06 | -0.31 | 0.43  |
| BLCA | 1636 | chr16:30101180-30102179   | 3683   | ITGAL    | + | -382304 | -0.31 | 0.00  | -1.11 | 0.59  |

|      |      |                           |        |          |   |         |       |       |       |       |
|------|------|---------------------------|--------|----------|---|---------|-------|-------|-------|-------|
| BLCA | 1637 | chr12:15954524-15955523   | 4256   | MGP      | - | 916170  | -0.31 | -0.02 | -3.08 | 0.57  |
| BLCA | 1638 | chr7:28344254-28345253    | 54504  | CPVL     | - | -890139 | -0.36 | 0.06  | -1.76 | 0.41  |
| BLCA | 1639 | chr3:27638112-27639111    | 8320   | EOMES    | - | -125595 | -0.31 | 0.02  | -0.67 | 0.47  |
| BLCA | 1640 | chr1:26677600-26678599    | 84958  | SYTL1    | + | -990384 | -0.35 | -0.03 | 1.73  | -0.53 |
| BLCA | 1641 | chr10:113683173-113684172 | 150    | ADRA2A   | + | 846882  | -0.33 | -0.02 | -2.57 | 0.45  |
| BLCA | 1642 | chr1:7201039-7202038      | 55735  | DNAJC11  | - | 439572  | -0.36 | 0.00  | 0.38  | -0.43 |
| BLCA | 1643 | chr13:112902515-112903514 | 2159   | F10      | + | -874099 | -0.31 | -0.12 | -4.86 | 0.47  |
| BLCA | 1644 | chr4:109838178-109839177  | 839    | CASP6    | - | -785952 | -0.36 | -0.06 | 0.90  | -0.53 |
| BLCA | 1645 | chr12:5917691-5918690     | 3736   | KCNA1    | + | 899117  | -0.35 | -0.01 | -2.04 | 0.42  |
| BLCA | 1646 | chr5:167028035-167029034  | 57451  | ODZ2     | + | 316691  | -0.31 | -0.15 | -0.97 | 0.68  |
| BLCA | 1647 | chr2:97203901-97204900    | 9391   | CIAO1    | + | 272516  | 0.34  | -0.07 | 0.40  | 0.41  |
| BLCA | 1648 | chr16:51196959-51197958   | 124460 | SNX20    | - | 482194  | -0.35 | 0.00  | -0.45 | 0.45  |
| BLCA | 1649 | chr5:156119983-156120982  | 84868  | HAVCR2   | - | -415766 | -0.34 | -0.05 | -0.02 | 0.68  |
| BLCA | 1650 | chr6:133888879-133889878  | 8875   | VNN2     | - | 804780  | -0.33 | 0.00  | -1.87 | 0.50  |
| BLCA | 1651 | chr3:21706163-21707162    | 79750  | ZNF385D  | - | -707461 | -0.32 | 0.02  | -2.33 | 0.46  |
| BLCA | 1652 | chr10:16911291-16912290   | 8029   | CUBN     | - | -260026 | -0.32 | 0.01  | -0.89 | 0.43  |
| BLCA | 1653 | chr16:1309050-1310049     | 57799  | RAB40C   | + | 670192  | -0.37 | 0.01  | 0.64  | -0.44 |
| BLCA | 1654 | chr2:223164354-223165819  | 23704  | KCNE4    | + | -751562 | 0.30  | -0.01 | -2.95 | -0.51 |
| BLCA | 1655 | chr8:69780540-69781539    | 23213  | SULF1    | + | -597820 | -0.37 | 0.01  | 0.24  | 0.50  |
| BLCA | 1656 | chr12:8974696-8975808     | 144195 | SLC2A14  | - | 931507  | -0.33 | 0.00  | -2.03 | 0.53  |
| BLCA | 1657 | chr14:101521012-101522930 | 57596  | BEGAIN   | - | 485839  | -0.32 | 0.01  | -1.24 | 0.51  |
| BLCA | 1658 | chr2:8593463-8594462      | 3398   | ID2      | + | -228151 | -0.30 | -0.02 | -1.80 | 0.42  |
| BLCA | 1659 | chr11:75314616-75315615   | 408    | ARRB1    | - | 252240  | -0.31 | 0.00  | -1.18 | 0.47  |
| BLCA | 1660 | chr13:47612985-47613984   | 80183  | C13orf18 | - | 601159  | -0.33 | 0.00  | -1.19 | 0.54  |
| BLCA | 1661 | chr11:58261500-58262499   | 9404   | LPXN     | - | -83694  | -0.31 | -0.04 | -0.71 | 0.42  |
| BLCA | 1662 | chr17:80289000-80290200   | 9146   | HGS      | + | 638637  | -0.38 | -0.01 | 0.71  | -0.40 |
| BLCA | 1663 | chr4:157700649-157701648  | 2743   | GLRB     | + | -296129 | -0.31 | -0.03 | -1.35 | 0.43  |
| BLCA | 1664 | chr8:59042971-59043970    | 9760   | TOX      | - | -988297 | -0.36 | 0.03  | -1.90 | 0.43  |
| BLCA | 1665 | chr1:24592334-24593333    | 11313  | LYPLA2   | + | 475187  | -0.33 | 0.02  | 1.10  | -0.48 |
| BLCA | 1666 | chr7:150810845-150811844  | 155038 | GIMAP8   | + | 663382  | -0.33 | -0.02 | -1.22 | 0.58  |
| BLCA | 1667 | chr16:30101180-30102179   | 83719  | YPEL3    | - | -5858   | -0.31 | -0.04 | 0.41  | -0.42 |
| BLCA | 1668 | chr11:58085323-58086322   | 219972 | MPEG1    | - | -894672 | -0.33 | 0.00  | -1.76 | 0.64  |
| BLCA | 1669 | chr13:41114429-41115428   | 10186  | LHFP     | - | 937572  | -0.35 | -0.02 | -1.90 | 0.44  |
| BLCA | 1670 | chr12:14118380-14119379   | 4256   | MGP      | - | -919974 | -0.32 | -0.02 | -3.08 | 0.43  |
| BLCA | 1671 | chr1:27189830-27190829    | 10256  | CNKSR1   | + | 686348  | -0.31 | 0.02  | 2.10  | -0.60 |
| BLCA | 1672 | chr4:17067550-17068549    | 51056  | LAP3     | + | -510878 | -0.40 | 0.01  | -0.07 | 0.40  |
| BLCA | 1673 | chr12:6324548-6325547     | 715    | C1R      | - | -919996 | -0.33 | -0.09 | -1.83 | 0.66  |
| BLCA | 1674 | chr7:98700726-98701725    | 55971  | BAIAP2L1 | - | 670798  | -0.32 | -0.03 | 1.61  | -0.55 |
| BLCA | 1675 | chr3:170529277-170530276  | 56648  | EIF5A2   | - | -96650  | -0.31 | 0.00  | -1.02 | 0.41  |
| BLCA | 1676 | chr8:134679136-134680135  | 137835 | TMEM71   | - | 906721  | -0.36 | 0.02  | -1.81 | 0.41  |
| BLCA | 1677 | chr11:131771280-131772279 | 50863  | NTM      | + | 531408  | -0.40 | 0.01  | -0.14 | 0.40  |
| BLCA | 1678 | chr12:130187784-130188783 | 144423 | GLT1D1   | + | 850202  | -0.39 | -0.01 | -0.49 | 0.49  |
| BLCA | 1679 | chr1:181616194-181617193  | 57710  | KIAA1614 | + | 734380  | -0.32 | -0.09 | -2.14 | 0.47  |
| BLCA | 1680 | chr12:50595847-50596846   | 25766  | PRPF40B  | + | 579149  | -0.37 | 0.01  | 0.13  | -0.46 |
| BLCA | 1681 | chr11:58261500-58262499   | 219972 | MPEG1    | - | -718495 | -0.31 | 0.00  | -1.76 | 0.63  |
| BLCA | 1682 | chr1:207205947-207206946  | 3586   | IL10     | - | 260607  | -0.30 | 0.00  | -0.94 | 0.59  |
| BLCA | 1683 | chr1:66278419-66279418    | 200132 | TCTEX1D1 | + | -939222 | -0.39 | 0.02  | -1.11 | 0.43  |
| BLCA | 1684 | chr7:137084681-137085680  | 9162   | DGKI     | - | -446429 | -0.36 | -0.02 | -0.30 | 0.43  |
| BLCA | 1685 | chr13:110198449-110199448 | 8660   | IRS2     | - | -239966 | -0.31 | 0.02  | -0.85 | 0.47  |
| BLCA | 1686 | chr4:182861870-182862869  | 90768  | MGC45800 | - | -203299 | -0.32 | 0.03  | -0.13 | 0.67  |
| BLCA | 1687 | chr10:36782436-36783435   | 8325   | FZD8     | - | 852573  | -0.36 | 0.01  | -0.91 | 0.50  |
| BLCA | 1688 | chr7:29608810-29609809    | 9865   | TRIL     | - | 611280  | -0.32 | 0.03  | -1.47 | 0.49  |
| BLCA | 1689 | chr11:123236371-123237370 | 57476  | GRAMD1B  | + | -159658 | -0.31 | -0.07 | 0.78  | 0.45  |
| BLCA | 1690 | chr11:128893351-128894350 | 9743   | ARHGAP32 | - | -168243 | -0.30 | 0.00  | 0.71  | -0.58 |
| BLCA | 1691 | chr2:127456993-127457992  | 55679  | LIMS2    | - | -981868 | -0.31 | 0.00  | -3.48 | 0.49  |
| BLCA | 1692 | chr11:58085323-58086322   | 9404   | LPXN     | - | -259871 | -0.33 | -0.04 | -0.71 | 0.41  |
| BLCA | 1693 | chr4:23504721-23505720    | 10891  | PPARGC1A | - | -969174 | -0.31 | 0.02  | -3.86 | 0.52  |
| BLCA | 1694 | chr5:178636418-178637417  | 285676 | ZNF454   | + | 268723  | -0.30 | 0.04  | -1.84 | 0.40  |
| BLCA | 1695 | chr4:53704046-53705045    | 6443   | SGCB     | - | 800060  | -0.34 | 0.12  | -1.51 | 0.46  |
| BLCA | 1696 | chr11:64773795-64774794   | 823    | CAPN1    | + | -174392 | -0.31 | -0.03 | 0.53  | -0.49 |
| BLCA | 1697 | chr5:4244175-4245174      | 170690 | ADAMTS16 | + | -895769 | -0.34 | -0.02 | -1.76 | 0.51  |
| BLCA | 1698 | chr5:57483708-57484707    | 115827 | RAB3C    | + | -394732 | -0.31 | 0.01  | -1.35 | 0.46  |
| BLCA | 1699 | chr8:76822633-76823632    | 79776  | ZFH4     | + | -770383 | -0.30 | 0.02  | -2.80 | 0.54  |
| BLCA | 1700 | chr17:56381168-56382167   | 9110   | MTMR4    | - | -213584 | -0.32 | 0.00  | 0.87  | -0.42 |
| BLCA | 1701 | chr12:8974696-8975808     | 338339 | CLEC4D   | + | 309115  | -0.33 | 0.00  | -0.13 | 0.51  |
| BLCA | 1702 | chr10:34188523-34189522   | 8829   | NRP1     | - | 565016  | -0.37 | -0.01 | -0.50 | 0.41  |
| BLCA | 1703 | chr7:45921168-45922167    | 10268  | RAMP3    | + | 724300  | -0.35 | -0.08 | -1.13 | 0.45  |
| BLCA | 1704 | chr6:56514287-56515286    | 9532   | BAG2     | + | -522318 | -0.30 | 0.07  | -2.47 | 0.44  |
| BLCA | 1705 | chr5:17413684-17414683    | 54463  | FAM134B  | - | 797016  | -0.36 | 0.07  | -1.32 | 0.42  |
| BLCA | 1706 | chr10:6691015-6692014     | 57713  | SFMBT2   | - | -761934 | -0.34 | 0.00  | -1.29 | 0.49  |
| BLCA | 1707 | chr12:130356712-130357711 | 2054   | STX2     | - | -966608 | -0.37 | -0.14 | -1.48 | 0.42  |
| BLCA | 1708 | chr14:101363687-101364686 | 7453   | WARS     | - | 521506  | -0.36 | 0.00  | 0.55  | 0.42  |
| BLCA | 1709 | chr2:69148396-69149395    | 5341   | PLEK     | + | 556573  | -0.32 | -0.07 | -1.07 | 0.57  |
| BLCA | 1710 | chr1:157938190-157939189  | 149628 | PYHIN1   | + | -962648 | -0.38 | -0.06 | -1.05 | 0.45  |
| BLCA | 1711 | chr1:156130713-156131712  | 1196   | CLK2     | - | 883711  | 0.37  | -0.02 | 0.80  | 0.50  |
| BLCA | 1712 | chr10:16032454-16033453   | 10557  | RPP38    | + | 893774  | -0.40 | 0.03  | 0.63  | -0.46 |
| BLCA | 1713 | chr3:41359780-41360779    | 22906  | TRAK1    | + | -772467 | -0.37 | 0.05  | -0.22 | -0.55 |
| BLCA | 1714 | chr15:84167959-84168958   | 64506  | CPEB1    | - | 851730  | -0.30 | 0.01  | -4.30 | 0.49  |
| BLCA | 1715 | chr7:14543445-14544444    | 2115   | ETV1     | - | 512894  | -0.35 | -0.06 | -0.77 | 0.43  |
| BLCA | 1716 | chr2:58334508-58335507    | 55120  | FANCL    | - | -133508 | -0.30 | 0.01  | 1.08  | -0.45 |
| BLCA | 1717 | chr1:204677373-204678372  | 5129   | CDK18    | + | -795812 | -0.37 | 0.03  | 0.90  | -0.43 |
| BLCA | 1718 | chr2:130558694-130559693  | 55627  | SMPD4    | - | -381130 | -0.34 | -0.04 | 0.67  | -0.41 |

|      |      |                           |           |              |   |         |       |       |       |       |
|------|------|---------------------------|-----------|--------------|---|---------|-------|-------|-------|-------|
| BLCA | 1719 | chr12:130275651-130276650 | 144423    | GLT1D1       | + | 938069  | -0.41 | -0.01 | -0.49 | 0.47  |
| BLCA | 1720 | chr1:159060869-159061868  | 343413    | FCRL6        | + | -708933 | -0.35 | 0.05  | -0.92 | 0.44  |
| BLCA | 1721 | chr4:155104500-155105499  | 23240     | KIAA0922     | + | 717501  | -0.34 | 0.00  | -0.95 | 0.50  |
| BLCA | 1722 | chr2:218463666-218464665  | 3488      | IGFBP5       | - | 903893  | -0.33 | -0.03 | -2.94 | 0.41  |
| BLCA | 1723 | chr17:39109951-39110950   | 7067      | THRA         | + | 892287  | -0.33 | 0.00  | -1.94 | 0.48  |
| BLCA | 1724 | chr16:83280011-83281010   | 1012      | CDH13        | + | 620111  | -0.36 | -0.02 | -0.33 | 0.47  |
| BLCA | 1725 | chr10:35958277-35959276   | 1390      | CREM         | + | 543007  | -0.33 | -0.02 | -1.38 | 0.42  |
| BLCA | 1726 | chr7:43576534-43577533    | 165       | AEBP1        | + | -566927 | -0.31 | -0.02 | -1.68 | 0.56  |
| BLCA | 1727 | chr2:9540259-9541258      | 29841     | GRHL1        | + | -551034 | -0.31 | -0.03 | 1.52  | -0.54 |
| BLCA | 1728 | chr1:157557078-157558077  | 4914      | NTRK1        | + | 772035  | -0.39 | -0.07 | -0.72 | 0.41  |
| BLCA | 1729 | chr14:104574215-104575214 | 29933     | GPR132       | - | -957040 | -0.41 | 0.01  | -0.59 | 0.46  |
| BLCA | 1730 | chr16:26499466-26500465   | 50615     | IL21R        | + | -913518 | -0.42 | -0.14 | -0.02 | 0.53  |
| BLCA | 1731 | chr12:53299793-53300792   | 94        | ACVRL1       | + | 999600  | -0.36 | 0.00  | -1.20 | 0.52  |
| BLCA | 1732 | chr15:75328336-75329335   | 79661     | NEIL1        | + | -310496 | -0.34 | 0.00  | 0.16  | -0.45 |
| BLCA | 1733 | chr1:66659493-66660492    | 254552    | NUDT8        | - | -737416 | -0.32 | 0.01  | 1.80  | -0.48 |
| BLCA | 1734 | chr1:160094454-160095453  | 8832      | CD84         | - | -454353 | -0.33 | -0.15 | -0.38 | 0.59  |
| BLCA | 1735 | chr2:29557960-29558959    | 238       | ALK          | - | -586018 | -0.34 | 0.00  | -0.87 | 0.47  |
| BLCA | 1736 | chr1:207205947-207206946  | 8444      | DYRK3        | + | 397565  | -0.30 | -0.09 | -1.22 | 0.61  |
| BLCA | 1737 | chr4:182659624-182660623  | 90768     | MGC45800     | - | -405545 | -0.33 | 0.03  | -0.13 | 0.57  |
| BLCA | 1738 | chr16:51583933-51584932   | 1540      | CYLD         | + | 808471  | -0.36 | -0.03 | -0.80 | 0.47  |
| BLCA | 1739 | chr10:6805006-6806005     | 5588      | PRKCQ        | - | 183251  | -0.32 | 0.00  | -0.40 | 0.45  |
| BLCA | 1740 | chr15:46635537-46636536   | 80031     | SEMA6D       | + | -840367 | -0.33 | -0.03 | -1.75 | 0.48  |
| BLCA | 1741 | chr10:36238434-36239433   | 8325      | FZD8         | - | 308571  | -0.30 | 0.01  | -0.91 | 0.58  |
| BLCA | 1742 | chr3:7754972-7755971      | 2917      | GRM7         | + | 852669  | -0.33 | 0.00  | -2.60 | 0.40  |
| BLCA | 1743 | chr1:111295245-111296244  | 140       | ADORA3       | - | -810853 | -0.40 | 0.00  | -0.57 | 0.44  |
| BLCA | 1744 | chr1:131970856-131971855  | 50863     | NTM          | + | 730984  | -0.44 | 0.01  | -0.14 | 0.41  |
| BLCA | 1745 | chr10:123778710-123779709 | 5654      | HTRA1        | + | -441832 | -0.31 | -0.07 | -0.92 | 0.58  |
| BLCA | 1746 | chr1:128893351-128894350  | 2313      | FLI1         | + | 337420  | -0.30 | -0.05 | -1.01 | 0.61  |
| BLCA | 1747 | chr13:23332125-23333124   | 26278     | SACS         | - | -675243 | -0.33 | -0.14 | -1.18 | 0.47  |
| BLCA | 1748 | chr14:47572421-47573420   | 161357    | MDGA2        | - | -571237 | -0.38 | -0.09 | 0.17  | 0.41  |
| BLCA | 1749 | chr12:5696309-5697308     | 25900     | IFFO1        | - | -968441 | -0.36 | 0.05  | -1.74 | 0.41  |
| BLCA | 1750 | chr5:157795491-157796490  | 1879      | EBF1         | - | -730798 | -0.31 | 0.02  | -2.74 | 0.43  |
| BLCA | 1751 | chr16:82908056-82909055   | 1012      | CDH13        | + | 248156  | -0.34 | -0.02 | -0.33 | 0.41  |
| BLCA | 1752 | chr8:69538927-69539926    | 23213     | SULF1        | + | -839433 | -0.43 | 0.01  | 0.24  | 0.43  |
| BLCA | 1753 | chr7:69807786-69808785    | 64409     | WBSCR17      | + | -789238 | -0.30 | -0.06 | -4.67 | 0.43  |
| BLCA | 1754 | chr1:119567261-119568260  | 4162      | MCAM         | - | 379920  | -0.31 | 0.00  | -1.53 | 0.46  |
| BLCA | 1755 | chr7:45913879-45914878    | 10268     | RAMP3        | + | 717011  | -0.35 | -0.08 | -1.13 | 0.42  |
| BLCA | 1756 | chr2:1827877-1828876      | 23040     | MYT1L        | - | -506669 | -0.31 | 0.01  | -1.96 | 0.41  |
| BLCA | 1757 | chr5:2762916-2763915      | 153571    | C5orf38      | + | 11153   | -0.30 | 0.00  | 0.11  | 0.48  |
| BLCA | 1758 | chr7:96621811-96623208    | 7979      | SHFM1        | - | 283306  | 0.32  | -0.04 | 0.94  | 0.43  |
| BLCA | 1759 | chr16:84027371-84028370   | 57707     | KIAA1609     | - | -510418 | -0.35 | 0.02  | 0.58  | -0.45 |
| BLCA | 1760 | chr11:75314616-75315615   | 25884     | CHRD12       | - | 872929  | -0.31 | 0.00  | -2.84 | 0.52  |
| BLCA | 1761 | chr4:154036328-154037327  | 23240     | KIAA0922     | + | -350671 | -0.31 | 0.00  | -0.95 | 0.53  |
| BLCA | 1762 | chr6:42283346-42284345    | 4188      | MDFI         | + | 677650  | -0.32 | 0.00  | 1.54  | -0.48 |
| BLCA | 1763 | chr7:18793674-18794673    | 9734      | HDAC9        | + | 667601  | -0.33 | -0.03 | -1.35 | 0.46  |
| BLCA | 1764 | chr17:75384778-75385777   | 63893     | UBE2O        | - | 935989  | 0.40  | 0.00  | 0.64  | 0.45  |
| BLCA | 1765 | chr15:92701385-92702384   | 400451    | FAM174B      | - | -575420 | -0.36 | 0.00  | 0.20  | -0.46 |
| BLCA | 1766 | chr14:21175338-21176337   | 6036      | RNASE2       | + | -211663 | -0.31 | -0.05 | 0.58  | 0.50  |
| BLCA | 1767 | chr1:69435835-69436834    | 9077      | DIRAS3       | - | 919853  | -0.33 | 0.01  | -2.48 | 0.45  |
| BLCA | 1768 | chr7:38720126-38721125    | 54749     | EPDR1        | + | 760462  | -0.34 | -0.01 | -1.60 | 0.42  |
| BLCA | 1769 | chr4:16960438-16961437    | 51056     | LAP3         | + | -617990 | -0.39 | 0.00  | -0.07 | 0.42  |
| BLCA | 1770 | chr3:156530006-156531005  | 5806      | PTX3         | + | -624075 | -0.30 | -0.04 | -2.70 | 0.43  |
| BLCA | 1771 | chr2:218015961-218016960  | 729582    | DIRC3        | - | -604856 | -0.30 | 0.19  | -2.50 | 0.46  |
| BLCA | 1772 | chr17:39109951-39110950   | 3883      | KRT33A       | - | -396614 | -0.33 | -0.03 | 0.91  | -0.41 |
| BLCA | 1773 | chr5:2762916-2763915      | 153572    | IRX2         | - | 11646   | -0.30 | -0.08 | -0.64 | 0.41  |
| BLCA | 1774 | chr13:31747397-31748396   | 100188949 | LOC100188949 | - | 799860  | -0.35 | 0.00  | -1.17 | 0.47  |
| BLCA | 1775 | chr5:156119983-156120982  | 8728      | ADAM19       | - | -882349 | -0.34 | 0.00  | -1.06 | 0.65  |
| BLCA | 1776 | chr6:167636831-167637830  | 83887     | TTL2         | + | -101244 | -0.31 | -0.09 | -0.70 | 0.42  |
| BLCA | 1777 | chr5:56894399-56895398    | 202309    | GAPT         | + | -892432 | -0.35 | 0.00  | -1.52 | 0.42  |
| BLCA | 1778 | chr1:207205947-207206946  | 11009     | IL24         | + | 135658  | -0.30 | 0.00  | 0.93  | 0.44  |
| BLCA | 1779 | chr15:68038430-68039429   | 22801     | ITGA11       | - | -685563 | -0.35 | 0.00  | -0.59 | 0.52  |
| BLCA | 1780 | chr13:94822226-94823225   | 10082     | GPC6         | + | 943647  | -0.31 | 0.00  | -2.60 | 0.51  |
| BLCA | 1781 | chr1:78804820-78805819    | 64123     | ELTD1        | - | -667176 | -0.34 | 0.01  | -1.25 | 0.41  |
| BLCA | 1782 | chr5:7501514-7502513      | 54888     | NSUN2        | - | 868540  | -0.39 | 0.00  | 0.60  | -0.44 |
| BLCA | 1783 | chr1:26677600-26678599    | 646471    | LOC646471    | - | 528002  | -0.35 | 0.00  | 0.48  | -0.44 |
| BLCA | 1784 | chr8:126384093-126385092  | 157381    | LOC157381    | + | 432708  | -0.31 | 0.10  | 1.51  | -0.42 |
| BLCA | 1785 | chr12:101216096-101217095 | 56899     | ANKS1B       | - | 838163  | -0.31 | -0.01 | -3.30 | 0.41  |
| BLCA | 1786 | chr10:117641941-117642940 | 26033     | ATRNL1       | + | 789316  | -0.32 | 0.00  | -1.95 | 0.46  |
| BLCA | 1787 | chr1:209571389-209572388  | 3914      | LAMB3        | - | -253932 | -0.30 | 0.00  | 0.86  | -0.50 |
| BLCA | 1788 | chr8:144301094-144302093  | 375686    | SPATC1       | + | -784989 | -0.41 | -0.02 | 0.09  | 0.44  |
| BLCA | 1789 | chr8:94668567-94669566    | 25788     | RAD54B       | - | -818277 | -0.34 | 0.08  | 1.63  | -0.42 |
| BLCA | 1790 | chr1:204677373-204678372  | 85414     | SLC45A3      | - | -971758 | -0.37 | 0.06  | 0.90  | -0.47 |
| BLCA | 1791 | chr2:137411492-137412491  | 7852      | CXCR4        | - | 536266  | -0.31 | -0.05 | -1.34 | 0.54  |
| BLCA | 1792 | chr5:45260123-45261122    | 2255      | FGF10        | - | 871838  | -0.31 | -0.05 | -3.28 | 0.41  |
| BLCA | 1793 | chr3:117157982-117158981  | 4045      | LSAMP        | - | 994096  | -0.34 | 0.02  | -2.01 | 0.47  |
| BLCA | 1794 | chr3:32897862-32898861    | 10491     | CRTAP        | + | -257089 | -0.30 | 0.09  | -1.22 | 0.46  |
| BLCA | 1795 | chr17:80289000-80290200   | 5148      | PDE6G        | - | 665992  | -0.38 | -0.08 | -0.26 | 0.42  |
| BLCA | 1796 | chr1:151519713-151520712  | 1513      | CTSK         | - | 739295  | -0.32 | -0.01 | -1.53 | 0.54  |
| BLCA | 1797 | chr14:52836837-52837836   | 22795     | NID2         | - | 301390  | -0.34 | -0.08 | -0.17 | 0.43  |
| BLCA | 1798 | chr10:13750189-13751188   | 10133     | OPTN         | + | 608606  | -0.37 | -0.08 | -0.26 | 0.41  |
| BLCA | 1799 | chr1:26216768-26217767    | 1043      | CD52         | + | -427144 | -0.30 | 0.00  | -1.15 | 0.60  |
| BLCA | 1800 | chr1:7027779-7028778      | 55735     | DNAJC11      | - | 266312  | -0.31 | 0.00  | 0.38  | -0.51 |

|      |      |                           |        |           |   |         |       |       |       |       |
|------|------|---------------------------|--------|-----------|---|---------|-------|-------|-------|-------|
| BLCA | 1801 | chr12:46940877-46941876   | 54407  | SLC38A2   | - | 174731  | -0.30 | 0.01  | 0.45  | -0.59 |
| BLCA | 1802 | chr1:151519713-151520712  | 6282   | S100A11   | - | -489299 | -0.32 | -0.01 | 1.38  | -0.43 |
| BLCA | 1803 | chr10:6691015-6692014     | 3559   | IL2RA     | - | 587181  | -0.34 | -0.14 | -0.19 | 0.61  |
| BLCA | 1804 | chr2:162915402-162916401  | 1803   | DPP4      | - | -15151  | -0.30 | -0.12 | -0.36 | 0.42  |
| BLCA | 1805 | chr17:13434961-13435960   | 9953   | HS3ST3B1  | + | -769046 | -0.36 | -0.07 | -0.31 | 0.54  |
| BLCA | 1806 | chr6:130788115-130789114  | 2037   | EPB41L2   | - | -595848 | -0.31 | -0.02 | -1.61 | 0.52  |
| BLCA | 1807 | chr17:76133599-76134598   | 114897 | C1QTNF1   | + | -884918 | -0.35 | 0.00  | -0.76 | 0.54  |
| BLCA | 1808 | chr12:120819819-120820818 | 8683   | SFRS9     | - | -87240  | -0.31 | -0.07 | 0.72  | -0.41 |
| BLCA | 1809 | chr7:37438319-37439318    | 353345 | GPR141    | + | -341178 | -0.35 | 0.00  | 0.00  | 0.41  |
| BLCA | 1810 | chr4:1302817-1303816      | 10336  | PCGF3     | + | 603743  | 0.34  | -0.11 | 0.51  | 0.55  |
| BLCA | 1811 | chr16:30101180-30102179   | 29895  | MYLPF     | + | -284444 | -0.31 | 0.07  | 0.83  | -0.45 |
| BLCA | 1812 | chr3:74512463-74513462    | 23024  | PDZRN3    | - | 838890  | -0.30 | 0.01  | -3.55 | 0.45  |
| BLCA | 1813 | chr1:26677600-26678599    | 164091 | PAQR7     | - | 480355  | -0.35 | 0.00  | 0.34  | -0.43 |
| BLCA | 1814 | chr20:61335039-61336038   | 54994  | C20orf11  | + | -233903 | -0.32 | 0.00  | 0.64  | -0.44 |
| BLCA | 1815 | chr12:8974696-8975808     | 719    | C3AR1     | - | 756296  | -0.33 | -0.21 | -0.88 | 0.63  |
| BLCA | 1816 | chr7:105615308-105616307  | 168455 | FLJ36031  | - | -685827 | -0.36 | -0.01 | -0.51 | 0.43  |
| BLCA | 1817 | chr12:6324548-6325547     | 3902   | LAG3      | + | -556623 | -0.33 | -0.06 | -0.44 | 0.65  |
| BLCA | 1818 | chr15:26912139-26913138   | 57194  | ATP10A    | - | 802321  | -0.36 | -0.05 | -0.71 | 0.45  |
| BLCA | 1819 | chr5:159381690-159382689  | 153830 | RNF145    | - | 745128  | -0.33 | -0.04 | -1.04 | 0.51  |
| BLCA | 1820 | chr1:155194282-155195281  | 28956  | ROBLD3    | + | -829736 | -0.37 | 0.00  | 1.00  | -0.41 |
| BLCA | 1821 | chr4:122110406-122111405  | 308    | ANXA5     | - | -507242 | -0.33 | -0.04 | -0.60 | 0.48  |
| BLCA | 1822 | chr16:51528943-51529942   | 1540   | CYLD      | + | 753481  | -0.37 | -0.03 | -0.80 | 0.40  |
| BLCA | 1823 | chr8:127558626-127559625  | 5462   | POU5F1B   | + | -868732 | -0.35 | 0.01  | 1.00  | -0.49 |
| BLCA | 1824 | chr17:39109951-39110950   | 51195  | RAPGEFL1  | + | 776208  | -0.33 | 0.00  | 1.03  | -0.57 |
| BLCA | 1825 | chr1:5333930-5334929      | 261734 | NPHP4     | - | -718104 | -0.36 | 0.00  | 0.75  | -0.42 |
| BLCA | 1826 | chr12:5917691-5918690     | 3742   | KCNA6     | + | 999848  | -0.35 | -0.09 | -1.77 | 0.42  |
| BLCA | 1827 | chr10:45297960-45298959   | 83937  | RASSF4    | + | -156760 | -0.32 | 0.00  | -0.19 | 0.42  |
| BLCA | 1828 | chr2:1050273-1051272      | 7837   | PXDN      | - | -697519 | -0.36 | 0.27  | -0.75 | 0.42  |
| BLCA | 1829 | chr8:102076012-102077011  | 26166  | RGS22     | - | 958167  | -0.30 | -0.04 | -3.61 | 0.49  |
| BLCA | 1830 | chr1:48307890-48308889    | 6886   | TAL1      | - | 610497  | -0.32 | -0.04 | -1.37 | 0.44  |
| BLCA | 1831 | chr10:10834519-10835518   | 9712   | USP6NL    | - | -818661 | -0.39 | -0.01 | 0.62  | -0.41 |
| BLCA | 1832 | chr16:86386631-86387630   | 3394   | IRF8      | + | 454356  | -0.31 | 0.10  | -1.46 | 0.47  |
| BLCA | 1833 | chr4:24489674-24490673    | 55203  | LGI2      | - | -542241 | -0.32 | 0.00  | -1.23 | 0.45  |
| BLCA | 1834 | chr1:158326883-158327882  | 912    | CD1D      | + | 177645  | -0.32 | 0.01  | -0.58 | 0.41  |
| BLCA | 1835 | chr1:156130713-156131712  | 51093  | C1orf66   | + | -567051 | 0.37  | -0.03 | 0.28  | 0.40  |
| BLCA | 1836 | chr16:69106790-69107789   | 3038   | HAS3      | + | -32178  | -0.31 | 0.09  | 0.01  | -0.45 |
| BLCA | 1837 | chr2:206646718-206647717  | 57683  | ZDBF2     | + | -492306 | -0.30 | 0.01  | -2.09 | 0.41  |
| BLCA | 1838 | chr7:37264086-37265085    | 54749  | EPDR1     | + | -695578 | -0.31 | -0.01 | -1.60 | 0.50  |
| BLCA | 1839 | chr2:86263395-86264394    | 10578  | GNLY      | + | 342480  | 0.32  | -0.07 | 0.62  | -0.45 |
| BLCA | 1840 | chr4:82812963-82813962    | 153020 | RASGEF1B  | - | 420401  | -0.31 | -0.08 | -1.17 | 0.47  |
| BLCA | 1841 | chr3:118734256-118735255  | 141    | ADPRH     | + | -563768 | -0.33 | 0.04  | -0.69 | 0.48  |
| BLCA | 1842 | chr8:144301094-144302093  | 203062 | TSNARE1   | - | 817050  | -0.41 | -0.11 | 0.11  | -0.43 |
| BLCA | 1843 | chr1:27189830-27190829    | 1043   | CD52      | + | 545918  | -0.31 | 0.00  | -1.15 | 0.65  |
| BLCA | 1844 | chr13:78409579-78410578   | 115207 | KCTD12    | - | 949538  | -0.35 | -0.04 | -1.56 | 0.44  |
| BLCA | 1845 | chr10:132691784-132692783 | 253738 | EBF3      | - | 930192  | -0.33 | -0.04 | -2.06 | 0.44  |
| BLCA | 1846 | chr10:117715309-117716308 | 259217 | HSPA12A   | - | -893908 | -0.31 | -0.01 | -2.25 | 0.54  |
| BLCA | 1847 | chr1:12775455-12776454    | 7133   | TNFRSF1B  | + | 548894  | -0.33 | 0.00  | -0.80 | 0.47  |
| BLCA | 1848 | chr1:116854412-116855411  | 4803   | NGF       | - | 974054  | -0.34 | 0.00  | -2.12 | 0.41  |
| BLCA | 1849 | chr20:11898758-11899757   | 22903  | BTBD3     | + | 27780   | 0.30  | 0.00  | -0.59 | -0.42 |
| BLCA | 1850 | chr5:55903004-55904003    | 79722  | ANKRD55   | - | 374317  | -0.31 | 0.09  | -0.82 | 0.58  |
| BLCA | 1851 | chr1:26677600-26678599    | 5051   | PAFAH2    | - | 353451  | -0.35 | -0.05 | 0.11  | -0.40 |
| BLCA | 1852 | chr11:112792259-112793258 | 85458  | DIXDC1    | + | 994890  | -0.30 | -0.08 | -3.15 | 0.52  |
| BLCA | 1853 | chr6:53592284-53593283    | 401265 | KLHL31    | - | 62277   | -0.31 | 0.01  | 0.35  | -0.43 |
| BLCA | 1854 | chr16:30101180-30102179   | 283899 | INO80E    | + | 94148   | -0.31 | 0.00  | 0.46  | -0.41 |
| BLCA | 1855 | chr11:132727588-132728587 | 4978   | OPCML     | - | -674316 | -0.31 | -0.02 | -1.84 | 0.46  |
| BLCA | 1856 | chr15:55131355-55132354   | 9236   | CCPG1     | - | -568854 | -0.32 | -0.01 | -1.07 | 0.46  |
| BLCA | 1857 | chr12:108750917-108751916 | 6404   | SELPGL    | - | -276254 | -0.30 | 0.12  | -1.03 | 0.50  |
| BLCA | 1858 | chr17:35087042-35088041   | 6352   | CCL5      | - | 880164  | -0.38 | -0.05 | -0.21 | 0.50  |
| BLCA | 1859 | chr12:5612536-5613535     | 3742   | KCNA6     | + | 694693  | -0.31 | -0.09 | -1.77 | 0.47  |
| BLCA | 1860 | chr1:27080098-27081097    | 646471 | LOC646471 | - | 930500  | -0.38 | 0.00  | 0.48  | -0.49 |
| BLCA | 1861 | chr16:51583933-51584932   | 124460 | SNX20     | - | 869168  | -0.36 | 0.00  | -0.45 | 0.52  |
| BLCA | 1862 | chr5:146218208-146219207  | 1809   | DPYSL3    | - | -670912 | -0.31 | 0.05  | -2.42 | 0.41  |
| BLCA | 1863 | chr16:86518605-86519604   | 3394   | IRF8      | + | 586330  | -0.30 | 0.10  | -1.46 | 0.63  |
| BLCA | 1864 | chr1:151519713-151520712  | 57592  | ZNF687    | + | 266118  | -0.32 | -0.03 | 0.56  | -0.43 |
| BLCA | 1865 | chr1:26216768-26217767    | 646471 | LOC646471 | - | 67170   | -0.30 | 0.00  | 0.48  | -0.44 |
| BLCA | 1866 | chr1:61087007-61088006    | 1573   | CYP2J2    | - | 695083  | 0.33  | -0.04 | 1.29  | 0.47  |
| BLCA | 1867 | chr7:81380853-81381852    | 781    | CACNA2D1  | - | -691679 | -0.30 | -0.09 | -2.74 | 0.43  |
| BLCA | 1868 | chr3:171283106-171284105  | 56648  | EIF5A2    | - | 657179  | -0.33 | 0.00  | -1.02 | 0.48  |
| BLCA | 1869 | chr1:208603089-208604088  | 1378   | CR1       | + | 934115  | -0.34 | 0.00  | -1.80 | 0.43  |
| BLCA | 1870 | chr17:13434961-13435960   | 84815  | MGC12916  | + | -771597 | -0.36 | -0.03 | 0.25  | 0.52  |
| BLCA | 1871 | chr15:76477602-76478601   | 9051   | PSTPIP1   | + | -808920 | -0.35 | 0.00  | -0.65 | 0.52  |
| BLCA | 1872 | chr1:209571389-209572388  | 3664   | IRF6      | - | -407632 | -0.30 | -0.11 | 1.46  | -0.45 |
| BLCA | 1873 | chr1:108230660-108231659  | 10451  | VAV3      | - | -276386 | -0.30 | 0.00  | 1.16  | -0.45 |
| BLCA | 1874 | chr7:120917992-120918991  | 5803   | PTPRZ1    | + | -594668 | -0.31 | -0.03 | -2.13 | 0.40  |
| BLCA | 1875 | chr1:27189830-27190829    | 84958  | SYTL1     | + | -478154 | -0.31 | -0.03 | 1.73  | -0.42 |
| BLCA | 1876 | chr20:56724499-56725498   | 81030  | ZBP1      | - | 529366  | -0.34 | 0.00  | 0.19  | 0.51  |
| BLCA | 1877 | chr1:228966624-228967623  | 81559  | TRIM11    | - | 372606  | -0.31 | -0.01 | 0.94  | -0.49 |
| BLCA | 1878 | chr16:11690418-11691417   | 8651   | SOCS1     | - | 340878  | -0.30 | 0.05  | -0.87 | 0.52  |
| BLCA | 1879 | chr2:69996725-69997724    | 84168  | ANTXR1    | + | 756948  | -0.36 | 0.00  | -0.83 | 0.41  |
| BLCA | 1880 | chr7:28712746-28713745    | 221895 | JAZF1     | - | 492808  | -0.30 | -0.04 | -1.90 | 0.43  |
| BLCA | 1881 | chr1:162106332-162107331  | 2212   | FCGR2A    | + | 631626  | -0.35 | -0.09 | 0.07  | 0.50  |
| BLCA | 1882 | chr17:48648190-48649189   | 11248  | NXPH3     | + | 995391  | -0.31 | -0.11 | -3.52 | 0.41  |

|      |      |                           |        |          |   |         |       |       |       |       |
|------|------|---------------------------|--------|----------|---|---------|-------|-------|-------|-------|
| BLCA | 1883 | chr10:90013489-90014488   | 9023   | CH25H    | - | -953083 | -0.31 | 0.06  | -3.13 | 0.45  |
| BLCA | 1884 | chr13:22295381-22296380   | 26524  | LATS2    | - | 660158  | -0.32 | -0.01 | -1.50 | 0.42  |
| BLCA | 1885 | chr1:162106332-162107331  | 5999   | RGS4     | + | -931565 | -0.35 | 0.01  | -1.24 | 0.44  |
| BLCA | 1886 | chr3:137365344-137366343  | 22808  | MRAS     | + | -700647 | -0.33 | 0.01  | -1.34 | 0.46  |
| BLCA | 1887 | chr15:84167959-84168958   | 53346  | TM6SF1   | + | 392134  | -0.30 | -0.11 | -1.05 | 0.58  |
| BLCA | 1888 | chr6:56200269-56201268    | 9532   | BAG2     | + | -836336 | -0.31 | 0.07  | -2.47 | 0.45  |
| BLCA | 1889 | chr2:86263395-86264394    | 10791  | VAMP5    | + | 452363  | 0.32  | -0.03 | -0.95 | -0.42 |
| BLCA | 1890 | chr3:116764097-116765096  | 4045   | LSAMP    | - | 600211  | -0.30 | 0.02  | -2.01 | 0.46  |
| BLCA | 1891 | chr16:30101180-30102179   | 90835  | C16orf93 | - | -671886 | -0.31 | 0.00  | 1.89  | -0.44 |
| BLCA | 1892 | chr4:1302817-1303816      | 7469   | WHSC2    | - | -707646 | 0.34  | -0.20 | 0.57  | 0.56  |
| BLCA | 1893 | chr12:132074716-132075715 | 23504  | RIMBP2   | - | 874389  | -0.31 | -0.05 | -2.14 | 0.54  |
| BLCA | 1894 | chr16:51129558-51130557   | 1540   | CYLD     | + | 354096  | -0.31 | -0.03 | -0.80 | 0.49  |
| BLCA | 1895 | chr13:100522621-100523620 | 2841   | GPR18    | - | 612280  | -0.34 | 0.01  | -0.75 | 0.43  |
| BLCA | 1896 | chr1:160031153-160032152  | 114836 | SLAMF6   | - | -461400 | -0.30 | -0.14 | -1.23 | 0.54  |
| BLCA | 1897 | chr1:208955064-208956063  | 80342  | TRAF3IP3 | + | -973831 | -0.40 | 0.00  | -0.71 | 0.41  |
| BLCA | 1898 | chr3:65181432-65182431    | 56999  | ADAMTS9  | - | 508566  | -0.31 | -0.02 | -1.57 | 0.43  |
| BLCA | 1899 | chr13:27768937-27769936   | 2322   | FLT3     | - | -905293 | -0.32 | -0.01 | -1.69 | 0.54  |
| BLCA | 1900 | chr5:56894399-56895398    | 115827 | RAB3C    | + | -984041 | -0.35 | 0.01  | -1.35 | 0.43  |
| BLCA | 1901 | chr11:40802910-40803909   | 57689  | LRRRC4C  | - | -677777 | -0.31 | -0.02 | -2.03 | 0.43  |
| BLCA | 1902 | chr14:104574215-104575214 | 7127   | TNFAIP2  | + | 982050  | -0.41 | 0.00  | 0.68  | -0.40 |
| BLCA | 1903 | chr4:62706527-62707526    | 23284  | LPHN3    | + | 640052  | -0.31 | -0.04 | -1.73 | 0.48  |
| BLCA | 1904 | chr17:56381168-56382167   | 5414   | SEPT4    | - | -236512 | -0.32 | 0.04  | -0.48 | 0.42  |
| BLCA | 1905 | chr1:66659493-66660492    | 5499   | PPP1CA   | - | -528662 | -0.32 | 0.09  | 1.09  | -0.43 |
| BLCA | 1906 | chr9:137036033-137037032  | 1289   | COL5A1   | + | -497119 | -0.35 | 0.00  | -0.21 | 0.43  |
| BLCA | 1907 | chr11:65374163-65375162   | 4221   | MEN1     | - | 795896  | 0.33  | 0.02  | 1.27  | 0.45  |
| BLCA | 1908 | chr1:59892692-59893691    | 4070   | TACSTD2  | - | 850025  | -0.33 | -0.03 | 1.99  | -0.41 |
| BLCA | 1909 | chr11:119567261-119568260 | 7070   | THY1     | - | 273514  | -0.31 | -0.02 | 0.43  | 0.53  |
| BLCA | 1910 | chr20:61335039-61336038   | 6725   | SRMS     | - | -843319 | -0.32 | 0.03  | 1.57  | -0.56 |
| BLCA | 1911 | chr11:128893351-128894350 | 3762   | KCNJ5    | + | 132537  | -0.30 | 0.02  | -0.79 | 0.41  |
| BLCA | 1912 | chr1:66659493-66660492    | 80194  | TMEM134  | - | -576756 | -0.32 | -0.04 | 0.81  | -0.49 |
| BLCA | 1913 | chr6:162258567-162259566  | 135138 | PACRG    | + | -889098 | -0.32 | 0.01  | -2.19 | 0.44  |
| BLCA | 1914 | chr16:30101180-30102179   | 79447  | C16orf53 | + | 274151  | -0.31 | -0.02 | 0.90  | -0.40 |
| BLCA | 1915 | chr2:100594483-100595482  | 150590 | C2orf15  | + | 836797  | -0.35 | -0.04 | 1.37  | -0.40 |
| BLCA | 1916 | chr19:18118166-18119165   | 2063   | NR2F6    | - | 762514  | 0.36  | 0.03  | 0.83  | 0.41  |
| BLCA | 1917 | chr3:67361613-67362612    | 407738 | FAM19A1  | + | -678622 | -0.34 | -0.02 | -0.75 | 0.43  |
| BLCA | 1918 | chr13:78427703-78428702   | 115207 | KCTD12   | - | 967662  | -0.34 | -0.04 | -1.56 | 0.46  |
| BLCA | 1919 | chr1:40597955-40598954    | 54802  | TRIT1    | - | 249277  | 0.31  | 0.00  | 0.90  | 0.41  |
| BLCA | 1920 | chr2:28407763-28408762    | 200634 | KRTCAP3  | + | 743029  | -0.31 | -0.04 | 1.89  | -0.46 |
| BLCA | 1921 | chr17:41521155-41522154   | 162427 | FAM134C  | - | 759013  | -0.34 | 0.07  | 0.57  | -0.52 |
| BLCA | 1922 | chr4:47183421-47184420    | 152518 | NFXL1    | - | -732760 | -0.36 | 0.07  | 0.64  | -0.42 |
| BLCA | 1923 | chr6:90845352-90846351    | 58528  | RRAGD    | - | 723856  | -0.33 | 0.00  | -1.26 | 0.42  |
| BLCA | 1924 | chr4:183687979-183688978  | 55714  | ODZ3     | + | 623338  | -0.31 | 0.01  | -1.56 | 0.47  |
| BLCA | 1925 | chr6:138426212-138427211  | 23593  | HEBP2    | + | -298625 | -0.32 | -0.05 | 0.33  | -0.44 |
| BLCA | 1926 | chr6:127134537-127135536  | 387104 | C6orf174 | - | -705464 | -0.30 | -0.03 | -2.27 | 0.43  |
| BLCA | 1927 | chr11:64610135-64611134   | 7108   | TM7SF2   | + | -268692 | -0.30 | -0.03 | 0.83  | -0.48 |
| BLCA | 1928 | chr1:160031153-160032152  | 343413 | FCRL6    | + | 261351  | -0.30 | 0.05  | -0.92 | 0.45  |
| BLCA | 1929 | chr17:32895102-32896101   | 3980   | LIG3     | + | -411916 | -0.34 | -0.03 | 0.23  | -0.41 |
| BLCA | 1930 | chr7:45921168-45922167    | 64005  | MYO1G    | - | 902963  | -0.35 | -0.14 | -0.65 | 0.55  |
| BLCA | 1931 | chr17:39109951-39110950   | 3728   | JUP      | - | -832514 | -0.33 | 0.01  | 1.53  | -0.43 |
| BLCA | 1932 | chr17:78500426-78501425   | 146713 | HRNBP3   | - | 988695  | -0.30 | -0.03 | -6.52 | 0.43  |
| BLCA | 1933 | chr3:22412732-22413731    | 7325   | UBE2E2   | + | -831422 | -0.36 | -0.14 | -0.82 | 0.42  |
| BLCA | 1934 | chr2:86263395-86264394    | 388969 | C2orf68  | - | 424715  | 0.32  | -0.07 | 0.76  | 0.42  |
| BLCA | 1935 | chr7:105615308-105616307  | 5294   | PIK3CG   | + | -889916 | -0.36 | 0.02  | -0.94 | 0.41  |
| BLCA | 1936 | chr10:44754214-44755213   | 83937  | RASSF4   | + | -700506 | -0.34 | 0.00  | -0.19 | 0.57  |
| BLCA | 1937 | chr10:46009525-46010524   | 83937  | RASSF4   | + | 554805  | -0.33 | 0.00  | -0.19 | 0.63  |
| BLCA | 1938 | chr12:132074716-132075715 | 2054   | STX2     | - | 751396  | -0.31 | -0.14 | -1.48 | 0.62  |
| BLCA | 1939 | chr10:6691015-6692014     | 3601   | IL15RA   | - | 671364  | -0.34 | -0.05 | -0.31 | 0.51  |
| BLCA | 1940 | chr10:98228021-98229020   | 10580  | SORBS1   | - | 907349  | -0.30 | 0.00  | -4.41 | 0.41  |
| BLCA | 1941 | chr1:160031153-160032152  | 962    | CD48     | - | -649989 | -0.30 | 0.00  | -1.63 | 0.54  |
| BLCA | 1942 | chr12:106394491-106395490 | 9891   | NUAK1    | - | -138821 | -0.31 | -0.10 | 0.27  | 0.45  |
| BLCA | 1943 | chr4:72685516-72686515    | 9508   | ADAMTS3  | - | -748501 | -0.34 | 0.04  | -0.88 | 0.43  |
| BLCA | 1944 | chr6:39915611-39916610    | 57497  | LRFN2    | - | -639016 | -0.31 | -0.20 | 1.41  | -0.46 |
| BLCA | 1945 | chr3:65779302-65780301    | 26018  | LRIG1    | - | -771044 | -0.30 | -0.24 | -1.83 | 0.52  |
| BLCA | 1946 | chr5:178735943-178736942  | 255426 | RASGEF1C | - | -899688 | -0.32 | 0.02  | -2.58 | 0.42  |
| BLCA | 1947 | chr1:160031153-160032152  | 6504   | SLAMF1   | - | -585429 | -0.30 | 0.00  | -1.44 | 0.54  |
| BLCA | 1948 | chr15:61011810-61012809   | 6095   | RORA     | - | -509193 | -0.30 | -0.01 | -1.72 | 0.42  |
| BLCA | 1949 | chr5:155872037-155873036  | 84868  | HAVCR2   | - | -663712 | -0.37 | -0.05 | -0.02 | 0.41  |
| BLCA | 1950 | chr14:101445487-101446486 | 57596  | BEGAIN   | - | 409855  | -0.31 | 0.01  | -1.24 | 0.43  |
| BLCA | 1951 | chr5:157440314-157441313  | 84868  | HAVCR2   | - | 904565  | -0.40 | -0.05 | -0.02 | 0.45  |
| BLCA | 1952 | chr7:69597200-69598199    | 64409  | WBSCR17  | + | -999824 | -0.30 | -0.06 | -4.67 | 0.43  |
| BLCA | 1953 | chr6:145218531-145219530  | 7402   | UTRN     | + | 611540  | -0.31 | 0.02  | -1.69 | 0.41  |
| BLCA | 1954 | chr1:66659493-66660492    | 338692 | ANKRD13D | + | -396770 | -0.32 | 0.00  | 0.65  | -0.42 |
| BLCA | 1955 | chr3:42864732-42865731    | 7433   | VIPR1    | + | 334440  | -0.33 | -0.01 | 0.12  | -0.45 |
| BLCA | 1956 | chr11:105780802-105781801 | 114769 | CARD16   | - | 865250  | -0.38 | -0.06 | -0.42 | 0.41  |
| BLCA | 1957 | chr11:58261500-58262499   | 710    | SERPING1 | + | 896972  | -0.31 | 0.07  | -1.58 | 0.57  |
| BLCA | 1958 | chr7:96618568-96619575    | 7979   | SHFM1    | - | 279868  | 0.30  | -0.04 | 0.94  | 0.42  |
| BLCA | 1959 | chr16:86518605-86519604   | 2303   | FOXC2    | + | -81753  | -0.30 | 0.00  | -0.47 | 0.41  |
| BLCA | 1960 | chr7:99638591-99639590    | 26024  | PTCD1    | - | 602628  | -0.35 | 0.01  | 0.44  | -0.42 |
| BLCA | 1961 | chr7:84789371-84790370    | 10371  | SEMA3A   | - | 965653  | -0.31 | 0.03  | -2.13 | 0.49  |
| BLCA | 1962 | chr10:44774498-44775497   | 83937  | RASSF4   | + | -680222 | -0.33 | 0.00  | -0.19 | 0.61  |
| BLCA | 1963 | chr11:66659493-66660492   | 54961  | SSH3     | + | -410927 | -0.32 | -0.08 | 0.13  | -0.51 |
| BLCA | 1964 | chr5:178636418-178637417  | 9509   | ADAMTS2  | - | -135514 | -0.30 | 0.04  | -0.64 | 0.42  |

|      |      |                           |           |            |   |         |       |       |       |       |
|------|------|---------------------------|-----------|------------|---|---------|-------|-------|-------|-------|
| BLCA | 1965 | chr13:30498183-30499182   | 84056     | KATNAL1    | - | -382942 | -0.30 | -0.05 | -1.51 | 0.42  |
| BLCA | 1966 | chr6:138426212-138427211  | 57224     | NHSL1      | - | -466957 | -0.32 | -0.06 | 0.94  | -0.41 |
| BLCA | 1967 | chr10:6805006-6806005     | 57713     | SFMBT2     | - | -647943 | -0.32 | 0.00  | -1.29 | 0.43  |
| BLCA | 1968 | chr5:155924286-155925285  | 84868     | HAVCR2     | - | -611463 | -0.34 | -0.05 | -0.02 | 0.52  |
| BLCA | 1969 | chr4:16845797-16846796    | 51056     | LAP3       | + | -732631 | -0.37 | 0.01  | -0.07 | 0.44  |
| BLCA | 1970 | chr17:14366585-14367584   | 9955      | HS3ST3A1   | - | 861840  | -0.38 | 0.00  | 0.18  | 0.44  |
| BLCA | 1971 | chr4:16324429-16325428    | 9079      | LDB2       | - | -575496 | -0.30 | -0.06 | -1.95 | 0.40  |
| BLCA | 1972 | chr2:239437306-239438305  | 9759      | HDAC4      | - | -885541 | -0.32 | -0.05 | -1.82 | 0.47  |
| BLCA | 1973 | chr16:30101180-30102179   | 26000     | TBC1D10B   | - | -279843 | -0.31 | 0.02  | 0.68  | -0.41 |
| BLCA | 1974 | chr3:2462034-2463033      | 3568      | IL5RA      | - | -689525 | -0.33 | 0.00  | -0.68 | 0.50  |
| BLCA | 1975 | chr10:98424648-98425647   | 953       | ENTPD1     | + | 953611  | -0.34 | -0.04 | -1.16 | 0.45  |
| BLCA | 1976 | chr1:160031153-160032152  | 56833     | SLAMF8     | + | 235173  | -0.30 | -0.09 | 0.72  | 0.45  |
| BLCA | 1977 | chr12:76570864-76571863   | 11010     | GLIPR1     | + | 696850  | -0.31 | -0.03 | -1.36 | 0.54  |
| BLCA | 1978 | chr1:180491030-180492029  | 200058    | FLJ23867   | + | 324385  | -0.32 | 0.00  | 0.16  | -0.45 |
| BLCA | 1979 | chr12:5917691-5918690     | 920       | CD4        | + | -980448 | -0.35 | 0.06  | -1.14 | 0.44  |
| BLCA | 1980 | chr14:93724877-93725876   | 123041    | SLC24A4    | + | 936451  | -0.32 | -0.08 | -1.44 | 0.68  |
| BLCA | 1981 | chr5:33324141-33325140    | 4883      | NPR3       | + | 613897  | -0.32 | -0.07 | -1.35 | 0.41  |
| BLCA | 1982 | chr11:122179028-122180027 | 79827     | ASAM       | - | -886480 | -0.33 | 0.07  | -1.91 | 0.40  |
| BLCA | 1983 | chr8:133099301-133100300  | 137835    | TMEM71     | - | -673114 | -0.31 | 0.02  | -1.81 | 0.41  |
| BLCA | 1984 | chr12:51701479-51702478   | 91        | ACVR1B     | + | -643473 | -0.35 | 0.24  | 0.29  | -0.44 |
| BLCA | 1985 | chr16:80333422-80334421   | 4094      | MAF        | - | 699299  | -0.32 | 0.00  | -1.27 | 0.44  |
| BLCA | 1986 | chr1:26216768-26217767    | 149420    | PDIK1L     | + | -220389 | -0.30 | 0.02  | 0.59  | -0.44 |
| BLCA | 1987 | chr12:132074716-132075715 | 6433      | SFRS8      | + | -120417 | -0.31 | 0.02  | 0.35  | -0.40 |
| BLCA | 1988 | chr5:158378578-158379577  | 134510    | UBLCP1     | + | -311012 | -0.32 | -0.02 | -0.24 | 0.42  |
| BLCA | 1989 | chr17:75370976-75371975   | 114757    | CYGB       | - | 837488  | 0.32  | -0.01 | -2.06 | -0.41 |
| BLCA | 1990 | chr2:100426473-100427472  | 80705     | TSGA10     | - | 655785  | -0.35 | 0.03  | 0.16  | -0.44 |
| BLCA | 1991 | chr17:41521155-41522154   | 56970     | ATXNL3     | - | -753875 | -0.34 | 0.01  | 0.55  | -0.47 |
| BLCA | 1992 | chr8:20456526-20457525    | 55790     | CSGALNACT1 | - | 841643  | -0.31 | -0.07 | -2.57 | 0.41  |
| BLCA | 1993 | chr6:124881793-124882792  | 154215    | NKAIN2     | + | 757223  | -0.35 | 0.01  | -0.75 | 0.43  |
| BLCA | 1994 | chr1:33685935-33686934    | 57648     | KIAA1522   | + | 478922  | -0.30 | 0.03  | 1.09  | -0.50 |
| BLCA | 1995 | chr8:18743946-18744945    | 55790     | CSGALNACT1 | - | -870937 | 0.31  | -0.07 | -2.57 | -0.42 |
| BLCA | 1996 | chr17:47178778-47179777   | 3211      | HOXB1      | - | 571005  | -0.35 | 0.00  | 0.12  | -0.41 |
| BLCA | 1997 | chr20:61731479-61732478   | 140685    | ZBTB46     | - | -730619 | -0.35 | 0.04  | -0.69 | 0.42  |
| BLCA | 1998 | chr1:162106332-162107331  | 27005     | USP21      | + | 977577  | -0.35 | -0.02 | 0.82  | -0.48 |
| BLCA | 1999 | chr1:26677600-26678599    | 6548      | SLC9A1     | - | -803522 | -0.35 | 0.04  | 0.48  | -0.47 |
| BLCA | 2000 | chr1:48359954-48360953    | 6886      | TAL1       | - | 662561  | -0.32 | -0.04 | -1.37 | 0.42  |
| BLCA | 2001 | chr5:67745710-67746709    | 153562    | MARVELD2   | + | -964730 | -0.34 | 0.06  | 1.23  | -0.44 |
| BLCA | 2002 | chr16:72821165-72822164   | 3240      | HP         | + | 733156  | 0.33  | 0.00  | -1.16 | -0.44 |
| BLCA | 2003 | chr10:98424648-98425647   | 9849      | ZNF518A    | + | 535675  | -0.34 | 0.03  | 0.28  | -0.41 |
| BLCA | 2004 | chr5:159381690-159382689  | 134510    | UBLCP1     | + | 692100  | -0.33 | -0.02 | -0.24 | 0.54  |
| BLCA | 2005 | chr16:83273295-83274294   | 1012      | CDH13      | + | 613395  | -0.35 | -0.02 | -0.33 | 0.41  |
| BLCA | 2006 | chr1:159060869-159061868  | 912       | CD1D       | + | 911631  | -0.35 | 0.01  | -0.58 | 0.47  |
| BLCA | 2007 | chr1:160094454-160095453  | 100131187 | TSTD1      | - | -913821 | -0.33 | -0.03 | 1.52  | -0.44 |
| BLCA | 2008 | chr6:13355172-13356171    | 221692    | PHACTR1    | + | 638634  | -0.31 | 0.00  | -1.75 | 0.43  |
| BLCA | 2009 | chr1:203670640-203671639  | 127845    | GOLT1A     | - | -512081 | -0.32 | 0.03  | 0.86  | -0.42 |
| BLCA | 2010 | chr21:46867592-46868591   | 3689      | ITGB2      | - | 519338  | -0.31 | 0.00  | -0.58 | 0.52  |
| BLCA | 2011 | chr15:47966675-47967674   | 2200      | FBN1       | - | -970811 | -0.33 | -0.01 | -1.77 | 0.41  |
| BLCA | 2012 | chr13:35191571-35192570   | 90627     | STARD13    | - | 941138  | -0.32 | -0.07 | -2.18 | 0.42  |
| BLCA | 2013 | chr12:50595847-50596846   | 4891      | SLC11A2    | - | -825712 | -0.37 | -0.24 | 0.37  | -0.40 |
| BLCA | 2014 | chr5:4519048-4520047      | 170690    | ADAMTS16   | + | -620896 | -0.31 | -0.02 | -1.76 | 0.41  |
| BLCA | 2015 | chr16:51129558-51130557   | 124460    | SNX20      | - | 414793  | -0.31 | 0.00  | -0.45 | 0.52  |
| BLCA | 2016 | chr6:1325715-1326714      | 3662      | IRF4       | + | 934475  | -0.31 | 0.04  | -1.73 | 0.63  |
| BLCA | 2017 | chr13:27768937-27769936   | 219402    | MTIF3      | - | -255303 | -0.32 | -0.03 | 0.12  | -0.41 |
| BLCA | 2018 | chr16:72821165-72822164   | 3250      | HPR        | + | 724539  | 0.33  | -0.06 | -1.17 | -0.43 |
| BLCA | 2019 | chr1:64773795-64774794    | 26472     | PPP1R14B   | - | 759881  | -0.31 | -0.17 | 1.52  | -0.45 |
| BLCA | 2020 | chr16:26426850-26427849   | 50615     | IL21R      | + | -986134 | -0.38 | -0.14 | -0.02 | 0.48  |
| BLCA | 2021 | chr20:56724499-56725498   | 51497     | TH1L       | + | -831265 | -0.34 | 0.00  | 0.80  | -0.46 |
| BLCA | 2022 | chr3:65181432-65182431    | 166336    | PRICKLE2   | - | 970800  | -0.31 | 0.00  | -2.55 | 0.46  |
| BLCA | 2023 | chr1:19794869-19795868    | 255104    | TMCO4      | - | -331390 | -0.33 | 0.10  | 0.08  | -0.42 |
| BLCA | 2024 | chr3:41359780-41360779    | 253639    | ZNF620     | + | 812749  | -0.37 | -0.08 | 0.13  | -0.42 |
| BLCA | 2025 | chr2:75537114-75538113    | 7841      | MOGS       | - | 845076  | -0.32 | -0.01 | 1.22  | -0.49 |
| BLCA | 2026 | chr1:207205947-207206946  | 1380      | CR2        | + | -421199 | -0.30 | 0.04  | -1.09 | 0.44  |
| BLCA | 2027 | chr3:99377532-99378531    | 10402     | ST3GAL6    | + | 926951  | -0.39 | 0.00  | -0.18 | 0.42  |
| BLCA | 2028 | chr14:64663183-64664182   | 57381     | RHOJ       | + | 992580  | 0.30  | 0.01  | -2.26 | -0.53 |
| BLCA | 2029 | chr1:162106332-162107331  | 2207      | FCER1G     | + | 921744  | -0.35 | -0.07 | -0.21 | 0.57  |
| BLCA | 2030 | chr14:62393994-62394993   | 161291    | TMEM30B    | - | 645963  | -0.35 | -0.11 | 0.30  | -0.40 |
| BLCA | 2031 | chr16:75519665-75520664   | 79726     | WDR59      | - | 501147  | -0.34 | -0.07 | 0.13  | -0.41 |
| BLCA | 2032 | chr4:115843433-115844432  | 79642     | ARSL       | - | 943054  | -0.32 | 0.00  | -1.34 | 0.54  |
| BLCA | 2033 | chr4:24274465-24275464    | 55203     | LGI2       | - | -757450 | -0.31 | 0.00  | -1.23 | 0.55  |
| BLCA | 2034 | chr17:13215054-13216053   | 9953      | HS3ST3B1   | + | -988953 | -0.38 | -0.07 | -0.31 | 0.45  |
| BLCA | 2035 | chr7:29648385-29649384    | 9865      | TRIL       | - | 650855  | -0.31 | 0.03  | -1.47 | 0.41  |
| BLCA | 2036 | chr1:33685935-33686934    | 113452    | TMEM54     | - | 319481  | -0.30 | 0.04  | 0.86  | -0.44 |
| BLCA | 2037 | chr17:75370976-75371975   | 9021      | SOCS3      | - | -984683 | 0.32  | -0.09 | -2.54 | -0.41 |
| BLCA | 2038 | chr17:2141341-2142340     | 23277     | KIAA0664   | - | -473087 | 0.33  | -0.04 | 0.36  | 0.43  |
| BLCA | 2039 | chr1:42097292-42098291    | 9783      | RIMS3      | - | 966467  | -0.35 | -0.03 | -1.30 | 0.41  |
| BLCA | 2040 | chr20:61335039-61336038   | 26039     | SS18L1     | + | 616716  | -0.32 | 0.00  | 0.62  | -0.54 |
| BLCA | 2041 | chr2:86263395-86264394    | 925       | CD8A       | - | -771625 | 0.32  | -0.05 | -0.89 | -0.50 |
| BLCA | 2042 | chr8:102076012-102077011  | 26986     | PABPC1     | - | 342196  | -0.30 | 0.01  | 0.65  | -0.47 |
| BLCA | 2043 | chr17:13215054-13216053   | 84815     | MGC12916   | + | -991504 | -0.38 | -0.03 | 0.25  | 0.46  |
| BLCA | 2044 | chr21:45788879-45789878   | 3689      | ITGB2      | - | -559375 | -0.31 | 0.00  | -0.58 | 0.57  |
| BLCA | 2045 | chr1:151519713-151520712  | 8416      | ANXA9      | + | 565713  | -0.32 | 0.00  | 0.58  | -0.48 |
| BLCA | 2046 | chr12:114700913-114701912 | 10993     | SDS        | - | 859720  | -0.36 | 0.03  | 0.60  | 0.41  |

