

**Supplemental Table 2.** PCR primers, primer-extension probes, and genotyping methods that were used to map markers in *Ambystoma*.

| Gene ID  | Marker1   | Marker2 | Marker3 |
|----------|-----------|---------|---------|
| SPEN     | E21G11    |         |         |
| SPAG7    | E16G8     |         |         |
| ENO3     | E50E9     | E34E1   |         |
| PCOLCE2  | E21A2     |         |         |
| PSMB6    | PSMB6     |         |         |
| EIF4A1   | E46E6     | cntg66  |         |
| E16A9    | E16A9     |         |         |
| CLDN7    | E10C11    |         |         |
| CIRBP    | E18C3     | E10C1   |         |
| CNN2     | E51G6     |         |         |
| E12E2    | E12E2     |         |         |
| GPX4     | E33C3     |         |         |
| SLC39A3  | E53E7     |         |         |
| BSG      | E19C8     |         |         |
| CDC34    | E42G2     |         |         |
| PRTN3    | E21E1     |         |         |
| SFRS14   | E15A1     | E34E3   |         |
| NDUFA13  | NDUFA13   |         |         |
| USE1     | E29C5     |         |         |
| UHRF1    | UHRF1     |         |         |
| E17C2    | E17C2     |         |         |
| EEF2     | EEF2      | E5E7    |         |
| MYO1F    | E8E5      |         |         |
| NDUFA11  | E43E3     |         |         |
| BTBD2    | E49C12    | E23C6   |         |
| OAZ1     | E30E6     |         |         |
| LSM7     | LSM7      |         |         |
| MAPRE1   | E43A1     |         |         |
| SAFB     | SAFB      | E32E4   |         |
| ATP5E    | E5G10     |         |         |
| MCL1     | E37E12    |         |         |
| ERO1L    | bl005ba01 |         |         |
| IFIH1    | E30A4     |         |         |
| KRTCAP2  | E43A6     |         |         |
| C1ORF230 | E51A9     |         |         |
| PRG4     | E26G10    |         |         |
| S100A11  | E41C12    |         |         |
| S100A13  | E35E5     |         |         |
| S100A4   | E49G5     |         |         |
| E12E11   | E12E11    |         |         |
| TPM3     | E8A10     |         |         |
| RPS27    | E6E5      |         |         |
| ANP32E   | E9A3      |         |         |
| TXNIP    | E7C5      |         |         |
| SSR2     | E23E9     |         |         |

|           |              |       |  |
|-----------|--------------|-------|--|
| DYNC1LI2  | E52C1        |       |  |
| ATP6V0D1  | E14G10       |       |  |
| TPPP3     | E38E3        |       |  |
| HDGF      | E12E12       |       |  |
| NUTF2     | E42A8        |       |  |
| UFC1      | E8E1         |       |  |
| TMEM188   | E13E2        |       |  |
| LUC7L3    | ETG93        |       |  |
| PSMD11    | E19E2        |       |  |
| U2AF1_b   | E18A4        |       |  |
| FXYD3     | E10G3        |       |  |
| E12C7     | E12C7        |       |  |
| COX6B1    | COX6B1       |       |  |
| POLR2L    | E53C2        |       |  |
| NUCB1     | E14A11       |       |  |
| FTH1_b    | E8C8         |       |  |
| FTL       | FTL_ctg61925 |       |  |
| KRTAP10-1 | E38E8        |       |  |
| LOC733905 | E25A8        |       |  |
| CD163L1   | E24A12       |       |  |
| SACS      | E14A7        |       |  |
| GPI       | E40A5        |       |  |
| ITLN1     | E9A2         |       |  |
| GABARAPL2 | E48E9        |       |  |
| HNRNPK_b  | E50C11       |       |  |
| NQO1      | NQO1         |       |  |
| VPS4A     | E48G7        |       |  |
| APRT      | E25E3        | E46C4 |  |
| CA5B      | E34G12       |       |  |
| MAP1LC3B  | E23A1        |       |  |
| GMDS      | E19G2        |       |  |
| TEAD4     | E14C8        |       |  |
| E24A11    | E24A11       |       |  |
| E12A2     | E12A2        |       |  |
| E13E7     | E13E7        |       |  |
| LIG1      | E6C7         |       |  |
| MOCS3     | E52E10       |       |  |
| SFRS7     | E36A12       |       |  |
| LOC769550 | E35G1        |       |  |
| MMP2      | E23A10       |       |  |
| NUDT21    | E24C2        |       |  |
| ETHE1     | ETHE1        |       |  |
| SODEFRIN  | Sodefrin     |       |  |
| RABAC1    | RABAC1       |       |  |
| MC1R      | E5A8         |       |  |
| MGST3     | E33E10       |       |  |
| APOE      | E19E1        |       |  |
| PRDX6     | E20C4        |       |  |
| FMO3      | E24A6        |       |  |

|          |                      |        |        |
|----------|----------------------|--------|--------|
| ARPC5    | E20C3                |        |        |
| NCF2     | E51C6                |        |        |
| RGS2     | E42A4                |        |        |
| GLUL     | E7A7                 |        |        |
| CLCA2    | E5G4                 |        |        |
| RGS5     | E22A4                |        |        |
| COL11A1  | E39G1                |        |        |
| IFI44L   | E12C3                |        |        |
| GNG5     | E5G1                 |        |        |
| SEPT10_b | E26G8                | E9E8   | E36E10 |
| E12G5    | E12G5                |        |        |
| E17G11   | E17G11               |        |        |
| FPGT     | E28G5                | E45A9  |        |
| GPR177   | E42E11               |        |        |
| LEPROT   | E45E3                |        |        |
| USP1     | E25C9                | E47C8  |        |
| PSMA4    | E7G1                 |        |        |
| C8A      | E34G2                |        |        |
| TMEM59   | E17A4                |        |        |
| SLC1A7   | E54C7                |        |        |
| SCP2     | E20E4                |        |        |
| EPS15    | E46G3                | E28E11 |        |
| TXNDC12  | E27C10               |        |        |
| KIAA0494 | E49A3                |        |        |
| FAAH     | E41G12               |        |        |
| E17G7    | E17G7                |        |        |
| PRDX1    | E10C2                |        |        |
| DAZL     | E54E9                |        |        |
| TMLHE    | E49E7                |        |        |
| THRB     | betaTH               |        |        |
| STT3B    | E39C11               |        |        |
| SH3BP5   | E17E8                |        |        |
| C7ORF41  | E19G3                | E13E5  |        |
| E12C2    | E12C2                |        |        |
| NGLY1    | E20E2                |        |        |
| VWDE     | E53G3                |        |        |
| COL1A2   | E35E2                |        |        |
| UHRF2    | UHRF2                |        |        |
| NMT2     | E6C8                 | E47G4  |        |
| VIM      | E33E3                |        |        |
| EIF1B    | E31A7                | E34C2  | E39A2  |
| IGF2BP3  | E52C6                |        |        |
| TOMM7    | E53A8                |        |        |
| KIF15    | KIF15                |        |        |
| E54A6    | E54A6                |        |        |
| HOXA4    | Hoxa4                |        |        |
| HOXA9    | Hoxa9                |        |        |
| CBX3     | heterochromatinlike1 |        |        |
| CYCS     | E31E9                |        |        |

|              |                    |       |        |
|--------------|--------------------|-------|--------|
| ABI2         | E29C1              |       |        |
| KIF5B        | E15E2              |       |        |
| CREM         | E27E6              | E51A8 |        |
| WDR60        | E27A9              |       |        |
| U2AF2        | IHH                |       |        |
| HBZ          | E5G6               |       |        |
| HBA2         | E10A12             | E18A3 |        |
| HBG1         | E7E5               | E46C5 | E18G10 |
| EIF3I        | E6E1               |       |        |
| KBTBD5       | E45A8              |       |        |
| CRHR2        | CRHR2              |       |        |
| UQCRC2       | E37C1              |       |        |
| GNA12        | E40C12             |       |        |
| TIMM17B      | E44A2              |       |        |
| TIMP4        | E25G1              | E22G5 |        |
| DCTN5        | E10A8              |       |        |
| RBBP6        | E28G9              | E48E5 |        |
| TNRC6A       | E49G11             |       |        |
| NARFL        | NM_022493          |       |        |
| E17G8        | E17G8              |       |        |
| MSLNL        | E42E4              |       |        |
| SSTR5        | SSTR5              |       |        |
| PDGFRA_b     | E7C8               |       |        |
| H3F3B_b      | E19G10             |       |        |
| UBE2I        | UBE2I              |       |        |
| COQ7         | E49C4              |       |        |
| PDXDC1       | E16G1              |       |        |
| MYL3         | E34E8              |       |        |
| ARF1_b       | E6C2               |       |        |
| ABAT         | ABAT               |       |        |
| ATP6V0C      | E7C10              |       |        |
| HN1L         | E10G12             |       |        |
| MRPS34       | E44G1              |       |        |
| NME3         | M_Nohits_703_ctg1  |       |        |
| C16ORF13     | M_Nohits_572_ctg1  |       |        |
| HBA2_a       | E5E4               | E5E6  |        |
| HBD          | E18E7              |       |        |
| STUB1        | STUB1              |       |        |
| LOC440335    | E41G3              |       |        |
| AURKB        | E45A6              |       |        |
| C11ORF51     | C11orf51           |       |        |
| CCM2         | CCM2               |       |        |
| M_NOHITS_397 | M_Nohits_397_ctg1  |       |        |
| KIF9         | KIF9               |       |        |
| NGFR         | ctg325             |       |        |
| SETD2        | SETD2              |       |        |
| DRG2         | DRG2               |       |        |
| M_NOHITS_513 | M_Nohits_5137_ctg1 |       |        |
| MAP2K3       | E31A10             |       |        |

|              |                   |        |        |        |
|--------------|-------------------|--------|--------|--------|
| MED9         | MED9              |        |        | E35C11 |
| RAI1         | RAI1              |        |        |        |
| RASD1        | RASD1             |        |        |        |
| SHMT1        | SHM               |        |        |        |
| PVALB        | E47A6             | E7G2   |        |        |
| RAC1         | E18C8             | E39E11 |        |        |
| ACTG1        | E18G6             | E41C6  | E7G7   |        |
| ARPC1A       | E44A9             |        |        |        |
| M_NOHITS_899 | M_Nohits_899_ctg1 |        |        |        |
| UTS2R        | E30G11            |        |        |        |
| ACTB         | E18G5             | E6C5   |        |        |
| FOXK1        | E33E9             |        |        |        |
| BGN          | E17E9             | E21A5  | E36G11 |        |
| E13G5        | E13G5             |        |        |        |
| RENBP        | E47A7             | E7A8   |        |        |
| TKTL2        | E27E4             | E38E9  | E9G11  |        |
| EEF1G        | E41C5             |        |        |        |
| SMC1A        | E48C4             |        |        |        |
| TTC9C        | E31C2             |        |        |        |
| ACTC1_a      | E41A10            |        |        |        |
| ADSS         | E18E10            | E41E6  |        |        |
| CALM1        | Calm3             | E12A8  | E19A4  |        |
| OTUB1        | E43C12            |        |        |        |
| PRDX5        | E10G4             |        |        |        |
| RBM4         | E6G4              |        |        |        |
| CAPN1        | E15G5             | E6E2   | E47G12 |        |
| DPP3         | E25C2             |        |        |        |
| PYGM         | E39G5             | E9G12  |        |        |
| TMED10       | E22C5             |        |        |        |
| FOXA3        | Foxa3             |        |        |        |
| E14C12       | E14C12            |        |        |        |
| E16G10       | E16G10            |        |        |        |
| BANF1        | E24E4             | E37A5  |        |        |
| CFL1         | E18G2             | E36C7  | E8A9   |        |
| E23C10       | E23C10            |        |        |        |
| KCNK1        | E29A5             |        |        |        |
| PLCB3        | E46C11            |        |        |        |
| RBM4B        | E35E4             |        |        |        |
| SULT6B1      | E33C11            |        |        |        |
| E16E8        | E16E8             |        |        |        |
| UCRC         | E51A12            |        |        |        |
| CKM          | E37A1             |        |        |        |
| CLPTM1       | E46E5             |        |        |        |
| SNRPD2       | E9G8              |        |        |        |
| E17G3        | E17G3             |        |        |        |
| C22ORF32     | E44C11            |        |        |        |
| CYP2C19      | E45G11            | E28A6  |        |        |
| E12E6        | E12E6             |        |        |        |
| CYP2F1       | E28C9             |        |        |        |

|              |                |        |        |
|--------------|----------------|--------|--------|
| H3F3B_a      | E8C9           |        |        |
| CAPNS1       | E18C7          |        |        |
| SNAP23       | E40E3          |        |        |
| GMFG         | E18C6          |        |        |
| NCCRP1       | NCCRP1         |        |        |
| RHOA         | E20C5          | E42A2  |        |
| GNAT1        | GNAT1          |        |        |
| TWF2         | E21A3          | E38G4  |        |
| WFDC2        | E40E5          |        |        |
| CNBP         | E10E2          |        |        |
| BTG1_a       | E15E6          |        |        |
| FLNB         | E10E9          | E19A10 |        |
| TKT          | E38G6          | E7G12  |        |
| E12A3        | E12A3          |        |        |
| RHO          | Rho            |        |        |
| LSM3         | E37G2          |        |        |
| SEC61A1      | E21A4          |        |        |
| RAB7A        | E34G5          | E37E7  |        |
| IP6K2        | E31G7          |        |        |
| PRKAR2A      | E23G8          | E40E8  |        |
| ARPC4        | E21C8          | E37C5  | E9E3   |
| NISCH        | E29C11         |        |        |
| RPL29        | E43C1          |        |        |
| PBRM1        | E45C3          |        |        |
| SPCS1        | E37E2          |        |        |
| ZYX          | E20A12         |        |        |
| MYL6         | G2-M17         |        |        |
| NANOG        | NANOG          |        |        |
| C3AR1        | C3AR1          |        |        |
| GAPDH        | E5G11          |        |        |
| ING4         | E24C6          |        |        |
| FKBP1A       | cntg26         | E6A3   |        |
| ASXL1        | E23C5          |        |        |
| E16A12       | E16A12         |        |        |
| GNAS         | E50E11         | E24C10 |        |
| ADNP         | E53G1          |        |        |
| SNAI2        | E43C6          |        |        |
| TNNC2        | E6G8           |        |        |
| UBE2V1       | E22E10         |        |        |
| SULF2        | E49G2          |        |        |
| NCOA5        | E7G8           | E41C2  | E34C10 |
| MMP2_a       | E33G5          |        |        |
| PDLIM7       | E20G12         |        |        |
| TMED9        | E8C10          |        |        |
| CTBP1        | E21G9          |        |        |
| RPUSD4       | Tig_NoHits_253 |        |        |
| TIG_NOHITS_2 | E51E2          |        |        |
| PROD1        | PROD1          |        |        |
| FUS          | E20A6          |        |        |

|             |        |        |        |
|-------------|--------|--------|--------|
| TRIM69      | E22C12 |        |        |
| VKORC1L1    | E29A2  |        |        |
| MVP         | E19C4  |        |        |
| NME1        | E10C9  | E18E8  |        |
| ALDOA       | E19C1  | E36A5  | E8C1   |
| E11G12      | E11G12 |        |        |
| YPEL3       | E50E2  |        |        |
| BOLA2       | E52G5  |        |        |
| SULT1C4     | E13C8  |        |        |
| ATP2A1      | E36E11 |        |        |
| CONTIG13340 | G1C5   |        |        |
| E16E3       | E16E3  |        |        |
| E50G8       | E50G8  |        |        |
| NFS1        | E50A2  |        |        |
| MAP1LC3A    | E15E5  |        |        |
| C20ORF4     | E49A8  |        |        |
| MANBAL      | E39A12 |        |        |
| BNIP1       | E7A6   |        |        |
| UQCRQ       | E20G3  |        |        |
| CAMLG       | E51E4  |        |        |
| SKP1        | E36G4  |        |        |
| SMAD5       | E48C1  |        |        |
| SEPT10_a    | E43E8  |        |        |
| HNRNPA0     | E32A12 |        |        |
| E13E11      | E13E11 |        |        |
| HNRNPAB     | E18C5  |        |        |
| MATR3       | MATR3  |        |        |
| UBE2D2      | E33E1  |        |        |
| E12A5       | E12A5  |        |        |
| E14G1       | E14G1  |        |        |
| PHF5A       | E43E1  |        |        |
| POLR3H      | E35A12 |        |        |
| CSNK1E      | E12C9  |        |        |
| KDEL3       | E44A10 |        |        |
| TOM1        | E16C5  |        |        |
| HOXC10      | Hoxc10 |        |        |
| ATP5G2      | E6A9   | E42E2  |        |
| E54A1       | E54A1  |        |        |
| NACA        | NACA   |        |        |
| RARG        | RARG   |        |        |
| KRT4        | E36E12 |        |        |
| KRT5        | E36E4  | E18A12 | E18A10 |
| OS9         | E23G3  |        |        |
| CD63        | E33C1  |        |        |
| OBFC2B      | E50C2  |        |        |
| RPS26       | RPS26  |        |        |
| RHEBL1      | E31C8  |        |        |
| WNT1        | Wnt1   |        |        |
| DDX23       | E51G10 |        |        |

E41A2

|            |            |       |       |
|------------|------------|-------|-------|
| C5ORF4     | E48C7      |       |       |
| SPARC      | cntg116    |       |       |
| ATOX1      | E26G4      |       |       |
| CD74       | E51G9      |       |       |
| SQSTM1     | E21G8      |       |       |
| CCNG1      | E47E6      | E27E2 |       |
| PKM2       | E5C5       |       |       |
| MYH9       | E20C7      |       |       |
| ETF1       | E16C6      |       |       |
| LURP-1     | E12C6      |       |       |
| MGP        | E22E8      |       |       |
| PRPSAP1    | E42C9      |       |       |
| SFRS2      | E9C4       |       |       |
| C17ORF28   | E50C8      |       |       |
| RAB37      | E42C4      |       |       |
| XYLT2      | E28C5      |       |       |
| APOH       | E46A4      | E21C9 |       |
| DDX5       | E41A9      |       |       |
| ETG990     | ETG990     |       |       |
| GNA13      | NT001CB10  |       |       |
| PRKAR1A    | E12G4      | E13E4 |       |
| KCNJ16     | E50G10     | E24E9 |       |
| SOX9       | E54E8      |       |       |
| SSTR2      | SSTR2      |       |       |
| RPL38      | RPL38      |       |       |
| ARHGDIA    | ARHGDIA    |       |       |
| CYP4F22    | E50G12     |       |       |
| E13G1      | E13G1      |       |       |
| PBX1       | E54E10     |       |       |
| THOC4      | E43A12     |       |       |
| ZNF248     | E50A1      |       |       |
| ZNF717     | E24G7      |       |       |
| P4HB       | E6C6       |       |       |
| PKN2       | E22A7      | E48C3 |       |
| ASF1A      | E13A5      | E49E6 |       |
| ASF1B      | E24G4      |       |       |
| E12C8      | E12C8      |       |       |
| PGLS       | PGLS       |       |       |
| C19ORF43   | E34C11     |       |       |
| JUNB       | E33C5      |       |       |
| TYK2       | E47C6      | E24E3 |       |
| C19ORF52   | E11C1      |       |       |
| DNM2       | G2I16      |       |       |
| ELOF1      | E7C12      | E43G7 |       |
| FARSA      | E43E10     | E30E7 | E10A4 |
| GADD45GIP1 | GADD45GIP1 |       |       |
| E14C7      | E14C7      |       |       |
| KHSRP      | E19C7      |       |       |
| C19ORF53   | E43A2      |       |       |

|           |         |        |       |
|-----------|---------|--------|-------|
| E12A1     | E12A1   |        |       |
| E15G10    | E15G10  |        |       |
| E14G3     | E14G3   |        |       |
| ANAPC7    | E29C4   | E49C5  |       |
| RAB35     | E42A10  |        |       |
| DYNLL1    | E30E4   | E7G10  |       |
| SFRS9     | E8A2    |        |       |
| DDT       | E43G11  |        |       |
| MIF       | E42G11  |        |       |
| E14A8     | E14A8   |        |       |
| FBXW8     | E45G8   |        |       |
| XBP1      | E16C12  |        |       |
| PPIF      | E19A11  |        |       |
| SLC20A1   | E20C8   |        |       |
| PGAM2     | E46A10  |        |       |
| E15E3     | E15E3   |        |       |
| MYL7      | v2p3b1  | E36E3  |       |
| OGDH      | E17G2   | E49E8  | E24C7 |
| TIA1      | E50A8   | E19A12 |       |
| E16A5     | E16A5   |        |       |
| AP2M1     | E10A3   | E43E4  |       |
| E12E10    | E12E10  |        |       |
| E16C3     | E16C3   |        |       |
| EIF4G1    | E10G10  |        |       |
| EIF5A     | E18C10  |        |       |
| E13E8     | E13E8   |        |       |
| LAMP3     | E21E4   | E38A6  |       |
| LOC563358 | E53E6   |        |       |
| PDCD10    | E11A8   |        |       |
| PRPF6     | E52E6   |        |       |
| KPNA4     | E33C6   | E46G9  |       |
| RARRES1   | E44E9   |        |       |
| VWA5A     | E7C9    |        |       |
| SCLY      | E49C8   | E25G2  |       |
| E14C4     | E14C4   |        |       |
| E14G7     | E14G7   |        |       |
| HDLBP     | E52A3   |        |       |
| HSD17B8   | HSD17B8 |        |       |
| CIRBP_b   | E27E7   |        |       |
| E54E6     | E54E6   |        |       |
| BOLA3     | E12A9   |        |       |
| PDLIM2    | E7A1    | E53C7  |       |
| ENTPD4    | E51G12  |        |       |
| SFRP1     | E32E3   |        |       |
| E14E1     | E14E1   |        |       |
| PHB2      | E7A3    |        |       |
| AKAP7     | v3p1c11 |        |       |
| EGLN1     | E50A7   |        |       |
| MAL       | E19G4   |        |       |

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|----------|--------|--------|--|
| MALL     | E37G9  |        |  |
| TCP1     | E35C4  |        |  |
| BTG1_b   | E25G8  |        |  |
| CTGF     | E32G9  |        |  |
| ZUFSP    | E50G5  |        |  |
| FABP7    | E36A3  |        |  |
| KIAA0776 | E52E11 |        |  |
| ZNF292   | E43A8  |        |  |
| CIRBP_c  | E46E3  |        |  |
| COX7A2   | E41C8  |        |  |
| COL12A1  | E18E2  |        |  |
| TMEM14A  | E5E12  |        |  |
| PXDN     | E50G4  |        |  |
| PDIA6    | E41A11 |        |  |
| ID2      | E32G2  |        |  |
| PQLC3    | E6C4   |        |  |
| YWHAQ    | E32A11 |        |  |
| RHOB     | E22C9  | E37G6  |  |
| SDC1     | E14E11 |        |  |
| CTSB     | E41E12 |        |  |
| IRGC     | E27C3  | E49G7  |  |
| PGAM2_b  | E27C8  |        |  |
| GPN1     | E42A11 |        |  |
| ZNF649   | E50A11 | E25C11 |  |
| LECT2    | E23G11 |        |  |
| CYC1     | E46E12 |        |  |
| E48C10   | E48C10 |        |  |
| EPPK1    | E5G8   |        |  |
| PSCA     | E44E3  |        |  |
| PUF60    | E13A12 |        |  |
| VPS28    | E37E10 |        |  |
| PRKRIP1  | E50C6  |        |  |
| MYC      | MYC    |        |  |
| NDUFB9   | E9E6   |        |  |
| RNF19A   | E14G11 |        |  |
| PABPC1   | E32E10 |        |  |
| UQCRB    | E43C11 |        |  |
| RBM12B   | E41E2  |        |  |
| CA2      | E24C11 | E39E6  |  |
| NBN      | E46G12 |        |  |
| MRPS28   | MRPS28 |        |  |
| E15A2    | E15A2  |        |  |
| NUP37    | G2I21  |        |  |
| RIOK3    | E9C12  |        |  |
| YES1     | E52A6  |        |  |
| MYL12B   | E19E7  |        |  |
| CNDP1    | E40E12 | E23E12 |  |
| CYB5A    | E46E11 | E20G6  |  |
| CHMP5    | E49C7  | E13A1  |  |

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| MYO10        | E40G7  |       |  |
| BASP1        | E34A2  |       |  |
| DAP          | E37G12 | E28G7 |  |
| KDSR         | E46G4  |       |  |
| VPS4B        | E20A9  |       |  |
| ACOT13       | E43A4  |       |  |
| JARID2       | E23E3  |       |  |
| SERPINB6     | E20A2  |       |  |
| TXNDC5       | E20A5  |       |  |
| LYRM4        | E44G12 |       |  |
| E15A11       | E15A11 |       |  |
| KBTBD2       | E50E4  |       |  |
| LOC420992    | E17E6  |       |  |
| TMSB15A      | E9E1   | E50A6 |  |
| LOC792995    | E17A10 |       |  |
| E17E10       | E17E10 |       |  |
| FAM162A      | E52E9  |       |  |
| TAF9         | E25E1  |       |  |
| FHL1         | E21G10 |       |  |
| SOX3         | E52A9  |       |  |
| HMGB3        | E33G2  |       |  |
| VMA21        | E15C4  | E39G9 |  |
| IDH2         | E36C5  |       |  |
| MFAP1        | E27E3  |       |  |
| IQGAP1       | E12G2  |       |  |
| CLPX         | E24G11 |       |  |
| GATM         | E7C1   |       |  |
| MCEE         | E9A11  |       |  |
| MAPK6        | E19E5  |       |  |
| LARP6        | E24C12 |       |  |
| SFTPC        | E35E9  | E27A4 |  |
| NPTN         | NPTN   | E14A1 |  |
| CONTIG22977  | G2L21  |       |  |
| ISL2         | E54C12 |       |  |
| LIPC         | E45A11 |       |  |
| HAPLN3       | E13C7  |       |  |
| ABHD2        | E28A5  | E50G9 |  |
| RHCG         | E31G5  |       |  |
| MEX_NOHITS_2 | G1I8   |       |  |
| RAB11A       | E24G3  | E7C4  |  |
| TLE3         | E24G9  | E47G9 |  |
| PHLDA2       | E32E1  |       |  |
| ATHL1        | E17C1  |       |  |
| LOC644003    | E24A4  | E17C1 |  |
| MUC5AC       | E29G3  |       |  |
| TNNI2        | E43G4  |       |  |
| CD81         | E13G4  |       |  |
| FTH1         |        |       |  |
| C11ORF58     | E10G8  |       |  |

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|--------------|-------------------|-------|--|
| RRAS2        | E48G3             |       |  |
| SBF2         | E50C10            |       |  |
| SPON1        | G2F2              |       |  |
| PAX6         | E54C1             |       |  |
| CCND1        | E14E3             |       |  |
| CD59         | NM_000611         |       |  |
| ANXA2        | E35E11            |       |  |
| LOC100091509 | E17G4             |       |  |
| E15E9        | E15E9             |       |  |
| SERINC2      | E29E11            |       |  |
| TRNAU1AP     | E38A5             |       |  |
| CTSL2        | E25G7             | E46C2 |  |
| RCC1         | E33A8             | E46E1 |  |
| T_           | brachyury         |       |  |
| SH3BGRL3     | E9E11             |       |  |
| GRHL3        | E53C3             |       |  |
| E12G12       | E12G12            |       |  |
| M_NOHITS_886 | M_Nohits_886_ctg2 |       |  |
| STMN1        | E43G3             | G2G14 |  |
| ZNF593       | E42A12            |       |  |
| E15A6        | E15A6             |       |  |
| RRAGC        | E23E11            |       |  |
| SF3A3        | E40C2             |       |  |
| GNL2         | E35A2             |       |  |
| TRAPPC3      | E28A1             |       |  |
| ZNF706       | E8A7              |       |  |
| E14C3        | E14C3             |       |  |
| E16C8        | E16C8             |       |  |
| GJB5         | E40G1             |       |  |
| E13G11       | E13G11            |       |  |
| KHDRBS1      | E34A6             |       |  |
| KPNA6        | G1D6              |       |  |
| SFRS1        | SFRS1             |       |  |
| YARS         | E29G11            |       |  |
| RAB6A        | E13C9             |       |  |
| DNAJB13      | E34G8             |       |  |
| LIPT2        | E53G5             |       |  |
| SPCS2        | E10A9             |       |  |
| STARD10      | E15C2             |       |  |
| THRSP        | E47C2             |       |  |
| SYTL2        | E40G10            |       |  |
| UBL3         | E48E7             |       |  |
| POSTN        | E37A6             |       |  |
| E12G3        | E12G3             |       |  |
| C13ORF31     | E7E3              |       |  |
| GTF2F2       | E40C11            |       |  |
| ITM2B        | E38E11            |       |  |
| LCP1         | E42G5             |       |  |
| RB1          | RB1               |       |  |

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|--------------|--------|--------|-------|
| RAB33B       | E50C12 |        |       |
| LMO7         | E52A4  |        |       |
| PICK1        | E48G5  |        |       |
| GPR143       | E5A5   |        |       |
| RPL24        | E11E8  |        |       |
| THOC4_a      | E54A12 |        |       |
| COL8A1       | E42G10 |        |       |
| EIF1AX       | E14A6  |        |       |
| TM9SF2       | E44C2  |        |       |
| COL4A2       | E25A9  |        |       |
| ABHD13       | E51A10 | E35C1  |       |
| MID1IP1      | E53C5  |        |       |
| BLZF1        | E20G8  | E38G9  |       |
| DPT          | E6G1   |        |       |
| SOD1         | E42C7  |        |       |
| TIAM1        | E51E11 |        |       |
| ALCAM        | E33A12 |        |       |
| ATP5O        | E10A10 |        |       |
| RCAN1        | E41G4  |        |       |
| CD247        | E46C6  |        |       |
| UPK1B        | E44G6  |        |       |
| FSTL1        | E16C4  |        |       |
| CCDC58       | CCDC58 |        |       |
| MAN1A2       | E52C9  |        |       |
| LOC643604    | E27C12 |        |       |
| TPM2         | E18A2  |        |       |
| DNAJB5       | E22E5  | E48G4  |       |
| IER3IP1      | E49C2  |        |       |
| SMAD2        | SMAD2  |        |       |
| ID3          | E11E7  |        |       |
| ATP8B1       | E23A7  |        |       |
| ZFR          | E49C3  | E10C6  |       |
| MEX_NOHITS_2 | G1L7   |        |       |
| MEX_NOHITS_2 | G1E12  |        |       |
| SEPP1        | E11G7  |        |       |
| CONTIG95328  | E54C9  |        |       |
| PRKAA1       | E16G12 |        |       |
| GPX8         | E52G3  |        |       |
| SCAMP1       | E47G6  |        |       |
| HMGCR        | E24E10 | E46C9  |       |
| MEX_NOHITS_9 | G1J20  |        |       |
| OCLN         | E45A7  | E29E2  |       |
| VCAN         | Cspg2  |        |       |
| E11G8        | E11G8  |        |       |
| TNFAIP8      | E43E12 |        |       |
| E14E6        | E14E6  |        |       |
| E14C5        | E14C5  |        |       |
| ANXA1        | E41G11 | E41G10 | E41A3 |
| HNRNPK       | E6G5   |        |       |

E41A1    E6C12    E7G11

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|-----------|--------|--------|-------|
| FAM108B1  | E22A10 |        |       |
| HSPA8     | E38E5  |        |       |
| APLP2     | APLP2  |        |       |
| E14E10    | E14E10 |        |       |
| NNMT      | E29C3  |        |       |
| LOC566020 | E12A6  |        |       |
| ARCN1     | E15E12 |        |       |
| FXVD2     | E39A9  |        |       |
| PAFAH1B2  | E45C12 |        |       |
| MNT       | E53A12 |        |       |
| E11G11    | E11G11 |        |       |
| E12A11    | E12A11 |        |       |
| AATF      | E52E4  |        |       |
| ATP2A3    | E17E4  |        |       |
| BAZ1B     | E53E1  | E50E3  |       |
| E16C7     | E16C7  |        |       |
| C7ORF42   | E31G1  |        |       |
| GBAS      | E22E3  |        |       |
| MKS1      | E9C9   |        |       |
| POR       | E9A6   |        |       |
| MED31     | E49C1  | E5G5   |       |
| CLTC      | CLTC   |        |       |
| DOC2B     | E30E2  |        |       |
| MED13     | THRAP1 |        |       |
| PRR11     | E45C9  |        |       |
| E11G4     | E11G4  |        |       |
| E17C12    | E17C12 |        |       |
| CFLAR     | E47E4  | E23C12 |       |
| STAT1     | E44G10 |        |       |
| TOMM20    | E44E8  |        |       |
| TRA2B     | E10C3  |        |       |
| DNAJB11   | E31G6  |        |       |
| ZC3H15    | E31E12 |        |       |
| SUMO3     | E20A8  | E48E6  | E7A11 |
| E54C11    | E54C11 |        |       |
| STT3B_a   | E39C1  |        |       |
| FN1       | E53E4  |        |       |
| E12G1     | E12G1  |        |       |
| E12G7     | E12G7  |        |       |
| NDUFA10   | E37E11 |        |       |
| UGT1A1    | E22G12 | E46C3  |       |
| COL6A1    | E14E8  | E43G5  |       |
| E13E6     | E13E6  |        |       |
| ATP5G3    | E41C7  |        |       |
| HOXD8     | HOXD8  |        |       |
| HOXD11    | HOXD11 |        |       |
| E13A7     | E13A7  |        |       |
| SCRN3     | E50C5  | E23G2  |       |
| GCA       | E34A12 |        |       |

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| RND3        | E26A8       |        |  |
| HNMT        | HNMT        |        |  |
| R3HDM1      | RH3HDM      |        |  |
| SNX4        | E14E2       |        |  |
| E14A3       | E14A3       |        |  |
| NNMT_a      | E39A11      |        |  |
| ZNF142      | ZNF142      |        |  |
| ACCN4       | ACCN4       |        |  |
| E19A7       | E19A7       |        |  |
| CYP27B1     | E26C11      |        |  |
| SLC37A3     | E42E9       |        |  |
| FBXO7       | E6E12       |        |  |
| CARDIAC-RNA | Cardiac-RNA |        |  |
| E54G12      | E54G12      |        |  |
| MTPN        | E6G10       | E39G10 |  |
| IL17RA      | E30G6       |        |  |
| FBXL14      | E50G6       | E8E2   |  |
| WNT5B       | Wnt5B       |        |  |
| E17C9       | E17C9       |        |  |
| NTF3        | ntf3        |        |  |
| TMEM19      | E24A1       | E49E10 |  |
| UPK3B       | E37A11      |        |  |
| TWF1        | E27A3       | E47A4  |  |
| HIST1H2AG   | G2K2        | E19C9  |  |
| HIST1H1E    | E36G7       |        |  |
| E12A4       | E12A4       |        |  |
| CDK2AP2     | E48A11      |        |  |
| UBE2L3      | E9A7        | E28G1  |  |
| C11ORF31    | E42E12      |        |  |
| CTNND1      | E20G2       |        |  |
| FTSJ3       | E52G9       |        |  |
| TMX2        | E8G1        |        |  |
| CTSK        | E19C2       |        |  |
| E17C5       | E17C5       |        |  |
| E17C6       | E17C6       |        |  |
| FLJ36031    | E8G11       |        |  |
| LUM         | E19E8       | E10E3  |  |
| PIM3        | E20G5       | E47A2  |  |
| PAWR        | E47A1       | E23G1  |  |
| KITLG       | Mgf         |        |  |
| TIGRINUM-UV | UV          |        |  |
| CALU        | E12E1       |        |  |
| E15C7       | E15C7       |        |  |
| LEP         | E10G2       |        |  |
| IMPDH1      | E13C12      |        |  |
| SND1        | E6A12       |        |  |
| COPG2       | E48G1       |        |  |
| TUBA1A      | E41C4       | E18E3  |  |
| RAP1B       | E52G1       |        |  |

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| TMEM5    | E8C7   |        |  |
| XRCC6BP1 | E27A5  |        |  |
| ACADSB   | E46E8  |        |  |
| EIF3A    | E33E6  |        |  |
| ABLIM1   | E52C10 |        |  |
| TRIM8    | E27E11 | E50C9  |  |
| COX15    | E39G3  |        |  |
| ATP5B    | E41A5  |        |  |
| ANKRD1   | E44A3  |        |  |
| DNTT     | E54E3  |        |  |
| HIGD1A   | E7G9   |        |  |
| CISD1    | E6A11  |        |  |
| SGMS1    | E53E8  |        |  |
| E16E2    | E16E2  |        |  |
| MFAP2    | E18E11 |        |  |
| SS18L2   | v2p3a5 |        |  |
| UBR4     | E45C2  |        |  |
| SFTPD    | E45E10 |        |  |
| AP3M1    | E52E3  |        |  |
| E15C8    | E15C8  |        |  |
| VDAC2    | E22A3  |        |  |
| ERRFI1   | E45A4  |        |  |
| HSPG2    | E13C1  |        |  |
| CDC42    | E21G12 | E36C10 |  |
| C1QB     | E38G12 |        |  |
| PCBD1    | E44A8  |        |  |
| C10ORF54 | E15G9  |        |  |
| PSAP     | E41C9  |        |  |
| H2AFY2   | E35A7  |        |  |
| DDX21    | E41E3  |        |  |
| KIAA0913 | E53G8  |        |  |
| MYOZ1    | E35A10 |        |  |
| CCDC109A | E17A2  |        |  |
| EIF4EBP2 | E19G7  |        |  |
| SAR1A    | E11G2  |        |  |
| CAMTA1   | E51A11 | E12A7  |  |
| RPL37A   | E37A12 |        |  |
| CALM1_b  | E8C11  |        |  |
| SLC4A5   | Slc4a5 |        |  |
| DCTN6    | E20A10 |        |  |
| PTPN9    | E26G7  | E47A5  |  |
| SFRS2_a  | E19A9  | E36C9  |  |
| C9ORF156 | E7C6   |        |  |
| CLTA     | E31A5  |        |  |
| KLHL8    | E49G10 |        |  |
| ENO3_a   | E18C4  |        |  |
| MMRN1    | E24E11 | E48E10 |  |
| C4ORF16  | E31E10 |        |  |
| HSDL2    | E20G10 |        |  |

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|--------------|-----------------|--------|-------|
| H2AFZ        | E33C4           | E32G6  |       |
| KLF4         | Klf4            |        |       |
| RAD23B       | E10C5           | E26G3  |       |
| SCOC         | E45E4           | E25C12 |       |
| LARP7        | E26C3           |        |       |
| TBCKL        | E40C5           | E23A12 |       |
| NDUFC1       | E32E12          |        |       |
| ARFIP1       | E44A11          |        |       |
| PDGFC        | E45G1           | E23E4  |       |
| CHDH         | E27E10          |        |       |
| TMEM165      | E31E11          |        |       |
| KIT          | Kit             |        |       |
| PDGFRA       | Pdgf            |        |       |
| CNGA1        | E28E7           | E46A5  |       |
| SLC2A9       | Slc2a9_ctg46732 |        |       |
| WDR1         | E52G8           |        |       |
| C20ORF27     | E49E1           |        |       |
| CDC25A       | CDC25A          |        |       |
| E15C10       | E15C10          |        |       |
| KAZALD1      | E13G3           |        |       |
| MEX_NOHITS_2 | G1-M19          |        |       |
| MGC97528     | E13E10          |        |       |
| KCTD3        | E10C8           |        |       |
| PYGO2        | E53E5           |        |       |
| EPHX1        | E46A6           |        |       |
| GTPBP2       | E26E1           | E40E2  |       |
| TMEM63B      | E43A7           |        |       |
| HSP90AB1     | E19C11          | E36A4  | E5G2  |
| C6ORF226     | G1I19           |        |       |
| RPS6         | G1-D7           |        |       |
| CCDC127      | E11G9           |        |       |
| ARRB1        | E54E7           |        |       |
| SFTPD_b      | E44E10          |        |       |
| COX7B        | E33C2           |        |       |
| SSR2_b       | E47A12          |        |       |
| E15G1        | E15G1           |        |       |
| AP4S1        | AP4S1           |        |       |
| EAPP         | NT010BE09       |        |       |
| THBS1        | E42A5           |        |       |
| ACTC1        | E47G10          |        |       |
| ERH          | E43C9           |        |       |
| CHURC1       | E41G8           |        |       |
| SFRS4-like   | E33G10          |        |       |
| TRMT5        | E12C11          |        |       |
| ARF6         | E17A7           | E51E3  |       |
| MAP4K5       | E30E11          | E44E6  |       |
| RPS29        | E33A7           |        |       |
| NID2         | E34A11          |        |       |
| C14ORF129    | ETG926          | E7E9   | E26A9 |

E16A2

|              |                   |         |  |
|--------------|-------------------|---------|--|
| CNIH         | E48A10            |         |  |
| FERMT2       | E28A10            | E48E2   |  |
| NPC2         | E20E5             | ctg1459 |  |
| FCF1         | ctg1381           |         |  |
| LGMN         | E33G8             |         |  |
| WARS         | E51G4             |         |  |
| AHSA1        | E32A9             |         |  |
| UBR7         | E38G5             |         |  |
| CDC42BPB     | E27A8             | E48C2   |  |
| PPP1R13B     | E45E1             |         |  |
| E16C9        | E16C9             |         |  |
| COL1A1       | Col1A             |         |  |
| DLX3         | DLx3              |         |  |
| LSM6         | E52C12            |         |  |
| PHB          | E51E6             |         |  |
| ARF1_a       | E11C5             |         |  |
| CCDC56       | E6E11             | E48G10  |  |
| CONTIG81034  | G2H18             |         |  |
| PSME3        | E13E9             |         |  |
| NSF          | E15E10            |         |  |
| E15G4        | E15G4             |         |  |
| MAPT         | E10A2             |         |  |
| CRHR1        | CRHR1_int_353_3.1 |         |  |
| GH1          | GH                |         |  |
| E17E11       | E17E11            |         |  |
| PCK2         | E25E5             |         |  |
| MDP1         | E44E12            |         |  |
| TGM1         | E51C4             |         |  |
| HIST2H3A     | E53C1             |         |  |
| SDR39U1      | E53A9             |         |  |
| TMEM85       | E42C2             |         |  |
| TCELL        | tcell             |         |  |
| NDRG2        | E13G8             |         |  |
| RABIF        | E19E12            |         |  |
| TMEM183A     | E45E7             |         |  |
| CSRP1        | E38A8             |         |  |
| E15A9        | E15A9             |         |  |
| NAV1         | E40E9             | E27C11  |  |
| RPLP2        | E9G1              |         |  |
| SRPK1        | E43A9             |         |  |
| TMEM167B     | E20G11            |         |  |
| E17C3        | E17C3             |         |  |
| TAF11        | E9C2              |         |  |
| MEX_NOHITS_2 | G2G21             |         |  |
| RPL10A       | E11C3             |         |  |
| CAPZA1       | E9C11             |         |  |
| CYP2A13      | E30C7             |         |  |
| RHOA_b       | E42A1             |         |  |
| RAB7L1       | E44E2             | E21C7   |  |

|              |            |        |  |
|--------------|------------|--------|--|
| SNRPE        | E42G12     |        |  |
| TAF8         | E41G7      |        |  |
| CTGF_a       | E20E10     |        |  |
| TPRG1L       | E41G2      |        |  |
| GNB1         | E12G10     |        |  |
| LOC100224741 | E16E10     |        |  |
| MAD2L2       | E48C5      |        |  |
| TARDBP       | E12C1      |        |  |
| E11E11       | E11E11     |        |  |
| NPDC1        | NPDC       |        |  |
| COBRA1       | E22C3      |        |  |
| TNC          | E12C4      |        |  |
| WDR5         | E40E7      |        |  |
| NOTCH1       | E49C10     |        |  |
| APEX1        | E43G1      |        |  |
| LHX2         | E26G9      | E47G3  |  |
| C9ORF78      | E41E11     |        |  |
| C9ORF16      | E44G8      |        |  |
| TOR1A        | torsina    |        |  |
| FKBP10       | G1L11      |        |  |
| KRT24        | E21C4      |        |  |
| EIF1         | E10C4      |        |  |
| KRT12        | ETG1506    | E18A9  |  |
| KRT17        | Krt17      |        |  |
| LOC100016027 | E13A8      |        |  |
| RARA         | RARA       |        |  |
| HOXB13       | Hoxb13     |        |  |
| SNF8         | E9A10      | E50A12 |  |
| NFE2L1       | E22G4      | E45A2  |  |
| RPL19        | Rpl19      |        |  |
| MED1         | MED1       |        |  |
| KEAP1        | E6E7       |        |  |
| G2G13        | G2G13      |        |  |
| MED24        | THRAP4     |        |  |
| THRA         | Thra       |        |  |
| SFRS3        | E41A6      |        |  |
| MEX_NH_165   | Mex_NH_165 |        |  |
| TCF19        | Tcf19      |        |  |
| MR1          | E32G11     |        |  |