|      |      |                           |           |              |   |         |       |       |       |       |
|------|------|---------------------------|-----------|--------------|---|---------|-------|-------|-------|-------|
| BLCA | 2047 | chr4:5028195-5029194      | 1400      | CRMP1        | - | -866091 | -0.35 | -0.02 | -0.91 | 0.41  |
| BLCA | 2048 | chr15:60862879-60863878   | 6095      | RORA         | - | -658124 | -0.30 | -0.01 | -1.72 | 0.44  |
| BLCA | 2049 | chr2:127456993-127457992  | 2840      | GPR17        | + | -945947 | -0.31 | -0.07 | -2.57 | 0.41  |
| BLCA | 2050 | chr7:14380281-14381280    | 2115      | ETV1         | - | 349730  | -0.30 | -0.06 | -0.77 | 0.45  |
| BLCA | 2051 | chr17:35417837-35418836   | 79154     | DHRS11       | + | 470110  | -0.30 | -0.03 | 0.79  | -0.54 |
| BLCA | 2052 | chr5:157732788-157733787  | 8728      | ADAM19       | - | 730456  | -0.31 | 0.00  | -1.06 | 0.56  |
| BLCA | 2053 | chr13:30498183-30499182   | 84935     | C13orf33     | + | -981630 | -0.30 | -0.05 | -2.72 | 0.48  |
| BLCA | 2054 | chr5:9927193-9928192      | 10299     | MARCH6       | + | -426059 | -0.32 | 0.00  | 0.48  | -0.44 |
| BLCA | 2055 | chr10:90013489-90014488   | 9060      | PAPSS2       | + | 594512  | -0.31 | 0.01  | -0.72 | 0.57  |
| BLCA | 2056 | chr5:155908746-155909745  | 84868     | HAVCR2       | - | -627003 | -0.34 | -0.05 | -0.02 | 0.46  |
| BLCA | 2057 | chr10:114526214-114527213 | 64429     | ZDHHC6       | - | 319407  | -0.32 | -0.02 | 0.34  | -0.41 |
| BLCA | 2058 | chr7:2516429-2517428      | 202915    | TMEM184A     | - | 920862  | -0.31 | 0.03  | 2.20  | -0.44 |
| BLCA | 2059 | chr7:43576534-43577533    | 644       | BLVRA        | + | -221239 | -0.31 | -0.06 | -0.48 | 0.41  |
| BLCA | 2060 | chr5:157562161-157563160  | 1879      | EBF1         | - | -964128 | -0.31 | 0.02  | -2.74 | 0.42  |
| BLCA | 2061 | chr12:132963493-132964492 | 100289635 | ZNF605       | - | -568900 | -0.34 | -0.13 | 0.36  | -0.42 |
| BLCA | 2062 | chr13:110761077-110762076 | 55739     | CARKD        | + | -506231 | -0.34 | -0.04 | -0.03 | -0.41 |
| BLCA | 2063 | chr15:84167959-84168958   | 646       | BNC1         | - | 214990  | -0.30 | -0.02 | 0.28  | 0.47  |
| BLCA | 2064 | chr6:163549954-163550953  | 285796    | LOC285796    | - | -195052 | -0.31 | -0.09 | -0.34 | 0.40  |
| BLCA | 2065 | chr6:145218531-145219530  | 8676      | STX11        | + | 747376  | -0.31 | 0.00  | -1.40 | 0.44  |
| BLCA | 2066 | chr13:41114429-41115428   | 9617      | MTRF1        | - | -722814 | -0.35 | 0.06  | 0.25  | -0.42 |
| BLCA | 2067 | chr11:119567261-119568260 | 643       | CXCR5        | + | 813285  | -0.31 | -0.04 | -1.42 | 0.57  |
| BLCA | 2068 | chr4:24232394-24233393    | 55203     | LGI2         | - | -799521 | -0.32 | 0.00  | -1.23 | 0.45  |
| BLCA | 2069 | chr10:44194956-44195955   | 5979      | RET          | + | 622938  | -0.33 | 0.02  | -0.71 | 0.41  |
| BLCA | 2070 | chr3:61873093-61874092    | 5793      | PTPRG        | + | 326349  | -0.30 | -0.01 | -0.47 | 0.51  |
| BLCA | 2071 | chr1:205641042-205642041  | 10446     | LRRN2        | - | 986944  | -0.32 | -0.07 | -2.14 | 0.42  |
| BLCA | 2072 | chr11:11605582-11606581   | 55742     | PARVA        | + | -792945 | -0.32 | -0.07 | -1.43 | 0.44  |
| BLCA | 2073 | chr5:167393519-167394518  | 57451     | ODZ2         | + | 682175  | -0.30 | -0.15 | -0.97 | 0.69  |
| BLCA | 2074 | chr12:8974696-8975808     | 50856     | CLEC4A       | + | 699023  | -0.33 | 0.10  | -0.02 | 0.55  |
| BLCA | 2075 | chr20:61335039-61336038   | 1917      | EEF1A2       | - | -795130 | -0.32 | -0.17 | 1.23  | -0.48 |
| BLCA | 2076 | chr5:9927193-9928192      | 134145    | FAM173B      | - | -322329 | -0.32 | 0.01  | 0.17  | -0.43 |
| BLCA | 2077 | chr1:116854412-116855411  | 80263     | TRIM45       | - | -809500 | -0.34 | 0.05  | 0.44  | -0.48 |
| BLCA | 2078 | chr1:211908805-211909804  | 55509     | BATF3        | - | -964023 | -0.34 | -0.02 | -0.48 | 0.59  |
| BLCA | 2079 | chr16:1309050-1310049     | 1877      | E4F1         | + | -964018 | -0.37 | -0.06 | 0.45  | -0.41 |
| BLCA | 2080 | chr10:11116964-11117963   | 55526     | DHTKD1       | + | -993453 | -0.36 | -0.13 | 0.93  | -0.40 |
| BLCA | 2081 | chr12:52484929-52485928   | 23371     | TENC1        | + | -955382 | -0.31 | -0.01 | -2.23 | 0.42  |
| BLCA | 2082 | chr15:27091900-27092899   | 57194     | ATP10A       | - | 982082  | -0.34 | -0.05 | -0.71 | 0.52  |
| BLCA | 2083 | chr7:101585159-101586158  | 54784     | ALKBH4       | - | -519663 | -0.31 | 0.04  | 0.92  | -0.41 |
| BLCA | 2084 | chr6:73519883-73520882    | 80759     | KHDC1        | - | -499556 | -0.31 | -0.02 | -0.56 | 0.50  |
| BLCA | 2085 | chr11:66659493-66660492   | 9610      | RIN1         | - | 555681  | -0.32 | -0.06 | 0.79  | -0.41 |
| BLCA | 2086 | chr4:140968539-140969538  | 4258      | MGST2        | + | 382116  | -0.32 | 0.00  | -0.01 | -0.47 |
| BLCA | 2087 | chr7:1163049-1164141      | 56975     | FAM20C       | + | 970625  | 0.31  | 0.03  | -1.36 | -0.60 |
| BLCA | 2088 | chr7:88119370-88120369    | 154661    | RUNDC3B      | + | 862140  | -0.30 | 0.00  | -2.16 | 0.43  |
| BLCA | 2089 | chr3:8817556-8818555      | 440944    | LOC440944    | - | -621119 | -0.33 | 0.02  | 0.62  | -0.42 |
| BLCA | 2090 | chr11:119567261-119568260 | 83552     | MFRP         | - | 350377  | -0.31 | -0.08 | -0.44 | 0.46  |
| BLCA | 2091 | chr12:52484929-52485928   | 51411     | BIN2         | - | 766976  | -0.31 | 0.07  | -0.91 | 0.54  |
| BLCA | 2092 | chr19:42592483-42593482   | 1084      | CEACAM3      | + | 292460  | -0.30 | -0.04 | -0.44 | 0.44  |
| BLCA | 2093 | chr15:75328336-75329335   | 57611     | ISLR2        | + | 907120  | -0.34 | -0.02 | -0.91 | 0.43  |
| BLCA | 2094 | chr13:30498183-30499182   | 100188949 | LOC100188949 | - | -449354 | -0.30 | 0.00  | -1.17 | 0.42  |
| BLCA | 2095 | chr9:91390047-91391046    | 10912     | GADD45G      | + | -829381 | -0.30 | -0.04 | -1.45 | 0.53  |
| BLCA | 2096 | chr3:170187222-170188221  | 56648     | EIF5A2       | - | -438705 | -0.30 | 0.00  | -1.02 | 0.43  |
| BLCA | 2097 | chr14:93724877-93725876   | 78990     | OTUB2        | + | -767348 | -0.32 | 0.01  | 1.49  | -0.41 |
| BLCA | 2098 | chr15:66436524-66437523   | 57722     | IGDCC4       | - | 721613  | -0.30 | -0.04 | -1.95 | 0.41  |
| BLCA | 2099 | chr3:195648038-195649037  | 375387    | LRRC33       | + | -718119 | -0.32 | -0.03 | -1.00 | 0.42  |
| BLCA | 2100 | chr6:44628903-44629902    | 57505     | AARS2        | - | 348339  | -0.31 | 0.03  | 0.49  | -0.43 |
| BLCA | 2101 | chr16:66126075-66127074   | 1009      | CDH11        | - | 970655  | -0.32 | 0.05  | -1.47 | 0.45  |
| BLCA | 2102 | chr8:71380716-71381715    | 81796     | SLCO5A1      | - | 633916  | -0.35 | -0.07 | -0.09 | 0.41  |
| BLCA | 2103 | chr11:64773795-64774794   | 5331      | PLCB3        | + | 755299  | -0.31 | -0.08 | 0.79  | -0.55 |
| BLCA | 2104 | chr12:5675005-5676004     | 4055      | LTBR         | + | -809030 | -0.34 | -0.03 | 0.76  | -0.42 |
| BLCA | 2105 | chr1:240929121-240930120  | 6000      | RGS7         | - | -590858 | -0.33 | -0.01 | -0.11 | 0.45  |
| BLCA | 2106 | chr1:151519713-151520712  | 54507     | ADAMTSL4     | + | 998314  | -0.32 | -0.08 | -1.95 | 0.42  |
| BLCA | 2107 | chr17:41521155-41522154   | 79990     | PLEKHH3      | - | 692606  | -0.34 | 0.00  | -0.18 | -0.43 |
| BLCA | 2108 | chr17:76133599-76134598   | 64772     | ENGASE       | + | -936921 | -0.35 | 0.15  | 0.69  | -0.41 |
| BLCA | 2109 | chr3:99352580-99353579    | 10402     | ST3GAL6      | + | 901999  | -0.34 | 0.00  | -0.18 | 0.53  |
| BLCA | 2110 | chr16:11690418-11691417   | 608       | TNFRSF17     | + | -368047 | -0.30 | -0.01 | -0.33 | 0.48  |
| BLCA | 2111 | chr3:121310423-121311422  | 942       | CD86         | + | -463287 | -0.31 | -0.02 | -0.29 | 0.54  |
| BLCA | 2112 | chr16:83022740-83023739   | 1012      | CDH13        | + | 362840  | -0.31 | -0.02 | -0.33 | 0.43  |
| BLCA | 2113 | chr7:69882055-69883054    | 26053     | AUTS2        | + | 818649  | -0.32 | 0.00  | -0.78 | 0.51  |
| BLCA | 2114 | chr5:136112115-136113114  | 7045      | TGFB1        | + | 748030  | -0.34 | 0.00  | -0.08 | 0.45  |
| BLCA | 2115 | chr3:135432051-135433050  | 2047      | EPHB1        | + | 918451  | -0.30 | -0.02 | -1.79 | 0.56  |
| BLCA | 2116 | chr3:100244562-100245561  | 1295      | COL8A1       | + | 887621  | -0.35 | 0.00  | -0.73 | 0.41  |
| BLCA | 2117 | chr11:64610135-64611134   | 116071    | BATF2        | - | -153883 | -0.30 | 0.07  | -0.18 | 0.42  |
| BLCA | 2118 | chr10:98228021-98229020   | 953       | ENTPD1       | + | 756984  | -0.30 | -0.04 | -1.16 | 0.58  |
| BLCA | 2119 | chr1:209571389-209572388  | 148304    | C1orf74      | - | -386002 | -0.30 | -0.02 | 0.77  | -0.42 |
| BLCA | 2120 | chr5:178636418-178637417  | 255426    | RASGEF1C     | - | -999213 | -0.30 | 0.02  | -2.58 | 0.45  |
| BLCA | 2121 | chr1:24592334-24593333    | 864       | RUNX3        | - | -698779 | -0.33 | -0.03 | -0.61 | 0.45  |
| BLCA | 2122 | chr20:61335039-61336038   | 5753      | PTK6         | - | -833185 | -0.32 | 0.00  | 1.52  | -0.42 |
| BLCA | 2123 | chr16:30101180-30102179   | 79724     | ZNF768       | - | -444540 | -0.31 | -0.06 | 0.22  | -0.47 |
| BLCA | 2124 | chr2:178107399-178108398  | 114880    | OSBPL6       | + | -951310 | -0.33 | -0.02 | -1.14 | 0.46  |
| BLCA | 2125 | chr19:42592483-42593482   | 558       | AXL          | + | 867874  | -0.30 | -0.15 | -1.84 | 0.46  |
| BLCA | 2126 | chr10:1827339-1828338     | 23185     | LARP4B       | - | 850193  | -0.34 | 0.12  | 0.55  | -0.45 |
| BLCA | 2127 | chr12:5612536-5613535     | 55200     | PLEKHG6      | + | -806567 | -0.31 | -0.04 | 1.24  | -0.46 |
| BLCA | 2128 | chr20:56724499-56725498   | 2778      | GNAS         | + | -689797 | -0.34 | -0.02 | 0.34  | -0.42 |

|      |      |                           |        |            |   |         |       |       |       |       |
|------|------|---------------------------|--------|------------|---|---------|-------|-------|-------|-------|
| BLCA | 2129 | chr5:146218208-146219207  | 10915  | TCERG1     | + | 391834  | -0.31 | 0.02  | 0.31  | -0.44 |
| BLCA | 2130 | chr15:84539766-84540765   | 53346  | TM6SF1     | + | 763941  | -0.32 | -0.11 | -1.05 | 0.42  |
| BLCA | 2131 | chr1:208603089-208604088  | 4179   | CD46       | + | 678205  | -0.34 | -0.03 | 0.31  | -0.41 |
| BLCA | 2132 | chr2:31607261-31608260    | 58484  | NLRC4      | - | -883052 | -0.35 | 0.00  | -0.09 | 0.49  |
| BLCA | 2133 | chr1:66641468-66642467    | 9829   | DNAJC6     | + | 921819  | -0.33 | -0.04 | -1.38 | 0.42  |
| BLCA | 2134 | chr2:28407763-28408762    | 245711 | SPDYA      | + | -597121 | -0.31 | 0.00  | 0.82  | -0.45 |
| BLCA | 2135 | chr10:98228021-98229020   | 9849   | ZNF518A    | + | 339048  | -0.30 | 0.03  | 0.28  | -0.47 |
| BLCA | 2136 | chr10:14001894-14002893   | 10133  | OPTN       | + | 860311  | -0.35 | -0.08 | -0.26 | 0.43  |
| BLCA | 2137 | chr16:82969952-82970951   | 1012   | CDH13      | + | 310052  | -0.31 | -0.02 | -0.33 | 0.42  |
| BLCA | 2138 | chr1:19794869-19795868    | 127707 | KLHDC7A    | + | 987944  | -0.33 | 0.00  | 0.83  | -0.55 |
| BLCA | 2139 | chr1:199372286-199373285  | 5788   | PTPRC      | + | 764687  | -0.30 | -0.03 | -1.46 | 0.49  |
| BLCA | 2140 | chr12:52484929-52485928   | 5463   | POU6F1     | - | 873951  | -0.31 | -0.09 | -1.62 | 0.42  |
| BLCA | 2141 | chr2:216795447-216796446  | 2335   | FN1        | - | 495155  | -0.31 | -0.11 | -0.47 | 0.45  |
| BLCA | 2142 | chr12:5775118-5776117     | 25900  | IFFO1      | - | -889632 | -0.31 | 0.05  | -1.74 | 0.42  |
| BLCA | 2143 | chr13:36458309-36459308   | 8900   | CCNA1      | + | -546849 | -0.33 | -0.03 | -0.01 | 0.43  |
| BLCA | 2144 | chr8:55917895-55918894    | 10434  | LYPLA1     | - | 903817  | -0.34 | 0.16  | 0.59  | -0.43 |
| BLCA | 2145 | chr1:160031153-160032152  | 4063   | LY9        | + | -734212 | -0.30 | 0.00  | -1.32 | 0.49  |
| BLCA | 2146 | chr1:77505074-77506073    | 256435 | ST6GALNAC3 | + | 965184  | -0.32 | 0.00  | -1.84 | 0.40  |
| BLCA | 2147 | chr1:162106332-162107331  | 5498   | PPOX       | + | 970650  | -0.35 | -0.03 | 0.56  | -0.43 |
| BLCA | 2148 | chr4:77702881-77703880    | 10563  | CXCL13     | + | -729527 | -0.33 | 0.05  | 0.60  | 0.44  |
| BLCA | 2149 | chr5:158152861-158153860  | 3593   | IL12B      | - | -604121 | -0.34 | 0.01  | -0.18 | 0.40  |
| BLCA | 2150 | chr12:32517391-32518390   | 160518 | DENND5B    | - | 773938  | -0.32 | -0.07 | -1.20 | 0.40  |
| BLCA | 2151 | chr16:30101180-30102179   | 64319  | FBRS       | + | -569564 | -0.31 | 0.00  | 0.27  | -0.51 |
| BLCA | 2152 | chr13:114064508-114066396 | 22821  | RASA3      | - | -832644 | -0.30 | 0.00  | -1.57 | 0.50  |
| BLCA | 2153 | chr1:151519713-151520712  | 29956  | LASS2      | - | 572733  | -0.32 | 0.00  | 0.58  | -0.42 |
| BLCA | 2154 | chr1:58085323-58086322    | 29015  | SLC43A3    | - | 890769  | -0.33 | 0.00  | -0.93 | 0.43  |
| BLCA | 2155 | chr1:101658919-101659918  | 54112  | GPR88      | + | 655690  | -0.33 | 0.09  | -0.23 | 0.43  |
| BLCA | 2156 | chr1:113797621-113798620  | 26191  | PTPN22     | - | -616255 | -0.30 | -0.21 | -0.59 | 0.66  |
| BLCA | 2157 | chr19:1167854-1168853     | 126308 | MOBK2A     | - | -927916 | -0.36 | -0.01 | -0.37 | 0.41  |
| BLCA | 2158 | chr17:64947942-64948941   | 201134 | CCDC46     | - | 760229  | -0.30 | 0.01  | -1.60 | 0.41  |
| BLCA | 2159 | chr5:178735943-178736942  | 55819  | RNF130     | - | -762667 | -0.32 | -0.10 | -0.82 | 0.46  |
| BLCA | 2160 | chr1:58085323-58086322    | 5553   | PRG2       | - | 894290  | -0.33 | 0.05  | -0.81 | 0.44  |
| BLCA | 2161 | chr2:28407763-28408762    | 165186 | FAM179A    | + | -795902 | -0.31 | 0.03  | -0.83 | 0.53  |
| BLCA | 2162 | chr1:160031153-160032152  | 8832   | CD84       | - | -517654 | -0.30 | -0.15 | -0.38 | 0.55  |
| BLCA | 2163 | chr5:157795491-157796490  | 8728   | ADAM19     | - | 793159  | -0.31 | 0.00  | -1.06 | 0.47  |
| BLCA | 2164 | chr8:55917895-55918894    | 137695 | TMEM68     | - | -767491 | -0.34 | -0.11 | 0.30  | -0.40 |
| BLCA | 2165 | chr16:51129558-51130557   | 64127  | NOD2       | + | 402543  | -0.31 | -0.06 | 0.46  | 0.41  |
| BLCA | 2166 | chr1:203670640-203671639  | 22874  | PLEKHA6    | - | -657918 | -0.32 | -0.03 | -0.52 | -0.44 |
| BLCA | 2167 | chr11:119567261-119568260 | 2542   | SLC37A4    | - | 666144  | -0.31 | 0.07  | 1.21  | -0.42 |
| BLCA | 2168 | chr3:8661019-8662018      | 440944 | LOC440944  | - | -777656 | -0.32 | 0.02  | 0.62  | -0.49 |
| BLCA | 2169 | chr3:8817556-8818555      | 8536   | CAMK1      | - | -993613 | -0.33 | -0.02 | -1.09 | 0.44  |
| BLCA | 2170 | chr11:122105736-122106735 | 79827  | ASAM       | - | -959772 | -0.31 | 0.07  | -1.91 | 0.43  |
| BLCA | 2171 | chr5:157795491-157796490  | 153830 | RNF145     | - | -841071 | -0.31 | -0.04 | -1.04 | 0.49  |
| BLCA | 2172 | chr5:67745710-67746709    | 202243 | CCDC125    | - | -882411 | -0.34 | -0.05 | 0.33  | -0.43 |
| BLCA | 2173 | chr15:88558641-88559640   | 4240   | MFGE8      | - | -897523 | -0.31 | -0.06 | -0.86 | 0.54  |
| BLCA | 2174 | chr5:155801433-155802432  | 84868  | HAVCR2     | - | -734316 | -0.34 | -0.05 | -0.02 | 0.43  |
| BLCA | 2175 | chr11:64610135-64611134   | 83706  | FERMT3     | + | 636482  | -0.30 | 0.01  | -0.48 | 0.71  |
| BLCA | 2176 | chr16:30101180-30102179   | 54620  | FBXL19     | + | -832713 | -0.31 | -0.01 | 0.83  | -0.50 |
| BLCA | 2177 | chr3:22347599-22348598    | 7325   | UBE2E2     | + | -896555 | -0.32 | -0.14 | -0.82 | 0.45  |
| BLCA | 2178 | chr12:5775118-5776117     | 4055   | LTBR       | + | -708917 | -0.31 | -0.03 | 0.76  | -0.44 |
| BLCA | 2179 | chr3:42864732-42865731    | 22906  | TRAK1      | + | 732485  | -0.33 | 0.05  | -0.22 | -0.46 |
| BLCA | 2180 | chr19:42592483-42593482   | 1089   | CEACAM4    | - | 459540  | -0.30 | 0.04  | -0.03 | 0.49  |
| BLCA | 2181 | chr6:149206653-149207652  | 340152 | ZC3H12D    | - | -598996 | -0.30 | 0.01  | -0.12 | 0.59  |
| BLCA | 2182 | chr20:61335039-61336038   | 50861  | STMN3      | - | -949425 | -0.32 | -0.06 | -1.06 | 0.47  |
| BLCA | 2183 | chr1:19794869-19795868    | 127731 | VWA5B1     | + | -822044 | -0.33 | 0.13  | -0.81 | -0.41 |
| BLCA | 2184 | chr13:97126231-97127230   | 22873  | DZIP1      | - | 829770  | -0.30 | 0.04  | -1.71 | 0.43  |
| BLCA | 2185 | chr3:8661019-8662018      | 55209  | SETD5      | + | -777885 | -0.32 | -0.03 | 0.33  | -0.52 |
| BLCA | 2186 | chr11:61792785-61793784   | 79064  | TMEM223    | - | -766202 | -0.30 | -0.10 | 1.12  | -0.45 |
| BLCA | 2187 | chr2:86263395-86264394    | 926    | CD8B       | - | -825153 | 0.32  | 0.00  | -0.82 | -0.42 |
| BLCA | 2188 | chr1:203670640-203671639  | 134    | ADORA1     | + | 574303  | -0.32 | -0.02 | 0.30  | 0.41  |
| BLCA | 2189 | chr15:26942532-26943531   | 57194  | ATP10A     | + | 832714  | -0.32 | -0.05 | -0.71 | 0.43  |
| BLCA | 2190 | chr13:30498183-30499182   | 241    | ALOX5AP    | + | -788933 | -0.30 | 0.09  | -1.19 | 0.49  |
| BLCA | 2191 | chr16:20054721-20055720   | 112479 | ERI2       | - | -856341 | -0.32 | 0.01  | 0.40  | -0.51 |
| BLCA | 2192 | chr17:35417837-35418836   | 729877 | TBC1D3H    | - | 612321  | -0.30 | -0.08 | 0.66  | -0.49 |
| BLCA | 2193 | chr15:84539766-84540765   | 646    | BNC1       | - | 586797  | -0.32 | -0.02 | 0.28  | 0.40  |
| BLCA | 2194 | chr3:27638112-27639111    | 152100 | CMC1       | + | -644513 | -0.31 | -0.03 | 0.76  | -0.41 |
| BLCA | 2195 | chr4:1302817-1303816      | 170960 | ZNF721     | - | 810356  | 0.34  | 0.01  | 0.21  | 0.43  |
| BLCA | 2196 | chr12:5612536-5613535     | 939    | CD27       | + | -941016 | -0.31 | 0.19  | -0.76 | 0.58  |
| BLCA | 2197 | chr10:6805006-6806005     | 3559   | IL2RA      | - | 701172  | -0.32 | -0.14 | -0.19 | 0.47  |
| BLCA | 2198 | chr15:93902288-93903287   | 400451 | FAM174B    | - | 625483  | -0.32 | 0.00  | 0.20  | -0.42 |
| BLCA | 2199 | chr1:179074114-179075113  | 400798 | C1orf220   | + | 562682  | -0.30 | -0.04 | 0.72  | -0.43 |
| BLCA | 2200 | chr1:24592334-24593333    | 148898 | C1orf213   | + | 897369  | -0.33 | 0.07  | 0.71  | -0.44 |
| BLCA | 2201 | chr5:177953242-177954241  | 9509   | ADAMTS2    | - | -818690 | -0.32 | 0.04  | -0.64 | 0.46  |
| BLCA | 2202 | chr14:93724877-93725876   | 79890  | RIN3       | + | 745251  | -0.32 | 0.00  | -0.54 | 0.45  |
| BLCA | 2203 | chr17:35417837-35418836   | 388372 | CCL4L2     | + | 879868  | -0.30 | 0.18  | -0.94 | 0.62  |
| BLCA | 2204 | chr16:69106790-69107789   | 80004  | ESRP2      | - | 837153  | -0.31 | -0.01 | 1.12  | -0.45 |
| BLCA | 2205 | chr13:47229427-47230426   | 220082 | SPERT      | + | 953480  | 0.32  | 0.03  | 1.48  | 0.40  |
| BLCA | 2206 | chr8:71239628-71240627    | 81796  | SLC05A1    | - | 492828  | -0.31 | -0.07 | -0.09 | 0.45  |
| BLCA | 2207 | chr10:6805006-6806005     | 3601   | IL15RA     | - | 785355  | -0.32 | -0.05 | -0.31 | 0.49  |
| BLCA | 2208 | chr8:141369729-141370728  | 5747   | PTK2       | - | -641184 | 0.32  | 0.00  | 0.21  | 0.44  |
| BLCA | 2209 | chr16:83370723-83371722   | 1012   | CDH13      | + | 710823  | -0.32 | -0.02 | -0.33 | 0.46  |
| BLCA | 2210 | chr16:30101180-30102179   | 112755 | STX1B      | - | -920150 | -0.31 | 0.07  | -0.63 | 0.60  |

|      |      |                           |           |           |   |         |       |       |       |       |
|------|------|---------------------------|-----------|-----------|---|---------|-------|-------|-------|-------|
| BLCA | 2211 | chr4:38859270-38860269    | 23216     | TBC1D1    | + | 967064  | -0.31 | -0.14 | -1.05 | 0.46  |
| BLCA | 2212 | chr10:98228021-98229020   | 54619     | CCNJ      | + | 425361  | -0.30 | -0.13 | 0.16  | -0.45 |
| BLCA | 2213 | chr3:37224766-37225765    | 30        | ACAA1     | - | -953468 | -0.34 | -0.06 | 0.25  | -0.46 |
| BLCA | 2214 | chr3:15351993-15352992    | 51244     | C3orf19   | + | 659239  | -0.31 | 0.00  | 0.20  | -0.47 |
| BLCA | 2215 | chr13:109803028-109804027 | 8660      | IRS2      | - | -635387 | -0.30 | 0.02  | -0.85 | 0.43  |
| BLCA | 2216 | chr17:39109951-39110950   | 60681     | FKBP10    | + | -858512 | -0.33 | -0.03 | -0.36 | 0.42  |
| BLCA | 2217 | chr12:5573920-5574919     | 4055      | LTBR      | + | -910115 | -0.32 | -0.03 | 0.76  | -0.46 |
| BLCA | 2218 | chr1:207205947-207206946  | 4179      | CD46      | + | -718937 | -0.30 | -0.03 | 0.31  | -0.61 |
| BLCA | 2219 | chr5:25393394-25394393    | 1008      | CDH10     | - | 748808  | -0.31 | -0.02 | -1.10 | 0.41  |
| BLCA | 2220 | chr1:112901715-112902714  | 128346    | C1orf162  | + | 885610  | -0.30 | -0.05 | -0.81 | 0.64  |
| BLCA | 2221 | chr5:9838464-9839463      | 10299     | MARCH6    | + | -514788 | -0.31 | 0.00  | 0.48  | -0.40 |
| BLCA | 2222 | chr11:61792785-61793784   | 921       | CD5       | + | 923354  | -0.30 | 0.00  | -1.08 | 0.49  |
| BLCA | 2223 | chr3:187570676-187571675  | 6480      | ST6GAL1   | + | 922860  | -0.30 | 0.00  | -1.03 | 0.54  |
| BLCA | 2224 | chr20:61335039-61336038   | 79144     | PPDPF     | + | -816595 | -0.32 | -0.01 | 0.59  | -0.45 |
| BLCA | 2225 | chr19:42592483-42593482   | 90273     | CEACAM21  | + | 537096  | -0.30 | -0.08 | 0.07  | 0.48  |
| BLCA | 2226 | chr13:107928282-107929281 | 10673     | TNFSF13B  | + | -993196 | -0.32 | 0.00  | -0.84 | 0.47  |
| BLCA | 2227 | chr12:15954524-15955523   | 420       | ART4      | - | 958610  | -0.31 | -0.08 | -0.85 | 0.50  |
| BLCA | 2228 | chr1:27189830-27190829    | 149420    | PD1K1L    | + | 752673  | -0.31 | 0.02  | 0.59  | -0.47 |
| BLCA | 2229 | chr5:157732788-157733787  | 153830    | RNF145    | - | -903774 | -0.31 | -0.04 | -1.04 | 0.45  |
| BLCA | 2230 | chr1:219504123-219505122  | 7042      | TGFB2     | + | 985946  | -0.31 | 0.00  | -1.17 | 0.44  |
| BLCA | 2231 | chr12:94564592-94565591   | 11163     | NUDT4     | + | 793390  | -0.32 | 0.00  | -0.37 | -0.45 |
| BLCA | 2232 | chr1:64610135-64611134    | 79829     | NAA40     | + | 904192  | -0.30 | 0.00  | 1.06  | -0.53 |
| BLCA | 2233 | chr5:67844633-67845632    | 153562    | MARVELD2  | + | -865807 | -0.31 | 0.06  | 1.23  | -0.41 |
| BLCA | 2234 | chr15:84167959-84168958   | 83640     | FAM103A1  | + | 513503  | -0.30 | -0.05 | 0.56  | -0.42 |
| BLCA | 2235 | chr11:131907320-131908319 | 50863     | NTM       | + | 667448  | -0.31 | 0.01  | -0.14 | 0.46  |
| BLCA | 2236 | chr1:112901715-112902714  | 140       | ADORA3    | - | 795617  | -0.30 | 0.00  | -0.57 | 0.57  |
| BLCA | 2237 | chr11:131920173-131921172 | 50863     | NTM       | + | 680301  | -0.31 | 0.01  | -0.14 | 0.47  |
| BLCA | 2238 | chr17:73679483-73680482   | 146722    | CD300LF   | - | 970874  | -0.32 | 0.06  | 0.32  | 0.53  |
| BLCA | 2239 | chr17:2141341-2142340     | 7531      | YWHAE     | - | 838284  | 0.33  | 0.00  | 0.53  | 0.40  |
| BLCA | 2240 | chr1:130398400-130399399  | 50863     | NTM       | + | -841472 | -0.33 | 0.01  | -0.14 | 0.44  |
| BLCA | 2241 | chr1:160031153-160032152  | 100131187 | TSTD1     | - | -977122 | -0.30 | -0.03 | 1.52  | -0.45 |
| BLCA | 2242 | chr6:91988464-91989463    | 60468     | BACH2     | - | 982336  | -0.30 | -0.01 | -1.23 | 0.49  |
| BLCA | 2243 | chr13:108039019-108040018 | 10673     | TNFSF13B  | + | -882459 | -0.31 | 0.00  | -0.84 | 0.44  |
| BLCA | 2244 | chr5:38670611-38671610    | 1601      | DAB2      | - | -754225 | -0.31 | 0.01  | -0.79 | 0.42  |
| BLCA | 2245 | chr1:27189830-27190829    | 257101    | ZNF683    | - | 491063  | -0.31 | 0.05  | 0.01  | 0.42  |
| BLCA | 2246 | chr2:28407763-28408762    | 2976      | GTF3C2    | - | 828361  | -0.31 | 0.00  | 0.58  | -0.47 |
| BLCA | 2247 | chr8:71239628-71240627    | 23213     | SULF1     | + | 861268  | -0.31 | 0.01  | 0.24  | 0.60  |
| BLCA | 2248 | chr17:14941629-14942628   | 84815     | MGC12916  | + | 735071  | -0.30 | -0.03 | 0.25  | 0.54  |
| BLCA | 2249 | chr11:64610135-64611134   | 83707     | TRPT1     | - | 616908  | -0.30 | -0.04 | 0.44  | -0.46 |
| BLCA | 2250 | chr5:178636418-178637417  | 55819     | RNF130    | - | -862192 | -0.30 | -0.10 | -0.82 | 0.49  |
| BLCA | 2251 | chr7:155744044-155745043  | 202781    | LOC202781 | + | 949400  | -0.32 | -0.01 | 0.44  | -0.46 |
| BLCA | 2252 | chr14:21175338-21176337   | 56339     | METTL3    | - | -803620 | -0.31 | -0.08 | 0.48  | -0.47 |
| BLCA | 2253 | chr4:183687979-183688978  | 90768     | MGC45800  | - | 622810  | -0.31 | 0.03  | -0.13 | 0.44  |
| BLCA | 2254 | chr17:31478952-31479951   | 64149     | C17orf75  | - | 810223  | -0.31 | -0.10 | 0.66  | -0.42 |
| BLCA | 2255 | chr16:30101180-30102179   | 606724    | LOC606724 | + | 641013  | -0.31 | -0.07 | -0.17 | 0.42  |
| BLCA | 2256 | chr17:14941629-14942628   | 9953      | HS3ST3B1  | + | 737622  | -0.30 | -0.07 | -0.31 | 0.51  |
| BLCA | 2257 | chr1:151519713-151520712  | 55204     | GOLPH3L   | - | 850540  | -0.32 | -0.11 | 0.17  | -0.47 |
| BLCA | 2258 | chr3:8661019-8662018      | 25917     | THUMP3    | + | -743199 | -0.32 | -0.06 | 0.39  | -0.41 |
| BLCA | 2259 | chr2:1077939-1078938      | 7837      | PXDN      | - | -669853 | -0.30 | 0.27  | -0.75 | 0.42  |
| BLCA | 2260 | chr3:8910924-8911923      | 8536      | CAMK1     | - | -900245 | -0.30 | -0.02 | -1.09 | 0.47  |
| BLCA | 2261 | chr15:63311670-63312669   | 9960      | USP3      | + | -484541 | -0.30 | 0.03  | 0.19  | -0.42 |
| BLCA | 2262 | chr2:28407763-28408762    | 130557    | ZNF513    | - | 804651  | -0.31 | 0.04  | 0.34  | -0.47 |
| BLCA | 2263 | chr3:99227656-99228655    | 10402     | ST3GAL6   | + | 777075  | -0.31 | 0.00  | -0.18 | 0.53  |
| BLCA | 2264 | chr8:69646161-69647160    | 23213     | SULF1     | + | -732199 | -0.31 | 0.01  | 0.24  | 0.45  |
| BLCA | 2265 | chr16:58685597-58686596   | 10300     | KATNB1    | + | 916436  | -0.32 | -0.01 | 0.70  | -0.42 |
| BLCA | 2266 | chr16:11690418-11691417   | 4261      | CIITA     | + | 719862  | -0.30 | 0.09  | -0.29 | 0.47  |
| BLCA | 2267 | chr6:21277454-21278453    | 1871      | E2F3      | + | 875816  | -0.30 | 0.00  | 0.82  | -0.45 |
| BLCA | 2268 | chr17:31478952-31479951   | 7756      | ZNF207    | + | 802294  | -0.31 | 0.02  | 0.37  | -0.43 |
| BLCA | 2269 | chr18:3773274-3774273     | 84034     | EMILIN2   | + | 926745  | -0.31 | -0.03 | -0.56 | 0.48  |
| BLCA | 2270 | chr1:229365501-229366500  | 81559     | TRIM11    | - | 771483  | -0.30 | -0.01 | 0.94  | -0.41 |
| BLCA | 2271 | chr1:24592334-24593333    | 80818     | ZNF436    | - | 896476  | -0.33 | -0.07 | 0.30  | -0.41 |
| BLCA | 2272 | chr4:109798753-109799752  | 839       | CASP6     | - | -825377 | -0.30 | -0.06 | 0.90  | -0.44 |
| BLCA | 2273 | chr1:26216768-26217767    | 864       | RUNX3     | - | 925655  | -0.30 | -0.03 | -0.61 | 0.53  |
| BLCA | 2274 | chr2:183408971-183409970  | 375298    | CERKL     | - | 864078  | -0.31 | -0.18 | -0.78 | 0.43  |
| BLCA | 2275 | chr3:8910924-8911923      | 55209     | SETD5     | + | -527980 | -0.30 | -0.03 | 0.33  | -0.40 |
| BLCA | 2276 | chr7:4778339-4779811      | 60        | ACTB      | + | -791158 | 0.31  | 0.00  | -0.51 | -0.43 |
| BLCA | 2277 | chr14:64663183-64664182   | 376267    | RAB15     | - | -775193 | 0.30  | -0.14 | 0.51  | 0.44  |
| BLCA | 2278 | chr15:88558641-88559640   | 145864    | HAPLN3    | - | -879630 | -0.31 | -0.01 | 0.66  | 0.41  |
| BLCA | 2279 | chr13:109803028-109804027 | 10673     | TNFSF13B  | + | 881550  | -0.30 | 0.00  | -0.84 | 0.44  |
| BLCA | 2280 | chr1:5364333-5365471      | 112464    | PRKCDBP   | - | -976839 | -0.30 | -0.03 | -1.08 | 0.43  |
| BLCA | 2281 | chr6:73519883-73520882    | 135228    | CD109     | + | -885126 | -0.31 | 0.00  | -0.23 | 0.48  |
| BLCA | 2282 | chr5:157795491-157796490  | 134510    | UBLCP1    | + | -894099 | -0.31 | -0.02 | -0.24 | 0.48  |
| BLCA | 2283 | chr17:55846290-55847289   | 8161      | COIL      | - | 808378  | -0.31 | -0.04 | 0.61  | -0.40 |
| BLCA | 2284 | chr1:112370038-112371037  | 143903    | LAYN      | + | 959304  | -0.31 | -0.13 | -0.76 | 0.42  |
| BLCA | 2285 | chr5:67844633-67845632    | 202243    | CCDC125   | - | -783488 | -0.31 | -0.05 | 0.33  | -0.41 |
| BLCA | 2286 | chr6:44628903-44629902    | 7422      | VEGFA     | + | 891456  | -0.31 | 0.05  | 0.26  | -0.46 |
| BLCA | 2287 | chr5:157732788-157733787  | 134510    | UBLCP1    | + | -956802 | -0.31 | -0.02 | -0.24 | 0.43  |
| BLCA | 2288 | chr2:201216991-201217990  | 8837      | CFLAR     | + | -763387 | -0.30 | 0.04  | -0.25 | 0.41  |
| BLCA | 2289 | chr12:64294863-64295862   | 57460     | PPM1H     | - | 966697  | -0.31 | 0.00  | 0.41  | -0.42 |
| BLCA | 2290 | chr16:11690418-11691417   | 146279    | TEKT5     | - | 902115  | -0.30 | -0.01 | 0.20  | -0.43 |
| BLCA | 2291 | chr15:84167959-84168958   | 54993     | ZSCAN2    | + | -975791 | -0.30 | -0.06 | 0.47  | -0.41 |

| Cancer Type | Rank | eDMR                      | Entrez | Gene symbols | Strand | Distance from TSS | Enhancer differential methylation | Promoter differential methylation | Differential gene expression | Correlation |
|-------------|------|---------------------------|--------|--------------|--------|-------------------|-----------------------------------|-----------------------------------|------------------------------|-------------|
| BRCA        | 1    | chr7:55052891-55053890    | 1956   | EGFR         | +      | -33335            | -0.37                             | -0.01                             | -3.29                        | 0.66        |
| BRCA        | 2    | chr1:230879584-230880583  | 10753  | CAPN9        | +      | -3047             | -0.41                             | 0.01                              | 2.57                         | -0.55       |
| BRCA        | 3    | chr3:19267969-19268968    | 131096 | KCNH8        | +      | 78451             | -0.37                             | -0.06                             | -2.70                        | 0.70        |
| BRCA        | 4    | chr8:103135095-103136094  | 83988  | NCALD        | -      | -1541             | 0.42                              | 0.10                              | -2.17                        | -0.52       |
| BRCA        | 5    | chr1:201655808-201656807  | 25802  | LMOD1        | -      | -259409           | -0.40                             | -0.07                             | -3.02                        | 0.60        |
| BRCA        | 6    | chr2:19337674-19338673    | 130497 | OSR1         | -      | -220199           | -0.37                             | 0.01                              | -3.29                        | 0.64        |
| BRCA        | 7    | chr1:230879584-230880583  | 375061 | FAM89A       | -      | -295912           | -0.41                             | -0.03                             | -2.38                        | 0.67        |
| BRCA        | 8    | chr2:23371214-23372213    | 114818 | KLHL29       | +      | -236585           | -0.36                             | 0.06                              | -3.06                        | 0.68        |
| BRCA        | 9    | chr3:182911060-182912059  | 84002  | B3GNT5       | +      | -59473            | -0.41                             | 0.02                              | -1.41                        | 0.64        |
| BRCA        | 10   | chr3:134798447-134799446  | 2047   | EPHB1        | +      | 284847            | -0.37                             | 0.00                              | -3.03                        | 0.74        |
| BRCA        | 11   | chr7:70746377-70747376    | 64409  | WBSCR17      | +      | 149353            | -0.38                             | 0.04                              | -1.91                        | 0.63        |
| BRCA        | 12   | chr10:10944777-10945776   | 10659  | CELF2        | +      | -101983           | -0.37                             | -0.04                             | -2.03                        | 0.59        |
| BRCA        | 13   | chr15:33872747-33873746   | 6263   | RYR3         | +      | 270069            | -0.36                             | 0.00                              | -3.47                        | 0.64        |
| BRCA        | 14   | chr7:31727975-31728974    | 223075 | CCDC129      | +      | 174789            | -0.39                             | -0.08                             | -2.27                        | 0.55        |
| BRCA        | 15   | chr11:122105736-122106735 | 399959 | LOC399959    | -      | -132232           | -0.38                             | -0.03                             | -2.10                        | 0.55        |
| BRCA        | 16   | chr1:242873719-242874718  | 200150 | PLD5         | -      | 186220            | -0.44                             | 0.01                              | -2.71                        | 0.51        |
| BRCA        | 17   | chr2:230516679-230517678  | 92737  | DNER         | -      | -62108            | -0.34                             | -0.03                             | -2.22                        | 0.64        |
| BRCA        | 18   | chr17:67815156-67816155   | 3773   | KCNJ16       | +      | -255711           | -0.36                             | -0.01                             | -4.63                        | 0.55        |
| BRCA        | 19   | chr3:64751151-64752150    | 56999  | ADAMTS9      | -      | 78285             | -0.39                             | 0.02                              | -1.56                        | 0.59        |
| BRCA        | 20   | chr16:26145570-26146569   | 9951   | HS3ST4       | +      | 442722            | -0.39                             | -0.01                             | -4.18                        | 0.57        |
| BRCA        | 21   | chr7:70792647-70793646    | 64409  | WBSCR17      | +      | 195623            | -0.38                             | 0.04                              | -1.91                        | 0.65        |
| BRCA        | 22   | chr3:142887803-142888802  | 26577  | PCOLCE2      | -      | 280257            | -0.36                             | -0.02                             | -5.03                        | 0.56        |
| BRCA        | 23   | chr7:116659740-116660739  | 4233   | MET          | +      | 347780            | 0.38                              | -0.06                             | -2.33                        | -0.63       |
| BRCA        | 24   | chr12:4360635-4361634     | 894    | CNND2        | +      | -21768            | -0.36                             | 0.00                              | -1.40                        | 0.64        |
| BRCA        | 25   | chr11:26849001-26850000   | 8424   | BBOX1        | +      | -213009           | -0.34                             | 0.01                              | -3.70                        | 0.59        |
| BRCA        | 26   | chr4:16773177-16774176    | 9079   | LDB2         | -      | -126748           | -0.37                             | -0.04                             | -2.27                        | 0.52        |
| BRCA        | 27   | chr11:122179028-122180027 | 399959 | LOC399959    | -      | -58940            | -0.37                             | -0.03                             | -2.10                        | 0.51        |
| BRCA        | 28   | chr10:132199682-132200681 | 253738 | EBF3         | -      | 438090            | -0.41                             | -0.01                             | -2.84                        | 0.55        |
| BRCA        | 29   | chr15:93704034-93705033   | 56963  | RGMA         | -      | 72090             | -0.33                             | -0.04                             | -2.17                        | 0.69        |
| BRCA        | 30   | chr12:51782893-51783892   | 11226  | GALNT6       | -      | -2009             | -0.35                             | 0.03                              | 1.34                         | -0.67       |
| BRCA        | 31   | chr7:70920832-70921831    | 64409  | WBSCR17      | +      | 323808            | -0.39                             | 0.04                              | -1.91                        | 0.63        |
| BRCA        | 32   | chr5:169712679-169713678  | 2568   | GABRP        | +      | -497545           | -0.37                             | 0.01                              | -3.60                        | 0.58        |
| BRCA        | 33   | chr17:67728535-67729534   | 3773   | KCNJ16       | +      | -342332           | -0.37                             | -0.01                             | -4.63                        | 0.52        |
| BRCA        | 34   | chr3:142887803-142888802  | 9435   | CHST2        | +      | 49684             | -0.36                             | -0.02                             | -1.04                        | 0.73        |
| BRCA        | 35   | chr17:46799140-46800254   | 10481  | HOXB13       | -      | -6415             | 0.31                              | 0.00                              | 2.91                         | 0.57        |
| BRCA        | 36   | chr8:80818977-80819976    | 7163   | TPD52        | -      | -264360           | -0.39                             | 0.04                              | 1.81                         | -0.54       |
| BRCA        | 37   | chr7:31727975-31728974    | 5137   | PDE1C        | -      | -609909           | -0.39                             | 0.03                              | -3.71                        | 0.56        |
| BRCA        | 38   | chr1:230879584-230880583  | 22796  | COG2         | +      | 101881            | -0.41                             | -0.02                             | 0.63                         | -0.66       |
| BRCA        | 39   | chr15:94808066-94809065   | 55784  | MCTP2        | +      | 33764             | -0.34                             | 0.01                              | -1.67                        | 0.63        |
| BRCA        | 40   | chr7:55636623-55638218    | 1956   | EGFR         | +      | 550695            | -0.35                             | -0.01                             | -3.29                        | 0.68        |
| BRCA        | 41   | chr7:70576670-70577669    | 64409  | WBSCR17      | +      | -20354            | -0.34                             | 0.04                              | -1.91                        | 0.53        |
| BRCA        | 42   | chr3:156530006-156531005  | 5806   | PTX3         | +      | -624075           | -0.37                             | -0.01                             | -2.81                        | 0.73        |
| BRCA        | 43   | chr1:156130326-156131325  | 7203   | CCT3         | -      | -177381           | 0.43                              | 0.03                              | 1.06                         | 0.54        |
| BRCA        | 44   | chr1:201655808-201656807  | 29089  | UBE2T        | -      | -654787           | -0.40                             | 0.00                              | 3.05                         | -0.54       |
| BRCA        | 45   | chr17:48769840-48770839   | 55040  | EPN3         | +      | 160291            | -0.32                             | -0.01                             | 2.44                         | -0.62       |
| BRCA        | 46   | chr5:146452521-146453520  | 5521   | PPP2R2B      | -      | -8063             | -0.32                             | 0.00                              | -1.88                        | 0.58        |
| BRCA        | 47   | chr7:116659740-116660739  | 858    | CAV2         | +      | 732112            | 0.38                              | 0.08                              | -2.89                        | -0.62       |
| BRCA        | 48   | chr6:134438069-134439068  | 154091 | SLC2A12      | -      | 64779             | -0.35                             | -0.02                             | -1.39                        | 0.55        |
| BRCA        | 49   | chr2:239437306-239438305  | 117581 | TWIST2       | +      | -318868           | -0.36                             | -0.08                             | -2.13                        | 0.55        |
| BRCA        | 50   | chr3:183109369-183110368  | 84002  | B3GNT5       | +      | 138836            | -0.34                             | 0.02                              | -1.41                        | 0.75        |
| BRCA        | 51   | chr1:156130326-156131325  | 56893  | UBQLN4       | -      | 107309            | 0.43                              | -0.02                             | 0.87                         | 0.52        |
| BRCA        | 52   | chr7:70790432-70791431    | 64409  | WBSCR17      | +      | 193408            | -0.34                             | 0.04                              | -1.91                        | 0.65        |
| BRCA        | 53   | chr1:231991215-231992214  | 375061 | FAM89A       | -      | 815719            | -0.39                             | -0.03                             | -2.38                        | 0.69        |
| BRCA        | 54   | chr2:230516679-230517678  | 55022  | PID1         | -      | 381121            | -0.34                             | -0.02                             | -2.77                        | 0.58        |
| BRCA        | 55   | chr1:156130326-156131325  | 375033 | PEAR1        | +      | -732698           | 0.43                              | 0.00                              | -2.29                        | -0.56       |
| BRCA        | 56   | chr6:1069889-1070888      | 2296   | FOXC1        | +      | -540293           | -0.39                             | -0.04                             | -1.61                        | 0.67        |
| BRCA        | 57   | chr15:78557906-78558905   | 55466  | DNAJA4       | +      | 1918              | -0.36                             | 0.04                              | 0.74                         | -0.58       |
| BRCA        | 58   | chr3:182911060-182912059  | 23101  | MCF2L2       | -      | -234296           | -0.41                             | -0.03                             | -0.82                        | 0.60        |
| BRCA        | 59   | chr1:185933751-185934750  | 5743   | PTGS2        | -      | -715309           | -0.43                             | 0.04                              | -2.70                        | 0.53        |
| BRCA        | 60   | chr7:70665759-70666758    | 64409  | WBSCR17      | +      | 68735             | -0.33                             | 0.04                              | -1.91                        | 0.58        |
| BRCA        | 61   | chr2:153322323-153323322  | 114793 | FMNL2        | +      | 131071            | -0.37                             | -0.07                             | -1.36                        | 0.50        |
| BRCA        | 62   | chr12:4549003-4550002     | 3742   | KCNA6        | +      | -368840           | -0.36                             | -0.01                             | -2.45                        | 0.52        |
| BRCA        | 63   | chr21:38082113-38083112   | 6493   | SIM2         | +      | 10621             | 0.35                              | -0.03                             | 1.08                         | 0.54        |
| BRCA        | 64   | chr8:41009224-41010223    | 6422   | SFRP1        | -      | -157267           | -0.31                             | 0.00                              | -4.72                        | 0.56        |
| BRCA        | 65   | chr8:80992250-80993249    | 7163   | TPD52        | -      | -91087            | -0.32                             | 0.04                              | 1.81                         | -0.60       |
| BRCA        | 66   | chr16:26217175-26218174   | 9951   | HS3ST4       | +      | 514327            | -0.35                             | -0.01                             | -4.18                        | 0.54        |
| BRCA        | 67   | chr10:11333203-11334202   | 10659  | CELF2        | +      | 286443            | -0.34                             | -0.04                             | -2.03                        | 0.62        |
| BRCA        | 68   | chr12:109226737-109227736 | 283446 | MYO1H        | +      | -599288           | 0.42                              | 0.19                              | -2.06                        | -0.53       |
| BRCA        | 69   | chr1:19275853-19276852    | 126917 | IFFO2        | -      | -6474             | 0.33                              | -0.03                             | -1.57                        | -0.52       |
| BRCA        | 70   | chr15:93902288-93903287   | 56963  | RGMA         | -      | 270344            | -0.32                             | -0.04                             | -2.17                        | 0.74        |
| BRCA        | 71   | chr3:156530006-156531005  | 152078 | C3orf55      | +      | -730628           | -0.37                             | 0.00                              | -3.11                        | 0.56        |
| BRCA        | 72   | chr11:126602752-126603751 | 84623  | KIRREL3      | -      | -270104           | -0.37                             | 0.03                              | -0.98                        | 0.63        |
| BRCA        | 73   | chr3:183109369-183110368  | 23101  | MCF2L2       | -      | -35987            | -0.34                             | -0.03                             | -0.82                        | 0.67        |
| BRCA        | 74   | chr12:4360635-4361634     | 3742   | KCNA6        | +      | -557208           | -0.36                             | -0.01                             | -2.45                        | 0.55        |

|      |     |                           |        |          |   |         |       |       |       |       |
|------|-----|---------------------------|--------|----------|---|---------|-------|-------|-------|-------|
| BRCA | 75  | chr1:156130326-156131325  | 128240 | APOA1BP  | + | -430733 | 0.43  | 0.00  | 1.17  | 0.55  |
| BRCA | 76  | chr17:5980404-5981403     | 23302  | WSCD1    | + | 8477    | -0.31 | -0.01 | -2.09 | 0.54  |
| BRCA | 77  | chr6:1296524-1297523      | 2296   | FOXC1    | + | -313658 | -0.34 | -0.04 | -1.61 | 0.66  |
| BRCA | 78  | chr7:28475522-28476521    | 9586   | CREB5    | + | 137081  | -0.31 | 0.01  | -2.41 | 0.60  |
| BRCA | 79  | chr12:129034848-129035847 | 144423 | GLT1D1   | + | -302734 | -0.36 | -0.07 | -1.26 | 0.59  |
| BRCA | 80  | chr5:169773774-169774773  | 2568   | GABRP    | + | -436450 | -0.34 | 0.01  | -3.60 | 0.54  |
| BRCA | 81  | chr17:67633229-67634228   | 3773   | KCNJ16   | + | -437638 | -0.33 | -0.01 | -4.63 | 0.55  |
| BRCA | 82  | chr12:53955164-53956163   | 3875   | KRT18    | + | 613008  | -0.38 | 0.02  | 1.91  | -0.59 |
| BRCA | 83  | chr1:201655808-201656807  | 10440  | TIMM17A  | + | -268312 | -0.40 | -0.04 | 1.02  | -0.52 |
| BRCA | 84  | chr16:26292557-26293556   | 9951   | HS3ST4   | + | 589709  | -0.34 | -0.01 | -4.18 | 0.57  |
| BRCA | 85  | chr11:27416874-27417873   | 8424   | BBOX1    | + | 354864  | -0.31 | 0.01  | -3.70 | 0.66  |
| BRCA | 86  | chr12:4360635-4361634     | 3736   | KCNA1    | + | -657939 | -0.36 | 0.00  | -2.75 | 0.53  |
| BRCA | 87  | chr11:133468693-133469692 | 83700  | JAM3     | + | -469628 | -0.39 | -0.01 | -1.37 | 0.56  |
| BRCA | 88  | chr12:128993927-128994926 | 144423 | GLT1D1   | + | -343655 | -0.39 | -0.07 | -1.26 | 0.56  |
| BRCA | 89  | chr12:77693545-77694544   | 1466   | CSRP2    | - | 421245  | -0.41 | 0.02  | -0.99 | 0.58  |
| BRCA | 90  | chr8:134305723-134306722  | 137835 | TMEM71   | - | 533308  | -0.33 | 0.02  | -2.13 | 0.69  |
| BRCA | 91  | chr6:151936760-151937759  | 2099   | ESR1     | + | -40571  | -0.38 | 0.00  | 0.30  | -0.56 |
| BRCA | 92  | chr6:134438069-134439068  | 6446   | SGK1     | - | -200628 | -0.35 | -0.03 | -1.39 | 0.52  |
| BRCA | 93  | chr2:150976522-150977521  | 390    | RND3     | - | -367188 | -0.35 | 0.05  | -1.79 | 0.56  |
| BRCA | 94  | chr7:28556546-28557545    | 9586   | CREB5    | + | 218105  | -0.32 | 0.01  | -2.41 | 0.55  |
| BRCA | 95  | chr1:210558009-210559008  | 55733  | HHAT     | + | 56912   | -0.35 | 0.01  | 0.50  | -0.66 |
| BRCA | 96  | chr6:34565745-34566744    | 25803  | SPDEF    | - | 42134   | -0.31 | 0.00  | 1.75  | -0.57 |
| BRCA | 97  | chr4:54457145-54458745    | 5156   | PDGFRA   | + | 214124  | -0.32 | 0.03  | -1.81 | 0.62  |
| BRCA | 98  | chr10:7984610-7985609     | 2625   | GATA3    | + | -111558 | -0.31 | 0.01  | 1.47  | -0.77 |
| BRCA | 99  | chr4:16773177-16774176    | 83888  | FGFBP2   | - | 808817  | -0.37 | -0.01 | -3.72 | 0.51  |
| BRCA | 100 | chr2:102716938-102717937  | 8809   | IL18R1   | + | -210525 | -0.39 | 0.00  | -0.65 | 0.55  |
| BRCA | 101 | chr3:189723647-189724646  | 55214  | LEPREL1  | - | -116080 | -0.32 | 0.02  | -1.99 | 0.53  |
| BRCA | 102 | chr6:160859856-160860855  | 6581   | SLC22A3  | + | 90950   | -0.30 | -0.03 | -3.37 | 0.54  |
| BRCA | 103 | chr11:94674677-94675676   | 154810 | AMOTL1   | + | 173668  | -0.32 | 0.00  | -1.80 | 0.56  |
| BRCA | 104 | chr3:171283106-171284105  | 5337   | PLD1     | - | -244899 | -0.34 | 0.00  | -1.55 | 0.56  |
| BRCA | 105 | chr15:33892158-33893157   | 6263   | RYR3     | + | 289480  | -0.30 | 0.00  | -3.47 | 0.63  |
| BRCA | 106 | chr4:16773177-16774176    | 9982   | FGFBP1   | - | 833313  | -0.37 | 0.00  | -3.77 | 0.52  |
| BRCA | 107 | chr12:53821643-53822642   | 3875   | KRT18    | + | 479487  | -0.34 | 0.02  | 1.91  | -0.62 |
| BRCA | 108 | chr15:95144793-95145792   | 55784  | MCTP2    | + | 370491  | -0.35 | 0.01  | -1.67 | 0.62  |
| BRCA | 109 | chr10:7984610-7985609     | 399717 | FLJ45983 | - | -110338 | -0.31 | 0.01  | 1.51  | -0.64 |
| BRCA | 110 | chr4:16586621-16587620    | 9982   | FGFBP1   | - | 646757  | -0.34 | 0.00  | -3.77 | 0.55  |
| BRCA | 111 | chr6:151936760-151937759  | 79624  | C6orf211 | + | 163837  | -0.38 | 0.00  | 0.64  | -0.55 |
| BRCA | 112 | chr6:42396621-42397620    | 55809  | TRERF1   | - | -22745  | -0.34 | 0.06  | 0.67  | -0.64 |
| BRCA | 113 | chr2:102716938-102717937  | 7850   | IL1R2    | + | 109131  | -0.39 | 0.07  | -0.41 | 0.54  |
| BRCA | 114 | chr15:93210055-93211054   | 56963  | RGMA     | - | -421889 | -0.32 | -0.04 | -2.17 | 0.64  |
| BRCA | 115 | chr4:185016590-185017799  | 56977  | STOX2    | + | 190685  | -0.31 | -0.06 | -1.93 | 0.64  |
| BRCA | 116 | chr1:231991215-231992214  | 27185  | DISC1    | + | 229153  | -0.39 | 0.00  | -0.77 | 0.51  |
| BRCA | 117 | chr8:37329504-37330503    | 80139  | ZNF703   | + | -223298 | -0.33 | 0.00  | 1.18  | -0.67 |
| BRCA | 118 | chr5:149969079-149970078  | 2196   | FAT2     | - | -978927 | 0.36  | 0.07  | -3.57 | -0.59 |
| BRCA | 119 | chr1:151009088-151010087  | 149428 | BNIP1    | + | 558     | -0.31 | -0.10 | 1.00  | -0.69 |
| BRCA | 120 | chr2:102716938-102717937  | 8807   | IL18RAP  | + | -317817 | -0.39 | -0.01 | -0.95 | 0.53  |
| BRCA | 121 | chr3:25623405-25624404    | 5915   | RARB     | + | 408081  | -0.37 | 0.00  | -1.31 | 0.54  |
| BRCA | 122 | chr12:53821643-53822642   | 3856   | KRT8     | - | 478492  | -0.34 | 0.04  | 2.13  | -0.52 |
| BRCA | 123 | chr5:178735943-178736942  | 285676 | ZNF454   | + | 368248  | -0.34 | 0.02  | -1.32 | 0.63  |
| BRCA | 124 | chr5:170006332-170007331  | 2568   | GABRP    | + | -203892 | -0.30 | 0.01  | -3.60 | 0.53  |
| BRCA | 125 | chr11:26799635-26800634   | 8424   | BBOX1    | + | -262375 | -0.30 | 0.01  | -3.70 | 0.56  |
| BRCA | 126 | chr3:135086318-135087317  | 2047   | EPHB1    | + | 572718  | -0.32 | 0.00  | -3.03 | 0.70  |
| BRCA | 127 | chr8:95459357-95460356    | 137682 | C8orf38  | + | -510380 | -0.39 | -0.05 | 1.17  | -0.55 |
| BRCA | 128 | chr17:33125034-33126033   | 3980   | LIG3     | + | -181984 | -0.36 | -0.01 | 0.83  | -0.54 |
| BRCA | 129 | chr6:90943062-90944061    | 60468  | BACH2    | - | -63066  | -0.31 | -0.01 | -1.71 | 0.56  |
| BRCA | 130 | chr10:11116964-11117963   | 10659  | CELF2    | + | 70204   | -0.31 | -0.04 | -2.03 | 0.54  |
| BRCA | 131 | chr1:201474951-201475950  | 1465   | CSRP1    | - | -937    | 0.30  | 0.04  | -1.30 | -0.63 |
| BRCA | 132 | chr4:16586621-16587620    | 83888  | FGFBP2   | - | 622261  | -0.34 | -0.01 | -3.72 | 0.50  |
| BRCA | 133 | chr16:54574105-54575104   | 79190  | IRX6     | + | -783867 | -0.36 | -0.01 | -3.06 | 0.54  |
| BRCA | 134 | chr3:18167906-18168905    | 6304   | SATB1    | - | -311860 | -0.35 | 0.03  | -1.52 | 0.52  |
| BRCA | 135 | chr10:15387210-15388209   | 55301  | OLAH     | + | 301814  | -0.36 | 0.04  | -1.21 | 0.55  |
| BRCA | 136 | chr10:124893266-124894265 | 9184   | BUB3     | + | -19995  | 0.34  | -0.03 | 0.83  | 0.52  |
| BRCA | 137 | chr13:26545323-26546322   | 2835   | GPR12    | - | -789100 | -0.33 | -0.05 | -3.08 | 0.64  |
| BRCA | 138 | chr11:126743969-126744968 | 84623  | KIRREL3  | - | -128887 | -0.33 | 0.03  | -0.98 | 0.56  |
| BRCA | 139 | chr1:212283714-212284713  | 3756   | KCNH1    | - | 976756  | 0.41  | 0.09  | 1.78  | 0.56  |
| BRCA | 140 | chr7:22616882-22617881    | 84668  | FAM126A  | - | -436389 | 0.34  | -0.02 | -2.20 | -0.51 |
| BRCA | 141 | chr10:11311515-11312514   | 10659  | CELF2    | + | 264755  | -0.31 | -0.04 | -2.03 | 0.57  |
| BRCA | 142 | chr3:190250964-190251963  | 55214  | LEPREL1  | - | 411237  | 0.32  | 0.02  | -1.99 | -0.60 |
| BRCA | 143 | chr3:19515424-19516423    | 131096 | KCNH8    | + | 325906  | -0.30 | -0.06 | -2.70 | 0.69  |
| BRCA | 144 | chr8:82509879-82510878    | 2171   | FABP5    | + | 317660  | -0.35 | -0.03 | -1.27 | 0.54  |
| BRCA | 145 | chr7:73207468-73208467    | 8326   | FZD9     | + | 359858  | -0.35 | -0.01 | -0.96 | 0.59  |
| BRCA | 146 | chr2:55390921-55391920    | 55704  | CCDC88A  | - | -255637 | -0.39 | -0.02 | -0.76 | 0.51  |
| BRCA | 147 | chr1:156130326-156131325  | 5546   | PRCC     | + | -606449 | 0.43  | 0.00  | 0.87  | 0.56  |
| BRCA | 148 | chr8:38585102-38586682    | 137994 | LETM2    | + | 341932  | 0.37  | 0.03  | 0.97  | 0.54  |
| BRCA | 149 | chr4:75399546-75400545    | 2920   | CXCL2    | - | 435048  | -0.31 | 0.06  | -4.28 | 0.56  |
| BRCA | 150 | chr3:69811145-69812144    | 285203 | C3orf64  | - | 748870  | -0.38 | 0.01  | -1.44 | 0.57  |
| BRCA | 151 | chr12:102287875-102288874 | 3479   | IGF1     | - | -586004 | -0.32 | 0.02  | -2.70 | 0.55  |
| BRCA | 152 | chr3:112494336-112495335  | 91653  | BOC      | + | -435577 | -0.32 | -0.01 | -2.09 | 0.56  |