| Gene ID | Marker1 Forward Primer      | Marker1 Reverse Primer      |
|---------|-----------------------------|-----------------------------|
| SPEN    | AAAAAGTGTGAACGAGAGAAAGC     | ATTTAACCTACTAGCTGGTTGATGC   |
| SPAG7   | GTTTGAAGTGTGACATTTTGTCTTC   | TTTAAAGAATACGTCTATGTGCAAGG  |
| ENO3    | TTGAGACCAGATTAGTTTAGTGTTGC  | AGTTTTCGGATACCGAATATAGATCA  |
| PCOLCE2 | CCCTGAGAACCTTTGTTGTTTTGTA   | GAGATTAGTGTCAAGAAGGGAGTACC  |
| PSMB6   | TAATTCAAGAACGATCGAATGAATAC  | GCTGATGTTGCATCGTTAGTG       |
| EIF4A1  | AAGACATTGAGACATTTTACAACACC  | AATGTACAAGTTTAGCACCCTTCTG   |
| E16A9   | TACCTCTATTTTATTCATGTGCTGC   | TCTTCTGGACTAGAACAAATGAATCTC |
| CLDN7   | CAGGAGGACTGGATCTTCTGG       | GTGAGTACAAGCACTTTGGAAGTTAG  |
| CIRBP   | GTATTTATAAAGATTTTTGGAGCCGT  | CTCATGAGTAGTCAATTGAAGGGG    |
| CNN2    | AATACCAGTATTACCAGGAAGGAGAA  | CAACTTGTTAAGTCAAGACACACCTT  |
| E12E2   | GGTAGGAGAACAAGACAGGTTATTTT  | GATTTTGTTTCTAACAAGCCTTTCTC  |
| GPX4    | GGTGAAGCGATTTAGCCCTAT       | AACCAGGAGGCAGAAAGTAAATAAAG  |
| SLC39A3 | ACTCAGTGGTCTTCTTTGCATGT     | ACCTTAAACTTTTGGATGAGCTG     |
| BSG     | CATGAATACTGCTGCTAATCAATAGG  | ATCTTCAATAGTAGGGGTGCAATAC   |
| CDC34   | TCTTCTGCTTAAGAAACAAAATGAAA  | AACTGCAGCAATTAATAGTGAAAATG  |
| PRTN3   | TAGTACAAAAGAAAGAGGGGGAGATA  | AAATAGATACATTTGCACTGGGAATA  |
| SFRS14  | ATGCGTACGAATTAAATATGAAACAA  | TAAATCTTCTGTTTCTGCCTTCTTTT  |
| NDUFA13 | TAGAGCATCGTTTCAGTTAATATTGG  | ACAGACAACCTGTAGGTCTCACATAGG |
| USE1    | AACTGGCTTCTCTGGATAATGTTAAT  | AGAGAAGCATCTCAGTTAGGACCC    |
| UHRF1   | CCAGTGAAACTGACTTGAGGTTTG    | GTACTTCAAGTTCCTGAAACAATGCT  |
| E17C2   | TATATGCTTCTGTTAGGAACATCTGG  | CTAAAAGATCTAAAAGGGGCACATTC  |
| EEF2    | CATTGGTATTACGCCTTATAGGTTTT  | TTGAGATCAGGTTTATTGGTTAAATG  |
| MYO1F   | CAGGAAACTATGTGCAGAAGATCTAA  | GTTTCTCCAGTAGTAGGATGTGCCT   |
| NDUFA11 | ATACACTGAGACCCCAACATTTTTT   | CATGTGCATATGCTTTATTTTCTAAT  |
| BTBD2   | CTACGCAGCTGGGAACAAC         | TATATAAAACAAATCTAGCCACAGGC  |
| OAZ1    | CTTTGAGATTGTGAGACCTGGAC     | CACTGCTCATTGAAAACAAATGTAAT  |
| LSM7    | CAGATCTTAAGACCACATGGACAATA  | CTTTAGGATCCACACTTATGTAATGC  |
| MAPRE1  | AAATTACGATGGAAAAGATTATGACC  | AGATTTTCGGAGCTACAGCATTC     |
| SAFB    | TTTGCTGAGTTAACGCGCTCTTAT    | GCGTACTTATACGAGACTTGGTTCAA  |
| ATP5E   | GTGTCAAAATAGTAAAGCCCAAAAAG  | TTGAACAATGAAGTTACATAGACGTT  |
| MCL1    | AAATGTCCTCATGACGTTAGCA      | AATATACAATAGCTCCATTGTCCCTG  |
| ERO1L   | GACAGGTCATGAACTTTTAAAATAA   | AAAGTATATGTACCAAATGGGAGAGC  |
| IFIH1   | ACAAGAAAACTCGAGACAAACCTAT   | AAACATTGATAAATACTGTGCTCTGC  |
| KRTCAP2 | CTTACCAAAGGCAAGAAGAAGAACT   | ACGAAATACCAAACCTTTATTTGTC   |
| C1ORF23 | CATCGAAAATTCAATCAAACTAGC    | AAAAATAATCACTATGGTATCAGCCC  |
| PRG4    | AAGTTGATTTTAACGAGTTCCTGGT   | TTCTAGGTCTGGCTCTGTTTCTATTT  |
| S100A11 | GTTTCTTAGCCTGATTGGGGGTAT    | ATAACATGGTTCAGGAAAAGCATAG   |
| S100A13 | AAGTTCTCCGAGTACCTACAACCTGAT | GATAAAATAGTGTGCCATGAAAGTTG  |
| S100A4  | GGAGTATGTCTTATTCCTGACATTCC  | TAGAACTCAGCTCTTTTCAATAAGCA  |
| E12E11  | TTGCAAGTCTTGAACACTAACTTTTT  | CAAATATAAAAATGGCATATGGACAC  |
| TPM3    | AAAGTTTTCTTTTTAAGTTGCCAAAA  | CATAATTTCTACATGATTTATGCGCT  |
| RPS27   | CCTTCAGACGAAAACAGCACTAAG    | TACAGTGTATGAGAGCCCAATATTTT  |
| ANP32E  | ATCACAAATATGGAGGATTATAGGGA  | CTCATCTTCAGAGTCTCCTGGTG     |
| TXNIP   | CTGATAGTTGTAGGTAATCTGGTTGC  | ACATTGATCTCTAGGAACACATTCTG  |
| SSR2    | GTGTGATGACCCTCCCTTCTATT     | GACATTTTATCCAAAATCAGGTTAGC  |

|          |                            |                             |
|----------|----------------------------|-----------------------------|
| DYNC1LI2 | CCTGCATATGTAAATGACCAAATAAC | TTGACAGAATTTTTAGTTATGGTTGC  |
| ATP6V0D  | TGGATTAGAATAAGAGCATTCAACTG | ACTTTCACAACAACATAATTTGCTGAC |
| TPPP3    | TATGATGCGAAAGTCAAGAAATAGAC | TGGGTTTGTAGGACTTATCCTCTACT  |
| HDGF     | AATTGTTTAGTCTTGGTATGTTGTGC | AACAAATGATCCTACTCATGTTTCAA  |
| NUTF2    | ACCATCATATACAAGGAAAGGAAAAG | TATGACTTTTTCCACAGTAAACTGC   |
| UFC1     | AACACAAGGAAAAATGAAGAGTCCTA | TTCAGaAAGTCCAACGTTTATTAGTG  |
| TMEM188  | GCATTTTGAGCAGTTATTGTTTTAGT | ACTTAAAATCCCAAGTTCAGAAGCTA  |
| LUC7L3   | GAATAAAAGCAACAATTGCAGAGTTA | CTCGACTCCTTCGATCTCTACTC     |
| PSMD11   | AATATGAGTAAAGTTGTGGACTCCCT | TTATATATAGATGCATCCGATGAGGA  |
| U2AF1_b  | GTTTTTGTAAATTCATGCATCTGAAG | TTCCATCTACCagAGTTACGTGG     |
| FXD3     | CAGAAGCTTTTCATAATCCTAGAACC | TAAATCTAGGAATAGTGGTGTGCTG   |
| E12C7    | AGACATTCTTTAAGAGATTACTCGG  | CCCTTTGTAAAATAATTCCAAGAAAA  |
| COX6B1   | AAATGGGATGAAGAGCGAGAAT     | TTAAACTGGACACAAACGATGTTAAT  |
| POLR2L   | CTCCTATCACATGTTGACCTAATTGA | AGGTGTGAACCCTAGATCCCAT      |
| NUCB1    | AGTCAAAGAAGTGGTTTAATGCTTTT | CAAACCTCTTTAGGCAGTGTTTTTGTA |
| FTH1_b   | GTACCTCTTCGACAGGCTGACT     | GAACGTAAAGTTTTATTAAGGCAGG   |
| FTL      | GAAGAGGTGAAGCTCATCAAGAAG   | TTAAAGTTTTATTAAGGCAGGCACTC  |
| KRTAP10- | ATGAATGACCTCTCCGATTGTAAATA | ATAGGAACCTCAGAAATGGGTATATGG |
| LOC73390 | GAGAGGAGTTCTGTACCATGC      | TTACAACGGTCTTCCTCCACT       |
| CD163L1  | TACTACTGTCCTCACACACATGAAC  | AAACAGCTGCAGATATGTTAAACAAG  |
| SACS     | GTACTTTGAATGTCTCATTCTTTGA  | TCACTAATGATGCATAaCAAACTGA   |
| GPI      | GATGCACCCGTCACATCTC        | GATGTTTAATTGTGCAAAATTTAGGG  |
| ITLN1    | GCTGCTCTGGTACCGCTAAG       | TACAGTTAAAGGCATACTATGGGGAT  |
| GABARAP  | GAGATGAAGATGGATTTTGTATGTG  | CTCATAATAGCCAAGTATCCAAAACA  |
| HNRNPK   | AGTCAAGAGGAGATTATGACGACCT  | TAAATGTCCGTTGTTTCAAGTCTTAT  |
| NQO1     | GAAACTCAATGGTAAAGTAAACGTG  | TTGGACTGTTTATCTCAAATCAAAG   |
| VPS4A    | GGCTTGGTTTATTTTAAGCTCACTAC | ATGAGGCAACATTGTTTTGTATTTA   |
| APRT     | GGTTCTGATAGAGCTGAAAAGTCTG  | TAAGTAGGTAAATCGTGATACAGGGG  |
| CA5B     | GTTTCGGTCTCTCGAAGAAAATAAGT | AGCTCGAGTCAACGGGAAG         |
| MAP1LC3b | CACACCCATTTCTGAGGTCTAC     | TCACACAGCAGGCTTGTTTTT       |
| GMDS     | TGGAATACATTTCTTTCAGCATATC  | CCATTTAAGTGCAGGGTGAATAAG    |
| TEAD4    | CTTGTTAAATATTGTGGGCTGTTATG | AACCAACAAAAGAAAAGAAATTAC    |
| E24A11   | GGAGTAAGATCCAGCAAGAGATAGAA | ATCTTGTTCAATAGGCTTAGACTTGG  |
| E12A2    | GAGAAATTCCTAAATCAGCACTTACC | TCTTAAATTATGAGTTGCTATGGTGG  |
| E13E7    | GATTGTTAAGGACCTACAACCAATTT | AGAAGCCACCTTTTAAACCATAACT   |
| LIG1     | CACAGTTTGTCAATTCCTGAGAGTT  | AGTCATTGTCTCAATTTACAAGATCG  |
| MOCS3    | GAAAGATATTACTGGTGGGTTAATGG | TAGATCTAAAGATGGGCCAAGTAAGT  |
| SFRS7    | ATTACGCATATGATTGTGATAGGCT  | GGATGATGCACACAATGTCTCT      |
| LOC76955 | CTAGAAGTGAACCAATGAATCCAAG  | TAGGCTACTATAGAAAACCTGGGGTG  |
| MMP2     | CTGAAACTTGAAAATGAGAGCTTAAA | CCAGCACATATCTTCTTAGAGGTACA  |
| NUDT21   | GTTCCAAAGAATTACAAGTTGGTAGC | TGGAATACAAGTGGATAACCAAGTAA  |
| ETHE1    | ACTGCCACGCAGATCATATCAC     | AACTTGATAGTGTGACCTTCCTGAAT  |
| SODEFRIN | AACTTTCCAGGAGAAACAATAGTCAG | ACATAACATAAACATCTCACAGCACA  |
| RABAC1   | ACAGACCTACTGCTGCCTGATACTAC | GAGAAACAGAGGAGTCCACAAAAGT   |
| MC1R     | ATATTCAAGAATAGGAACCTGCACTC | GTTGCTGTGATAGACAATGAAGATGAT |
| MGST3    | TTGCCTTCAGACATCTCGACT      | AAAGTGCTTTAAATTGGACGGTT     |
| APOE     | ATACTATTGTTTCATTCTTAACCCCT | AATCATTGCATGTTATTCTGTTCACT  |
| PRDX6    | ACTTCCTTCTGGCAAAAAGTATCTC  | TCTTGAAATACTACTCAACCAACACC  |
| FMO3     | CAGTATCGTTTAACAGGGCCAG     | GTTACTAACCAATCAAACAGCAAGAA  |

|          |                             |                             |
|----------|-----------------------------|-----------------------------|
| ARPC5    | CTATGTGATGTTTGAATTGCTGGTA   | GTAGGCAGATTTGTTTTGTTTCATAGA |
| NCF2     | CCCTAAAGACTGAAGTGAGGCAC     | GAGGGTTTCCCTCCCAAAG         |
| RGS2     | AGTCCGAGTTCTACCAAGAGCTG     | AGATCTACACTCTGTGCTTTTCAGTC  |
| GLUL     | CTGAGTACAAGAACTAAGCAAACCTGC | CAGCTAAGTCTTTTGTAAAGTGTCCA  |
| CLCA2    | GCCATAGTGTCAAGTCTTTTATTTCAA | TTATAAACGAAAAGTTGCATGTTTCA  |
| RGS5     | GACCTTTATCTGGAAGTATTGAGTA   | TAAGTATTGCTGGGTTATGTGGTATG  |
| COL11A1  | CAAGTTTTGAGTAAGGATGGTGTAGA  | TATTAGGATCTGACAACGGAATATGA  |
| IFI44L   | TAACGAAAGATGAAGAAAAACAACCTG | CATAATTATTTGTAACCGTTGACGAC  |
| GNG5     | TTTGTTTACTAATCTTCATGTCTGCC  | CAGTGTATAAACAGTTCCTCCAGAA   |
| SEPT10_b | AAGCATTCTCAAATGGAATACTGAC   | CGTATAACATTCAAGGAACCATACAA  |
| E12G5    | CCTATTCCACTGCAAGAGTAGTTACA  | TTTGAAAATATTTATTGTACAGGCCA  |
| E17G11   | ATAACGAACACATCTGTTTTCTCAG   | GATATACTCGGGCAGGTACTATATCAA |
| FPGT     | CTTCTCTCCATAGAAGAGATGCTGTC  | CTTCTAGAACGCTTTACAAAATGAGG  |
| GPR177   | CTATTTTCTCTTTTGTAGAGAGCAGC  | CTCAAACCTGATATGGACTGTCATTCT |
| LEPROT   | ATACGTTGAGGAACCTTTATAGCACT  | TGCTCCTAGTTATAAGGACACAACAC  |
| USP1     | ATGAGGGAAAGTGTTACTATTTGAC   | GTAAGAAAGAATGGAAGAGCAATTC   |
| PSMA4    | AGACAAAAATAAGGGTTTTAAAGCAA  | AATGCAAAGAAATAAAGTACAGGGTT  |
| C8A      | GGGTGAGCGTGTCTTCAAC         | AAACCCCGCATTTTTCGAC         |
| TMEM59   | TTTTAAAGATTTATGCTCACAACGTC  | ATACTCCCACTCTTTCTACGAGGTTA  |
| SLC1A7   | ATTGAGATCAATGAAGTTGAAACAAA  | ACAATTGTCGAGTCTGTCATCTTTAG  |
| SCP2     | CAAGTTGTAAAGTTCCCATCTAATC   | ATTGTGTGGAGGTTATCAATTACTCA  |
| EPS15    | GCTAGCAATAGCACTCAGTAAATCTG  | TTGAGACTAGAAGTGATTGCCTTG    |
| TXNDC12  | GTATGAAGGAGGCTCAGATGAAGT    | TAACCAGGGTTAACGGATGGG       |
| KIAA0494 | TTATTCCTTGCTGAACTAAAGTTGG   | AGTGCAGCTATCTAATTTAAGGCAAT  |
| FAAH     | AAAAGTAATGAAGACTGTGACCCAAT  | CTAGGGTGTTAACAGTTAGACGATACC |
| E17G7    | CAAGTGGTCTTTGTTGTACTTGATTT  | GAGATTGCTCAGAAATTATTCTAGGG  |
| PRDX1    | GCATGATTAATGTGATGTACTGTAACC | TGAGTGTTATAAAATAGCTCCCTTTG  |
| DAZL     | CAAACCTGAAGTCTGTGGTAAACCTAA | GTAATTAACCAAACCTGAACAAGAGCA |
| TMLHE    | GAACAGGAGAGGAGAAGACTTCATAA  | GTGAGTGAAAGCAAGAGGTAGTAGTG  |
| THRB     | CCCGGAAAGCAAAACCTT          | TATCATCCAGGTAAATGAC         |
| STT3B    | CATGCATACTTGTCATTTCTTTTTCT  | CACGCAAATCCAATAAACTACATTAC  |
| SH3BP5   | GTAGTCATTGATAGCTGTGCCTGTAT  | GAATACTGAAATCTGTAGCAGTCCAA  |
| C7ORF41  | GAGTTAAACCTTGGTTGTGTGTCTAA  | GCGTAATGCAGTAACAGAATACATTT  |
| E12C2    | ACGTTTTTGAGTTGAACTTTCTTTTT  | ATTTTTCCATTTTAAGATTTGGTCAG  |
| NGLY1    | AACTCTTCAGAGAGAGCCTACACAAC  | AGATATGACCAGAAGCACATATTGAA  |
| VWDE     | CCAATTATCTAAAGCCCAATCTATGT  | GATCTGCAACGTAATTGATAAAAGAA  |
| COL1A2   | ACTtCCAAAGGTTTAGAACTACCTCA  | AATCTGAGAGGATGAAGATGAGATTT  |
| UHRF2    | GATCTTGACATATGTTCTGGGAATG   | TCTGTAGTTGGTAAGTTCCAGTAACG  |
| NMT2     | CAAGTAGCTAAATCCTACATCAAGCA  | TAATTGGAAATTGCAGTCTGAGTTAG  |
| VIM      | AGATAGCCACGATAGTCTGTAGGTCT  | GTATTGCAGCACAAGATATTGCTATT  |
| EIF1B    | CATTCTTCCTGCTTTTACCTAGTC    | AGTGGACATGCGATAGTATTAACCTGA |
| IGF2BP3  | ATGGTTAAACGACAGCAGCAAC      | AGGGAAATCTTAACACCAAGTTCTAA  |
| TOMM7    | TCAGCTTACAACATTTAACATGGATT  | AAATTAGGAAATTGAGTACGGTATGC  |
| KIF15    | TAGAAGAGACCAGAAATGCTCTGAAG  | CAAACCTTGACCTCAATTCTTCTTTT  |
| E54A6    | TGTGTTTACTTCTGTGAAGACCCTC   | TAAATAAGTTAAAACATGGGCATTCA  |
| HOXA4    | CTGCAGCACTGGCAGGTCTGTGCTG   | TGGCGAGCGCATCTTGGTGTTGG     |
| HOXA9    | AGGCACTACGGCATCAAGCC        | ACTCCTTAGGCCGTCCTTGT        |
| CBX3     | AGAATGGCAAGGGCAAAAAGGTAG    | AAGCTCAGGGCAGTCCAAGTTCTC    |
| CYCS     | AAAATGGGAGACGTTGAGAAAG      | TTTTCAATAGTGTGGCACGTTG      |

|         |                              |                              |
|---------|------------------------------|------------------------------|
| ABI2    | TATCAAGAAAAACGATGATGGCT      | AACATGTACTGTGACATTCATTAACTTT |
| KIF5B   | AATGCCTGCTTAAAGCTAGAAGCTTAG  | CTTTAGACTCCTCCTTTAGCCTGTAA   |
| CREM    | CTTGAAAATCGTGTAGCTGTCCTT     | TTCCAGACATTTGACATACTCTTTC    |
| WDR60   | CTCTCTGGATTGGCGTTGG          | ATACACAGGTGGTTCTTACACTTGGT   |
| U2AF2   | GATTGCTCTGATGAAATCAAAATG     | AAAGAGATTTACCACCACTTTAGCAC   |
| HBZ     | GATGTGAACAGTGAAGAGGAAATG     | aCCATGAAGGAAGTTTCACAATTTAT   |
| HBA2    | ACATGCCACAGCTGTTAACCT        | ATTCGAAAAGGTGTCAATTCAAGT     |
| HBG1    | GACCTTAGGTGAAGACTACACTTGC    | CTTCATGTGTTTCAGGAGGTAAAGTA   |
| EIF3I   | GAAGCTTGAAGGTCTAGTCACTTTCT   | ATTCATTAGCCAGTTTCAAATAACC    |
| KBTBD5  | ACTGAATACATTACGGCTTACAAAGA   | CTCTACAAGATGCTGAACAAATCAG    |
| CRHR2   | GCTGGTCTGCTGTTTAAAAGATAAGT   | ATCAATGATGATCTCGAAAATGGT     |
| UQCRC2  | AGACTGTAGAGTTAGTCGGGTGCT     | GACAGAAAGAAAAATATGGCGAGT     |
| GNA12   | AAGAGAATCTCAAGGACATTATGTTG   | GACATCTAGGACCAACTGTTTCAGTA   |
| TIMM17B | AAATCCTTTTGGTGAAGACCCTA      | ACTTTGTGGTATATTGTTGTCTCTCG   |
| TIMP4   | CTAGCCAGTGCAACTTTGATCC       | GACCTTCAGTTAGGTTTGGTACTTC    |
| DCTN5   | TGGTGGATGTCACTAAGAGCTACTAC   | ACATCTGTCAGGAGATGTGCAG       |
| RBBP6   | GTACCTCGAAAAGGTCATCCTAAAC    | TTTTTCTGACTTGGCTTCCAG        |
| TNRC6A  | GCAATTCCTAAACTAGCAGCACTAAT   | TCCAACATCAGCAAATAAAATAAAAA   |
| NARFL   | AACAGAAGCTGGTGGTCGTTT        | CTCTTCAATGCTCAGGTTATTCTGT    |
| E17G8   | CTATTTGTCAGAGGTCTGTAAACCTGA  | GTTTGGGATCTAGAATGCCTAATTT    |
| MSLNL   | TCTTGATTTTGAGGCATATTCTGTAG   | ATGTGTACTAATCAGTCAGAGATGGC   |
| SSTR5   | AACTTTCAGTCTGTTTTCTTTGTCATT  | GTAAGAGTCATTTGGGTCAGAGATTT   |
| PDGFRA  | GGTGAAAATAAGCTACAGAACTTCC    | GAAAGTAGGCACAGTTCTTGACATAA   |
| H3F3B_b | AGTTTGTTTTGGACCTTTAACTTGAT   | TGCAGAGTAACATTATCTAATACGCA   |
| UBE2I   | ATCATATGTGTGCCATTTTCCATATT   | GGCTCTTAAGCAATACAACCTAATTT   |
| COQ7    | GCAGTGTTTTTATCAGAGCGTATTTA   | TAGACAAAAAGCACATCCCTATACTG   |
| PDXDC1  | ACATAGGTTTAAAATGTGAACAGTGC   | GTCGTCAAATACAAAGCAAACAGTAT   |
| MYL3    | AATGAGCAGAGATAAAGACCTTCTTG   | CTTCCTTTGGTTCTGCCTTCTT       |
| ARF1_b  | GTCTAATCAGCTCCGAAACAATAAAT   | GCAATACGTAAGTGACAAAAGAAAT    |
| ABAT    | CATTTTAGCGCCTGGTATTATTGT     | AAATGTATGAGACCCCAACATTATTT   |
| ATP6V0C | ATTCTAATTCTCATTTTGTCTGAGGT   | AGTACACACAGACATGGTCACTAACA   |
| HN1L    | GCAATCTGTGACTGACCATGAG       | GTTGAAGTCAGGCATTGTTAATAGAA   |
| MRPS34  | GGAAAACAACTGAGACTCCTACTCTG   | GTAGCTGAAACGCTCTTACAATATGA   |
| NME3    | GGCTATGTAATCCGATGTTACCAG     | GGGAGGTTTCTACATTACACTTTAACAC |
| C16ORF1 | GTGGAGCAATGATGTGACTGAGTA     | AGTACAGCCCACACAGGTAGTAAAAC   |
| HBA2_a  | AGACCGAATTTACATGGCATAAG      | TTTTcACGTCAGTTGTCAGTTTATTT   |
| HBD     | CATAGTATTCTTGGAGGTTGTCCAG    | GACGACTTCGCTATAATTTAACAACA   |
| STUB1   | CTATATCAAATGGCACTTTAGCGTAG   | ATAAGAGAAATGTGTACGAGAGAGCA   |
| LOC4403 | CGTGGAGGCCTACCATTGAGGTAC     | CATATGACCTGCAAGAATGAATTTAC   |
| AURKB   | ACTCTCCCTGCAAGGTGTATTG       | AAATGATAAAGCAACCCTTTGATAAC   |
| C11ORF5 | ACAAGTAACGGAGTCCTTATGGTTTA   | TGAGACATGATATTGCATTTTCAAAC   |
| CCM2    | ACAGACATCAGCAATGACATAGAAG    | TTACATCCTACCAAAGGACCAAAT     |
| M_NOHIT | CTTCATGTGACTTCATTTCAATTTG    | AACCTTATCAGTGCACAGAACATAAG   |
| KIF9    | TAACATACAAATCCATGTCCAAGT     | GGTTTATTTTTCTGTGTACGACCA     |
| NGFR    | GTGAAGTCAGTGATGAAAGTCCATGT   | CTAGGATACCAGTGGGAGAGTGTAAT   |
| SETD2   | GGAGTATATCAAGAAATACATGCATAAG | CACAGACGTTAAAAATAATACAGATCC  |
| DRG2    | GTGATTCTTGGTAATACTTGGAACAT   | CCTCTCATCTACTCTGTCCTCTTTCT   |
| M_NOHIT | GGCAATAACACTTTTCAAATTCAT     | TCAACATGTGTACAAAGAACAATAAG   |
| MAP2K3  | GGGTTCTAAGACCCTGTACCTGt      | ACAAGAAGTCAGTCCGGAAAAA       |

|         |                             |                                   |
|---------|-----------------------------|-----------------------------------|
| MED9    | AGAAAGTGAATGAGTGTGGATAAGGT  | AGAGTATTCCTCTTCCTCATCCTCTT        |
| RAI1    | TTTCCACAGTAACCAACAGAACTATC  | CAGTAGGCACTGTAGTCTTTTTTCATC       |
| RASD1   | GGTAGTCTGTATGTGACGTCGTGTAG  | TCT TCT TAA TCA TGG TCC TTA TGA A |
| SHMT1   | CTACCCTGAAGGAATTCAAAGAAA    | TTGGAGTATGCGTTTAGACAAGAA          |
| PVALB   | CTCTCGTGAGGTCATCATAAACC     | TTATTTGCTTCTTCCAGTCACAACT         |
| RAC1    | TCAACAAATTAAACTCCACTCTGAAC  | GATAATAGAATGCTCAATGACTGCAT        |
| ACTG1   | AGAAAACTGGAAGACCAGAGTATGT   | TAAGGCAGAAAATACAAAAACACTTG        |
| ARPC1A  | ATCCAAGGCCTATAGATAATGTGAAG  | AATCCCCCTTAAATTAGTGATTTCAT        |
| M_NOHIT | AGTGAGCATCAACCACCCACTAAT    | AGTCCTACAATGCATCAATGCTCTAC        |
| UTS2R   | CTCCTCTCCAAGAACTACAAGGAGTA  | AGGTAGAGGAGCTGCTAGACTAAGGT        |
| ACTB    | CCGTAAATGTTTCTAAATGACAGTTG  | GGAAAGAAAGTACAATCAAGTCCTTC        |
| FOXK1   | TAGAGACCATAAACTCAACTGCACAT  | GTAAGATTCTATGAACTCCGACACAG        |
| BGN     | ATACTGCAATGTAAACAGGAAAATCTG | CGATAAAATGAGTACCATTAAAGTTGG       |
| E13G5   | CGCATCATTTTTATGATATCTGAACT  | CACGTGAAATGGATTAAAGTCTAAGAA       |
| RENBP   | TACTGGAAGGATAGAGGACAACCTAC  | AGTACCTACTGCCTATGCTGTGAATC        |
| TKTL2   | AGCCTAATGAACTCTTGGATATGTTT  | ATAGCCAAGCAATACGTTTGTTATT         |
| EEF1G   | GACTTCAAGCACATTGGGAAAC      | CTCCTTGTGCATTAGTCCTCAGT           |
| SMC1A   | CAAGGTCTTAACCTTTGACCTTACC   | AGTCTACACAGCTGAGACTGTCCAC         |
| TTC9C   | ACCGAAGGATACATCTAAACATCTTC  | TAAGGTTGCCAGCTTCCTTAAATAGT        |
| ACTC1_a | CATGTCTATGCAGTTTACTGGGAG    | TACGGAGAACATTTGATTTTTCATAA        |
| ADSS    | ATGATCAAGCTCTTCTGAATGTCTC   | CCCCGACACAATATGTACAATATAAA        |
| CALM1   | CCTCTTGTCCCAGTGCCAGTG       | TCCAGGGATCCGAAACAAAG              |
| OTUB1   | GGCTCAGATCCAAATGTTTACTTACT  | TATCATTTACAACCCACACAAACTCT        |
| PRDX5   | CTATGATTATAGATGATGGCGTTGTG  | TTAGTGTCAATAGAAGGTTGTTCTGC        |
| RBM4    | TCAGAAGATTTTTGTGACCTTGTC    | TCTCATAGTAATCTTCGGCACTGTAG        |
| CAPN1   | TAAACAGGAATGTACAAGGCACTAAC  | GATCCTTCTTCATAGAATGTCAACAA        |
| DPP3    | GAGAAGGACTTAATGCAACTGTTTTT  | GATACAGAAGAGTGAAGAATGGGAG         |
| PYGM    | TACTTCAAGGACAAGAGTGGTATTTG  | ATGTACAGATGTCATGCTTCCACTAT        |
| TMED10  | CTCTACTTCAGCGTGTTCTCCAT     | ATTTAGCCTGTCGACATTTTGTAGAG        |
| FOXA3   | GATGGACTGCTAATCTTTTGAGACCC  | AACAAGTGGGGCAAACAACCAACCAGC       |
| E14C12  | GATCCATGTTAGCAATATGATGAAAC  | TACAAAAATACAAAGGCAAGTGTAGG        |
| E16G10  | TTTTATACAGAAGCTGTGAAAATTGG  | GGTTTAACACAAAAGTACTCGACAGA        |
| BANF1   | CGAAGAGCTGTTCCGAGAGT        | AGAATCCCATGCTTCAATGC              |
| CFL1    | GATGTAATATTGTGTCAACTCGAACC  | AATGCACAAATAAAACCAGTTCATAA        |
| E23C10  | CCAACTACAGCAGGAGGTCTG       | CAGTCAGTGAGGGAGTGCTTATATC         |
| KCNK1   | CTATCATATCCGGGGCAGGTA       | CAAGTACTGCATATTTCTCCTGAGC         |
| PLCB3   | GATGGGAAGCTGGATAACACC       | GTCTAGCAATTTCAAGTTTTCTCCTT        |
| RBM4B   | TCTGCATTTTTAATGGACTTTTTACA  | GCATAATAACCACATAAACAGGATTG        |
| SULT6B1 | CTGGGAAACAAGTTGAAATATGATGT  | TGAAACAGTGTCAAACAAAAGTACAA        |
| E16E8   | AAGCCATTATGTAAGGCTGTTCTACT  | TAAGTTGTAGCAAATATTTCAAGTGCC       |
| UCRC    | CGCTTTACGACCACCTGAAC        | GGGGGTTTTCAATGGAATTTATTT          |
| CKM     | CTCATGATTGAGATGGAGAAGAAG    | CATTACGACAGCATATACAAGTGACA        |
| CLPTM1  | GAGGAGAAGAAGAAGGACTAACTTCC  | GATTGCTCCTTGACTCAAAACAC           |
| SNRPD2  | TGTGGTACTACGAAATCCTCTACTTG  | GAAGAAGGTAGATGGAAACCTCTTG         |
| E17G3   | CTAAATCCTAACCATCACCTACAAT   | CTAGAACTAGGCATATTGGCCTAAAC        |
| C22ORF3 | GAACCCTCATTAGCAAGAACTTTG    | AGGTAATTTAATCACTTCTGTCCAC         |
| CYP2C19 | CAAGATTGTATCAACTTTGTCTGGTT  | TTGCAGGTGTTCAATAATCTTTAATC        |
| E12E6   | GAGAGAGATGTACACTCCCAGTATCA  | GTCTTACTCaTAtTCGCCACTAGGTC        |
| CYP2F1  | CATACAAAATCTGCTTCCTTCCAC    | AATAAACACTGCCAAAAAGACTCTG         |

|         |                             |                             |
|---------|-----------------------------|-----------------------------|
| H3F3B_a | AGGATACCAACCTCTGTGCTATACAT  | TAAATGTATTTACAAACCGAAAGCAA  |
| CAPNS1  | GTCCTGACTAGTTCTTACCCTGAAAG  | GTGTTTGCTATACTGAGTCCAAAGAA  |
| SNAP23  | AAGGTTATTGTCAATGAAGATCGAAT  | TGTTAGGAGTAACAGTGGCAAGTAAC  |
| GMFG    | GTTTGAAATCAGGAATACCGATGA    | GTTATTAGAGGCACTCTTGAAAAAGG  |
| NCCRP1  | ATCGGGAATAACTCAAAGCAGTATAA  | GGCTGGTATCACTAACAACATGACA   |
| RHOA    | ACTCACTGTAACAAATGGCTAACAAG  | GATATAGCACAACTGCAATAGGTCAT  |
| GNAT1   | CCCATGCTGCGGAAGAGA          | TTAGAGGGCGAAAAAGTGTCATC     |
| TWF2    | GTGATGAAAGTTAAGCACTCCAAATA  | CCCAGGGTTAGAGTAGCAATAAGTAG  |
| WFDC2   | AAGTGACCACTACAACAGAATCAAGT  | ATGTGCAGTTAAAAACAACAAGTCTC  |
| CNBP    | AAGACGAGCGAAGTCAACTGTTA     | ACTAGCCTCTATTTGCCAACCTTT    |
| BTG1_a  | AGGGCAGGACGTCTATCTTTTTAAT   | GGTTGTTTTCAGTAACCTTTGTGATGA |
| FLNB    | TCACGTGATCTATTTCTTCATTTTC   | TTGACTGAATATAAAGGTGCAGTGTT  |
| TKT     | AGATGAACTGCTGAAAATGTTTGG    | CTTTGTCCTTTTGTGCAACTTATAC   |
| E12A3   | GCTGGATTGAAACTTCTCTAGTCTCT  | CCACCAACTACTACAATCAAATCATC  |
| RHO     | CCAAGAGTTCTGCCATCTACAATCCAG | CGCAGGAGAAACCTGGCTGGAAGACAC |
| LSM3    | AATATTCCGATGTTGTTTGTACGAG   | ACACAGGGTTGACTAAGTTTACACAC  |
| SEC61A1 | GAGATTTTTGTCAAAGAACAAAGTGA  | AGTAAAAATACTAACACGCACTTCCC  |
| RAB7A   | GTTGTCATAAAGAAACGAACCAGAG   | GGTAATGGTACGGCGGATG         |
| IP6K2   | AGTAACGCAACCGTAAATAAGCTACT  | GAAGAAACGGTTCGAGAATGACT     |
| PRKAR2A | CCTGTATGGACATTATGAAGAGGAAT  | AGACTTGAATGCCCATGATGAC      |
| ARPC4   | ATTGGTACAATGACTCTCTTTGTG    | AATAGCATGTCAATATTTCTCAGCAG  |
| NISCH   | ACTGACTGGCTAGTCCTGTCTCTG    | TAAACTGGCATGTGGTAAATGTAAC   |
| RPL29   | ATGCGGAACATGCGTTTTG         | CAAATGTAAATACTGTTAAAGGAAC   |
| PBRM1   | AGCGTACAATCTTGAGAACGTTTG    | TTATAAAAAGAATGAGGTCACACTGG  |
| SPCS1   | GATAAAAAGTCTTCAAAGAAGCACAA  | ATACTTACAGAGATGGCCTAACGATT  |
| ZYX     | CTCTGCATCAAATGCCACAC        | GTTCTCCTATTGCAGAACTGGAT     |
| MYL6    | AACTGGTCCGGATGGTGATA        | AACAGGTACAAGAAACCAGATCTACC  |
| NANOG   | CCTCCGTAAGGACACTAAATAACATT  | AAATGTTGTCTCTCAGACATGGTTC   |
| C3AR1   | CTTATGAAACATCAAGGGCTGTATTT  | AACTAATGAAGAAGGCACAGACAAT   |
| GAPDH   | CAAGGAATAGACTACTGATTGTCCTG  | TTTCTCATTTACAGTTTTACAGATGG  |
| ING4    | CTGTTCTATTGAGTGGTTTCACTTCG  | GTAGAGCTGAAATTGATACCTTGTC   |
| FKBP1A  | GCACCGGGCATCCTGGCATCATT     | GGCATCCAGGTAAAAGCAGTCCGTTCA |
| ASXL1   | TTAAAGCCATGATTATGTGTAAAGGA  | AGCTTCTTTTGTTAAGTAGACGATCC  |
| E16A12  | TGGTATGATATTTTGGTGTTCTCCTA  | CAGTTGCATTAAAAATGTAGAGGAAA  |
| GNAS    | GTGTTTGAAGTCTTATTTCTCATT    | ATGGGTATTTTCTCTTTTCTAACT    |
| ADNP    | TCTTGATGATAGTTTAAGGGTCAATG  | ATTATCACTTGGTGATTCCATGTTCT  |
| SNAI2   | TTCTGTACGAGAGCTACCC         | CTGGACAGGGAGGTCAGGTC        |
| TNNC2   | AATAAGCAACAAGACATTCCTCTACC  | GAGAAGTAGGTAGATTGATGCAACAG  |
| UBE2V1  | CTATAGCATCAAAGTAATCCTGCAA   | ACTAGAAGTTCAACAATGCAGACAGT  |
| SULF2   | CTAAACACCTCGAATTGATGGAC     | GTTGTGAAGAATGTTAGTGGTGTTG   |
| NCOA5   | GAGTATTGTTTGAAACTGGGTAGACA  | GGTACAACCTAGTTCAGGTTCTTAGG  |
| MMP2_a  | CAGTTCTACTGGCGCATGAC        | TGAGAGATTGTAATGTGTGACTGTGT  |
| PDLM7   | AGCTACAAGAGCATATTTGACCTTC   | CCTACTTGGAAGAAAATGTGTCTCA   |
| TMED9   | TCTATCGTACAGACTCTCATCCTTGT  | CTAGTCTGTGCAAGTTTTAGTGAG    |
| CTBP1   | ATGTCACTCTAGTGTGCAAACCTC    | GAGTTAAGCGAGGAAAAATACCAGTAG |
| RPUSD4  | ATGTCACTCTAGTGTGCAAACCTC    | GAGTTAAGCGAGGAAAAATACCAGTAG |
| TIG_NOH | GATTTTTAGCAGCCTTCATCTTATCT  | AAAATAAGTGTGCTGAAGCTATTAC   |
| PROD1   | TTCGGAGGATCTTTGCAACT        | TGGGCCAAGTAATTGAGAGG        |
| FUS     | CATGTGAAAATATGAACTTTTCTTGG  | TGAAAAACCACCACAACTAAAATAA   |

|         |                             |                             |
|---------|-----------------------------|-----------------------------|
| TRIM69  | AAGACTTATCAATGCACTGTTTGC    | GTGTAGAGCTCAGGATTGACCTGTT   |
| VKORC1L | CTCTTCTTTGTGCTTAGTGACTTCTG  | TTAGGTCAGTTTTTCAGTGTTTCTTG  |
| MVP     | AATGCTGTCAGAGTGGCTAGAATAC   | TGATACTTTATCTACCATGCTTGCTT  |
| NME1    | AAAGTGCCAAGAAGGAGATTAACTT   | GAGCTCAGAAAACAAGGCAGTAAC    |
| ALDOA   | AGCTGCTGGAGAATCCCTCT        | TCTAGGATTCTAAATCCACCCACTAC  |
| E11G12  | GTGTGAAACTACCCAACATCACTTAC  | CCGATCACAGATGTATAAAGAAGAGT  |
| YPEL3   | GAAGTACAAAGAGGGCAAGTATATCA  | AACTTGTA AACACGTATCCCCG     |
| BOLA2   | TCTTCTTGACCTCTGATT CATGTTT  | GGTGTTGGTGATAGAAGTCTAGAAAA  |
| SULT1C4 | CTAATCTGTACTGCACATGGA ACTCT | AGAGGTTTTTCTTGACTGTATGGCT   |
| ATP2A1  | AGACTAGAATCTTCTCTCAGCCTGTC  | AGAACCTCTTAAGATAAAAAGGAGGC  |
| CONTIG1 | CACTGTTGACTTGGGTTATGTTATT   | CTGCTCCTAGGGTTTGTGAAG       |
| E16E3   | GTCTCTAAAACGCAAACAACTAGC    | CAGTCTCAATAGTGGATCCTACTTCA  |
| E50G8   | ACTGGAAAAATGTGTAATCCATTGTA  | AGCTGGCAGTTTATTCAA AACTTTA  |
| NFS1    | TAAATGAAATGTATCGCATTTT GACT | GGATGTGGTTTAAAACATTACAAGTG  |
| MAP1LC3 | ATCACTCTGAACCTATTTCTCTTGGT  | GTAAGCAAATCACAATGGAAAACTAA  |
| C20ORF4 | TTACCAAGAAATTTAAATGGGACTTC  | GTGTCAATCACAAGGCTTTTAAGATA  |
| MANBAL  | AAGATTCCTATTGAGTGACCTTAACC  | GAAGGGCAAGAGAATATGAATAACAT  |
| BNIP1   | TCTTTCTTTCGACTGTTTTGTACATC  | ACATAGTGTGTGTtATGtTGGTGCTT  |
| UQCRQ   | AGGAGGAAGGATATCTCCAAGTATG   | GGACTGCTCAATTTACTGAATATTTT  |
| CAMLG   | TTACTTTTATCTTCTGCCATGAACTG  | TTAAAATGAGCTTCACAGTACCAATC  |
| SKP1    | ATTTGTTTTCCAGAAGGACATTATTC  | TTTACCAACATGAAA ACTAGAGAAC  |
| SMAD5   | CTGCTTGAAGACCAGATCAAATAGTA  | ATTACATTGATTAACACTCCCCTGAT  |
| SEPT10  | aAATTTATTCAACAAAAAGAAGATGGC | GGTGCTAGTATCAAACCCATAGAAAT  |
| HNRNPA0 | GTTTATAAAACCGAGTCCGCTG      | AGCTTGCAGAGCTGTGAGTTATC     |
| E13E11  | TattTTCATATGGAGCATAATCCTGA  | TCCAGCTGTAAAAGTTATCGTACTG   |
| HNRNPAB | CAGTCATCAGAATAACTACAAGCCAT  | ACTTAAAAATATTTCCAGGGGAGTTT  |
| MATR3   | GGAGTATTGAACATAATTGGAGACCT  | CTTTATGGATCAA AATTAGAGGATGG |
| UBE2D2  | AAAAGTATAACAGAATAGCTCGGGAA  | GAAATCAA AAGGATTTTCTCTTTCAG |
| E12A5   | ACCTTCATTCTTTTGAAATCTTGTCT  | TGTGGATGACCAATATTAGTTGAAAT  |
| E14G1   | GTTGGGTTAGTAGTCAATGCTGTAGA  | AAGAGGAACCATGTACTTTTACTGCT  |
| PHF5A   | GTAGCTCCAAGACAGACCTTTTCTAC  | ATTTTGTACATGTCCAGGATATCAGA  |
| POLR3H  | GATATTCGGTGTACGTGTTTTCC     | AGGAAGCGGAGAAGTAACGC        |
| CSNK1E  | ACTACAGAGATCGAGAAATTAGAGGG  | CAGACAGAAGTCACACTCTCCTACTC  |
| KDEL3   | ATTGATTAATAACGGGGAGAATAGG   | AAAGGAGATGGGTGACTTTCTTG     |
| TOM1    | TTTATGCTCTAAACCTGAGTGTATGC  | ATAAAAAGCACTACCGTTTT CAGTTT |
| HOXC10  | TGCCATACAGCGAGCTTACAGACAT   | GCACACGAGACCCACAACAACAAAA   |
| ATP5G2  | CTCTTTTCGTACGCCATCCTT       | ATTTATTCACCTTCCTTCAGAGAAAC  |
| E54A1   | ATGTTACACTACAGGGGGTAAGATTC  | ATACCTAGACAGTACGTCCCAAAATC  |
| NACA    | GAGTAAGCTTTAATAGGTGGCTCACT  | TACTCAAAACTCACTGGAGGATGTTA  |
| RARG    | GATTTTGGGACGTACTGTCTAGGTAT  | ATTCCTAACAACTGGTTTACAATTCC  |
| KRT4    | AGATCCAAAGTAAAGTCAGCATCTCT  | GAAATCTGCAGGTACAGTGTATTGAT  |
| KRT5    | TTAGCTCTAGCAGTGGATATGGAGTA  | TAATCCAGTTACATCATTGTCCTCAT  |
| OS9     | GAGAGCAATTACCGGTTTGTGT      | ATTAGACCAGACTGACTGAGCAATTA  |
| CD63    | ATACGCAGTGGCTATGAAGTTATGTA  | GATAAATTACACCATGCAAGACAAAT  |
| OBFC2B  | GTCTACTGGCACTGCTTCATCT      | TATTACCAGGAGATGCAATGGG      |
| RPS26   | AAGCCCATGTGAGAAGATTGAC      | TTGTTTATAGATTGTCCCAGAAACAG  |
| RHEBL1  | AATCTTCAACGGTAAACAGAGAGGT   | GTATCCGAGGATGACTATCTTACGAA  |
| WNT1    | CAGCGCCAAATCACACCTCA        | TCCATAAACGCTGCCAAAATAAAG    |
| DDX23   | ATTAGCATCTTAAGAAGAAAGTGTCCA | GAGATACAGCAAGCTGATTCTTCCT   |