|      |     |                           |        |           |   |         |       |       |       |       |
|------|-----|---------------------------|--------|-----------|---|---------|-------|-------|-------|-------|
| BRCA | 153 | chr20:61450153-61451152   | 1917   | EEF1A2    | - | -680016 | 0.34  | -0.07 | 2.82  | 0.52  |
| BRCA | 154 | chr4:185016590-185017799  | 133121 | ENPP6     | - | -121920 | -0.31 | -0.07 | -1.56 | 0.57  |
| BRCA | 155 | chr1:156130326-156131325  | 23208  | SYT11     | + | 301565  | 0.43  | -0.07 | -0.52 | -0.51 |
| BRCA | 156 | chr1:156130326-156131325  | 7818   | DAP3      | + | 471943  | 0.43  | -0.01 | 0.74  | 0.53  |
| BRCA | 157 | chr11:94674677-94675676   | 143689 | PIWIL4    | + | 398170  | -0.32 | -0.07 | -1.63 | 0.63  |
| BRCA | 158 | chr16:54574105-54575104   | 10265  | IRX5      | + | -390507 | -0.36 | -0.02 | 1.11  | -0.56 |
| BRCA | 159 | chr8:95459357-95460356    | 94241  | TP53INP1  | - | -501759 | -0.39 | 0.07  | 0.72  | -0.57 |
| BRCA | 160 | chr8:95459357-95460356    | 79666  | PLEKHF2   | + | -686093 | -0.39 | 0.03  | 0.85  | -0.66 |
| BRCA | 161 | chr1:19275853-19276852    | 22977  | AKR7A3    | - | -338928 | 0.33  | -0.03 | 1.74  | 0.52  |
| BRCA | 162 | chr4:106983173-106984172  | 255743 | NPNT      | + | 167075  | -0.31 | -0.04 | 1.33  | -0.58 |
| BRCA | 163 | chr1:151009088-151010087  | 8416   | ANXA9     | + | 55088   | -0.31 | 0.00  | 1.66  | -0.51 |
| BRCA | 164 | chr13:26545323-26546322   | 10810  | WASF3     | + | -586018 | -0.33 | -0.01 | -2.46 | 0.52  |
| BRCA | 165 | chr4:75399546-75400545    | 2921   | CXCL3     | - | 495555  | -0.31 | -0.01 | -2.57 | 0.63  |
| BRCA | 166 | chr11:128449529-128450528 | 2113   | ETS1      | - | -7425   | -0.33 | 0.11  | -0.90 | 0.51  |
| BRCA | 167 | chr1:173174828-173175827  | 339416 | ANKRD45   | - | -463674 | -0.38 | 0.09  | -0.92 | 0.53  |
| BRCA | 168 | chr8:101476103-101477102  | 6674   | SPAG1     | + | 306339  | -0.34 | 0.03  | 1.23  | -0.53 |
| BRCA | 169 | chr15:39471602-39472601   | 161835 | FSIP1     | - | -602938 | -0.34 | 0.04  | 1.53  | -0.64 |
| BRCA | 170 | chr1:156130326-156131325  | 79590  | MRPL24    | - | -580098 | 0.43  | 0.04  | 0.87  | 0.52  |
| BRCA | 171 | chr15:78295541-78296540   | 10518  | CIB2      | - | -127837 | -0.33 | 0.00  | -0.98 | 0.51  |
| BRCA | 172 | chr1:210558009-210559008  | 3756   | KCNH1     | - | -748949 | -0.35 | 0.09  | 1.78  | -0.57 |
| BRCA | 173 | chr1:246868582-246869581  | 51097  | SCCPDH    | + | -18297  | -0.31 | 0.02  | 0.66  | -0.68 |
| BRCA | 174 | chr2:73200977-73201976    | 2016   | EMX1      | + | 56872   | -0.30 | -0.09 | 1.86  | -0.52 |
| BRCA | 175 | chr7:17597958-17598957    | 155465 | AGR3      | - | 676844  | -0.35 | 0.00  | 1.34  | -0.64 |
| BRCA | 176 | chr1:164569552-164570551  | 5087   | PBX1      | + | 41454   | -0.35 | 0.02  | 0.37  | -0.51 |
| BRCA | 177 | chr4:154408345-154409344  | 23321  | TRIM2     | + | 334574  | 0.33  | 0.03  | -1.82 | -0.52 |
| BRCA | 178 | chr7:17597958-17598957    | 10551  | AGR2      | - | 753719  | -0.35 | -0.12 | 1.63  | -0.61 |
| BRCA | 179 | chr5:178735943-178736942  | 255426 | RASGEF1C  | - | -899688 | -0.34 | 0.01  | -2.38 | 0.57  |
| BRCA | 180 | chr1:151009088-151010087  | 29956  | LASS2     | - | 62108   | -0.31 | -0.01 | 1.13  | -0.55 |
| BRCA | 181 | chr12:53610272-53611271   | 3875   | KRT18     | + | 268116  | -0.31 | 0.02  | 1.91  | -0.57 |
| BRCA | 182 | chr15:93210055-93211054   | 400451 | FAM174B   | - | -66750  | -0.32 | 0.00  | 0.73  | -0.55 |
| BRCA | 183 | chr20:61450153-61451152   | 6725   | SRMS      | - | -728205 | 0.34  | 0.01  | 2.34  | 0.51  |
| BRCA | 184 | chr7:28590011-28591010    | 9586   | CREB5     | + | 251570  | -0.30 | 0.01  | -2.41 | 0.54  |
| BRCA | 185 | chr3:129382857-129383856  | 131873 | COL6A6    | + | -895822 | -0.32 | -0.02 | -4.06 | 0.61  |
| BRCA | 186 | chr6:27647213-27648840    | 222698 | NKAPL     | + | -579049 | 0.31  | 0.01  | -2.64 | -0.57 |
| BRCA | 187 | chr2:220263115-220264114  | 7475   | WNT6      | + | 539068  | -0.33 | 0.04  | -1.34 | 0.64  |
| BRCA | 188 | chr13:52572269-52573268   | 540    | ATP7B     | - | -12862  | -0.31 | 0.00  | 0.54  | -0.59 |
| BRCA | 189 | chr7:17597958-17598957    | 27075  | TSPAN13   | + | 805106  | -0.35 | 0.00  | 1.23  | -0.72 |
| BRCA | 190 | chr6:90845352-90846351    | 60468  | BACH2     | - | -160776 | -0.30 | -0.01 | -1.71 | 0.53  |
| BRCA | 191 | chr4:75399546-75400545    | 6374   | CXCL5     | - | 535599  | -0.31 | 0.03  | -2.15 | 0.64  |
| BRCA | 192 | chr7:29110755-29111754    | 222171 | PRR15     | + | -492173 | -0.31 | 0.05  | 1.86  | -0.61 |
| BRCA | 193 | chr2:28491446-28492445    | 79745  | CLIP4     | + | -828626 | -0.33 | 0.02  | -2.17 | 0.58  |
| BRCA | 194 | chr11:133005419-133006418 | 83700  | JAM3      | + | -932902 | -0.42 | -0.01 | -1.37 | 0.50  |
| BRCA | 195 | chr6:36756330-36757329    | 5292   | PIM1      | + | -381093 | 0.36  | -0.03 | -0.50 | -0.58 |
| BRCA | 196 | chr14:37325557-37326556   | 3169   | FOXA1     | - | -738269 | -0.33 | 0.00  | 1.74  | -0.66 |
| BRCA | 197 | chr3:19267969-19268968    | 6304   | SATB1     | - | 788203  | -0.37 | 0.03  | -1.52 | 0.52  |
| BRCA | 198 | chr8:134679136-134680135  | 137835 | TMEM71    | - | 906721  | -0.33 | 0.02  | -2.13 | 0.59  |
| BRCA | 199 | chr16:24394420-24395419   | 5579   | PRKCB     | + | 547619  | -0.37 | -0.04 | -0.45 | 0.60  |
| BRCA | 200 | chr5:178735943-178736942  | 2916   | GRM6      | - | 314318  | -0.34 | 0.01  | -0.68 | 0.55  |
| BRCA | 201 | chr1:156130326-156131325  | 10067  | SCAMP3    | - | 898649  | 0.43  | -0.03 | 0.94  | 0.54  |
| BRCA | 202 | chr15:78295541-78296540   | 55466  | DNAJA4    | + | -260447 | -0.33 | 0.04  | 0.74  | -0.55 |
| BRCA | 203 | chr2:42772345-42773344    | 23498  | HAAO      | - | -246907 | -0.30 | 0.08  | -1.42 | 0.59  |
| BRCA | 204 | chr2:73200977-73201976    | 94097  | SFXN5     | - | -97489  | -0.30 | 0.00  | 1.12  | -0.57 |
| BRCA | 205 | chr10:118430427-118431426 | 57698  | KIAA1598  | - | -455171 | -0.34 | 0.02  | 0.83  | -0.55 |
| BRCA | 206 | chr3:142887803-142888802  | 205428 | C3orf58   | + | -802338 | -0.36 | -0.03 | -1.15 | 0.56  |
| BRCA | 207 | chr5:68041726-68042725    | 153562 | MBVELD2   | + | -668714 | -0.34 | -0.01 | 1.01  | -0.58 |
| BRCA | 208 | chr7:71115420-71116419    | 64409  | WBSCR17   | + | 518396  | -0.32 | 0.04  | -1.91 | 0.55  |
| BRCA | 209 | chr1:177827403-177828402  | 55103  | RALGPS2   | + | -866398 | 0.37  | 0.04  | 0.88  | 0.59  |
| BRCA | 210 | chr17:63652454-63653453   | 5578   | PRKCA     | + | -645973 | -0.33 | -0.10 | -1.61 | 0.55  |
| BRCA | 211 | chr8:17194944-17195943    | 9      | NAT1      | + | -832528 | -0.33 | 0.19  | 2.03  | -0.60 |
| BRCA | 212 | chr7:29110755-29111754    | 54504  | CPVL      | - | -123638 | -0.31 | 0.06  | -0.84 | 0.52  |
| BRCA | 213 | chr15:69853353-69854352   | 145837 | LOC145837 | + | 98406   | -0.31 | 0.03  | 0.72  | -0.58 |
| BRCA | 214 | chr16:27375232-27376231   | 2975   | GTF3C1    | - | -185520 | -0.31 | 0.01  | 0.82  | -0.57 |
| BRCA | 215 | chr8:22454388-22455972    | 8793   | TNFRSF10D | - | -566364 | 0.30  | -0.02 | -2.24 | -0.56 |
| BRCA | 216 | chr8:38585381-38586380    | 137994 | LETM2     | + | 341921  | 0.34  | 0.03  | 0.97  | 0.51  |
| BRCA | 217 | chr17:55887954-55889047   | 124540 | MSI2      | + | 555288  | 0.35  | -0.16 | 0.99  | 0.51  |
| BRCA | 218 | chr17:48769840-48770839   | 64847  | SPATA20   | + | 149920  | -0.32 | 0.00  | 0.32  | -0.58 |
| BRCA | 219 | chr11:122105736-122106735 | 84959  | UBASH3B   | + | -420163 | -0.38 | 0.06  | -0.22 | 0.51  |
| BRCA | 220 | chr1:230879584-230880583  | 27185  | DISC1     | + | -882478 | -0.41 | 0.00  | -0.77 | 0.54  |
| BRCA | 221 | chr13:47229427-47230426   | 80183  | C13orf18  | - | 217601  | 0.34  | 0.00  | -0.66 | -0.50 |
| BRCA | 222 | chr1:168772813-168773812  | 10560  | SLC19A2   | - | -681896 | -0.39 | -0.01 | 0.55  | -0.54 |
| BRCA | 223 | chr8:134466665-134467664  | 137835 | TMEM71    | - | 694250  | -0.30 | 0.02  | -2.13 | 0.62  |
| BRCA | 224 | chr11:94674677-94675676   | 2526   | FUT4      | + | 398159  | -0.32 | -0.07 | -0.77 | 0.62  |
| BRCA | 225 | chr11:122179028-122180027 | 84959  | UBASH3B   | + | -346871 | -0.37 | 0.06  | -0.22 | 0.51  |
| BRCA | 226 | chr4:75399546-75400545    | 2919   | CXCL1     | + | 664936  | -0.31 | 0.03  | -2.03 | 0.61  |
| BRCA | 227 | chr8:42359492-42360491    | 3551   | IKBKB     | + | 231171  | -0.35 | 0.00  | 0.20  | -0.51 |
| BRCA | 228 | chr2:168912385-168913384  | 253782 | LASS6     | + | -399875 | -0.35 | 0.12  | 0.75  | -0.51 |
| BRCA | 229 | chr1:168772813-168773812  | 9095   | TBX19     | + | 578057  | -0.39 | 0.01  | -0.50 | 0.51  |
| BRCA | 230 | chr1:161931493-161932492  | 126823 | KLHDC9    | + | 863841  | 0.36  | -0.01 | 1.11  | 0.55  |

|      |     |                           |        |           |   |         |       |       |       |       |
|------|-----|---------------------------|--------|-----------|---|---------|-------|-------|-------|-------|
| BRCA | 231 | chr16:54688721-54689751   | 10265  | IRX5      | + | -275876 | 0.31  | -0.02 | 1.11  | 0.54  |
| BRCA | 232 | chr1:151009088-151010087  | 55793  | FAM63A    | - | 28733   | -0.31 | 0.01  | 0.36  | -0.55 |
| BRCA | 233 | chr7:25781827-25782826    | 136895 | C7orf31   | - | 562509  | -0.34 | -0.02 | -1.18 | 0.51  |
| BRCA | 234 | chr1:234763568-234764567  | 9453   | GGPS1     | + | -726598 | -0.37 | 0.04  | 0.65  | -0.53 |
| BRCA | 235 | chr6:1296524-1297523      | 3662   | IRF4      | + | 905284  | -0.34 | 0.04  | -1.16 | 0.57  |
| BRCA | 236 | chr14:90139066-90140065   | 90141  | C14orf143 | - | -281524 | -0.32 | -0.02 | 0.52  | -0.59 |
| BRCA | 237 | chr5:121754588-121755587  | 94033  | FTMT      | + | 567437  | -0.33 | -0.04 | -1.00 | 0.56  |
| BRCA | 238 | chr17:48769840-48770839   | 10140  | TOB1      | - | -175000 | -0.32 | 0.09  | 0.24  | -0.55 |
| BRCA | 239 | chr7:25799433-25800432    | 136895 | C7orf31   | - | 580115  | -0.34 | -0.02 | -1.18 | 0.51  |
| BRCA | 240 | chr5:4589792-4590791      | 79192  | IRX1      | + | 994123  | -0.31 | 0.00  | -2.83 | 0.57  |
| BRCA | 241 | chr17:55887954-55889047   | 59342  | SCPEP1    | + | 833032  | 0.35  | 0.01  | -1.01 | -0.52 |
| BRCA | 242 | chr16:5282918-5283917     | 9093   | DNAJA3    | + | 807611  | -0.38 | -0.01 | 0.74  | -0.52 |
| BRCA | 243 | chr2:239437306-239438305  | 64284  | RAB17     | - | 938036  | -0.36 | 0.01  | 1.39  | -0.51 |
| BRCA | 244 | chr1:208471773-208472772  | 1378   | CR1       | + | 802799  | -0.31 | 0.00  | -1.95 | 0.60  |
| BRCA | 245 | chr2:28491446-28492445    | 64838  | FNDCA     | - | 773819  | -0.33 | -0.01 | -1.60 | 0.55  |
| BRCA | 246 | chr10:61899913-61900912   | 220965 | FAM13C    | - | 777751  | -0.30 | -0.07 | -2.55 | 0.55  |
| BRCA | 247 | chr16:27375232-27376231   | 23247  | KIAA0556  | + | -185737 | -0.31 | -0.02 | 0.52  | -0.56 |
| BRCA | 248 | chr2:47418763-47419762    | 57217  | TTC7A     | + | 275966  | -0.33 | 0.03  | -0.26 | 0.53  |
| BRCA | 249 | chr3:171912583-171913582  | 5337   | PLD1      | - | 384578  | -0.30 | 0.00  | -1.55 | 0.55  |
| BRCA | 250 | chr12:76206288-76207287   | 11010  | GLIPR1    | + | 332274  | -0.33 | 0.05  | -0.61 | 0.53  |
| BRCA | 251 | chr2:73200977-73201976    | 6697   | SPR       | + | 86964   | -0.30 | -0.02 | 0.70  | -0.55 |
| BRCA | 252 | chr16:24394420-24395419   | 124454 | EARS2     | - | 826223  | -0.37 | 0.07  | 0.57  | -0.55 |
| BRCA | 253 | chr7:29110755-29111754    | 9586   | CREB5     | + | 772314  | -0.31 | 0.01  | -2.41 | 0.51  |
| BRCA | 254 | chr6:162258567-162259566  | 5071   | PARK2     | - | -889768 | -0.31 | 0.00  | -2.13 | 0.59  |
| BRCA | 255 | chr12:53955164-53956163   | 22818  | COPZ1     | + | -763211 | -0.38 | 0.04  | 0.41  | -0.54 |
| BRCA | 256 | chr5:114764248-114765247  | 5229   | PGGT1B    | - | 166178  | -0.31 | -0.04 | 0.12  | -0.56 |
| BRCA | 257 | chr7:111900677-111901676  | 3475   | IFRD1     | + | -162023 | -0.31 | 0.01  | -0.57 | 0.50  |
| BRCA | 258 | chr5:68041726-68042725    | 202243 | CCDC125   | - | -586395 | -0.34 | -0.02 | 0.50  | -0.62 |
| BRCA | 259 | chr12:130275651-130276650 | 144423 | GLT1D1    | + | 938069  | -0.34 | -0.07 | -1.26 | 0.56  |
| BRCA | 260 | chr7:93180853-93181852    | 1021   | CDK6      | - | 715411  | -0.33 | 0.05  | -1.08 | 0.55  |
| BRCA | 261 | chr16:24394420-24395419   | 91949  | COG7      | - | 930407  | -0.37 | 0.11  | 0.52  | -0.57 |
| BRCA | 262 | chr8:22454388-22455972    | 10361  | NPM2      | + | 573534  | 0.30  | 0.02  | -1.73 | -0.54 |
| BRCA | 263 | chr16:24197363-24198362   | 5579   | PRKCB     | + | 350562  | -0.32 | -0.04 | -0.45 | 0.58  |
| BRCA | 264 | chr5:60464388-60465387    | 643155 | C5orf43   | - | 6585    | -0.30 | 0.14  | 0.29  | -0.51 |
| BRCA | 265 | chr3:99408267-99409266    | 10402  | ST3GAL6   | + | 957686  | -0.35 | 0.00  | -1.01 | 0.54  |
| BRCA | 266 | chr2:28491446-28492445    | 64080  | RBKS      | - | 378722  | -0.33 | 0.03  | 0.58  | -0.52 |
| BRCA | 267 | chr2:161849923-161850922  | 5937   | SBMS1     | - | 500104  | -0.30 | -0.01 | -1.09 | 0.58  |
| BRCA | 268 | chr17:55951563-55952716   | 59342  | SCPEP1    | + | 896671  | 0.33  | 0.01  | -1.01 | -0.56 |
| BRCA | 269 | chr15:93902288-93903287   | 55784  | MCTP2     | + | -872014 | -0.32 | 0.01  | -1.67 | 0.55  |
| BRCA | 270 | chr15:93902288-93903287   | 400451 | FAM174B   | - | 625483  | -0.32 | 0.00  | 0.73  | -0.62 |
| BRCA | 271 | chr2:42772345-42773344    | 165140 | OXER1     | - | -218557 | -0.30 | 0.09  | -0.95 | 0.51  |
| BRCA | 272 | chr8:37329504-37330503    | 137994 | LETM2     | + | -913956 | -0.33 | 0.03  | 0.97  | -0.62 |
| BRCA | 273 | chr5:159508165-159509164  | 153830 | RNF145    | - | 871603  | -0.32 | 0.03  | -1.32 | 0.59  |
| BRCA | 274 | chr15:69853353-69854352   | 7090   | TLE3      | - | -536404 | -0.31 | 0.03  | 0.83  | -0.62 |
| BRCA | 275 | chr8:37329504-37330503    | 80223  | RAB11FIP1 | - | -427012 | -0.33 | 0.02  | 0.61  | -0.51 |
| BRCA | 276 | chr3:196730650-196731649  | 54965  | PIGX      | + | 291904  | -0.31 | 0.02  | 0.63  | -0.52 |
| BRCA | 277 | chr2:42772345-42773344    | 57504  | MTA3      | + | 51135   | -0.30 | 0.06  | 0.38  | -0.51 |
| BRCA | 278 | chr10:104748094-104749093 | 403    | ARL3      | - | 274403  | -0.31 | -0.05 | 0.38  | -0.53 |
| BRCA | 279 | chr3:120368837-120369836  | 165829 | GPR156    | - | 406011  | -0.32 | -0.01 | -0.73 | 0.51  |
| BRCA | 280 | chr11:116705872-116706871 | 486    | FXYD2     | - | -992436 | 0.35  | 0.09  | -1.00 | -0.51 |
| BRCA | 281 | chr16:23041921-23042920   | 91949  | COG7      | - | -422092 | -0.33 | 0.11  | 0.52  | -0.52 |
| BRCA | 282 | chr1:210558009-210559008  | 84791  | C1orf97   | + | -997589 | -0.35 | 0.00  | 0.73  | -0.55 |
| BRCA | 283 | chr4:75399546-75400545    | 6372   | CXCL6     | + | 697772  | -0.31 | -0.04 | -1.57 | 0.52  |
| BRCA | 284 | chr2:220263115-220264114  | 80326  | WNT10A    | + | 518359  | -0.33 | 0.07  | -0.09 | 0.56  |
| BRCA | 285 | chr15:88843399-88844398   | 4240   | FMGE8     | - | -612765 | -0.30 | -0.02 | -1.51 | 0.54  |
| BRCA | 286 | chr5:114764248-114765247  | 51014  | TMED7     | - | -197129 | -0.31 | -0.01 | 0.09  | -0.51 |
| BRCA | 287 | chr1:26083202-26084201    | 864    | RUNX3     | - | 792089  | -0.36 | -0.02 | -0.38 | 0.52  |
| BRCA | 288 | chr6:162258567-162259566  | 135138 | PACRG     | + | -889098 | -0.31 | 0.01  | -2.12 | 0.51  |
| BRCA | 289 | chr1:203670640-203671639  | 51094  | ADIPOR1   | - | 743439  | -0.32 | 0.00  | 0.74  | -0.61 |
| BRCA | 290 | chr2:42772345-42773344    | 678    | ZFP36L2   | - | -680901 | -0.30 | -0.03 | -1.25 | 0.57  |
| BRCA | 291 | chr8:37329504-37330503    | 84513  | PPAPDC1B  | - | -796735 | -0.33 | -0.06 | 0.80  | -0.54 |
| BRCA | 292 | chr11:121665083-121666082 | 84959  | UBASH3B   | + | -860816 | -0.36 | 0.06  | -0.22 | 0.53  |
| BRCA | 293 | chr4:106983173-106984172  | 79807  | GSTCD     | + | 353731  | -0.31 | 0.03  | 0.56  | -0.50 |
| BRCA | 294 | chr7:105615308-105616307  | 168455 | FLJ36031  | - | -685827 | -0.31 | 0.00  | -0.58 | 0.68  |
| BRCA | 295 | chr12:53821643-53822642   | 22818  | COPZ1     | + | -896732 | -0.34 | 0.04  | 0.41  | -0.52 |
| BRCA | 296 | chr17:41639996-41640995   | 92591  | ASB16     | + | -607579 | 0.30  | 0.03  | 1.14  | 0.50  |
| BRCA | 297 | chr6:90845352-90846351    | 135293 | PM20D2    | + | 990082  | -0.30 | -0.02 | -1.67 | 0.56  |
| BRCA | 298 | chr6:160697125-160698124  | 56895  | AGPAT4    | - | -997483 | -0.31 | -0.01 | -0.88 | 0.60  |
| BRCA | 299 | chr8:128191230-128192229  | 157638 | FAM84B    | - | 621018  | -0.31 | 0.07  | 0.56  | -0.54 |
| BRCA | 300 | chr1:53641734-53642733    | 23318  | ZCCHC11   | - | 623103  | -0.30 | 0.01  | -1.05 | 0.50  |
| BRCA | 301 | chr6:145430790-145431789  | 8676   | STX11     | + | 959635  | -0.30 | 0.00  | -1.76 | 0.54  |
| BRCA | 302 | chr15:64943523-64944522   | 51495  | PTPLAD1   | + | -878805 | -0.32 | -0.01 | 0.56  | -0.56 |
| BRCA | 303 | chr16:24197363-24198362   | 124454 | EARS2     | - | 629166  | -0.32 | 0.07  | 0.57  | -0.51 |
| BRCA | 304 | chr16:24197363-24198362   | 91949  | COG7      | - | 733350  | -0.32 | 0.11  | 0.52  | -0.54 |
| BRCA | 305 | chr4:77491262-77492261    | 419    | ART3      | + | 559428  | -0.32 | 0.04  | -0.20 | 0.54  |
| BRCA | 306 | chr6:160859856-160860855  | 6648   | SOD2      | - | 746002  | -0.30 | -0.05 | -0.94 | 0.55  |
| BRCA | 307 | chr2:220263115-220264114  | 27148  | STK36     | + | 726865  | -0.33 | 0.00  | 0.30  | -0.51 |
| BRCA | 308 | chr6:160859856-160860855  | 56895  | AGPAT4    | - | -834752 | -0.30 | -0.01 | -0.88 | 0.58  |

|      |     |                           |        |          |   |         |       |       |       |       |
|------|-----|---------------------------|--------|----------|---|---------|-------|-------|-------|-------|
| BRCA | 309 | chr14:90139066-90140065   | 123016 | TTC8     | + | 849068  | -0.32 | -0.08 | 0.10  | -0.59 |
| BRCA | 310 | chr1:203670640-203671639  | 51706  | CYB5R1   | - | 734735  | -0.32 | 0.01  | 0.49  | -0.52 |
| BRCA | 311 | chr17:41639996-41640995   | 92579  | G6PC3    | + | -507603 | 0.30  | -0.04 | 0.55  | 0.51  |
| BRCA | 312 | chr1:203670640-203671639  | 59349  | KLHL12   | - | 773412  | -0.32 | 0.09  | 0.47  | -0.53 |
| BRCA | 313 | chr11:127471123-127472122 | 2113   | ETS1     | - | -985831 | -0.31 | 0.11  | -0.90 | 0.57  |
| BRCA | 314 | chr1:177841209-177842208  | 55103  | RALGPS2  | + | -852592 | -0.30 | 0.04  | 0.88  | -0.57 |
| BRCA | 315 | chr1:114217686-114218685  | 284467 | FAM19A3  | + | 954996  | -0.33 | 0.02  | -0.57 | 0.51  |
| BRCA | 316 | chr17:41639996-41640995   | 146923 | RUNDC1   | + | 507913  | 0.30  | -0.01 | 0.23  | 0.54  |
| BRCA | 317 | chr11:27416874-27417873   | 196074 | METT5D1  | + | -712425 | -0.31 | 0.01  | 0.11  | -0.52 |
| BRCA | 318 | chr8:22454388-22455972    | 51312  | SLC25A37 | + | -931184 | 0.30  | -0.05 | -0.89 | -0.52 |
| BRCA | 319 | chr8:126698238-126699237  | 157638 | FAM84B   | - | -871974 | -0.30 | 0.07  | 0.56  | -0.52 |

| Cancer |      |                           |        |              |        | Enhancer          | Promoter                 | Differential             |                 |             |
|--------|------|---------------------------|--------|--------------|--------|-------------------|--------------------------|--------------------------|-----------------|-------------|
| Type   | Rank | eDMR                      | Entrez | Gene symbols | Strand | Distance from TSS | differential methylation | differential methylation | gene expression | Correlation |
| COAD   | 1    | chr21:38077471-38078470   | 6493   | SIM2         | +      | 5979              | 0.49                     | -0.02                    | 3.63            | 0.54        |
| COAD   | 2    | chr21:38082599-38083648   | 6493   | SIM2         | +      | 11132             | 0.50                     | -0.02                    | 3.63            | 0.55        |
| COAD   | 3    | chr21:38078267-38080114   | 6493   | SIM2         | +      | 7199              | 0.45                     | -0.02                    | 3.63            | 0.58        |
| COAD   | 4    | chr21:38082113-38083112   | 6493   | SIM2         | +      | 10621             | 0.50                     | -0.02                    | 3.63            | 0.52        |
| COAD   | 5    | chr1:158155257-158156256  | 912    | CD1D         | +      | 6019              | -0.48                    | -0.13                    | -2.18           | 0.57        |
| COAD   | 6    | chr4:176909479-176910478  | 2823   | GPM6A        | -      | -13864            | -0.38                    | 0.16                     | -5.23           | 0.54        |
| COAD   | 7    | chr13:35588503-35589502   | 26960  | NBEA         | +      | 72578             | -0.41                    | 0.00                     | -2.78           | 0.58        |
| COAD   | 8    | chr10:102891631-102893286 | 3195   | TLX1         | +      | 1397              | 0.34                     | 0.10                     | 3.29            | 0.56        |
| COAD   | 9    | chr7:42104981-42105980    | 2737   | GLI3         | -      | -171138           | -0.51                    | 0.00                     | -1.82           | 0.51        |
| COAD   | 10   | chr11:30597481-30598480   | 744    | MPPED2       | -      | -9950             | -0.48                    | 0.10                     | -1.83           | 0.51        |
| COAD   | 11   | chr5:88307260-88308259    | 4208   | MEF2C        | -      | 107837            | -0.46                    | -0.02                    | -1.50           | 0.57        |
| COAD   | 12   | chr6:90973976-90974975    | 60468  | BACH2        | -      | -32152            | -0.41                    | 0.00                     | -1.33           | 0.54        |
| COAD   | 13   | chr10:61049562-61050561   | 220965 | FAM13C       | -      | -72600            | -0.41                    | -0.04                    | -2.28           | 0.52        |
| COAD   | 14   | chr1:158155257-158156256  | 57863  | CADM3        | +      | -985621           | -0.48                    | 0.09                     | -6.21           | 0.59        |
| COAD   | 15   | chr21:38078903-38079902   | 6493   | SIM2         | +      | 7411              | 0.31                     | -0.02                    | 3.63            | 0.56        |
| COAD   | 16   | chr2:80723709-80724708    | 347730 | LRRTM1       | -      | 192721            | -0.43                    | -0.02                    | -2.47           | 0.54        |
| COAD   | 17   | chr4:72133560-72134559    | 8671   | SLC4A4       | +      | 81056             | -0.32                    | -0.03                    | -6.03           | 0.60        |
| COAD   | 18   | chr3:16779226-16780225    | 23228  | PLCL2        | +      | -64434            | -0.35                    | 0.01                     | -2.42           | 0.53        |
| COAD   | 19   | chr4:113906036-113907035  | 287    | ANK2         | +      | 167296            | -0.36                    | 0.04                     | -3.61           | 0.54        |
| COAD   | 20   | chr8:97778209-97779208    | 10404  | PGCP         | +      | 121209            | -0.46                    | 0.00                     | -1.35           | 0.62        |
| COAD   | 21   | chr6:136405226-136406225  | 27115  | PDE7B        | +      | 232891            | -0.39                    | 0.02                     | -2.65           | 0.53        |
| COAD   | 22   | chr5:88432040-88433039    | 4208   | MEF2C        | -      | 232617            | -0.44                    | -0.02                    | -1.50           | 0.57        |
| COAD   | 23   | chr3:86997918-86998917    | 389136 | VGLL3        | -      | -41840            | -0.41                    | -0.06                    | -1.56           | 0.50        |
| COAD   | 24   | chr5:169143938-169144937  | 1794   | DOCK2        | +      | 80186             | -0.46                    | -0.13                    | -1.38           | 0.51        |
| COAD   | 25   | chr1:221129045-221130044  | 3142   | HLX          | +      | 76801             | -0.43                    | 0.06                     | -1.07           | 0.52        |
| COAD   | 26   | chr3:16969367-16970366    | 23228  | PLCL2        | +      | 125707            | -0.32                    | 0.01                     | -2.42           | 0.64        |
| COAD   | 27   | chr6:90943062-90944061    | 60468  | BACH2        | -      | -63066            | -0.38                    | 0.00                     | -1.33           | 0.51        |
| COAD   | 28   | chr11:130667961-130668960 | 170689 | ADAMTS15     | +      | 349591            | -0.46                    | -0.02                    | -1.73           | 0.51        |
| COAD   | 29   | chr16:30106397-30107396   | 83719  | YPEL3        | -      | -641              | 0.41                     | -0.07                    | -0.41           | -0.56       |
| COAD   | 30   | chr1:221212552-221213551  | 3142   | HLX          | +      | 160308            | -0.43                    | 0.06                     | -1.07           | 0.53        |
| COAD   | 31   | chr5:142739814-142740813  | 2908   | NR3C1        | -      | -74764            | -0.33                    | 0.00                     | -1.97           | 0.54        |
| COAD   | 32   | chr6:127396450-127397449  | 84870  | RSPO3        | +      | -43099            | -0.31                    | 0.07                     | -2.36           | 0.53        |
| COAD   | 33   | chr13:35538404-35539403   | 26960  | NBEA         | +      | 22479             | -0.30                    | 0.00                     | -2.78           | 0.51        |
| COAD   | 34   | chr16:5590177-5591176     | 54715  | A2BP1        | +      | -478456           | -0.44                    | 0.02                     | -2.31           | 0.51        |
| COAD   | 35   | chr2:222119202-222120201  | 2043   | EPHA4        | -      | -317309           | -0.36                    | -0.06                    | -1.66           | 0.57        |
| COAD   | 36   | chr13:77289221-77290220   | 115207 | KCTD12       | -      | -170820           | -0.35                    | -0.03                    | -1.83           | 0.54        |
| COAD   | 37   | chr16:24174350-24175349   | 5579   | PRKCB        | +      | 327549            | -0.37                    | -0.04                    | -2.59           | 0.51        |
| COAD   | 38   | chr6:149356756-149357755  | 10090  | UST          | +      | 288984            | -0.35                    | 0.01                     | -2.13           | 0.55        |
| COAD   | 39   | chr12:100002074-100003073 | 56899  | ANKS1B       | -      | -375859           | -0.35                    | 0.00                     | -3.04           | 0.53        |
| COAD   | 40   | chr11:130398400-130399399 | 170689 | ADAMTS15     | +      | 80030             | -0.33                    | -0.02                    | -1.73           | 0.53        |
| COAD   | 41   | chr11:121961374-121962373 | 399959 | LOC399959    | -      | -276594           | -0.36                    | -0.04                    | -2.07           | 0.53        |
| COAD   | 42   | chr13:72451160-72452159   | 1602   | DACH1        | -      | 10329             | -0.32                    | 0.04                     | 1.50            | -0.53       |
| COAD   | 43   | chr3:25101407-25102406    | 5915   | RARB         | +      | -113917           | -0.49                    | 0.06                     | -0.34           | 0.52        |
| COAD   | 44   | chr11:122821439-122822438 | 79864  | C11orf63     | +      | 68702             | -0.35                    | -0.09                    | -1.12           | 0.67        |
| COAD   | 45   | chr3:23330728-23331727    | 7325   | UBE2E2       | +      | 86574             | -0.38                    | -0.06                    | -0.69           | 0.56        |
| COAD   | 46   | chr13:74544155-74545154   | 11278  | KLF12        | -      | -163740           | -0.37                    | -0.02                    | -1.01           | 0.63        |
| COAD   | 47   | chr2:17481955-17482954    | 81553  | FAM49A       | -      | 635320            | -0.45                    | 0.00                     | -1.53           | 0.51        |
| COAD   | 48   | chr2:189193228-189194227  | 51454  | GULP1        | +      | 37331             | -0.36                    | 0.07                     | -1.08           | 0.52        |
| COAD   | 49   | chr2:222147178-222148177  | 2043   | EPHA4        | -      | -289333           | -0.34                    | -0.06                    | -1.66           | 0.60        |
| COAD   | 50   | chr5:88865584-88866583    | 4208   | MEF2C        | -      | 666161            | -0.45                    | -0.02                    | -1.50           | 0.53        |
| COAD   | 51   | chr11:123248342-123249341 | 79827  | ASAM         | -      | 182834            | -0.31                    | 0.12                     | -2.42           | 0.56        |
| COAD   | 52   | chr5:87973399-87975046    | 4208   | MEF2C        | -      | -225700           | 0.35                     | -0.02                    | -1.50           | -0.55       |
| COAD   | 53   | chr13:94870287-94871286   | 23483  | TGDS         | -      | -377725           | -0.47                    | 0.04                     | 1.15            | -0.51       |
| COAD   | 54   | chr8:98057871-98058870    | 10404  | PGCP         | +      | 400871            | -0.42                    | 0.00                     | -1.35           | 0.54        |

|      |     |                           |        |          |   |         |       |       |       |       |
|------|-----|---------------------------|--------|----------|---|---------|-------|-------|-------|-------|
| COAD | 55  | chr3:23567065-23568064    | 7325   | UBE2E2   | + | 322911  | -0.43 | -0.06 | -0.69 | 0.59  |
| COAD | 56  | chr5:89000191-89001190    | 4208   | MEF2C    | - | 800768  | -0.47 | -0.02 | -1.50 | 0.52  |
| COAD | 57  | chr5:88743331-88744330    | 4208   | MEF2C    | - | 543908  | -0.39 | -0.02 | -1.50 | 0.55  |
| COAD | 58  | chr15:92701385-92702384   | 56963  | RGMA     | - | -930559 | -0.35 | -0.02 | -3.08 | 0.54  |
| COAD | 59  | chr6:73907279-73908278    | 56479  | KCNQ5    | + | 576207  | -0.37 | 0.08  | -2.14 | 0.51  |
| COAD | 60  | chr6:163861945-163862944  | 9444   | QKI      | + | 26769   | -0.34 | 0.02  | -0.96 | 0.53  |
| COAD | 61  | chr2:33735388-33736387    | 25780  | RASGRP3  | + | 74471   | -0.42 | 0.05  | -0.34 | 0.53  |
| COAD | 62  | chr16:5485768-5486767     | 54715  | A2BP1    | + | -582865 | -0.35 | 0.02  | -2.31 | 0.55  |
| COAD | 63  | chr8:58137548-58138547    | 90362  | FAM110B  | + | -769066 | -0.38 | -0.06 | -1.63 | 0.54  |
| COAD | 64  | chr11:132964750-132965749 | 83700  | JAM3     | + | -973571 | -0.42 | -0.06 | -1.56 | 0.53  |
| COAD | 65  | chr4:41882607-41883663    | 7345   | UCHL1    | + | 624236  | 0.34  | 0.02  | -2.91 | -0.51 |
| COAD | 66  | chr3:101832145-101833144  | 91775  | FAM55C   | + | 334615  | -0.42 | 0.01  | -1.01 | 0.52  |
| COAD | 67  | chr2:101013598-101014597  | 9486   | CHST10   | - | -20033  | -0.32 | -0.14 | -0.65 | 0.56  |
| COAD | 68  | chr6:40530202-40531201    | 57497  | LRFN2    | - | -24425  | -0.32 | -0.07 | -0.53 | 0.56  |
| COAD | 69  | chr3:23330728-23331727    | 79750  | ZNF385D  | - | 917104  | -0.38 | 0.04  | -1.58 | 0.53  |
| COAD | 70  | chr1:81608633-81609632    | 23266  | LPHN2    | + | -162713 | -0.36 | -0.05 | -1.24 | 0.51  |
| COAD | 71  | chr8:97712176-97713175    | 10404  | PGCP     | + | 55176   | -0.31 | 0.00  | -1.35 | 0.52  |
| COAD | 72  | chr16:30106182-30107321   | 83719  | YPEL3    | - | -786    | 0.32  | -0.07 | -0.41 | -0.52 |
| COAD | 73  | chr5:168254259-168255258  | 6586   | SLIT3    | - | -473375 | -0.32 | 0.01  | -3.07 | 0.50  |
| COAD | 74  | chr2:73152172-73153474    | 2016   | EMX1     | + | 8218    | 0.32  | -0.10 | -0.62 | 0.52  |
| COAD | 75  | chr5:146991427-146992426  | 1809   | DPYSL3   | - | 102307  | -0.35 | 0.11  | -1.07 | 0.50  |
| COAD | 76  | chr3:179992835-179993834  | 59345  | GNB4     | - | 823963  | -0.43 | 0.01  | -0.85 | 0.50  |
| COAD | 77  | chr13:85714601-85715600   | 84189  | SLITRK6  | - | -658383 | -0.32 | 0.07  | -2.09 | 0.53  |
| COAD | 78  | chr8:60626836-60627835    | 9760   | TOX      | - | 595568  | -0.32 | 0.08  | -2.06 | 0.56  |
| COAD | 79  | chr7:90562315-90563314    | 5218   | CDK14    | + | 467076  | -0.43 | 0.00  | -0.67 | 0.53  |
| COAD | 80  | chr7:90533007-90534006    | 5218   | CDK14    | + | 437768  | -0.48 | 0.00  | -0.67 | 0.53  |
| COAD | 81  | chr3:54940106-54941105    | 55799  | CACNA2D3 | + | 783912  | -0.38 | 0.01  | -1.47 | 0.53  |
| COAD | 82  | chr2:144581831-144582830  | 55843  | ARHGAP15 | + | 695431  | -0.37 | -0.07 | -1.54 | 0.52  |
| COAD | 83  | chr7:121766687-121767686  | 10157  | AASS     | - | -17158  | -0.32 | -0.01 | -0.46 | 0.53  |
| COAD | 84  | chr13:77041827-77042826   | 7347   | UCHL3    | + | 918710  | -0.43 | 0.00  | 0.83  | -0.52 |
| COAD | 85  | chr11:123236371-123237370 | 79864  | C11orf63 | + | 483634  | -0.37 | -0.09 | -1.12 | 0.53  |
| COAD | 86  | chr2:175661061-175662060  | 7456   | WIPF1    | - | 113933  | -0.36 | 0.10  | -0.75 | 0.50  |
| COAD | 87  | chr2:144270931-144271930  | 55843  | ARHGAP15 | + | 384531  | -0.31 | -0.07 | -1.54 | 0.55  |
| COAD | 88  | chr5:87973097-87974935    | 4208   | MEF2C    | - | -225907 | 0.30  | -0.02 | -1.50 | -0.52 |
| COAD | 89  | chr3:3862203-3863202      | 57633  | LRRN1    | + | 21581   | -0.30 | -0.02 | -0.07 | 0.55  |
| COAD | 90  | chr6:74825947-74826946    | 135228 | CD109    | + | 420938  | -0.39 | 0.00  | -0.46 | 0.53  |
| COAD | 91  | chr6:73907279-73908278    | 135228 | CD109    | + | -497730 | -0.37 | 0.00  | -0.46 | 0.53  |
| COAD | 92  | chr12:60358117-60359116   | 9194   | SLC16A7  | + | 368795  | -0.31 | -0.06 | -1.61 | 0.51  |
| COAD | 93  | chr7:151100520-151101519  | 155038 | GIMAP8   | + | 953057  | -0.33 | 0.00  | -1.57 | 0.51  |
| COAD | 94  | chr15:61197017-61198016   | 6095   | RORA     | - | -323986 | -0.32 | 0.02  | -1.06 | 0.53  |
| COAD | 95  | chr10:16897811-16898810   | 8029   | CUBN     | - | -273506 | -0.33 | 0.06  | -0.82 | 0.52  |
| COAD | 96  | chr2:218027091-218028090  | 7145   | TNS1     | - | -840128 | -0.31 | 0.02  | -2.64 | 0.50  |
| COAD | 97  | chr2:133923104-133924103  | 344148 | NCKAP5   | - | -402428 | -0.31 | 0.02  | -1.42 | 0.51  |
| COAD | 98  | chr4:176909479-176910478  | 7424   | VEGFC    | - | -803917 | -0.38 | 0.00  | -0.60 | 0.51  |
| COAD | 99  | chr15:61266330-61267329   | 6095   | RORA     | - | -254673 | -0.30 | 0.02  | -1.06 | 0.50  |
| COAD | 100 | chr7:151100520-151101519  | 55303  | GIMAP4   | + | 836561  | -0.33 | -0.03 | -1.22 | 0.51  |
| COAD | 101 | chr11:123248342-123249341 | 79864  | C11orf63 | + | 495605  | -0.31 | -0.09 | -1.12 | 0.50  |
| COAD | 102 | chr13:72451160-72452159   | 10464  | PIBF1    | + | -904571 | -0.32 | 0.05  | 0.80  | -0.50 |

| Cancer |      |                           |        | Gene     |        | Distance | Enhancer                 | Promoter                 | Differential    |             |
|--------|------|---------------------------|--------|----------|--------|----------|--------------------------|--------------------------|-----------------|-------------|
| Type   | Rank | eDMR                      | Entrez | symbols  | Strand | from TSS | differential methylation | differential methylation | gene expression | Correlation |
| HNSC   | 1    | chr8:72630128-72631127    | 2138   | EYA1     | -      | 356160   | -0.36                    | 0.01                     | -2.16           | 0.53        |
| HNSC   | 2    | chr2:189193228-189194227  | 51454  | GULP1    | +      | 37331    | -0.34                    | 0.06                     | -2.50           | 0.70        |
| HNSC   | 3    | chr10:61049562-61050561   | 220965 | FAM13C   | -      | -72600   | -0.39                    | -0.05                    | -1.84           | 0.55        |
| HNSC   | 4    | chr17:46709358-46710357   | 3219   | HOXB9    | -      | 6022     | 0.31                     | 0.02                     | 3.53            | 0.61        |
| HNSC   | 5    | chr7:137222917-137223916  | 5764   | PTN      | -      | 194870   | -0.39                    | -0.06                    | -2.40           | 0.52        |
| HNSC   | 6    | chr10:117715309-117716308 | 2674   | GFRA1    | -      | -317318  | -0.35                    | 0.02                     | -2.87           | 0.53        |
| HNSC   | 7    | chr1:26083202-26084201    | 57134  | MAN1C1   | +      | 139742   | -0.33                    | 0.00                     | -1.67           | 0.60        |
| HNSC   | 8    | chr3:157122186-157123185  | 5806   | PTX3     | +      | -31895   | -0.34                    | -0.07                    | -1.19           | 0.55        |
| HNSC   | 9    | chr2:189352310-189353309  | 51454  | GULP1    | +      | 196413   | -0.32                    | 0.06                     | -2.50           | 0.69        |
| HNSC   | 10   | chr9:21967733-21968732    | 1029   | CDKN2A   | -      | -26258   | 0.30                     | -0.05                    | 1.68            | 0.70        |
| HNSC   | 11   | chr4:149715175-149716174  | 4306   | NR3C2    | -      | 352002   | -0.31                    | 0.00                     | -3.41           | 0.63        |
| HNSC   | 12   | chr3:159886481-159887480  | 151742 | PPM1L    | +      | -587016  | -0.44                    | -0.02                    | -1.88           | 0.51        |
| HNSC   | 13   | chr15:89951552-89952634   | 55215  | FANCI    | +      | 164898   | 0.34                     | -0.04                    | 1.51            | 0.53        |
| HNSC   | 14   | chr10:75658983-75659982   | 5328   | PLAU     | +      | -11380   | -0.30                    | 0.07                     | 2.82            | -0.50       |
| HNSC   | 15   | chr4:150086691-150087690  | 4306   | NR3C2    | -      | 723518   | -0.33                    | 0.00                     | -3.41           | 0.56        |
| HNSC   | 16   | chr9:21967733-21968732    | 1E+08  | CDKN2BAS | +      | -26558   | 0.30                     | 0.01                     | 1.60            | 0.64        |
| HNSC   | 17   | chr11:30649017-30650016   | 744    | MPPED2   | -      | 41586    | -0.32                    | 0.06                     | -1.36           | 0.52        |
| HNSC   | 18   | chr6:50946761-50947760    | 7021   | TFAP2B   | +      | 160821   | -0.31                    | 0.07                     | -3.82           | 0.56        |
| HNSC   | 19   | chr7:2861355-2862354      | 2768   | GNA12    | -      | -22105   | -0.31                    | 0.01                     | 1.46            | -0.57       |
| HNSC   | 20   | chr5:35146028-35147027    | 5618   | PRLR     | -      | -84296   | -0.32                    | 0.00                     | -1.55           | 0.50        |
| HNSC   | 21   | chr3:173917337-173918336  | 22871  | NLGN1    | +      | 801592   | -0.36                    | 0.01                     | -1.31           | 0.62        |
| HNSC   | 22   | chr11:24848757-24849756   | 338645 | LUZP2    | +      | 330740   | -0.31                    | 0.00                     | -1.88           | 0.61        |
| HNSC   | 23   | chr2:56700951-56701950    | 114800 | CCDC85A  | +      | 522196   | -0.33                    | -0.01                    | -1.74           | 0.51        |
| HNSC   | 24   | chr16:24066674-24067673   | 5579   | PRKCB    | +      | 219873   | -0.35                    | 0.03                     | 0.25            | 0.54        |
| HNSC   | 25   | chr3:179992835-179993834  | 86     | ACTL6A   | +      | 712626   | -0.36                    | 0.05                     | 1.14            | -0.52       |
| HNSC   | 26   | chr5:15692335-15693334    | 23194  | FBXL7    | +      | 192529   | -0.33                    | -0.07                    | -0.69           | 0.50        |
| HNSC   | 27   | chr6:42283346-42284345    | 4188   | MDFI     | +      | 677650   | -0.32                    | 0.01                     | 0.96            | -0.70       |
| HNSC   | 28   | chr6:122925269-122926268  | 5570   | PKIB     | +      | 132706   | -0.34                    | -0.01                    | -1.12           | 0.51        |
| HNSC   | 29   | chr17:78734768-78736049   | 83882  | TSPAN10  | +      | -868789  | -0.31                    | 0.03                     | 1.95            | -0.55       |
| HNSC   | 30   | chr3:45640620-45641619    | 79443  | FYCO1    | -      | -396197  | 0.31                     | 0.00                     | -1.53           | -0.52       |
| HNSC   | 31   | chr8:97778209-97779208    | 10404  | PGCP     | +      | 121209   | -0.30                    | -0.02                    | -0.39           | 0.59        |
| HNSC   | 32   | chr12:24228475-24229474   | 6660   | SOX5     | -      | -486409  | -0.32                    | 0.00                     | -1.24           | 0.62        |
| HNSC   | 33   | chr3:135086318-135087317  | 2047   | EPHB1    | +      | 572718   | -0.32                    | 0.00                     | -0.79           | 0.53        |
| HNSC   | 34   | chr11:62322716-62323715   | 6520   | SLC3A2   | +      | -300269  | 0.30                     | -0.05                    | 0.87            | 0.52        |
| HNSC   | 35   | chr6:131100615-131101614  | 93663  | ARHGAP18 | -      | 918422   | -0.32                    | -0.09                    | -0.56           | 0.51        |
| HNSC   | 36   | chr10:75658983-75659982   | 23522  | MYST4    | +      | -926689  | -0.30                    | 0.00                     | -0.38           | 0.56        |

| Cancer |    | Rank                      | eDMR   | Entrez   | Gene symbols | Strand  | Distance from TSS | Enhancer                 | Promoter                 | Differential    |             |
|--------|----|---------------------------|--------|----------|--------------|---------|-------------------|--------------------------|--------------------------|-----------------|-------------|
| Type   |    |                           |        |          |              |         |                   | differential methylation | differential methylation | gene expression | Correlation |
| KIRP   | 1  | chr7:116356238-116357237  | 4233   | MET      | +            | 44278   |                   | -0.52                    | 0.03                     | 2.06            | -0.68       |
| KIRP   | 2  | chr9:130862056-130863055  | 114789 | SLC25A25 | +            | 32076   |                   | 0.47                     | 0.05                     | -2.58           | -0.54       |
| KIRP   | 3  | chr3:58983965-58984964    | 200844 | C3orf67  | -            | -51294  |                   | -0.46                    | 0.00                     | 2.42            | -0.61       |
| KIRP   | 4  | chr2:45926174-45927173    | 5581   | PRKCE    | +            | 47630   |                   | -0.46                    | 0.01                     | -2.05           | 0.63        |
| KIRP   | 5  | chr11:123430662-123431661 | 57476  | GRAMD1B  | +            | 34633   |                   | 0.38                     | 0.00                     | -3.62           | -0.61       |
| KIRP   | 6  | chr17:57861141-57862140   | 762    | CA4      | +            | -365662 |                   | -0.51                    | -0.01                    | -6.79           | 0.64        |
| KIRP   | 7  | chr17:17055084-17056083   | 51655  | RASD1    | -            | -344126 |                   | -0.47                    | 0.02                     | -5.67           | 0.63        |
| KIRP   | 8  | chr3:11266520-11267519    | 3269   | HRH1     | +            | 88240   |                   | -0.53                    | 0.00                     | 2.07            | -0.52       |
| KIRP   | 9  | chr2:234912688-234913687  | 54600  | UGT1A9   | +            | 332643  |                   | -0.52                    | 0.00                     | -5.00           | 0.55        |
| KIRP   | 10 | chr8:81962879-81963878    | 2167   | FABP4    | -            | -432095 |                   | -0.52                    | 0.02                     | -3.46           | 0.65        |
| KIRP   | 11 | chr7:28612180-28613179    | 9586   | CREB5    | +            | 273739  |                   | -0.42                    | 0.01                     | 2.62            | -0.73       |
| KIRP   | 12 | chr9:139977793-139978792  | 5730   | PTGDS    | +            | 108746  |                   | -0.41                    | 0.00                     | -4.70           | 0.51        |
| KIRP   | 13 | chr10:50263753-50264752   | 118461 | C10orf71 | +            | -242935 |                   | -0.44                    | 0.00                     | -2.70           | 0.56        |
| KIRP   | 14 | chr8:81962879-81963878    | 5375   | PMP2     | -            | -396341 |                   | -0.52                    | 0.06                     | -2.35           | 0.59        |
| KIRP   | 15 | chr2:46300583-46301582    | 2034   | EPAS1    | +            | -223459 |                   | -0.42                    | -0.04                    | -2.16           | 0.61        |
| KIRP   | 16 | chr5:149877683-149878682  | 11346  | SYNPO    | +            | 102460  |                   | 0.42                     | -0.08                    | -2.06           | -0.54       |
| KIRP   | 17 | chr11:43852383-43853382   | 387763 | AG2      | +            | -111224 |                   | -0.40                    | -0.02                    | -2.65           | 0.53        |
| KIRP   | 18 | chr1:55316269-55317268    | 7809   | BSND     | +            | -147849 |                   | -0.37                    | -0.04                    | -8.29           | 0.55        |
| KIRP   | 19 | chr12:94170627-94171626   | 8835   | SOCS2    | +            | 207528  |                   | 0.42                     | 0.04                     | -2.52           | -0.54       |
| KIRP   | 20 | chr13:41187426-41188425   | 2308   | FOXO1    | -            | -52809  |                   | 0.44                     | 0.09                     | -1.48           | -0.56       |
| KIRP   | 21 | chr11:88109942-88110941   | 1075   | CTSC     | -            | 39500   |                   | -0.39                    | 0.06                     | 1.45            | -0.70       |
| KIRP   | 22 | chr5:118608967-118610464  | 25816  | TNFAIP8  | +            | 5297    |                   | -0.40                    | -0.01                    | 1.43            | -0.61       |
| KIRP   | 23 | chr2:3402800-3403799      | 55256  | ADI1     | -            | -120051 |                   | 0.46                     | -0.03                    | -1.34           | -0.63       |
| KIRP   | 24 | chr8:101455161-101456160  | 157567 | ANKRD46  | -            | -116354 |                   | -0.42                    | 0.05                     | -1.54           | 0.58        |
| KIRP   | 25 | chr15:83501199-83502198   | 123720 | WHAMM    | +            | 23725   |                   | -0.64                    | 0.00                     | 0.65            | -0.63       |
| KIRP   | 26 | chr3:4574983-4575982      | 3708   | ITPR1    | +            | 40450   |                   | 0.38                     | 0.02                     | -2.43           | -0.53       |
| KIRP   | 27 | chr3:58983965-58984964    | 11170  | FAM107A  | -            | 371127  |                   | -0.46                    | 0.00                     | -3.37           | 0.52        |
| KIRP   | 28 | chr2:174048732-174049731  | 11069  | RAPGEF4  | +            | 448706  |                   | -0.43                    | 0.04                     | -3.32           | 0.58        |
| KIRP   | 29 | chr1:117532914-117533913  | 5738   | PTGFRN   | +            | 80724   |                   | -0.41                    | 0.00                     | 2.11            | -0.50       |
| KIRP   | 30 | chr2:200333902-200334938  | 150538 | FLJ32063 | +            | 1598    |                   | 0.37                     | 0.01                     | 1.89            | 0.54        |
| KIRP   | 31 | chr5:159890425-159891424  | 114898 | C1QTNF2  | -            | 93276   |                   | -0.41                    | 0.05                     | -1.90           | 0.53        |
| KIRP   | 32 | chr16:54445689-54446688   | 79191  | IRX3     | -            | 125810  |                   | 0.38                     | 0.01                     | 1.85            | 0.58        |
| KIRP   | 33 | chr4:11637033-11638032    | 9957   | HS3ST1   | -            | 206995  |                   | -0.44                    | 0.04                     | 2.11            | -0.50       |
| KIRP   | 34 | chr4:25659072-25660071    | 10568  | SLC34A2  | +            | 2136    |                   | -0.34                    | 0.03                     | 1.74            | -0.78       |
| KIRP   | 35 | chr8:134571313-134572312  | 6482   | ST3GAL1  | -            | -12371  |                   | 0.38                     | 0.02                     | -1.46           | -0.55       |
| KIRP   | 36 | chr6:113952161-113953160  | 4082   | MARCKS   | +            | -225867 |                   | -0.44                    | -0.06                    | 1.49            | -0.57       |
| KIRP   | 37 | chr2:45926174-45927173    | 2034   | EPAS1    | +            | -597868 |                   | -0.46                    | -0.04                    | -2.16           | 0.62        |
| KIRP   | 38 | chr22:39686844-39687843   | 4248   | MGAT3    | +            | -165982 |                   | -0.35                    | -0.04                    | -2.72           | 0.60        |
| KIRP   | 39 | chr17:39010051-39011050   | 125111 | GJD3     | -            | 489605  |                   | -0.49                    | -0.01                    | -2.27           | 0.54        |
| KIRP   | 40 | chr8:86349890-86351091    | 245972 | ATP6V0D2 | +            | -760649 |                   | 0.41                     | 0.00                     | -7.14           | -0.63       |
| KIRP   | 41 | chr17:57861141-57862140   | 81671  | TMEM49   | +            | 76777   |                   | -0.51                    | 0.00                     | 0.94            | -0.53       |
| KIRP   | 42 | chr1:55316269-55317268    | 338094 | FAM151A  | -            | 227568  |                   | -0.37                    | 0.00                     | -8.88           | 0.51        |
| KIRP   | 43 | chr5:176293568-176294567  | 90249  | UNC5A    | +            | 56507   |                   | 0.34                     | 0.05                     | 2.15            | 0.59        |
| KIRP   | 44 | chr12:109116494-109117493 | 9671   | WSCD2    | +            | 593482  |                   | -0.41                    | 0.01                     | -4.55           | 0.61        |
| KIRP   | 45 | chr2:200333902-200334938  | 23314  | SATB2    | -            | -1570   |                   | 0.37                     | -0.04                    | 1.35            | 0.60        |
| KIRP   | 46 | chr17:40051028-40052027   | 83538  | TTC25    | +            | -35361  |                   | -0.38                    | 0.00                     | 1.20            | -0.63       |
| KIRP   | 47 | chr5:55478877-55479876    | 79722  | ANKRD55  | -            | -49810  |                   | -0.39                    | 0.02                     | -1.52           | 0.54        |
| KIRP   | 48 | chr1:227161627-227162626  | 56997  | CABC1    | +            | 77537   |                   | 0.41                     | 0.00                     | -1.06           | -0.62       |
| KIRP   | 49 | chr2:46300583-46301582    | 5581   | PRKCE    | +            | 422039  |                   | -0.42                    | 0.01                     | -2.05           | 0.56        |
| KIRP   | 50 | chr11:65683043-65684042   | 117144 | CATSPER1 | -            | -110446 |                   | -0.35                    | 0.00                     | 2.60            | -0.55       |
| KIRP   | 51 | chr15:69081949-69082948   | 22801  | ITGA11   | -            | 357956  |                   | 0.41                     | -0.01                    | -2.06           | -0.56       |
| KIRP   | 52 | chr1:85754848-85755847    | 23576  | DDAH1    | -            | -288699 |                   | -0.47                    | 0.00                     | -1.19           | 0.58        |
| KIRP   | 53 | chr3:133287273-133288272  | 8419   | BFSP2    | +            | 168982  |                   | -0.38                    | 0.01                     | -1.49           | 0.62        |
| KIRP   | 54 | chr3:55860602-55861601    | 7474   | WNT5A    | -            | 339431  |                   | -0.38                    | -0.01                    | 1.69            | -0.63       |
| KIRP   | 55 | chr16:84884730-84885729   | 57707  | KIAA1609 | -            | 346941  |                   | -0.43                    | 0.00                     | 1.26            | -0.78       |
| KIRP   | 56 | chr4:3438079-3439078      | 3083   | HGFAC    | +            | -5148   |                   | -0.31                    | 0.03                     | 2.29            | -0.64       |
| KIRP   | 57 | chr17:42163933-42164932   | 339201 | C17orf65 | -            | -99653  |                   | -0.45                    | 0.00                     | 0.75            | -0.57       |
| KIRP   | 58 | chr5:149853125-149854124  | 11346  | SYNPO    | +            | -127018 |                   | -0.34                    | -0.08                    | -2.06           | 0.62        |
| KIRP   | 59 | chr7:116356238-116357237  | 26136  | TES      | +            | 506190  |                   | -0.52                    | 0.08                     | 1.20            | -0.67       |
| KIRP   | 60 | chr22:37827280-37828279   | 164656 | TMPRSS6  | -            | 322176  |                   | -0.36                    | -0.01                    | 2.57            | -0.55       |
| KIRP   | 61 | chr12:2306825-2307824     | 775    | CACNA1C  | +            | 144908  |                   | -0.33                    | -0.02                    | -2.42           | 0.60        |
| KIRP   | 62 | chr4:11637033-11638032    | 116449 | CLNK     | -            | 951146  |                   | -0.44                    | -0.01                    | -4.89           | 0.59        |
| KIRP   | 63 | chr7:143028208-143029207  | 835    | CASP2    | +            | 43399   |                   | -0.41                    | -0.02                    | 0.91            | -0.54       |
| KIRP   | 64 | chr9:139977793-139978792  | 54863  | C9orf167 | +            | -193988 |                   | -0.41                    | 0.00                     | 1.32            | -0.56       |
| KIRP   | 65 | chr14:100223311-100224310 | 8788   | DLK1     | +            | -969392 |                   | -0.54                    | 0.00                     | -3.52           | 0.54        |
| KIRP   | 66 | chr2:101679941-101680940  | 4862   | NPAS2    | +            | 243827  |                   | -0.41                    | 0.00                     | 1.53            | -0.52       |
| KIRP   | 67 | chr12:12550513-12551512   | 81575  | APOLD1   | +            | -327839 |                   | -0.38                    | -0.01                    | -2.04           | 0.56        |
| KIRP   | 68 | chr17:80920688-80921687   | 146712 | B3GNTL1  | -            | -88499  |                   | 0.36                     | -0.08                    | 1.81            | 0.52        |
| KIRP   | 69 | chr17:70293052-70294051   | 6662   | SOX9     | +            | 176390  |                   | -0.38                    | 0.00                     | 1.53            | -0.57       |
| KIRP   | 70 | chr2:130558694-130559693  | 91409  | CDC74B   | -            | -343514 |                   | -0.41                    | 0.03                     | 1.55            | -0.54       |
| KIRP   | 71 | chr5:173316248-173317247  | 80315  | CPEB4    | +            | 1416    |                   | 0.32                     | 0.00                     | -1.51           | -0.64       |
| KIRP   | 72 | chr16:54688721-54689751   | 79191  | IRX3     | -            | 368857  |                   | 0.38                     | 0.01                     | 1.85            | 0.56        |
| KIRP   | 73 | chr3:150186838-150187837  | 27230  | SERP1    | -            | -133624 |                   | -0.43                    | 0.02                     | -0.61           | 0.59        |
| KIRP   | 74 | chr11:65683043-65684042   | 9610   | RIN1     | -            | -420769 |                   | -0.35                    | 0.00                     | 2.35            | -0.62       |
| KIRP   | 75 | chr11:88109942-88110941   | 2915   | GRM5     | -            | -688672 |                   | -0.39                    | -0.01                    | 2.31            | -0.64       |
| KIRP   | 76 | chr5:159890425-159891424  | 147    | ADRA1B   | +            | 547184  |                   | -0.41                    | 0.00                     | -1.78           | 0.59        |
| KIRP   | 77 | chr3:133287273-133288272  | 51560  | RAB6B    | -            | -326919 |                   | -0.38                    | 0.02                     | 1.92            | -0.52       |
| KIRP   | 78 | chr22:37827280-37828279   | 5816   | PVALB    | -            | 612262  |                   | -0.36                    | 0.01                     | -6.55           | 0.55        |