|         |                             |                             |
|---------|-----------------------------|-----------------------------|
| C5ORF4  | CTCAAGTTCAATCAGTGCTTCG      | TTAGAATGGAGAATTTGGCTTTAATC  |
| SPARC   | GCGCCTGGAAGCTGGAGACC        | TGGGGCACGGAGGGGAGACA        |
| ATOX1   | AACATGGAGAGCAAGACGGTAT      | GCCTAAATATTAGATTATGTGTGGCA  |
| CD74    | TAAATCTAGCTGTGTGATTCTGTGT   | CAGTAATCTCATTTGTGATGTGAGAA  |
| SQSTM1  | ATGCCATCCAGTATTCTCGC        | CTTGTATCGGCAACAGATTAAGTA    |
| CCNG1   | CCTTTCCTTATTTTGAATTTATCAT   | TTGAGCAATTATTTGTTAAAAAGGTG  |
| PKM2    | CACAGATGTTGGAGAGTATGATTAAGA | TAGCTGTAGCTAAGCACTTAAAGGAAG |
| MYH9    | GGGTAGAAAGTTATCCTGGTGAAATA  | CTACATTACCAGATCCACAGAAAAAT  |
| ETF1    | GTTTGGAGTCTCCTACCATTGTAAcT  | CAAGAAGCAGTTTCTGACTGATTTAG  |
| LURP-1  | AAACTGCAACATAATGAAAGCCTAC   | GAGAGTAGAGAGGTATTTAGGCAACC  |
| MGP     | AATCTGCGACGACTATGATCTGT     | CTCAGGCGAGTGTAGGAATAACAC    |
| PRPSAP1 | CCTACTCTCGCATATGATACAATGTT  | TACTTAAATGCCAGATTTTCACAACT  |
| SFRS2   | GTGGTTATTTGTAACATTTCTGTTGAC | AATTACATTTGGGCTTCTCAATTTAC  |
| C17ORF2 | CTATCTGGTACGACACAGATGTCAA   | TGTATGTAGACTTGGATCCAGAGAAA  |
| RAB37   | GATAAGGGTCTTAAACTGGTGAGGTA  | AGAACCAATCTTATTCGTTATCAACC  |
| XYLT2   | CTGCTCCTTACTTCCGTCCTG       | GTTCCAAAGCCTCCTGTCC         |
| APOH    | ATATGTGGGTAAAGTTCTTCCTATGG  | TCAAATCATTAACTTCTTTTGAATGC  |
| DDX5    | TAGAGATGGGGACAACACTACAACC   | CAAATTATTATTTCCAAAGCCACC    |
| ETG990  | GTTTAGGTTAGTATGAAGGATCCCAA  | TGCCAGTACTACCAATTAGTAAAAAG  |
| GNA13   | TGTGTTCAGTTTAAAAATTTGTTTCA  | TCTTTACCAAGTTCTCCTTTGAAAAT  |
| PRKAR1A | TTGTAGTTAATCATCGTTCTGTTTCC  | ATGGGTTATTGAGATAGGAGTACCAG  |
| KCNJ16  | TCAATAAGTGTGGAGAACATAACACA  | TTGGATCACACAATGTTCTTTAAAT   |
| SOX9    | ACTTAAGTCGGCCATCTTGTTTAC    | GTTCTGAGATGTCTCTGGAATGTA    |
| SSTR2   | AATGAAGACCATCACCAACATTTAC   | CAACGTTCAACATTTTAGCTGTC     |
| RPL38   | GGTGAGTGTCTCTTAGACCGATG     | AGACAGAAAACATGGTGTCAATAATC  |
| ARHGDIA | CCAACCCAATTAAGTGCTTACTCTAT  | AATTTCAAGCAATATAAGCTAGGAGA  |
| CYP4F22 | TATCAATTGGACTCAAAAAGAAAACA  | CACACACACACCTTCTTGAAGTTAAT  |
| E13G1   | TATATATCGTATACACAAGCACGGGT  | ATGTCCCCTATATGCAATTATCTTTC  |
| PBX1    | AACTCTGATGCTTCCAATTAAGAACT  | TGGGGTATTAGTTCATAGTCTTTTCA  |
| THOC4   | ATGGACACCAGTTAACCAATGAGTA   | GAGTTAAAAACCCATTCCAAAAGTAA  |
| ZNF248  | GACAAGCTTCAGTCACAAAATTAGTC  | CATCAGCCAGAGTTTAAGAATTAACA  |
| ZNF717  | AGAGAAACCTTACCAGTGCAATACAT  | AACCTTTTCTATTGGATGTGGAG     |
| P4HB    | CTGATCTAGAAGACGAGGATGATGAC  | AAAAATTAAATATCCTGCAGAACCC   |
| PKN2    | CAGAGCTGCCGAAGTTGAC         | GTCCCCAAACCCCTGTCAT         |
| ASF1A   | GATTGCATGTAATTCAAAGAATATGG  | GGACAATTATAGAATCGTTTAGGCTC  |
| ASF1B   | ATGCTGCCTCCAACTGTGT         | ACAATTATGTAAGTGTGGCTTCCTG   |
| E12C8   | GActGtcattaGgCaTGTTAGTAGGA  | ATCTGCATATGTCCGATTGTTAGTAG  |
| PGLS    | AGAGATGTACAATCCAGAAGCACTTT  | ACCTTTATTTTGGCATTCACTTTAC   |
| C19ORF4 | GAAGTGAAAAAGTACAAGGCTCATC   | AAGTATGTACAAAGTCCAGTAGTTCCT |
| JUNB    | TACTGAGTCATGTACAGAGTGGCTG   | AAGACTTATGCTCAGTGAATTCGATA  |
| TYK2    | CTTTTCACGAGAAATATAAGGCTCAG  | ATAGATCCACAAAACAACCTTTTCAAT |
| C19ORF5 | CTCTGAGGAGAATGAGAAGCTATTTG  | TTCTAGAGGAGATGGCAGTTCA      |
| DNM2    | CTTCCTTCCTTCGAGCTGGTGTCTA   | TGAGGTGCATGATGGTCTTTG       |
| ELOF1   | CACATTCTAAGAAGCTGGTTTTCAAT  | ATTCCTGTTTGTATGCACTGTCAAC   |
| FARSA   | CTGGTTGGACACAAGGTGAAC       | GAATGGGTTTAATGCATGGG        |
| GADD45G | AGTTTCTCGAGATGGTGAAGGAG     | CAAACAGAACAGGTTGTTTATTCACT  |
| E14C7   | TGCTCTATTGTTGGGATTTAGTACAC  | GTAAACAAAGATCATAGTGCAAGGTG  |
| KHSRP   | CAACACTGATCTTTCTTCATTCTCTC  | TGGTGTTTAAGGTCTTCCTATCTTCT  |
| C19ORF5 | ACAAGAAGCTGTCTATCCTGAAAAC   | GCATGTATTTAAAGTATTAGGGGGTG  |

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| E12A1    | ATTTTCAAGCTCAAAGAGGATTAGA   | TAAGCTGCATTTTCAAGATGTATTC   |
| E15G10   | TTGTATGGAAGAACCATGTACCTTTA  | AAAGTCGAAATTGTCAATAGGGTTAG  |
| E14G3    | ACTACAGCACACAGCCTTAACATTAC  | GACCTACGTGGATGGTTTAATAAAGT  |
| ANAPC7   | AAGTGACAGTGAAGCAGCTCAG      | ATTAATTCACCTCCAAATGACTCCAG  |
| RAB35    | TCAACTGCATTACAGAGCTGGT      | CTGGAGGGATTGTTCTGTACG       |
| DYNLL1   | AAACATTTTATTTTCTACCTGGG     | ACACACACTGAAAAGGGGGTAG      |
| SFRS9    | TACTCTTCTCCATTACAGGCCCTAT   | CAGTCACTTCCAATTAAGACCTACAA  |
| DDT      | AAATTGGGAAGAAGGGAAGCTGT     | CAGTTTGTTCAGGACCACTATG      |
| MIF      | CAGGGTCTACATTAACCTACGTTGACA | TCATTCTTTGCTAGGTTTAAGTAGGG  |
| E14A8    | TAGTTTTTGTAATGCTTTGATCCAG   | AGTAATTTACCCGTTGACGAAAATAC  |
| FBXW8    | ATTGGGTACAATTATAACATTGGCTT  | CTTGCAAAATAAACCAATACATGTTT  |
| XBP1     | TATAGACAAAATGGAGTCTGCTCAAG  | ACAtTtATTGTACCCTGCATATgGTT  |
| PPIF     | aCtgAGTGtAGTCTTCAGTCCTTG    | GTGGTTCAATCTTTATTCAAAGACAA  |
| SLC20A1  | TTATTAGTGCAGCTATTATGGCACTC  | AGTAGAAAAGCAGTTTTACAGCACAA  |
| PGAM2    | GAAGTGTCTGTTGGGATTAAATGAT   | ATATTCCTGAGATCTTGAGTACCAG   |
| E15E3    | ACATTCATGAGACAATGCAGTAATTT  | ATCTAAAAGCATAGGGACAGGTTAGA  |
| MYL7     | AGTCACTGTGTTACATTATCACCCAC  | TATACACTGCGGTCTGCATCTACT    |
| OGDH     | ATTTCACTGCAGACTTGTGTATAAGG  | TACTGGATAAGAGTATAGATGCGTGC  |
| TIA1     | AGTATCAATCAAGTCACTGCAAATGT  | TCAGTAGGAATGTAACTAAAACCGC   |
| E16A5    | TGCCAGAAAAGTTAGATAAACTGAAGA | ATAAGTTATTTATGCCCCATAAGAG   |
| AP2M1    | GATGCAGTCTTCTTTTACTTAAGGG   | ACATGTATGCACAAGAATTGAAAAAT  |
| E12E10   | AATTAATTATTCAGCCCAATATGGTT  | GAAGTAGACTCCTGCTTTAACCAGTC  |
| E16C3    | GACCTCTGATAATTAAGGCACAAAT   | GTTTGTAACCTCTACAGCTCCCTACC  |
| EIF4G1   | CACTTAAGTCCGTCACAGCTTTTT    | TTTATTCCTTTCTTCATAACGCAAAT  |
| EIF5A    | TCATTCTGTTGATGTTTTACAGTATTT | AGGTAATACAGTTAGTTGCACACAGC  |
| E13E8    | AGTTAACGCTTCATATTGAAGACAGA  | AAAGGGGTACACAGTTAACAAAAATC  |
| LAMP3    | GTTGCAGTTGGACTTACAGTAGTCAT  | CTAAGTTTCATTGAGGGTAGAAAAGG  |
| LOC56335 | AGAAGTTTCTCCGTGAGTTAAAAGAG  | GTAAGAGTTGGTGCTGATCTCCAGTA  |
| PDCD10   | ATGGAAAAGCAATAAATGTGTTTGTA  | CATAGGAAGGTAGTTCTTTCCACAAT  |
| PRPF6    | CTGCAACTCAAACCTGTAGAAGAAAG  | CTGGTTCTGAAGAACATCGCTAATAC  |
| KPNA4    | TTATATAGGTTGTGAAAAGGAAAGGG  | TCTTCGTTTTTATGTCCAGTGTAAG   |
| RARRES1  | GCATATCATTAAACAGGCAGAAGATTA | GTTTCGCTTTGTAATTAGACATTGAGA |
| VWA5A    | ATAATTAGCTCCGTTCAATACTGCTT  | GCTACAAAAGTGCATATTAGGTCAGA  |
| SCLY     | GATAAAACACCCAGATAGATGTCCTT  | TCCAGCATATAGCACTTTATCTCAA   |
| E14C4    | CTAACATGTATCTGTTGTCAAAGCCT  | ACTTAACACAGAATGAAAAGACCCAC  |
| E14G7    | AATTATATTCCCTTTCCATGTCTGTC  | TGCAGAAATATTTACGATTCTAGCAC  |
| HDLBP    | CGATTTTAGTCCAGTAGCAGATTTT   | TGGTTTTACATCTTAACAGTCCATGT  |
| HSD17B8  | AACACAGTGGATCATGTGATTTTATT  | CTGGGTATCATTAGCATAAGAGTGAA  |
| CIRBP_b  | AGGCTATGAATGGAAAGACTATTGAT  | CAAGTTGAAATCAGATTAGCAGTATG  |
| E54E6    | ATGAAGATGAAGACGATGACAAATAG  | TGCTTAGACAAAGACATAACCTCAAC  |
| BOLA3    | GGAATGCATGGATTAAGGATTTATAC  | CTAAACAAATGTTgTAAGGGAATTTT  |
| PDLIM2   | GATGTTTTGATCCTGACTACAACAGA  | ATCACCAAATCCATTGCGTC        |
| ENTPD4   | CTACCAAATCAGAAGATGCCAAGT    | ACACAATCTTTCTGCTCTTAGTCTGA  |
| SFRP1    | GACCCCAAGTGAAGAGAGAAAAG     | GGCAGAAATGAAGTGGAAACAGAT    |
| E14E1    | AGACAATAACACAGGGAAGATAAACC  | CAACCACTCTTAACAAATACTGTGGT  |
| PHB2     | GTGGTTAACTAAGATCTGGAAAGAGG  | AATCAAATAATAGCTGCTCCATTTCT  |
| AKAP7    | CACAAAAATAGACAGACTGATGGAAG  | CAGTTCACAGCTTACTGTAATTAATA  |
| EGLN1    | CCAAGATACCTTTTAAATGTGAACAA  | AATTTACTTAATAGAAAAATGGGGGC  |
| MAL      | AGTACTGTTAAATGCCAAAACAAGTG  | CTTGCAAAGTAAATGTTGACCTAAAA  |

|          |                              |                             |
|----------|------------------------------|-----------------------------|
| MALL     | GCTTCCAGTCTTACGTACAATAACAA   | ATGAATATGTTGAAAACAGTCCAAAA  |
| TCP1     | ATACCGTTCTCACTTTTGTAAGCA     | AGGAAGAGCCGACAAAAGG         |
| BTG1_b   | CTTCCTCTGCGTTTCCATTACT       | CTACTGGTTCAGACACACTCGC      |
| CTGF     | AAAGAGGCTTTAGAGGAACAAGAAAC   | aGTCAGTCAGTCAGTCGGTCAGT     |
| ZUFSP    | GTCACCTATGACCAGATGACGTT      | TGCTTACTGAAGGCTAAATTACATTG  |
| FABP7    | ATGACAATGACATTAACTTTTGGTGA   | TGTAAAAATATTTGCGGACTTCATAA  |
| KIAA0776 | CTTTCTGCTTCCATCAAGGATTTAG    | AAAGATTCGACTAGCAAAACATATCC  |
| ZNF292   | CAAGACTGATATGGATTTGAAAAATG   | TAAGGTTTTCACATAAAACAATTGGA  |
| CIRBP_c  | CAATGAATGGAGAGAGTCTTGATG     | AATATTTTGCTTTGGACTGGATAAC   |
| COX7A2   | TGGGAAGTGGTTATCTTCTATATTCA   | AGAAACCAGCTTGTACGACGAGT     |
| COL12A1  | TGCTTACAGTTTGAATACAATGAACA   | GATCGTAAAAGGATGTTAACGAATTT  |
| TMEM14A  | ACTGTAGAAGTCAGAAGACGTGAAGA   | AAAGGTTATATTTTAGGAGGCCATT   |
| PXDN     | TACCAAGAAAAAGAAGACATGAACTG   | TAGAATGTTGAAACCATAACCATAGC  |
| PDIA6    | CTTCTGTTGAAACTTGAGAATTGTTC   | TGTAGCATAACAATCATTCACTTACGA |
| ID2      | ATCTGTGCACGGAGGGATATCTA      | CTTCAGGTCCAGAGCAAAAGAC      |
| PQLC3    | TCTTTCGTTTTATAACTATGATGCTG   | ACATATCCTGCATGAATCCTAACATA  |
| YWHAQ    | CTAGGTTGAGACGAGAGAGGTTCTT    | AAGGGAGTACTACACACACAGCG     |
| RHOB     | AGGTCTTCGAGACGGCCAC          | GCTCGTAGTCTGTCCTGGGTA       |
| SDC1     | AGAAAGTTACATTCACTGATCCCTCT   | AAGTGTATTCACAGTGATCTTCTTGG  |
| CTSB     | GGTGAAAATGGTTATTTCAAGATTGT   | ATCATAATCCACTGTTAGATTTGGGT  |
| IRGC     | GTTTTCTGATTTCCAACTTTGAGT     | TTACAATTGTGTATCCAGACTTTTGC  |
| PGAM2_b  | CAAGGCCAAAGTCAAGAAGTAGGG     | TAAATCAGATAAGTGCCAGTACCAAG  |
| GPN1     | ATAAGGAGGGGCATAGCTACTGGTTT   | AATGACCAAGCAGCAAGTGTC       |
| ZNF649   | GTGTGATAGGCAGATAAGCACATAGT   | CGCTACAGCTAGTTGCTAAATAACCT  |
| LECT2    | GATCCCAATGCAGCTGAAATAC       | CCCAAATACACAATTCTTAAAGTGTC  |
| CYC1     | CTAAGTAAAACACCAAAAGCACCAC    | GAGTAAACAATCAATTTGTCTTGGAG  |
| E48C10   | AGTTTTTGAGATTTGGCTGTACTTTT   | ATGCATATCTGTATGTGGCACTTATT  |
| EPPK1    | AACACTCATGAGAACCTCACATACAT   | CTTCATTTTTGCAGTCTTTATTTCTG  |
| PSCA     | GACAGGGACCTGTGTAACGACT       | ATCAAGTCAAATAGAAGAAGTGGGAT  |
| PUF60    | GTAGAACTTTTTGAGCCTTTTTGTTC   | GCAGAGGTGTTTACAAACAGAAGATA  |
| VPS28    | TTGTTGCTTACAGTACAAGAATTTCC   | GGTACTCTGTTATACGCACTGAGAAA  |
| PRKRIP1  | TGAATGAAGAATTTGAGAGAAAATTG   | CAAGGAGTGTAATCCAAAACAAAGTA  |
| MYC      | ATACAGTGCAGCCCTACTTCTTCTAT   | CAACTTCTCAGACACCACCTTCTC    |
| NDUFB9   | AATCAAGAATGAATCTTTACCTCCAG   | TATCACTGTAACGGGATTGAATAGAG  |
| RNF19A   | CTTGTTTtGTCTGTTCTTGATGATCT   | CCTAATTTCTTCAGGTGATCTGTGTA  |
| PABPC1   | AGTCTTTATTTTCTTTTCTGACCAA    | AACTTTCTCGTTTCAGAGGAATC     |
| UQCRB    | TAATGCAAGAAATCTGTTTTTCAGAC   | AATATTTATTTACATGTTGAAGCTG   |
| RBM12B   | ATTGGTGAAGTTTTCTCAGAAGAG     | TCTCAGAGATACGACGCAACAG      |
| CA2      | CTATTTCAATCACGAGAACGAGACT    | AAAAGTTCTAGGGTTCAAAGGCTTAT  |
| NBN      | CCCCTAAGTTAGCAAAGACTACTGAT   | TGTCAGTAGCATAATCCTCTTTCATT  |
| MRPS28   | ATATGAATAAAGAACTCAATAAACATGC | GTGCTAATACGGTTTGGTAGGTAA    |
| E15A2    | TAAATCTTTCGCTAATATCTCCAGT    | TTCACACATTTCAATATATTCCGTCT  |
| NUP37    | GTACGGCGGCTGGTGACAAAAC       | CCTCCGCTGGGGGCAACA          |
| RIOK3    | AAGTTGGAGAAATGCAATGAAGAT     | GTTGAAATTAACCACTGCACTAACAC  |
| YES1     | TTTCTTGGAAGATTATTTCACTGCTA   | CTGTTTCATCGCTCGAGTACATTAAG  |
| MYL12B   | ATTGAATTCACACGTATCCTAAACA    | GTAAATCCTTTCCTTCACTTAAA     |
| CNDP1    | ACAATTACTTGAAAGGCACAAAACATA  | TAATATCTGTGGTCAAGTAAGGCAC   |
| CYB5A    | AAACTGGGTGATACCTGCCTTAT      | AGAGCAGGGTTTATTTCAAGATTTTA  |
| CHMP5    | TGCAATTTGTAATGGAAAAATAAAAC   | ATATTACATGGAAATTAGCCACCATT  |