|      |     |                           |        |          |   |         |       |       |       |       |
|------|-----|---------------------------|--------|----------|---|---------|-------|-------|-------|-------|
| KIRP | 79  | chr5:149853125-149854124  | 2878   | GPX3     | + | -546375 | -0.34 | 0.00  | -4.12 | 0.63  |
| KIRP | 80  | chr6:25971627-25972626    | 10475  | TRIM38   | + | 9209    | -0.38 | 0.00  | 0.76  | -0.53 |
| KIRP | 81  | chr9:139776393-139777392  | 138311 | FAM69B   | + | 169868  | -0.31 | 0.00  | -2.74 | 0.56  |
| KIRP | 82  | chr17:63693836-63694835   | 8313   | AXIN2    | - | 57152   | -0.46 | 0.00  | 0.46  | -0.52 |
| KIRP | 83  | chr2:239077590-239078589  | 55502  | HES6     | - | -70592  | -0.35 | 0.03  | 1.33  | -0.54 |
| KIRP | 84  | chr17:39010051-39011050   | 6605   | SMARCE1  | - | 206447  | -0.49 | 0.01  | 0.52  | -0.56 |
| KIRP | 85  | chr2:119495671-119496670  | 140738 | TMEM37   | + | -693276 | -0.48 | 0.08  | -1.66 | 0.52  |
| KIRP | 86  | chr17:57861141-57862140   | 63897  | HEATR6   | - | -294652 | -0.51 | 0.01  | 0.96  | -0.50 |
| KIRP | 87  | chr16:57293856-57295138   | 84229  | CCDC135  | + | -434217 | -0.35 | 0.00  | 2.00  | -0.64 |
| KIRP | 88  | chr1:204407294-204408293  | 10446  | LRRN2    | - | -246804 | -0.31 | -0.01 | -3.46 | 0.57  |
| KIRP | 89  | chr2:100908137-100909136  | 4862   | NPAS2    | + | -527977 | -0.46 | 0.00  | 1.53  | -0.51 |
| KIRP | 90  | chr6:25971627-25972626    | 10590  | SCGN     | + | 319697  | -0.38 | 0.09  | 1.54  | -0.55 |
| KIRP | 91  | chr8:81947241-81948240    | 619279 | ZNF704   | - | 160724  | -0.36 | 0.04  | -1.83 | 0.50  |
| KIRP | 92  | chr8:22068813-22069812    | 649    | BMP1     | + | 46659   | -0.30 | -0.03 | 1.81  | -0.62 |
| KIRP | 93  | chr16:57293856-57295138   | 4501   | MT1X     | + | 578114  | -0.35 | -0.04 | -3.81 | 0.54  |
| KIRP | 94  | chr22:39686844-39687843   | 5155   | PDGFB    | - | 46386   | -0.35 | 0.00  | -1.42 | 0.51  |
| KIRP | 95  | chr17:40051028-40052027   | 8639   | AOC3     | + | -951674 | -0.38 | 0.01  | -2.90 | 0.67  |
| KIRP | 96  | chr10:126396572-126397571 | 4942   | OAT      | - | 289526  | 0.40  | 0.02  | -1.44 | -0.51 |
| KIRP | 97  | chr4:25659072-25660071    | 23231  | SEL1L3   | - | -205039 | -0.34 | 0.00  | 1.72  | -0.58 |
| KIRP | 98  | chr16:54688721-54689751   | 10265  | IRX5     | + | -275876 | 0.38  | 0.00  | 1.34  | 0.53  |
| KIRP | 99  | chr7:23372988-23373987    | 3569   | IL6      | + | 606721  | -0.40 | 0.04  | -2.03 | 0.52  |
| KIRP | 100 | chr11:88240317-88241316   | 1075   | CTSC     | - | 169875  | -0.33 | 0.06  | 1.45  | -0.70 |
| KIRP | 101 | chr10:126396572-126397571 | 119587 | CPXM2    | - | 697292  | 0.40  | 0.03  | -2.81 | -0.51 |
| KIRP | 102 | chr10:73868942-73869941   | 90550  | CCDC109A | + | -582448 | -0.38 | 0.00  | 1.47  | -0.62 |
| KIRP | 103 | chr7:2611390-2612600      | 8379   | MAD1L1   | - | 339411  | -0.37 | 0.05  | 1.05  | -0.66 |
| KIRP | 104 | chr1:48359954-48360953    | 2306   | FOXO2    | + | 458764  | -0.38 | 0.00  | -1.72 | 0.52  |
| KIRP | 105 | chr17:57861141-57862140   | 79665  | DHX40    | + | 218754  | -0.51 | 0.01  | 0.53  | -0.50 |
| KIRP | 106 | chr6:56755066-56756065    | 221336 | BEND6    | + | -64208  | -0.34 | 0.00  | 0.85  | -0.67 |
| KIRP | 107 | chr7:2611471-2612470      | 8379   | MAD1L1   | - | 339387  | -0.37 | 0.05  | 1.05  | -0.63 |
| KIRP | 108 | chr7:130571965-130572964  | 5420   | PODXL    | - | -668912 | -0.33 | 0.00  | -4.71 | 0.59  |
| KIRP | 109 | chr13:41187426-41188425   | 28984  | C13orf15 | + | -843617 | 0.44  | -0.10 | -1.46 | -0.58 |
| KIRP | 110 | chr17:3705265-3706374     | 30851  | TAX1BP3  | - | 133846  | -0.36 | 0.02  | 1.02  | -0.54 |
| KIRP | 111 | chr3:150186838-150187837  | 9934   | P2RY14   | - | -808893 | -0.43 | 0.02  | -1.41 | 0.60  |
| KIRP | 112 | chr11:46731876-46732875   | 392    | ARHGAP1  | - | 10160   | -0.32 | 0.16  | 0.94  | -0.63 |
| KIRP | 113 | chr2:101679941-101680940  | 7850   | IL1R2    | + | -927866 | -0.41 | 0.03  | -2.83 | 0.51  |
| KIRP | 114 | chr3:111312565-111313564  | 257068 | PLCXD2   | + | -80459  | -0.33 | 0.01  | 1.39  | -0.53 |
| KIRP | 115 | chr17:70293052-70294051   | 6752   | SSTR2    | + | -867609 | -0.38 | 0.05  | -3.78 | 0.53  |
| KIRP | 116 | chr3:11266520-11267519    | 9686   | VGLL4    | - | -495201 | -0.53 | 0.00  | 0.73  | -0.50 |
| KIRP | 117 | chr7:20346427-20347426    | 3696   | ITGB8    | + | -23399  | -0.31 | 0.00  | 1.25  | -0.62 |
| KIRP | 118 | chr7:130571965-130572964  | 1357   | CPA1     | + | 552174  | -0.33 | 0.01  | -3.09 | 0.53  |
| KIRP | 119 | chr11:88240317-88241316   | 2915   | GRM5     | - | -558297 | -0.33 | -0.01 | 2.31  | -0.85 |
| KIRP | 120 | chr2:201244577-201245576  | 26010  | SPATS2L  | + | 74472   | -0.33 | -0.03 | 1.19  | -0.57 |
| KIRP | 121 | chr17:47665741-47666740   | 4804   | NGFR     | + | 93585   | -0.33 | -0.01 | -1.65 | 0.51  |
| KIRP | 122 | chr1:227161627-227162626  | 8476   | CDC42BPA | - | -343700 | 0.41  | 0.00  | -0.80 | -0.54 |
| KIRP | 123 | chr11:65683043-65684042   | 57124  | CD248    | - | -400973 | -0.35 | 0.01  | -1.99 | 0.51  |
| KIRP | 124 | chr17:42515705-42516704   | 146894 | CD300LG  | + | 591688  | 0.35  | -0.02 | -3.45 | -0.51 |
| KIRP | 125 | chr17:40051028-40052027   | 29893  | PSMC3IP  | - | -678322 | -0.38 | 0.00  | 1.71  | -0.57 |
| KIRP | 126 | chr9:16703904-16704903    | 54875  | CNTLN    | + | -430635 | -0.41 | 0.00  | 0.64  | -0.58 |
| KIRP | 127 | chr1:183133236-183134235  | 80896  | NPL      | + | 375151  | -0.34 | -0.06 | -1.38 | 0.66  |
| KIRP | 128 | chr10:127750470-127751469 | 55760  | DHX32    | - | 165942  | -0.42 | 0.02  | 0.52  | -0.51 |
| KIRP | 129 | chr10:73868942-73869941   | 219699 | UNC5B    | + | 897149  | -0.38 | 0.00  | -1.84 | 0.59  |
| KIRP | 130 | chr12:109116494-109117493 | 121643 | FOXN4    | - | -630032 | -0.41 | -0.01 | -1.64 | 0.50  |
| KIRP | 131 | chr16:84884730-84885729   | 123872 | LRRC50   | + | 706364  | -0.43 | -0.01 | 1.04  | -0.58 |
| KIRP | 132 | chr14:104018235-104019234 | 26153  | KIF26A   | + | -586326 | -0.33 | -0.02 | -4.05 | 0.54  |
| KIRP | 133 | chr17:63693836-63694835   | 201134 | CCDC46   | - | -493877 | -0.46 | 0.03  | 0.57  | -0.57 |
| KIRP | 134 | chr17:64271571-64272570   | 201134 | CCDC46   | - | 83858   | -0.37 | 0.03  | 0.57  | -0.55 |
| KIRP | 135 | chr12:125105276-125106275 | 144347 | FAM101A  | + | 332065  | -0.36 | 0.17  | -0.93 | 0.58  |
| KIRP | 136 | chr2:198044786-198045785  | 57520  | HECW2    | - | 587950  | -0.33 | 0.03  | -2.89 | 0.57  |
| KIRP | 137 | chr22:39686844-39687843   | 3761   | KCNJ4    | - | 836138  | -0.35 | 0.00  | 2.74  | -0.56 |
| KIRP | 138 | chr1:33547126-33548212    | 113452 | TMEM54   | - | 180715  | 0.32  | 0.03  | 1.86  | 0.51  |
| KIRP | 139 | chr9:139776393-139777392  | 7186   | TRAF2    | + | 507     | -0.31 | 0.00  | 1.09  | -0.50 |
| KIRP | 140 | chr2:105877324-105878323  | 8440   | NCK2     | + | -483697 | -0.45 | 0.00  | 0.32  | -0.62 |
| KIRP | 141 | chr6:169692231-169693230  | 253769 | WDR27    | - | -409429 | -0.42 | -0.02 | 0.82  | -0.52 |
| KIRP | 142 | chr1:208039753-208040752  | 1378   | CR1      | + | 370779  | 0.31  | -0.01 | -3.33 | -0.53 |
| KIRP | 143 | chr8:30350144-30351143    | 11030  | RBPMS    | + | 108699  | -0.32 | 0.03  | 0.90  | -0.66 |
| KIRP | 144 | chr17:47665741-47666740   | 80221  | ACSF2    | + | -837279 | -0.33 | 0.00  | -3.36 | 0.67  |
| KIRP | 145 | chr17:75283693-75284692   | 146664 | MGAT5B   | + | 419394  | -0.33 | 0.00  | -1.79 | 0.57  |
| KIRP | 146 | chr12:2306825-2307824     | 83714  | NRIP2    | - | -636897 | -0.33 | -0.02 | -2.45 | 0.56  |
| KIRP | 147 | chr3:99377532-99378531    | 348801 | LNP1     | + | -742006 | -0.39 | 0.00  | 1.32  | -0.61 |
| KIRP | 148 | chr3:55860602-55861601    | 26059  | ERC2     | - | -641290 | -0.38 | 0.01  | 1.27  | -0.59 |
| KIRP | 149 | chr15:75075751-75076750   | 64220  | STRA6    | - | 574204  | 0.32  | 0.00  | -5.72 | -0.51 |
| KIRP | 150 | chr22:37827280-37828279   | 11078  | TRIOBP   | + | -254565 | -0.36 | 0.01  | 0.74  | -0.56 |
| KIRP | 151 | chr8:142163237-142164236  | 22898  | DENND3   | + | 25016   | -0.33 | -0.01 | 0.91  | -0.50 |
| KIRP | 152 | chr3:118894985-118895984  | 7348   | UPK1B    | + | 3059    | -0.33 | 0.01  | -0.26 | -0.60 |
| KIRP | 153 | chr17:42515705-42516704   | 23591  | C17orf88 | + | 521628  | 0.35  | 0.07  | -1.79 | -0.52 |
| KIRP | 154 | chr1:183133236-183134235  | 6004   | RGS16    | - | 560187  | -0.34 | 0.01  | -1.63 | 0.57  |
| KIRP | 155 | chr5:55478877-55479876    | 8611   | PPAP2A   | - | 648470  | -0.39 | 0.01  | -1.24 | 0.54  |
| KIRP | 156 | chr17:47665741-47666740   | 1748   | DLX4     | + | -380322 | -0.33 | 0.04  | 2.23  | -0.50 |
| KIRP | 157 | chr6:169692231-169693230  | 64094  | SMOC2    | + | 850899  | -0.42 | 0.01  | -1.55 | 0.51  |
| KIRP | 158 | chr17:40051028-40052027   | 10266  | RAMP2    | + | -861685 | -0.38 | -0.05 | -2.01 | 0.52  |
| KIRP | 159 | chr17:39010051-39011050   | 10609  | SC6S     | - | -958305 | -0.49 | 0.00  | 1.38  | -0.51 |
| KIRP | 160 | chr14:100223311-100224310 | 7453   | WARS     | - | -618870 | -0.54 | 0.02  | -0.28 | 0.54  |

|      |     |                           |                    |   |         |       |       |       |       |
|------|-----|---------------------------|--------------------|---|---------|-------|-------|-------|-------|
| KIRP | 161 | chr4:54951001-54952000    | 5156 PDGFRA        | + | 707680  | -0.32 | 0.01  | -4.16 | 0.54  |
| KIRP | 162 | chr17:39010051-39011050   | 339287 MSL1        | + | 731760  | -0.49 | 0.16  | 0.49  | -0.61 |
| KIRP | 163 | chr17:43083926-43084925   | 9343 EFTUD2        | - | 107432  | 0.36  | 0.00  | 0.59  | 0.52  |
| KIRP | 164 | chr3:189915050-189916049  | 8626 TP63          | + | 566333  | -0.32 | 0.01  | -2.17 | 0.54  |
| KIRP | 165 | chr3:111312565-111313564  | 79413 ZBED2        | - | -1118   | -0.33 | 0.02  | 0.28  | -0.56 |
| KIRP | 166 | chr14:92863574-92864573   | 440193 CCDC88C     | - | 979885  | -0.44 | 0.00  | -1.40 | 0.52  |
| KIRP | 167 | chr6:155283482-155284481  | 154043 CNKSR3      | - | 452228  | -0.36 | -0.03 | 0.75  | -0.64 |
| KIRP | 168 | chr15:75075751-75076750   | 8482 SEMA7A        | - | 349951  | 0.32  | 0.01  | -1.56 | -0.53 |
| KIRP | 169 | chr16:54445689-54446688   | 23322 RPGRIP1L     | - | 708417  | 0.38  | 0.02  | 0.90  | 0.62  |
| KIRP | 170 | chr1:203526348-203527347  | 5972 REN           | - | -608618 | -0.31 | -0.01 | -6.50 | 0.51  |
| KIRP | 171 | chr2:239077590-239078589  | 26146 TRAF3IP1     | + | -151096 | -0.35 | 0.00  | 0.31  | -0.54 |
| KIRP | 172 | chr12:125105276-125106275 | 140707 BRI3BP      | + | -372419 | -0.36 | 0.01  | -0.59 | 0.59  |
| KIRP | 173 | chr5:149853125-149854124  | 91975 ZNF300       | - | -430921 | -0.34 | 0.04  | 1.03  | -0.60 |
| KIRP | 174 | chr6:21022985-21023984    | 6659 SOX4          | + | -570488 | -0.34 | -0.01 | 1.12  | -0.66 |
| KIRP | 175 | chr16:57293856-57295138   | 92922 CCDC102A     | - | -275981 | -0.35 | 0.00  | 0.87  | -0.51 |
| KIRP | 176 | chr17:75283693-75284692   | 8877 SPHK1         | + | 911450  | -0.33 | 0.00  | 2.65  | -0.56 |
| KIRP | 177 | chr17:42515705-42516704   | 79089 TMUB2        | + | 251850  | 0.35  | 0.03  | 0.62  | 0.55  |
| KIRP | 178 | chr17:78593281-78594280   | 440465 FLJ90757    | - | -414739 | -0.35 | 0.02  | 0.83  | -0.60 |
| KIRP | 179 | chr16:85070325-85071324   | 57707 KIAA1609     | - | 532536  | -0.33 | 0.00  | 1.26  | -0.63 |
| KIRP | 180 | chr16:54688721-54689751   | 4313 MMP2          | + | -823846 | 0.38  | 0.01  | -1.06 | -0.57 |
| KIRP | 181 | chr20:35447845-35448844   | 63905 MANBAL       | + | -469707 | 0.38  | 0.04  | 0.44  | 0.55  |
| KIRP | 182 | chr17:78593281-78594280   | 55036 CCDC40       | + | 583349  | -0.35 | -0.03 | 1.12  | -0.59 |
| KIRP | 183 | chr4:7893703-7894702      | 57537 SORCS2       | + | 699828  | 0.30  | 0.00  | -4.64 | -0.53 |
| KIRP | 184 | chr3:197098572-197099571  | 89782 LMLN         | + | -588000 | -0.42 | 0.01  | 0.55  | -0.53 |
| KIRP | 185 | chr2:55717480-55718479    | 344405 PRDXDD1P    | + | 208524  | -0.34 | -0.02 | 0.66  | -0.53 |
| KIRP | 186 | chr14:74300057-74301056   | 4053 LTBP2         | - | -778478 | -0.34 | 0.04  | -1.89 | 0.54  |
| KIRP | 187 | chr11:65683043-65684042   | 440044 SLC22A20    | + | 702231  | -0.35 | 0.01  | 1.29  | -0.61 |
| KIRP | 188 | chr17:43083926-43084925   | 78995 C17orf53     | + | 865151  | 0.36  | 0.02  | 1.80  | 0.52  |
| KIRP | 189 | chr3:197098572-197099571  | 84984 C3orf34      | - | 659948  | -0.42 | 0.00  | 0.61  | -0.52 |
| KIRP | 190 | chr4:14603424-14604423    | 114905 C1QTNF7     | + | -737637 | 0.32  | -0.01 | -4.03 | -0.53 |
| KIRP | 191 | chr7:24826462-24827461    | 136895 C7orf31     | - | -392856 | -0.34 | -0.01 | 0.82  | -0.57 |
| KIRP | 192 | chr17:42515705-42516704   | 124808 CCDC43      | - | -250961 | 0.35  | 0.02  | 0.64  | 0.52  |
| KIRP | 193 | chr16:57293856-57295138   | 267 AMFR           | - | 835046  | -0.35 | 0.00  | -1.14 | 0.64  |
| KIRP | 194 | chr1:183069851-183070850  | 80896 NPL          | + | 311766  | -0.31 | -0.06 | -1.38 | 0.52  |
| KIRP | 195 | chr1:203526348-203527347  | 127845 GOLT1A      | - | -656373 | -0.31 | 0.10  | -2.09 | 0.53  |
| KIRP | 196 | chr2:201244577-201245576  | 150538 FLJ32063    | + | 912255  | -0.33 | 0.01  | 1.89  | -0.56 |
| KIRP | 197 | chr3:38215854-38216853    | 9209 LRRFIP2       | - | 998502  | -0.38 | -0.02 | 0.96  | -0.65 |
| KIRP | 198 | chr16:54688721-54689751   | 23322 RPGRIP1L     | - | 951464  | 0.38  | 0.02  | 0.90  | 0.60  |
| KIRP | 199 | chr20:35447845-35448844   | 22839 DLGAP4       | + | 554041  | 0.38  | 0.00  | 0.68  | 0.50  |
| KIRP | 200 | chr2:225747636-225748635  | 55619 DOCK10       | - | -159195 | -0.34 | 0.02  | -0.28 | 0.53  |
| KIRP | 201 | chr4:3438079-3439078      | 6002 RGS12         | + | 143823  | -0.31 | 0.00  | 0.87  | -0.52 |
| KIRP | 202 | chr1:227161627-227162626  | 163859 C1orf55     | - | 975060  | 0.41  | -0.02 | -0.78 | -0.56 |
| KIRP | 203 | chr2:112461579-112462578  | 10461 MERTK        | + | -194113 | -0.31 | -0.01 | -1.05 | 0.50  |
| KIRP | 204 | chr17:40051028-40052027   | 84313 VPS25        | + | -873927 | -0.38 | 0.00  | 0.90  | -0.56 |
| KIRP | 205 | chr17:80748847-80749846   | 284001 CCDC57      | - | 578657  | -0.33 | 0.12  | 1.20  | -0.57 |
| KIRP | 206 | chr4:7893703-7894702      | 54436 SH3TC1       | + | -306858 | 0.30  | 0.02  | -1.31 | -0.51 |
| KIRP | 207 | chr13:45768195-45769194   | 1E+08 LOC100190939 | + | -146786 | -0.31 | 0.01  | 0.51  | -0.56 |
| KIRP | 208 | chr1:183069851-183070850  | 6004 RGS16         | - | 496802  | -0.31 | 0.01  | -1.63 | 0.50  |
| KIRP | 209 | chr3:197098572-197099571  | 375387 LRRC33      | + | 732415  | -0.42 | 0.01  | -0.40 | 0.51  |
| KIRP | 210 | chr1:204407294-204408293  | 81788 NUAK2        | - | -883090 | -0.31 | 0.11  | -2.43 | 0.51  |
| KIRP | 211 | chr17:42515705-42516704   | 388389 CCDC103     | + | -460876 | 0.35  | 0.00  | 0.77  | 0.51  |
| KIRP | 212 | chr16:80318782-80319781   | 4094 MAF           | - | 684659  | -0.34 | 0.03  | -0.84 | 0.58  |
| KIRP | 213 | chr8:81947241-81948240    | 7163 TPD52         | - | 863904  | -0.36 | 0.03  | -1.32 | 0.51  |
| KIRP | 214 | chr14:92863574-92864573   | 55727 BTBD7        | - | -935312 | -0.44 | 0.01  | 0.43  | -0.52 |
| KIRP | 215 | chr2:201244577-201245576  | 23314 SATB2        | - | 909087  | -0.33 | -0.04 | 1.35  | -0.62 |
| KIRP | 216 | chr6:22248639-22249638    | 6659 SOX4          | + | 655166  | -0.32 | -0.01 | 1.12  | -0.61 |
| KIRP | 217 | chr12:1661959-1662958     | 65125 WNK1         | + | 800369  | -0.31 | 0.04  | -1.88 | 0.54  |
| KIRP | 218 | chr17:42515705-42516704   | 9343 EFTUD2        | - | -460789 | 0.35  | 0.00  | 0.59  | 0.52  |
| KIRP | 219 | chr14:104018235-104019234 | 79038 ZFYVE21      | + | -163347 | -0.33 | 0.28  | 0.19  | -0.52 |
| KIRP | 220 | chr7:100610992-100612000  | 6878 TAF6          | - | 894014  | 0.36  | 0.02  | 0.89  | 0.55  |
| KIRP | 221 | chr8:30350144-30351143    | 2936 GSR           | - | -234843 | -0.32 | 0.03  | -0.56 | 0.52  |
| KIRP | 222 | chr11:19681286-19682285   | 144110 TMEM86A     | + | 961434  | -0.30 | 0.04  | -1.76 | 0.64  |
| KIRP | 223 | chr1:55316269-55317268    | 9528 TMEM59        | - | 797657  | -0.37 | 0.02  | -0.75 | 0.53  |
| KIRP | 224 | chr3:38215854-38216853    | 199223 TTC21A      | + | -932799 | -0.38 | 0.04  | 0.93  | -0.52 |
| KIRP | 225 | chr16:57293856-57295138   | 4324 MMP15         | + | -764786 | -0.35 | 0.01  | 0.82  | -0.54 |
| KIRP | 226 | chr7:151100520-151101519  | 155038 GIMAP8      | + | 953057  | -0.30 | 0.02  | -2.26 | 0.53  |
| KIRP | 227 | chr1:183069851-183070850  | 23127 GLT25D2      | - | -936528 | -0.31 | -0.01 | -2.10 | 0.52  |
| KIRP | 228 | chr8:37748912-37749911    | 11212 PROSC        | + | 129310  | -0.30 | 0.01  | -0.59 | 0.50  |
| KIRP | 229 | chr18:56532128-56533127   | 23327 NEDD4L       | + | 821017  | 0.31  | -0.01 | -1.38 | -0.56 |
| KIRP | 230 | chr17:42515705-42516704   | 1E+08 LOC100133991 | + | -809099 | 0.35  | 0.02  | 0.80  | 0.53  |
| KIRP | 231 | chr3:118894985-118895984  | 89876 C3orf15      | + | -526385 | -0.33 | 0.01  | 0.62  | -0.51 |
| KIRP | 232 | chr17:78593281-78594280   | 146705 C17orf56    | - | -619111 | -0.35 | 0.03  | 0.87  | -0.50 |
| KIRP | 233 | chr3:118626522-118627521  | 7348 UPK1B         | + | -265404 | -0.32 | 0.01  | -0.26 | -0.50 |
| KIRP | 234 | chr10:104364018-104365017 | 51063 CALHM2       | - | -848141 | -0.36 | 0.01  | -0.66 | 0.50  |
| KIRP | 235 | chr16:29677469-29678468   | 83985 SPNS1        | + | 691872  | 0.31  | 0.05  | 1.09  | 0.53  |
| KIRP | 236 | chr12:24974220-24975219   | 55259 CASC1        | - | -373375 | -0.30 | 0.03  | 0.24  | -0.55 |
| KIRP | 237 | chr17:78593281-78594280   | 80233 C17orf70     | - | -925649 | -0.35 | 0.02  | 0.99  | -0.50 |
| KIRP | 238 | chr12:2306825-2307824     | 7289 TULP3         | + | -679041 | -0.33 | 0.01  | 0.56  | -0.53 |
| KIRP | 239 | chr3:118626522-118627521  | 89876 C3orf15      | + | -794848 | -0.32 | 0.01  | 0.62  | -0.57 |
| KIRP | 240 | chr1:203526348-203527347  | 51706 CYB5R1       | - | 590443  | -0.31 | 0.00  | -0.53 | 0.54  |
| KIRP | 241 | chr1:243645818-243646817  | 10472 ZNF238       | + | -565924 | 0.30  | 0.04  | 0.62  | 0.53  |
| KIRP | 242 | chr4:3438079-3439078      | 317648 C4orf10     | + | 501952  | -0.31 | 0.01  | 0.57  | -0.51 |

|      |                              |               |   |        |       |       |      |       |
|------|------------------------------|---------------|---|--------|-------|-------|------|-------|
| KIRP | 243 chr6:155544753-155545752 | 154043 CNKSR3 | - | 713499 | -0.31 | -0.03 | 0.75 | -0.53 |
|------|------------------------------|---------------|---|--------|-------|-------|------|-------|

| Cancer | Type | Rank | eDMR                      | Entrez | Gene symbols | Strand | Distance from TSS | Enhancer differential methylation | Promoter differential methylation | Differential gene expression | Correlation |
|--------|------|------|---------------------------|--------|--------------|--------|-------------------|-----------------------------------|-----------------------------------|------------------------------|-------------|
| LUSC   |      | 1    | chr7:96621542-96623107    | 1750   | DLX6         | +      | -12966            | 0.45                              | 0.00                              | 6.18                         | 0.67        |
| LUSC   |      | 2    | chr7:96621542-96623107    | 285987 | DLX6AS       | -      | -21053            | 0.45                              | -0.03                             | 4.35                         | 0.66        |
| LUSC   |      | 3    | chr7:96621542-96623107    | 1749   | DLX5         | -      | -31819            | 0.45                              | 0.03                              | 5.63                         | 0.56        |
| LUSC   |      | 4    | chr7:96621811-96623208    | 1750   | DLX6         | +      | -12781            | 0.46                              | 0.00                              | 6.18                         | 0.53        |
| LUSC   |      | 5    | chr7:96618568-96619575    | 1750   | DLX6         | +      | -16219            | 0.41                              | 0.00                              | 6.18                         | 0.55        |
| LUSC   |      | 6    | chr7:96621811-96623208    | 285987 | DLX6AS       | -      | -20868            | 0.46                              | -0.03                             | 4.35                         | 0.53        |
| LUSC   |      | 7    | chr3:181633201-181634200  | 6657   | SOX2         | +      | 203988            | -0.45                             | 0.01                              | 4.73                         | -0.69       |
| LUSC   |      | 8    | chr3:157177634-157178633  | 79674  | VEPH1        | -      | -43282            | -0.48                             | 0.00                              | -5.72                        | 0.50        |
| LUSC   |      | 9    | chr3:189073174-189074173  | 8626   | TP63         | +      | -275543           | -0.48                             | 0.01                              | 4.64                         | -0.67       |
| LUSC   |      | 10   | chr21:38082113-38083112   | 6493   | SIM2         | +      | 10621             | 0.49                              | -0.01                             | 2.03                         | 0.58        |
| LUSC   |      | 11   | chr7:96618568-96619575    | 285987 | DLX6AS       | -      | -24306            | 0.41                              | -0.03                             | 4.35                         | 0.55        |
| LUSC   |      | 12   | chr17:72755147-72756146   | 9368   | SLC9A3R1     | +      | 10895             | -0.47                             | 0.04                              | 2.15                         | -0.59       |
| LUSC   |      | 13   | chr21:38077471-38078470   | 6493   | SIM2         | +      | 5979              | 0.43                              | -0.01                             | 2.03                         | 0.65        |
| LUSC   |      | 14   | chr3:181421203-181422716  | 6657   | SOX2         | +      | -7753             | 0.35                              | 0.01                              | 4.73                         | 0.62        |
| LUSC   |      | 15   | chr2:73152172-73153474    | 2016   | EMX1         | +      | 8218              | 0.38                              | -0.02                             | 3.22                         | 0.61        |
| LUSC   |      | 16   | chr15:89951552-89952634   | 90381  | C15orf42     | +      | -166726           | 0.42                              | 0.00                              | 4.98                         | 0.57        |
| LUSC   |      | 17   | chr3:179262703-179263702  | 86     | ACTL6A       | +      | -17506            | -0.42                             | 0.01                              | 2.32                         | -0.60       |
| LUSC   |      | 18   | chr3:186489844-186490843  | 5984   | RFC4         | -      | -34141            | 0.42                              | 0.01                              | 3.47                         | 0.54        |
| LUSC   |      | 19   | chr3:197208534-197209533  | 622    | BDH1         | -      | -91161            | -0.60                             | 0.03                              | 2.06                         | -0.56       |
| LUSC   |      | 20   | chr2:86263395-86264394    | 8869   | ST3GAL5      | -      | 147737            | 0.52                              | 0.00                              | -2.36                        | -0.56       |
| LUSC   |      | 21   | chr7:121437319-121438318  | 5803   | PTPRZ1       | +      | -75341            | -0.38                             | 0.05                              | 4.01                         | -0.57       |
| LUSC   |      | 22   | chr2:100516380-100517379  | 3899   | AFF3         | -      | -242158           | -0.42                             | 0.02                              | -4.70                        | 0.59        |
| LUSC   |      | 23   | chr17:38347468-38348467   | 51195  | RAPGEFL1     | +      | 13725             | 0.43                              | 0.00                              | 3.33                         | 0.51        |
| LUSC   |      | 24   | chr17:38347316-38348315   | 51195  | RAPGEFL1     | +      | 13573             | 0.39                              | 0.00                              | 3.33                         | 0.53        |
| LUSC   |      | 25   | chr3:132772192-132773191  | 66000  | TMEM108      | +      | 15520             | -0.37                             | 0.07                              | -2.47                        | 0.71        |
| LUSC   |      | 26   | chr11:119595604-119596603 | 5818   | PVRL1        | -      | -3332             | -0.33                             | 0.00                              | 4.07                         | -0.62       |
| LUSC   |      | 27   | chr15:89951552-89952634   | 55215  | FANCI        | +      | 164898            | 0.42                              | 0.00                              | 3.18                         | 0.57        |
| LUSC   |      | 28   | chr3:184337568-184338567  | 1181   | CLCN2        | -      | 258628            | -0.48                             | 0.05                              | 2.38                         | -0.58       |
| LUSC   |      | 29   | chr2:119590644-119592126  | 2019   | EN1          | -      | -14375            | 0.34                              | 0.04                              | 4.35                         | 0.58        |
| LUSC   |      | 30   | chr17:47178778-47179777   | 2793   | GNGT2        | -      | -108659           | -0.48                             | 0.01                              | -2.07                        | 0.54        |
| LUSC   |      | 31   | chr12:44255015-44256014   | 84216  | TMEM117      | +      | 25552             | -0.39                             | 0.01                              | 2.52                         | -0.54       |
| LUSC   |      | 32   | chr3:184337568-184338567  | 9718   | ECE2         | +      | 370622            | -0.48                             | 0.03                              | 3.51                         | -0.54       |
| LUSC   |      | 33   | chr15:89951287-89952369   | 90381  | C15orf42     | +      | -166991           | 0.37                              | 0.00                              | 4.98                         | 0.55        |
| LUSC   |      | 34   | chr2:138829473-138830472  | 3176   | HNMT         | +      | 108164            | -0.45                             | 0.00                              | -2.01                        | 0.53        |
| LUSC   |      | 35   | chr3:184337568-184338567  | 5437   | POLR2H       | +      | 256873            | -0.48                             | 0.03                              | 2.13                         | -0.57       |
| LUSC   |      | 36   | chr3:184337568-184338567  | 10057  | ABCC5        | -      | 602340            | -0.48                             | 0.01                              | 3.49                         | -0.65       |
| LUSC   |      | 37   | chr7:27280085-27281715    | 3209   | HOXA13       | -      | 41174             | 0.34                              | -0.01                             | 4.12                         | 0.55        |
| LUSC   |      | 38   | chr15:89951287-89952369   | 55215  | FANCI        | +      | 164633            | 0.37                              | 0.00                              | 3.18                         | 0.58        |
| LUSC   |      | 39   | chr8:134306301-134307300  | 6503   | SLA          | -      | 191490            | -0.41                             | 0.01                              | -2.09                        | 0.58        |
| LUSC   |      | 40   | chr3:148614168-148615167  | 185    | AGTR1        | +      | 199009            | -0.39                             | -0.01                             | -3.98                        | 0.54        |
| LUSC   |      | 41   | chr7:96654944-96656480    | 285987 | DLX6AS       | -      | 12334             | 0.35                              | -0.03                             | 4.35                         | 0.50        |
| LUSC   |      | 42   | chr12:57615081-57616080   | 11247  | NXPH4        | +      | 5002              | 0.31                              | -0.01                             | 5.79                         | 0.55        |
| LUSC   |      | 43   | chr6:45406367-45407366    | 53405  | CLIC5        | -      | -641219           | -0.47                             | 0.02                              | -6.59                        | 0.53        |
| LUSC   |      | 44   | chr7:45073192-45074191    | 64005  | MYO1G        | -      | 54987             | -0.35                             | -0.05                             | -2.02                        | 0.61        |
| LUSC   |      | 45   | chr2:100691131-100692130  | 3899   | AFF3         | -      | -67407            | -0.32                             | 0.02                              | -4.70                        | 0.59        |
| LUSC   |      | 46   | chr17:47178778-47179777   | 51225  | ABI3         | +      | -108312           | -0.48                             | 0.05                              | -1.63                        | 0.54        |
| LUSC   |      | 47   | chr9:21967733-21968732    | 1029   | CDKN2A       | -      | -26258            | 0.32                              | -0.01                             | 3.18                         | 0.60        |
| LUSC   |      | 48   | chr7:70790432-70791431    | 64409  | WBCSR17      | +      | 193408            | -0.36                             | -0.01                             | -2.98                        | 0.58        |
| LUSC   |      | 49   | chr10:83650637-83651636   | 10718  | NRG3         | +      | 16066             | -0.36                             | 0.03                              | -3.11                        | 0.50        |
| LUSC   |      | 50   | chr1:241371115-241372114  | 8564   | KMO          | +      | -323820           | -0.44                             | -0.01                             | -2.54                        | 0.54        |
| LUSC   |      | 51   | chr7:155252201-155253443  | 2020   | EN2          | +      | 1997              | 0.31                              | 0.02                              | 3.50                         | 0.56        |
| LUSC   |      | 52   | chr6:134378199-134379198  | 6943   | TCF21        | +      | 168439            | -0.34                             | 0.00                              | -5.47                        | 0.52        |
| LUSC   |      | 53   | chr5:15509758-15510757    | 23194  | FBXL7        | +      | 9952              | -0.37                             | -0.01                             | -1.40                        | 0.65        |
| LUSC   |      | 54   | chr2:100370523-100371522  | 3899   | AFF3         | -      | -388015           | -0.40                             | 0.02                              | -4.70                        | 0.52        |
| LUSC   |      | 55   | chr7:122069859-122070858  | 5803   | PTPRZ1       | +      | 557199            | -0.40                             | 0.05                              | 4.01                         | -0.59       |
| LUSC   |      | 56   | chr3:118894985-118895984  | 8702   | B4GALT4      | -      | -64268            | -0.40                             | 0.04                              | 1.90                         | -0.53       |
| LUSC   |      | 57   | chr11:859634-860656       | 7106   | TSPAN4       | +      | 17320             | -0.32                             | -0.01                             | -2.45                        | 0.61        |
| LUSC   |      | 58   | chr2:119616628-119617627  | 2019   | EN1          | -      | 11368             | 0.30                              | 0.04                              | 4.35                         | 0.61        |
| LUSC   |      | 59   | chr3:179262703-179263702  | 57129  | MRPL47       | -      | -59232            | -0.42                             | 0.04                              | 1.78                         | -0.52       |
| LUSC   |      | 60   | chr3:184337568-184338567  | 10195  | ALG3         | -      | 370754            | -0.48                             | 0.03                              | 1.87                         | -0.56       |
| LUSC   |      | 61   | chr1:27080098-27081097    | 1043   | CD52         | +      | 436186            | -0.37                             | 0.00                              | -3.49                        | 0.68        |
| LUSC   |      | 62   | chr2:100451840-100452839  | 3899   | AFF3         | -      | -306698           | -0.35                             | 0.02                              | -4.70                        | 0.57        |
| LUSC   |      | 63   | chr14:52836837-52837836   | 5732   | PTGER2       | +      | 56320             | -0.35                             | -0.03                             | -2.12                        | 0.56        |
| LUSC   |      | 64   | chr17:41521155-41522154   | 8639   | AOC3         | +      | 518453            | -0.36                             | 0.01                              | -4.49                        | 0.60        |
| LUSC   |      | 65   | chr17:67535799-67536798   | 23460  | ABCA6        | +      | 398283            | -0.42                             | -0.01                             | -2.65                        | 0.53        |
| LUSC   |      | 66   | chr3:184337568-184338567  | 1857   | DVL3         | +      | 464783            | -0.48                             | 0.03                              | 1.69                         | -0.65       |
| LUSC   |      | 67   | chr3:184337568-184338567  | 64110  | MAGEF1       | -      | -91769            | -0.48                             | -0.03                             | 1.32                         | -0.52       |
| LUSC   |      | 68   | chr3:179262703-179263702  | 4711   | NDUF85       | +      | -59373            | -0.42                             | 0.00                              | 1.43                         | -0.54       |
| LUSC   |      | 69   | chr3:197208534-197209533  | 1739   | DLG1         | -      | 182890            | -0.60                             | 0.00                              | 1.10                         | -0.56       |
| LUSC   |      | 70   | chr1:44726737-44727736    | 9048   | ARTN         | +      | 328244            | -0.33                             | -0.04                             | 5.04                         | -0.60       |
| LUSC   |      | 71   | chr2:85914025-85915024    | 8869   | ST3GAL5      | -      | -201633           | -0.37                             | 0.00                              | -2.36                        | 0.54        |
| LUSC   |      | 72   | chr5:36608098-36609268    | 6502   | SKP2         | +      | 456537            | -0.43                             | 0.03                              | 2.32                         | -0.54       |
| LUSC   |      | 73   | chr12:72476863-72477862   | 29953  | TRHDE        | +      | -189167           | -0.34                             | 0.00                              | -5.76                        | 0.51        |
| LUSC   |      | 74   | chr1:76572103-76573102    | 256435 | ST6GALNAC3   | +      | 32213             | -0.32                             | 0.03                              | -3.18                        | 0.56        |
| LUSC   |      | 75   | chr21:38082599-38083648   | 6493   | SIM2         | +      | 11132             | 0.35                              | -0.01                             | 2.03                         | 0.51        |
| LUSC   |      | 76   | chr3:181633201-181634200  | 347689 | SOX2OT       | +      | 859232            | -0.45                             | 0.00                              | 3.26                         | -0.63       |
| LUSC   |      | 77   | chr5:3790187-3791186      | 79192  | IRX1         | +      | 194518            | -0.32                             | -0.01                             | -3.53                        | 0.59        |
| LUSC   |      | 78   | chr2:26578008-26579007    | 85465  | EPT1         | +      | 9553              | -0.36                             | 0.14                              | 1.93                         | -0.51       |
| LUSC   |      | 79   | chr14:24778900-24779899   | 56413  | LTBR4R2      | +      | 42                | -0.31                             | 0.04                              | 2.18                         | -0.57       |
| LUSC   |      | 80   | chr2:86263395-86264394    | 10791  | VAMP5        | +      | 452363            | 0.52                              | 0.03                              | -1.85                        | -0.52       |
| LUSC   |      | 81   | chr3:150186838-150187837  | 6478   | SIAH2        | -      | -293926           | -0.48                             | 0.03                              | 1.69                         | -0.53       |
| LUSC   |      | 82   | chr3:179869862-179870861  | 86     | ACTL6A       | +      | 589653            | -0.44                             | 0.01                              | 2.32                         | -0.59       |

|      |                               |                        |   |         |       |       |       |       |
|------|-------------------------------|------------------------|---|---------|-------|-------|-------|-------|
| LUSC | 83 chr3:197208534-197209533   | 152217 LOC152217       | + | 539539  | -0.60 | 0.03  | 1.59  | -0.61 |
| LUSC | 84 chr2:100428377-100429376   | 3899 AFF3              | - | -330161 | -0.33 | 0.02  | -4.70 | 0.57  |
| LUSC | 85 chr3:184337568-184338567   | 5708 PSMD2             | + | 321045  | -0.48 | 0.00  | 1.53  | -0.54 |
| LUSC | 86 chr3:184477829-184478828   | 10057 ABCC5            | - | 742601  | -0.40 | 0.01  | 3.49  | -0.57 |
| LUSC | 87 chr21:38078267-38080114    | 6493 SIM2              | + | 7199    | 0.31  | -0.01 | 2.03  | 0.62  |
| LUSC | 88 chr12:68873453-68874452    | 1368 CPM               | - | -483068 | -0.38 | 0.02  | -3.42 | 0.53  |
| LUSC | 89 chr10:11077125-11078124    | 10659 CELF2            | + | 30365   | -0.30 | -0.01 | -3.09 | 0.60  |
| LUSC | 90 chr2:33747006-33748005     | 25780 RASGRP3          | + | 86089   | -0.37 | 0.00  | -1.65 | 0.54  |
| LUSC | 91 chr7:70560625-70561624     | 64409 WBSR17           | + | -36399  | -0.32 | -0.01 | -2.98 | 0.54  |
| LUSC | 92 chr11:862250-863319        | 7106 TSPAN4            | + | 19960   | -0.30 | -0.01 | -2.45 | 0.69  |
| LUSC | 93 chr5:88244186-88245185     | 4208 MEF2C             | - | 44763   | -0.34 | 0.02  | -2.31 | 0.52  |
| LUSC | 94 chr11:45879230-45880229    | 90993 CREB3L1          | + | -419499 | 0.40  | 0.03  | -2.17 | -0.55 |
| LUSC | 95 chr5:52333607-52334606     | 3672 ITGA1             | + | 250332  | -0.39 | 0.10  | -2.07 | 0.52  |
| LUSC | 96 chr11:209602455-209603454  | 50486 G0S2             | + | -245716 | -0.45 | -0.01 | -1.76 | 0.51  |
| LUSC | 97 chr3:157122186-157123185   | 5806 PTX3              | + | -31895  | -0.35 | 0.01  | -1.73 | 0.53  |
| LUSC | 98 chr3:179262703-179263702   | 51193 ZNF639           | + | 222383  | -0.42 | 0.03  | 1.23  | -0.61 |
| LUSC | 99 chr2:63893958-63894957     | 5013 OTX1              | + | 617265  | -0.36 | 0.01  | 4.38  | -0.55 |
| LUSC | 100 chr1:209602455-209603454  | 3290 HSD11B1           | + | -256571 | -0.45 | 0.01  | -1.84 | 0.50  |
| LUSC | 101 chr15:25809018-25810017   | 57194 ATP10A           | - | -300800 | -0.33 | -0.02 | -3.33 | 0.58  |
| LUSC | 102 chr12:31515051-31516050   | 58516 FAM60A           | - | 36391   | -0.36 | 0.02  | 1.45  | -0.55 |
| LUSC | 103 chr10:27044105-27045104   | 54518 APBB1IP          | + | 317338  | -0.38 | 0.00  | -2.19 | 0.52  |
| LUSC | 104 chr3:172281289-172282288  | 1894 ECT2              | + | -186687 | -0.32 | 0.00  | 3.17  | -0.60 |
| LUSC | 105 chr6:45406367-45407366    | 22875 ENPP4            | + | -690835 | -0.47 | 0.01  | -2.85 | 0.51  |
| LUSC | 106 chr7:9322234-93223233     | 2791 GNG11             | + | -328283 | -0.34 | -0.01 | -3.36 | 0.54  |
| LUSC | 107 chr1:2164102-2166078      | 6497 SKI               | + | 4955    | 0.38  | 0.00  | -1.05 | -0.53 |
| LUSC | 108 chr7:70746377-70747376    | 64409 WBSR17           | + | 149353  | -0.32 | -0.01 | -2.98 | 0.58  |
| LUSC | 109 chr3:184337568-184338567  | 131408 FAM131A         | + | 284350  | -0.48 | 0.04  | 0.95  | -0.58 |
| LUSC | 110 chr11:119595604-119596603 | 23650 TRIM29           | - | -412760 | -0.33 | 0.00  | 4.42  | -0.57 |
| LUSC | 111 chr15:26884779-26885778   | 57194 ATP10A           | - | 774961  | -0.40 | -0.02 | -3.33 | 0.57  |
| LUSC | 112 chr3:137573183-137574182  | 22808 MRAS             | + | -492808 | -0.44 | 0.06  | -1.98 | 0.53  |
| LUSC | 113 chr3:179869862-179870861  | 347689 SOX2OT          | + | -904107 | -0.44 | 0.00  | 3.26  | -0.59 |
| LUSC | 114 chr3:184477829-184478828  | 1181 CLCN2             | - | 398889  | -0.40 | 0.05  | 2.38  | -0.50 |
| LUSC | 115 chr2:85280628-85281627    | 84913 ATOH8            | + | -699782 | -0.36 | 0.01  | -5.19 | 0.53  |
| LUSC | 116 chr19:4556482-4557481     | 10036 CHAF1A           | + | 154321  | -0.33 | -0.04 | 1.98  | -0.57 |
| LUSC | 117 chr3:184337568-184338567  | 8893 EIF2B5            | + | 485257  | -0.48 | 0.04  | 1.26  | -0.62 |
| LUSC | 118 chr3:184337568-184338567  | 55324 ABCF3            | + | 434204  | -0.48 | 0.04  | 1.12  | -0.62 |
| LUSC | 119 chr14:94179347-94180346   | 5265 SERPINA1          | - | -677183 | -0.39 | 0.00  | -3.69 | 0.52  |
| LUSC | 120 chr7:103498066-103499065  | 5649 RELN              | - | -131398 | -0.32 | 0.04  | -3.50 | 0.51  |
| LUSC | 121 chr15:26446791-26447790   | 57194 ATP10A           | - | 336973  | -0.32 | -0.02 | -3.33 | 0.60  |
| LUSC | 122 chr3:197208534-197209533  | 54965 PIGX             | + | 769788  | -0.60 | 0.02  | 1.90  | -0.55 |
| LUSC | 123 chr3:184337568-184338567  | 79929 MAP6D1           | + | 794674  | -0.48 | 0.05  | 2.26  | -0.52 |
| LUSC | 124 chr16:4578902-4579901     | 114990 VASN            | - | 157552  | -0.39 | 0.20  | -1.41 | 0.53  |
| LUSC | 125 chr12:109898589-109899588 | 7374 UNG               | + | 363689  | 0.43  | -0.02 | 1.68  | 0.53  |
| LUSC | 126 chr11:128457653-128458652 | 2313 FLI1              | + | -98278  | -0.31 | 0.02  | -2.84 | 0.58  |
| LUSC | 127 chr17:41521155-41522154   | 672 BRCA1              | - | 199234  | -0.36 | 0.04  | 1.93  | -0.53 |
| LUSC | 128 chr14:24732939-24733938   | 1241 LTB4R             | + | -47267  | -0.31 | 0.01  | 2.19  | -0.56 |
| LUSC | 129 chr15:25962219-25963218   | 57194 ATP10A           | - | -147599 | -0.32 | -0.02 | -3.33 | 0.51  |
| LUSC | 130 chr10:35230360-35231359   | 56288 PARD3            | - | 126606  | -0.41 | 0.09  | 0.85  | -0.56 |
| LUSC | 131 chr10:113839606-113840605 | 51703 ACSL5            | + | -293811 | -0.36 | 0.00  | -2.91 | 0.50  |
| LUSC | 132 chr3:150186838-150187837  | 9934 P2RY14            | - | -808893 | -0.48 | 0.02  | -2.87 | 0.51  |
| LUSC | 133 chr3:197208534-197209533  | 22916 NCBP2            | - | 539569  | -0.60 | 0.05  | 1.44  | -0.55 |
| LUSC | 134 chr16:4578902-4579901     | 7023 TFAP4             | - | 256400  | -0.39 | 0.06  | 1.80  | -0.52 |
| LUSC | 135 chr14:24732939-24733938   | 56413 LTB4R2           | + | -45919  | -0.31 | 0.04  | 2.18  | -0.56 |
| LUSC | 136 chr2:33294638-33295637    | 58484 NLRC4            | - | 804325  | -0.40 | 0.00  | -3.21 | 0.55  |
| LUSC | 137 chr13:28544714-28545713   | 3651 PDX1              | + | 51045   | 0.33  | -0.02 | 1.68  | 0.55  |
| LUSC | 138 chr6:69420280-69421279    | 577 BAI3               | + | 75147   | -0.31 | 0.04  | -3.58 | 0.51  |
| LUSC | 139 chr8:133455513-133456512  | 3786 KCNQ3             | - | -36992  | -0.36 | 0.00  | -1.57 | 0.50  |
| LUSC | 140 chr2:86183400-86184399    | 8869 ST3GAL5           | - | 67742   | -0.32 | 0.00  | -2.36 | 0.52  |
| LUSC | 141 chr17:4090025-4091024     | 5023 P2RX1             | - | 270564  | -0.34 | -0.04 | -1.97 | 0.65  |
| LUSC | 142 chr3:184337568-184338567  | 1981 EIF4G1            | + | 305784  | -0.48 | 0.00  | 1.09  | -0.53 |
| LUSC | 143 chr19:4454739-4455912     | 10036 CHAF1A           | + | 52665   | -0.32 | -0.04 | 1.98  | -0.55 |
| LUSC | 144 chr3:197208534-197209533  | 84248 FYT1D1           | + | -267391 | -0.60 | 0.01  | 0.86  | -0.52 |
| LUSC | 145 chr17:55483344-55484343   | 124540 MSI2            | + | 150631  | -0.32 | -0.03 | 1.69  | -0.68 |
| LUSC | 146 chr7:96621542-96623107    | 440 ASNS               | - | -879530 | 0.45  | 0.05  | 2.34  | 0.54  |
| LUSC | 147 chr3:151033509-151034508  | 6478 SIAH2             | - | 552745  | -0.43 | 0.03  | 1.69  | -0.55 |
| LUSC | 148 chr17:7257385-7258384     | 407977 TNFSF12-TNFSF13 | + | -194491 | -0.31 | -0.02 | -3.25 | 0.56  |
| LUSC | 149 chr7:121976691-121977690  | 389549 FEZF1           | - | 32625   | -0.30 | 0.03  | 3.43  | -0.51 |
| LUSC | 150 chr2:33294638-33295637    | 25780 RASGRP3          | + | -366279 | -0.40 | 0.00  | -1.65 | 0.53  |
| LUSC | 151 chr1:2164102-2166078      | 8510 MMP23B            | + | 597529  | 0.38  | 0.03  | -1.86 | -0.61 |
| LUSC | 152 chr17:39010051-39011050   | 51195 RAPGEFL1         | + | 676308  | -0.38 | 0.00  | 3.33  | -0.51 |
| LUSC | 153 chr17:1666107-1667106     | 8578 SCARF1            | - | 117523  | -0.32 | 0.07  | -2.66 | 0.50  |
| LUSC | 154 chr17:35087042-35088041   | 80179 MYO19            | - | 196236  | -0.34 | 0.01  | 2.03  | -0.52 |
| LUSC | 155 chr12:14864249-14865248   | 397 ARHGDI1B           | - | -249814 | -0.34 | 0.00  | -1.81 | 0.60  |
| LUSC | 156 chr3:176635008-176636007  | 79718 TBL1XR1          | - | -279541 | -0.37 | 0.08  | 1.45  | -0.57 |
| LUSC | 157 chr10:95222367-95223366   | 159371 TMEM20          | + | -430864 | 0.42  | 0.00  | 1.39  | 0.57  |
| LUSC | 158 chr17:41521155-41522154   | 78995 C1orf53          | + | -697620 | -0.36 | 0.02  | 3.41  | -0.53 |
| LUSC | 159 chr1:159060869-159061868  | 149628 PYHIN1          | + | 160031  | -0.36 | -0.01 | -1.52 | 0.53  |
| LUSC | 160 chr12:31506455-31507454   | 58516 FAM60A           | - | 27795   | -0.35 | 0.02  | 1.45  | -0.51 |
| LUSC | 161 chr2:69026539-69027538    | 25927 CNRIP1           | - | 479855  | -0.34 | 0.01  | -2.32 | 0.56  |
| LUSC | 162 chr3:181421203-181422716  | 347689 SOX2OT          | + | 647491  | 0.35  | 0.00  | 3.26  | 0.55  |
| LUSC | 163 chr7:11729778-11730777    | 221981 THSD7A          | - | -141547 | -0.32 | 0.05  | -2.10 | 0.52  |
| LUSC | 164 chr1:198859079-198860078  | 5788 PTPRC             | + | 251480  | -0.34 | 0.00  | -2.18 | 0.53  |
| LUSC | 165 chr17:55483394-55485099   | 124540 MSI2            | + | 151034  | -0.32 | -0.03 | 1.69  | -0.71 |
| LUSC | 166 chr3:184477829-184478828  | 1857 DVL3              | + | 605044  | -0.40 | 0.03  | 1.69  | -0.57 |
| LUSC | 167 chr2:9540259-9541258      | 51692 CPSF3            | + | -22908  | -0.36 | 0.00  | 1.04  | -0.52 |
| LUSC | 168 chr3:188617880-188618879  | 8626 TP63              | + | -730837 | -0.32 | 0.01  | 4.64  | -0.62 |

|      |     |                           |                 |   |         |       |       |       |       |
|------|-----|---------------------------|-----------------|---|---------|-------|-------|-------|-------|
| LUSC | 169 | chr3:193419342-193420341  | 4976 OPA1       | + | 108908  | -0.36 | -0.01 | 1.29  | -0.52 |
| LUSC | 170 | chr3:118894985-118895984  | 941 CD80        | - | -382997 | -0.40 | 0.03  | -1.46 | 0.53  |
| LUSC | 171 | chr3:184337568-184338567  | 55486 PARL      | - | 735374  | -0.48 | 0.01  | 1.38  | -0.57 |
| LUSC | 172 | chr8:102449357-102450356  | 79977 GRHL2     | + | -54812  | -0.33 | 0.02  | 1.48  | -0.54 |
| LUSC | 173 | chr1:178029756-178030755  | 9068 ANGPTL1    | - | -809960 | -0.37 | -0.02 | -4.10 | 0.51  |
| LUSC | 174 | chr2:85280628-85281627    | 10791 VAMP5     | + | -530404 | -0.36 | 0.03  | -1.85 | 0.54  |
| LUSC | 175 | chr2:85280628-85281627    | 8869 ST3GAL5    | - | -835030 | -0.36 | 0.00  | -2.36 | 0.59  |
| LUSC | 176 | chr16:24066674-24067673   | 5579 PRKCB      | + | 219873  | -0.31 | -0.01 | -1.99 | 0.60  |
| LUSC | 177 | chr3:143846818-143847817  | 205428 C3orf58  | + | 156677  | -0.44 | -0.04 | 0.66  | -0.50 |
| LUSC | 178 | chr3:197208534-197209533  | 205564 SENP5    | + | 614306  | -0.60 | 0.00  | 1.13  | -0.54 |
| LUSC | 179 | chr17:41521155-41522154   | 113277 TMEM106A | + | 157760  | -0.36 | -0.02 | -1.27 | 0.53  |
| LUSC | 180 | chr17:35503456-35504455   | 6871 TADA2A     | + | -263022 | -0.41 | 0.00  | 0.41  | -0.59 |
| LUSC | 181 | chr2:84929777-84930776    | 129293 C2orf89  | - | -178093 | -0.30 | 0.00  | -2.22 | 0.56  |
| LUSC | 182 | chr11:58085323-58086322   | 9404 LPXN       | - | -259871 | -0.32 | 0.00  | -1.90 | 0.61  |
| LUSC | 183 | chr3:179869862-179870861  | 8087 FXR1       | + | -759873 | -0.44 | 0.01  | 1.52  | -0.61 |
| LUSC | 184 | chr3:184337568-184338567  | 55689 YEATS2    | + | 922461  | -0.48 | 0.08  | 1.52  | -0.58 |
| LUSC | 185 | chr17:7257385-7258384     | 6665 SOX15      | - | -235604 | -0.31 | 0.01  | 3.99  | -0.50 |
| LUSC | 186 | chr1:159060869-159061868  | 343413 FCRL6    | + | -708933 | -0.36 | 0.08  | -2.76 | 0.52  |
| LUSC | 187 | chr3:181633201-181634200  | 23200 ATP11B    | + | -877591 | -0.45 | 0.03  | 1.45  | -0.65 |
| LUSC | 188 | chr3:179869862-179870861  | 57129 MRPL47    | - | 547927  | -0.44 | 0.04  | 1.78  | -0.51 |
| LUSC | 189 | chr17:4090025-4091024     | 201305 SPNS3    | + | -246695 | -0.34 | -0.02 | -1.45 | 0.65  |
| LUSC | 190 | chr16:85430595-85431594   | 3394 IRF8       | + | -501680 | -0.36 | 0.02  | -2.16 | 0.51  |
| LUSC | 191 | chr3:179262703-179263702  | 5290 PIK3CA     | + | 396891  | -0.42 | -0.01 | 0.66  | -0.59 |
| LUSC | 192 | chr7:96618568-96619575    | 440 ASNS        | - | -882783 | 0.41  | 0.05  | 2.34  | 0.51  |
| LUSC | 193 | chr3:187413413-187414412  | 5984 RFC4       | - | 889428  | -0.36 | 0.01  | 3.47  | -0.53 |
| LUSC | 194 | chr2:197399059-197400058  | 80055 PGAP1     | - | -392961 | -0.41 | 0.07  | 1.01  | -0.56 |
| LUSC | 195 | chr14:52836837-52837836   | 54331 GNG2      | + | 523384  | -0.35 | 0.16  | -1.79 | 0.65  |
| LUSC | 196 | chr14:52836837-52837836   | 5729 PTGDR      | + | 102905  | -0.35 | 0.06  | -1.05 | 0.52  |
| LUSC | 197 | chr2:33735388-33736387    | 25780 RASGRP3   | + | 74471   | -0.32 | 0.00  | -1.65 | 0.55  |
| LUSC | 198 | chr3:197208534-197209533  | 348793 WDR53    | - | 913620  | -0.60 | -0.04 | 1.58  | -0.53 |
| LUSC | 199 | chr1:165493983-165494982  | 7371 UCK2       | + | -302250 | -0.31 | -0.09 | 2.69  | -0.53 |
| LUSC | 200 | chr12:15815327-15816326   | 397 ARHGDIB     | - | 701264  | -0.39 | 0.00  | -1.81 | 0.56  |
| LUSC | 201 | chr9:21967733-21968732    | 1E+08 CDKN2BAS  | + | -26558  | 0.32  | 0.00  | 0.95  | 0.57  |
| LUSC | 202 | chr21:46829443-46830442   | 3689 ITGB2      | - | 481189  | -0.34 | 0.00  | -2.00 | 0.56  |
| LUSC | 203 | chr17:4090025-4091024     | 489 ATP2A3      | - | 222766  | -0.34 | 0.00  | -1.27 | 0.65  |
| LUSC | 204 | chr11:66659493-66660492   | 254552 NUDT8    | - | -737416 | -0.42 | 0.03  | 1.83  | -0.52 |
| LUSC | 205 | chr3:195586506-195587647  | 152002 C3orf21  | - | 595181  | -0.38 | 0.24  | 2.11  | -0.50 |
| LUSC | 206 | chr2:198814564-198815563  | 5334 PLCL1      | + | 145637  | -0.31 | -0.02 | -2.35 | 0.50  |
| LUSC | 207 | chr1:9823685-9824684      | 10894 LYE1      | - | -766181 | -0.35 | -0.03 | -4.10 | 0.51  |
| LUSC | 208 | chr3:179869862-179870861  | 4711 NDUFB5     | + | 547786  | -0.44 | 0.00  | 1.43  | -0.52 |
| LUSC | 209 | chr6:166044779-166045778  | 10846 PDE10A    | - | -30310  | -0.34 | 0.02  | -0.41 | 0.55  |
| LUSC | 210 | chr1:241197566-241198565  | 8564 KMO        | + | -497369 | -0.32 | -0.01 | -2.54 | 0.56  |
| LUSC | 211 | chr11:119567261-119568260 | 83552 MFRP      | - | 350377  | -0.35 | 0.12  | -1.57 | 0.53  |
| LUSC | 212 | chr1:244534147-244535146  | 159 ADSS        | - | -80790  | -0.34 | 0.00  | 0.88  | -0.56 |
| LUSC | 213 | chr8:133455513-133456512  | 6503 SLA        | - | -659298 | -0.36 | 0.01  | -2.09 | 0.51  |
| LUSC | 214 | chr8:102076012-102077011  | 79977 GRHL2     | + | -428157 | -0.39 | 0.02  | 1.48  | -0.51 |
| LUSC | 215 | chr3:46972784-46973783    | 9034 CCRL2      | + | 524562  | 0.32  | -0.02 | -3.11 | -0.57 |
| LUSC | 216 | chr5:15692335-15693334    | 23194 FBXL7     | + | 192529  | -0.32 | -0.01 | -1.40 | 0.76  |
| LUSC | 217 | chr22:48895158-48896157   | 25817 FAM19A5   | + | 10369   | -0.33 | 0.02  | -0.44 | 0.54  |
| LUSC | 218 | chr3:133019705-133020704  | 6578 SLCO2A1    | - | -728716 | -0.33 | 0.03  | -3.56 | 0.52  |
| LUSC | 219 | chr17:46619055-46620422   | 3212 HOXB2      | - | -2655   | 0.31  | 0.03  | 0.43  | -0.71 |
| LUSC | 220 | chr11:86349634-86350633   | 10873 ME3       | - | -33545  | -0.32 | -0.01 | -1.48 | 0.51  |
| LUSC | 221 | chr7:121976691-121977690  | 5803 PTPRZ1     | + | 464031  | -0.30 | 0.05  | 4.01  | -0.55 |
| LUSC | 222 | chr17:35087042-35088041   | 79922 MRM1      | + | 129516  | -0.34 | -0.02 | 1.19  | -0.52 |
| LUSC | 223 | chr17:73361203-73362202   | 9368 SLC9A3R1   | + | 616951  | -0.33 | 0.04  | 2.15  | -0.58 |
| LUSC | 224 | chr2:159475428-159476427  | 8502 PKP4       | + | 162451  | -0.38 | 0.05  | 0.50  | -0.52 |
| LUSC | 225 | chr1:209602455-209603454  | 27042 C1orf107  | + | -398358 | -0.45 | 0.01  | 0.92  | -0.50 |
| LUSC | 226 | chr3:123949518-123950517  | 8997 KALRN      | + | 197475  | -0.33 | -0.04 | -1.17 | 0.57  |
| LUSC | 227 | chr17:63652454-63653453   | 201134 CCDC46   | + | -535259 | -0.34 | 0.03  | -2.25 | 0.53  |
| LUSC | 228 | chr3:158679375-158680374  | 85476 GFM1      | + | 317557  | -0.38 | 0.04  | 0.97  | -0.53 |
| LUSC | 229 | chr5:88017981-88019104    | 4208 MEF2C      | - | -181380 | -0.31 | 0.02  | -2.31 | 0.50  |
| LUSC | 230 | chr3:189073174-189074173  | 285386 TPRG1    | + | 408670  | -0.48 | -0.06 | 0.35  | -0.51 |
| LUSC | 231 | chr4:40335755-40336754    | 399 RHOH        | + | 137727  | -0.37 | 0.00  | -0.53 | 0.51  |
| LUSC | 232 | chr3:179869862-179870861  | 51193 ZNF639    | + | 829542  | -0.44 | 0.03  | 1.23  | -0.63 |
| LUSC | 233 | chr7:50888987-50889986    | 10320 IKZF1     | + | 545108  | -0.36 | 0.03  | -1.96 | 0.52  |
| LUSC | 234 | chr1:232181123-232182122  | 128061 C1orf131 | - | 804698  | -0.38 | 0.02  | 1.59  | -0.58 |
| LUSC | 235 | chr11:117755985-117756984 | 6876 TAGLN      | + | 686444  | 0.47  | 0.00  | -1.32 | -0.50 |
| LUSC | 236 | chr3:184477829-184478828  | 55324 ABCF3     | + | 574465  | -0.40 | 0.04  | 1.12  | -0.55 |
| LUSC | 237 | chr3:185434972-185435971  | 59343 SENP2     | + | 134964  | -0.33 | 0.00  | 1.08  | -0.55 |
| LUSC | 238 | chr17:30954150-30955149   | 5717 PSMD11     | + | 183168  | -0.32 | 0.00  | 1.37  | -0.59 |
| LUSC | 239 | chr3:181633201-181634200  | 131118 DNAJC19  | - | 926138  | -0.45 | 0.04  | 1.10  | -0.64 |
| LUSC | 240 | chr12:53775649-53776648   | 3695 ITGB7      | + | 175148  | -0.34 | -0.02 | -0.81 | 0.58  |
| LUSC | 241 | chr12:2360163-2361162     | 775 CACNA1C     | - | 198246  | -0.30 | -0.02 | -2.00 | 0.54  |
| LUSC | 242 | chr3:184477829-184478828  | 8893 EIF2B5     | + | 625518  | -0.40 | 0.04  | 1.26  | -0.55 |
| LUSC | 243 | chr6:130693341-130694340  | 154075 SAMD3    | - | 7270    | -0.30 | 0.02  | -1.36 | 0.55  |
| LUSC | 244 | chr16:24174350-24175349   | 5579 PRKCB      | + | 327549  | -0.31 | -0.01 | -1.99 | 0.59  |
| LUSC | 245 | chr8:134594169-134595168  | 6503 SLA        | - | 479358  | -0.32 | 0.01  | -2.09 | 0.55  |
| LUSC | 246 | chr11:58085323-58086322   | 710 SERPING1    | + | 720795  | -0.32 | 0.08  | -2.40 | 0.59  |
| LUSC | 247 | chr14:52031248-52032247   | 54331 GNG2      | + | -282205 | -0.31 | 0.16  | -1.79 | 0.62  |
| LUSC | 248 | chr2:85914025-85915024    | 129293 C2orf89  | - | 806155  | -0.37 | 0.00  | -2.22 | 0.51  |
| LUSC | 249 | chr2:100160620-100161619  | 3899 AFF3       | - | -597918 | -0.32 | 0.02  | -4.70 | 0.50  |
| LUSC | 250 | chr12:89968175-89969174   | 490 ATP2B1      | - | -81170  | 0.34  | 0.17  | 0.49  | 0.55  |
| LUSC | 251 | chr2:24931116-24932115    | 109 ADCY3       | - | -210440 | -0.39 | 0.05  | 0.38  | -0.52 |
| LUSC | 252 | chr3:195586506-195587647  | 23527 ACAP2     | - | 423259  | -0.38 | 0.04  | 0.93  | -0.55 |
| LUSC | 253 | chr2:158102835-158103834  | 9595 CYTIP      | - | -242139 | -0.31 | 0.00  | -1.59 | 0.64  |
| LUSC | 254 | chr15:26927133-26928132   | 57194 ATP10A    | - | 817315  | -0.32 | -0.02 | -3.33 | 0.57  |

|      |     |                           |        |              |   |         |       |       |       |       |
|------|-----|---------------------------|--------|--------------|---|---------|-------|-------|-------|-------|
| LUSC | 255 | chr22:43820727-43821726   | 23170  | TTLL12       | - | 238089  | -0.31 | 0.00  | 1.93  | -0.54 |
| LUSC | 256 | chr1:170629002-170630054  | 6402   | SELL         | - | 948684  | 0.47  | 0.11  | -1.17 | -0.57 |
| LUSC | 257 | chr3:188478559-188479558  | 8626   | TP63         | + | -870158 | -0.30 | 0.01  | 4.64  | -0.64 |
| LUSC | 258 | chr1:170629570-170630896  | 6402   | SELL         | - | 949389  | 0.47  | 0.11  | -1.17 | -0.57 |
| LUSC | 259 | chr2:63893958-63894957    | 1E+08  | LOC100132215 | - | 618801  | -0.36 | 0.01  | 1.95  | -0.50 |
| LUSC | 260 | chr3:184337568-184338567  | 59343  | SEN2         | + | -962440 | -0.48 | 0.00  | 1.08  | -0.56 |
| LUSC | 261 | chr3:184477829-184478828  | 131408 | FAM131A      | + | 424611  | -0.40 | 0.04  | 0.95  | -0.51 |
| LUSC | 262 | chr2:225542774-225543773  | 55619  | DOCK10       | - | -364057 | -0.34 | 0.02  | -1.55 | 0.52  |
| LUSC | 263 | chr1:44350561-44351560    | 7075   | TIE1         | + | 584494  | -0.33 | -0.02 | -3.13 | 0.50  |
| LUSC | 264 | chr3:179869862-179870861  | 131118 | DNAJC19      | - | -837201 | -0.44 | 0.04  | 1.10  | -0.59 |
| LUSC | 265 | chr1:139471804-139472803  | 85021  | REPS1        | - | 162905  | -0.35 | -0.02 | 0.79  | -0.52 |
| LUSC | 266 | chr17:67535799-67536798   | 54757  | FAM20A       | - | 939203  | -0.42 | 0.05  | -1.44 | 0.57  |
| LUSC | 267 | chr2:164799641-164800640  | 55137  | FIGN         | - | 207627  | -0.31 | -0.01 | -1.41 | 0.61  |
| LUSC | 268 | chr1:219728530-219729529  | 55699  | IARS2        | + | -538426 | -0.44 | -0.01 | 0.71  | -0.52 |
| LUSC | 269 | chr1:151556985-151557984  | 7286   | TUFT1        | + | 44703   | -0.32 | 0.01  | 1.29  | -0.51 |
| LUSC | 270 | chr17:35087042-35088041   | 9326   | ZNHIT3       | + | 245068  | -0.34 | 0.04  | 0.74  | -0.57 |
| LUSC | 271 | chr12:14118380-14119379   | 4256   | MGP          | - | -919974 | -0.36 | 0.00  | -2.82 | 0.50  |
| LUSC | 272 | chr1:217312544-217313543  | 55105  | GPATCH2      | - | -491366 | 0.38  | -0.06 | 0.93  | 0.54  |
| LUSC | 273 | chr8:13154783-13155782    | 157773 | C8orf48      | + | -269070 | -0.32 | 0.03  | -1.42 | 0.54  |
| LUSC | 274 | chr17:28036899-28037898   | 642    | BLMH         | - | -581786 | 0.39  | 0.00  | 0.92  | 0.56  |
| LUSC | 275 | chr2:69026539-69027538    | 5341   | PLEK         | + | 434716  | -0.34 | -0.02 | -1.60 | 0.52  |
| LUSC | 276 | chr7:144273337-144274336  | 27010  | TPK1         | - | -259310 | -0.31 | 0.06  | -2.04 | 0.50  |
| LUSC | 277 | chr12:2723700-2724699     | 775    | CACNA1C      | + | 561783  | -0.32 | -0.02 | -2.00 | 0.54  |
| LUSC | 278 | chr3:195619647-195620646  | 23527  | ACAP2        | - | 456329  | 0.41  | 0.04  | 0.93  | 0.50  |
| LUSC | 279 | chr11:19893813-19894812   | 10196  | PRMT3        | + | -514764 | -0.34 | 0.00  | 1.45  | -0.53 |
| LUSC | 280 | chr12:100002074-100003073 | 56899  | ANKS1B       | - | -375859 | -0.32 | 0.00  | -1.99 | 0.51  |
| LUSC | 281 | chr3:181421203-181422716  | 8087   | FXR1         | + | 791725  | 0.35  | 0.01  | 1.52  | 0.60  |
| LUSC | 282 | chr6:40290548-40291547    | 4337   | MOCS1        | - | 388757  | -0.31 | 0.01  | -2.00 | 0.54  |
| LUSC | 283 | chr2:86263395-86264394    | 64795  | RMND5A       | + | -683520 | 0.52  | -0.01 | 0.39  | 0.51  |
| LUSC | 284 | chr8:56192221-56193220    | 114786 | XKR4         | + | 177703  | -0.34 | 0.04  | -0.59 | 0.53  |
| LUSC | 285 | chr3:158679375-158680374  | 51319  | RSRC1        | + | 852033  | -0.38 | 0.00  | 1.51  | -0.53 |
| LUSC | 286 | chr12:2595720-2596719     | 775    | CACNA1C      | + | 433809  | -0.30 | -0.02 | -2.00 | 0.57  |
| LUSC | 287 | chr4:1302817-1303816      | 84179  | MFS2D7       | - | 620343  | 0.31  | -0.01 | -2.05 | -0.55 |
| LUSC | 288 | chr3:185434972-185435971  | 6434   | TRA2B        | - | -220453 | -0.33 | 0.01  | 0.76  | -0.56 |
| LUSC | 289 | chr6:130693341-130694340  | 114801 | TMEM200A     | + | 6414    | -0.30 | 0.02  | -0.84 | 0.53  |
| LUSC | 290 | chr17:35329823-35330822   | 6871   | TADA2A       | + | -436655 | -0.36 | 0.00  | 0.41  | -0.59 |
| LUSC | 291 | chr16:20054721-20055720   | 400506 | C16orf88     | - | 325728  | -0.32 | 0.02  | 1.51  | -0.55 |
| LUSC | 292 | chr12:66239888-66240887   | 11213  | IRAK3        | + | -342591 | -0.31 | 0.01  | -1.92 | 0.51  |
| LUSC | 293 | chr3:193419342-193420341  | 55341  | LSG1         | - | -973365 | -0.36 | 0.00  | 1.57  | -0.62 |
| LUSC | 294 | chr17:41521155-41522154   | 29893  | PSMC3IP      | - | 791805  | -0.36 | 0.00  | 1.81  | -0.51 |
| LUSC | 295 | chr12:46940877-46941876   | 1E+08  | LOC100233209 | - | -668850 | -0.35 | -0.01 | -1.21 | 0.59  |
| LUSC | 296 | chr17:4090025-4091024     | 409    | ARRB2        | + | -523265 | -0.34 | -0.05 | -1.61 | 0.51  |
| LUSC | 297 | chr17:31593969-31594968   | 5717   | PSMD11       | + | 822987  | -0.41 | 0.00  | 1.37  | -0.51 |
| LUSC | 298 | chr6:55691333-55692332    | 222584 | FAM83B       | + | 980263  | -0.32 | 0.04  | 5.62  | -0.52 |
| LUSC | 299 | chr16:51359902-51360901   | 124460 | SNX20        | - | 645137  | -0.32 | 0.00  | -1.89 | 0.55  |
| LUSC | 300 | chr16:5282918-5283917     | 7023   | TFAP4        | - | 960416  | -0.37 | 0.06  | 1.80  | -0.52 |
| LUSC | 301 | chr16:11770450-11771449   | 4261   | CIITA        | + | 799894  | -0.33 | 0.04  | -1.85 | 0.55  |
| LUSC | 302 | chr16:75519665-75520664   | 55159  | RFWD3        | - | 819385  | -0.39 | 0.03  | 1.40  | -0.51 |
| LUSC | 303 | chr3:181421203-181422716  | 131118 | DNAJC19      | - | 714397  | 0.35  | 0.04  | 1.10  | 0.59  |
| LUSC | 304 | chr17:58965713-58966712   | 54828  | BCAS3        | + | 211040  | -0.33 | 0.00  | 0.02  | -0.56 |
| LUSC | 305 | chr12:53299793-53300792   | 94     | ACVRL1       | + | 999600  | -0.30 | -0.01 | -3.72 | 0.57  |
| LUSC | 306 | chr3:46972784-46973783    | 729230 | CCR2         | + | 578048  | 0.32  | 0.06  | -2.02 | -0.53 |
| LUSC | 307 | chr17:7257385-7258384     | 1856   | DVL2         | - | 120021  | -0.31 | 0.01  | 0.66  | -0.55 |
| LUSC | 308 | chr2:192806694-192807693  | 6775   | STAT4        | - | 768291  | -0.37 | 0.05  | -1.07 | 0.55  |
| LUSC | 309 | chr9:134881494-134882493  | 286336 | FAM78A       | - | 730087  | -0.33 | 0.00  | -1.65 | 0.54  |
| LUSC | 310 | chr16:89524702-89525701   | 333929 | SNAI3        | - | 772319  | -0.36 | 0.04  | -1.38 | 0.52  |
| LUSC | 311 | chr14:52031248-52032247   | 5732   | PTGER2       | + | -749269 | -0.31 | -0.03 | -2.12 | 0.57  |
| LUSC | 312 | chr14:51861602-51862601   | 54331  | GN2          | + | -451851 | -0.30 | 0.16  | -1.79 | 0.55  |
| LUSC | 313 | chr17:35329823-35330822   | 11072  | DUSP14       | + | -519629 | -0.36 | 0.02  | 0.98  | -0.52 |
| LUSC | 314 | chr16:87823425-87824424   | 333929 | SNAI3        | - | -928958 | -0.40 | 0.04  | -1.38 | 0.51  |
| LUSC | 315 | chr3:184477829-184478828  | 55486  | PARL         | - | 875635  | -0.40 | 0.01  | 1.38  | -0.50 |
| LUSC | 316 | chr12:14118380-14119379   | 397    | ARHGDI3      | - | -995683 | -0.36 | 0.00  | -1.81 | 0.51  |
| LUSC | 317 | chr7:127318050-127319049  | 64101  | LRR4         | - | -352453 | -0.35 | -0.01 | -0.61 | -0.51 |
| LUSC | 318 | chr12:46940877-46941876   | 91523  | FAM113B      | + | -532010 | -0.35 | 0.00  | -0.72 | 0.54  |
| LUSC | 319 | chr1:862250-863319        | 10581  | IFITM2       | + | 554677  | -0.30 | 0.00  | -1.97 | 0.54  |
| LUSC | 320 | chr1:226884332-226885331  | 29920  | PYCR2        | - | 772791  | -0.43 | -0.05 | 0.65  | -0.51 |
| LUSC | 321 | chr2:157393100-157394099  | 9595   | CYTIP        | - | -951874 | -0.35 | 0.00  | -1.59 | 0.54  |
| LUSC | 322 | chr1:91184270-91185527    | 284695 | ZNF326       | + | 724220  | 0.37  | -0.02 | 1.11  | 0.51  |
| LUSC | 323 | chr17:30954150-30955149   | 64149  | C1orf75      | - | 285421  | -0.32 | -0.15 | 1.22  | -0.51 |
| LUSC | 324 | chr3:151893345-151894344  | 29909  | GPR171       | - | 972856  | -0.43 | -0.01 | -0.99 | 0.51  |
| LUSC | 325 | chr11:58085323-58086322   | 219972 | MPEG1        | - | -894672 | -0.32 | 0.00  | -2.25 | 0.52  |
| LUSC | 326 | chr3:134046774-134047773  | 8419   | BFSP2        | + | 928483  | -0.44 | 0.01  | 0.83  | 0.50  |
| LUSC | 327 | chr12:110974198-110975197 | 51434  | ANAPC7       | - | 133162  | -0.30 | 0.02  | 1.04  | -0.52 |
| LUSC | 328 | chr2:8397310-8398309      | 3398   | ID2          | + | -424304 | -0.31 | -0.05 | -1.55 | 0.52  |
| LUSC | 329 | chr5:132118320-132119319  | 441108 | C5orf56      | + | 372354  | -0.31 | 0.00  | -1.44 | 0.52  |
| LUSC | 330 | chr17:35087042-35088041   | 6871   | TADA2A       | + | -679436 | -0.34 | 0.00  | 0.41  | -0.65 |
| LUSC | 331 | chr15:60666075-60667074   | 79664  | NARG2        | - | -104785 | -0.31 | 0.03  | 0.30  | -0.50 |
| LUSC | 332 | chr14:96410900-96411899   | 51218  | GLRX5        | + | 410076  | -0.33 | 0.01  | 0.67  | -0.52 |
| LUSC | 333 | chr11:113216320-113217319 | 4837   | NNMT         | + | -911734 | -0.32 | 0.01  | -1.56 | 0.57  |
| LUSC | 334 | chr17:35536729-35537728   | 80179  | MYO19        | - | 645923  | -0.30 | 0.01  | 2.03  | -0.52 |
| LUSC | 335 | chr10:14167477-14168476   | 83641  | FAM107B      | - | -648920 | -0.31 | 0.06  | -1.87 | 0.51  |
| LUSC | 336 | chr3:138521851-138522850  | 349565 | NMNAT3       | - | -874535 | -0.34 | 0.00  | 1.23  | -0.56 |
| LUSC | 337 | chr17:55483344-55484343   | 8165   | AKAP1        | + | 321290  | -0.32 | 0.00  | 0.12  | -0.53 |
| LUSC | 338 | chr14:49973265-49974264   | 79944  | L2HGDH       | - | -805183 | -0.35 | 0.00  | 1.21  | -0.52 |
| LUSC | 339 | chr6:165932615-165933614  | 10846  | PDE10A       | - | -142474 | -0.31 | 0.02  | -0.41 | 0.50  |
| LUSC | 340 | chr19:4454739-4455912     | 10148  | EBI3         | + | 225785  | -0.32 | 0.03  | 0.03  | 0.52  |

|      |                               |                 |   |         |       |       |       |       |
|------|-------------------------------|-----------------|---|---------|-------|-------|-------|-------|
| LUSC | 341 chr14:24778900-24779899   | 10278 EFS       | - | 944557  | -0.31 | -0.05 | 1.62  | -0.62 |
| LUSC | 342 chr17:55483344-55484343   | 8161 COIL       | - | 445432  | -0.32 | -0.03 | 0.91  | -0.51 |
| LUSC | 343 chr6:47667544-47668543    | 7941 PLA2G7     | - | 964613  | -0.40 | 0.00  | -0.07 | 0.53  |
| LUSC | 344 chr14:24732939-24733938   | 10278 EFS       | - | 898596  | -0.31 | -0.05 | 1.62  | -0.61 |
| LUSC | 345 chr14:96410900-96411899   | 7443 VRK1       | + | -852285 | -0.33 | 0.03  | 1.54  | -0.50 |
| LUSC | 346 chr7:45073192-45074191    | 5425 POLD2      | - | 910522  | -0.35 | -0.01 | 1.12  | -0.51 |
| LUSC | 347 chr6:138408463-138409462  | 85021 REPS1     | - | -900436 | -0.38 | -0.02 | 0.79  | -0.50 |
| LUSC | 348 chr17:55483394-55485099   | 8161 COIL       | - | 445835  | -0.32 | -0.03 | 0.91  | -0.52 |
| LUSC | 349 chr14:52031248-52032247   | 5729 PTGDR      | + | -702684 | -0.31 | 0.06  | -1.05 | 0.57  |
| LUSC | 350 chr1:209557527-209558526  | 80342 TRAF3IP3  | + | -371368 | -0.32 | 0.00  | -0.45 | 0.52  |
| LUSC | 351 chr17:55483344-55484343   | 8526 DGKE       | + | 572383  | -0.32 | 0.09  | -0.06 | -0.54 |
| LUSC | 352 chr12:53299793-53300792   | 3695 ITGB7      | - | -300708 | -0.30 | -0.02 | -0.81 | 0.52  |
| LUSC | 353 chr14:49912754-49913753   | 79944 L2HGDH    | - | -865694 | -0.34 | 0.00  | 1.21  | -0.51 |
| LUSC | 354 chr11:119567261-119568260 | 643 CXCR5       | + | 813285  | -0.35 | 0.00  | 0.54  | 0.52  |
| LUSC | 355 chr17:55483394-55485099   | 8165 AKAP1      | + | 321693  | -0.32 | 0.00  | 0.12  | -0.50 |
| LUSC | 356 chr17:17854559-17855558   | 201164 PLD6     | - | 714556  | -0.33 | -0.06 | 0.85  | -0.53 |
| LUSC | 357 chr17:17854559-17855558   | 5636 PRPSAP2    | + | -904554 | -0.33 | -0.02 | 0.74  | -0.59 |
| LUSC | 358 chr12:15954524-15955523   | 397 ARHGDIB     | - | 840461  | -0.30 | 0.00  | -1.81 | 0.54  |
| LUSC | 359 chr9:126760582-126761581  | 55342 STRBP     | - | 730226  | 0.32  | -0.02 | 1.25  | 0.52  |
| LUSC | 360 chr3:185434972-185435971  | 55171 TBCCD1    | - | -852861 | -0.33 | -0.01 | 1.16  | -0.52 |
| LUSC | 361 chr7:94068500-94069499    | 7980 TFPI2      | - | 548696  | -0.30 | -0.02 | -1.42 | 0.51  |
| LUSC | 362 chr2:191278148-191279147  | 6775 STAT4      | - | -760255 | -0.31 | 0.05  | -1.07 | 0.55  |
| LUSC | 363 chr11:862250-863319       | 10410 IFITM3    | - | 541870  | -0.30 | 0.01  | -1.01 | 0.52  |
| LUSC | 364 chr9:117149995-117150994  | 54107 POLE3     | - | 977465  | 0.33  | 0.02  | 0.97  | 0.53  |
| LUSC | 365 chr16:26426850-26427849   | 50615 IL21R     | + | -986134 | -0.35 | 0.01  | -0.39 | 0.52  |
| LUSC | 366 chr6:131350335-131351334  | 154075 SAMD3    | - | 664264  | -0.30 | 0.02  | -1.36 | 0.50  |
| LUSC | 367 chr2:172945198-172946197  | 80067 DCAF17    | + | 654970  | 0.31  | 0.06  | 0.74  | 0.50  |
| LUSC | 368 chr14:62040863-62041862   | 57570 TRMT5     | - | 593580  | -0.30 | -0.01 | 0.61  | -0.51 |
| LUSC | 369 chr17:17854559-17855558   | 23495 TNFRSF13B | - | 979656  | -0.33 | 0.00  | 0.13  | 0.52  |

| Cancer | Type | Rank | eDMR                     | Entrez | Gene symbols | Strand | Distance from TSS | Enhancer differential methylation | Promoter differential methylation | Differential gene expression | Correlation |
|--------|------|------|--------------------------|--------|--------------|--------|-------------------|-----------------------------------|-----------------------------------|------------------------------|-------------|
| PRAD   |      | 1    | chr17:39066581-39067580  | 25984  | KRT23        | -      | -26756            | 0.48                              | 0.01                              | -2.68                        | -0.72       |
| PRAD   |      | 2    | chr2:159651519-159652518 | 92196  | DAPL1        | +      | 189               | 0.43                              | 0.09                              | -3.10                        | -0.62       |
| PRAD   |      | 3    | chr12:50377231-50378230  | 362    | AQP5         | +      | 22451             | 0.38                              | 0.00                              | -2.45                        | -0.66       |
| PRAD   |      | 4    | chr1:150185789-150186788 | 23632  | CA14         | +      | -43930            | 0.39                              | -0.01                             | -2.89                        | -0.61       |
| PRAD   |      | 5    | chr3:42066296-42067295   | 885    | CCK          | -      | -240867           | 0.43                              | 0.00                              | -2.85                        | -0.60       |
| PRAD   |      | 6    | chr14:51974348-51975347  | 122786 | FRMD6        | +      | 19008             | 0.45                              | 0.02                              | -1.43                        | -0.75       |
| PRAD   |      | 7    | chr12:65218892-65219977  | 11197  | WIF1         | -      | -295912           | 0.43                              | 0.03                              | -2.74                        | -0.62       |
| PRAD   |      | 8    | chr8:108441047-108442046 | 284    | ANGPT1       | -      | -68708            | 0.38                              | 0.02                              | -1.97                        | -0.68       |
| PRAD   |      | 9    | chr17:39066581-39067580  | 84951  | TNS4         | -      | 409226            | 0.48                              | -0.03                             | -2.42                        | -0.73       |
| PRAD   |      | 10   | chr5:151065768-151066767 | 2196   | FAT2         | -      | 117762            | 0.39                              | 0.01                              | -2.13                        | -0.65       |
| PRAD   |      | 11   | chr2:220117204-220118270 | 7277   | TUBA4A       | -      | -1594             | 0.41                              | 0.02                              | -1.35                        | -0.75       |
| PRAD   |      | 12   | chr3:64199505-64200504   | 166336 | PRICKLE2     | -      | -11127            | 0.41                              | 0.00                              | -1.36                        | -0.71       |
| PRAD   |      | 13   | chr17:40825712-40826711  | 8153   | RND2         | +      | -351047           | 0.46                              | 0.06                              | -1.95                        | -0.68       |
| PRAD   |      | 14   | chr17:43220964-43221963  | 113026 | PLCD3        | -      | 11572             | 0.49                              | 0.02                              | -1.17                        | -0.64       |
| PRAD   |      | 15   | chr8:91840847-91841846   | 64168  | NECAB1       | +      | 37425             | -0.37                             | 0.01                              | -1.83                        | 0.70        |
| PRAD   |      | 16   | chr1:9128987-9130147     | 6518   | SLC2A5       | -      | -18944            | 0.34                              | -0.03                             | -2.40                        | -0.78       |
| PRAD   |      | 17   | chr1:156674185-156675184 | 1382   | CRABP2       | -      | -924              | 0.35                              | 0.06                              | -2.29                        | -0.63       |
| PRAD   |      | 18   | chr17:43220720-43222074  | 113026 | PLCD3        | -      | 11505             | 0.44                              | 0.02                              | -1.17                        | -0.67       |
| PRAD   |      | 19   | chr6:26087276-26088701   | 3077   | HFE          | +      | 479               | 0.37                              | 0.10                              | -1.55                        | -0.82       |
| PRAD   |      | 20   | chr12:53107410-53108409  | 3852   | KRT5         | -      | 193666            | 0.38                              | 0.03                              | -2.64                        | -0.60       |
| PRAD   |      | 21   | chr3:49538052-49539051   | 275    | AMT          | -      | 78440             | 0.39                              | 0.17                              | -1.63                        | -0.62       |
| PRAD   |      | 22   | chr2:220324869-220325868 | 1674   | DES          | +      | 42269             | 0.37                              | -0.03                             | -1.77                        | -0.63       |
| PRAD   |      | 23   | chr14:22004493-22005492  | 29986  | SLC39A2      | +      | 537578            | 0.51                              | 0.12                              | -3.52                        | -0.57       |
| PRAD   |      | 24   | chr3:134082786-134083785 | 339855 | KY           | -      | -287193           | 0.39                              | 0.00                              | -2.40                        | -0.62       |
| PRAD   |      | 25   | chr9:130608423-130609422 | 27090  | ST6GALNAC4   | -      | -70383            | 0.40                              | 0.13                              | -1.44                        | -0.62       |
| PRAD   |      | 26   | chr2:161235588-161236587 | 3694   | ITGB6        | -      | 107688            | 0.42                              | 0.00                              | -1.83                        | -0.51       |
| PRAD   |      | 27   | chr5:140863776-140864775 | 56114  | PCDHGA1      | +      | 154023            | 0.50                              | 0.00                              | 1.43                         | 0.56        |
| PRAD   |      | 28   | chr18:55100158-55101157  | 9480   | ONECUT2      | +      | -2260             | 0.32                              | 0.00                              | 3.18                         | 0.69        |
| PRAD   |      | 29   | chr2:220117204-220118270 | 1674   | DES          | +      | -165363           | 0.41                              | -0.03                             | -1.77                        | -0.55       |
| PRAD   |      | 30   | chr2:97291020-97292019   | 150771 | ITPRIPL1     | +      | 300457            | 0.42                              | -0.01                             | -1.63                        | -0.68       |
| PRAD   |      | 31   | chr2:200852563-200853562 | 316    | AOX1         | +      | -597669           | 0.44                              | 0.01                              | -2.39                        | -0.77       |
| PRAD   |      | 32   | chr1:48936516-48937515   | 54558  | SPATA6       | -      | -861              | 0.43                              | -0.05                             | -1.15                        | -0.58       |
| PRAD   |      | 33   | chr17:39066581-39067580  | 3866   | KRT15        | -      | -610946           | 0.48                              | 0.07                              | -2.31                        | -0.71       |
| PRAD   |      | 34   | chr5:11588516-11589548   | 1501   | CTNND2       | -      | -315079           | 0.43                              | 0.04                              | 1.77                         | 0.58        |
| PRAD   |      | 35   | chr2:220117099-220118374 | 7277   | TUBA4A       | -      | -1594             | 0.36                              | 0.02                              | -1.35                        | -0.73       |
| PRAD   |      | 36   | chr3:42102867-42103866   | 885    | CCK          | -      | -204296           | 0.35                              | 0.00                              | -2.85                        | -0.64       |
| PRAD   |      | 37   | chr19:39466075-39467256  | 342897 | NCCRP1       | +      | -220939           | 0.40                              | -0.01                             | -1.74                        | -0.59       |
| PRAD   |      | 38   | chr2:220324869-220325868 | 10290  | SPEG         | +      | 25668             | 0.37                              | 0.02                              | -1.48                        | -0.65       |
| PRAD   |      | 39   | chr1:201228747-201229746 | 55765  | C1orf106     | +      | 368619            | 0.39                              | 0.01                              | -1.88                        | -0.74       |
| PRAD   |      | 40   | chr17:40825480-40826479  | 8153   | RND2         | +      | -351279           | 0.38                              | 0.06                              | -1.95                        | -0.74       |
| PRAD   |      | 41   | chr17:39066581-39067580  | 3860   | KRT13        | -      | -594785           | 0.48                              | 0.00                              | -3.49                        | -0.57       |
| PRAD   |      | 42   | chr1:48936516-48937515   | 79656  | BEND5        | -      | -305532           | 0.43                              | -0.14                             | -1.46                        | -0.67       |
| PRAD   |      | 43   | chr12:53616882-53617881  | 5916   | RARG         | -      | -8659             | 0.40                              | 0.01                              | -1.09                        | -0.65       |
| PRAD   |      | 44   | chr17:38478307-38479306  | 84951  | TNS4         | -      | -179048           | 0.35                              | -0.03                             | -2.42                        | -0.73       |
| PRAD   |      | 45   | chr16:67203510-67204509  | 84752  | B3GNT9       | -      | 19107             | 0.39                              | -0.01                             | -1.21                        | -0.65       |
| PRAD   |      | 46   | chr9:21967733-21968732   | 554202 | LOC554202    | -      | 408535            | 0.41                              | 0.00                              | -1.88                        | -0.61       |
| PRAD   |      | 47   | chr7:30803700-30804699   | 11185  | INMT         | +      | 66598             | 0.42                              | 0.02                              | -1.29                        | -0.57       |
| PRAD   |      | 48   | chr16:85429022-85430021  | 404550 | C16orf74     | -      | -355168           | 0.37                              | 0.00                              | -2.08                        | -0.68       |
| PRAD   |      | 49   | chr3:14575599-14576598   | 348825 | TPRXL        | +      | 597291            | 0.46                              | 0.00                              | -1.89                        | -0.77       |
| PRAD   |      | 50   | chr2:220117204-220118270 | 10290  | SPEG         | +      | -181964           | 0.41                              | 0.02                              | -1.48                        | -0.59       |
| PRAD   |      | 51   | chr19:35395300-35396299  | 3249   | HPN          | -      | -135611           | 0.34                              | 0.06                              | 2.66                         | 0.66        |
| PRAD   |      | 52   | chr17:39066581-39067580  | 192666 | KRT24        | -      | 207078            | 0.48                              | 0.05                              | -1.56                        | -0.52       |
| PRAD   |      | 53   | chr17:41607396-41608395  | 379    | ARL4D        | +      | 131542            | 0.35                              | 0.02                              | -1.83                        | -0.69       |
| PRAD   |      | 54   | chr3:49538052-49539051   | 389119 | C3orf54      | +      | -302136           | 0.39                              | -0.10                             | -1.77                        | -0.61       |
| PRAD   |      | 55   | chr1:204049880-204050879 | 55224  | ETNK2        | -      | -70928            | 0.37                              | 0.00                              | -1.34                        | -0.76       |
| PRAD   |      | 56   | chr17:26834615-26835614  | 10615  | SPAG5        | -      | -90942            | 0.45                              | 0.09                              | 1.34                         | 0.52        |
| PRAD   |      | 57   | chr17:26834615-26835614  | 83871  | RAB34        | -      | -210172           | 0.45                              | -0.01                             | -1.25                        | -0.63       |
| PRAD   |      | 58   | chr3:64338094-64339093   | 166336 | PRICKLE2     | -      | 127462            | 0.38                              | 0.00                              | -1.36                        | -0.70       |
| PRAD   |      | 59   | chr2:191044415-191046384 | 84281  | C2orf88      | +      | 42913             | 0.32                              | 0.01                              | -2.45                        | -0.77       |
| PRAD   |      | 60   | chr10:98900317-98901316  | 6585   | SLIT1        | -      | -44867            | 0.33                              | -0.02                             | 3.26                         | 0.58        |
| PRAD   |      | 61   | chr14:22004493-22005492  | 57447  | NDRG2        | -      | 465961            | 0.51                              | 0.00                              | -1.40                        | -0.76       |
| PRAD   |      | 62   | chr16:85185107-85186106  | 404550 | C16orf74     | -      | -599083           | 0.41                              | 0.00                              | -2.08                        | -0.73       |
| PRAD   |      | 63   | chr17:36714574-36715573  | 57636  | ARHGAP23     | +      | 130353            | 0.38                              | 0.11                              | -1.42                        | -0.62       |
| PRAD   |      | 64   | chr12:32655336-32656335  | 636    | BICD1        | +      | 395650            | 0.41                              | 0.00                              | 1.93                         | 0.56        |
| PRAD   |      | 65   | chr2:220117204-220118270 | 1593   | CYP27A1      | +      | 471264            | 0.41                              | -0.19                             | -1.77                        | -0.70       |
| PRAD   |      | 66   | chr1:161931493-161932492 | 654790 | PCP4L1       | +      | 703475            | 0.42                              | 0.00                              | -2.55                        | -0.69       |
| PRAD   |      | 67   | chr1:201228747-201229746 | 1465   | CSRP1        | -      | -247141           | 0.39                              | 0.02                              | -1.52                        | -0.65       |
| PRAD   |      | 68   | chr17:17643844-17644843  | 645027 | EVPLL        | +      | -636736           | 0.41                              | 0.05                              | -2.26                        | -0.80       |
| PRAD   |      | 69   | chr4:122632274-122633273 | 890    | CCNA2        | -      | -112315           | 0.41                              | 0.05                              | 1.44                         | 0.52        |
| PRAD   |      | 70   | chr15:60688448-60689447  | 302    | ANXA2        | -      | -1238             | 0.36                              | 0.00                              | -1.22                        | -0.84       |
| PRAD   |      | 71   | chr6:149082148-149083147 | 10090  | UST          | +      | 14376             | 0.41                              | 0.01                              | -0.91                        | -0.64       |
| PRAD   |      | 72   | chr6:2875994-2876993     | 1992   | SERPINB1     | -      | 34210             | 0.36                              | -0.01                             | -1.28                        | -0.66       |
| PRAD   |      | 73   | chr10:26071983-26072982  | 53904  | MYO3A        | +      | -150520           | -0.39                             | 0.01                              | -1.38                        | 0.60        |
| PRAD   |      | 74   | chr14:22004493-22005492  | 84659  | RNASE7       | +      | 494607            | 0.51                              | 0.04                              | -1.43                        | -0.67       |
| PRAD   |      | 75   | chr2:234933631-234934630 | 55355  | HJURP        | -      | 170918            | 0.35                              | 0.00                              | 2.54                         | 0.55        |
| PRAD   |      | 76   | chr17:40825712-40826711  | 284119 | PTRF         | -      | 250873            | 0.46                              | 0.02                              | -1.19                        | -0.62       |
| PRAD   |      | 77   | chr19:51568023-51569022  | 3816   | KLK1         | -      | 241479            | 0.46                              | -0.11                             | -1.39                        | -0.53       |
| PRAD   |      | 78   | chr4:122632418-122633417 | 890    | CCNA2        | -      | -112171           | 0.41                              | 0.05                              | 1.44                         | 0.50        |

|      |     |                           |                    |   |         |       |       |       |       |
|------|-----|---------------------------|--------------------|---|---------|-------|-------|-------|-------|
| PRAD | 79  | chr2:220117204-220118270  | 7475 WNT6          | + | 393190  | 0.41  | 0.01  | -1.70 | -0.58 |
| PRAD | 80  | chr12:53616882-53617881   | 3852 KRT5          | - | 703138  | 0.40  | 0.03  | -2.64 | -0.70 |
| PRAD | 81  | chr15:92532367-92533366   | 28232 SLC03A1      | + | 135928  | -0.37 | -0.01 | -1.34 | 0.68  |
| PRAD | 82  | chr16:3062097-3063294     | 10942 PRSS21       | + | 195531  | 0.40  | 0.03  | -1.68 | -0.51 |
| PRAD | 83  | chr1:161931493-161932492  | 127943 FCRLB       | + | 240658  | 0.42  | 0.01  | -1.28 | -0.60 |
| PRAD | 84  | chr15:60688122-60689121   | 302 ANXA2          | - | -1564   | 0.35  | 0.00  | -1.22 | -0.71 |
| PRAD | 85  | chr17:26834615-26835614   | 51268 PIPOX        | + | -534804 | 0.45  | 0.07  | -1.66 | -0.61 |
| PRAD | 86  | chr1:209105388-209106387  | 642587 LOC642587   | + | -496281 | -0.37 | -0.12 | -2.48 | 0.69  |
| PRAD | 87  | chr6:2665411-2666410      | 1992 SERPINB1      | - | -176373 | 0.39  | -0.01 | -1.28 | -0.62 |
| PRAD | 88  | chr2:220117204-220118270  | 80326 WNT10A       | + | 372481  | 0.41  | 0.02  | -1.72 | -0.56 |
| PRAD | 89  | chr16:24066674-24067673   | 63928 CHP2         | + | 301225  | -0.34 | 0.04  | -2.77 | 0.70  |
| PRAD | 90  | chr17:39066581-39067580   | 7153 TOP2A         | - | 492878  | 0.48  | -0.02 | 1.95  | 0.51  |
| PRAD | 91  | chr16:6093720-6094719     | 54715 A2BP1        | + | 25087   | -0.33 | -0.02 | -1.87 | 0.62  |
| PRAD | 92  | chr1:9508921-9509920      | 6518 SLC2A5        | - | 360910  | 0.36  | -0.03 | -2.40 | -0.62 |
| PRAD | 93  | chr3:25469208-25470371    | 5915 RARB          | + | 253966  | 0.53  | 0.00  | -0.94 | -0.76 |
| PRAD | 94  | chr17:40825712-40826711   | 27175 TUBG2        | + | 14945   | 0.46  | -0.03 | -0.93 | -0.54 |
| PRAD | 95  | chr8:56851346-56852789    | 5324 PLAG1         | - | -271792 | 0.37  | 0.00  | -1.62 | -0.61 |
| PRAD | 96  | chr17:39066581-39067580   | 3861 KRT14         | - | -676067 | 0.48  | 0.00  | -1.99 | -0.59 |
| PRAD | 97  | chr1:109704670-109705669  | 2946 GSTM2         | + | -493529 | 0.38  | 0.00  | -2.37 | -0.60 |
| PRAD | 98  | chr4:186577402-186578401  | 256309 CCDC110     | - | 184988  | 0.47  | 0.03  | 1.30  | 0.51  |
| PRAD | 99  | chr4:178170288-178171287  | 55247 NEIL3        | + | -60204  | -0.37 | -0.01 | 1.65  | -0.52 |
| PRAD | 100 | chr2:220117099-220118374  | 1674 DES           | + | -165363 | 0.36  | -0.03 | -1.77 | -0.54 |
| PRAD | 101 | chr15:92579600-92580599   | 28232 SLC03A1      | + | 183161  | -0.37 | -0.01 | -1.34 | 0.70  |
| PRAD | 102 | chr17:7554911-7555910     | 6665 SOX15         | - | 61922   | 0.33  | -0.01 | -1.84 | -0.60 |
| PRAD | 103 | chr8:68178229-68179228    | 57094 CPA6         | - | -479892 | -0.38 | 0.00  | -2.24 | 0.59  |
| PRAD | 104 | chr19:39466075-39467256   | 390928 PAPL        | + | -108280 | 0.40  | 0.00  | -1.23 | -0.55 |
| PRAD | 105 | chr16:5590177-5591176     | 54715 A2BP1        | + | -478456 | -0.38 | -0.02 | -1.87 | 0.65  |
| PRAD | 106 | chr17:27917482-27918481   | 51268 PIPOX        | + | 548063  | 0.41  | 0.07  | -1.66 | -0.66 |
| PRAD | 107 | chr2:220324869-220325868  | 7277 TUBA4A        | - | 206038  | 0.37  | 0.02  | -1.35 | -0.65 |
| PRAD | 108 | chr7:121518875-121519874  | 5803 PTPRZ1        | + | 6215    | -0.32 | -0.05 | -1.77 | 0.60  |
| PRAD | 109 | chr1:48936750-48937749    | 54558 SPATA6       | - | -627    | 0.36  | -0.05 | -1.15 | -0.60 |
| PRAD | 110 | chr8:56851346-56852789    | 5179 PENK          | - | -507215 | 0.37  | 0.02  | -2.72 | -0.56 |
| PRAD | 111 | chr11:33037813-33038812   | 91614 DEPDC7       | + | 902     | 0.40  | -0.01 | -1.12 | -0.52 |
| PRAD | 112 | chr2:173079653-173080652  | 1745 DLX1          | + | 129944  | 0.31  | 0.00  | 5.94  | 0.62  |
| PRAD | 113 | chr5:146452521-146453520  | 5521 PPP2R2B       | - | -8063   | -0.35 | 0.01  | -1.44 | 0.57  |
| PRAD | 114 | chr9:124982982-124983981  | 5742 PTGS1         | + | -149328 | 0.33  | 0.00  | -1.79 | -0.66 |
| PRAD | 115 | chr19:39466075-39467256   | 57622 LRFN1        | - | -339311 | 0.40  | 0.04  | 1.30  | 0.65  |
| PRAD | 116 | chr11:96074444-96075443   | 84441 MAML2        | - | -1401   | 0.40  | 0.05  | -0.98 | -0.55 |
| PRAD | 117 | chr3:134082786-134083785  | 2047 EPHB1         | + | -430814 | 0.39  | 0.01  | -2.08 | -0.53 |
| PRAD | 118 | chr4:57371856-57372855    | 10606 PAICS        | + | 70440   | 0.45  | 0.01  | 0.85  | 0.57  |
| PRAD | 119 | chr1:161931493-161932492  | 4359 MPZ           | - | 652230  | 0.42  | 0.00  | -1.89 | -0.58 |
| PRAD | 120 | chr1:150185789-150186788  | 81611 ANP32E       | - | -22216  | 0.39  | 0.03  | -1.07 | -0.54 |
| PRAD | 121 | chr19:35395300-35396299   | 1E+08 LOC100128675 | - | -201409 | 0.34  | 0.00  | 1.94  | 0.60  |
| PRAD | 122 | chr15:35997509-35998508   | 70 ACTC1           | - | 910081  | 0.45  | -0.02 | -3.00 | -0.59 |
| PRAD | 123 | chr12:120241894-120242893 | 26353 HSPB8        | + | 625798  | 0.37  | 0.06  | -2.00 | -0.76 |
| PRAD | 124 | chr17:40825712-40826711   | 379 ARL4D          | + | -650142 | 0.46  | 0.02  | -1.83 | -0.56 |
| PRAD | 125 | chr9:35510433-35511432    | 7169 TPM2          | - | -179121 | 0.37  | 0.01  | -1.59 | -0.53 |
| PRAD | 126 | chr17:39066581-39067580   | 3868 KRT16         | - | -701999 | 0.48  | 0.03  | -2.26 | -0.53 |
| PRAD | 127 | chr17:41607396-41608395   | 8153 RND2          | + | 430637  | 0.35  | 0.06  | -1.95 | -0.77 |
| PRAD | 128 | chr1:169429104-169430197  | 1805 DPT           | - | 731208  | 0.43  | -0.04 | -2.25 | -0.56 |
| PRAD | 129 | chr10:5734071-5735634     | 810 CALML3         | + | 167928  | 0.32  | 0.17  | -2.18 | -0.63 |
| PRAD | 130 | chr10:124066902-124067901 | 2263 FGFR2         | - | 709429  | 0.40  | 0.00  | -1.87 | -0.70 |
| PRAD | 131 | chr1:48936750-48937749    | 79656 BEND5        | - | -305298 | 0.36  | -0.14 | -1.46 | -0.73 |
| PRAD | 132 | chr5:169712679-169713678  | 2299 FOXI1         | + | 180261  | -0.32 | 0.07  | -3.23 | 0.59  |
| PRAD | 133 | chr17:36714574-36715573   | 80725 SRCIN1       | - | -47110  | 0.38  | -0.02 | 0.99  | 0.62  |
| PRAD | 134 | chr17:39066581-39067580   | 3872 KRT17         | - | -713802 | 0.48  | -0.01 | -1.75 | -0.60 |
| PRAD | 135 | chr5:131799930-131800929  | 645121 CCN2        | + | -282708 | 0.34  | 0.00  | -1.81 | -0.70 |
| PRAD | 136 | chr3:13905067-13906066    | 348825 TPRXL       | + | -73241  | -0.31 | 0.00  | -1.89 | 0.76  |
| PRAD | 137 | chr17:74836183-74837182   | 146664 MGAT5B      | + | -28116  | 0.35  | 0.00  | 1.61  | 0.53  |
| PRAD | 138 | chr11:95927450-95928449   | 79780 CCDC82       | - | -195134 | 0.48  | -0.02 | -0.88 | -0.58 |
| PRAD | 139 | chr14:51974348-51975347   | 114088 TRIM9       | - | 412425  | 0.45  | 0.05  | -1.59 | -0.50 |
| PRAD | 140 | chr8:49467796-49469487    | 79645 EFCAB1       | - | -179229 | 0.34  | -0.02 | -1.73 | -0.62 |
| PRAD | 141 | chr1:110672269-110673268  | 2946 GSTM2         | + | 474070  | 0.35  | 0.00  | -2.37 | -0.67 |
| PRAD | 142 | chr17:40825480-40826479   | 27175 TUBG2        | + | 14713   | 0.38  | -0.03 | -0.93 | -0.60 |
| PRAD | 143 | chr2:220117099-220118374  | 10290 SPEG         | + | -181964 | 0.36  | 0.02  | -1.48 | -0.56 |
| PRAD | 144 | chr11:33037813-33038812   | 79056 PRRG4        | + | 186831  | 0.40  | 0.12  | -1.13 | -0.59 |
| PRAD | 145 | chr1:56991872-56992871    | 8613 PPAP2B        | - | -52886  | 0.43  | -0.06 | -0.81 | -0.56 |
| PRAD | 146 | chr14:22004545-22005867   | 29986 SLC39A2      | + | 537791  | 0.36  | 0.12  | -3.52 | -0.58 |
| PRAD | 147 | chr1:17895790-17896789    | 51702 PADI3        | + | 320696  | 0.33  | 0.00  | -3.28 | -0.63 |
| PRAD | 148 | chr12:53616882-53617881   | 3223 HOXC6         | + | -793261 | 0.40  | 0.02  | 3.95  | 0.56  |
| PRAD | 149 | chr2:220117099-220118374  | 1593 CYP27A1       | + | 471264  | 0.36  | -0.19 | -1.77 | -0.70 |
| PRAD | 150 | chr12:6308258-6309524     | 6337 SCNN1A        | - | -177633 | 0.36  | 0.10  | -1.28 | -0.64 |
| PRAD | 151 | chr2:97291020-97292019    | 90342 FER1L5       | + | -17055  | 0.42  | 0.00  | -0.99 | -0.50 |
| PRAD | 152 | chr12:53616882-53617881   | 3222 HOXC5         | + | -793261 | 0.40  | 0.04  | 2.67  | 0.57  |
| PRAD | 153 | chr12:65218892-65219977   | 253827 MSRB3       | + | -452989 | 0.43  | -0.01 | -1.32 | -0.58 |
| PRAD | 154 | chr1:36173505-36174504    | 2709 GJB5          | + | 953356  | 0.43  | 0.00  | -2.58 | -0.64 |
| PRAD | 155 | chr5:67489237-67490236    | 5295 PIK3R1        | + | -21848  | 0.41  | 0.02  | -0.77 | -0.55 |
| PRAD | 156 | chr17:40825480-40826479   | 284119 PTRF        | - | 250641  | 0.38  | 0.02  | -1.19 | -0.64 |
| PRAD | 157 | chr2:173079653-173080652  | 1746 DLX2          | - | 112674  | 0.31  | 0.00  | 4.22  | 0.55  |
| PRAD | 158 | chr1:109704670-109705669  | 2947 GSTM3         | - | -578491 | 0.38  | 0.02  | -1.93 | -0.60 |
| PRAD | 159 | chr10:75407323-75408490   | 818 CAMK2G         | - | -226443 | 0.46  | 0.11  | -0.88 | -0.58 |
| PRAD | 160 | chr1:110672269-110673268  | 2947 GSTM3         | - | 389108  | 0.35  | 0.02  | -1.93 | -0.60 |

|      |     |                           |                  |   |         |       |       |       |       |
|------|-----|---------------------------|------------------|---|---------|-------|-------|-------|-------|
| PRAD | 161 | chr4:122632418-122633417  | 7222 TRPC3       | - | -239992 | 0.41  | -0.02 | -1.26 | -0.51 |
| PRAD | 162 | chr11:123774688-123775687 | 4013 VWA5A       | + | -210924 | -0.35 | 0.02  | -1.35 | 0.78  |
| PRAD | 163 | chr2:74259024-74260023    | 72 ACTG2         | + | 139430  | 0.35  | -0.06 | -1.71 | -0.51 |
| PRAD | 164 | chr4:122632274-122633273  | 7222 TRPC3       | - | -240136 | 0.41  | -0.02 | -1.26 | -0.52 |
| PRAD | 165 | chr8:49669912-49670911    | 79645 EFCA1      | - | 22541   | 0.31  | -0.02 | -1.73 | -0.67 |
| PRAD | 166 | chr7:94249852-94250851    | 8910 SGCE        | - | -35170  | 0.36  | 0.04  | -1.09 | -0.57 |
| PRAD | 167 | chr6:26087540-26088945    | 3077 HFE         | + | 733     | 0.31  | 0.10  | -1.55 | -0.82 |
| PRAD | 168 | chr11:95927450-95928449   | 84441 MAML2      | - | -148395 | 0.48  | 0.05  | -0.98 | -0.50 |
| PRAD | 169 | chr17:74836183-74837182   | 10610 ST6GALNAC2 | - | 254537  | 0.35  | 0.00  | -1.91 | -0.55 |
| PRAD | 170 | chr17:41607396-41608395   | 4355 MPP2        | - | -379173 | 0.35  | 0.03  | -1.61 | -0.73 |
| PRAD | 171 | chr10:95196626-95197625   | 26509 MYOF       | - | -44949  | 0.34  | -0.02 | -1.27 | -0.78 |
| PRAD | 172 | chr17:40825712-40826711   | 79990 PLEKHH3    | - | -2837   | 0.46  | 0.13  | -0.55 | -0.52 |
| PRAD | 173 | chr12:53616882-53617881   | 3221 HOXC4       | + | -793261 | 0.40  | 0.03  | 3.00  | 0.54  |
| PRAD | 174 | chr17:40825480-40826479   | 379 ARL4D        | + | -650374 | 0.38  | 0.02  | -1.83 | -0.65 |
| PRAD | 175 | chr1:201228747-201229746  | 59352 LGR6       | + | -933872 | 0.39  | 0.01  | -3.02 | -0.68 |
| PRAD | 176 | chr17:38478307-38479306   | 25984 KRT23      | - | -615030 | 0.35  | 0.01  | -2.68 | -0.71 |
| PRAD | 177 | chr11:96074444-96075443   | 79780 CCDC82     | - | -48140  | 0.40  | -0.02 | -0.88 | -0.55 |
| PRAD | 178 | chr11:3180946-3181945     | 1028 CDKN1C      | - | 274450  | 0.44  | 0.02  | -1.08 | -0.53 |
| PRAD | 179 | chr16:5590177-5591176     | 146556 C16orf89  | - | 474530  | -0.38 | 0.04  | -1.50 | 0.64  |
| PRAD | 180 | chr1:209105388-209106387  | 3914 LAMB3       | - | -719933 | -0.37 | 0.00  | -2.27 | 0.72  |
| PRAD | 181 | chr1:55008016-55009015    | 26027 ACOT11     | + | 585     | 0.32  | 0.19  | -1.41 | -0.65 |
| PRAD | 182 | chr11:63827846-63829068   | 117245 HRASLS5   | - | 569776  | 0.35  | 0.02  | -2.15 | -0.68 |
| PRAD | 183 | chr6:25312530-25313529    | 3077 HFE         | + | -774480 | 0.44  | 0.10  | -1.55 | -0.66 |
| PRAD | 184 | chr15:78504551-78505550   | 23205 ACSBG1     | - | -21999  | 0.36  | 0.08  | -1.10 | -0.57 |
| PRAD | 185 | chr6:35457916-35458915    | 222663 SCUBE3    | + | 276225  | 0.40  | -0.01 | -1.15 | -0.57 |
| PRAD | 186 | chr9:97662642-97663641    | 84909 C9orf3     | + | 174190  | 0.37  | 0.03  | -1.05 | -0.64 |
| PRAD | 187 | chr7:141211456-141212455  | 55750 AGK        | + | -39123  | 0.48  | 0.06  | 0.32  | 0.56  |
| PRAD | 188 | chr11:118050760-118051759 | 10205 MPZL2      | - | -83992  | 0.36  | 0.00  | -1.01 | -0.68 |
| PRAD | 189 | chr1:150185789-150186788  | 149428 BNIPL     | + | -822741 | 0.39  | -0.09 | -2.23 | -0.60 |
| PRAD | 190 | chr11:57193620-57194619   | 8501 SLC43A1     | - | -89073  | 0.34  | 0.00  | 1.63  | 0.53  |
| PRAD | 191 | chr16:67204181-67205306   | 84752 B3GNT9     | - | 19841   | 0.33  | -0.01 | -1.21 | -0.66 |
| PRAD | 192 | chr16:24066674-24067673   | 5579 PRKCB       | + | 219873  | -0.34 | -0.01 | -1.60 | 0.62  |
| PRAD | 193 | chr10:75407323-75408490   | 5328 PLAUI       | + | -262956 | 0.46  | 0.07  | -1.07 | -0.52 |
| PRAD | 194 | chr12:50377231-50378230   | 10024 TROAP      | + | 660759  | 0.38  | 0.02  | 1.84  | 0.60  |
| PRAD | 195 | chr1:55008016-55009015    | 374977 C1orf175  | + | -98912  | 0.32  | -0.07 | -1.68 | -0.64 |
| PRAD | 196 | chr11:125132835-125133834 | 9638 FEZ1        | - | -232872 | 0.36  | 0.07  | -1.29 | -0.61 |
| PRAD | 197 | chr10:75407323-75408490   | 7414 VCL         | + | -347045 | 0.46  | 0.08  | -1.01 | -0.57 |
| PRAD | 198 | chr5:151065768-151066767  | 26112 CCDC69     | - | 462613  | 0.39  | -0.02 | -1.27 | -0.66 |
| PRAD | 199 | chr5:33854741-33855740    | 23600 AMACR      | - | -152980 | 0.31  | -0.02 | 3.18  | 0.54  |
| PRAD | 200 | chr7:141211127-141212126  | 55750 AGK        | + | -39452  | 0.44  | 0.06  | 0.32  | 0.58  |
| PRAD | 201 | chr17:38478307-38479306   | 51195 RAPGEFL1   | + | 144564  | 0.35  | -0.01 | -1.34 | -0.59 |
| PRAD | 202 | chr10:17604329-17605328   | 9200 PTPLA       | - | -54545  | 0.36  | -0.02 | -1.27 | -0.52 |
| PRAD | 203 | chr17:43248899-43249898   | 113026 PLCD3     | + | 39507   | 0.34  | 0.02  | -1.17 | -0.64 |
| PRAD | 204 | chr17:43220964-43221963   | 9020 MAP3K14     | - | -172951 | 0.49  | 0.00  | -0.76 | -0.53 |
| PRAD | 205 | chr1:156674185-156675184  | 60484 HAPLN2     | + | 85598   | 0.35  | 0.01  | -1.56 | -0.51 |
| PRAD | 206 | chr1:19686757-19687756    | 4681 NBL1        | + | -282467 | 0.40  | 0.00  | -1.07 | -0.57 |
| PRAD | 207 | chr11:3180946-3181945     | 430 ASCL2        | - | 889263  | 0.44  | -0.01 | -1.78 | -0.61 |
| PRAD | 208 | chr2:220117099-220118374  | 7475 WNT6        | + | 393190  | 0.36  | 0.01  | -1.70 | -0.55 |
| PRAD | 209 | chr5:140863776-140864775  | 56126 PCDHB10    | + | 292323  | 0.50  | -0.01 | 1.06  | 0.50  |
| PRAD | 210 | chr17:43220720-43222074   | 9020 MAP3K14     | - | -173018 | 0.44  | 0.00  | -0.76 | -0.56 |
| PRAD | 211 | chr15:89951552-89952634   | 51458 RHCG       | - | -87707  | 0.32  | 0.03  | -2.43 | -0.50 |
| PRAD | 212 | chr1:36173505-36174504    | 127534 GJB4      | + | 948662  | 0.43  | 0.00  | -2.21 | -0.59 |
| PRAD | 213 | chr10:106088202-106089201 | 1308 COL17A1     | - | 243063  | 0.31  | -0.03 | -2.64 | -0.65 |
| PRAD | 214 | chr2:220324869-220325868  | 80326 WNT10A     | + | 580113  | 0.37  | 0.02  | -1.72 | -0.64 |
| PRAD | 215 | chr17:45282540-45283539   | 3690 ITGB3       | + | -48169  | 0.37  | 0.00  | -1.13 | -0.53 |
| PRAD | 216 | chr12:118627443-118628442 | 26353 HSPB8      | + | -988653 | 0.40  | 0.06  | -2.00 | -0.74 |
| PRAD | 217 | chr10:105420001-105421000 | 1308 COL17A1     | - | -425138 | 0.32  | -0.03 | -2.64 | -0.72 |
| PRAD | 218 | chr1:156674185-156675184  | 3645 INSRR       | - | -154028 | 0.35  | -0.01 | -1.38 | -0.56 |
| PRAD | 219 | chr5:33854741-33855740    | 51151 SLC45A2    | - | -129540 | 0.31  | -0.02 | 3.86  | 0.51  |
| PRAD | 220 | chr2:220324869-220325868  | 7475 WNT6        | + | 600822  | 0.37  | 0.01  | -1.70 | -0.65 |
| PRAD | 221 | chr11:47278331-47280085   | 1643 DDB2        | + | 42714   | 0.36  | -0.01 | -0.84 | -0.65 |
| PRAD | 222 | chr2:220324869-220325868  | 1593 CYP27A1     | + | 678896  | 0.37  | -0.19 | -1.77 | -0.71 |
| PRAD | 223 | chr11:4079056-4080055     | 116969 ART5      | - | 416009  | 0.43  | 0.00  | -1.04 | -0.59 |
| PRAD | 224 | chr15:65185806-65186805   | 51285 RASL12     | - | -182723 | 0.34  | 0.01  | -1.56 | -0.56 |
| PRAD | 225 | chr8:23193204-23194203    | 8793 TNFRSF10D   | - | 172160  | 0.39  | -0.01 | -0.95 | -0.57 |
| PRAD | 226 | chr7:75534991-75535990    | 222183 SRRM3     | + | -295726 | 0.49  | -0.02 | -0.95 | -0.52 |
| PRAD | 227 | chr14:22004493-22005492   | 56339 METTL3     | - | 25535   | 0.51  | 0.00  | 0.42  | 0.50  |
| PRAD | 228 | chr7:30803700-30804699    | 79017 GGCT       | - | 259742  | 0.42  | 0.05  | 0.89  | 0.56  |
| PRAD | 229 | chr7:127176405-127177404  | 27044 SLC1       | + | -115298 | 0.42  | 0.03  | 0.58  | 0.56  |
| PRAD | 230 | chr19:15360453-15361452   | 6511 SLC1A6      | - | 239497  | 0.32  | 0.16  | -1.78 | -0.62 |
| PRAD | 231 | chr11:118050760-118051759 | 6330 SCN4B       | - | 27629   | 0.36  | -0.01 | -0.86 | -0.60 |
| PRAD | 232 | chr12:118627443-118628442 | 4842 NOS1        | - | 828335  | 0.40  | -0.03 | -1.73 | -0.64 |
| PRAD | 233 | chr8:38585381-38586380    | 59339 PLEKHA2    | + | -172873 | 0.35  | -0.02 | -1.14 | -0.63 |
| PRAD | 234 | chr1:169396409-169397408  | 57821 C1orf114   | - | -32999  | 0.32  | 0.07  | -1.53 | -0.57 |
| PRAD | 235 | chr9:35510433-35511432    | 4882 NPR2        | + | -281474 | 0.37  | 0.00  | -1.15 | -0.61 |
| PRAD | 236 | chr4:41614091-41615341    | 389206 BEND4     | - | -540180 | 0.35  | -0.04 | 2.24  | 0.55  |
| PRAD | 237 | chr11:63827846-63829068   | 26472 PPP1R14B   | - | -185957 | 0.35  | -0.04 | 1.14  | 0.64  |
| PRAD | 238 | chr2:220117099-220118374  | 80326 WNT10A     | + | 372481  | 0.36  | 0.02  | -1.72 | -0.52 |
| PRAD | 239 | chr10:30387360-30388359   | 6840 SVIL        | - | 361995  | 0.44  | 0.00  | -1.09 | -0.52 |
| PRAD | 240 | chr1:110672269-110673268  | 2949 GSTM5       | + | 417904  | 0.35  | 0.00  | -1.72 | -0.58 |
| PRAD | 241 | chr2:23516381-23517380    | 114818 KLHL29    | + | -91418  | 0.41  | 0.03  | -0.86 | -0.51 |
| PRAD | 242 | chr3:14575599-14576598    | 7476 WNT7A       | - | 654480  | 0.46  | 0.04  | -1.37 | -0.56 |

|      |     |                           |                  |   |         |       |       |       |       |
|------|-----|---------------------------|------------------|---|---------|-------|-------|-------|-------|
| PRAD | 243 | chr1:201228747-201229746  | 25802 LMOD1      | - | -686470 | 0.39  | -0.12 | -1.55 | -0.64 |
| PRAD | 244 | chr12:15037940-15038939   | 79887 PLBD1      | - | 317648  | 0.36  | 0.01  | -1.35 | -0.60 |
| PRAD | 245 | chr9:131057735-131058734  | 27090 ST6GALNAC4 | - | 378929  | -0.35 | 0.13  | -1.44 | 0.70  |
| PRAD | 246 | chr6:53918541-53919540    | 222584 FAM83B    | + | -792529 | 0.40  | -0.08 | -2.17 | -0.55 |
| PRAD | 247 | chr14:22004545-22005867   | 57447 NDRG2      | - | 466174  | 0.36  | 0.00  | -1.40 | -0.75 |
| PRAD | 248 | chr17:39066581-39067580   | 3857 KRT9        | - | -661230 | 0.48  | 0.04  | -1.29 | -0.58 |
| PRAD | 249 | chr16:24066674-24067673   | 10595 ERN2       | - | 342352  | -0.34 | 0.00  | -2.29 | 0.52  |
| PRAD | 250 | chr17:41607396-41608395   | 2118 ETV4        | - | -15905  | 0.35  | 0.01  | -0.94 | -0.60 |
| PRAD | 251 | chr1:162660451-162661450  | 6675 UAP1        | + | 129654  | 0.36  | -0.02 | 1.03  | 0.61  |
| PRAD | 252 | chr12:4360635-4361634     | 894 CCND2        | + | -21768  | -0.33 | 0.01  | -1.27 | 0.60  |
| PRAD | 253 | chr10:73472735-73473734   | 64115 C10orf54   | - | -60103  | 0.35  | 0.01  | -1.01 | -0.63 |
| PRAD | 254 | chr1:109704670-109705669  | 2949 GSTM5       | + | -549695 | 0.38  | 0.00  | -1.72 | -0.54 |
| PRAD | 255 | chr8:49467796-49469487    | 6591 SNAI2       | - | -365358 | 0.34  | 0.02  | -1.58 | -0.64 |
| PRAD | 256 | chr10:73472735-73473734   | 64072 CDH23      | + | 316543  | 0.35  | 0.01  | -1.59 | -0.56 |
| PRAD | 257 | chr7:30803700-30804699    | 2617 GARS        | + | 170018  | 0.42  | 0.00  | 0.49  | 0.59  |
| PRAD | 258 | chr16:3062097-3063294     | 80178 C16orf59   | + | 552580  | 0.40  | 0.02  | 1.26  | 0.63  |
| PRAD | 259 | chr10:106247414-106248413 | 1308 COL17A1     | - | 402275  | 0.35  | -0.03 | -2.64 | -0.50 |
| PRAD | 260 | chr17:38820655-38821654   | 84951 TNS4       | - | 163300  | 0.32  | -0.03 | -2.42 | -0.50 |
| PRAD | 261 | chr10:98900317-98901316   | 112817 DHGPSL    | + | -443286 | 0.33  | 0.00  | -2.03 | -0.59 |
| PRAD | 262 | chr17:40825712-40826711   | 113277 TMEM106A  | + | -537683 | 0.46  | 0.00  | -1.02 | -0.61 |
| PRAD | 263 | chr3:120003047-120004141  | 165829 GPR156    | - | 40268   | 0.35  | 0.00  | -1.16 | -0.52 |
| PRAD | 264 | chr12:120241894-120242893 | 160777 CCDC60    | + | 469876  | 0.37  | -0.02 | -1.60 | -0.53 |
| PRAD | 265 | chr11:47278331-47280085   | 4038 LRP4        | - | 339034  | 0.36  | 0.00  | -1.14 | -0.69 |
| PRAD | 266 | chr5:169712679-169713678  | 1E+08 FAM196B    | - | 305434  | -0.32 | 0.00  | -1.88 | 0.60  |
| PRAD | 267 | chr8:49669912-49670911    | 6591 SNAI2       | - | -163588 | 0.31  | 0.02  | -1.58 | -0.76 |
| PRAD | 268 | chr1:36173505-36174504    | 2707 GJB3        | + | 927214  | 0.43  | -0.01 | -1.83 | -0.57 |
| PRAD | 269 | chr1:169429104-169430197  | 481 ATP1B1       | + | 353703  | 0.43  | -0.01 | -1.12 | -0.50 |
| PRAD | 270 | chr1:19686757-19687756    | 127733 TMEM1010  | + | -825322 | 0.40  | -0.03 | -1.70 | -0.63 |
| PRAD | 271 | chr12:50444022-50445222   | 362 AQP5         | + | 89342   | 0.30  | 0.00  | -2.45 | -0.53 |
| PRAD | 272 | chr14:22004545-22005867   | 84659 RNASE7     | + | 494820  | 0.36  | 0.04  | -1.43 | -0.68 |
| PRAD | 273 | chr12:50377231-50378230   | 23416 KCNH3      | + | 444790  | 0.38  | -0.06 | -1.27 | -0.57 |
| PRAD | 274 | chr3:37211584-37212583    | 50853 VILL       | + | -817447 | 0.44  | 0.04  | -1.40 | -0.61 |
| PRAD | 275 | chr17:39066581-39067580   | 51195 RAPGEFL1   | + | 732838  | 0.48  | -0.01 | -1.34 | -0.56 |
| PRAD | 276 | chr2:66664928-66665927    | 4211 MEIS1       | + | 2895    | 0.33  | 0.01  | -1.27 | -0.55 |
| PRAD | 277 | chr19:35395300-35396299   | 93099 DMKN       | - | -608761 | 0.34  | 0.07  | -2.13 | -0.72 |
| PRAD | 278 | chr15:35997509-35998508   | 84529 C15orf41   | + | -873804 | 0.45  | 0.08  | -1.33 | -0.72 |
| PRAD | 279 | chr8:56851753-56852752    | 5324 PLAG1       | - | -271607 | 0.33  | 0.00  | -1.62 | -0.59 |
| PRAD | 280 | chr11:3180946-3181945     | 116969 ART5      | - | -482101 | 0.44  | 0.00  | -1.04 | -0.57 |
| PRAD | 281 | chr2:43559868-43560867    | 23498 HAAO       | - | 540616  | 0.36  | -0.02 | -1.62 | -0.58 |
| PRAD | 282 | chr5:151065768-151066767  | 2878 GPX3        | + | 666268  | 0.39  | 0.00  | -1.41 | -0.61 |
| PRAD | 283 | chr4:177455100-177456099  | 2823 GPM6A       | - | 531757  | -0.36 | 0.04  | -1.79 | 0.54  |
| PRAD | 284 | chr7:31979900-31980899    | 223075 CCDC129   | + | 426714  | -0.40 | -0.01 | -1.29 | 0.52  |
| PRAD | 285 | chr19:15360453-15361452   | 126410 CYP4F22   | + | -258384 | 0.32  | 0.12  | -2.42 | -0.51 |
| PRAD | 286 | chr12:31506455-31507454   | 636 BICD1        | + | -753231 | 0.40  | 0.00  | 1.93  | 0.51  |
| PRAD | 287 | chr19:15360453-15361452   | 79852 EPHX3      | - | 17094   | 0.32  | 0.00  | -1.18 | -0.61 |
| PRAD | 288 | chr16:58955801-58956800   | 65009 NDRG4      | + | 458751  | -0.33 | -0.01 | -2.20 | 0.56  |
| PRAD | 289 | chr19:35395300-35396299   | 90075 ZNF30      | + | -22008  | 0.34  | -0.02 | 1.00  | 0.61  |
| PRAD | 290 | chr3:4813959-4814958      | 1E+08 EGOT       | - | 21184   | 0.32  | -0.14 | -1.25 | -0.56 |
| PRAD | 291 | chr16:24174350-24175349   | 63928 CHP2       | + | 408901  | -0.30 | 0.04  | -2.77 | 0.73  |
| PRAD | 292 | chr4:186577402-186578401  | 7098 TLR3        | + | -412408 | 0.47  | 0.00  | -1.00 | -0.51 |
| PRAD | 293 | chr12:54745567-54746566   | 3223 HOXC6       | + | 355424  | 0.31  | 0.02  | 3.95  | 0.56  |
| PRAD | 294 | chr7:75534991-75535990    | 4191 MDH2        | + | -141903 | 0.49  | 0.02  | 0.38  | 0.52  |
| PRAD | 295 | chr16:5485768-5486767     | 54715 A2BP1      | + | -582865 | -0.35 | -0.02 | -1.87 | 0.63  |
| PRAD | 296 | chr11:118491963-118492962 | 10205 MPZL2      | - | 357211  | 0.37  | 0.00  | -1.01 | -0.66 |
| PRAD | 297 | chr1:204049880-204050879  | 493 ATP2B4       | + | 454464  | 0.37  | 0.04  | -1.17 | -0.64 |
| PRAD | 298 | chr11:88059027-88060372   | 23682 RAB38      | - | 151064  | -0.31 | 0.04  | -1.50 | 0.63  |
| PRAD | 299 | chr16:24066674-24067673   | 5347 PLK1        | + | 376972  | -0.34 | 0.02  | 1.76  | -0.56 |
| PRAD | 300 | chr14:22004493-22005492   | 55701 FLJ10357   | + | 466465  | 0.51  | -0.04 | -1.00 | -0.52 |
| PRAD | 301 | chr5:78407178-78408846    | 23743 BHMT2      | + | 42464   | 0.31  | -0.01 | -1.41 | -0.63 |
| PRAD | 302 | chr11:71050035-71051034   | 2348 FOLR1       | + | -850068 | 0.35  | -0.06 | -2.53 | -0.69 |
| PRAD | 303 | chr5:151065768-151066767  | 134466 LOC134466 | - | 740121  | 0.39  | -0.01 | -1.44 | -0.63 |
| PRAD | 304 | chr4:1646516-1647515      | 152877 FAM53A    | - | -38973  | 0.39  | 0.07  | 0.71  | 0.60  |
| PRAD | 305 | chr6:138805820-138806819  | 64065 PERP       | - | 377659  | 0.44  | 0.01  | -0.63 | -0.61 |
| PRAD | 306 | chr4:155630110-155631109  | 9227 LRAT        | + | -34543  | -0.34 | -0.05 | -1.06 | 0.58  |
| PRAD | 307 | chr8:56851753-56852752    | 5179 PENK        | - | -507030 | 0.33  | 0.02  | -2.72 | -0.55 |
| PRAD | 308 | chr17:41607396-41608395   | 113277 TMEM106A  | + | 244001  | 0.35  | 0.00  | -1.02 | -0.72 |
| PRAD | 309 | chr12:50377231-50378230   | 57701 NCKAP5L    | - | 155522  | 0.38  | 0.00  | -0.71 | -0.57 |
| PRAD | 310 | chr1:161931493-161932492  | 6675 UAP1        | + | -599304 | 0.42  | -0.02 | 1.03  | 0.65  |
| PRAD | 311 | chr7:100769976-100770975  | 7205 TRIP6       | + | 305525  | 0.34  | 0.00  | -1.43 | -0.57 |
| PRAD | 312 | chr9:88650976-88651975    | 51280 GOLM1      | - | -246015 | -0.31 | 0.00  | 1.97  | -0.58 |
| PRAD | 313 | chr1:22560199-22561198    | 5909 RAP1GAP     | - | 564842  | 0.36  | -0.05 | 1.69  | 0.56  |
| PRAD | 314 | chr1:201228747-201229746  | 23612 PHLDA3     | - | -209053 | 0.39  | 0.00  | -1.00 | -0.51 |
| PRAD | 315 | chr12:129034848-129035847 | 92293 TMEM132C   | + | 283399  | -0.32 | 0.00  | -2.03 | 0.55  |
| PRAD | 316 | chr9:131057735-131058734  | 138429 PIP5KL1   | - | 365158  | -0.35 | 0.00  | -1.35 | 0.62  |
| PRAD | 317 | chr1:3514421-3515693      | 7161 TP73        | + | -54073  | 0.34  | 0.03  | -1.21 | -0.52 |
| PRAD | 318 | chr8:145022342-145023512  | 286077 FAM83H    | - | 207012  | 0.38  | 0.00  | 0.86  | 0.56  |
| PRAD | 319 | chr2:25149477-25150476    | 109 ADCY3        | - | 7921    | 0.36  | -0.01 | -0.57 | -0.56 |
| PRAD | 320 | chr16:5485768-5486767     | 146556 C16orf89  | - | 370121  | -0.35 | 0.04  | -1.50 | 0.56  |
| PRAD | 321 | chr17:80296825-80297824   | 5831 PYCR1       | - | 402152  | 0.36  | -0.02 | 1.54  | 0.52  |
| PRAD | 322 | chr10:115425399-115426398 | 56165 TDRD1      | + | -513131 | 0.32  | 0.00  | 5.36  | 0.61  |
| PRAD | 323 | chr19:17245856-17246855   | 684 BST2         | - | -270029 | 0.40  | 0.00  | -0.93 | -0.50 |
| PRAD | 324 | chr2:56700951-56701950    | 114800 CCDC85A   | + | 522196  | -0.35 | 0.05  | -1.53 | 0.65  |