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| MYO10    | ACCAGTGAGGTGGTTGACATT        | AGTTATAAAGCTTTGGAGGTTTTACG    |
| BASP1    | TACTAAACATTTTAAACCATGTCGGA   | GTGTTACCAAAGAAAAGTAACAAAA     |
| DAP      | ACACCCAAGTGTAGAAAACTTCCT     | TTCTTAACCTTTAGTGCATGTTCTTG    |
| KDSR     | TATGATACAGAAAGAGAAGCCTGAAA   | GGAAAGTTCCTCTAAATGTACACAG     |
| VPS4B    | TTCAATATTTGGGGACAATGTAGATA   | CAAATAACAGAACAGGTTTTCTTCAA    |
| ACOT13   | AAGACATACAAAACACCTAGGGAACT   | CGAATTACTTATTTACACAGAAGCA     |
| JARID2   | CAGTATCGAGAACTGTATTAGCAAGC   | ATCTTCCTTAGAGCTAGTGCAAAGAC    |
| SERPINB6 | TGTTCTTTATCAGGCACAACAAAAC    | ACTGCATTACACAATTACAATGTCCT    |
| TXNDC5   | AGATTATTTTTCTTGCTGGTTCAGTT   | TTAAATCAGAAATAGTTGATCTCCCC    |
| LYRM4    | TTATTATTGAAAGGCAAGAAAAGGAC   | TCAGAATATGACAAAGGGATTATTG     |
| E15A11   | GGAGTTACTAGAGAGGCTTGTGATTT   | CATTTTGGAGACCTTACACTAGACAA    |
| KBTBD2   | GAGATTAAGAGACTTACAAACGGGAG   | ATAATGAAGAATTTGCAGACACTTTG    |
| LOC42099 | GACTGGAATACCTGTATGAGTACCG    | TAGTAGCTCCTTCTTAGTTCCAAAGC    |
| TMSB15A  | GCTTGTATATAAATGCAGCACAAAGT   | TACCAAGTCAAGTATAAGGCCAAACAG   |
| LOC79299 | AGTACAATCCTTGGTATGCTACACAT   | AGTGAGTAGAAGCTGGGTAACCTCC     |
| E17E10   | TTAGCATGAATTTAATTGTGGAACAT   | ACCTTCTTTATAAAAAACAACCCACAG   |
| FAM162A  | GAAAGAGAACACTTTGGTGAAGC      | CCAATGTAAGACATTTTAGTTTGCAC    |
| TAF9     | AGGAGGACTATGACGCACTATAAGAT   | CATTCTTTACTTGCTCGTATTCAAAA    |
| FHL1     | GTGAACCTCAAGGATAACATCTACTG   | AAATCATCCATGCAGTGTTAATAAAG    |
| SOX3     | AAAACCTTTCCAAGAGAACACAACTT   | TCCCACTTCTAAAAATTGAAGTTACC    |
| HMGB3    | AGGAAGAGGAAGATGATGAATAAGAA   | CTTTATAATTAAACCCAATAAGGGCA    |
| VMA21    | GATTAAACTTTTCCAGATTCTCTTGC   | GTTGTCCACAAAAAGTAGGTTCAAGTA   |
| IDH2     | ACATTATGTCAACACCACTGACTTCT   | ATTTGCTACAAGTGTACCATGAAAAG    |
| MFAP1    | GAAAGTGCGCAGAACACAAA         | CAAATGATTTAGGTCTTCCTGTGAAT    |
| IQGAP1   | AGTTATGCATTGGTTCTTATGTTTAC   | AAACAAAGGAATGTTTTGAATGACTT    |
| CLPX     | CTCCAACCTTTTGATTTCAAGTGTAAAA | AGGATTAAACATAAAACATTTAGCCG    |
| GATM     | GCACCCTGGAGTCCTATTTTAACT     | atGAGAACACtTTCAATACAATCgTG    |
| MCEE     | ATACTGAACCAGGAACCCAAAATAG    | GGAACCGGATTGAAGAGTAAAGAC      |
| MAPK6    | GGTGTAAATTTAGCATCCTTCATTTT   | ATAACACATGCATACCAATATCGTCT    |
| LARP6    | AAAATACAAAATGCAGATGGACTACC   | CTCAACATAAACTGACATCCTTTT      |
| SFTPC    | CTTTATCTAAGATGTGTCCTGAGGGT   | TACAGATACTTCCTGTTCTTCACAC     |
| NPTN     | GCTTTACAGAGGATGAAGTCTGATCT   | CGAGTCCAAAATAGATTACAAAGTCA    |
| CONTIG2  | GAATCTAGGTCCAAGCAGTCCCATCT   | GACCATCACACCACTACCCACACTCA    |
| ISL2     | CATGATGCTGGAGTATATAAGGACAC   | TCTTTAAAGGCTCAAACCTTTTGATT    |
| LIPC     | ACTTTCTGCCACAAAACC           | CGTTTGACAGAATATATATCTTTGGGTAT |
| HAPLN3   | CAATGTGTATGAAAGCTGGATGTAAT   | CAGaATAGAGCCCTGAAAGTAGAAAG    |
| ABHD2    | CAGTGGGAGCGAAATAAATCC        | GTACAAAAGAAGTCAGAATCAAGGCT    |
| RHCG     | CTCTCATCACTCGGACACTTCTG      | ATCGTGGCTTCTATCCCGAC          |
| MEX_NOH  | ACCTGCAGTGGGCTAAGACC         | ATGGAAATAATAAAATAAAATGTT      |
| RAB11A   | AAGATGCAGTGCTGTCAAAATATCTA   | CAGCCCTACATAAAACCACCAATA      |
| TLE3     | ATCTCTATCCCTTCTAATACCCGC     | GATAGACAGACTTTACATTCTGCAC     |
| PHLDA2   | AAAGAACAGTCCCACCTCAGACTA     | GTCTTGTGGTAGTTTCTTCCTTTTCT    |
| ATHL1    | AAATATGTATTCTGGGAAAAGAATGG   | ACGTGCAGCATATAGAAAATACAAAG    |
| LOC64400 | CTCTTTCCATGTAGTTCCTGTTGTAA   | AGGAAAAAGATAGGAGCAGAACATA     |
| MUC5AC   | AGAGACAGGTCTGTCCTCACG        | AGTCCTTGTGGATTTAGAAGAGTGTT    |
| TNNI2    | GCGTAAGAATATCGAGGAGAAGTC     | AACAATATCCTATAAAACGACACCGT    |
| CD81     | CTACAGGACACATTTAGCAGATCACT   | ACATTGAGGTTACCAAGACAAGAAG     |
| FTH1     | AAAAACATATTTAGCAATCCAGCTCT   | TAGAAGTCTCTGGGTATTAAGCAGGT    |
| C11ORF58 | GAAGATGACAAATCAAAAGACAAAAA   | AAAATGTGCATCGTTTTAACCAG       |

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| RRAS2    | CATTGTCCATTGAATTTCATAGATGT   | TACTTGTTAACTCCTACAATTGCTGC   |
| SBF2     | GAATAGGAAATGCTACTGCACATAAA   | CCCTGGAATCATTTAACATACCTATC   |
| SPON1    | CACACCACAGACGCATTGAC         | TCCCCAGCCTGTGTAGAAC          |
| PAX6     | TATATCAGTTGGAACAAATCGTCATT   | AAACTTGTTTCCTGTTTCTTTGAGTT   |
| CCND1    | TGTCTATAAAGCTGGATTTGTTTGTC   | ATGATGTACCCTCCACATTACACTTA   |
| CD59     | GTACAGAGGAAATATCTGCCAAGTG    | CCATGTGACGTGTGAGTAAGATTAT    |
| ANXA2    | TACTTCATCAGCCAAGACACAAAG     | CAGTAAACCATACACAAGAGATGTCA   |
| LOC10009 | AGATATTTTCAGGAGAAAAGGAAGTGA  | TGTTTGTGGCATTAAAAACAAAATAT   |
| E15E9    | GAGTTGGTTTCCTACCTGATTTATCT   | AATACAGGGCATCTAGAAAGAAAAGA   |
| SERINC2  | GTCTGCTGTCTGGGTGAAGATT       | GCTCCAAAGAGAGGAAACTGTG       |
| TRNAU1A  | TAGTTCTTGCAAGTATTGCATTTTACC  | ATTGTTTAGATGGGCAGAAATAACAT   |
| CTSL2    | GAACGATGGTTATGTTCTCATGTC     | AGCCTAGACATTACTATTGAAGCAAA   |
| RCC1     | GGCAGCACACAGTCCTATTAGTT      | CAGGAGAATAAATTAAAAACAGCACA   |
| T_       | CTCTGCCAACCTGCTTACCTTCTGACAC | AGGCTGGCAAACCTTCTGAGGCACATAG |
| SH3BGR1  | GATCGCTCCATTGCTGTCTTAT       | gGGGGTAAATACAGACTAATACTGCT   |
| GRHL3    | GATTTCTTGACCTCTTAACAGAAAC    | GCTTTCATGGACATTTTAAATAGGAT   |
| E12G12   | aCGaGATGACcAACTATAGGAATGAT   | GTAGTATCTTCGTCCTCGTGATCTTG   |
| M_NOHIT  | ATGGGTGTGAGAATTATCTAATGTGA   | GTGAAGGGGTAAAGGTGTAAATAAAA   |
| STMN1    | ATATCCAAAGACTGTTTCCATCACTT   | TACAGTAACATCTTGTGAACTGACCA   |
| ZNF593   | CTATATAGCTCCCAAGAAGGTGGAG    | AGACCATCTCGTCAAGCTAAAAATAC   |
| E15A6    | ATGCTGAAATTCACCTCTGTATATTGC  | CTAGGTCTGTCTTATTGAACTTCCAG   |
| RRAGC    | GTCTCCTCCACTCCGTAGCC         | GTCTATGCGCTCGAGTCACC         |
| SF3A3    | AAAGGACATCTTCCAAGTAGACAGTT   | TAGAAGAAAACAACCTTGGTCTATCA   |
| GNL2     | ATCTTTACACCGGAACTCACGTT      | AAAGGTGGAATCTCGTCGG          |
| TRAPPC3  | CATTGATGTGAAGTTTGTCCAGG      | CCTCAGAGCATCAGATTTCCATAG     |
| ZNF706   | AATGTTTCGCTTCTCAAACCTTAAAT   | TTGACATCTCGAAACACTAAATTGAT   |
| E14C3    | AGCCTTAATTTTCATGTTTCAGCTTTAT | TAGTTTCTTCACAAAACATTAGCACC   |
| E16C8    | ATGTGCAGGTTTAAATGTTTCAGTAG   | ATATCACAGTTTACAAATAACCGCAA   |
| GJB5     | ACACAAAAGACTGTGAAATCTACACC   | ACATTTGGATTGACACCAAGATTAT    |
| E13G11   | GTATTTCTTCAATGACCATAGTGTG    | GTCAGGGTATAAAAAAGGAATGATGT   |
| KHDRBS1  | AATGGAGCTCAAATAGTCGTAGAAT    | ATAAACTTACGAGCGAACCAATAACT   |
| KPNA6    | CAGCGTGCCCAACCCGATAGAA       | TCCCAAAAAGTAAATGTGCAAAGAAAA  |
| SFRS1    | TACATTAACATCGTCCCCGAATAA     | CCCTTCTTAAATCGTCTCAAAATG     |
| YARS     | AAGAACTTCATGACGAAGCTGG       | ATTAACAGGAGAAGCCTGAAAATG     |
| RAB6A    | AGGTATTTTAGAGAATGGATTTGTGG   | CCTTTAATGCCAATTGAAGTTTTTAT   |
| DNAJB13  | TTGTTCAAGAGACCATAACTATCAGG   | ATGTGTTCTTAAGTGCTATGGTGGAC   |
| LIPT2    | TGGTATTCACCTGTGGGAGATACATAA  | TAAAAGAGACCTTCCGAAATCTAAG    |
| SPCS2    | TTCTTTGATGAGAATGGAACATTAGT   | AGGCATGAACATTCTTCTTTATTGTA   |
| STARD10  | GTCAAGTTATTTTTGTACGTGTTTGC   | ACTTTCATAGTGCAATCACCTTAGTG   |
| THRSP    | CTATGTACTTAACCGCTTGACCAAC    | GGAACACAGAATACAGGATAACAGAC   |
| SYTL2    | ACCTCCTATgAAGCTTCCCTGT       | CATGAAGTTCTTCTGAGCCC         |
| UBL3     | GTGTGTCTGCTAAGTGTGGTGTAATA   | GAAGAGGTGGTCTACTTGTTTTCTT    |
| POSTN    | GGATCTTGAGCCATAAGAAAATAGAC   | TAAACAGCTTATAAATTGCCATGAAG   |
| E12G3    | TAAATACAGAATGTGTTGCACTGTCC   | GAGTGCATTACATGGTATACTGCTG    |
| C13ORF3  | GTACACAATTAAACAGAAGCTTGACC   | ATGTGAATGTCACCTTGTATGAGGT    |
| GTF2F2   | AAGACCCTACGTTTCACCTTAGTACA   | GGTAAAGATGGTAGCATCACAAATAA   |
| ITM2B    | AAGATTGCTCACTTTGAAAACACATT   | TTGATATCATTTTTATTCAACTATGTGC |
| LCP1     | AGATTAAAGAAGTGAGCCAGAGTTTC   | GCTGATGTTACATTTAAATCCTCTA    |
| RB1      | ATAACTTGGTGTTTATGCAGAAATTG   | ATATCCTTGATCTTGGAGTCATCTTT   |

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| RAB33B   | CCATTTTTATGACTCTTGCTTACAGA  | AGTTGTAAAATACGCTGACATTCTTG  |
| LMO7     | ATATAAGCGTATAATGCATGTGTGGT  | TAGACTATTTCAACACTGCTCCCTTA  |
| PICK1    | GGAAAATGGAGAGAAGCTTATAGATG  | GTACAGATCTGCAACCTAAACGTAAA  |
| GPR143   | CTTACAGGACATCGACCATAGAGAT   | CCTAGGGAACAACAGAGAAGGAAGG   |
| RPL24    | AGCCTATGAAGACTCAAGCTCCT     | GCCCAGCAACTGTTTTATTTACTGT   |
| THOC4_a  | CATTTCCGATGATAGAAATTACACAC  | TAAACGATGCTATACAAACACTTTCC  |
| COL8A1   | TGTTCAATCATCATTCTCTGGATATT  | ACTGTACACATGGTAGTTGCTCAAAG  |
| EIF1AX   | aaAATTGTTCAAGTTAAACTGCTGTG  | AAATTATTCAGTGCAGATGCAAATAG  |
| TM9SF2   | CAACAAAGGAATTGAACATTTACTGA  | AATTCTATTTACAGCTGCACTTTTCA  |
| COL4A2   | AGTCATTCCAGAGCTCACCT        | CGTAGAATGTACATGTGGTCAACTACT |
| ABHD13   | AATTTATTCTGAACTTTGCAATGGA   | AGTAAATGACAGTTGGAGAATAACCC  |
| MID1IP1  | TATGATGTACAATGACTGCGTAAAGA  | AATTGTGATGTTTTGGAGTTTGG     |
| BLZF1    | ATCGCACTTTGAATTATCAAGATGTA  | AAGGTCATCTTTTTATTGCATCTCTT  |
| DPT      | GATCGTCAGTGGAAATACATAATCTG  | TGTAAGCTTTTGAAAAAGGGAAGTTA  |
| SOD1     | CATTGGATTAGCCCTGTGTTAAAAT   | AAGCACAGGTGTATAAATTGGTGTA   |
| TIAM1    | TTGTAATGGATTAACCTGGAGTCATA  | CAAGCTCTCAATGTACACTTCTTCTC  |
| ALCAM    | TGTATTTAATGCATCTTCAAGGAAAC  | ATAGACATTTCAAGTGCAGACGTTATC |
| ATP5O    | CTATCCTCGGTGGAATGGTTATC     | TGATTTAATAGAAGTACAGGGGTTCC  |
| RCAN1    | TATTCTGTTAGGAGATTGAGTATGCG  | ACATATCTGGATACAAACGTGGTAAA  |
| CD247    | GAAATATTATGTTGCTTCTCTGACCA  | GGGACATTCTCATCAGGTTGAG      |
| UPK1B    | GTGCTACTTGGGAGCATGTTCTACT   | TTATTATACAGTCTTTCACGAGAGCAA |
| FSTL1    | ATATGATCTTTTAAGGGTCAAACAGC  | TCCATTAAATAATTTGACAATCAGGA  |
| CCDC58   | ATTCACTACAAACCTCCGAAGAAC    | ATTTGCTATAAAATCCTTTCGTTGTC  |
| MAN1A2   | ACACTACTCTTTCAGGAAACCCAAC   | CTCTGTACATACTGTGCCTTCCAC    |
| LOC64360 | AGCCTATAAATGTACCAAGTGTGTGA  | CCTAGCAAGCTCAGATTGGTCT      |
| TPM2     | ACAATGCTCTCAATGATATCACCTC   | AGTTGTGTTGTTTTAGATTGGACAG   |
| DNAJB5   | AAAGAGGAGACTTGATTGTGGAGTT   | GTACGAGAGTAGGGACAGAACAGACT  |
| IER3IP1  | TAATAGCAGTGAACCTCGTTACAATC  | AAAAACAACCTTTTTACAACCTAGCGT |
| SMAD2    | CCATGAACTTTGCTATCAAAAAGAA   | AAAAGAAGCCTAAACAACATAAGGA   |
| ID3      | AGAGGCTGCGCTACTTTCTCT       | GAGCCAAGTGTGCGATCT          |
| ATP8B1   | GTGGATACGGCGATCTCATT        | GTGACTTCGTTGAAAGAATTTGATG   |
| ZFR      | TGATAGCTCTTAAAGAAACCAGACA   | GTAGCTCAAATCCATGACAGTAAGA   |
| MEX_NOH  | GTGCTACAGGAAGGAATGGATG      | TAGCACAGGAACAGCCGACAATAA    |
| MEX_NOH  | CAACCATGAGAGGAGGCCAGAGAAC   | AAAACAGCACTACCTACAAAACCTATT |
| SEPP1    | TATGGCAGAGGTATTGCTACTACAAC  | GTTTTAGGTTTTCTAGGATGGATAA   |
| CONTIG9  | TCTAACAAAGCAGATTGTAGGGTATG  | ATCATTTCAAAGTTTAAGATAACGGG  |
| PRKAA1   | GTATTTTATGGGGAAGTGTGTTGATCT | AATAAAGGGATTGAGTTGCAGTTATC  |
| GPX8     | CCATCATCATGAAGAAGAAGGAG     | CTCTCTTTACACTTTTTCCAGCTCTT  |
| SCAMP1   | GTGACTGTACTCTAACCCAAGCACTA  | GATCATACCTAGATGGAAGTTTCTGG  |
| HMGCR    | GTCAAAAGTAAACCTACAAAGCTTCC  | AATAACCACTTTAAGCAGAACCAAGT  |
| MEX_NOH  | ATCCTCCAAGCTCACTACAACA      | CCAGCCCCTTCCCAAACAG         |
| OCLN     | ACTGAAGAACAAGCTAGCTCACATTA  | AAGAGAAATCTTCCCATTTGTAC     |
| VCAN     | GACAGCAGTGGAGACAGATGAAGAAC  | TCTACAGCGACGGGAGATGACG      |
| E11G8    | ATAAGAAATCAAAATGTGGGATGATT  | AATATTCACAGGGTCCACTTATTTGT  |
| TNFAIP8  | CATAAGGGACCTTTAGAAATATCAA   | ATAGTATGTCCTATCACTATGTTGCAG |
| E14E6    | ATTGTCTTCTTTTTGTGTCGGTACTA  | TAGACAACCTCCTCACTTTTCCTATT  |
| E14C5    | AACTTTATTTCTACCCAGTTCCTTGA  | ATATTGTTGTTTACCTGGACTTCTCA  |
| ANXA1    | GATGTCATCAAGTTTCTCACAACCTT  | TTGTGAAATGTAACAAAAACAGGAAT  |
| HNRNPK   | GATAATCACCATTATAGGCACACAAG  | CAAACTCAGTTACATCAAGCAGTCT   |

|          |                             |                             |
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| FAM108B  | GATGTGGAGCTTTATGGACAGTATCT  | GGTAAAACATGCATTTCGTTTTCTAAT |
| HSPA8    | CTGGTACAGCTTGGTAATGATCG     | GATTGAGCAAGGAAGATATTGAGC    |
| APLP2    | TGAGGACTTCATCTTACACTCTGAAC  | ATCAGATTTTAGACGCTCAGTCTTTT  |
| E14E10   | TGAGGACTTCATCTTACACTCTGAAC  | TATATAGCTGCGAGACCACAAAATAC  |
| NNMT     | GCTTCTCCCTTCTAAACCTGGAC     | CATCACCTAAACCATACCTAACTCG   |
| LOC56602 | GAAAGGTGGAAATACAGTTCTAAAGC  | AATGACTTTAATCCTTCTTGGATCTG  |
| ARCN1    | TTTATGACTGTTGCTGTTTCCTATTC  | GGGAAGAGATTTATTTACAGAAGCTG  |
| FXD2     | AACACTGGAATATTAACCCTTACACC  | CTACAGATGTTCTGGACTACAACCTCC |
| PAFAH1B2 | AGTTCTCCAGACAGACAAGGGATAG   | AGTCGGAATGTAACACGATGAATTT   |
| MNT      | AGACAGTCTTAAACCCGCTAACTATG  | AACTCCAGTTACATTCAGTCTCCTTT  |
| E11G11   | TTTTACCGTAATTTGTATGTTTGAT   | ATACTTATTGATCACTTCCCCTTCAC  |
| E12A11   | ACTGTTCTTTTTAGGGATTCTCATA   | GTAGTGCTCCAAAATAGTCCATGTTA  |
| AATF     | CACCCTTATGAAGGAAATGACTG     | TGTCAAATATAAAACACATTTATGCAG |
| ATP2A3   | CATATCGTAGTCTCCACTTGACTGAT  | CAAAATTTGAATAGATCTTGAGGTGA  |
| BAZ1B    | GGTTTCCTCTGGCTCTTTTTCT      | AGGATGAGTTCCTTAGAGAAGTTGGAG |
| E16C7    | GACAGGAGAATGAGTGAGTTACAAAA  | AGAAGTGTTTCAACAGCATTATATCG  |
| C7ORF42  | AGAGACTTTAGTCTACGGACTTCCC   | AGTGCTGTATAGGGCGTTGTTATATT  |
| GBAS     | ATACAGTGCCTCTTATTCAAGAAATG  | TATCCAAGATTACAATTTACAGAGGC  |
| MKS1     | GAGTCTCCTTTAGGATTGACGTATCT  | GCTATGTGAGCAGAGATAAAAGTCAG  |
| POR      | ATCATGACATTTTTAATGTAGCTTGC  | ATAATATAAGCCCACAAACAAGAGG   |
| MED31    | AGAGCAGCAACAGCAGCAAC        | GCAGGTTCTTGTTACATAGAGCATAGT |
| CLTC     | CCTTTGATTCATGAAGGACTACTTTT  | CAGCGTAGAATATGCAGATTAGTGTT  |
| DOC2B    | AGGAGAACGGTTAAACACTGGT      | ACCAAAGGTCCAAAGGCATTAGT     |
| MED13    | GGTATACATTCTTTTTACCTGAGCAAA | CTTTAAAGCAAGAAGGCAGTATAAACC |
| PRR11    | AGTCCTAGTTCGGAAGTAGAACTG    | CAACATTGTATGGTTCCTGTAACTC   |
| E11G4    | ATTCGTCATTGGAGTTTTAGGAATAG  | GGTCTGACTTTATTCTGCCAGTATCT  |
| E17C12   | GTGTGCTCAGTGTCAGTGTTATAC    | TATCTGCATCATAAATAAAGGCTGAG  |
| CFLAR    | TTACTCACTGCTACTACAGCACACAC  | TTACAGTAAGCTTGCAGATGAAATG   |
| STAT1    | TACTAGCTTTCCCTAAAATGTTTGCT  | GTACGCTCGTTATCTAGATGGTTGTA  |
| TOMM20   | GCACAGAGTTTATCAGAAGATGATGT  | AAGGGAGATTACTTTATTGCCTTTTC  |
| TRA2B    | CGAAGGATTCGTGTAGATTTCTC     | CTTCTGCTTGAATACTGATCTCTGTC  |
| DNAJB11  | ATATTGGTCTGAGATAGACCCAAAGC  | ATGAAGAAGATCAGGAGTAGGCAC    |
| ZC3H15   | AGCAGGAAGTGACGCAGTTTTAC     | CTCAATGACCTTTTCCTTCTTCTCT   |
| SUMO3    | AAGATGAGGATACCATTGATGTGTT   | GCAGAGAAATAATATTGTTTTAGCA   |
| E54C11   | GTCATGAAGTTAACTGGACATGAAG   | CCAGAGAAAAGTCAACGTAAATCATA  |
| STT3B_a  | AAGGAAAATAAGTCATGTTGGCTCTA  | TCACTTGTGAGTTACAATTCAGTTCA  |
| FN1      | GATCTGGGATTGTACCTGCATT      | CACATTCCACTCCTCAATAGCTG     |
| E12G1    | CACTGTCAAAACATTGTTAGTTGATG  | CTATGACGGTTTACAGCAGTGACTAT  |
| E12G7    | TATCTGAAATCCACAGGCAGATATAA  | AGGAAGTTAAACACTGCAAAAATCT   |
| NDUFA10  | GGAGGAAATATAGCAAAGGATACAAC  | CATCAGAGTTACTATTGGAAGAACGA  |
| UGT1A1   | GTAGAGTTTGTGATGAGACACAAGG   | GGAGAAATCTGGTTGAGACAGTG     |
| COL6A1   | GTAAAATGGAGACCTCAAGAAAACAT  | TCACAATCAGTATTGGAGGACTTAAC  |
| E13E6    | TCCATGTATAGGGAACATTTTACAGA  | GTAAGACCTAGCCACTGACTTCTAGC  |
| ATP5G3   | GTTTTGTTTGATGGTTGCATTCT     | CAATACATCTCTTGGAGTTACACCTG  |
| HOXD8    | CGGACTGTAAATCGTCCAGTGGTCAC  | GCTGGGAACCTGTCTTTGTTGTTCTC  |
| HOXD11   | ACATCATCTTCGGGACTGTAACAAGG  | AACCAGGTCCCCTTAGTTCTATTGAGG |
| E13A7    | GCTCTAGTCAGTGTCTTTATTCCACA  | TGTGAATGGCTGTTAGAATGATAAAT  |
| SCRN3    | TGTTTCCTAATACTGTGGAAGAAGAA  | TCTTTTGAGCATAAGTGATGCAATA   |
| GCA      | TCTGAAGTATGGAAGAGGAGGAAG    | AACAAAATCCTTTATTGCTCTGAACT  |