|      |     |                           |        |           |   |         |       |       |       |       |
|------|-----|---------------------------|--------|-----------|---|---------|-------|-------|-------|-------|
| PRAD | 325 | chr15:78504551-78505550   | 646892 | SH2D7     | + | 120123  | 0.36  | -0.05 | -0.71 | -0.62 |
| PRAD | 326 | chr10:124066902-124067901 | 59338  | PLEKHA1   | + | -66693  | 0.40  | 0.11  | -0.50 | -0.51 |
| PRAD | 327 | chr17:40825712-40826711   | 6776   | STAT5A    | + | 386646  | 0.46  | 0.02  | -0.65 | -0.55 |
| PRAD | 328 | chr21:46852913-46853912   | 6573   | SLC19A1   | - | -110913 | -0.31 | 0.16  | 1.42  | -0.58 |
| PRAD | 329 | chr1:33547126-33548212    | 65108  | MARCKSL1  | - | 745828  | 0.37  | 0.05  | 1.49  | 0.71  |
| PRAD | 330 | chr3:25469073-25470490    | 5915   | RARB      | + | 253958  | 0.35  | 0.00  | -0.94 | -0.70 |
| PRAD | 331 | chr15:67021587-67022586   | 4088   | SMAD3     | + | -336109 | 0.39  | 0.00  | -0.54 | -0.67 |
| PRAD | 332 | chr7:30803700-30804699    | 223075 | CCDC129   | + | -749486 | 0.42  | -0.01 | -1.29 | -0.58 |
| PRAD | 333 | chr9:35510433-35511432    | 25822  | DNAJB5    | + | 521294  | 0.37  | 0.01  | -1.32 | -0.57 |
| PRAD | 334 | chr13:100522621-100523620 | 84899  | TMTC4     | - | -803983 | -0.41 | 0.00  | 1.30  | -0.64 |
| PRAD | 335 | chr4:2802112-2803111      | 118    | ADD1      | + | -42973  | 0.40  | 0.02  | -0.35 | -0.52 |
| PRAD | 336 | chr17:38820655-38821654   | 7153   | TOP2A     | - | 246952  | 0.32  | -0.02 | 1.95  | 0.51  |
| PRAD | 337 | chr17:40825480-40826479   | 23415  | KCNH4     | - | 492683  | 0.38  | 0.00  | -1.23 | -0.55 |
| PRAD | 338 | chr4:57371911-57373096    | 10606  | PAICS     | + | 70588   | 0.34  | 0.01  | 0.85  | 0.62  |
| PRAD | 339 | chr12:53616882-53617881   | 3855   | KRT7      | + | 990427  | 0.40  | 0.05  | -1.87 | -0.54 |
| PRAD | 340 | chr17:40825480-40826479   | 113277 | TMEM106A  | + | -537915 | 0.38  | 0.00  | -1.02 | -0.74 |
| PRAD | 341 | chr12:54745567-54746566   | 3221   | HOXC4     | + | 335424  | 0.31  | 0.03  | 3.00  | 0.53  |
| PRAD | 342 | chr9:131057735-131058734  | 10999  | SLC27A4   | + | -44605  | -0.35 | 0.00  | 0.73  | -0.63 |
| PRAD | 343 | chr2:43445434-43446433    | 23498  | HAAO      | - | 426182  | 0.33  | -0.02 | -1.62 | -0.62 |
| PRAD | 344 | chr16:3062097-3063294     | 57524  | CASKIN1   | - | 816230  | 0.40  | 0.05  | 1.68  | 0.53  |
| PRAD | 345 | chr16:24197363-24198362   | 63928  | CHP2      | + | 431914  | -0.30 | 0.04  | -2.77 | 0.62  |
| PRAD | 346 | chr8:42356137-42357370    | 6575   | SLC20A2   | - | -40603  | 0.38  | 0.00  | -0.52 | -0.51 |
| PRAD | 347 | chr2:234933631-234934630  | 151507 | MSL3L2    | - | 157075  | 0.35  | 0.00  | 1.18  | 0.51  |
| PRAD | 348 | chr11:125132835-125133834 | 23584  | VSIG2     | - | 511225  | 0.36  | -0.03 | -1.47 | -0.54 |
| PRAD | 349 | chr19:39466075-39467256   | 6261   | RYR1      | + | 542325  | 0.40  | 0.03  | -1.15 | -0.55 |
| PRAD | 350 | chr5:121317184-121318183  | 9627   | SNCAIP    | + | -329703 | -0.38 | 0.00  | -0.81 | 0.62  |
| PRAD | 351 | chr10:121093927-121094926 | 6001   | RGS10     | - | -207796 | 0.37  | -0.01 | 1.07  | 0.50  |
| PRAD | 352 | chr12:54745567-54746566   | 3222   | HOXC5     | + | 335424  | 0.31  | 0.04  | 2.67  | 0.52  |
| PRAD | 353 | chr6:26087276-26088701    | 493812 | HCG11     | + | -433946 | 0.37  | -0.01 | -1.07 | -0.62 |
| PRAD | 354 | chr5:131799930-131800929  | 8572   | PDLIM4    | + | 207078  | 0.34  | -0.01 | -1.17 | -0.56 |
| PRAD | 355 | chr3:25469208-25470371    | 54995  | OXSM      | + | -361774 | 0.53  | 0.02  | 0.41  | 0.55  |
| PRAD | 356 | chr3:35799281-35800280    | 6769   | STAC      | + | -622317 | -0.34 | -0.03 | -2.14 | 0.54  |
| PRAD | 357 | chr8:80992250-80993249    | 7163   | TPD52     | - | -91087  | -0.33 | 0.04  | 0.87  | -0.70 |
| PRAD | 358 | chr3:13905067-13906066    | 7476   | WNT7A     | - | -16052  | -0.31 | 0.04  | -1.37 | 0.52  |
| PRAD | 359 | chr3:170745529-170746528  | 57709  | SLC7A14   | - | 442165  | 0.34  | 0.00  | -1.34 | -0.64 |
| PRAD | 360 | chr5:131799930-131800929  | 134548 | ANKRD43   | + | -348604 | 0.34  | 0.00  | -1.43 | -0.55 |
| PRAD | 361 | chr4:3389832-3390831      | 6002   | RGS12     | + | 95576   | 0.37  | 0.00  | -0.61 | -0.53 |
| PRAD | 362 | chr4:155630110-155631109  | 54798  | DCHS2     | - | 217679  | -0.34 | 0.00  | -1.35 | 0.52  |
| PRAD | 363 | chr9:137267574-137268573  | 7410   | VAV2      | - | 410627  | 0.37  | 0.00  | 0.87  | 0.66  |
| PRAD | 364 | chr17:27917482-27918481   | 83871  | RAB34     | - | 872695  | 0.41  | -0.01 | -1.25 | -0.67 |
| PRAD | 365 | chr3:170745529-170746528  | 200916 | RPL22L1   | - | 157983  | 0.34  | 0.06  | 1.06  | 0.56  |
| PRAD | 366 | chr4:1646516-1647515      | 3954   | LETM1     | - | -210959 | 0.39  | -0.09 | 0.68  | 0.53  |
| PRAD | 367 | chr1:156130326-156131325  | 1382   | CRABP2    | - | -544783 | 0.32  | 0.06  | -2.29 | -0.61 |
| PRAD | 368 | chr16:24747839-24748838   | 63928  | CHP2      | + | 982390  | 0.35  | 0.04  | -2.77 | -0.68 |
| PRAD | 369 | chr2:25149477-25150476    | 391356 | C2orf79   | - | 133725  | 0.36  | 0.02  | 0.75  | 0.55  |
| PRAD | 370 | chr11:92753525-92754524   | 120114 | FAT3      | + | 668762  | 0.37  | -0.04 | -1.64 | -0.52 |
| PRAD | 371 | chr20:45087490-45088489   | 958    | CD40      | + | 341083  | 0.32  | -0.07 | -1.39 | -0.61 |
| PRAD | 372 | chr1:9508921-9509920      | 84275  | SLC25A33  | + | -90108  | 0.36  | -0.01 | 0.74  | 0.55  |
| PRAD | 373 | chr6:4941983-4942982      | 10799  | RPP40     | - | -61789  | 0.36  | -0.01 | 0.75  | 0.53  |
| PRAD | 374 | chr8:120650494-120651897  | 114569 | MAL2      | + | 430585  | 0.49  | 0.00  | 0.70  | 0.51  |
| PRAD | 375 | chr3:14575599-14576598    | 79188  | TMEM43    | + | 409658  | 0.46  | 0.05  | -0.44 | -0.56 |
| PRAD | 376 | chr13:81017823-81018822   | 10253  | SPRY2     | - | 103236  | -0.37 | 0.01  | -0.77 | 0.52  |
| PRAD | 377 | chr5:112073070-112074112  | 4163   | MCC       | - | -750937 | 0.39  | -0.01 | -1.30 | -0.59 |
| PRAD | 378 | chr16:24394420-24395419   | 63928  | CHP2      | + | 628971  | -0.31 | 0.04  | -2.77 | 0.64  |
| PRAD | 379 | chr11:63827846-63829068   | 5837   | PYGM      | - | -699731 | 0.35  | -0.01 | -1.60 | -0.61 |
| PRAD | 380 | chr17:37752105-37753104   | 342667 | STAC2     | - | 370564  | 0.32  | 0.00  | -2.13 | -0.52 |
| PRAD | 381 | chr10:73472735-73473734   | 9469   | CHST3     | + | -250886 | 0.35  | 0.00  | -0.97 | -0.60 |
| PRAD | 382 | chr12:100749973-100751398 | 160728 | SLC5A8    | - | -853331 | 0.37  | 0.00  | -1.88 | -0.55 |
| PRAD | 383 | chr2:113541591-113542616  | 3557   | IL1RN     | + | -134834 | 0.36  | 0.01  | -1.25 | -0.50 |
| PRAD | 384 | chr15:70669048-70670047   | 145837 | LOC145837 | + | 914101  | 0.38  | 0.00  | 2.44  | 0.50  |
| PRAD | 385 | chr1:43250191-43251752    | 991    | CDC20     | + | -573655 | 0.35  | 0.02  | 1.77  | 0.51  |
| PRAD | 386 | chr19:39466075-39467256   | 3191   | HCNRNPL   | - | 123686  | 0.40  | 0.00  | 0.24  | 0.52  |
| PRAD | 387 | chr4:17029788-17030787    | 64151  | NCAPG     | + | -782149 | -0.35 | 0.05  | 1.99  | -0.58 |
| PRAD | 388 | chr8:30289989-30290988    | 11030  | RBPMS     | + | 48544   | 0.31  | 0.08  | -1.23 | -0.57 |
| PRAD | 389 | chr4:1646516-1647515      | 53834  | FGFRL1    | + | 642075  | 0.39  | 0.00  | 1.29  | 0.53  |
| PRAD | 390 | chr8:22454388-22455972    | 9796   | PHYHIP    | - | 365328  | 0.31  | 0.08  | -1.55 | -0.65 |
| PRAD | 391 | chr7:2869941-2870940      | 221935 | SDK1      | + | -470640 | -0.33 | 0.03  | 2.07  | -0.51 |
| PRAD | 392 | chr11:118491963-118492962 | 11181  | TREH      | - | -57919  | 0.37  | -0.04 | -0.58 | -0.51 |
| PRAD | 393 | chr16:24174350-24175349   | 5579   | PRKCB     | + | 327549  | -0.30 | -0.01 | -1.60 | 0.69  |
| PRAD | 394 | chr2:43559868-43560867    | 165140 | OXER1     | - | 568966  | 0.36  | 0.08  | -1.37 | -0.55 |
| PRAD | 395 | chr11:17716780-17717779   | 113174 | SAAL1     | - | -410359 | 0.42  | 0.07  | 0.52  | 0.57  |
| PRAD | 396 | chr1:110672269-110673268  | 9122   | SLC16A4   | - | -260936 | 0.35  | 0.00  | -1.02 | -0.56 |
| PRAD | 397 | chr22:43040221-43041645   | 53947  | A4GALT    | - | -76354  | 0.35  | 0.02  | -0.83 | -0.53 |
| PRAD | 398 | chr1:234857159-234858158  | 6894   | TARBP1    | - | 242809  | 0.39  | -0.02 | 0.72  | 0.50  |
| PRAD | 399 | chr4:17029788-17030787    | 8842   | PROM1     | - | 944664  | -0.35 | 0.01  | -2.15 | 0.65  |
| PRAD | 400 | chr12:54745567-54746566   | 5502   | PPP1R1A   | - | -236377 | 0.31  | 0.02  | -1.88 | -0.51 |
| PRAD | 401 | chr9:35510433-35511432    | 1271   | CNTFR     | - | 920794  | 0.37  | 0.13  | -2.15 | -0.52 |
| PRAD | 402 | chr19:18415038-18416500   | 51477  | ISYNA1    | - | -133343 | 0.31  | 0.04  | -1.33 | -0.56 |
| PRAD | 403 | chr14:38974751-38975750   | 3169   | FOXA1     | - | 910925  | 0.41  | 0.06  | 1.49  | 0.53  |
| PRAD | 404 | chr7:94249852-94250851    | 55607  | PPP1R9A   | + | -286598 | 0.36  | 0.00  | 1.05  | 0.51  |
| PRAD | 405 | chr12:52257663-52258763   | 3852   | KRT5      | - | -656031 | 0.33  | 0.03  | -2.64 | -0.52 |
| PRAD | 406 | chr17:55887954-55889047   | 59342  | SCPEP1    | + | 833032  | 0.41  | 0.00  | -1.00 | -0.72 |

|      |     |                           |                |   |         |       |       |       |       |
|------|-----|---------------------------|----------------|---|---------|-------|-------|-------|-------|
| PRAD | 407 | chr19:15360453-15361452   | 4051 CYP4F3    | + | -390755 | 0.32  | 0.00  | -1.80 | -0.52 |
| PRAD | 408 | chr1:63539229-63540228    | 163782 KANK4   | - | 754645  | 0.38  | -0.01 | -1.52 | -0.52 |
| PRAD | 409 | chr11:125132835-125133834 | 64221 ROBO3    | + | 398029  | 0.36  | 0.02  | -1.04 | -0.56 |
| PRAD | 410 | chr10:26071983-26072982   | 56952 PRTFDC1  | - | 830949  | -0.39 | 0.29  | -1.20 | 0.67  |
| PRAD | 411 | chr10:104629369-104630368 | 79946 C10orf95 | - | 418568  | 0.35  | 0.06  | 1.10  | 0.57  |
| PRAD | 412 | chr15:88843399-88844398   | 4916 NTRK3     | - | 43936   | -0.31 | 0.05  | -1.37 | 0.52  |
| PRAD | 413 | chr11:47614833-47615832   | 1643 DDB2      | + | 378839  | 0.38  | -0.01 | -0.84 | -0.54 |
| PRAD | 414 | chr4:177455100-177456099  | 55247 NEIL3    | + | -775392 | -0.36 | -0.01 | 1.65  | -0.56 |
| PRAD | 415 | chr1:204319679-204320678  | 55224 ETNK2    | - | 198871  | 0.30  | 0.00  | -1.34 | -0.74 |
| PRAD | 416 | chr4:1646516-1647515      | 7468 WHSC1     | + | -226108 | 0.39  | 0.07  | 0.44  | 0.53  |
| PRAD | 417 | chr16:24174350-24175349   | 10595 ERN2     | - | 450028  | -0.30 | 0.00  | -2.29 | 0.58  |
| PRAD | 418 | chr16:85185107-85186106   | 161931 ADAD2   | + | 960883  | 0.41  | 0.02  | -1.21 | -0.66 |
| PRAD | 419 | chr3:120003047-120004141  | 64091 POPDC2   | - | 607350  | 0.35  | 0.23  | -1.48 | -0.55 |
| PRAD | 420 | chr11:47614833-47615832   | 4038 LRP4      | - | 675159  | 0.38  | 0.00  | -1.14 | -0.58 |
| PRAD | 421 | chr17:40825480-40826479   | 6776 STAT5A    | + | 386414  | 0.38  | 0.02  | -0.65 | -0.58 |
| PRAD | 422 | chr17:27917482-27918481   | 116238 TLCD1   | - | 864032  | 0.41  | 0.03  | 1.22  | 0.58  |
| PRAD | 423 | chr11:27249666-27250665   | 143662 MUC15   | - | 656350  | 0.34  | 0.00  | -2.04 | -0.50 |
| PRAD | 424 | chr10:26762587-26763586   | 53904 MYO3A    | + | 540084  | -0.34 | 0.01  | -1.38 | 0.59  |
| PRAD | 425 | chr1:156115707-156116706  | 1382 CRABP2    | - | -559402 | 0.32  | 0.06  | -2.29 | -0.52 |
| PRAD | 426 | chr4:16861580-16862579    | 8842 PROM1     | - | 776456  | -0.33 | 0.01  | -2.15 | 0.64  |
| PRAD | 427 | chr10:79150017-79151016   | 3778 KCNMA1    | - | -247061 | 0.34  | 0.05  | -1.13 | -0.55 |
| PRAD | 428 | chr1:8181055-8182146      | 6518 SLC2A5    | - | -966910 | 0.34  | -0.03 | -2.40 | -0.66 |
| PRAD | 429 | chr11:103930344-103931343 | 80310 PDGFD    | - | -104184 | -0.30 | -0.05 | -1.30 | 0.58  |
| PRAD | 430 | chr17:39066581-39067580   | 9001 HAP1      | - | -823818 | 0.48  | 0.00  | -0.97 | -0.59 |
| PRAD | 431 | chr7:30509963-30510962    | 11185 INMT     | + | -227139 | 0.33  | 0.02  | -1.29 | -0.52 |
| PRAD | 432 | chr3:49538052-49539051    | 7318 UBA7      | - | -312840 | 0.39  | 0.02  | -0.70 | -0.52 |
| PRAD | 433 | chr7:44144833-44145832    | 5425 POLD2     | - | -17837  | 0.33  | -0.03 | 0.61  | 0.59  |
| PRAD | 434 | chr11:118491963-118492962 | 6330 SCN4B     | - | 468832  | 0.37  | -0.01 | -0.86 | -0.60 |
| PRAD | 435 | chr2:25037889-25038888    | 391356 C2orf79 | - | 22137   | -0.33 | 0.02  | 0.75  | -0.55 |
| PRAD | 436 | chr5:146452521-146453520  | 1809 DPYSL3    | - | -436599 | -0.35 | 0.02  | -1.06 | 0.63  |
| PRAD | 437 | chr7:30803700-30804699    | 9805 SCRNI     | - | 774294  | 0.42  | 0.00  | -0.83 | -0.66 |
| PRAD | 438 | chr4:16760329-16761328    | 8842 PROM1     | - | 675205  | -0.32 | 0.01  | -2.15 | 0.61  |
| PRAD | 439 | chr7:130696371-130697370  | 317751 MESTIT1 | - | 565857  | 0.39  | 0.03  | -1.22 | -0.50 |
| PRAD | 440 | chr8:86349890-86351091    | 1875 E2F5      | + | 260871  | 0.33  | 0.00  | 1.08  | 0.60  |
| PRAD | 441 | chr10:98900317-98901316   | 60370 AVPI1    | - | -546199 | 0.33  | 0.05  | -1.38 | -0.62 |
| PRAD | 442 | chr15:52018262-52019261   | 342035 GLDN    | + | 385048  | 0.32  | 0.10  | -1.83 | -0.50 |
| PRAD | 443 | chr8:145022342-145023512  | 286122 C8orf31 | + | 902247  | 0.38  | -0.01 | -1.46 | -0.58 |
| PRAD | 444 | chr4:95086936-95087935    | 10611 PDLIM5   | + | -285573 | -0.31 | -0.01 | 1.96  | -0.50 |
| PRAD | 445 | chr2:109947149-109948148  | 10913 EDAR     | - | 341820  | 0.31  | 0.00  | -1.95 | -0.52 |
| PRAD | 446 | chr2:191915769-191916768  | 84281 C2orf88  | + | 913782  | -0.33 | 0.01  | -2.45 | 0.63  |
| PRAD | 447 | chr8:23193204-23194203    | 23221 RHOBTB2  | + | 348773  | 0.39  | 0.06  | -0.73 | -0.52 |
| PRAD | 448 | chr4:2802112-2803111      | 6002 RGS12     | + | -492144 | 0.40  | 0.00  | -0.61 | -0.58 |
| PRAD | 449 | chr11:57193620-57194619   | 29015 SLC43A3  | - | -934    | 0.34  | 0.00  | -0.43 | -0.56 |
| PRAD | 450 | chr11:101323078-101324077 | 7225 TRPC6     | - | -131082 | -0.30 | 0.04  | -1.50 | 0.52  |
| PRAD | 451 | chr19:35395300-35396299   | 11045 UPK1A    | + | -761916 | 0.34  | 0.02  | -2.22 | -0.54 |
| PRAD | 452 | chr15:36707907-36708906   | 84529 C15orf41 | + | -163406 | -0.30 | 0.08  | -1.33 | 0.61  |
| PRAD | 453 | chr4:155104500-155105499  | 54798 DCHS2    | - | -307931 | -0.32 | 0.00  | -1.35 | 0.55  |
| PRAD | 454 | chr1:228966624-228967623  | 92815 HIST3H2A | - | 321563  | 0.31  | 0.02  | 1.77  | 0.53  |
| PRAD | 455 | chr19:14672553-14673552   | 6511 SLC1A6    | - | -448403 | 0.32  | 0.16  | -1.78 | -0.54 |
| PRAD | 456 | chr16:24197363-24198362   | 5579 PRKCB     | + | 350562  | -0.30 | -0.01 | -1.60 | 0.60  |
| PRAD | 457 | chr19:14672553-14673552   | 26659 OR7A5    | - | -266224 | 0.32  | 0.04  | -1.23 | -0.60 |
| PRAD | 458 | chr2:43445434-43446433    | 165140 OXER1   | - | 454532  | 0.33  | 0.08  | -1.37 | -0.58 |
| PRAD | 459 | chr14:50527372-50528371   | 8814 CDKL1     | - | -355308 | 0.36  | 0.02  | -1.07 | -0.51 |
| PRAD | 460 | chr12:6308258-6309524     | 10536 LEPREL2  | + | -628682 | 0.36  | 0.00  | -1.20 | -0.58 |
| PRAD | 461 | chr19:14672553-14673552   | 26664 OR7C1    | - | -237896 | 0.32  | -0.01 | -1.29 | -0.55 |
| PRAD | 462 | chr12:53107410-53108409   | 5916 RARG      | - | -518131 | 0.38  | 0.01  | -1.09 | -0.51 |
| PRAD | 463 | chr12:6308258-6309524     | 4908 NTF3      | + | 767610  | 0.36  | -0.01 | -1.34 | -0.59 |
| PRAD | 464 | chr8:68178229-68179228    | 157777 C8orf45 | + | 395744  | -0.38 | 0.00  | 0.86  | -0.52 |
| PRAD | 465 | chr19:15360453-15361452   | 66002 CYP4F12  | + | -422876 | 0.32  | 0.08  | -1.69 | -0.51 |
| PRAD | 466 | chr10:75407323-75408490   | 51021 MRPS16   | - | 395455  | 0.46  | 0.00  | 0.24  | 0.51  |
| PRAD | 467 | chr4:23549492-23550491    | 10891 PPARGC1A | - | -924403 | -0.33 | 0.01  | -1.99 | 0.74  |
| PRAD | 468 | chr16:85185107-85186106   | 58189 WFDC1    | + | 857205  | 0.41  | -0.01 | -1.35 | -0.50 |
| PRAD | 469 | chr7:29023878-29024877    | 221895 JAZF1   | - | 803940  | 0.37  | -0.05 | -1.26 | -0.60 |
| PRAD | 470 | chr19:15360453-15361452   | 26664 OR7C1    | - | 450004  | 0.32  | -0.01 | -1.29 | -0.65 |
| PRAD | 471 | chr14:77480347-77481346   | 145501 ISM2    | - | -484364 | 0.37  | 0.00  | -0.85 | -0.58 |
| PRAD | 472 | chr2:25037889-25038888    | 109 ADCY3      | - | -103667 | -0.33 | -0.01 | -0.57 | 0.61  |
| PRAD | 473 | chr1:169396409-169397408  | 1805 DPT       | - | 698466  | 0.32  | -0.04 | -2.25 | -0.57 |
| PRAD | 474 | chr15:92532367-92533366   | 9899 SV2B      | + | 889684  | -0.37 | 0.04  | -1.63 | 0.52  |
| PRAD | 475 | chr17:7554911-7555910     | 9212 AURKB     | - | -558534 | 0.33  | -0.01 | 1.60  | 0.53  |
| PRAD | 476 | chr11:120911104-120912103 | 23650 TRIM29   | - | 902740  | -0.32 | 0.01  | -2.37 | 0.73  |
| PRAD | 477 | chr19:15360453-15361452   | 26659 OR7A5    | - | 421676  | 0.32  | 0.04  | -1.23 | -0.65 |
| PRAD | 478 | chr10:73472735-73473734   | 219699 UNC5B   | + | 500942  | 0.35  | 0.00  | -1.26 | -0.53 |
| PRAD | 479 | chr19:18415038-18416500   | 10331 B3GNT3   | + | 509849  | 0.31  | -0.07 | -1.80 | -0.57 |
| PRAD | 480 | chr3:50274612-50275611    | 389119 C3orf54 | + | 434424  | 0.31  | -0.10 | -1.77 | -0.55 |
| PRAD | 481 | chr3:46505981-46507018    | 259236 TMIE    | + | -236324 | 0.30  | 0.02  | -1.56 | -0.52 |
| PRAD | 482 | chr22:43040221-43041645   | 79019 CENPM    | - | 697784  | 0.35  | -0.01 | 1.61  | 0.51  |
| PRAD | 483 | chr8:56851346-56852789    | 195814 SDR16C5 | - | -381174 | 0.37  | 0.04  | -0.78 | -0.52 |
| PRAD | 484 | chr15:65185806-65186805   | 80301 PLKHO2   | + | 52223   | 0.34  | 0.11  | -0.57 | -0.54 |
| PRAD | 485 | chr7:128808942-128809941  | 2318 FLNC      | + | 338958  | 0.31  | -0.01 | -1.46 | -0.53 |
| PRAD | 486 | chr4:23936264-23937263    | 10891 PPARGC1A | - | -537631 | 0.30  | 0.01  | -1.99 | -0.59 |
| PRAD | 487 | chr8:22454388-22455972    | 203190 LGI3    | - | 440835  | 0.31  | 0.02  | -1.62 | -0.55 |
| PRAD | 488 | chr19:35395300-35396299   | 57655 GRAMD1A  | + | -89889  | 0.34  | 0.03  | 0.70  | 0.54  |

|      |     |                           |        |           |   |         |       |       |       |       |
|------|-----|---------------------------|--------|-----------|---|---------|-------|-------|-------|-------|
| PRAD | 489 | chr22:28837519-28839130   | 23331  | TTC28     | - | -237529 | 0.34  | 0.01  | -0.73 | -0.59 |
| PRAD | 490 | chr3:125899395-125900592  | 84561  | SLC12A8   | - | 901902  | 0.40  | -0.01 | 1.17  | 0.56  |
| PRAD | 491 | chr7:93975982-93976981    | 23089  | PEG10     | + | -309156 | -0.30 | 0.00  | -1.55 | 0.56  |
| PRAD | 492 | chr11:48084637-48085636   | 1643   | DDB2      | + | 848643  | 0.41  | -0.01 | -0.84 | -0.64 |
| PRAD | 493 | chr13:27092336-27093335   | 10810  | WASF3     | + | -39005  | 0.32  | 0.07  | 0.67  | 0.58  |
| PRAD | 494 | chr4:17096164-17097163    | 64151  | NCAPG     | + | -715773 | -0.31 | 0.05  | 1.99  | -0.62 |
| PRAD | 495 | chr16:59270085-59271084   | 65009  | NDRG4     | + | 773035  | -0.32 | -0.01 | -2.20 | 0.56  |
| PRAD | 496 | chr3:154145368-154146682  | 26084  | SCEF      | + | 307232  | 0.30  | 0.00  | 1.59  | 0.55  |
| PRAD | 497 | chr9:133721445-133722444  | 59335  | PRDM12    | + | 181963  | 0.32  | 0.00  | 1.01  | 0.54  |
| PRAD | 498 | chr1:199051902-199052901  | 127124 | ATP6V1G3  | - | 542326  | -0.32 | -0.01 | -1.76 | 0.55  |
| PRAD | 499 | chr17:38478307-38479306   | 125113 | KRT222    | - | -342610 | 0.35  | 0.02  | -1.03 | -0.52 |
| PRAD | 500 | chr9:131057735-131058734  | 2801   | GOLGA2    | - | 19966   | -0.35 | -0.01 | 0.40  | -0.52 |
| PRAD | 501 | chr3:37211584-37212583    | 5333   | PLCD1     | - | -859071 | 0.44  | 0.05  | -0.77 | -0.62 |
| PRAD | 502 | chr9:133721445-133722444  | 84814  | PPAPDC3   | + | -443137 | 0.32  | 0.03  | -1.24 | -0.59 |
| PRAD | 503 | chr16:58955801-58956800   | 374739 | TEPP      | + | 945961  | -0.33 | 0.00  | -1.99 | 0.62  |
| PRAD | 504 | chr16:67203510-67204509   | 6560   | SLC12A4   | - | -799086 | 0.39  | 0.00  | -0.83 | -0.66 |
| PRAD | 505 | chr11:34287725-34288724   | 966    | CD59      | - | 530199  | 0.36  | 0.00  | -0.62 | -0.68 |
| PRAD | 506 | chr9:124982982-124983981  | 92399  | MRRF      | + | -43401  | 0.33  | 0.00  | 0.54  | 0.54  |
| PRAD | 507 | chr5:12865012-12866011    | 1501   | CTNND2    | - | 961401  | -0.35 | 0.04  | 1.77  | -0.56 |
| PRAD | 508 | chr4:16773177-16774176    | 8842   | PROM1     | - | 688053  | -0.30 | 0.01  | -2.15 | 0.66  |
| PRAD | 509 | chr17:872913-873912       | 5176   | SERPINF1  | + | -791847 | 0.38  | 0.08  | -1.05 | -0.58 |
| PRAD | 510 | chr12:15037940-15038939   | 85004  | RERG      | - | -335972 | 0.36  | 0.01  | -0.86 | -0.51 |
| PRAD | 511 | chr17:43248899-43249898   | 9020   | MAP3K14   | - | -145016 | 0.34  | 0.00  | -0.76 | -0.52 |
| PRAD | 512 | chr14:68843776-68844775   | 677    | ZFP36L1   | - | -418685 | 0.34  | 0.01  | -0.89 | -0.63 |
| PRAD | 513 | chr11:118491963-118492962 | 9099   | USP2      | - | -759974 | 0.37  | 0.00  | -1.23 | -0.53 |
| PRAD | 514 | chr16:85429022-85430021   | 23199  | KIAA0182  | + | -215508 | 0.37  | -0.06 | 0.40  | 0.50  |
| PRAD | 515 | chr7:2869941-2870940      | 80727  | TTYH3     | + | 198837  | -0.33 | 0.00  | 1.01  | -0.52 |
| PRAD | 516 | chr15:64799284-64800283   | 51285  | RASL12    | - | -569245 | 0.32  | 0.01  | -1.56 | -0.57 |
| PRAD | 517 | chr1:215147391-215148390  | 1063   | CENPF     | + | 371358  | -0.30 | -0.01 | 1.90  | -0.50 |
| PRAD | 518 | chr1:200003705-200004764  | 55765  | C1orf106  | + | -856393 | 0.32  | 0.01  | -1.88 | -0.63 |
| PRAD | 519 | chr11:101576344-101577343 | 85016  | C11orf70  | + | -341326 | -0.32 | -0.01 | -1.39 | 0.51  |
| PRAD | 520 | chr2:174877613-174878612  | 51776  | ZAK       | + | 937547  | 0.47  | 0.00  | -0.91 | -0.56 |
| PRAD | 521 | chr9:90195385-90196384    | 2619   | GAS1      | - | 633780  | -0.31 | 0.00  | -1.51 | 0.72  |
| PRAD | 522 | chr3:50274612-50275611    | 2771   | GNAI2     | + | 11387   | 0.31  | 0.01  | -0.66 | -0.60 |
| PRAD | 523 | chr1:156130326-156131325  | 60484  | HAPLN2    | + | -458261 | 0.32  | 0.01  | -1.56 | -0.53 |
| PRAD | 524 | chr19:14672593-14673552   | 342979 | HAPLM3    | - | 503081  | 0.32  | -0.08 | -1.65 | -0.53 |
| PRAD | 525 | chr15:92579600-92580599   | 9899   | SV2B      | + | 936917  | -0.37 | 0.04  | -1.63 | 0.51  |
| PRAD | 526 | chr10:104629369-104630368 | 54838  | C10orf26  | + | 126141  | 0.35  | 0.01  | -0.33 | -0.51 |
| PRAD | 527 | chr12:94288053-94289052   | 51134  | CDC41     | - | -565212 | 0.38  | 0.08  | 0.65  | 0.58  |
| PRAD | 528 | chr17:80289041-80290040   | 5831   | PYCR1     | - | 394368  | -0.31 | -0.02 | 1.54  | -0.54 |
| PRAD | 529 | chr14:22004545-22005867   | 55701  | FLJ10357  | + | 466678  | 0.36  | -0.04 | -1.00 | -0.52 |
| PRAD | 530 | chr12:50377231-50378230   | 25840  | METTL7A   | + | -940804 | 0.38  | 0.05  | -1.11 | -0.61 |
| PRAD | 531 | chr17:40825480-40826479   | 6777   | STAT5B    | + | 397555  | 0.38  | -0.01 | -0.52 | -0.52 |
| PRAD | 532 | chr7:44144610-44145609    | 5425   | POLD2     | - | -18060  | 0.32  | -0.03 | 0.61  | 0.54  |
| PRAD | 533 | chr16:85185107-85186106   | 23199  | KIAA0182  | + | -459423 | 0.41  | -0.06 | 0.40  | 0.51  |
| PRAD | 534 | chr1:8214463-8215462      | 6518   | SLC2A5    | - | -933548 | 0.32  | -0.03 | -2.40 | -0.59 |
| PRAD | 535 | chr11:118050760-118051759 | 6876   | TAGLN     | + | 981219  | 0.36  | 0.00  | -1.44 | -0.57 |
| PRAD | 536 | chr10:18549278-18550277   | 9200   | PTPLA     | - | 890404  | 0.37  | -0.02 | -1.27 | -0.58 |
| PRAD | 537 | chr8:89776719-89777718    | 8767   | RIPK2     | + | -992757 | -0.42 | -0.03 | 0.87  | -0.66 |
| PRAD | 538 | chr9:110187156-110188155  | 5887   | RAD23B    | + | 142138  | 0.35  | 0.00  | 0.40  | 0.53  |
| PRAD | 539 | chr16:3062097-3063294     | 79903  | STAT15    | + | -430973 | 0.40  | -0.01 | 0.51  | 0.50  |
| PRAD | 540 | chr2:138019201-138020200  | 80731  | THSD7B    | + | 496585  | -0.34 | 0.17  | -1.08 | 0.58  |
| PRAD | 541 | chr14:92040614-92041613   | 80017  | C14orf159 | + | 460756  | 0.34  | 0.02  | -1.11 | -0.56 |
| PRAD | 542 | chr10:74094197-74095196   | 9469   | CHST3     | + | 370576  | 0.32  | 0.00  | -0.97 | -0.64 |
| PRAD | 543 | chr4:75399546-75400545    | 25849  | PARM1     | + | -458240 | -0.32 | 0.25  | -1.16 | 0.59  |
| PRAD | 544 | chr19:35395300-35396299   | 126393 | HSPB6     | - | -852131 | 0.34  | 0.03  | -1.62 | -0.57 |
| PRAD | 545 | chr3:125899254-125900607  | 84561  | SLC12A8   | - | 901839  | 0.39  | -0.01 | 1.17  | 0.54  |
| PRAD | 546 | chr2:38373237-38374236    | 151393 | FMN2A1    | + | 212174  | 0.33  | -0.03 | -0.74 | -0.58 |
| PRAD | 547 | chr14:51974348-51975347   | 5732   | PTGER2    | + | -806169 | 0.45  | -0.02 | -0.78 | -0.53 |
| PRAD | 548 | chr6:53918541-53919540    | 2729   | GCLC      | - | 509113  | 0.40  | -0.04 | -0.48 | -0.53 |
| PRAD | 549 | chr17:762549-763548       | 5176   | SERPINF1  | + | -902211 | 0.42  | 0.08  | -1.05 | -0.52 |
| PRAD | 550 | chr6:44628903-44629902    | 860    | RUNX2     | + | -666652 | 0.45  | 0.01  | -0.66 | -0.51 |
| PRAD | 551 | chr13:22486232-22487231   | 221150 | SKA3      | - | 735990  | -0.31 | 0.01  | 1.91  | -0.63 |
| PRAD | 552 | chr17:27917482-27918481   | 57649  | PHF12     | - | 639473  | 0.41  | 0.09  | 0.71  | 0.52  |
| PRAD | 553 | chr3:170745529-170746528  | 5010   | CLDN11    | + | 609375  | 0.34  | 0.00  | -1.04 | -0.65 |
| PRAD | 554 | chr1:55008016-55009015    | 148979 | GLIS1     | - | 808638  | 0.32  | 0.02  | -1.72 | -0.64 |
| PRAD | 555 | chr1:204049880-204050879  | 22874  | PLEKHA6   | - | -278678 | 0.37  | 0.01  | -0.43 | -0.50 |
| PRAD | 556 | chr12:2943402-2944992     | 55846  | ITFG2     | + | 22409   | 0.30  | -0.01 | -0.54 | -0.73 |
| PRAD | 557 | chr14:54261353-54262352   | 10979  | FERMT2    | - | 844037  | -0.37 | 0.00  | -1.13 | 0.58  |
| PRAD | 558 | chr2:129320487-129321486  | 55679  | LIMS2     | - | 881626  | 0.35  | 0.00  | -1.36 | -0.57 |
| PRAD | 559 | chr7:18534832-18535998    | 9734   | HDAC9     | + | 408842  | 0.35  | 0.00  | -0.32 | -0.67 |
| PRAD | 560 | chr19:18415038-18416500   | 10715  | LASS1     | - | -591768 | 0.31  | 0.11  | 1.76  | 0.55  |
| PRAD | 561 | chr17:40825712-40826711   | 9001   | HAP1      | - | 935313  | 0.46  | 0.00  | -0.97 | -0.52 |
| PRAD | 562 | chr16:84918294-84919293   | 404550 | C16orf74  | - | -865896 | 0.31  | 0.00  | -2.08 | -0.64 |
| PRAD | 563 | chr1:197879266-197880265  | 388722 | C1orf53   | + | 8083    | 0.32  | -0.02 | 0.69  | 0.53  |
| PRAD | 564 | chr8:86349890-86351091    | 245972 | ATP6V0D2  | + | -760649 | 0.33  | 0.00  | -1.85 | -0.51 |
| PRAD | 565 | chr17:37752105-37753104   | 84951  | TNSA      | - | -905250 | 0.32  | -0.03 | -2.42 | -0.58 |
| PRAD | 566 | chr17:872755-873951       | 5176   | SERPINF1  | + | -791907 | 0.37  | 0.08  | -1.05 | -0.57 |
| PRAD | 567 | chr1:228966624-228967623  | 128312 | HIST3H2BB | + | 321315  | 0.31  | 0.02  | 1.44  | 0.51  |
| PRAD | 568 | chr14:100504266-100505265 | 57596  | BEGAIN    | - | -531366 | -0.33 | 0.01  | -1.16 | 0.56  |
| PRAD | 569 | chr1:8181055-8182146      | 9341   | VAMP3     | + | 350271  | 0.34  | -0.03 | -0.46 | -0.66 |
| PRAD | 570 | chr11:119187645-119188644 | 23650  | TRIM29    | - | -820719 | 0.30  | 0.01  | -2.37 | -0.68 |

|      |     |                           |                 |   |         |       |       |       |       |
|------|-----|---------------------------|-----------------|---|---------|-------|-------|-------|-------|
| PRAD | 571 | chr8:96705265-96706264    | 94241 TP53INP1  | - | 744149  | 0.36  | 0.05  | 1.09  | 0.55  |
| PRAD | 572 | chr1:181632121-181633120  | 3140 MR1        | + | 630059  | -0.34 | 0.05  | -1.12 | 0.57  |
| PRAD | 573 | chr2:234933631-234934630  | 10123 ARL4C     | - | -471563 | 0.35  | 0.01  | -0.82 | -0.58 |
| PRAD | 574 | chr3:50402630-50403629    | 389119 C3orf54  | + | 562442  | 0.31  | -0.10 | -1.77 | -0.54 |
| PRAD | 575 | chr13:22560159-22561158   | 221150 SKA3     | - | 809917  | -0.32 | 0.01  | 1.91  | -0.59 |
| PRAD | 576 | chr2:217508351-217509350  | 92691 TMEM169   | + | 562261  | 0.36  | 0.01  | -0.95 | -0.53 |
| PRAD | 577 | chr16:84869566-84870702   | 404550 C16orf74 | - | -914556 | 0.31  | 0.00  | -2.08 | -0.72 |
| PRAD | 578 | chr12:26962989-26963988   | 51768 TM7SF3    | - | -203851 | 0.34  | 0.11  | -0.59 | -0.52 |
| PRAD | 579 | chr20:45087490-45088489   | 10406 WFDC2     | + | 989595  | 0.32  | 0.00  | -2.53 | -0.53 |
| PRAD | 580 | chr1:162660451-162661450  | 127943 FCRLB    | + | 969616  | 0.36  | 0.01  | -1.28 | -0.63 |
| PRAD | 581 | chr4:16861580-16862579    | 64151 NCAPG     | + | -950357 | -0.33 | 0.05  | 1.99  | -0.56 |
| PRAD | 582 | chr16:24174350-24175349   | 5347 PLK1       | + | 484648  | -0.30 | 0.02  | 1.76  | -0.52 |
| PRAD | 583 | chr11:33037813-33038812   | 966 CDK59       | - | -719713 | 0.40  | 0.00  | -0.62 | -0.57 |
| PRAD | 584 | chr12:120241894-120242893 | 9478 CABP1      | + | -836029 | 0.37  | 0.00  | -1.09 | -0.55 |
| PRAD | 585 | chr7:30509963-30510962    | 2617 GARS       | + | -123719 | 0.33  | 0.00  | 0.49  | 0.55  |
| PRAD | 586 | chr8:56578122-56579121    | 5179 PENK       | - | -780661 | -0.30 | 0.02  | -2.72 | 0.53  |
| PRAD | 587 | chr6:134061314-134062313  | 2070 EYA4       | + | 500077  | -0.30 | 0.01  | -1.47 | 0.57  |
| PRAD | 588 | chr7:93975982-93976981    | 8910 SGCE       | - | -309040 | -0.30 | 0.04  | -1.09 | 0.63  |
| PRAD | 589 | chr12:120241894-120242893 | 4440 MSI1       | + | -564590 | 0.37  | 0.00  | 0.88  | 0.50  |
| PRAD | 590 | chr1:110672269-110673268  | 1435 CSF1       | + | 219535  | 0.35  | 0.05  | -0.50 | -0.51 |
| PRAD | 591 | chr16:67203510-67204509   | 3931 LCAT       | - | -774006 | 0.39  | -0.01 | -0.91 | -0.52 |
| PRAD | 592 | chr3:168801290-168802289  | 2122 MECOM      | - | -579774 | -0.31 | 0.00  | -1.31 | 0.64  |
| PRAD | 593 | chr7:75961184-75962183    | 222183 SRRM3    | + | 130467  | -0.31 | -0.02 | -0.95 | 0.55  |
| PRAD | 594 | chr7:29023878-29024877    | 222171 PRR15    | + | -579050 | 0.37  | -0.02 | -0.76 | -0.53 |
| PRAD | 595 | chr11:123774688-123775687 | 23584 VSIG2     | - | -846922 | -0.35 | -0.03 | -1.47 | 0.51  |
| PRAD | 596 | chr1:7433671-7434670      | 9341 VAMP3      | + | -397159 | 0.35  | -0.03 | -0.46 | -0.55 |
| PRAD | 597 | chr12:82120638-82121637   | 79611 ACSS3     | + | 649328  | -0.31 | 0.09  | -1.52 | 0.60  |
| PRAD | 598 | chr17:40825480-40826479   | 9001 HAP1       | + | 935081  | 0.38  | 0.00  | -0.97 | -0.61 |
| PRAD | 599 | chr9:35510433-35511432    | 375704 ENHO     | - | 987895  | 0.37  | -0.02 | -1.12 | -0.60 |
| PRAD | 600 | chr12:50444022-50445222   | 10024 TROAP     | + | 727650  | 0.30  | 0.02  | 1.84  | 0.59  |
| PRAD | 601 | chr2:191044415-191046384  | 3628 INPP1      | + | -162797 | 0.32  | 0.12  | -0.94 | -0.50 |
| PRAD | 602 | chr9:131057735-131058734  | 4957 ODF2       | + | -159200 | -0.35 | 0.00  | 0.41  | -0.51 |
| PRAD | 603 | chr1:55008016-55009015    | 55001 TTC22     | - | -258426 | 0.32  | 0.00  | -0.98 | -0.53 |
| PRAD | 604 | chr12:106507213-106508212 | 387882 C12orf75 | + | 783298  | 0.34  | 0.13  | -1.49 | -0.51 |
| PRAD | 605 | chr1:228966624-228967623  | 89780 WNT3A     | + | 772400  | 0.31  | 0.02  | -1.79 | -0.60 |
| PRAD | 606 | chr22:45607928-45609015   | 85352 KIAA1644  | - | 899740  | 0.33  | -0.01 | -1.32 | -0.66 |
| PRAD | 607 | chr6:10555308-10556352    | 2651 GCNT2      | + | 63373   | 0.33  | 0.03  | -0.39 | -0.53 |
| PRAD | 608 | chr4:4862270-4863515      | 55351 STK32B    | + | -190635 | 0.33  | 0.01  | -0.73 | -0.51 |
| PRAD | 609 | chr4:4862270-4863515      | 132884 EVC2     | - | -848383 | 0.33  | 0.06  | -1.28 | -0.71 |
| PRAD | 610 | chr10:74094197-74095196   | 64115 C10orf54  | - | 561359  | 0.32  | 0.01  | -1.01 | -0.69 |
| PRAD | 611 | chr4:157535766-157536765  | 2982 GUCY1A3    | + | 948403  | 0.37  | 0.03  | 1.14  | 0.58  |
| PRAD | 612 | chr8:63403002-63404001    | 444 ASPH        | + | 776302  | -0.37 | 0.00  | -0.97 | 0.54  |
| PRAD | 613 | chr16:84869566-84870702   | 83716 CRISPLD2  | + | 16546   | 0.31  | 0.03  | -0.79 | -0.51 |
| PRAD | 614 | chr1:156130326-156131325  | 3645 INSRR      | - | -697887 | 0.32  | -0.01 | -1.38 | -0.61 |
| PRAD | 615 | chr1:156130326-156131325  | 9181 ARHGEF2    | - | 170961  | 0.32  | 0.00  | -0.64 | -0.57 |
| PRAD | 616 | chr11:14004354-14005353   | 5140 PDC3B      | + | -660416 | 0.34  | 0.01  | 1.33  | 0.52  |
| PRAD | 617 | chr2:38373237-38374236    | 10602 CDC42EP3  | - | 474058  | 0.33  | 0.00  | -1.03 | -0.57 |
| PRAD | 618 | chr15:92532367-92533366   | 9055 PRC1       | - | 994985  | -0.37 | 0.00  | 1.06  | -0.62 |
| PRAD | 619 | chr11:17716780-17717779   | 55553 SOX6      | - | 957089  | 0.42  | 0.16  | -0.83 | -0.54 |
| PRAD | 620 | chr5:121751263-121752262  | 9627 SNCAIP     | + | 104376  | -0.31 | 0.00  | -0.81 | 0.53  |
| PRAD | 621 | chr15:78030918-78031917   | 646892 SH2D7    | + | -353510 | 0.35  | -0.05 | -0.71 | -0.51 |
| PRAD | 622 | chr16:24197363-24198362   | 5347 PLK1       | + | 507661  | -0.30 | 0.02  | 1.76  | -0.51 |
| PRAD | 623 | chr7:141211127-141212126  | 27147 DENND2A   | - | 870340  | 0.44  | 0.00  | -0.83 | -0.51 |
| PRAD | 624 | chr10:102625932-102626931 | 56652 C10orf2   | + | -120862 | 0.32  | 0.01  | 0.71  | 0.52  |
| PRAD | 625 | chr7:30509963-30510962    | 9805 SCRN1      | - | 480557  | 0.33  | 0.00  | -0.83 | -0.63 |
| PRAD | 626 | chr17:40825480-40826479   | 2648 KAT2A      | - | 552597  | 0.38  | 0.00  | 0.60  | 0.51  |
| PRAD | 627 | chr11:116371281-116372280 | 6876 TAGLN      | + | -698260 | 0.32  | 0.00  | -1.44 | -0.55 |
| PRAD | 628 | chr4:2802112-2803111      | 3954 LETM1      | - | 944637  | 0.40  | -0.09 | 0.68  | 0.62  |
| PRAD | 629 | chr10:98900317-98901316   | 83742 MARVELD1  | + | -572649 | 0.33  | 0.00  | -1.10 | -0.56 |
| PRAD | 630 | chr9:139001593-139002592  | 9022 CLIC3      | - | -888932 | 0.32  | 0.00  | -1.72 | -0.53 |
| PRAD | 631 | chr4:16861580-16862579    | 9982 FGFBP1     | - | 921716  | -0.33 | 0.08  | -1.88 | 0.53  |
| PRAD | 632 | chr8:119011173-119012172  | 401474 SAMG12   | - | -622562 | -0.31 | 0.00  | -1.55 | 0.55  |
| PRAD | 633 | chr15:36707907-36708906   | 4212 MEIS2      | - | -685094 | -0.30 | 0.00  | -1.58 | 0.63  |
| PRAD | 634 | chr9:130608423-130609422  | 4957 ODF2       | + | -608512 | 0.40  | 0.00  | 0.41  | 0.52  |
| PRAD | 635 | chr22:43040221-43041645   | 23170 TTLL12    | - | -542205 | 0.35  | 0.00  | 0.83  | 0.53  |
| PRAD | 636 | chr8:56578122-56579121    | 5324 PLAG1      | - | -545238 | -0.30 | 0.00  | -1.62 | 0.51  |
| PRAD | 637 | chr14:50527372-50528371   | 55172 C14orf104 | - | 425923  | 0.36  | 0.00  | 0.45  | 0.53  |
| PRAD | 638 | chr9:88650976-88651975    | 79670 ZCCHC6    | - | -317927 | -0.31 | -0.01 | 0.98  | -0.56 |
| PRAD | 639 | chr2:121268848-121269847  | 29842 TFPC2L1   | - | -773431 | 0.37  | -0.01 | -0.89 | -0.56 |
| PRAD | 640 | chr6:26087540-26088945    | 493812 HCG11    | + | -433692 | 0.31  | -0.01 | -1.07 | -0.59 |
| PRAD | 641 | chr17:41607396-41608395   | 8639 AOC3       | + | 604694  | 0.35  | 0.04  | -0.89 | -0.54 |
| PRAD | 642 | chr1:156130326-156131325  | 7203 CCT3       | - | -177381 | 0.32  | 0.04  | 0.50  | 0.57  |
| PRAD | 643 | chr11:92753525-92754524   | 79101 TAF1D     | - | -720679 | 0.37  | 0.02  | 0.58  | 0.57  |
| PRAD | 644 | chr1:45285321-45286561    | 84842 HPDL      | + | -506605 | 0.32  | 0.12  | -1.16 | -0.54 |
| PRAD | 645 | chr19:35395300-35396299   | 84306 PDCD2L    | + | 500496  | 0.34  | 0.12  | 0.69  | 0.61  |
| PRAD | 646 | chr11:63827846-63829068   | 10235 RASGRP2   | - | -684472 | 0.35  | -0.01 | -0.98 | -0.53 |
| PRAD | 647 | chr17:45282540-45283539   | 3837 KPNB1      | + | -444165 | 0.37  | 0.06  | 0.46  | 0.51  |
| PRAD | 648 | chr13:102057490-102058489 | 84899 TMT4      | - | 730886  | -0.32 | 0.00  | 1.30  | -0.56 |
| PRAD | 649 | chr14:68508970-68509969   | 5890 RAD51L1    | + | 222973  | 0.31  | 0.12  | -0.70 | -0.62 |
| PRAD | 650 | chr16:24394420-24395419   | 5347 PLK1       | + | 704718  | -0.31 | 0.02  | 1.76  | -0.51 |
| PRAD | 651 | chr10:74094197-74095196   | 64072 CDH23     | + | 938005  | 0.32  | 0.01  | -1.59 | -0.60 |
| PRAD | 652 | chr5:146332534-146333533  | 1809 DPYSL3     | - | -556586 | -0.33 | 0.02  | -1.06 | 0.54  |

|      |     |                           |        |           |   |         |       |       |       |       |
|------|-----|---------------------------|--------|-----------|---|---------|-------|-------|-------|-------|
| PRAD | 653 | chr3:170745529-170746528  | 26996  | GPR160    | + | 990293  | 0.34  | 0.04  | 1.30  | 0.61  |
| PRAD | 654 | chr6:160450713-160451712  | 6950   | TCP1      | - | 240477  | 0.33  | 0.00  | 0.37  | 0.55  |
| PRAD | 655 | chr1:181632121-181633120  | 57710  | KIAA1614  | + | 750307  | -0.34 | -0.06 | -1.21 | 0.53  |
| PRAD | 656 | chr4:75399546-75400545    | 6372   | CXCL6     | + | 697772  | -0.32 | -0.02 | -1.53 | 0.50  |
| PRAD | 657 | chr3:50274612-50275611    | 275    | AMT       | - | 815000  | 0.31  | 0.17  | -1.63 | -0.59 |
| PRAD | 658 | chr3:25469073-25470490    | 54995  | OXSM      | + | -361782 | 0.35  | 0.02  | 0.41  | 0.52  |
| PRAD | 659 | chr1:156130326-156131325  | 4000   | LMNA      | + | 78456   | 0.32  | 0.10  | -0.57 | -0.51 |
| PRAD | 660 | chr10:115425399-115426398 | 84632  | AFAP1L2   | - | -738617 | 0.32  | 0.04  | -1.56 | -0.55 |
| PRAD | 661 | chr12:108982734-108983733 | 32     | ACACB     | + | -571167 | 0.33  | 0.02  | -1.09 | -0.52 |
| PRAD | 662 | chr16:3062097-3063294     | 84231  | TRAF7     | + | 856896  | 0.40  | 0.03  | 0.55  | 0.56  |
| PRAD | 663 | chr17:41607396-41608395   | 27175  | TUBG2     | + | 796629  | 0.35  | -0.03 | -0.93 | -0.61 |
| PRAD | 664 | chr1:156674185-156675184  | 7203   | CCT3      | - | 366478  | 0.35  | 0.04  | 0.50  | 0.51  |
| PRAD | 665 | chr1:181577347-181578346  | 3140   | MR1       | + | 575285  | -0.31 | 0.05  | -1.12 | 0.65  |
| PRAD | 666 | chr12:50377231-50378230   | 7846   | TUBA1A    | - | 794623  | 0.38  | 0.00  | -0.86 | -0.50 |
| PRAD | 667 | chr7:44144833-44145832    | 23148  | NACAD     | - | -983161 | 0.33  | 0.01  | -1.25 | -0.72 |
| PRAD | 668 | chr9:88650976-88651975    | 2619   | GAS1      | - | -910629 | -0.31 | 0.00  | -1.51 | 0.68  |
| PRAD | 669 | chr17:36714574-36715573   | 31     | ACACA     | - | 948171  | 0.38  | 0.04  | 0.93  | 0.53  |
| PRAD | 670 | chr8:145022342-145023512  | 79943  | ZNF696    | + | 649367  | 0.38  | -0.02 | 0.43  | 0.52  |
| PRAD | 671 | chr11:67138923-67140045   | 221    | ALDH3B1   | + | -636565 | 0.35  | 0.03  | -0.90 | -0.53 |
| PRAD | 672 | chr9:137267574-137268573  | 11094  | C9orf7    | + | 942986  | 0.37  | -0.03 | 0.73  | 0.61  |
| PRAD | 673 | chr5:67489237-67490236    | 891    | CCNB1     | + | -973101 | 0.41  | 0.01  | 0.83  | 0.51  |
| PRAD | 674 | chr22:43040221-43041645   | 339674 | LOC339674 | + | 692741  | 0.35  | 0.02  | 1.01  | 0.51  |
| PRAD | 675 | chr9:86785405-86786404    | 3190   | HNRNPK    | - | 190335  | 0.32  | -0.02 | 0.21  | 0.53  |
| PRAD | 676 | chr16:84869566-84870702   | 161931 | ADAD2     | + | 645410  | 0.31  | 0.02  | -1.21 | -0.64 |
| PRAD | 677 | chr1:9128987-9130147      | 84275  | SLC25A33  | + | -469962 | 0.34  | -0.01 | 0.74  | 0.51  |
| PRAD | 678 | chr17:70215832-70216831   | 6752   | SSTR2     | + | -944829 | 0.36  | -0.02 | -1.28 | -0.50 |
| PRAD | 679 | chr16:5485768-5486767     | 29965  | C16orf5   | - | 897451  | -0.35 | 0.02  | -1.05 | 0.59  |
| PRAD | 680 | chr7:44144833-44145832    | 23072  | HCW1      | + | 993134  | 0.33  | 0.01  | -1.58 | -0.54 |
| PRAD | 681 | chr1:157557078-157558077  | 3645   | INSRR     | - | 728865  | -0.32 | -0.01 | -1.38 | 0.53  |
| PRAD | 682 | chr7:2869941-2870940      | 8662   | EIF3B     | + | 475966  | -0.33 | 0.01  | 0.54  | -0.60 |
| PRAD | 683 | chr14:68843776-68844775   | 5890   | RAD51L1   | + | 557779  | 0.34  | 0.12  | -0.70 | -0.56 |
| PRAD | 684 | chr16:24066674-24067673   | 124454 | EARS2     | + | 498477  | -0.34 | 0.07  | 0.42  | -0.61 |
| PRAD | 685 | chr4:6943571-6944570      | 152789 | JAKMIP1   | - | 741752  | 0.32  | 0.11  | -1.29 | -0.52 |
| PRAD | 686 | chr11:101323078-101324077 | 85016  | C11orf70  | + | -594592 | -0.30 | -0.01 | -1.39 | 0.53  |
| PRAD | 687 | chr3:50274612-50275611    | 51161  | C3orf18   | - | -333347 | 0.31  | 0.04  | -0.95 | -0.52 |
| PRAD | 688 | chr16:6093720-6094719     | 146556 | C16orf89  | - | 978073  | -0.33 | 0.04  | -1.50 | 0.54  |
| PRAD | 689 | chr9:133721445-133722444  | 23413  | NCS1      | + | 787087  | 0.32  | 0.02  | -1.06 | -0.64 |
| PRAD | 690 | chr17:872913-873912       | 124997 | WDR81     | + | -746405 | 0.38  | 0.03  | -0.37 | -0.54 |
| PRAD | 691 | chr1:7433671-7434670      | 57449  | PLEKHG5   | + | 854049  | 0.35  | -0.14 | -0.90 | -0.56 |
| PRAD | 692 | chr12:111127033-111128032 | 84983  | MGC14436  | - | 916240  | 0.31  | 0.00  | 1.84  | 0.53  |
| PRAD | 693 | chr9:124982982-124983981  | 153090 | DAB2IP    | + | 654082  | 0.33  | -0.22 | -0.77 | -0.60 |
| PRAD | 694 | chr19:14672553-14673552   | 79852  | EPHX3     | - | -670806 | 0.32  | 0.00  | -1.18 | -0.56 |
| PRAD | 695 | chr9:124982982-124983981  | 2040   | STOM      | + | 850899  | 0.33  | 0.09  | -0.96 | -0.70 |
| PRAD | 696 | chr10:36711431-36712430   | 8325   | FZD8      | - | 781568  | -0.31 | 0.16  | 1.56  | -0.52 |
| PRAD | 697 | chr17:38478307-38479306   | 125115 | KRT40     | - | -664581 | 0.35  | 0.00  | -0.77 | -0.55 |
| PRAD | 698 | chr11:125132835-125133834 | 83480  | PUS3      | - | -639782 | 0.36  | 0.02  | 0.45  | 0.54  |
| PRAD | 699 | chr16:67204181-67205306   | 6560   | SLC12A4   | - | -798352 | 0.33  | 0.00  | -0.83 | -0.66 |
| PRAD | 700 | chr3:13905067-13906066    | 79188  | TMEM43    | + | -260874 | -0.31 | 0.05  | -0.44 | 0.55  |
| PRAD | 701 | chr1:19275853-19276852    | 126917 | IFFO2     | - | -6474   | 0.30  | 0.06  | -0.37 | -0.51 |
| PRAD | 702 | chr1:9128987-9130147      | 5293   | PIK3CD    | + | -582224 | 0.34  | 0.00  | -0.56 | -0.56 |
| PRAD | 703 | chr15:68259824-68260823   | 10391  | CORO2B    | + | -610985 | 0.33  | -0.06 | -1.02 | -0.52 |
| PRAD | 704 | chr2:101751532-101752531  | 7850   | IL1R2     | + | -856275 | -0.30 | 0.07  | -1.36 | 0.66  |
| PRAD | 705 | chr17:78805993-78807390   | 55036  | CCDC40    | + | 796260  | 0.35  | 0.03  | 0.77  | 0.55  |
| PRAD | 706 | chr2:191915769-191916768  | 3628   | INPP1     | + | 708072  | -0.33 | 0.12  | -0.94 | 0.58  |
| PRAD | 707 | chr11:63827846-63829068   | 116071 | BATF2     | + | -936061 | 0.35  | -0.08 | -0.94 | -0.56 |
| PRAD | 708 | chr9:132114269-132115268  | 23413  | NCS1      | + | -820089 | 0.33  | 0.02  | -1.06 | -0.58 |
| PRAD | 709 | chr2:173079653-173080652  | 8604   | SLC25A12  | - | 329336  | 0.31  | 0.00  | -0.79 | -0.51 |
| PRAD | 710 | chr7:44144610-44145609    | 23148  | NACAD     | - | -983384 | 0.32  | 0.01  | -1.25 | -0.66 |
| PRAD | 711 | chr16:71559079-71560704   | 92154  | MTSSL     | - | 839937  | 0.36  | 0.00  | -0.64 | -0.54 |
| PRAD | 712 | chr16:24066674-24067673   | 23062  | GGA2      | - | 545358  | -0.34 | -0.10 | -0.51 | 0.56  |
| PRAD | 713 | chr9:110495209-110496208  | 5887   | RAD23B    | + | 450191  | 0.33  | 0.00  | 0.40  | 0.54  |
| PRAD | 714 | chr16:84918294-84919293   | 161931 | ADAD2     | + | 694070  | 0.31  | 0.02  | -1.21 | -0.57 |
| PRAD | 715 | chr4:2802112-2803111      | 7468   | WHSC1     | + | 929488  | 0.40  | 0.07  | 0.44  | 0.53  |
| PRAD | 716 | chr4:16773177-16774176    | 9982   | FGFBP1    | - | 833313  | -0.30 | 0.08  | -1.88 | 0.51  |
| PRAD | 717 | chr14:68843776-68844775   | 87     | ACTN1     | - | -601808 | 0.34  | 0.07  | -0.69 | -0.55 |
| PRAD | 718 | chr11:22201421-22202420   | 2188   | FANCF     | - | -445467 | -0.34 | 0.01  | 0.48  | -0.51 |
| PRAD | 719 | chr1:181577347-181578346  | 57710  | KIAA1614  | + | 695533  | -0.31 | -0.06 | -1.21 | 0.58  |
| PRAD | 720 | chr17:32682270-32683269   | 3980   | LIG3      | + | -624748 | -0.34 | 0.05  | 0.56  | -0.55 |
| PRAD | 721 | chr17:32612299-32613298   | 3980   | LIG3      | + | -694719 | -0.35 | 0.05  | 0.56  | -0.54 |
| PRAD | 722 | chr8:22454388-22455972    | 8793   | TNFRSF10D | - | -566364 | 0.31  | -0.01 | -0.95 | -0.57 |
| PRAD | 723 | chr10:5734071-5735634     | 5209   | PFKFB3    | + | -451991 | 0.32  | 0.02  | -0.65 | -0.53 |
| PRAD | 724 | chr1:204319679-204320678  | 493    | ATP2B4    | + | 724263  | 0.30  | 0.04  | -1.17 | -0.66 |
| PRAD | 725 | chr11:123774688-123775687 | 64221  | ROBO3     | + | -960118 | -0.35 | 0.02  | -1.04 | 0.54  |
| PRAD | 726 | chr2:191044415-191046384  | 30061  | SLC40A1   | - | 596915  | 0.32  | -0.01 | -0.74 | -0.61 |
| PRAD | 727 | chr3:170745529-170746528  | 5337   | PLD1      | - | -782476 | 0.34  | 0.00  | -0.92 | -0.54 |
| PRAD | 728 | chr17:2125806-2126805     | 5176   | SERPINF1  | + | 461046  | 0.30  | 0.08  | -1.05 | -0.53 |
| PRAD | 729 | chr17:872755-873951       | 124997 | WDR81     | + | -746465 | 0.37  | 0.03  | -0.37 | -0.52 |
| PRAD | 730 | chr3:50274612-50275611    | 7318   | UBA7      | - | 423720  | 0.31  | 0.02  | -0.70 | -0.57 |
| PRAD | 731 | chr7:93975982-93976981    | 2791   | GNG11     | + | 425465  | -0.30 | 0.03  | -1.07 | 0.51  |
| PRAD | 732 | chr11:125132835-125133834 | 219844 | HYLS1     | + | -620175 | 0.36  | 0.00  | 0.39  | 0.51  |
| PRAD | 733 | chr9:116942879-116943878  | 210    | ALAD      | - | 779760  | 0.31  | 0.17  | -1.00 | -0.66 |
| PRAD | 734 | chr1:8214463-8215462      | 9341   | VAMP3     | + | 383633  | 0.32  | -0.03 | -0.46 | -0.52 |