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| RND3     | ACAGAGGGTGACGAAAAGAATTT      | ATAGCTCTCAAGGTGCTGACAAAG     |
| HNMT     | AGAAAGTAGAAGGTCCTGTTCTACCA   | CAAAGTGTATGTGATGTCACCTTCTTG  |
| R3HDM1   | GCTGAAAACTCTTTGGTGAACATT     | TGTTGCATTAACTCTGGATTTTAACAG  |
| SNX4     | ATCCCGTATATCATTCTAAACCATGT   | AAAAATATCCCCAACTAATTTTCAGTG  |
| E14A3    | AATAATGAACTGCCCTTAACTTCTGT   | GGAGAGTACAACTATACCAGATCCC    |
| NNMT_a   | AAGAACTGTAAATTCTGCTCCCCTA    | AGCTTCATAGATACTGCCACCATAC    |
| ZNF142   | ATAAAAACCAAGATGGAACCTTGTCAG  | TTAAATATTCATCACTCCTCCACCTC   |
| ACCN4    | GAGATATTCCAACCAGAGGAAAGTAG   | TGGAAAACATAACTCTGAAATAAGGA   |
| E19A7    | GTCCAACCTGTCTGTTTTATACTTGCT  | TACTGTAATCAATGCCAAAAATGC     |
| CYP27B1  | CTTTGAACTGAGACCGGACC         | TGCAGAATGATGCCAGCAG          |
| SLC37A3  | GAATCTAAAGAAGCAATGCATAAACA   | CAGACAGCTACATAGAGCATTACTCC   |
| FBXO7    | CTTCCATTTAGGCCAAGTTTTAATC    | ATTCTGTTTCAAGGAACTTACAACCT   |
| CARDIAC  | catttttggaacacctcctctacc     | agtgttctttctggtctccattcc     |
| E54G12   | ATTTTTGGAACACCTCCTCTACC      | GTGTTCTTTCTGGTCTCCATTCC      |
| MTPN     | CAATCAAAGACCTCCTTCAGTGAT     | ATCCCCATCTAAGTAAACCTCTAGGA   |
| IL17RA   | CTTATAAAATGCCAAAAGACCCTG     | ACACATTCCCCAGAGAAAAACAG      |
| FBXL14   | ACTGGACTCTATGTAGACTCAGCCC    | ATCCTGCAATATCATATACCCATTTT   |
| WNT5B    | TGCACGCTTCCACACCTTCCTCTA     | GCGCGGCCCCAGCAGTAAACC        |
| E17C9    | AATATTCTCAGAAGAATGGAAGCAAT   | AATGTTACTTTTACTAGCACAAATGC   |
| NTF3     | GACATTGAGGACACCCAAGTAAC      | GCACAAACGCAGGATGTGTCTAT      |
| TMEM19   | CTGGAAGACCTATTTTGGATAACAAT   | AAGATGAATATAACATGTGTTCCCTG   |
| UPK3B    | ATTAGTTGTTGGGAGAGAAAAATCAC   | ATTCATCTGATCACTCCATTACCTC    |
| TWF1     | AGATGATTAAGGCGACCCATATTACT   | GCCACAAGAAAACCAGAAAGTATAAA   |
| HIST1H2A | CTGCCCCAAGAAGACCGAGAGCCACAAG | AGCGCCCCCTGCACCAAAATCA       |
| HIST1H1E | CAAGAAGGTCAAGAAATCGCC        | CATCAGTAGTAAACAGAGTTCCCCTG   |
| E12A4    | AGAACCTGGAGTCTTACAGTACAACA   | TACACTTGTTTTGCAGTTAATAAGGC   |
| CDK2AP2  | GAGAGGTATTATTCATGCCCCGAG     | ACAAATTACATCTGTTCAAATGATCG   |
| UBE2L3   | AAATTCAGTGAAAAGAGACCGATG     | AAATTAGCAAAGGCAGAAGAATTAAG   |
| C11ORF3  | GGTTGTACCAGTATTTTACATGAGT    | AATGGCATAATCTTATAGAACAGGGT   |
| CTNND1   | CAACAATTGAACTTGGACAACATTAT   | TAGAACATCATATCTCAACAGTGCAG   |
| FTSJ3    | TATTAGGACTTGACTTGAGGACATTG   | GGAAATAAACAGTCAACAGAAAGTGA   |
| TMX2     | CAAGAAGGACAAGTGATGATTTGAG    | GCTATAAGGCAGATGGTACATAGTCA   |
| CTSK     | CATCCGGGATAATCACTTATATTGAG   | GtTAAGATGGCAATGTGATAATGATG   |
| E17C5    | CTTAACTACGTGATGATGGAACCTAA   | aAAATTGTTTCTCGTACTTCACACTG   |
| E17C6    | CTTAACTACGTGATGATGGAACCTAA   | aAAATTGTTTCTCGTACTTCACACTG   |
| FLJ36031 | AAATCACAAAGTGGATGTTTACGTTT   | CAAGACTGTAAGTTTAGTGCAACACA   |
| LUM      | AATGTTTTGTGCACATTGTTTTAAT    | TTACAACTGGTTAAGCTAGACATGC    |
| PIM3     | GTGAAGTCTGAAGACTGTGACCTTAG   | AAGGCACTCAAAAAGCAAATAAAATA   |
| PAWR     | GATGAAAATGAACAACTAAAACAGGA   | GAATACATTTTTTTCATGAAGGCAAATC |
| KITLG    | ACCTCCCAAGTGACTACAGTATATC    | ACCTCCCACTCAAACAGCTTC        |
| TIGRINUN | GAAGCGAGGTCTGCAAGGAGGATG     | TACCGCAAGGAAATGGGAAGCAGT     |
| CALU     | TTTTCTTAGGTTAAAGTCCTGCATTT   | GGTTACAGTCTGTTGAAAACAGTGAT   |
| E15C7    | CGGTTTTACCATTAAAAGTAGGTGAT   | TCTAGATAACGATAGCAAAAAGGGAT   |
| LEP      | CTGACAGAAGAGTATGCCAAGTCTC    | TCTGTGGTTTAGAGTGCTTTTTCTTA   |
| IMPDH1   | GCCCTAACTATGTTTACTGACTCACA   | TGGTCATAATAAGAGAACCTTTCACA   |
| SND1     | AGTTTGGTTACAGACGCTAGAGACAC   | AGTTTAAAGATGGCTGCAAGAGGAT    |
| COPG2    | CCTCTGTTGGTTAAAGTCTAGTGACC   | GTGATATTCCTCTAAAGGGTCCATAA   |
| TUBA1A   | GAGGAAGATGAGGATGAGTTTTAAGT   | ACCATTTAAAGACATTAGTTGCAGTG   |
| RAP1B    | ACATTGTAGTTACTTTCCAGCATCAC   | AAGCTAGAAATATGGAAGAAGCAAAG   |

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| TMEM5    | GTACCGACATTTCAAAGAACAACCTC   | TCACTGACCCTAGAGAGTACAATACG   |
| XRCC6BP  | AGAGTATCGGAACCGTGATAGATATT   | ATTACTTCATTGTGATCCCAGCAT     |
| ACADSB   | AGATGTTTTGTGAATCATGTTCTTTC   | GTATTTTGGAGCTGCTCATTAAGTCT   |
| EIF3A    | GCCATACTCTTCAATGGATTCTCTAT   | ACATTCAATTCAACTTTCCAACAATA   |
| ABLIM1   | CGAAAATACTGTGTTACTCATCAACC   | ATATATAGATTTCTCTCTTGGCGTGG   |
| TRIM8    | ATTGGATTGATGCATCTCAACAG      | TGATAAGTATCATTTCAACTCAACCC   |
| COX15    | CACTTCTCAGCATGGCACTCT        | TTTATGGACATTTAAGAAGTTGGATG   |
| ATP5B    | TATTATCCATAAGCACTCACAACCTC   | ATACTCTGTAGCCAGACAAAGGACAT   |
| ANKRD1   | AAGAAAAGTCCTACAAGAGCTCACAC   | AACGTTTCATTAGTTAAGTCACCTTGA  |
| DNTT     | CCAAAGCTATTCCAGTATAATCTGCT   | AATATACGTTCAAACATTTGTGCAT    |
| HIGD1A   | GAGTAGACTGAACGATGAAGGATACA   | AAAAtTaaaaTAAACAATGGGCAAG    |
| CISD1    | ACACTTCCAACTAAGGAAGAAAGTC    | CAGAATTAAAGAAATGAATGCGTATG   |
| SGMS1    | ACCAGTAGAATACAGCAGACTTGTGA   | ATTATACAAAGGAACATGTTGAAGGG   |
| E16E2    | GGTTTTAATTGTGATCAGTGGTACAG   | AAAGAAATAAATAGGGCAAACAACAC   |
| MFAP2    | TGGTACTCTCAGAAAAAaGAAAACAA   | AACTAATCGTTTACCGTTCATTCTC    |
| SS18L2   | TTTACACAGAAACCTTGTTTATTTGGC  | TTTAAGGATGCTTAGAGGGCAAAGTATT |
| UBR4     | AGATTTTCTCAAGGATCTTTGAACT    | TGTCATAAATGTACAGAGTCAGACCA   |
| SFTPD    | ATGAAGAGTATGTCAAAAGTCATTGC   | CAGTGGTAGCATTACTGCTGTATTTT   |
| AP3M1    | TAAAGGAGTGAAGTATATGACCAAGG   | TAAAGGGAACAGTACAATAGGCACA    |
| E15C8    | TATATATGTAATCATCCATTGGCAGC   | ATTTTACATGATCTTTGGCATCATAA   |
| VDAC2    | GAAGCTGACACTCTCTGCACTTATAG   | ATTAAAGGGTACAAGAAAATAATGGTG  |
| ERRF1    | ACTCAAAGCCAAAATGGACAC        | TTTGTGTAGCATACTCCCAACATC     |
| HSPG2    | GTGTATGTAACCTTCTCAGAGTCCA    | ACAGTAGCACCCCTTAGTTAAGCAAAT  |
| CDC42    | AGAAAGGCCTCAAGAATGTGTTT      | AAACAGTCGGACATTAGTCTGTTATG   |
| C1QB     | AAAATGGTTTAATTGTAACAGACGGT   | ATTATAAAATTGCACTGGTGAATGAA   |
| PCBD1    | ATCAACTTGGCCAGTTTTATTGAA     | AAAAATGAGACCTTCATTTCATAACG   |
| C10ORF5  | CAAGGAACCAAACCTGTGTAGATAAGA  | AATTCCTCCACTTTACAACAGTACCC   |
| PSAP     | TACATTTGCCTAACTTGCTTAATGTC   | CCATGCAGTACTAGTAATTTCCAAAA   |
| H2AFY2   | CTAGCTGCTGCACTCTAAATACACAC   | GTAAACTAATTATGCTCGCTGCCT     |
| DDX21    | GAAGAACCAATTCAGAAATAAAAACC   | AAATTACTTTGAACAGTACATGCAGC   |
| KIAA0913 | TATTGGACACTCCATCCAGCAT       | CTATGTTTTGACCAAGAGATGAGTCT   |
| MYOZ1    | ACAAGTGTGCTGCTCCTCG          | CGTTTGCAGGTCTTGGTGT          |
| CCDC109  | CTATAACACGTCAATGTCCCAATATC   | GGACTTGGATAAAATTTGTCTTTGAT   |
| EIF4EBP2 | ATTGGGACTCTTGTGTTCTATAGCTT   | AGCATAGACTGCACACCTTACTTAGA   |
| SAR1A    | TAGTGGAAACATTTGAATGAGTTTAGC  | TCTAGAATAGAAGCAGAACCTCAACA   |
| CAMTA1   | AAAATTGTGACCATTCACTTTTGATA   | CGTTGCAATATGAGTAAAAACAGACT   |
| RPL37A   | GTAAATATGGTACCCGTTATGGTGCT   | TTTTTCAAGCACTTTATTGTGCATAC   |
| CALM1_b  | TGGTCAAGTAAATTATGAAGAGTTTG   | ACCTCTTTTAAGTTCCTTTGATGATG   |
| SLC4A5   | TCCGCTTGCAAGCAGTCTCCTTGCTCTC | TAACGGCCTGATTGATGACCAGCGAAG  |
| DCTN6    | TGGCCAACATTTAGAATGTATAAGAA   | TTGACAAATACAAAGGGTTAAGAACA   |
| PTPN9    | GTATCCAAACTTGGGACCAATATTAC   | CTTCAAACGATACTGGCAATTC       |
| SFRS2_a  | GTTTCTTCGTAGGAACATGATCAGC    | GTCAACGAAATGTTACAAATAACCAC   |
| C9ORF15  | TTACCTCTCTGGAATTGACATGATAC   | CATCTCCCCACCCAACAGT          |
| CLTA     | CACGAGGGTTGCTTCTCTTC         | GAACTCCGTTTCCCACCTCTAT       |
| KLHL8    | CTGTGTAGCCAAGTACGAGATGTT     | TAAATGTTTATGAACAGGATTGATCG   |
| ENO3_a   | TTGAGACCAGATTAGTTTAGTGTTGC   | AGTTTTTCGGATACCGAATATAGATCA  |
| MMRN1    | CTAAGATTGGCAACTGGATCAATTC    | CTCTTGCAATTAGAAGCATGTATCATT  |
| C4ORF16  | GTTATGGTGGTCTTGGGACTG        | CATACTGTCCGGTGACAGAGC        |
| HSDL2    | GAGCTCCAACTATAACTGAAGAACC    | GCTCACAAAATGCAAGATTAACAACTA  |

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| H2AFZ     | ATAGCACTTGCAACCTTCTGTGTAAT  | CTCAAATACAGTTACAAAAAGGCAAA  |
| KLF4      | GAGAAGCCATACCATTGTGACC      | TCTCTTTCCTTGATAAAGTTCCAGTT  |
| RAD23B    | GAAGGACTTGTTATTCAGGCATATTT  | ACGTTTATACAAAGAACTAAACGCCT  |
| SCOC      | ATATATTGAAAACCTTAATGTCGGCCT | ATTACTGGTTTCATTTTTCTACCACC  |
| LARP7     | TAATTGCTAAAGCTGAGAAGATCAGA  | ATTTGAGACTGAACTTACACCAACTG  |
| TBCKL     | AAATTTAAATCTATGCGTGGGAACT   | ATCGAAAGCTTAAAACTGATTTGAC   |
| NDUFC1    | GTAGCAGCACGTCTATAGTGGCAG    | GCAGGAGCCGAGATATTAACAG      |
| ARFIP1    | CAAAAATACATAAGTGGAGAGGGAAG  | ACCCCTTTGGAAATAGAAATAATAGC  |
| PDGFC     | ATGTTCTTCTGGAACACCATGAG     | CTTCCATGTATGAACACTGTGTAATG  |
| CHDH      | GATAGCAGAGAAAGCAGCTGACA     | TAAAATGTGTTTCATCCTTTTACCTTG |
| TMEM165   | CATAACTGATACCAGGGAGGAATC    | TATCAGGAGGAGGAACATGGGTAG    |
| KIT       | TCCGTGTGGGAATCCAGTCACT      | AGATGGCATATCTGGGACATATTC    |
| PDGFRA    | CGGGTCATTGAGTCCATCAGCC      | CAGTGGGTTTTAACATTTTCACAG    |
| CNGA1     | GTCACGAAAATTGAGAAAATGATAAC  | GCAGTTTCATCTGTAAAATCATCAAT  |
| SLC2A9    | TTAGTAATGTATCACTTCAGGGCAGT  | GAGTAGAGTGATCAGCAGTTGGTAAG  |
| WDR1      | TTGGTTGAATGAGCATACCTTG      | CACTAAAGTGTTTTACGCTCCAGAC   |
| C20ORF2   | AATGTATTCTGTTAGGAGCAAGAGGT  | AATCTGTACAAAATTACAAGCAACG   |
| CDC25A    | ACGGTGAGAAATGGCAAAAGAC      | GTTATCACGCATGGACTTCACAG     |
| E15C10    | AGCAATACTTTCTACAGGAAACCAAT  | GTCAGTTTCATTAGTACCCGTTTCTT  |
| KAZALD1   | AACACTTTGTGACTCTAAGCATTGTC  | ATATTTGTGTAGCACTGTACCTGAGC  |
| MEX_NOH   | GAGAAGTAGTGTCCCGGCAGAAAC    | ATGGGTGAAAACCTAGGTGAAATG    |
| MGC9752   | GACTCTGTGCTCTTAATCCAATCTCT  | ATGATCAGCAATCTCCTGTATCTATG  |
| KCTD3     | CTTCACCAACAAAGTTAAGCACATCT  | AAATTAACCCTGAATAGTGCCATC    |
| PYGO2     | GATGCTCATGAGTAGAAATGTGAGAT  | TGCCACTTTAAGACTTGTTATTTTG   |
| EPHX1     | AGACGCTAAAGAATGCATAATCCTAT  | TCTAAATTAGCACATGTATGCAATGA  |
| GTPBP2    | AAGCTACTGTTGAGAGAAGGAGTCAC  | TAAAGCCACAATAACAATCCATAAGA  |
| TMEM63B   | TAACACTACTGAGAACTGAAAATCCG  | ATAACAGGGGAGAACTGTCTTAGAA   |
| HSP90AB   | ATAAATTGTCTTGAGGTAATGTGGTG  | GCATTCTTTTAATCTCAATGAACAAA  |
| C6ORF22   | ACCCAGACCTGTCCACCTCA        | GAACAGCTCTCCAATCCACAAG      |
| RPS6      | CAGCGGTGGAAATGACAAACAGG     | CCAAGACGACGAGGAACGGTATT     |
| CCDC127   | GTGTAAGACGTCAGACTTGTTGTTCT  | CATGCAGCTATTTAGTGTTACAGACA  |
| ARRB1     | TATCATTATTGAAGAGTTTGCTCGAC  | ATTGGAATTTAAAGATAATGGCAGAG  |
| SFTPD_b   | GCCTTTATCTGTGAATATCGTCTAGG  | CTTCACTGGAATCTTACTCCTCTGAT  |
| COX7B     | TTTCTCACCTGTTGGTAGAGTCAC    | ATAATGGCAAACGTCATACAGTTCAT  |
| SSR2_b    | GTACTIONCAGCAAGAGGAAATATGAC | CATGTGCTGATGCAAATTTATTTTA   |
| E15G1     | CGTAAAACATTCTCAGCACACTTTAT  | TCCTCTGTTCAACTACTGTGAATACC  |
| AP4S1     | ATTTTGGATGAGATGGTGTTAAACG   | CGCTTGGGAGTATTTTATTGATGTCT  |
| EAPP      | GAAGAGGTCCTAAAATATCAAGATGC  | ATGATAGACTTCGTCCTTGTCATAGA  |
| THBS1     | ATGAAGCTTAAGCAGTCTTTGTACCT  | CAGATCTCCCACTTTGTATAAGTTCA  |
| ACTC1     | CAGCAGATGTGGATCAGCAAG       | TAAAGCAATAAATATTCCCAATCACA  |
| ERH       | AGACTGGATCAAGGAGAAGATCTATG  | TGTGGTTAAGAACAAAACCTAAAATGG |
| CHURC1    | TTCTTAGGAGGGCATAAATTGTAAGT  | ATTCTATATTTGCATATCACAGCAGG  |
| SFRS4-lik | CTGTACAAGTGTTGAAAGATCGAAAT  | GGAACTGGAAAATAAAATACTGGAAA  |
| TRMT5     | CCAGCTGTTAAAGTAAAGAAGGAAGT  | GTTTTAAAAATTCATAAGGCAGCTC   |
| ARF6      | AGACGTGGGACTTCTAATGGTACT    | ATAGGGAAATATCCTATCAAGGCAG   |
| MAP4K5    | GTCTGACAGGGTAGTGGTATTGG     | AAAGAAAACCATGATACACATTTCAA  |
| RPS29     | GCTTTGTGAAGTTGGACTGATCTAT   | AGTTTGCATAGTTCCATAGCTTTTCT  |
| NID2      | TCAGGAAGGAAGTAAAAATCCTTAAA  | TAATATGGATTCAGATAGGTATGGCA  |
| C14ORF1   | TTCATCACATTCTACTTCACAAATCA  | CTAGGCAAGCAAGCTTTCTAATAGTT  |