|      |                               |                  |   |         |       |       |       |       |
|------|-------------------------------|------------------|---|---------|-------|-------|-------|-------|
| PRAD | 735 chr16:54628259-54629258   | 54947 LPCAT2     | + | -914155 | 0.32  | 0.00  | -1.22 | -0.54 |
| PRAD | 736 chr1:171867615-171868614  | 2327 FMO2        | + | 713726  | 0.30  | 0.00  | -1.22 | -0.58 |
| PRAD | 737 chr8:89968735-89969734    | 8767 RIPK2       | + | -800741 | -0.34 | -0.03 | 0.87  | -0.52 |
| PRAD | 738 chr1:203259272-203260271  | 55224 ETNK2      | - | -861536 | 0.31  | 0.00  | -1.34 | -0.53 |
| PRAD | 739 chr1:181557981-181558980  | 3140 MR1         | + | 555919  | -0.30 | 0.05  | -1.12 | 0.53  |
| PRAD | 740 chr1:157557078-157558077  | 60484 HAPLN2     | + | 968491  | -0.32 | 0.01  | -1.56 | 0.51  |
| PRAD | 741 chr3:128564590-128565589  | 8607 RUVBL1      | - | 692332  | 0.32  | 0.00  | 0.63  | 0.61  |
| PRAD | 742 chr3:42102867-42103866    | 729085 FAM198A   | + | -917393 | 0.35  | 0.03  | -0.85 | -0.53 |
| PRAD | 743 chr8:38585381-38586380    | 25960 GPR124     | + | 931479  | 0.35  | 0.03  | -0.90 | -0.51 |
| PRAD | 744 chr3:50402630-50403629    | 275 AMT          | - | 943018  | 0.31  | 0.17  | -1.63 | -0.51 |
| PRAD | 745 chr1:228966624-228967623  | 57165 GJC2       | + | 629708  | 0.31  | 0.06  | -1.14 | -0.52 |
| PRAD | 746 chr16:67204181-67205306   | 3931 LCAT        | - | -773272 | 0.33  | -0.01 | -0.91 | -0.50 |
| PRAD | 747 chr7:158287407-158288406  | 7434 VIPR2       | - | -649743 | 0.32  | 0.00  | -1.04 | -0.50 |
| PRAD | 748 chr18:44788398-44789397   | 494470 RNF165    | + | 882124  | 0.31  | 0.02  | -1.37 | -0.51 |
| PRAD | 749 chr10:74094197-74095196   | 414152 C10orf105 | - | 597115  | 0.32  | 0.01  | -0.85 | -0.50 |
| PRAD | 750 chr5:169712679-169713678  | 64901 RANBP17    | + | -575718 | -0.32 | 0.00  | 0.84  | -0.50 |
| PRAD | 751 chr15:64799284-64800283   | 283807 FBXL22    | + | 910231  | 0.32  | 0.00  | -1.05 | -0.57 |
| PRAD | 752 chr11:63827846-63829068   | 4221 MEN1        | - | -750310 | 0.35  | 0.02  | 0.46  | 0.50  |
| PRAD | 753 chr10:106088202-106089201 | 9644 SH3PXD2A    | - | 473537  | 0.31  | -0.01 | -0.64 | -0.54 |
| PRAD | 754 chr2:121268792-121269871  | 29842 TFCP2L1    | - | -773447 | 0.33  | -0.01 | -0.89 | -0.50 |
| PRAD | 755 chr8:103800987-103801986  | 25879 DCAF13     | + | -625456 | 0.31  | -0.01 | 0.57  | 0.65  |
| PRAD | 756 chr1:170652823-170653822  | 2329 FMO4        | + | -630164 | -0.31 | 0.16  | -0.70 | 0.59  |
| PRAD | 757 chr5:146183864-146184863  | 153768 PRELID2   | - | 969464  | -0.31 | 0.00  | -1.20 | 0.57  |
| PRAD | 758 chr16:24174350-24175349   | 6338 SCNN1B      | + | 861258  | -0.30 | 0.07  | -1.31 | 0.54  |
| PRAD | 759 chr1:7394524-7395523      | 9341 VAMP3       | + | -436306 | 0.31  | -0.03 | -0.46 | -0.55 |
| PRAD | 760 chr7:75961184-75962183    | 4191 MDH2        | + | 284290  | -0.31 | 0.02  | 0.38  | -0.50 |
| PRAD | 761 chr12:111127033-111128032 | 59341 TRPV4      | - | 856320  | 0.31  | 0.00  | -1.01 | -0.59 |
| PRAD | 762 chr1:181557981-181558980  | 57710 KIAA1614   | + | 676167  | -0.30 | -0.06 | -1.21 | 0.51  |
| PRAD | 763 chr1:19275853-19276852    | 4681 NBL1        | + | -693371 | 0.30  | 0.00  | -1.07 | -0.54 |
| PRAD | 764 chr15:68259824-68260823   | 4088 SMAD3       | + | 902128  | 0.33  | 0.00  | -0.54 | -0.64 |
| PRAD | 765 chr14:100504266-100505265 | 64919 BCL11B     | - | 766943  | -0.33 | 0.01  | -0.62 | 0.52  |
| PRAD | 766 chr3:50402630-50403629    | 7318 UBA7        | - | 551738  | 0.31  | 0.02  | -0.70 | -0.54 |
| PRAD | 767 chr19:18415038-18416500   | 284439 SLC25A42  | + | -759035 | 0.31  | 0.01  | 0.83  | 0.57  |
| PRAD | 768 chr19:14672553-14673552   | 10994 ILVBL      | - | -563525 | 0.32  | 0.00  | -0.60 | -0.51 |
| PRAD | 769 chr5:140863520-140864973  | 373863 DND1      | - | 811075  | 0.35  | -0.02 | 0.60  | 0.50  |
| PRAD | 770 chr5:31361991-31362990    | 64083 GOLPH3     | - | -811935 | -0.33 | 0.02  | 0.55  | -0.53 |
| PRAD | 771 chr3:68315596-68316595    | 285203 C3orf64   | - | -746679 | 0.30  | 0.03  | -0.84 | -0.59 |
| PRAD | 772 chr2:9027171-9028170      | 51692 CPSF3      | + | -535996 | -0.30 | 0.02  | 0.16  | -0.60 |
| PRAD | 773 chr19:18415038-18416500   | 684 BST2         | - | 899384  | 0.31  | 0.00  | -0.93 | -0.55 |
| PRAD | 774 chr10:5734071-5735634     | 5588 PRKCQ       | - | -887402 | 0.32  | 0.00  | -0.85 | -0.51 |
| PRAD | 775 chr16:24174350-24175349   | 23062 GGA2       | - | 653034  | -0.30 | -0.10 | -0.51 | 0.59  |
| PRAD | 776 chr16:24174350-24175349   | 124454 EARS2     | - | 606153  | -0.30 | 0.07  | 0.42  | -0.59 |
| PRAD | 777 chr12:50444022-50445222   | 25840 METTL7A    | + | -873913 | 0.30  | 0.05  | -1.11 | -0.59 |
| PRAD | 778 chr9:132114269-132115268  | 6418 SET         | + | 668834  | 0.33  | -0.01 | 0.26  | 0.50  |
| PRAD | 779 chr1:171867615-171868614  | 2329 FMO4        | + | 584628  | 0.30  | 0.16  | -0.70 | -0.53 |
| PRAD | 780 chr11:103930344-103931343 | 834 CASP1        | - | -985208 | -0.30 | 0.07  | -1.12 | 0.54  |
| PRAD | 781 chr1:156130326-156131325  | 23623 RUSC1      | + | 840185  | 0.32  | 0.08  | 0.60  | 0.55  |
| PRAD | 782 chr9:132114269-132115268  | 4957 ODF2        | + | 897334  | 0.33  | 0.00  | 0.41  | 0.55  |
| PRAD | 783 chr17:2125806-2126805     | 124997 WDR81     | + | 506488  | 0.30  | 0.03  | -0.37 | -0.53 |
| PRAD | 784 chr19:18415038-18416500   | 93436 ARMC6      | + | -728619 | 0.31  | 0.06  | 0.51  | 0.55  |
| PRAD | 785 chr3:46505981-46507018    | 64147 KIF9       | - | -817838 | 0.30  | 0.08  | 0.73  | 0.57  |
| PRAD | 786 chr16:24197363-24198362   | 124454 EARS2     | - | 629166  | -0.30 | 0.07  | 0.42  | -0.55 |
| PRAD | 787 chr1:171867615-171868614  | 388714 FMO6P     | + | 761235  | 0.30  | 0.00  | -0.76 | -0.54 |
| PRAD | 788 chr11:103930344-103931343 | 114769 CARD16    | - | -985208 | -0.30 | 0.02  | -1.09 | 0.52  |
| PRAD | 789 chr16:24197363-24198362   | 23062 GGA2       | - | 676047  | -0.30 | -0.10 | -0.51 | 0.53  |
| PRAD | 790 chr1:91194208-91195835    | 55144 LRRC8D     | + | 908448  | 0.32  | 0.03  | 0.51  | 0.51  |
| PRAD | 791 chr2:191044415-191046384  | 84128 WDR75      | + | 739240  | 0.32  | -0.01 | 0.36  | 0.51  |
| PRAD | 792 chr16:24394420-24395419   | 124454 EARS2     | - | 826223  | -0.31 | 0.07  | 0.42  | -0.53 |
| PRAD | 793 chr16:24394420-24395419   | 23062 GGA2       | - | 873104  | -0.31 | -0.10 | -0.51 | 0.53  |
| PRAD | 794 chr16:84869566-84870702   | 23199 KIAA0182   | + | -774896 | 0.31  | -0.06 | 0.40  | 0.51  |
| PRAD | 795 chr10:74094197-74095196   | 51021 MRPS16     | - | -917755 | 0.32  | 0.00  | 0.24  | 0.51  |
| PRAD | 796 chr10:105420001-105421000 | 54838 C10orf26   | + | 916773  | 0.32  | 0.01  | -0.33 | -0.50 |
| PRAD | 797 chr11:103930344-103931343 | 84259 DCUN1D5    | - | 967899  | -0.30 | -0.01 | 0.41  | -0.53 |

| Cancer |      |                           |         |            |        | Enhancer | Promoter     | Differential |            |             |
|--------|------|---------------------------|---------|------------|--------|----------|--------------|--------------|------------|-------------|
| Type   | Rank | eDMR                      | Entrez  | Gene       | Strand | Distance | differential | differential | gene       | Correlation |
|        |      |                           | symbols |            |        | from TSS | methylation  | methylation  | expression |             |
| READ   | 1    | chr21:38082599-38083648   | 6493    | SIM2       | +      | 11132    | 0.49         | -0.03        | 4.18       | 0.59        |
| READ   | 2    | chr21:38078267-38080114   | 6493    | SIM2       | +      | 7199     | 0.43         | -0.03        | 4.18       | 0.65        |
| READ   | 3    | chr21:38077471-38078470   | 6493    | SIM2       | +      | 5979     | 0.40         | -0.03        | 4.18       | 0.60        |
| READ   | 4    | chr1:118150313-118151312  | 54855   | FAM46C     | +      | 2208     | 0.45         | -0.05        | -2.43      | -0.66       |
| READ   | 5    | chr17:39114232-39115231   | 25984   | KRT23      | -      | 20895    | -0.35        | -0.05        | 4.72       | -0.66       |
| READ   | 6    | chr2:63284057-63285056    | 5013    | OTX1       | +      | 7364     | 0.36         | -0.01        | 2.90       | 0.70        |
| READ   | 7    | chr3:16834477-16835476    | 23228   | PLCL2      | +      | -9183    | -0.42        | -0.10        | -2.21      | 0.62        |
| READ   | 8    | chr7:26199372-26200371    | 9603    | NFE2L3     | +      | 8024     | -0.37        | -0.06        | 3.01       | -0.58       |
| READ   | 9    | chr4:111561770-111563044  | 5308    | PITX2      | -      | -873     | 0.36         | 0.06         | 2.33       | 0.67        |
| READ   | 10   | chr6:34565745-34566744    | 25803   | SPDEF      | -      | 42134    | 0.41         | -0.01        | -3.97      | -0.53       |
| READ   | 11   | chr9:130666557-130667556  | 30815   | ST6GALNAC6 | -      | -571     | 0.34         | 0.00         | -3.78      | -0.59       |
| READ   | 12   | chr21:38082113-38083112   | 6493    | SIM2       | +      | 10621    | 0.36         | -0.03        | 4.18       | 0.54        |
| READ   | 13   | chr4:72133560-72134559    | 8671    | SLC4A4     | +      | 81056    | -0.40        | -0.04        | -6.24      | 0.52        |
| READ   | 14   | chr13:72451160-72452159   | 1602    | DACH1      | -      | 10329    | -0.39        | 0.03         | 1.85       | -0.66       |
| READ   | 15   | chr21:38078903-38079902   | 6493    | SIM2       | +      | 7411     | 0.34         | -0.03        | 4.18       | 0.63        |
| READ   | 16   | chr10:102891631-102893286 | 3195    | TLX1       | +      | 1397     | 0.35         | 0.11         | 3.19       | 0.53        |
| READ   | 17   | chr10:102891379-102892890 | 3195    | TLX1       | +      | 1073     | 0.36         | 0.11         | 3.19       | 0.50        |
| READ   | 18   | chr8:97778209-97779208    | 10404   | PGCP       | +      | 121209   | -0.49        | 0.00         | -1.68      | 0.57        |
| READ   | 19   | chr1:205417778-205418777  | 93273   | LEMD1      | -      | 27063    | -0.34        | 0.01         | 4.22       | -0.65       |
| READ   | 20   | chr11:130667961-130668960 | 170689  | ADAMTS15   | +      | 349591   | -0.55        | -0.01        | -1.69      | 0.68        |
| READ   | 21   | chr17:56476976-56477975   | 54894   | RNF43      | -      | -17456   | -0.40        | 0.07         | 2.44       | -0.50       |
| READ   | 22   | chr3:16779226-16780225    | 23228   | PLCL2      | +      | -64434   | -0.38        | -0.10        | -2.21      | 0.57        |
| READ   | 23   | chr6:149099224-149100223  | 10090   | UST        | +      | 31452    | -0.36        | 0.01         | -3.15      | 0.56        |
| READ   | 24   | chr12:60298428-60299427   | 9194    | SLC16A7    | +      | 309106   | -0.52        | -0.06        | -2.37      | 0.56        |
| READ   | 25   | chr14:38054752-38055751   | 3169    | FOXA1      | -      | -9074    | 0.41         | 0.01         | -1.97      | -0.50       |
| READ   | 26   | chr17:46799140-46800254   | 10481   | HOXB13     | -      | -6415    | 0.31         | 0.00         | -4.15      | -0.67       |
| READ   | 27   | chr3:14446145-14447144    | 6533    | SLC6A6     | +      | 2568     | -0.32        | 0.12         | 3.74       | -0.60       |
| READ   | 28   | chr3:16969367-16970366    | 23228   | PLCL2      | +      | 125707   | -0.37        | -0.10        | -2.21      | 0.70        |
| READ   | 29   | chr11:130398400-130399399 | 170689  | ADAMTS15   | +      | 80030    | -0.39        | -0.01        | -1.69      | 0.62        |
| READ   | 30   | chr1:226004326-226005325  | 2052    | EPHX1      | +      | 7028     | 0.38         | -0.02        | -1.07      | -0.63       |
| READ   | 31   | chr7:114329349-114330348  | 93986   | FOXP2      | +      | 603483   | -0.40        | 0.02         | -3.19      | 0.67        |
| READ   | 32   | chr3:158430462-158431461  | 5918    | RARRES1    | -      | -19314   | 0.35         | 0.07         | -2.70      | -0.53       |
| READ   | 33   | chr12:25610675-25611674   | 4033    | LRMP       | +      | 405993   | -0.37        | 0.01         | -3.26      | 0.61        |
| READ   | 34   | chr6:52858607-52859606    | 2941    | GSTA4      | -      | -1072    | 0.37         | -0.01        | -1.21      | -0.52       |
| READ   | 35   | chr13:85714601-85715600   | 84189   | SLITRK6    | -      | -658383  | -0.49        | 0.08         | -2.82      | 0.55        |
| READ   | 36   | chr2:144270931-144271930  | 55843   | ARHGAP15   | +      | 384531   | -0.39        | -0.06        | -3.16      | 0.57        |
| READ   | 37   | chr16:5590177-5591176     | 54715   | A2BP1      | +      | -478456  | -0.47        | 0.03         | -1.61      | 0.65        |
| READ   | 38   | chr14:54347598-54348597   | 652     | BMP4       | -      | -75457   | -0.42        | -0.07        | 0.82       | -0.55       |
| READ   | 39   | chr7:23400703-23401702    | 10643   | IGF2BP3    | -      | -108793  | -0.39        | 0.01         | 1.48       | 0.55        |
| READ   | 40   | chr7:151304208-151305207  | 6009    | RHEB       | -      | 87697    | -0.51        | 0.03         | -0.29      | -0.62       |
| READ   | 41   | chr7:11455940-11456939    | 9678    | PHF14      | +      | 442940   | -0.53        | 0.01         | 1.14       | -0.55       |
| READ   | 42   | chr1:241464144-241465143  | 6000    | RGS7       | -      | -55835   | -0.42        | -0.01        | -1.19      | 0.50        |
| READ   | 43   | chr1:198669486-198670485  | 5788    | PTPRC      | +      | 61887    | -0.37        | -0.01        | -1.38      | 0.56        |
| READ   | 44   | chr12:60129954-60130953   | 9194    | SLC16A7    | +      | 140632   | -0.35        | -0.06        | -2.37      | 0.66        |
| READ   | 45   | chr2:221940488-221941487  | 2043    | EPHA4      | -      | -496023  | -0.48        | -0.08        | -1.13      | 0.62        |
| READ   | 46   | chr11:117484404-117485403 | 57453   | DSCAML1    | -      | -203337  | -0.34        | 0.01         | -3.01      | 0.64        |
| READ   | 47   | chr14:52429047-52430046   | 54331   | GNG2       | +      | 115594   | -0.38        | 0.01         | -1.77      | 0.51        |
| READ   | 48   | chr11:111077132-111078131 | 57569   | ARHGAP20   | -      | 493719   | -0.48        | 0.04         | -2.10      | 0.50        |
| READ   | 49   | chr6:109288092-109289091  | 84071   | ARMC2      | +      | 118972   | -0.42        | 0.01         | 0.59       | -0.62       |
| READ   | 50   | chr3:152463625-152464624  | 5028    | P2RY1      | +      | -88612   | -0.35        | 0.02         | -2.79      | 0.51        |
| READ   | 51   | chr3:23567065-23568064    | 7325    | UBE2E2     | +      | 322911   | -0.46        | -0.09        | -1.06      | 0.55        |
| READ   | 52   | chr6:90973976-90974975    | 60468   | BACH2      | -      | -32152   | -0.42        | 0.01         | 0.07       | 0.54        |
| READ   | 53   | chr13:110431191-110432190 | 8660    | IRS2       | -      | -7224    | -0.30        | 0.03         | 2.37       | -0.56       |
| READ   | 54   | chr4:113906036-113907035  | 287     | ANK2       | +      | 167296   | -0.36        | 0.06         | -2.29      | 0.51        |
| READ   | 55   | chr7:39569416-39570415    | 57002   | C7orf36    | +      | -36088   | -0.37        | 0.07         | -1.10      | -0.54       |
| READ   | 56   | chr5:98119392-98120391    | 285704  | RGMB       | +      | 14892    | 0.37         | -0.04        | -0.55      | -0.58       |
| READ   | 57   | chr4:149360481-149361480  | 4306    | NR3C2      | -      | -2692    | 0.31         | 0.04         | -2.21      | -0.53       |
| READ   | 58   | chr11:130631028-130632027 | 170689  | ADAMTS15   | +      | 312658   | -0.35        | -0.01        | -1.69      | 0.72        |
| READ   | 59   | chr13:27768937-27769936   | 2971    | GTF3A      | +      | -229245  | -0.46        | -0.06        | 0.38       | -0.57       |
| READ   | 60   | chr6:90943062-90944061    | 60468   | BACH2      | -      | -63066   | -0.42        | 0.01         | 0.07       | 0.52        |
| READ   | 61   | chr1:157989020-157990019  | 79368   | FCRL2      | -      | 242597   | -0.33        | -0.04        | -3.60      | 0.53        |
| READ   | 62   | chr2:221801449-221802448  | 2043    | EPHA4      | -      | -635062  | -0.47        | -0.08        | -1.13      | 0.56        |
| READ   | 63   | chr17:39114232-39115231   | 125115  | KRT40      | -      | -28656   | -0.35        | 0.01         | -1.63      | -0.50       |
| READ   | 64   | chr2:222147178-222148177  | 2043    | EPHA4      | -      | -289333  | -0.36        | -0.08        | -1.13      | 0.68        |
| READ   | 65   | chr5:169332609-169333608  | 1794    | DOCK2      | +      | 268857   | -0.39        | -0.16        | -0.84      | 0.56        |
| READ   | 66   | chr7:3488316-3489315      | 221927  | C7orf27    | -      | 893423   | -0.54        | 0.04         | 1.37       | -0.56       |
| READ   | 67   | chr11:122790947-122791946 | 84959   | UBASH3B    | +      | 265048   | -0.46        | 0.00         | -0.54      | 0.53        |
| READ   | 68   | chr1:57175815-57176814    | 5563    | PRKAA2     | +      | 65324    | -0.32        | 0.04         | -2.62      | 0.52        |
| READ   | 69   | chr13:74544155-74545154   | 11278   | KLF12      | -      | -163740  | -0.40        | -0.02        | -0.06      | 0.71        |
| READ   | 70   | chr13:26336896-26337895   | 6049    | RNF6       | -      | -459113  | -0.42        | 0.00         | 0.78       | -0.55       |
| READ   | 71   | chr7:11729778-11730777    | 9678    | PHF14      | +      | 716778   | -0.56        | 0.01         | 1.14       | -0.52       |
| READ   | 72   | chr3:182982886-182983885  | 89857   | KLHL6      | -      | -290114  | -0.41        | 0.01         | -1.07      | 0.52        |
| READ   | 73   | chr12:45087977-45088976   | 4753    | NELL2      | -      | -219235  | -0.37        | -0.04        | -1.18      | 0.51        |
| READ   | 74   | chr15:48064230-48065229   | 80031   | SEMA6D     | +      | 588326   | -0.37        | -0.02        | -2.12      | 0.55        |
| READ   | 75   | chr6:91093418-91094417    | 60468   | BACH2      | -      | 87290    | -0.41        | 0.01         | 0.07       | 0.52        |
| READ   | 76   | chr2:177517621-177518620  | 3231    | HOXD1      | +      | 464813   | -0.33        | 0.00         | -3.51      | 0.53        |

|      |     |                           |                 |   |         |       |       |       |       |
|------|-----|---------------------------|-----------------|---|---------|-------|-------|-------|-------|
| READ | 77  | chr3:101832145-101833144  | 91775 FAM55C    | + | 334615  | -0.49 | -0.05 | -0.53 | 0.52  |
| READ | 78  | chr2:221863741-221864740  | 2043 EPAA4      | - | -572770 | -0.41 | -0.08 | -1.13 | 0.55  |
| READ | 79  | chr1:46969173-46970172    | 4038 LRP4       | - | 29499   | -0.31 | 0.00  | 1.84  | -0.54 |
| READ | 80  | chr2:222332789-222333788  | 2043 EPAA4      | - | -103722 | -0.32 | -0.08 | -1.13 | 0.73  |
| READ | 81  | chr1:57193620-57194619    | 29015 SLC43A3   | - | -934    | 0.31  | 0.01  | 0.46  | -0.62 |
| READ | 82  | chr7:114270208-114271207  | 93986 FOXP2     | + | 544342  | -0.32 | 0.02  | -3.19 | 0.64  |
| READ | 83  | chr2:144693905-144694904  | 55843 ARHGAP15  | + | 807505  | 0.35  | -0.06 | -3.16 | -0.58 |
| READ | 84  | chr14:103497491-103498490 | 1152 CKB        | - | -491206 | 0.34  | 0.01  | -2.80 | -0.53 |
| READ | 85  | chr2:177517621-177518620  | 3234 HOXD8      | + | 523698  | -0.33 | -0.01 | -1.73 | 0.63  |
| READ | 86  | chr6:136346128-136347127  | 27115 PDE7B     | + | 173793  | -0.31 | 0.01  | -2.19 | 0.56  |
| READ | 87  | chr7:3418805-3419804      | 221927 C7orf27  | - | 823912  | -0.45 | 0.04  | 1.37  | -0.54 |
| READ | 88  | chr17:47049390-47050389   | 10481 HOXB13    | - | 243778  | -0.31 | 0.00  | -4.15 | 0.50  |
| READ | 89  | chr1:160094454-160095453  | 4063 LY9        | + | -670911 | -0.36 | 0.00  | -3.06 | 0.51  |
| READ | 90  | chr1:122821439-122822438  | 79864 C11orf63  | + | 68702   | -0.34 | -0.06 | -0.78 | 0.67  |
| READ | 91  | chr1:94536036-94537035    | 387804 C11orf90 | - | 952867  | -0.36 | 0.01  | -2.65 | 0.59  |
| READ | 92  | chr13:35538404-35539403   | 26960 NBEA      | + | 22479   | -0.32 | -0.02 | -1.33 | 0.51  |
| READ | 93  | chr7:26199372-26200371    | 11335 CBX3      | + | -40960  | -0.37 | 0.03  | 0.17  | -0.51 |
| READ | 94  | chr2:144223182-144224181  | 55843 ARHGAP15  | + | 336782  | -0.33 | -0.06 | -3.16 | 0.55  |
| READ | 95  | chr17:31270515-31271514   | 124912 SPACA3   | + | -47868  | -0.34 | 0.00  | 0.96  | -0.52 |
| READ | 96  | chr11:130504664-130505663 | 170689 ADAMTS15 | + | 186294  | -0.32 | -0.01 | -1.69 | 0.55  |
| READ | 97  | chr6:43244739-43245738    | 84630 TTBK1     | + | 34016   | -0.31 | -0.02 | 0.93  | -0.68 |
| READ | 98  | chr16:5485768-5486767     | 54715 A2BP1     | + | -582865 | -0.34 | 0.03  | -1.61 | 0.67  |
| READ | 99  | chr1:222413081-222414080  | 7100 TLR5       | - | -903044 | -0.37 | 0.01  | -1.25 | 0.59  |
| READ | 100 | chr1:23134023-23135022    | 2188 FANCF      | - | 487135  | -0.41 | 0.00  | 0.27  | -0.55 |
| READ | 101 | chr7:155743859-155744858  | 140545 RNF32    | + | -688995 | -0.44 | -0.07 | 0.75  | -0.53 |
| READ | 102 | chr1:1334061-33532        | 4583 MUC7       | + | -740179 | -0.31 | -0.05 | -3.09 | 0.65  |
| READ | 103 | chr20:55967794-55968793   | 9217 VAPB       | + | -995882 | 0.45  | 0.06  | 0.68  | 0.58  |
| READ | 104 | chr1:217067743-217068742  | 2104 ESRRG      | - | -242855 | -0.38 | 0.00  | -0.11 | 0.65  |
| READ | 105 | chr7:143065604-143066603  | 373156 GSTK1    | + | 105581  | -0.32 | 0.00  | -1.08 | -0.53 |
| READ | 106 | chr5:132706800-132707799  | 6932 TCF7       | + | -743103 | -0.32 | -0.02 | 2.66  | -0.61 |
| READ | 107 | chr11:130547040-130548039 | 170689 ADAMTS15 | + | 228670  | -0.30 | -0.01 | -1.69 | 0.54  |
| READ | 108 | chr7:151304208-151305207  | 1020 CDK5       | - | 549655  | -0.51 | 0.00  | -0.17 | -0.52 |
| READ | 109 | chr11:121961374-121962373 | 84959 UBASH3B   | + | -564525 | -0.41 | 0.00  | -0.54 | 0.53  |
| READ | 110 | chr1:23710820-23711819    | 23028 KDM1A     | + | 365378  | -0.35 | 0.07  | 0.82  | -0.53 |
| READ | 111 | chr9:117149995-117150994  | 944 TNFSF8      | - | -542381 | 0.31  | 0.00  | -2.92 | -0.56 |
| READ | 112 | chr13:27768937-27769936   | 6049 RNF6       | - | 972928  | -0.46 | 0.00  | 0.78  | -0.52 |
| READ | 113 | chr20:55967794-55968793   | 51507 C20orf43  | + | 924646  | 0.45  | 0.07  | 0.45  | 0.58  |
| READ | 114 | chr2:222063743-222064742  | 2043 EPAA4      | - | -372768 | -0.34 | -0.08 | -1.13 | 0.57  |
| READ | 115 | chr4:79126219-79127218    | 80144 FRAS1     | + | 147994  | -0.34 | 0.08  | -0.57 | 0.52  |
| READ | 116 | chr2:221961168-221962167  | 2043 EPAA4      | - | -475343 | -0.35 | -0.08 | -1.13 | 0.51  |
| READ | 117 | chr16:6691745-6692744     | 54715 A2BP1     | + | 623112  | -0.33 | 0.03  | -1.61 | 0.62  |
| READ | 118 | chr8:144301094-144302093  | 22827 PUF60     | - | -609963 | -0.45 | 0.05  | 0.26  | -0.52 |
| READ | 119 | chr20:55967794-55968793   | 57403 RAB22A    | + | -916478 | 0.45  | 0.00  | 0.69  | 0.51  |
| READ | 120 | chr2:144581831-144582830  | 55843 ARHGAP15  | + | 695431  | -0.32 | -0.06 | -3.16 | 0.53  |
| READ | 121 | chr4:23790973-23791972    | 10891 PPARGC1A  | - | -682922 | -0.31 | 0.03  | -2.18 | 0.59  |
| READ | 122 | chr11:46969173-46970172   | 79096 C11orf49  | + | 11432   | -0.31 | 0.06  | 0.13  | -0.58 |
| READ | 123 | chr2:177517621-177518620  | 3233 HOXD4      | + | 502007  | -0.33 | 0.00  | -1.05 | 0.60  |
| READ | 124 | chr1:99922133-99923132    | 54482 CCDC76    | + | -676074 | -0.39 | -0.01 | -0.62 | -0.52 |
| READ | 125 | chr2:133695082-133696081  | 344148 NCKAP5   | - | -630450 | -0.35 | 0.02  | -0.74 | 0.62  |
| READ | 126 | chr6:36022122-36023121    | 57699 CPNE5     | - | -784599 | -0.34 | 0.01  | -2.06 | 0.50  |
| READ | 127 | chr17:39114232-39115231   | 3882 KRT32      | - | -508907 | -0.35 | -0.07 | 0.60  | -0.55 |
| READ | 128 | chr6:36022122-36023121    | 221472 FGD2     | + | -950802 | -0.34 | 0.01  | -1.66 | 0.58  |
| READ | 129 | chr2:177517621-177518620  | 3232 HOXD3      | + | 489315  | -0.33 | -0.01 | -0.64 | 0.54  |
| READ | 130 | chr2:177517621-177518620  | 3235 HOXD9      | + | 530707  | -0.33 | 0.00  | 0.65  | 0.56  |
| READ | 131 | chr4:111561770-111563044  | 54433 GAR1      | + | 825740  | 0.36  | -0.03 | 1.17  | 0.51  |
| READ | 132 | chr11:93143310-93144309   | 159989 CCDC67   | + | 80653   | -0.30 | -0.15 | -0.82 | 0.52  |
| READ | 133 | chr2:134082995-134083994  | 344148 NCKAP5   | - | -242537 | -0.31 | 0.02  | -0.74 | 0.53  |
| READ | 134 | chr4:16532308-16533307    | 9079 LDB2       | - | -367617 | -0.34 | -0.03 | -0.63 | 0.50  |
| READ | 135 | chr11:119389913-119390912 | 1219902 TMEM136 | + | -805426 | -0.37 | -0.03 | -0.47 | 0.53  |
| READ | 136 | chr5:94128656-94129655    | 79772 MCTP1     | - | -491124 | -0.33 | 0.00  | -1.04 | 0.50  |
| READ | 137 | chr4:43149180-43150179    | 389206 BEND4    | - | 994784  | -0.34 | -0.08 | -1.30 | 0.59  |
| READ | 138 | chr4:177455100-177456099  | 7424 VEGFC      | - | -258296 | -0.32 | 0.00  | 0.25  | 0.55  |
| READ | 139 | chr1:101258227-101259226  | 54482 CCDC76    | + | 660020  | -0.35 | -0.01 | -0.62 | -0.51 |
| READ | 140 | chr8:42356231-42357230    | 286 ANK1        | - | 602450  | 0.35  | 0.01  | 0.39  | -0.57 |
| READ | 141 | chr15:68062215-68063214   | 79719 AAGAB     | - | 515178  | 0.32  | 0.02  | -0.90 | -0.53 |
| READ | 142 | chr5:36339633-36340632    | 6507 SLC1A3     | + | -266325 | -0.30 | 0.01  | -0.31 | 0.53  |
| READ | 143 | chr5:132706800-132707799  | 7416 VDAC1      | - | -734805 | -0.32 | 0.01  | 1.04  | -0.56 |
| READ | 144 | chr11:121906380-121907379 | 84959 UBASH3B   | + | -619519 | -0.34 | 0.00  | -0.54 | 0.53  |
| READ | 145 | chr13:44587686-44588685   | 29103 DNAC15    | + | 990823  | -0.39 | -0.03 | -0.02 | -0.50 |
| READ | 146 | chr1:32497589-32498588    | 57648 KIAA1522  | + | -709424 | 0.36  | 0.04  | -0.05 | -0.51 |
| READ | 147 | chr4:8560610-8561609      | 84448 ABLIM2    | - | 400550  | -0.30 | 0.08  | 0.43  | -0.56 |
| READ | 148 | chr13:38327437-38328436   | 55578 FAM48A    | - | 694086  | -0.33 | -0.04 | 0.54  | -0.51 |
| READ | 149 | chr7:107886396-107887395  | 11062 DUS4L     | + | 682493  | -0.32 | -0.04 | 0.43  | -0.50 |
| READ | 150 | chr2:102051087-102052097  | 8809 IL18R1     | + | -876371 | -0.32 | 0.01  | -0.07 | 0.52  |

| Cancer |      |                           |        | Gene     |        | Distance | Enhancer     | Promoter     | Differential |             |
|--------|------|---------------------------|--------|----------|--------|----------|--------------|--------------|--------------|-------------|
| Type   | Rank | eDMR                      | Entrez | symbols  | Strand | from TSS | differential | differential | gene         | Correlation |
|        |      |                           |        |          |        |          | methylation  | methylation  | expression   |             |
| STAD   | 1    | chr5:149778464-149779463  | 972    | CD74     | -      | -13536   | -0.43        | 0.05         | -1.37        | -0.51       |
| STAD   | 2    | chr22:37583727-37584940   | 3560   | IL2RB    | -      | 38371    | -0.42        | 0.06         | -0.70        | 0.57        |
| STAD   | 3    | chr21:42732897-42733932   | 54097  | FAM3B    | +      | 57237    | 0.50         | 0.00         | 2.12         | -0.52       |
| STAD   | 4    | chr11:47437283-47438567   | 6688   | SPI1     | -      | 37797    | 0.43         | 0.05         | -1.26        | 0.50        |
| STAD   | 5    | chr10:10834519-10835518   | 10659  | CELF2    | +      | -212241  | 0.51         | 0.02         | 0.61         | 0.54        |
| STAD   | 6    | chr14:24867454-24869254   | 3002   | GZMB     | -      | -235079  | 0.46         | 0.01         | -2.01        | 0.52        |
| STAD   | 7    | chr6:2229813-2230812      | 2762   | GMDS     | -      | -15556   | 0.35         | 0.02         | -0.52        | -0.56       |
| STAD   | 8    | chr5:88185268-88186486    | 4208   | MEF2C    | -      | -14046   | -0.33        | -0.03        | 0.91         | -0.51       |
| STAD   | 9    | chr1:243902478-243903477  | 10000  | AKT3     | -      | -103909  | -0.33        | 0.02         | 0.80         | 0.65        |
| STAD   | 10   | chr11:119542042-119543041 | 7070   | THY1     | -      | 248295   | -0.36        | 0.00         | -1.09        | -0.52       |
| STAD   | 11   | chr6:142721304-142722303  | 51534  | VTA1     | +      | 253393   | -0.42        | -0.02        | 0.47         | -0.56       |
| STAD   | 12   | chr5:946056-947055        | 9319   | TRIP13   | +      | 53586    | -0.40        | -0.02        | 0.41         | -0.51       |
| STAD   | 13   | chr5:54469032-54470050    | 3001   | GZMA     | +      | 71066    | -0.33        | 0.13         | -1.15        | 0.61        |
| STAD   | 14   | chr6:6688347-6689346      | 9450   | LY86     | +      | 99912    | -0.39        | -0.06        | -0.41        | 0.54        |
| STAD   | 15   | chr22:37583727-37584940   | 27128  | CYTH4    | +      | -94162   | -0.42        | 0.01         | -0.31        | 0.51        |
| STAD   | 16   | chr8:120547752-120548751  | 4856   | NOV      | +      | 119699   | 0.33         | 0.00         | 0.85         | 0.51        |
| STAD   | 17   | chr11:119542042-119543041 | 4162   | MCAM     | -      | 354701   | -0.36        | 0.00         | 0.43         | -0.61       |
| STAD   | 18   | chr11:68276383-68277382   | 116535 | MRGPRF   | -      | -503968  | -0.36        | 0.02         | 0.83         | -0.54       |
| STAD   | 19   | chr10:31871796-31872795   | 6935   | ZEB1     | +      | 264871   | 0.33         | -0.04        | 1.13         | -0.58       |
| STAD   | 20   | chr1:183154937-183156143  | 23179  | RGL1     | +      | -449669  | -0.35        | -0.03        | 0.61         | 0.54        |
| STAD   | 21   | chr22:37583727-37584940   | 5880   | RAC2     | -      | -55972   | -0.42        | -0.01        | 0.12         | 0.51        |
| STAD   | 22   | chr8:134470413-134472038  | 6482   | ST3GAL1  | -      | -112958  | -0.34        | 0.08         | 0.32         | 0.51        |
| STAD   | 23   | chr17:41001349-41002443   | 6945   | MLX      | +      | 282817   | 0.39         | 0.05         | -0.27        | -0.51       |
| STAD   | 24   | chr13:31588278-31589277   | 241    | ALOX5AP  | +      | 301162   | 0.32         | 0.11         | -1.15        | -0.52       |
| STAD   | 25   | chr17:7283397-7284548     | 9744   | ACAP1    | +      | 44124    | 0.35         | 0.00         | 0.04         | 0.71        |
| STAD   | 26   | chr5:54469032-54470050    | 3003   | GZMK     | +      | 149433   | -0.33        | 0.09         | 0.33         | 0.60        |
| STAD   | 27   | chr2:202097107-202098515  | 316    | AOX1     | +      | 647079   | -0.35        | -0.02        | 0.21         | 0.53        |
| STAD   | 28   | chr11:1320134-1321712     | 4046   | LSP1     | +      | -553278  | -0.42        | -0.06        | -0.33        | 0.52        |
| STAD   | 29   | chr7:133973728-133974727  | 800    | CALD1    | +      | -489937  | 0.30         | 0.04         | 0.71         | -0.58       |
| STAD   | 30   | chr12:58159921-58160920   | 64333  | ARHGAP9  | -      | 277823   | 0.37         | 0.19         | 0.05         | 0.55        |
| STAD   | 31   | chr8:143491214-143492213  | 575    | BAI1     | +      | -53664   | -0.31        | -0.02        | 0.14         | 0.57        |
| STAD   | 32   | chr11:8730533-8731532     | 4004   | LMO1     | -      | 440850   | -0.30        | -0.04        | 0.33         | -0.53       |
| STAD   | 33   | chr3:124069433-124070432  | 111    | ADCY5    | -      | 902540   | 0.31         | 0.09         | 1.35         | 0.56        |
| STAD   | 34   | chr16:57317179-57318178   | 6367   | CCL22    | +      | -75017   | 0.30         | 0.08         | -0.52        | 0.50        |
| STAD   | 35   | chr1:155910458-155911466  | 51043  | ZBTB7B   | +      | 935855   | 0.41         | 0.07         | 0.15         | -0.54       |
| STAD   | 36   | chr12:7862729-7864621     | 715    | C1R      | -      | 618631   | -0.31        | -0.03        | -0.58        | 0.53        |
| STAD   | 37   | chr17:10659986-10660985   | 8522   | GAS7     | -      | 558617   | 0.32         | 0.01         | 0.25         | 0.57        |
| STAD   | 38   | chr2:9436753-9437752      | 192668 | CYS1     | -      | -783286  | 0.34         | 0.05         | 0.24         | -0.54       |
| STAD   | 39   | chr17:7283397-7284548     | 10462  | CLEC10A  | -      | 300372   | 0.35         | -0.02        | 0.03         | 0.54        |
| STAD   | 40   | chr3:31316797-31317796    | 152189 | CMTM8    | +      | -962875  | 0.37         | 0.00         | -0.14        | -0.55       |
| STAD   | 41   | chr1:216806974-216807973  | 2104   | ESRRG    | -      | -503624  | -0.31        | 0.02         | 0.32         | 0.53        |
| STAD   | 42   | chr12:5620732-5621760     | 10635  | RAD51AP1 | +      | 973295   | -0.32        | -0.01        | 0.48         | 0.51        |
| STAD   | 43   | chr11:8730533-8731532     | 57758  | SCUBE2   | -      | -382118  | -0.30        | -0.04        | -0.17        | -0.63       |
| STAD   | 44   | chr8:49442067-49443066    | 4173   | MCM4     | +      | 569803   | 0.33         | 0.00         | -0.19        | -0.52       |
| STAD   | 45   | chr1:65363370-65364369    | 5142   | PDE4B    | +      | -894324  | -0.31        | -0.01        | -0.16        | 0.56        |
| STAD   | 46   | chr11:8730533-8731532     | 7275   | TUB      | +      | 690241   | -0.30        | 0.01         | 0.31         | -0.61       |
| STAD   | 47   | chr1:112170707-112171706  | 963    | CD53     | +      | 757385   | -0.30        | 0.06         | -0.75        | -0.51       |
| STAD   | 48   | chr1:170629570-170630896  | 6402   | SELL     | -      | 949389   | -0.35        | 0.00         | -0.12        | -0.51       |
| STAD   | 49   | chr12:110546553-110547552 | 84329  | HVCN1    | -      | -580565  | -0.31        | 0.00         | -0.18        | 0.53        |
| STAD   | 50   | chr16:13176560-13177559   | 729993 | SHISA9   | +      | 181582   | -0.31        | -0.05        | 0.09         | 0.50        |
| STAD   | 51   | chr12:7862729-7864621     | 716    | C1S      | +      | 767414   | -0.31        | -0.01        | -0.15        | 0.54        |
| STAD   | 52   | chr22:24104686-24106191   | 135    | ADORA2A  | +      | -708271  | -0.35        | -0.09        | 0.14         | -0.50       |
| STAD   | 53   | chr11:8730533-8731532     | 79608  | RIC3     | -      | 540442   | -0.30        | -0.02        | 0.32         | -0.50       |
| STAD   | 54   | chr1:112170707-112171706  | 3738   | KCNA3    | -      | 953551   | -0.30        | 0.03         | 0.38         | -0.52       |

| Cancer | Type | Rank | eDMR                      | Entrez | Gene symbols | Strand | Distance from TSS | Enhancer differential methylation | Promoter differential methylation | Differential gene expression | Correlation |
|--------|------|------|---------------------------|--------|--------------|--------|-------------------|-----------------------------------|-----------------------------------|------------------------------|-------------|
| THCA   |      | 1    | chr7:29608810-29609809    | 222171 | PRR15        | +      | 5882              | -0.40                             | -0.01                             | 5.53                         | -0.66       |
| THCA   |      | 2    | chr5:131560558-131561557  | 8974   | P4HA2        | -      | -2499             | -0.42                             | -0.01                             | 1.93                         | -0.68       |
| THCA   |      | 3    | chr5:52327149-52328148    | 3673   | ITGA2        | +      | 42492             | -0.48                             | 0.00                              | 2.36                         | -0.57       |
| THCA   |      | 4    | chr5:131560558-131561557  | 8572   | PDLIM4       | +      | -32294            | -0.42                             | 0.02                              | 2.80                         | -0.55       |
| THCA   |      | 5    | chr14:94431662-94432661   | 145270 | PRIMA1       | -      | 177395            | -0.41                             | 0.00                              | -2.62                        | 0.67        |
| THCA   |      | 6    | chr6:126072171-126073170  | 23493  | HEY2         | +      | 3890              | -0.38                             | -0.03                             | 2.09                         | -0.74       |
| THCA   |      | 7    | chr5:131599390-131600389  | 8572   | PDLIM4       | +      | 6538              | -0.37                             | 0.02                              | 2.80                         | -0.77       |
| THCA   |      | 8    | chr3:184301898-184302897  | 2049   | EPHB3        | +      | 22810             | -0.37                             | -0.02                             | 3.12                         | -0.69       |
| THCA   |      | 9    | chr10:98981814-98982813   | 6585   | SLIT1        | -      | 36630             | -0.37                             | 0.00                              | 5.47                         | -0.64       |
| THCA   |      | 10   | chr7:95099417-95100416    | 5445   | PON2         | -      | 35532             | -0.48                             | -0.03                             | 0.90                         | -0.75       |
| THCA   |      | 11   | chr1:232674137-232675136  | 57568  | SIPA1L2      | -      | 23393             | -0.42                             | 0.00                              | 1.23                         | -0.64       |
| THCA   |      | 12   | chr6:150216948-150217947  | 353091 | RAET1G       | -      | -26767            | -0.39                             | 0.00                              | 2.24                         | -0.59       |
| THCA   |      | 13   | chr14:94431662-94432661   | 5265   | SERPINA1     | -      | -424868           | -0.41                             | -0.01                             | 3.84                         | -0.73       |
| THCA   |      | 14   | chr5:150169281-150170280  | 85027  | C5orf62      | +      | 12272             | -0.44                             | 0.01                              | 0.75                         | -0.77       |
| THCA   |      | 15   | chr7:16779662-16780661    | 25928  | SOSTDC1      | -      | 209956            | -0.41                             | 0.00                              | -2.87                        | 0.55        |
| THCA   |      | 16   | chr2:222394601-222395600  | 2043   | EPHA4        | -      | -41910            | -0.43                             | 0.00                              | 0.90                         | -0.69       |
| THCA   |      | 17   | chr3:189983244-189984243  | 9076   | CLDN1        | -      | -56492            | -0.35                             | 0.02                              | 3.33                         | -0.69       |
| THCA   |      | 18   | chr17:42163933-42164932   | 5539   | PPY          | -      | 144599            | -0.46                             | 0.03                              | -1.96                        | 0.52        |
| THCA   |      | 19   | chr1:203482023-203483022  | 2331   | FMOD         | -      | 162233            | -0.42                             | 0.00                              | -1.91                        | 0.57        |
| THCA   |      | 20   | chr1:207455215-207456214  | 1604   | CD55         | +      | -39103            | -0.37                             | 0.00                              | 1.77                         | -0.82       |
| THCA   |      | 21   | chr9:37925846-37926845    | 347252 | IGFBPL1      | -      | -498099           | -0.41                             | 0.00                              | -3.97                        | 0.72        |
| THCA   |      | 22   | chr3:189983244-189984243  | 10686  | CLDN16       | +      | -121918           | -0.35                             | 0.01                              | 4.55                         | -0.61       |
| THCA   |      | 23   | chr3:36689729-36690728    | 6769   | STAC         | +      | 268131            | -0.39                             | -0.03                             | 2.47                         | -0.71       |
| THCA   |      | 24   | chr12:47664730-47665729   | 347902 | AMIGO2       | -      | 191495            | -0.41                             | 0.00                              | 2.08                         | -0.57       |
| THCA   |      | 25   | chr11:64773795-64774794   | 5837   | PYGM         | -      | 246107            | -0.41                             | -0.01                             | -2.06                        | 0.64        |
| THCA   |      | 26   | chr14:74942044-74943043   | 10577  | NPC2         | -      | -17541            | -0.36                             | -0.01                             | 2.38                         | -0.59       |
| THCA   |      | 27   | chr14:74942044-74943043   | 646658 | TMEM90A      | -      | 49738             | -0.36                             | -0.01                             | 3.32                         | -0.57       |
| THCA   |      | 28   | chr8:10924133-10925132    | 83656  | C8orf12      | +      | -301279           | -0.38                             | 0.03                              | -2.67                        | 0.73        |
| THCA   |      | 29   | chr2:202297888-202298887  | 55437  | STRADB       | +      | -18005            | -0.40                             | -0.02                             | 0.92                         | -0.67       |
| THCA   |      | 30   | chr11:34264861-34265860   | 25841  | ABTB2        | -      | -114195           | -0.36                             | 0.00                              | 2.28                         | -0.78       |
| THCA   |      | 31   | chr16:69199751-69200750   | 1001   | CDH3         | +      | 522099            | -0.40                             | 0.00                              | 3.72                         | -0.79       |
| THCA   |      | 32   | chr5:131599390-131600389  | 1437   | CSF2         | +      | 190404            | -0.37                             | 0.00                              | 3.16                         | -0.60       |
| THCA   |      | 33   | chr1:39657628-39658627    | 353500 | BMP8A        | +      | -299191           | -0.39                             | 0.03                              | -4.42                        | 0.57        |
| THCA   |      | 34   | chr11:12188496-12189495   | 9645   | MICAL2       | +      | 73452             | -0.42                             | 0.02                              | 0.85                         | -0.65       |
| THCA   |      | 35   | chr10:71108252-71109251   | 80201  | HKDC1        | +      | 128692            | 0.40                              | 0.00                              | -2.22                        | -0.55       |
| THCA   |      | 36   | chr11:67795159-67796158   | 221    | ALDH3B1      | +      | 19610             | -0.35                             | -0.01                             | 2.31                         | -0.73       |
| THCA   |      | 37   | chr19:40916684-40917683   | 23646  | PLD3         | +      | 62851             | -0.46                             | 0.01                              | 1.12                         | -0.52       |
| THCA   |      | 38   | chr1:203482023-203483022  | 1116   | CHI3L1       | -      | 326600            | -0.42                             | 0.00                              | 3.81                         | -0.52       |
| THCA   |      | 39   | chr7:47797175-47798174    | 7378   | UPP1         | +      | -330681           | -0.42                             | -0.02                             | 2.00                         | -0.61       |
| THCA   |      | 40   | chr5:131599390-131600389  | 6583   | SLC22A4      | +      | -30256            | -0.37                             | 0.00                              | 1.45                         | -0.69       |
| THCA   |      | 41   | chr8:10924133-10925132    | 157739 | TDH          | +      | -272514           | -0.38                             | -0.01                             | -2.18                        | 0.69        |
| THCA   |      | 42   | chr17:42163933-42164932   | 2118   | ETV4         | -      | 540632            | -0.46                             | 0.01                              | 3.68                         | -0.56       |
| THCA   |      | 43   | chr15:74823081-74824080   | 64220  | STRA6        | -      | 321534            | -0.37                             | -0.01                             | 4.87                         | -0.60       |
| THCA   |      | 44   | chr14:94854534-94856004   | 5265   | SERPINA1     | -      | -1761             | -0.32                             | -0.01                             | 3.84                         | -0.69       |
| THCA   |      | 45   | chr3:142853687-142854686  | 9435   | CHST2        | +      | 15568             | -0.35                             | -0.03                             | 1.91                         | -0.67       |
| THCA   |      | 46   | chr16:11085472-11086471   | 23274  | CLEC16A      | +      | 47626             | -0.41                             | 0.00                              | 0.66                         | -0.72       |
| THCA   |      | 47   | chr4:25659072-25660071    | 10568  | SLC34A2      | +      | 2136              | -0.31                             | 0.00                              | 4.14                         | -0.87       |
| THCA   |      | 48   | chr1:162106332-162107331  | 400793 | C1orf226     | +      | -241865           | -0.44                             | 0.00                              | 1.58                         | -0.54       |
| THCA   |      | 49   | chr1:209822428-209823427  | 3914   | LAMB3        | -      | -2893             | -0.32                             | 0.00                              | 3.81                         | -0.79       |
| THCA   |      | 50   | chr13:76290575-76291574   | 9882   | TBC1D4       | -      | 234824            | -0.38                             | 0.00                              | -2.06                        | 0.65        |
| THCA   |      | 51   | chr5:150169281-150170280  | 11346  | SYNPO        | +      | 189138            | -0.44                             | -0.02                             | 0.82                         | -0.61       |
| THCA   |      | 52   | chr2:70335543-70336542    | 7039   | TGFA         | -      | -445105           | -0.44                             | 0.00                              | 2.23                         | -0.58       |
| THCA   |      | 53   | chr10:71108252-71109251   | 3098   | HK1          | +      | 78995             | 0.40                              | -0.03                             | -0.88                        | -0.68       |
| THCA   |      | 54   | chr15:74675731-74676730   | 64220  | STRA6        | -      | 174184            | -0.33                             | -0.01                             | 4.87                         | -0.67       |
| THCA   |      | 55   | chr11:13237104-13238103   | 406    | ARNTL        | +      | -61722            | -0.35                             | 0.00                              | 1.61                         | -0.72       |
| THCA   |      | 56   | chr12:89742386-89743385   | 1848   | DUSP6        | -      | -3411             | -0.33                             | 0.00                              | 2.27                         | -0.76       |
| THCA   |      | 57   | chr4:25844710-25845709    | 10568  | SLC34A2      | +      | 187774            | -0.33                             | 0.00                              | 4.14                         | -0.74       |
| THCA   |      | 58   | chr11:129972938-129973937 | 334    | ALPL2        | +      | 33721             | -0.41                             | -0.01                             | 0.75                         | -0.62       |
| THCA   |      | 59   | chr8:10924133-10925132    | 83648  | FAM167A      | -      | -399644           | -0.38                             | 0.02                              | -2.77                        | 0.63        |
| THCA   |      | 60   | chr13:99960457-99961456   | 23348  | DOCK9        | -      | 222296            | -0.39                             | 0.00                              | 1.15                         | -0.65       |
| THCA   |      | 61   | chr9:37925846-37926845    | 22844  | FRMPD1       | +      | 275293            | -0.41                             | 0.00                              | -1.59                        | 0.55        |
| THCA   |      | 62   | chr11:64773795-64774794   | 55561  | CDC42BPG     | -      | 162253            | -0.41                             | 0.00                              | 0.98                         | -0.59       |
| THCA   |      | 63   | chr1:11978688-11979687    | 90231  | KIAA2013     | -      | -7298             | -0.39                             | 0.00                              | 0.79                         | -0.59       |
| THCA   |      | 64   | chr1:209571389-209572388  | 3914   | LAMB3        | -      | -253932           | -0.33                             | 0.00                              | 3.81                         | -0.73       |
| THCA   |      | 65   | chr12:47664730-47665729   | 91523  | FAM113B      | +      | 191843            | -0.41                             | 0.02                              | 1.34                         | -0.52       |
| THCA   |      | 66   | chr2:70335543-70336542    | 151516 | ASPRV1       | -      | 146645            | -0.44                             | 0.04                              | -0.72                        | 0.59        |
| THCA   |      | 67   | chr8:11338175-11339174    | 83648  | FAM167A      | -      | 14398             | -0.32                             | 0.02                              | -2.77                        | 0.63        |
| THCA   |      | 68   | chr5:150169281-150170280  | 2878   | GPX3         | +      | -230219           | -0.44                             | 0.00                              | -1.01                        | 0.54        |
| THCA   |      | 69   | chr11:121334957-121335956 | 7007   | TECTA        | +      | 362081            | -0.46                             | 0.01                              | -1.36                        | 0.56        |
| THCA   |      | 70   | chr11:72451982-72452981   | 116985 | ARAP1        | -      | -52269            | -0.41                             | 0.02                              | 0.54                         | -0.72       |
| THCA   |      | 71   | chr14:94854588-94855587   | 5265   | SERPINA1     | -      | -1942             | -0.31                             | -0.01                             | 3.84                         | -0.64       |
| THCA   |      | 72   | chr15:68564046-68565045   | 10391  | CORO2B       | +      | -306763           | -0.40                             | -0.03                             | -1.59                        | 0.58        |
| THCA   |      | 73   | chr3:45174921-45175920    | 64866  | CDCP1        | -      | -12494            | -0.43                             | 0.00                              | 0.45                         | -0.61       |
| THCA   |      | 74   | chr5:43648849-43649848    | 64417  | C5orf28      | -      | 165356            | -0.43                             | 0.00                              | -0.94                        | 0.52        |
| THCA   |      | 75   | chr5:150169281-150170280  | 340075 | ARSI         | -      | 487255            | -0.44                             | 0.00                              | 1.14                         | -0.69       |
| THCA   |      | 76   | chr15:99256374-99257373   | 23336  | SYNM         | +      | -388413           | -0.40                             | -0.01                             | -1.20                        | 0.71        |
| THCA   |      | 77   | chr13:44587686-44588685   | 121838 | LOC121838    | +      | -8286             | -0.35                             | 0.00                              | 2.04                         | -0.56       |
| THCA   |      | 78   | chr2:70335543-70336542    | 22848  | AAK1         | -      | 465065            | -0.44                             | 0.01                              | -1.14                        | 0.65        |

|      |     |                           |        |           |   |         |       |       |       |       |
|------|-----|---------------------------|--------|-----------|---|---------|-------|-------|-------|-------|
| THCA | 79  | chr9:37925846-37926845    | 219    | ALDH1B1   | + | -466316 | -0.41 | 0.00  | -1.17 | 0.73  |
| THCA | 80  | chr11:66822353-66823352   | 91683  | SYT12     | + | 32662   | -0.30 | -0.01 | 5.97  | -0.72 |
| THCA | 81  | chr19:40916684-40917683   | 8857   | FCGBP     | - | 476650  | -0.46 | 0.00  | -2.03 | 0.53  |
| THCA | 82  | chr8:11338175-11339174    | 83656  | C8orf12   | + | 112763  | -0.32 | 0.03  | -2.67 | 0.69  |
| THCA | 83  | chr9:38025576-38026575    | 347252 | IGFBPL1   | - | -398369 | -0.35 | 0.00  | -3.97 | 0.67  |
| THCA | 84  | chr5:173191148-173192147  | 133491 | C5orf47   | + | -209138 | -0.43 | 0.00  | -0.82 | 0.55  |
| THCA | 85  | chr2:202297888-202298887  | 66008  | TRAK2     | - | -17932  | -0.40 | 0.00  | 0.49  | -0.65 |
| THCA | 86  | chr1:110042028-110043027  | 57535  | KIAA1324  | + | 385942  | -0.35 | 0.01  | -3.51 | 0.67  |
| THCA | 87  | chr2:120996046-120997045  | 3625   | INHBB     | + | -107174 | -0.36 | -0.21 | 1.20  | -0.63 |
| THCA | 88  | chr12:66050428-66051427   | 8091   | HMG2      | + | -166510 | -0.34 | 0.00  | 5.54  | -0.52 |
| THCA | 89  | chr6:112651808-112652807  | 2534   | FYN       | - | 457652  | -0.49 | 0.00  | 1.10  | -0.60 |
| THCA | 90  | chr3:45174921-45175920    | 54716  | SLC6A20   | - | -662615 | -0.43 | 0.00  | 3.57  | -0.54 |
| THCA | 91  | chr17:61724470-61725469   | 1534   | CLP561    | - | 201247  | -0.42 | 0.00  | -0.59 | 0.66  |
| THCA | 92  | chr1:203482023-203483022  | 127845 | GOLT1A    | - | -700698 | -0.42 | 0.03  | 3.77  | -0.57 |
| THCA | 93  | chr3:189983244-189984243  | 3556   | IL1RAP    | + | -248097 | -0.35 | 0.01  | 1.97  | -0.66 |
| THCA | 94  | chr4:186032878-186033877  | 27295  | PDLIM3    | - | -423335 | -0.38 | -0.03 | -2.52 | 0.58  |
| THCA | 95  | chr3:149102690-149103689  | 7104   | TM4SF4    | + | -89179  | -0.32 | -0.01 | 2.75  | -0.67 |
| THCA | 96  | chr17:42163933-42164932   | 10882  | C1QL1     | - | -881212 | -0.46 | -0.01 | 2.91  | -0.64 |
| THCA | 97  | chr1:203482023-203483022  | 5972   | REN       | - | -652943 | -0.42 | 0.00  | 3.56  | -0.55 |
| THCA | 98  | chr1:211765068-211766067  | 9926   | LPGAT1    | - | -238547 | -0.41 | 0.01  | -0.75 | 0.64  |
| THCA | 99  | chr1:207455215-207456214  | 5208   | PFKFB2    | + | 247953  | -0.37 | -0.03 | -1.48 | 0.61  |
| THCA | 100 | chr17:39575727-39576726   | 9001   | HAP1      | - | -314672 | -0.34 | 0.00  | -2.88 | 0.71  |
| THCA | 101 | chr15:74281483-74282482   | 64220  | STRA6     | - | -220064 | -0.33 | -0.01 | 4.87  | -0.58 |
| THCA | 102 | chr1:207455215-207456214  | 79098  | C1orf116  | - | 249613  | -0.37 | -0.01 | 1.04  | -0.70 |
| THCA | 103 | chr6:150216948-150217947  | 389434 | IYD       | + | -472581 | -0.39 | 0.05  | -2.02 | 0.63  |
| THCA | 104 | chr11:12188496-12189495   | 84953  | MICALCL   | + | -119452 | -0.42 | 0.00  | 0.74  | -0.53 |
| THCA | 105 | chr7:150054088-150055087  | 401431 | LOC401431 | - | 483636  | -0.39 | -0.03 | -1.97 | 0.62  |
| THCA | 106 | chr1:16508168-16509167    | 1187   | CLCNKA    | + | 163297  | -0.32 | 0.00  | -2.74 | 0.67  |
| THCA | 107 | chr17:48970501-48971500   | 8714   | ABCC3     | + | 258782  | -0.36 | 0.00  | 2.53  | -0.53 |
| THCA | 108 | chr11:72451982-72452981   | 2352   | FOLR3     | + | 605710  | -0.41 | 0.00  | -2.15 | 0.60  |
| THCA | 109 | chr4:6943571-6944570      | 7466   | WFS1      | + | 672493  | -0.49 | -0.01 | -1.15 | 0.68  |
| THCA | 110 | chr2:202297888-202298887  | 316    | AOX1      | + | 847656  | -0.40 | -0.02 | -4.43 | 0.59  |
| THCA | 111 | chr11:64773795-64774794   | 25858  | C11orf20  | + | 707476  | -0.41 | 0.00  | -2.20 | 0.68  |
| THCA | 112 | chr4:102227240-102228239  | 55024  | BANK1     | + | -113379 | -0.38 | 0.00  | -0.84 | 0.56  |
| THCA | 113 | chr17:78623101-78624100   | 10458  | BAIP2     | + | -385347 | -0.52 | -0.05 | 0.72  | -0.60 |
| THCA | 114 | chr17:48970501-48971500   | 162461 | TMEM92    | + | 622233  | -0.36 | -0.06 | 4.16  | -0.64 |
| THCA | 115 | chr2:153322323-153323322  | 785    | CACNB4    | - | 367229  | -0.38 | 0.00  | -1.21 | 0.66  |
| THCA | 116 | chr17:39216177-39217176   | 3866   | KRT15     | - | -461350 | -0.34 | 0.00  | 4.23  | -0.70 |
| THCA | 117 | chr4:186032878-186033877  | 256309 | CDC110    | - | -359536 | -0.38 | 0.00  | -1.53 | 0.58  |
| THCA | 118 | chr16:11085472-11086471   | 2013   | EMP2      | - | 411432  | -0.41 | -0.01 | 0.81  | -0.68 |
| THCA | 119 | chr15:78504551-78505550   | 5923   | RASGRF1   | - | -878165 | -0.40 | 0.00  | 3.98  | -0.67 |
| THCA | 120 | chr4:25844710-25845709    | 23231  | SEL1L3    | - | -19401  | -0.33 | 0.00  | 1.24  | -0.68 |
| THCA | 121 | chr13:44706465-44707464   | 8848   | TSC2D1    | - | -443737 | -0.38 | -0.01 | 1.37  | -0.68 |
| THCA | 122 | chr5:131599390-131600389  | 23305  | ACSL6     | - | 252019  | -0.37 | 0.01  | -1.75 | 0.56  |
| THCA | 123 | chr8:11338175-11339174    | 157739 | TDH       | + | 141528  | -0.32 | -0.01 | -2.18 | 0.64  |
| THCA | 124 | chr8:132200683-132201682  | 114    | ADCY8     | - | 148347  | -0.33 | -0.02 | 4.35  | -0.51 |
| THCA | 125 | chr11:64773795-64774794   | 23769  | FLRT1     | + | 902932  | -0.41 | 0.04  | -3.16 | 0.67  |
| THCA | 126 | chr17:18139006-18140005   | 3996   | LLGL1     | + | 10569   | -0.35 | 0.00  | 0.65  | -0.79 |
| THCA | 127 | chr1:110042028-110043027  | 2947   | GSTM3     | - | -241133 | -0.35 | 0.06  | -1.62 | 0.60  |
| THCA | 128 | chr11:76731089-76732088   | 7481   | WNT11     | - | 809785  | -0.45 | -0.01 | -2.97 | 0.53  |
| THCA | 129 | chr5:43648849-43649848    | 167359 | MGC42105  | + | 457178  | -0.43 | 0.03  | -0.94 | 0.59  |
| THCA | 130 | chr1:11194178-11195177    | 374946 | C1orf187  | + | -557104 | -0.38 | 0.00  | 2.49  | -0.58 |
| THCA | 131 | chr5:92908929-92910467    | 441094 | FLJ42709  | - | -7306   | 0.32  | 0.00  | 2.21  | 0.58  |
| THCA | 132 | chr12:112534059-112535058 | 217    | ALDH2     | + | 329867  | -0.41 | 0.00  | -0.93 | 0.57  |
| THCA | 133 | chr1:16508168-16509167    | 1188   | CLCNKB    | + | 153046  | -0.32 | 0.02  | -2.84 | 0.57  |
| THCA | 134 | chr11:62480555-62481554   | 1128   | CHRM1     | - | -207958 | -0.39 | -0.01 | -0.88 | 0.55  |
| THCA | 135 | chr1:202249953-202250952  | 1999   | ELF3      | + | 273379  | -0.35 | 0.01  | 1.67  | -0.65 |
| THCA | 136 | chr1:202249953-202250952  | 25802  | LMOD1     | - | 334736  | -0.35 | -0.01 | -2.69 | 0.58  |
| THCA | 137 | chr9:116160747-116161746  | 138065 | RNF183    | - | 95695   | -0.31 | 0.00  | 2.30  | -0.67 |
| THCA | 138 | chr11:121334957-121335956 | 2900   | GRIK4     | + | 952988  | -0.46 | 0.00  | -2.91 | 0.57  |
| THCA | 139 | chr2:46541861-46542860    | 5581   | PRKCE     | + | 663317  | -0.47 | 0.00  | -1.11 | 0.60  |
| THCA | 140 | chr12:25610675-25611674   | 55259  | CASC1     | - | 263080  | -0.38 | 0.00  | -1.04 | 0.57  |
| THCA | 141 | chr1:212277986-212278985  | 9926   | LPGAT1    | - | 274371  | 0.40  | 0.01  | -0.75 | -0.60 |
| THCA | 142 | chr17:18139006-18140005   | 2314   | FLII      | - | -22725  | -0.35 | 0.00  | 0.67  | -0.69 |
| THCA | 143 | chr12:112534059-112535058 | 89894  | TMEM116   | - | 83535   | -0.41 | 0.04  | -0.33 | 0.62  |
| THCA | 144 | chr15:75328336-75329335   | 64220  | STRA6     | - | 826789  | -0.39 | -0.01 | 4.87  | -0.58 |
| THCA | 145 | chr7:29608810-29609809    | 646762 | LOC646762 | - | -116128 | -0.40 | 0.00  | 0.62  | -0.52 |
| THCA | 146 | chr11:64773795-64774794   | 9379   | NRXN2     | - | 283634  | -0.41 | -0.05 | -1.03 | 0.51  |
| THCA | 147 | chr1:209822428-209823427  | 50486  | G0S2      | + | -25743  | -0.32 | 0.01  | 1.83  | -0.61 |
| THCA | 148 | chr2:153322323-153323322  | 4703   | NEB       | - | 731821  | -0.38 | 0.00  | -2.98 | 0.62  |
| THCA | 149 | chr1:43795499-43796498    | 5792   | PTPRF     | + | -200549 | -0.37 | 0.02  | 0.56  | -0.72 |
| THCA | 150 | chr13:33305466-33306465   | 9365   | KL        | + | -284236 | -0.36 | 0.00  | 1.52  | -0.58 |
| THCA | 151 | chr4:6993056-6994055      | 7466   | WFS1      | + | 721978  | -0.44 | -0.01 | -1.15 | 0.64  |
| THCA | 152 | chr3:149102690-149103689  | 4071   | TM4SF1    | - | 7621    | -0.32 | 0.00  | 1.12  | -0.66 |
| THCA | 153 | chr2:37938140-37939139    | 10602  | CDC42EP3  | - | 38961   | -0.32 | 0.01  | 1.22  | -0.73 |
| THCA | 154 | chr4:184256127-184257126  | 152641 | C4orf38   | - | 236274  | -0.35 | 0.00  | -1.07 | 0.70  |
| THCA | 155 | chr7:104865296-104866295  | 222256 | CDHR3     | + | -651472 | -0.39 | 0.00  | -2.97 | 0.54  |
| THCA | 156 | chr12:25610675-25611674   | 160492 | IFLTD1    | - | -190322 | -0.38 | 0.00  | -0.76 | 0.56  |
| THCA | 157 | chr8:126271969-126272968  | 6713   | SQLE      | + | 261748  | -0.42 | 0.00  | -0.54 | 0.57  |
| THCA | 158 | chr5:43648849-43649848    | 3157   | HMGCS1    | - | 335734  | -0.43 | -0.01 | -0.77 | 0.52  |
| THCA | 159 | chr14:69169510-69170509   | 677    | ZFP36L1   | - | -92951  | -0.34 | -0.04 | 1.03  | -0.59 |
| THCA | 160 | chr17:76857748-76858747   | 11322  | TM6C      | - | 729759  | -0.37 | 0.01  | 2.50  | -0.67 |

|      |     |                          |        |          |   |         |       |       |       |       |
|------|-----|--------------------------|--------|----------|---|---------|-------|-------|-------|-------|
| THCA | 161 | chr11:62480555-62481554  | 4246   | SCGB2A1  | + | 504914  | -0.39 | 0.00  | -1.20 | 0.62  |
| THCA | 162 | chr10:88627844-88628843  | 54537  | FAM35A   | + | -226610 | 0.38  | 0.04  | -0.91 | -0.52 |
| THCA | 163 | chr11:12309122-12310121  | 9645   | MICAL2   | + | 194078  | -0.35 | 0.02  | 0.85  | -0.62 |
| THCA | 164 | chr12:89728252-89729251  | 1848   | DUSP6    | - | -17545  | -0.30 | 0.00  | 2.27  | -0.61 |
| THCA | 165 | chr1:203482023-203483022 | 55224  | ETNK2    | - | -638785 | -0.42 | 0.00  | 1.10  | -0.62 |
| THCA | 166 | chr17:2309778-2310777    | 4335   | MNT      | - | 6019    | -0.42 | 0.02  | 0.23  | -0.52 |
| THCA | 167 | chr6:136914588-136915587 | 4217   | MAP3K5   | - | -198569 | -0.37 | 0.00  | 0.50  | -0.75 |
| THCA | 168 | chr15:83501199-83502198  | 646    | BNC1     | - | -451770 | -0.34 | 0.01  | 2.35  | -0.66 |
| THCA | 169 | chr11:12309122-12310121  | 84953  | MICALCL  | + | 1174    | -0.35 | 0.00  | 0.74  | -0.53 |
| THCA | 170 | chr5:131835256-131836255 | 8572   | PDLIM4   | + | 242404  | -0.31 | 0.02  | 2.80  | -0.70 |
| THCA | 171 | chr19:40916684-40917683  | 348303 | SELV     | + | 911430  | -0.46 | 0.01  | -3.22 | 0.51  |
| THCA | 172 | chr1:209571389-209572388 | 50486  | G0S2     | + | -276782 | -0.33 | 0.01  | 1.83  | -0.62 |
| THCA | 173 | chr13:31421623-31422622  | 84935  | C13orf33 | + | -58190  | -0.41 | -0.02 | 0.26  | -0.57 |
| THCA | 174 | chr3:114597003-114598002 | 2596   | GAP43    | + | -744649 | -0.36 | -0.01 | 3.52  | -0.72 |
| THCA | 175 | chr8:134545185-134546184 | 7038   | TG       | + | 666479  | -0.42 | 0.00  | -1.77 | 0.54  |
| THCA | 176 | chr15:78504551-78505550  | 1512   | CTSH     | - | -732370 | -0.40 | -0.03 | 2.22  | -0.59 |
| THCA | 177 | chr2:9375105-9376104     | 129642 | MBOAT2   | - | 231728  | -0.35 | 0.01  | 0.81  | -0.72 |
| THCA | 178 | chr19:8203980-8204979    | 404217 | CTXN1    | - | 213428  | -0.30 | 0.00  | 2.85  | -0.69 |
| THCA | 179 | chr16:67580937-67581936  | 55815  | TSNAXIP1 | + | -259541 | 0.33  | -0.02 | -1.88 | -0.63 |
| THCA | 180 | chr2:70335543-70336542   | 54980  | C2orf42  | - | -82109  | -0.44 | 0.00  | -0.36 | 0.51  |
| THCA | 181 | chr1:201571659-201572658 | 3898   | LAD1     | - | 203489  | -0.31 | 0.00  | 2.26  | -0.65 |
| THCA | 182 | chr1:24861881-24862880   | 57822  | GRHL3    | + | 216568  | -0.31 | 0.01  | 4.65  | -0.57 |
| THCA | 183 | chr13:49074516-49075515  | 81602  | CDADC1   | + | -747032 | -0.41 | 0.03  | -1.17 | 0.74  |
| THCA | 184 | chr3:98847562-98848561   | 131566 | DCBLD2   | - | 227528  | -0.37 | 0.04  | 0.74  | -0.57 |
| THCA | 185 | chr7:101180219-101181218 | 375607 | C7orf52  | - | 357161  | -0.34 | 0.00  | -2.29 | 0.58  |
| THCA | 186 | chr17:39216187-39217186  | 3866   | KRT15    | - | -461340 | -0.32 | 0.00  | 4.23  | -0.67 |
| THCA | 187 | chr17:2309778-2310777    | 84981  | C17orf91 | - | 690711  | -0.42 | 0.01  | -1.36 | 0.57  |
| THCA | 188 | chr3:184301898-184302897 | 64110  | MAGEF1   | - | -127439 | -0.37 | -0.02 | 0.54  | -0.62 |
| THCA | 189 | chr13:27768937-27769936  | 10810  | WASF3    | + | 637596  | -0.38 | 0.00  | -1.72 | 0.65  |
| THCA | 190 | chr1:11194178-11195177   | 26232  | FBXO2    | - | -520211 | -0.38 | 0.00  | 1.17  | -0.62 |
| THCA | 191 | chr6:150216948-150217947 | 84918  | LRP11    | - | 31967   | -0.39 | -0.02 | 0.47  | -0.52 |
| THCA | 192 | chr2:31188789-31189788   | 254013 | C12orf72 | + | -610806 | -0.46 | -0.01 | -0.80 | 0.60  |
| THCA | 193 | chr17:42163933-42164932  | 379    | ARL4D    | + | 688079  | -0.46 | 0.00  | -0.95 | 0.60  |
| THCA | 194 | chr12:31188789-31189788  | 58516  | FAM60A   | - | -289871 | -0.46 | 0.00  | 0.49  | -0.54 |
| THCA | 195 | chr15:64735848-64736847  | 79856  | SNX22    | + | 292431  | -0.39 | -0.04 | 0.92  | -0.53 |
| THCA | 196 | chr1:11978688-11979687   | 9249   | DHR3     | - | -698633 | -0.39 | -0.01 | 1.41  | -0.67 |
| THCA | 197 | chr16:67580937-67581936  | 3291   | HSD11B2  | + | 116400  | 0.33  | 0.02  | -1.80 | -0.52 |
| THCA | 198 | chr15:83501199-83502198  | 123722 | FSD2     | - | 26892   | -0.34 | 0.00  | -0.91 | 0.56  |
| THCA | 199 | chr1:236086701-236087700 | 56605  | ERO1LB   | - | -358139 | -0.35 | -0.03 | -1.36 | 0.63  |
| THCA | 200 | chr11:67795159-67796158  | 222    | ALDH3B2  | - | 346973  | -0.35 | 0.03  | 2.08  | -0.57 |
| THCA | 201 | chr9:37925846-37926845   | 158228 | C9orf122 | + | -694386 | -0.41 | -0.01 | -1.09 | 0.61  |
| THCA | 202 | chr1:16508168-16509167   | 1969   | EPHA2    | - | 26085   | -0.32 | 0.00  | 0.96  | -0.61 |
| THCA | 203 | chr17:39216177-39217176  | 3880   | KRT19    | - | -467965 | -0.34 | -0.02 | 1.89  | -0.71 |
| THCA | 204 | chr5:150169281-150170280 | 972    | CD74     | - | 377281  | -0.44 | 0.02  | 0.72  | -0.50 |
| THCA | 205 | chr1:236086701-236087700 | 1130   | LYST     | - | 40192   | -0.35 | 0.00  | 0.58  | -0.62 |
| THCA | 206 | chr8:101470597-101471596 | 157567 | ANKRD46  | - | -100918 | -0.34 | 0.01  | -0.80 | 0.61  |
| THCA | 207 | chr3:46130358-46131357   | 54716  | SLC6A20  | - | 292822  | -0.30 | 0.00  | 3.57  | -0.65 |
| THCA | 208 | chr13:49074516-49075515  | 2862   | MLNR     | + | -719459 | -0.41 | 0.00  | -1.93 | 0.52  |
| THCA | 209 | chr7:29608810-29609809   | 10392  | NOD1     | - | -909084 | -0.40 | 0.00  | 2.19  | -0.63 |
| THCA | 210 | chr4:6993056-6994055     | 152789 | JAKMIP1  | - | 791237  | -0.44 | 0.01  | -1.48 | 0.55  |
| THCA | 211 | chr11:71655925-71656924  | 2352   | FOLR3    | + | -190347 | -0.33 | 0.00  | -2.15 | 0.52  |
| THCA | 212 | chr4:186032878-186033877 | 8470   | SORBS2   | - | -844493 | -0.38 | -0.05 | -2.37 | 0.61  |
| THCA | 213 | chr2:30632668-30633667   | 253558 | LCLAT1   | + | -36956  | -0.37 | -0.02 | -0.40 | 0.59  |
| THCA | 214 | chr11:64773795-64774794  | 283130 | SLC25A45 | - | -376878 | -0.41 | 0.00  | -0.72 | 0.56  |
| THCA | 215 | chr1:224839464-224840463 | 149111 | CNIH3    | + | 35784   | -0.34 | -0.04 | 0.60  | -0.63 |
| THCA | 216 | chr17:31593969-31594968  | 26022  | TMEM98   | + | 339540  | -0.35 | 0.00  | 1.06  | -0.67 |
| THCA | 217 | chr15:64735848-64736847  | 9325   | TRIP4    | + | 56344   | -0.39 | -0.05 | -0.43 | 0.54  |
| THCA | 218 | chr16:57797773-57798772  | 4324   | MMP15    | + | -261010 | -0.37 | 0.00  | -0.51 | 0.67  |
| THCA | 219 | chr3:184301898-184302897 | 200879 | LIPH     | - | -967972 | -0.37 | 0.00  | 6.11  | -0.62 |
| THCA | 220 | chr2:37938140-37939139   | 1545   | CYP1B1   | - | -364684 | -0.32 | 0.00  | 2.32  | -0.70 |
| THCA | 221 | chr1:183133236-183134235 | 3918   | LAMC2    | + | -21439  | -0.32 | 0.00  | 1.04  | -0.61 |
| THCA | 222 | chr16:67580937-67581936  | 1014   | CDH16    | - | 628549  | 0.33  | 0.00  | -5.41 | -0.64 |
| THCA | 223 | chr9:38025576-38026575   | 219    | ALDH1B1  | + | -366586 | -0.35 | 0.00  | -1.17 | 0.60  |
| THCA | 224 | chr1:39657628-39658627   | 656    | BMP8B    | - | -596406 | -0.39 | 0.00  | -1.41 | 0.54  |
| THCA | 225 | chr16:67580937-67581936  | 388284 | C16orf86 | + | -119281 | 0.33  | 0.00  | -1.30 | -0.53 |
| THCA | 226 | chr5:114750144-114751143 | 5229   | PGT1B    | - | 152074  | -0.38 | 0.01  | -0.46 | 0.55  |
| THCA | 227 | chr2:37938140-37939139   | 25797  | QPCT     | + | 366886  | -0.32 | 0.00  | 3.01  | -0.60 |
| THCA | 228 | chr11:68105518-68106517  | 221    | ALDH3B1  | + | 329969  | -0.31 | -0.01 | 2.31  | -0.67 |
| THCA | 229 | chr14:69169510-69170509  | 87     | ACTN1    | - | -276074 | -0.34 | 0.01  | 0.99  | -0.65 |
| THCA | 230 | chr17:45698760-45699759  | 79170  | PRR15L   | - | -335984 | -0.36 | 0.04  | -1.30 | 0.53  |
| THCA | 231 | chr11:66822353-66823352  | 6712   | SPTBN2   | - | 333982  | -0.30 | 0.01  | 3.47  | -0.69 |
| THCA | 232 | chr17:48970501-48971500  | 80221  | ACSF2    | + | 467481  | -0.36 | 0.00  | -0.91 | 0.70  |
| THCA | 233 | chr10:91312880-91313879  | 24138  | IFIT5    | + | 139054  | -0.37 | 0.00  | 0.32  | -0.67 |
| THCA | 234 | chr15:72650698-72651697  | 585    | BBS4     | + | -327323 | -0.39 | 0.00  | -0.59 | 0.55  |
| THCA | 235 | chr6:53147141-53148140   | 9697   | TRAM2    | - | 705778  | 0.50  | 0.00  | -1.05 | -0.51 |
| THCA | 236 | chr8:20080166-20081165   | 526    | ATP6V1B2 | + | 25961   | -0.36 | -0.02 | 0.60  | -0.51 |
| THCA | 237 | chr14:69169510-69170509  | 400224 | UPF0639  | + | -781462 | -0.34 | -0.01 | -3.00 | 0.73  |
| THCA | 238 | chr5:31408078-31409077   | 1004   | CDH6     | + | 214815  | -0.31 | 0.03  | 2.51  | -0.53 |
| THCA | 239 | chr17:20106820-20107819  | 92521  | CYTSB    | + | 194670  | -0.32 | 0.01  | 1.13  | -0.60 |
| THCA | 240 | chr13:98741665-98742664  | 23348  | DOCK9    | - | -996496 | -0.43 | 0.00  | 1.15  | -0.65 |
| THCA | 241 | chr12:47664730-47665729  | 8909   | ENDOU    | - | -454126 | -0.41 | 0.00  | -0.73 | 0.53  |
| THCA | 242 | chr2:33294638-33295637   | 4052   | LTBP1    | + | 122768  | -0.35 | 0.00  | 0.63  | -0.58 |

|      |     |                           |        |           |   |         |       |       |       |       |
|------|-----|---------------------------|--------|-----------|---|---------|-------|-------|-------|-------|
| THCA | 243 | chr17:18139006-18140005   | 125170 | SMCR7     | + | -24343  | -0.35 | 0.03  | 0.37  | -0.66 |
| THCA | 244 | chr10:91312880-91313879   | 3433   | IFIT2     | + | 251673  | -0.37 | 0.00  | 0.62  | -0.57 |
| THCA | 245 | chr19:8203980-8204979     | 84467  | FBN3      | - | -7902   | -0.30 | 0.00  | 1.35  | -0.57 |
| THCA | 246 | chr1:203482023-203483022  | 3814   | KISS1     | - | -683097 | -0.42 | 0.00  | 1.31  | -0.50 |
| THCA | 247 | chr7:104865296-104866295  | 54517  | PUS7      | - | -296890 | -0.39 | -0.02 | -0.60 | 0.54  |
| THCA | 248 | chr11:67795159-67796158   | 10312  | TCIRG1    | + | -10804  | -0.35 | 0.00  | 0.72  | -0.50 |
| THCA | 249 | chr19:18874182-18875181   | 6528   | SLC5A5    | + | 891899  | -0.37 | -0.01 | -6.24 | 0.53  |
| THCA | 250 | chr15:74675731-74676730   | 8482   | SEMA7A    | - | -50069  | -0.33 | 0.00  | 1.03  | -0.51 |
| THCA | 251 | chr2:9375105-9376104      | 8853   | ASAP2     | + | 28710   | -0.35 | 0.02  | 0.19  | -0.74 |
| THCA | 252 | chr9:116160747-116161746  | 257169 | C9orf43   | + | -11689  | -0.31 | 0.00  | -1.12 | 0.55  |
| THCA | 253 | chr9:38025576-38026575    | 22844  | FRMPD1    | + | 375023  | -0.35 | 0.00  | -1.59 | 0.52  |
| THCA | 254 | chr2:120996046-120997045  | 200373 | PCDP1     | + | 694537  | -0.36 | 0.02  | -2.15 | 0.60  |
| THCA | 255 | chr4:25659072-25660071    | 23231  | SEL1L3    | - | -205039 | -0.31 | 0.00  | 1.24  | -0.67 |
| THCA | 256 | chr13:44587686-44588685   | 8848   | TSC22D1   | - | -562516 | -0.35 | -0.01 | 1.37  | -0.73 |
| THCA | 257 | chr16:67580937-67581936   | 81577  | GFOD2     | - | -171837 | 0.33  | 0.01  | -0.73 | -0.65 |
| THCA | 258 | chr1:42248498-42249497    | 284716 | RIMKLA    | + | -597471 | -0.34 | -0.02 | -1.78 | 0.73  |
| THCA | 259 | chr1:211765068-211766067  | 84791  | C1orf97   | + | 209470  | -0.41 | 0.00  | -0.38 | 0.51  |
| THCA | 260 | chr5:131560558-131561557  | 134549 | SHROOM1   | - | -605533 | -0.42 | 0.01  | 0.87  | -0.50 |
| THCA | 261 | chr1:201571659-201572658  | 7135   | TNNI1     | - | 173164  | -0.31 | -0.02 | 1.54  | -0.57 |
| THCA | 262 | chr17:39216187-39217186   | 3880   | KRT19     | - | -467955 | -0.32 | -0.02 | 1.89  | -0.68 |
| THCA | 263 | chr7:47866525-47867524    | 7378   | UPP1      | + | -261331 | -0.32 | -0.02 | 2.00  | -0.57 |
| THCA | 264 | chr19:18874182-18875181   | 5976   | UPF1      | + | -68063  | -0.37 | 0.00  | 0.30  | -0.58 |
| THCA | 265 | chr3:98847562-98848561    | 1295   | COL8A1    | + | -509379 | -0.37 | 0.00  | 1.11  | -0.53 |
| THCA | 266 | chr5:131835256-131836255  | 6583   | SLC22A4   | + | 205610  | -0.31 | 0.00  | 1.45  | -0.62 |
| THCA | 267 | chr7:150054088-150055087  | 155066 | ATP6V0E2  | + | 484530  | -0.39 | -0.02 | -0.79 | 0.53  |
| THCA | 268 | chr3:50844176-50845175    | 7867   | MAPKAPK3  | + | 195382  | -0.33 | 0.00  | 0.74  | -0.60 |
| THCA | 269 | chr3:16468627-16469626    | 23228  | PLCL2     | + | -375033 | -0.36 | 0.01  | -0.71 | 0.61  |
| THCA | 270 | chr12:10869675-10870674   | 8531   | CSDA      | - | -5779   | -0.32 | 0.01  | 0.57  | -0.60 |
| THCA | 271 | chr1:183133236-183134235  | 85397  | RGS8      | - | 491668  | -0.32 | 0.00  | -3.96 | 0.58  |
| THCA | 272 | chr17:18139006-18140005   | 10517  | FBXW10    | + | -507821 | -0.35 | -0.01 | -2.19 | 0.52  |
| THCA | 273 | chr14:74191881-74192880   | 9240   | PNMA1     | - | 11252   | -0.33 | 0.00  | 0.54  | -0.59 |
| THCA | 274 | chr1:43795499-43796498    | 284716 | RIMKLA    | + | 949530  | -0.37 | -0.02 | -1.78 | 0.75  |
| THCA | 275 | chr11:57199825-57200824   | 219539 | YPEL4     | - | -217093 | -0.31 | 0.00  | 1.98  | -0.55 |
| THCA | 276 | chr11:66822353-66823352   | 5091   | PC        | - | 97005   | -0.30 | -0.01 | 1.36  | -0.60 |
| THCA | 277 | chr17:39216177-39217176   | 3860   | KRT13     | - | -445189 | -0.34 | 0.00  | 1.50  | -0.60 |
| THCA | 278 | chr1:48359954-48360953    | 10158  | PDZK1IP1  | - | 704682  | -0.32 | 0.07  | 3.65  | -0.74 |
| THCA | 279 | chr9:127888318-127889317  | 3309   | HSPA5     | - | -114849 | -0.32 | 0.01  | -0.76 | 0.61  |
| THCA | 280 | chr4:186032878-186033877  | 2180   | ACSL1     | - | 286162  | -0.38 | -0.01 | -0.57 | 0.52  |
| THCA | 281 | chr17:78765448-78766447   | 10458  | BALP2     | + | -243000 | -0.34 | -0.05 | 0.72  | -0.62 |
| THCA | 282 | chr14:74191881-74192880   | 646658 | TMEM90A   | - | -700425 | -0.33 | -0.01 | 3.32  | -0.63 |
| THCA | 283 | chr16:67580937-67581936   | 57610  | RANBP10   | - | -259119 | 0.33  | 0.00  | -0.83 | -0.64 |
| THCA | 284 | chr5:131599390-131600389  | 645121 | CCNI2     | + | -483248 | -0.37 | 0.00  | 0.79  | -0.62 |
| THCA | 285 | chr2:36688064-36689063    | 25797  | QPCT      | + | -883190 | -0.35 | 0.00  | 3.01  | -0.58 |
| THCA | 286 | chr16:67580937-67581936   | 25894  | PLEKHG4   | + | 270023  | 0.33  | 0.01  | 1.06  | 0.58  |
| THCA | 287 | chr7:29608810-29609809    | 79017  | GGCT      | - | -935148 | -0.40 | 0.01  | 1.94  | -0.55 |
| THCA | 288 | chr1:94486395-94487394    | 24     | ABCA4     | - | -99811  | -0.32 | 0.00  | 0.78  | -0.61 |
| THCA | 289 | chr11:57199825-57200824   | 8501   | SLC43A1   | - | -82868  | -0.31 | 0.01  | -0.89 | 0.62  |
| THCA | 290 | chr14:74942044-74943043   | 5228   | PGF       | - | -479924 | -0.36 | 0.00  | -1.29 | 0.52  |
| THCA | 291 | chr5:114790624-114791623  | 5229   | PGGT1B    | - | 192554  | -0.38 | 0.01  | -0.46 | 0.51  |
| THCA | 292 | chr1:212277986-212278985  | 55509  | BATF3     | - | -594842 | 0.40  | -0.05 | 0.81  | 0.54  |
| THCA | 293 | chr1:110042028-110043027  | 127003 | C1orf194  | - | 386048  | -0.35 | 0.01  | -1.36 | 0.50  |
| THCA | 294 | chr2:120996046-120997045  | 5775   | PTPN4     | + | 479338  | -0.36 | 0.00  | -1.09 | 0.55  |
| THCA | 295 | chr17:39216177-39217176   | 9001   | HAP1      | - | -674222 | -0.34 | 0.00  | -2.88 | 0.56  |
| THCA | 296 | chr7:28612180-28613179    | 9586   | CREB5     | + | 273739  | -0.33 | -0.01 | 0.96  | -0.63 |
| THCA | 297 | chr10:114344488-114345487 | 57678  | GPAM      | - | 401450  | -0.34 | -0.01 | -0.87 | 0.64  |
| THCA | 298 | chr14:94854534-94856004   | 145270 | PRIMA1    | - | 600502  | -0.32 | 0.00  | -2.62 | 0.66  |
| THCA | 299 | chr9:37925846-37926845    | 26267  | FBXO10    | - | 337416  | -0.41 | 0.00  | -0.29 | 0.55  |
| THCA | 300 | chr15:74281483-74282482   | 80381  | CD276     | + | 305360  | -0.33 | 0.04  | 0.95  | -0.60 |
| THCA | 301 | chr6:136914588-136915587  | 116379 | IL22RA2   | - | -579698 | -0.37 | 0.00  | 1.04  | -0.55 |
| THCA | 302 | chr12:67040401-67041400   | 8091   | HMG2      | + | 823463  | -0.33 | 0.00  | 5.54  | -0.63 |
| THCA | 303 | chr1:85098098-85099097    | 5567   | PRKACB    | + | 554852  | -0.36 | 0.00  | -0.81 | 0.69  |
| THCA | 304 | chr15:74281483-74282482   | 10021  | HCN4      | + | 620377  | -0.33 | -0.04 | 4.11  | -0.51 |
| THCA | 305 | chr3:36689729-36690728    | 9209   | LRRFIP2   | - | -527623 | -0.39 | -0.01 | -0.59 | 0.59  |
| THCA | 306 | chr5:131835256-131836255  | 1437   | CSF2      | + | 426270  | -0.31 | 0.00  | 3.16  | -0.55 |
| THCA | 307 | chr8:134545185-134546184  | 51105  | PHF20L1   | + | 758080  | -0.42 | -0.02 | -0.70 | 0.60  |
| THCA | 308 | chr10:90013489-90014488   | 355    | FAS       | + | -715565 | -0.40 | 0.02  | 0.96  | -0.54 |
| THCA | 309 | chr15:61090720-61091719   | 302    | ANXA2     | - | 401034  | -0.38 | 0.00  | 0.57  | -0.54 |
| THCA | 310 | chr3:193807249-193808248  | 131583 | FAM43A    | + | -598874 | -0.34 | 0.00  | 1.93  | -0.57 |
| THCA | 311 | chr14:90989586-90990585   | 80017  | C14orf159 | + | -590272 | -0.37 | -0.01 | -0.59 | 0.72  |
| THCA | 312 | chr12:112534059-112535058 | 80724  | ACAD10    | + | 410701  | -0.41 | 0.00  | -0.29 | 0.60  |
| THCA | 313 | chr3:45174921-45175920    | 22908  | SACM1L    | + | -555334 | -0.43 | 0.03  | -0.52 | 0.53  |
| THCA | 314 | chr1:95018389-95019388    | 24     | ABCA4     | - | 432183  | -0.36 | 0.00  | 0.78  | -0.59 |
| THCA | 315 | chr11:66822353-66823352   | 79703  | C11orf80  | + | 310645  | -0.30 | 0.01  | 1.66  | -0.67 |
| THCA | 316 | chr15:75400431-75401430   | 64220  | STRA6     | - | 898884  | -0.33 | -0.01 | 4.87  | -0.70 |
| THCA | 317 | chr4:40674671-40675670    | 22998  | LIMCH1    | + | -687634 | -0.47 | 0.03  | -0.69 | 0.50  |
| THCA | 318 | chr17:39216177-39217176   | 3872   | KRT17     | - | -564206 | -0.34 | 0.00  | 2.77  | -0.51 |
| THCA | 319 | chr10:91312880-91313879   | 355    | FAS       | + | 583826  | -0.37 | 0.02  | 0.96  | -0.56 |
| THCA | 320 | chr1:202249953-202250952  | 3898   | LAD1      | - | 881783  | -0.35 | 0.00  | 2.26  | -0.66 |
| THCA | 321 | chr10:90013489-90014488   | 1E+08  | KILLIN    | - | 390794  | -0.40 | -0.02 | -0.51 | 0.51  |
| THCA | 322 | chr17:18139006-18140005   | 147166 | TRIM16L   | + | -461806 | -0.35 | 0.00  | -1.12 | 0.55  |
| THCA | 323 | chr17:48970501-48971500   | 3675   | ITGA3     | + | 837660  | -0.36 | 0.00  | 1.36  | -0.66 |
| THCA | 324 | chr11:69048137-69049136   | 1374   | CPT1A     | - | 439237  | -0.39 | 0.04  | -0.50 | 0.57  |

|      |     |                           |        |           |   |         |       |       |       |       |
|------|-----|---------------------------|--------|-----------|---|---------|-------|-------|-------|-------|
| THCA | 325 | chr17:61724470-61725469   | 55852  | TEX2      | - | -615684 | -0.42 | -0.01 | -0.62 | 0.51  |
| THCA | 326 | chr6:106535536-106536535  | 84816  | RTN4IP1   | - | -542331 | -0.45 | 0.00  | -0.44 | 0.53  |
| THCA | 327 | chr19:18874182-18875181   | 23373  | CRTC1     | + | 80256   | -0.37 | 0.01  | 0.31  | -0.51 |
| THCA | 328 | chr1:43795499-43796498    | 6513   | SLC2A1    | - | 371151  | -0.37 | 0.01  | 0.48  | -0.59 |
| THCA | 329 | chr13:49074516-49075515   | 8803   | SUCLA2    | - | 462890  | -0.41 | 0.01  | -0.50 | 0.53  |
| THCA | 330 | chr11:66822353-66823352   | 254439 | C11orf86  | + | 80098   | -0.30 | 0.02  | 0.95  | -0.61 |
| THCA | 331 | chr2:112461579-112462578  | 129804 | FBLN7     | + | -433884 | -0.32 | 0.00  | -1.49 | 0.65  |
| THCA | 332 | chr14:94854588-94855587   | 145270 | PRIMA1    | - | 600321  | -0.31 | 0.00  | -2.62 | 0.68  |
| THCA | 333 | chr2:37938140-37939139    | 285154 | C2orf58   | + | -419608 | -0.32 | 0.00  | 1.67  | -0.62 |
| THCA | 334 | chr20:3207600-3208599     | 57593  | EBF4      | + | 534575  | -0.32 | 0.00  | -1.67 | 0.71  |
| THCA | 335 | chr1:85098098-85099097    | 79739  | TTL7      | - | 633764  | -0.36 | -0.03 | -1.58 | 0.54  |
| THCA | 336 | chr11:72451982-72452981   | 220074 | LRTOMT    | + | 661104  | -0.41 | -0.03 | -0.63 | 0.55  |
| THCA | 337 | chr19:18874182-18875181   | 80714  | PBX4      | - | -855044 | -0.37 | 0.00  | -2.51 | 0.50  |
| THCA | 338 | chr5:127563486-127564485  | 28965  | SLC27A6   | + | -737225 | -0.33 | -0.02 | 2.53  | -0.67 |
| THCA | 339 | chr2:153322323-153323322  | 151188 | ARL6IP6   | + | -251585 | -0.38 | -0.03 | 0.25  | -0.56 |
| THCA | 340 | chr14:24732939-24733938   | 5875   | RABGGTA   | - | -7395   | -0.31 | 0.01  | 0.65  | -0.58 |
| THCA | 341 | chr9:38025576-38026575    | 158228 | C9orf122  | + | -594656 | -0.35 | -0.01 | -1.09 | 0.59  |
| THCA | 342 | chr17:39216187-39217186   | 9001   | HAP1      | - | -674212 | -0.32 | 0.00  | -2.88 | 0.59  |
| THCA | 343 | chr11:72451982-72452981   | 81570  | CLPB      | - | 306757  | -0.41 | 0.00  | -0.22 | 0.52  |
| THCA | 344 | chr21:36167508-36168507   | 54065  | FAM165B   | + | 420258  | -0.37 | -0.02 | -0.60 | 0.53  |
| THCA | 345 | chr13:27756911-27757910   | 10810  | WASF3     | + | 625570  | -0.33 | 0.00  | -1.72 | 0.59  |
| THCA | 346 | chr11:19736412-19737736   | 10196  | PRMT3     | + | -672003 | -0.39 | -0.01 | -0.84 | 0.54  |
| THCA | 347 | chr3:46130358-46131357    | 6997   | TDF1      | + | -485188 | -0.30 | -0.04 | -2.30 | 0.62  |
| THCA | 348 | chr7:29608810-29609809    | 223082 | ZNRF2     | + | -714614 | -0.40 | 0.00  | 0.73  | -0.56 |
| THCA | 349 | chr14:74191881-74192880   | 10577  | NPC2      | - | -767704 | -0.33 | -0.01 | 2.38  | -0.62 |
| THCA | 350 | chr10:28419023-28420022   | 387646 | LOC387646 | - | 878287  | -0.37 | 0.00  | -1.55 | 0.55  |
| THCA | 351 | chr11:72451982-72452981   | 3636   | INPL1     | + | 516599  | -0.41 | 0.04  | -0.17 | 0.63  |
| THCA | 352 | chr1:183133236-183134235  | 6004   | RGS16     | - | 560187  | -0.32 | 0.00  | -1.73 | 0.69  |
| THCA | 353 | chr16:48115140-48116139   | 5257   | PHKB      | + | 620429  | -0.37 | -0.01 | -0.61 | 0.65  |
| THCA | 354 | chr2:101368830-101369829  | 284996 | RNF149    | - | -555849 | -0.46 | 0.00  | 0.23  | -0.56 |
| THCA | 355 | chr11:12309122-12310121   | 406    | ARNTL     | + | -989704 | -0.35 | 0.00  | 1.61  | -0.72 |
| THCA | 356 | chr2:178109473-178110472  | 92104  | TTC30A    | - | -373722 | -0.32 | 0.04  | -1.39 | 0.55  |
| THCA | 357 | chr1:202249953-202250952  | 1116   | CHI3L1    | - | -905470 | -0.35 | 0.00  | 3.81  | -0.54 |
| THCA | 358 | chr3:111720843-111721842  | 90102  | PHLDB2    | + | 270015  | -0.34 | -0.03 | 0.75  | -0.54 |
| THCA | 359 | chr12:2410616-2411615     | 79602  | ADIPOR2   | + | 610868  | -0.35 | 0.00  | -0.73 | 0.71  |
| THCA | 360 | chr4:187564889-187565888  | 8470   | SORBS2    | - | 687518  | -0.32 | -0.05 | -2.37 | 0.64  |
| THCA | 361 | chr3:189983244-189984243  | 8626   | TP63      | + | 634527  | -0.35 | 0.00  | 1.39  | -0.53 |
| THCA | 362 | chr1:201571659-201572658  | 1999   | ELF3      | + | -404915 | -0.31 | 0.01  | 1.67  | -0.58 |
| THCA | 363 | chr12:67040401-67041400   | 204010 | RPSAP52   | - | 820146  | -0.33 | -0.04 | 3.32  | -0.58 |
| THCA | 364 | chr1:201571659-201572658  | 55765  | C1orf106  | + | 711531  | -0.31 | 0.00  | 2.89  | -0.64 |
| THCA | 365 | chr3:46972784-46973783    | 79442  | LRRC2     | - | 351711  | -0.30 | 0.00  | -1.47 | 0.61  |
| THCA | 366 | chr3:46972784-46973783    | 6997   | TDF1      | + | 357238  | -0.30 | -0.04 | -2.30 | 0.53  |
| THCA | 367 | chr4:184256127-184257126  | 201965 | RWDD4A    | - | -323705 | -0.35 | 0.01  | -0.48 | 0.65  |
| THCA | 368 | chr2:178109473-178110472  | 150737 | TTC30B    | - | -307552 | -0.32 | -0.01 | -1.13 | 0.54  |
| THCA | 369 | chr15:67341510-67342509   | 64799  | IQCH      | + | -205129 | -0.31 | -0.01 | -1.15 | 0.52  |
| THCA | 370 | chr17:27451513-27452512   | 83871  | RAB34     | - | 406726  | -0.33 | -0.01 | 1.00  | -0.55 |
| THCA | 371 | chr8:134700987-134701986  | 51105  | PHF20L1   | + | 913882  | -0.44 | -0.02 | -0.70 | 0.56  |
| THCA | 372 | chr17:39216187-39217186   | 3860   | KRT13     | - | -445179 | -0.32 | 0.00  | 1.50  | -0.57 |
| THCA | 373 | chr3:46130358-46131357    | 1230   | CCR1      | - | -118975 | -0.30 | 0.00  | 0.92  | -0.54 |
| THCA | 374 | chr4:114366008-114367007  | 287    | ANK2      | + | 627268  | -0.32 | -0.02 | -3.10 | 0.55  |
| THCA | 375 | chr1:44052880-44053879    | 5792   | PTPRF     | + | 56832   | -0.30 | 0.02  | 0.56  | -0.70 |
| THCA | 376 | chr7:104865296-104866295  | 222255 | ATXN7L1   | - | -651236 | -0.39 | 0.00  | -0.84 | 0.51  |
| THCA | 377 | chr16:57797773-57798772   | 57017  | COQ9      | + | 316935  | -0.37 | 0.01  | -0.13 | 0.59  |
| THCA | 378 | chr19:18874182-18875181   | 54858  | PGPEP1    | + | 423273  | -0.37 | -0.02 | 0.68  | -0.51 |
| THCA | 379 | chr2:217342465-217343464  | 3488   | IGFBP5    | - | -217308 | -0.36 | -0.03 | 0.05  | -0.60 |
| THCA | 380 | chr19:8203980-8204979     | 6618   | SNAPC2    | + | 219285  | -0.30 | 0.00  | 0.92  | -0.61 |
| THCA | 381 | chr17:463099-464098       | 64359  | NXN       | - | -419400 | -0.32 | -0.02 | 0.99  | -0.67 |
| THCA | 382 | chr15:74823081-74824080   | 80381  | CD276     | + | 846958  | -0.37 | 0.04  | 0.95  | -0.60 |
| THCA | 383 | chr11:64773795-64774794   | 4054   | LTBP3     | - | -551959 | -0.41 | 0.00  | 0.37  | -0.56 |
| THCA | 384 | chr1:28927825-28928824    | 10076  | PTPRU     | + | -634704 | -0.33 | -0.01 | 1.05  | -0.72 |
| THCA | 385 | chr3:149102690-149103689  | 185    | AGTR1     | + | 687531  | -0.32 | -0.01 | -2.43 | 0.58  |
| THCA | 386 | chr1:24861881-24862880    | 2582   | GALR1     | - | 735086  | -0.31 | -0.01 | 2.91  | -0.66 |
| THCA | 387 | chr6:18053326-18054325    | 221656 | KDM1B     | + | -101794 | -0.30 | 0.01  | -0.86 | 0.53  |
| THCA | 388 | chr5:76654283-76655282    | 8622   | PDE8B     | + | 148076  | -0.30 | 0.00  | -1.02 | 0.53  |
| THCA | 389 | chr19:18874182-18875181   | 23031  | MAST3     | + | 666078  | -0.37 | -0.01 | 0.88  | -0.54 |
| THCA | 390 | chr1:202249953-202250952  | 4608   | MYBPB     | - | -894490 | -0.35 | 0.01  | 2.75  | -0.52 |
| THCA | 391 | chr6:106535536-106536535  | 55278  | QRSL1     | + | -541406 | -0.45 | 0.00  | -0.28 | 0.50  |
| THCA | 392 | chr2:36688064-36689063    | 9637   | FEZ2      | - | -136769 | -0.35 | 0.00  | 0.07  | -0.55 |
| THCA | 393 | chr17:59216214-59217213   | 762    | CA4       | + | 989411  | -0.35 | -0.05 | -3.06 | 0.51  |
| THCA | 394 | chr1:145455628-145456627  | 10401  | PIAS3     | + | -119163 | -0.31 | 0.00  | 0.54  | -0.61 |
| THCA | 395 | chr9:127888318-127889317  | 2800   | GOLGA1    | - | 185431  | -0.32 | 0.00  | -0.52 | 0.58  |
| THCA | 396 | chr17:45698760-45699759   | 29916  | SNX11     | + | -485652 | -0.36 | 0.02  | -0.51 | 0.60  |
| THCA | 397 | chr1:224839464-224840463  | 8560   | DEGS1     | + | 469053  | -0.34 | 0.00  | 0.59  | -0.66 |
| THCA | 398 | chr18:72509055-72510054   | 201456 | FBXO15    | - | 694454  | -0.33 | 0.00  | -1.80 | 0.56  |
| THCA | 399 | chr11:71655925-71656924   | 22941  | SHANK2    | - | 720582  | -0.33 | 0.00  | -2.03 | 0.57  |
| THCA | 400 | chr3:50844176-50845175    | 51161  | C3orf18   | - | 236217  | -0.33 | 0.00  | -0.52 | 0.54  |
| THCA | 401 | chr7:28612180-28613179    | 222171 | PRR15     | + | -990748 | -0.33 | -0.01 | 5.53  | -0.58 |
| THCA | 402 | chr8:102109639-102110638  | 157567 | ANKRD46   | - | 538124  | -0.33 | 0.01  | -0.80 | 0.64  |
| THCA | 403 | chr6:17865539-17866538    | 7172   | TPMT      | - | -289336 | -0.36 | 0.00  | -0.50 | 0.50  |
| THCA | 404 | chr11:62480555-62481554   | 80150  | ASRGL1    | + | 376280  | -0.39 | 0.00  | -0.14 | 0.54  |
| THCA | 405 | chr6:13302565-13303564    | 10048  | RANBP9    | - | -408732 | -0.40 | 0.00  | 0.25  | -0.51 |
| THCA | 406 | chr10:121074816-121075815 | 119559 | SFXN4     | - | 150111  | -0.33 | 0.01  | -0.43 | 0.56  |

|      |     |                           |        |               |   |         |       |       |       |       |
|------|-----|---------------------------|--------|---------------|---|---------|-------|-------|-------|-------|
| THCA | 407 | chr5:139625636-139626635  | 56134  | PCDHAC2       | + | -719612 | -0.33 | 0.01  | 1.92  | -0.54 |
| THCA | 408 | chr14:32349824-32350927   | 112487 | C14orf126     | - | 423695  | -0.36 | -0.05 | -0.39 | 0.59  |
| THCA | 409 | chr3:46130358-46131357    | 79442  | LRRC2         | - | -490715 | -0.30 | 0.00  | -1.47 | 0.64  |
| THCA | 410 | chr8:126271969-126272968  | 11236  | RNF139        | + | 785460  | -0.42 | 0.00  | 0.27  | -0.62 |
| THCA | 411 | chr8:134545185-134546184  | 23639  | LRRC6         | - | 857821  | -0.42 | 0.03  | -0.71 | 0.50  |
| THCA | 412 | chr14:32349824-32350927   | 80224  | NUBPL         | + | 319784  | -0.36 | 0.01  | -0.45 | 0.50  |
| THCA | 413 | chr14:74191881-74192880   | 89932  | PAPLN         | + | 488175  | -0.33 | 0.00  | 0.79  | -0.62 |
| THCA | 414 | chr12:2410616-2411615     | 2288   | FKBP4         | + | -492993 | -0.35 | 0.00  | -0.47 | 0.65  |
| THCA | 415 | chr16:57797773-57798772   | 9709   | HERPUD1       | + | 832270  | -0.37 | 0.01  | -0.70 | 0.61  |
| THCA | 416 | chr1:234700136-234701135  | 6905   | TBCE          | + | -830093 | -0.39 | 0.03  | -0.59 | 0.58  |
| THCA | 417 | chr16:48115140-48116139   | 81831  | NETO2         | - | 937703  | -0.37 | 0.01  | -0.91 | 0.62  |
| THCA | 418 | chr1:202249953-202250952  | 7135   | TNNI1         | - | 851458  | -0.35 | -0.02 | 1.54  | -0.57 |
| THCA | 419 | chr13:24722765-24723764   | 55835  | CCNPJ         | - | -773763 | -0.35 | 0.02  | -1.66 | 0.51  |
| THCA | 420 | chr6:108019187-108020186  | 84816  | RTN4IP1       | - | 941320  | -0.43 | 0.00  | -0.44 | 0.62  |
| THCA | 421 | chr19:18874182-18875181   | 27106  | ARRDC2        | + | 762737  | -0.37 | 0.00  | 1.02  | -0.52 |
| THCA | 422 | chr15:74675731-74676730   | 80381  | CD276         | + | 699608  | -0.33 | 0.04  | 0.95  | -0.68 |
| THCA | 423 | chr1:11194178-11195177    | 90231  | KIAA2013      | - | -791808 | -0.38 | 0.00  | 0.79  | -0.52 |
| THCA | 424 | chr11:72451982-72452981   | 25906  | C11orf51      | - | 628659  | -0.41 | -0.01 | -0.37 | 0.53  |
| THCA | 425 | chr3:184301898-184302897  | 1173   | AP2M1         | + | 409763  | -0.37 | -0.04 | 0.38  | -0.53 |
| THCA | 426 | chr5:131835256-131836255  | 23305  | ACSL6         | - | 487885  | -0.31 | 0.01  | -1.75 | 0.56  |
| THCA | 427 | chr4:102227240-102228239  | 51705  | EMCN          | - | 788489  | -0.38 | 0.00  | -0.62 | 0.58  |
| THCA | 428 | chr11:13237104-13238103   | 84280  | BTBD10        | - | -247235 | -0.35 | 0.00  | 0.34  | -0.51 |
| THCA | 429 | chr3:46972784-46973783    | 23218  | NBEAL2        | + | -47890  | -0.30 | -0.02 | 0.44  | -0.61 |
| THCA | 430 | chr1:110042028-110043027  | 388662 | SLC6A17       | + | -650605 | -0.35 | -0.02 | -0.77 | 0.57  |
| THCA | 431 | chr16:57793228-57794227   | 4324   | MMP15         | + | -265555 | -0.33 | 0.00  | -0.51 | 0.53  |
| THCA | 432 | chr1:207455215-207456214  | 23380  | SRGAP2        | + | 939514  | -0.37 | 0.03  | 0.85  | -0.62 |
| THCA | 433 | chr7:55178971-55179970    | 2631   | GBAS          | + | -852800 | -0.39 | -0.01 | -0.55 | 0.60  |
| THCA | 434 | chr12:123358083-123359082 | 387893 | SETD8         | + | -510122 | -0.37 | 0.05  | -0.38 | 0.57  |
| THCA | 435 | chr15:83501199-83502198   | 53346  | TM6SF1        | + | -274626 | -0.34 | -0.03 | -0.54 | 0.51  |
| THCA | 436 | chr11:68105518-68106517   | 222    | ALDH3B2       | - | 657332  | -0.31 | 0.03  | 2.08  | -0.57 |
| THCA | 437 | chr5:131599390-131600389  | 134548 | ANKRD43       | + | -549144 | -0.37 | 0.00  | 0.47  | -0.58 |
| THCA | 438 | chr5:131835256-131836255  | 645121 | CCNI2         | + | -247382 | -0.31 | 0.00  | 0.79  | -0.55 |
| THCA | 439 | chr14:74942044-74943043   | 27030  | MLH3          | - | -575692 | -0.36 | -0.11 | -0.59 | 0.54  |
| THCA | 440 | chr1:236086701-236087700  | 6905   | TBCE          | + | 556472  | -0.35 | 0.03  | -0.59 | 0.59  |
| THCA | 441 | chr20:35832702-35833739   | 6714   | SRC           | + | -139868 | -0.31 | 0.00  | 0.58  | -0.55 |
| THCA | 442 | chr3:50844176-50845175    | 4486   | MST1R         | - | 903369  | -0.33 | -0.15 | 1.32  | -0.65 |
| THCA | 443 | chr14:59741785-59742784   | 51635  | DHRS7         | - | -894277 | -0.39 | -0.13 | -0.50 | 0.63  |
| THCA | 444 | chr11:72451982-72452981   | 55004  | C11orf59      | - | 638048  | -0.41 | -0.01 | -0.24 | 0.55  |
| THCA | 445 | chr11:66822353-66823352   | 9610   | RIN1          | - | 718541  | -0.30 | -0.04 | 2.23  | -0.65 |
| THCA | 446 | chr13:33305466-33306465   | 90627  | STARD13       | - | -944967 | -0.36 | 0.01  | -1.57 | 0.52  |
| THCA | 447 | chr7:29608810-29609809    | 222161 | DKFZP586I1420 | + | -800357 | -0.40 | 0.00  | 0.57  | -0.53 |
| THCA | 448 | chr12:47664730-47665729   | 5213   | PFKM          | + | -834427 | -0.41 | 0.00  | -0.33 | 0.60  |
| THCA | 449 | chr3:129321347-129323036  | 56941  | C3orf37       | + | 324507  | -0.35 | -0.06 | 0.35  | -0.53 |
| THCA | 450 | chr19:18874182-18875181   | 54815  | GATAD2A       | + | -621961 | -0.37 | 0.00  | 0.48  | -0.57 |
| THCA | 451 | chr2:70335543-70336542    | 113419 | TEX261        | - | -885959 | -0.44 | -0.19 | -0.50 | 0.50  |
| THCA | 452 | chr3:50844176-50845175    | 8692   | HYAL2         | - | 484394  | -0.33 | -0.01 | 0.82  | -0.51 |
| THCA | 453 | chr10:126889315-126890314 | 399818 | METTL10       | - | 409375  | -0.36 | 0.00  | -0.43 | 0.51  |
| THCA | 454 | chr10:121074816-121075815 | 9531   | BAG3          | + | -335567 | -0.33 | 0.00  | 0.53  | -0.56 |
| THCA | 455 | chr1:212277986-212278985  | 84791  | C1orf97       | + | 722388  | 0.40  | 0.00  | -0.38 | -0.56 |
| THCA | 456 | chr3:184301898-184302897  | 1962   | EHHADH        | - | -669489 | -0.37 | 0.02  | -0.65 | 0.51  |
| THCA | 457 | chr11:66822353-66823352   | 54961  | SSH3          | + | -248067 | -0.30 | -0.02 | 0.56  | -0.64 |
| THCA | 458 | chr5:139625636-139626635  | 113829 | SLC35A4       | + | -318285 | -0.33 | 0.00  | -0.33 | 0.60  |
| THCA | 459 | chr11:66822353-66823352   | 222    | ALDH3B2       | - | -625833 | -0.30 | 0.03  | 2.08  | -0.58 |
| THCA | 460 | chr17:463099-464098       | 29     | ABR           | - | -627018 | -0.32 | -0.02 | 1.49  | -0.54 |
| THCA | 461 | chr4:25659072-25660071    | 6649   | SOD3          | + | 862486  | -0.31 | 0.00  | -2.25 | 0.61  |
| THCA | 462 | chr1:236086701-236087700  | 148789 | B3GALNT2      | - | 419419  | -0.35 | 0.01  | -0.44 | 0.54  |
| THCA | 463 | chr2:178109473-178110472  | 50940  | PDE11A        | - | -863094 | -0.32 | -0.03 | -2.53 | 0.52  |
| THCA | 464 | chr18:72509055-72510054   | 284273 | ZADH2         | - | -411727 | -0.33 | 0.00  | -0.49 | 0.57  |
| THCA | 465 | chr1:201571659-201572658  | 89796  | NAV1          | + | -45292  | -0.31 | 0.01  | 0.37  | -0.52 |
| THCA | 466 | chr1:95119214-95120213    | 24     | ABCA4         | - | 533008  | -0.32 | 0.00  | 0.78  | -0.59 |
| THCA | 467 | chr14:94854534-94856004   | 79789  | CLMN          | - | -930977 | -0.32 | 0.00  | -2.09 | 0.58  |
| THCA | 468 | chr11:68105518-68106517   | 10312  | CLIRG1        | + | 299555  | -0.31 | 0.00  | 0.72  | -0.52 |
| THCA | 469 | chr5:73529073-73530072    | 64283  | RGNEF         | + | 607589  | -0.30 | 0.00  | -1.81 | 0.53  |
| THCA | 470 | chr11:68105518-68106517   | 81622  | UNC93B1       | - | 334424  | -0.31 | 0.01  | 0.60  | -0.55 |
| THCA | 471 | chr11:66822353-66823352   | 221    | ALDH3B1       | + | -953196 | -0.30 | -0.01 | 2.31  | -0.75 |
| THCA | 472 | chr5:131599390-131600389  | 23176  | Sep-08        | - | -513672 | -0.37 | 0.00  | 0.40  | -0.51 |
| THCA | 473 | chr16:72911229-72912228   | 1723   | DHODH         | + | 869085  | -0.39 | 0.00  | -0.36 | 0.58  |
| THCA | 474 | chr2:153322323-153323322  | 26225  | ARL5A         | - | 637813  | -0.38 | -0.04 | -0.40 | 0.51  |
| THCA | 475 | chr1:234700136-234701135  | 148789 | B3GALNT2      | - | -967146 | -0.39 | 0.01  | -0.44 | 0.61  |
| THCA | 476 | chr11:34264861-34265860   | 966    | CD59          | - | 507335  | -0.36 | 0.00  | 0.49  | -0.50 |
| THCA | 477 | chr4:170146753-170147752  | 9848   | MFAP3L        | - | -800177 | -0.34 | 0.00  | -1.06 | 0.50  |
| THCA | 478 | chr1:203482023-203483022  | 22874  | PLEKHA6       | - | -846535 | -0.42 | 0.00  | 0.25  | -0.54 |
| THCA | 479 | chr1:39657628-39658627    | 10487  | CAP1          | + | -848128 | -0.39 | 0.00  | 0.31  | -0.59 |
| THCA | 480 | chr11:71655925-71656924   | 55004  | C11orf59      | - | -158009 | -0.33 | -0.01 | -0.24 | 0.51  |
| THCA | 481 | chr6:136914588-136915587  | 3459   | IFNGR1        | - | -625480 | -0.37 | -0.02 | 0.19  | -0.56 |
| THCA | 482 | chr11:124526740-124527739 | 219854 | TMEM218       | - | -454420 | -0.33 | 0.00  | -0.63 | 0.53  |
| THCA | 483 | chr9:38025576-38026575    | 26267  | FBXO10        | - | 437146  | -0.35 | 0.00  | -0.29 | 0.54  |
| THCA | 484 | chr14:94854588-94855587   | 79789  | CLMN          | - | -931158 | -0.31 | 0.00  | -2.09 | 0.61  |
| THCA | 485 | chr12:47664730-47665729   | 140461 | ASB8          | - | -886148 | -0.41 | 0.00  | -0.27 | 0.55  |
| THCA | 486 | chr10:126889315-126890314 | 55760  | DHX32         | - | -695213 | -0.36 | -0.01 | 0.43  | -0.59 |
| THCA | 487 | chr8:102299850-102300849  | 157567 | ANKRD46       | - | 728335  | -0.33 | 0.01  | -0.80 | 0.63  |
| THCA | 488 | chr5:76654283-76655282    | 10788  | IQGAP2        | + | 955633  | -0.30 | 0.00  | -1.93 | 0.75  |

|      |     |                          |        |           |   |         |       |       |       |       |
|------|-----|--------------------------|--------|-----------|---|---------|-------|-------|-------|-------|
| THCA | 489 | chr14:74942044-74943043  | 83544  | DNAL1     | + | 830965  | -0.36 | 0.01  | -0.78 | 0.50  |
| THCA | 490 | chr10:30238315-30239314  | 6840   | SVIL      | - | 212950  | -0.33 | 0.00  | 0.06  | -0.50 |
| THCA | 491 | chr11:67795159-67796158  | 54961  | SSH3      | + | 724739  | -0.35 | -0.02 | 0.56  | -0.61 |
| THCA | 492 | chr1:85763521-85764520   | 391051 | UOX       | - | 900444  | -0.35 | -0.08 | -1.03 | 0.53  |
| THCA | 493 | chr1:95119214-95120213   | 1266   | CNN3      | - | -273022 | -0.32 | 0.01  | 0.35  | -0.56 |
| THCA | 494 | chr3:46130358-46131357   | 10803  | CCR9      | + | 202861  | -0.30 | 0.03  | 0.54  | -0.51 |
| THCA | 495 | chr14:74942044-74943043  | 8892   | EIF2B2    | + | -527069 | -0.36 | 0.00  | -0.32 | 0.51  |
| THCA | 496 | chr11:62480555-62481554  | 10313  | RTN3      | + | -967868 | -0.39 | 0.00  | -0.50 | 0.56  |
| THCA | 497 | chr6:136914588-136915587 | 27115  | PDE7B     | + | 742253  | -0.37 | 0.00  | -0.26 | 0.58  |
| THCA | 498 | chr14:74191881-74192880  | 8650   | NUMB      | - | 267094  | -0.33 | 0.01  | -0.29 | 0.52  |
| THCA | 499 | chr6:80837751-80838750   | 167691 | LCA5      | - | 591103  | -0.36 | 0.00  | 0.40  | -0.52 |
| THCA | 500 | chr21:36167508-36168507  | 29980  | DONSON    | - | 883304  | -0.37 | 0.00  | 0.57  | -0.51 |
| THCA | 501 | chr15:75400431-75401430  | 8482   | SEMA7A    | - | 674631  | -0.33 | 0.00  | 1.03  | -0.51 |
| THCA | 502 | chr17:39575727-39576726  | 84951  | TNS4      | - | 918372  | -0.34 | 0.01  | -1.17 | 0.52  |
| THCA | 503 | chr3:50844176-50845175   | 7873   | MANF      | + | -578017 | -0.33 | 0.01  | -0.63 | 0.50  |
| THCA | 504 | chr11:71655925-71656924  | 3636   | INPL1     | + | -279458 | -0.33 | 0.04  | -0.17 | 0.55  |
| THCA | 505 | chr4:7023689-7024688     | 7466   | WFS1      | + | 752611  | -0.30 | -0.01 | -1.15 | 0.63  |
| THCA | 506 | chr17:39216177-39217176  | 5914   | RARA      | + | 751253  | -0.34 | -0.01 | 0.89  | -0.50 |
| THCA | 507 | chr11:13237104-13238103  | 84953  | MICALCL   | + | 929156  | -0.35 | 0.00  | 0.74  | -0.54 |
| THCA | 508 | chr5:139625636-139626635 | 51523  | CXXC5     | + | 597834  | -0.33 | 0.00  | 0.67  | -0.50 |
| THCA | 509 | chr4:77702881-77703880   | 950    | SCARB2    | - | 568328  | -0.34 | 0.00  | 0.43  | -0.54 |
| THCA | 510 | chr8:58137548-58138547   | 195814 | SDR16C5   | - | 904806  | -0.32 | -0.02 | 1.92  | -0.54 |
| THCA | 511 | chr5:54932193-54933192   | 54505  | DHX29     | - | 329171  | -0.31 | 0.00  | -0.52 | 0.53  |
| THCA | 512 | chr16:57793228-57794227  | 57017  | COQ9      | + | 312390  | -0.33 | 0.01  | -0.13 | 0.51  |
| THCA | 513 | chr20:3207600-3208599    | 11237  | RNF24     | - | -788117 | -0.32 | 0.01  | 1.14  | -0.54 |
| THCA | 514 | chr15:67341510-67342509  | 79719  | AAGAB     | - | -205527 | -0.31 | 0.02  | -0.26 | 0.54  |
| THCA | 515 | chr3:46130358-46131357   | 22908  | SACM1L    | + | 400103  | -0.30 | 0.03  | -0.52 | 0.59  |
| THCA | 516 | chr3:16468627-16469626   | 26061  | HACL1     | - | 825996  | -0.36 | 0.00  | -0.46 | 0.55  |
| THCA | 517 | chr17:39216177-39217176  | 115024 | NT5C3L    | - | -775847 | -0.34 | 0.00  | -0.56 | 0.59  |
| THCA | 518 | chr11:92753525-92754524  | 79101  | TAF1D     | - | -720679 | -0.37 | -0.01 | 0.32  | -0.51 |
| THCA | 519 | chr16:57793228-57794227  | 9709   | HERPUD1   | + | 827725  | -0.33 | 0.01  | -0.70 | 0.57  |
| THCA | 520 | chr16:67580937-67581936  | 865    | CBFB      | + | 518386  | 0.33  | 0.00  | 0.43  | 0.56  |
| THCA | 521 | chr13:99960457-99961456  | 8428   | STK24     | - | 731560  | -0.39 | -0.02 | 0.14  | -0.50 |
| THCA | 522 | chr8:126403200-126404199 | 11236  | RNF139    | + | 916691  | -0.39 | 0.00  | 0.27  | -0.56 |
| THCA | 523 | chr10:28419023-28420022  | 91452  | ACBD5     | - | 888454  | -0.37 | -0.02 | -0.35 | 0.56  |
| THCA | 524 | chr5:76654283-76655282   | 728723 | LOC728723 | + | 272159  | -0.30 | 0.03  | -0.53 | 0.50  |
| THCA | 525 | chr20:3207600-3208599    | 64601  | VPS16     | + | 386726  | -0.32 | 0.02  | -0.21 | 0.60  |
| THCA | 526 | chr1:110042028-110043027 | 23155  | CLCC1     | - | 536406  | -0.35 | 0.00  | -0.24 | 0.51  |
| THCA | 527 | chr14:32349824-32350927  | 11154  | AP4S1     | + | 856063  | -0.36 | 0.00  | -0.54 | 0.50  |
| THCA | 528 | chr3:16024040-16025039   | 26061  | HACL1     | - | 381409  | -0.32 | 0.00  | -0.46 | 0.52  |
| THCA | 529 | chr11:67795159-67796158  | 23529  | CLCF1     | - | 654010  | -0.35 | 0.00  | 0.42  | -0.53 |
| THCA | 530 | chr17:45698760-45699759  | 9570   | GOSR2     | + | 698773  | -0.36 | -0.01 | -0.30 | 0.52  |
| THCA | 531 | chr18:55863175-55864174  | 9480   | ONECUT2   | + | 760757  | -0.30 | 0.00  | -0.97 | 0.55  |
| THCA | 532 | chr1:28927825-28928824   | 9473   | C1orf38   | + | 729269  | -0.33 | 0.00  | 0.44  | -0.62 |
| THCA | 533 | chr15:75400431-75401430  | 257364 | SNX33     | + | -540418 | -0.33 | 0.00  | 0.40  | -0.55 |
| THCA | 534 | chr16:67580937-67581936  | 54920  | DUS2L     | + | -475411 | 0.33  | 0.01  | -0.26 | -0.52 |
| THCA | 535 | chr4:25844710-25845709   | 91050  | CCDC149   | - | 863383  | -0.33 | 0.01  | -0.44 | 0.70  |
| THCA | 536 | chr11:67795159-67796158  | 1374   | CPT1A     | - | -813741 | -0.35 | 0.04  | -0.50 | 0.52  |
| THCA | 537 | chr16:27486547-27487546  | 23214  | XPO6      | - | -736193 | -0.36 | 0.00  | -0.18 | 0.54  |
| THCA | 538 | chr14:69169510-69170509  | 55334  | SLC39A9   | + | -695087 | -0.34 | -0.01 | -0.36 | 0.53  |
| THCA | 539 | chr11:71655925-71656924  | 116985 | ARAP1     | - | -848326 | -0.33 | 0.02  | 0.54  | -0.60 |
| THCA | 540 | chr4:25659072-25660071   | 91050  | CCDC149   | - | 677745  | -0.31 | 0.01  | -0.44 | 0.66  |
| THCA | 541 | chr2:112461579-112462578 | 150465 | TTL       | + | -777665 | -0.32 | -0.04 | 0.55  | -0.61 |
| THCA | 542 | chr19:8203980-8204979    | 5609   | MAP2K7    | + | 235714  | -0.30 | 0.01  | 0.27  | -0.50 |
| THCA | 543 | chr11:66822353-66823352  | 23529  | CLCF1     | - | -318796 | -0.30 | 0.00  | 0.42  | -0.52 |
| THCA | 544 | chr1:225612799-225613798 | 2052   | EPHX1     | + | -384499 | -0.31 | -0.01 | -0.41 | 0.52  |
| THCA | 545 | chr17:39216187-39217186  | 115024 | NT5C3L    | - | -775837 | -0.32 | 0.00  | -0.56 | 0.57  |
| THCA | 546 | chr1:225612799-225613798 | 149111 | CNIH3     | + | 809119  | -0.31 | -0.04 | 0.60  | -0.64 |
| THCA | 547 | chr11:71655925-71656924  | 81570  | CLPB      | - | -489300 | -0.33 | 0.00  | -0.22 | 0.53  |
| THCA | 548 | chr17:70293052-70294051  | 55028  | C17orf80  | + | -934821 | -0.35 | 0.00  | -0.52 | 0.52  |
| THCA | 549 | chr3:136062240-136063239 | 5523   | PPP2R3A   | + | 378224  | -0.32 | 0.02  | 0.03  | -0.50 |
| THCA | 550 | chr1:230220168-230221167 | 22796  | COG2      | + | -557535 | -0.33 | 0.00  | -0.19 | 0.52  |
| THCA | 551 | chr7:150743884-150744883 | 155051 | CRYGN     | - | -393516 | -0.30 | 0.00  | 0.34  | -0.53 |
| THCA | 552 | chr3:99619889-99620888   | 131566 | DCBLD2    | - | 999855  | -0.32 | 0.04  | 0.74  | -0.56 |
| THCA | 553 | chr15:67341510-67342509  | 115752 | DIS3L     | + | 756376  | -0.31 | 0.02  | -0.54 | 0.60  |
| THCA | 554 | chr18:72509055-72510054  | 29090  | C18orf55  | + | 693808  | -0.33 | 0.00  | -0.43 | 0.50  |
| THCA | 555 | chr2:112456311-112457310 | 6574   | SLC20A1   | + | -946624 | -0.34 | 0.00  | 0.47  | -0.56 |
| THCA | 556 | chr14:69169510-69170509  | 9766   | KIAA0247  | + | -908301 | -0.34 | 0.00  | 0.27  | -0.58 |
| THCA | 557 | chr18:55863175-55864174  | 2235   | FECH      | - | 609705  | -0.30 | -0.01 | -0.51 | 0.52  |
| THCA | 558 | chr1:44418220-44419219   | 266675 | BEST4     | - | -834707 | -0.32 | 0.01  | 0.56  | -0.53 |
| THCA | 559 | chr20:35832702-35833739  | 22839  | DLGAP4    | + | 938917  | -0.31 | 0.01  | 0.77  | -0.58 |
| THCA | 560 | chr5:127563486-127564485 | 51015  | ISOC1     | + | -866457 | -0.33 | -0.09 | 0.44  | -0.55 |
| THCA | 561 | chr20:3207600-3208599    | 3420   | IDH3B     | - | 563234  | -0.32 | -0.04 | -0.22 | 0.51  |
| THCA | 562 | chr1:44052880-44053879   | 6513   | SLC2A1    | - | 628532  | -0.30 | 0.01  | 0.48  | -0.54 |
| THCA | 563 | chr5:139625636-139626635 | 202051 | SPATA24   | - | 886359  | -0.33 | 0.01  | -0.31 | 0.53  |
| THCA | 564 | chr1:94486395-94487394   | 1266   | CNN3      | - | -905841 | -0.32 | 0.01  | 0.35  | -0.59 |
| THCA | 565 | chr3:46130358-46131357   | 25907  | TMEM158   | - | 863043  | -0.30 | 0.00  | 0.65  | -0.52 |
| THCA | 566 | chr3:46130358-46131357   | 64866  | CDMP1     | - | 942943  | -0.30 | 0.00  | 0.45  | -0.70 |
| THCA | 567 | chr4:170146753-170147752 | 55601  | DDX60     | - | 907294  | -0.34 | -0.08 | 0.22  | -0.50 |
| THCA | 568 | chr11:68105518-68106517  | 23529  | CLCF1     | - | 964369  | -0.31 | 0.00  | 0.42  | -0.60 |
| THCA | 569 | chr11:66822353-66823352  | 81622  | UNC93B1   | - | -948741 | -0.30 | 0.01  | 0.60  | -0.53 |
| THCA | 570 | chr17:2868387-2869386    | 3682   | ITGAE     | - | -835651 | -0.32 | 0.01  | -0.31 | 0.51  |

|      |                             |              |   |         |       |       |       |       |
|------|-----------------------------|--------------|---|---------|-------|-------|-------|-------|
| THCA | 571 chr17:463099-464098     | 4641 MYO1C   | - | -932403 | -0.32 | -0.05 | 0.44  | -0.51 |
| THCA | 572 chr13:74512098-74513097 | 688 KLF5     | + | 883483  | -0.33 | 0.02  | -0.16 | -0.50 |
| THCA | 573 chr3:46130358-46131357  | 23218 NBEAL2 | + | -890316 | -0.30 | -0.02 | 0.44  | -0.51 |
| THCA | 574 chr4:7023689-7024688    | 60312 AFAP1  | - | -917465 | -0.30 | 0.00  | 0.29  | -0.53 |
| THCA | 575 chr17:2868387-2869386   | 489 ATP2A3   | - | -998872 | -0.32 | 0.00  | -0.12 | 0.51  |