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| CNIH     | AAATGAAAAGCAGAAGAAGAGTGTCT  | AGATAATTTACAGACACGGATTGTGA  |
| FERMT2   | TAAAGACCAGAATGAAAGCTTAGACG  | ATACTTATTCTTAATGTGGCTGTTGC  |
| NPC2     | GTTGTTATCACAACTAGAGCGGTTA   | ATTGTACATCGTACTATGGTGGTCTC  |
| FCF1     | GTCACAGGTATAACATTGAAAGGATG  | TAAATGAATCAAACATTGAAGAGAGC  |
| LGMN     | AGAGAATTCAGAAGGCTATGAACTTG  | GCCTTAGAAGTGGTCGTTAGAAATC   |
| WARS     | ACTTTTAATAATGTTGGATGCTTTCC  | TCGGAATCTAATTTATTTCCCTAATG  |
| AHSA1    | CATTTTCCAGGCTTTTCTAGTAATTT  | ACTGCAATCCTGCTCTCTCC        |
| UBR7     | TGTGGTTATTGGACTACTTCACTCTC  | AAACGTCCATTTGACACTGTATTTTA  |
| CDC42BP  | TACTCCCTCCAACAGCTCGAA       | GGAGAGAGTATTTCTGAAGCTTGTA   |
| PPP1R13B | AGTTGGACAGTTGGACTTCAGAG     | AACGTTTCTGTAAAAGCAAAACAAGT  |
| E16C9    | TTCTACGAGTGCTACTGAAAGACATT  | CACtTTTGTTTACTGTACGCTTGAAT  |
| COL1A1   | CACCGAAGCCTCCCAAAACATCAC    | GAGCCCTTCCATCTTAGTCGT       |
| DLX3     | GGCGAGGCGCACCTCTCCAAGTGGTGA | AGGCTCCCACCTTCTGAGTTGGGAAGG |
| LSM6     | GATGCCTTTATCAGAGGAAATAATGT  | AGGGCTATTCTATAACAAAAATTATCA |
| PHB      | TGAAGCAGCAGAGGATATAGCATAC   | ACCCAGTTGTCCAGTCTCAAGTAAC   |
| ARF1_a   | GTCACAGAACTGGTACATCCAATC    | CTACTGTTCTGCCGAGATGAT       |
| CCDC56   | AAGAGAAGTTCTTAGATGAGTTGGAG  | TGAAGAGAGAACTCAAAGTGTCTGAT  |
| CONTIG8  | TTGTCAAATGGGCGAGTTCA        | TGTTTTGCACCCAGTTTTTG        |
| PSME3    | GGAGAACTGAAGTGAATAAACA      | GCATGTACCACTACTGATCTGAACT   |
| NSF      | TGAACATTAAGGTTATGTGTTGTGTG  | CAGTAGGAACAAGAAACATCAGAAGA  |
| E15G4    | AGATTCTTGGCTAAATCTGAAGGTTA  | CTCACTACAACCTCAAGATGACAGAT  |
| MAPT     | TAGCAACGTCTCCTCTCTGG        | TAAATTGTCATTTCGTCCTCAAGTAA  |
| CRHR1    | AATTGAGATATTGAGTTAACAACAGG  | ATCCAGAAGAAATTTGTCACATAGAAG |
| GH1      | ATCTTCTCTGCTTAACTCACCTATGA  | GATAAACACAGCAGACCTGAAATAATC |
| E17E11   | CAAATCAGAATGCTTGAATAGTACC   | TAGTACAGACCATTTTTGCAGTTTTC  |
| PCK2     | AGGTGAGGCATTACCTGACTGAG     | ACACCAACCAGATCCCATTC        |
| MDP1     | GCTGGCAAACCTCAGTAAGAAT      | GTGGCTATACCACACCCCAAG       |
| TGM1     | AGAGCATTGAACTCTCTCAGATCC    | CTATAACAATGGGGCACTACTTTCT   |
| HIST2H3A | TAAAAGAGCCTTTGTGGTGTTTTAGT  | ACTGGCGGCGTTAAGAAAC         |
| SDR39U1  | TCACTGATCTTTCTTCTGCTCTAAAA  | TTGTCATAAAAGCATGTGACTCATT   |
| TMEM85   | GAATAATCCTCTGAAAAGAAGGAAGA  | CACAGGATAGGACAAACAATAGGTAA  |
| TCELL    | GTTACACCGGGATCTTTCTCACTCT   | CAACAGCAAGCAAACAAACAGGAC    |
| NDRG2    | ATGTACACTTCATTAGAAGTTGTGCC  | TGTGGAAATAAAGCAGGAAGTATATG  |
| RABIF    | ACATGAATGAAAAGATTAAGGGAAAC  | TAGGTAAATGGAATGTGGATACTGAA  |
| TMEM183  | ATCCTCAGTATCCCTTCTCTCAGAT   | AAATTGGATAACAGAAACCTACAACC  |
| CSR1     | GCTCATACCAAGTAAAGTGCTGAAC   | ATGAAGCCTTTCTCTGAGTATTTTGT  |
| E15A9    | CTCAAGTTATATGTCCAATGCAGAGT  | AATTTACAGAATTTATGGCATATCA   |
| NAV1     | ACAAATTATTTTCTCCATAAACCTG   | CTAGCCTTCTTCAGGATCTTTAATGT  |
| RPLP2    | TATTCCAGATATGATTTTAGGCTGTG  | AATTACAGGGCAATAAACCATAAAAG  |
| SRPK1    | GGAGACAAAATCATACTTGGAACCTT  | GGAGGTAGTGGGTGAGTAAAAATAAA  |
| TMEM167  | TTGTTTATAAAATGAACTGCAAAACC  | GGAAGACACTCCAGGATCATTAATA   |
| E17C3    | cATTTTCCTCTTTACTCTCTGTGGAT  | TGAAAAGACCAAATAAAACAAACAAA  |
| TAF11    | CaAGACAAGAGTTCTTTACCAATGAG  | ATTCAGTGCAAATGAAGAGTTAATTG  |
| MEX_NOH  | TCCAAGAGGGTGTGAGGTGAAC      | AAAGCCATGCGAAGCGGAAGAC      |
| RPL10A   | GGTGTCACTGCTGAAAAAGAACT     | TTCATCACTGCAGGATTTAGTACAG   |
| CAPZA1   | AACCTATTTTCTAACCTTTTGAAGCA  | AGTACATTTCTAGTTTGGCATGTGT   |
| CYP2A13  | TAACGTTCCAATCTCTTATGAACTGA  | GAGAAGAGAATCGTCGCTTAATG     |
| RHOA_b   | TTACAAGTTAGGAAACACAGGAAGAA  | ATAAGAGGGAAACCAAAGGAAGATA   |
| RAB7L1   | GACAAACATTTCTGTTTTCTTTACA   | ATCATTCAAGCAGTTTAAATATGCAG  |

|         |                              |                              |
|---------|------------------------------|------------------------------|
| SNRPE   | TTTTTAAATGGTGGCATTGAACTAT    | GTTAACATTTCCAATCACGAAAGAAT   |
| TAF8    | GTCCTGTCAAGAAACCTAAACTGC     | TTATGCTAGTAATGGGGGAAAAATAC   |
| CTGF_a  | CCATGTACTACAGGAAGATGTACGG    | GTCTCACTGTCCATATATTTGACTCG   |
| TPRG1L  | CACCGTTTTGTTTAAATACACATCTC   | TACAGTAGAACCCAGTGTCATCTTTC   |
| GNB1    | ACTTTTCTCTGTGGGTAAGTGAGAAT   | TGATATATTTAAGGGAAGACAGGAGG   |
| LOC1002 | GTTCTTCTTTGCATCTGTGTGT       | GTAAAGTCCTCCCCTAGATAGTTCCT   |
| MAD2L2  | ATAAACTTCAACTGGCTATACCGAT    | CTTGGTTTCACTTTTAAAAATCCAGT   |
| TARDBP  | GTAACCGTTCATTTTTCTAGGTTTCT   | TGCAATTCGATAAAAAGTAATCCATA   |
| E11E11  | CTCTACATACTCTGCCTGGTGATCT    | CACTTTGGTTTTAGAGTCACTTCTTG   |
| NPDC1   | CCTCTTATGGAAGTGTACACAGAATG   | AAATAAGGGTTCCCCTGTTAATAAAT   |
| COBRA1  | AACTAACCGAGAAACAGCAACAG      | AATGTAGGACTAACCAGTCAAGGATT   |
| TNC     | GCGACATCAATTTACCAAAGTATATG   | CCCTCATTGTATGGTTACTATTCTT    |
| WDR5    | AATATAATTGCATCTGCAGCACTAGA   | GTAACACCATTTCTCAAATGCCTAT    |
| NOTCH1  | TTATTTTAGAGACAGCGGTACACAGT   | TATTTTTCACAATCAAGAATCTTTGC   |
| APEX1   | CCACTTATGGTAGTTCCCACTTTTAT   | TTGTAATGCCATTCTAATAAAACCAA   |
| LHX2    | TAAGTGAATTGACTAACCCCACTATG   | GTCCATTGTACAAAGCCTCTATTAAA   |
| C9ORF78 | ACAAACTATTTCTAATAGCCTCCGTG   | TTCAGAGTAGTTTTTCCTTCCTCAAT   |
| C9ORF16 | GTGTTGGCCTTATTAACAGAACATTA   | ATTGTTGCTAGTCTGATACAAAGCAT   |
| TOR1A   | TCCGCATCACAGAATAAGGTCAATAGTC | GGGCAGCAGGTTCGCAGGTCAAGTCAT  |
| FKBP10  | AAAGTGACCATCCAGTGCCCAAACCT   | CCGGCCGAAACTGACGAGATACATTAG  |
| KRT24   | AAGAGTCACAATCCACATTTTCTTCT   | TGAGTCTGTTTTGGTAATGTTCTAGG   |
| EIF1    | CTCCACTATTTAAAGGACATGCTACA   | TTAATATAGCACAAACATTGCCTCatt  |
| KRT12   | AGGATATCCGCTCAGAAATATGAAG    | CTGACCACTTGCAAACTTACTACCT    |
| KRT17   | GAAC TTGTTGGCAGGTTTCTCTT     | CTAGTGATAGGTTGGACATACCAGAG   |
| LOC1000 | CAATTTATAAGCAATCTGAAGTGGA    | AATTTAGACAACAAATAAGGGTTTGG   |
| RARA    | CATGTCCAAAGAGTGTAAGTGCTG     | CATGTTATGGTCAAGGTGGCTTAC     |
| HOXB13  | GTCTCCTTTTGCTTGATTTCCG       | TCACCAAAATCACAGAACACCTGC     |
| SNF8    | TGATAGTTTCTGGATTAAGACGAGTG   | CTTAGAGCCATTGTTACAAGATGTTT   |
| NFE2L1  | ATGAGAACGGTCAGCCCTACT        | AGTAGAGGGAATGCCATATGAAAAG    |
| RPL19   | GTCTCATTATCCGCAAACCTGT       | ATTCTCATCCTCCTCATCCACGAC     |
| MED1    | AAGAAAGAGAAGAAGAAGCTGAAAGA   | TTACAATTTTCAGTTGCCAATAAGTG   |
| KEAP1   | GGATAGATACCATGAATCCATTGAG    | GTTGGTGCACTACCTGGAGTAAG      |
| G2G13   | GGGAGGGGAGAAGGCTACCA         | ATACACGGCTTCCATGCTTCTTCTT    |
| MED24   | AGTGTATACCATCCTCTAAGCCTGATT  | CTCTGATCTCACATATGTAAAAAGGAAA |
| THRA    | TCCTGACAGTGAGACGCTG          | TAGGGCCAATTTCGGTGTCATC       |
| SFRS3   | GAGAGGATTACAGAGGTCTGAAGAAG   | TGAAGTCTCTAAACAAAACATTTCCA   |
| MEX_NH  | #N/A                         | #N/A                         |
| TCF19   | ACATTTGTAAACGATGTCCGTATG     | TGCCAATGGAGTTCAGTATAAGAGTA   |
| MR1     | GAGTGCTGAGGAAGGTCCG          | CCCAGGAGCAGGAGGAGAG          |

| Gene ID  | Marker1 Genotyping Method                  |
|----------|--------------------------------------------|
| SPEN     | TGCGE                                      |
| SPAG7    | SP                                         |
| ENO3     | PE - GCCATCCCATAACGTCATGTTTCTCT (A/G)      |
| PCOLCE2  | ALA                                        |
| PSMB6    | PE - CCCTACGGCTCTCATCCG (A/G)              |
| EIF4A1   | PE - AGAGACAGAACTAATCGTGCTACAATTT (C/A)    |
| E16A9    | TGCGE                                      |
| CLDN7    | TGCGE                                      |
| CIRBP    | PE - CGTACCTGTTTGTITTTTTTCCATGCATT (G/A)   |
| CNN2     | PE - TACAGCAGTGGGCACACCCG (G/T)            |
| E12E2    | PE - CATCTTAGTGACGCTTTATACTATTAATA (C/T)   |
| GPX4     | PE - CGATTTAGCCCTATGGACGACCC (G/A)         |
| SLC39A3  | PE - GCAAATATTTCTGAATGCTATGGAGCTAC (A/G)   |
| BSG      | TGCGE                                      |
| CDC34    | PE - GTGCAGTCCGAGGGCCTTG (G/A)             |
| PRTN3    | ALA                                        |
| SFRS14   | PE - GGCAATGTGCCGCAAGTCGCT (T/G)           |
| NDUFA13  | PE - TGGCCATTATGAACCCACAT (G/A)            |
| USE1     | PE - AAAGTGCATGCTAGAACATCACTTAACTT (G/A)   |
| UHRF1    | PE - CTTTGTACATGGTCTCCATAAAC (C/T)         |
| E17C2    | TGCGE                                      |
| EEF2     | PE - GGGCACGCAAGGTGCCGT (C/A)              |
| MYO1F    | TGCGE                                      |
| NDUFA11  | PE - TTTTGCATCATGGCCTGTAAATAT (G/T)        |
| BTBD2    | PE - TCTTGACAAAGTTAATTCGGGTTTGCC (G/A)     |
| OAZ1     | PE - ATGAAGCAAGCTTCTGGTCTCTGGG (G/C)       |
| LSM7     | PE - GTACAAAGAAAGGTTTGCAGAACTAAA (A/G)     |
| MAPRE1   | PE - AATCTCTGAAGTCCAGTGCAGC (G/T)          |
| SAFB     | PE - CGGTGCCCTGAAGTATTCG (T/C)             |
| ATP5E    | TGCGE                                      |
| MCL1     | PE - CTTGGCTTTCATGATAAGATGAAGCATCTT (G/A)  |
| ERO1L    | RD - Hpa II                                |
| IFIH1    | PE - GAGTAGCGGAAGCGGGATTCCAAA (T/G)        |
| KRTCAP2  | PE - CTGTGGCAGGGGCATGTA (C/A)              |
| C1ORF230 | PE - GGCGAATGATTTACAAACCACA (A/T)          |
| PRG4     | PE - GCTGGCAGTGTTGCTGGTTCCG (C/G)          |
| S100A11  | PE - CCTGCCGCTAGACTTTTGCCA (G/T)           |
| S100A13  | PE - TGGACGGCGCGGATGC (T/G)                |
| S100A4   | PE - CACTCTTCTAAATAATGTCTCGTTTAAATGG (A/G) |
| E12E11   | TGCGE                                      |
| TPM3     | PE - GTTGGGCATGGAAAAATCCTTTGGG (T/G)       |
| RPS27    | PE - TGCACAGTCTGTGGCACAGAAC (G/A)          |
| ANP32E   | TGCGE                                      |
| TXNIP    | PE - GCTAAAAAAGTAAAGGCCTTGCTGTGC (G/T)     |
| SSR2     | PE - AGATTGGGATTCAGTCTTTTTCCCCC (G/A)      |

|           |                                           |
|-----------|-------------------------------------------|
| DYNC1LI2  | PE - AAGTTCCATCATCTTCTCCGCCTG (C/T)       |
| ATP6V0D1  | TGCGE                                     |
| TPPP3     | PE - GTTCAGTCTTGTGATTAGTGGAGGGTTT (G/A)   |
| HDGF      | PE - GCACAGGTGGTTTGAATAAATGGGTATCTG (C/T) |
| NUTF2     | PE - CCTCCCATGTAATGAGACCTTAGCCA (T/C)     |
| UFC1      | PE - AACATTACAACATGATGGTTCTGGCAACC (T/A)  |
| TMEM188   | TGCGE                                     |
| LUC7L3    | PE - TTCTTCCCACGATCATCTCGCTC (C/T)        |
| PSMD11    | SP                                        |
| U2AF1_b   | PE - CTGAGCCTCGTTCCCCTCCCAA (A/G)         |
| FXD3      | TGCGE                                     |
| E12C7     | PE - CTATAAATATGGGTTTGGCGAAAGGGCG (C/T)   |
| COX6B1    | PE - TAGCACACTCGAACATCATTATTG (G/A)       |
| POLR2L    | PE - CTGACATAGAAGCTCGCCAGCA (C/T)         |
| NUCB1     | PE - CTAACAAGGATCAAAGGATAACATTGCAAC (A/T) |
| FTH1_b    | SP                                        |
| FTL       | PE - AGGGTGAATCTGGGCAGTT (A/C)            |
| KRTAP10-1 | PE - CGGATAGCGTGCAGCGGG (T/A)             |
| LOC733905 | TGCGE                                     |
| CD163L1   | TGCGE                                     |
| SACS      | PE - TGTTTGTACCCTCTTCATTGCCATCAATTC (A/T) |
| GPI       | ALA                                       |
| ITLN1     | TGCGE                                     |
| GABARAPL2 | PE - GCAAGGTGATTTACCAGTCCAATAAAAC (A/G)   |
| HNRNPK_b  | PE - GCAGCACATGTCCGACCCTAG (T/G)          |
| NQO1      | PE - CTTAGTTCTGGGTTTTTGCATTC (T/C)        |
| VPS4A     | PE - CCTATCAAGACACTAATTCAGCCTAGAGAG (A/C) |
| APRT      | PE - ACTACACCATTCCCCATTGACCATTG (A/C)     |
| CA5B      | PE - GCTGAGGGCGGTGTTTGGGGT (A/C)          |
| MAP1LC3B  | PE - TCAGGAAACATTTGGAATGCAGTCCCC (T/G)    |
| GMDS      | PE - CCACAAACGAAGACCAACACCTGTG (T/C)      |
| TEAD4     | PE - CCACCCACAGTGAGCAGCCCA (T/A)          |
| E24A11    | TGCGE                                     |
| E12A2     | PE - GCCAGTATAATCAATGGTGAGGGATCGC (A/G)   |
| E13E7     | PE - GCAACTGAGAAACCTAGCACAGTCTTTGAT (C/T) |
| LIG1      | PE - TCTGGGGTGGTGTGGCCTATTG (C/A)         |
| MOCS3     | PE - TTTAATTACCTGTAGTTTGCATTCACTTTA (A/T) |
| SFRS7     | PE - TCGCCTTCTCCTCGTTGGTCTC (C/T)         |
| LOC769550 | PE - GCCAGTTCTGAAAGTCAGTGTCA (T/A)        |
| MMP2      | TGCGE                                     |
| NUDT21    | TGCGE                                     |
| ETHE1     | PE - CGCCACTGTCCTTGGAGAT (C/T)            |
| SODEFRIN  | PE - ACACGAACACATGTACAATAGTCAAA (T/C)     |
| RABAC1    | PE - TCTTGTCTAATTTCTCTCTGCACTTC (C/T)     |
| MC1R      | PE - TGAGCTACAGATCATCATGTCGAAGATGTT (G/A) |
| MGST3     | PE - CCACTTTCATGGTCCACAGC (A/G)           |
| APOE      | TGCGE                                     |
| PRDX6     | PE - CAGCCAGTGCCTCCTGGGTCT (C/A)          |
| FMO3      | PE - CATTTTCATCATGAAGTGGCTAACCTCTAT (G/A) |

|          |                                            |
|----------|--------------------------------------------|
| ARPC5    | PE - AACAGTCGCTGCCCTGTGGGC (G/A)           |
| NCF2     | PE - GAGGCCAAGGTGACCCACCAA (G/A)           |
| RGS2     | PE - CCCAGGGCACATGAGCGG (G/A)              |
| GLUL     | PE - GGCAGGGGCCACCAAACATTG (G/A)           |
| CLCA2    | TGCGE                                      |
| RGS5     | PE - TCCGCAAGCCAGCATGTTGTCTG (C/A)         |
| COL11A1  | PE - ATATAACATACACACTATCCTTGGACAGC (C/A)   |
| IFI44L   | PE - AAAAGCCTTTCTTTTCCGTTTAAACACAGG (G/C)  |
| GNG5     | TGCGE                                      |
| SEPT10_b | PE - AATATTTGATTGCATTAGAATAATGAAAAT (A/G)  |
| E12G5    | PE - ATACACTATGGGTTCTGTAAAGTCCCACTTC (C/T) |
| E17G11   | PE - CGCCCTGGATTTTGATGGAGCAGC (G/A)        |
| FPGT     | PE - GACTGAAAATGGAGTTTGTGGAAAGGCTG (A/T)   |
| GPR177   | PE - AGAGCAGCGTCCGCGCATAT (A/G)            |
| LEPROT   | PE - GTGCTATGACAGATCTCTGAACAGCTT (C/T)     |
| USP1     | ALA                                        |
| PSMA4    | TGCGE                                      |
| C8A      | PE - CGTTTAGATTAAATGCTGCTCTACGG (G/A)      |
| TMEM59   | PE - GACATTGATGCAACCCGCTGTGTTAAG (A/C)     |
| SLC1A7   | PE - CCACCATGTCCCCTCTCCAGTA (G/A)          |
| SCP2     | PE - AGGCGATGCTAAAATGTTTCAGGCTACA (A/C)    |
| EPS15    | PE - TTCCCTTATAATAGGCTACCTATGAACAAA (A/C)  |
| TXNDC12  | PE - GTTATACACTACTGCTACCAAGATCACACC (T/G)  |
| KIAA0494 | PE - TTTCTTTGCCCATCCACCACC (T/G)           |
| FAAH     | PE - TCAGCTCTCCGGACCGGAAATG (T/C)          |
| E17G7    | TGCGE                                      |
| PRDX1    | TGCGE                                      |
| DAZL     | PE - TATACTGGGATAGGATAATTATGAGACTTT (C/A)  |
| TMLHE    | PE - GTGTTAACCCCTCTCTTGCAATTCATCCA (C/G)   |
| THRB     | RD - Xcm I                                 |
| STT3B    | PE - GCAAATCATTGCAAGTACAAACA (T/C)         |
| SH3BP5   | TGCGE                                      |
| C7ORF41  | PE - AGTTCATTGGCATGTTGTCTGAGTGCT (C/T)     |
| E12C2    | PE - GGTCTTTTCCCAAGGAGACCTTAAGATGG (G/C)   |
| NGLY1    | PE - GCCTTGAGAGTGACATCCGGCAAT (C/G)        |
| VWDE     | SP                                         |
| COL1A2   | PE - AATATCAAGGTGCTTCTCGCCTC (A/G)         |
| UHRF2    | PE - TGGAGTATGTTTCATCCCTCTGA (C/T)         |
| NMT2     | TGCGE                                      |
| VIM      | PE - CTGGCAGGCAGAATCCTCTTT (C/G)           |
| EIF1B    | PE - GTGCTCTCTCTGACTGGGTCCG (A/G)          |
| IGF2BP3  | SP                                         |
| TOMM7    | PE - TTGTGAAGATGTGTTCAATTCTACCTC (T/C)     |
| KIF15    | PE - AGAGAAATTGATCGTACAAGAGCTCT (T/C)      |
| E54A6    | PE - CCCTTTATCCCGACTCCTGTGTAC (A/G)        |
| HOXA4    | SP                                         |
| HOXA9    | SSCP                                       |
| CBX3     | RD - BsuR I                                |
| CYCS     | PE - CGTTGAGAAAGGCAAGAA (G/A)              |

|            |                                            |
|------------|--------------------------------------------|
| ABI2       | PE - GTTTCCTTTTTGGATTGAGATTTTCATTCAA (A/T) |
| KIF5B      | TGCGE                                      |
| CREM       | PE - TTAAACACTAAAAGTTAATTTTCCAAGCAC (G/T)  |
| WDR60      | PE - CCTCTTCACGTACTGAACCTCCAGTGT (C/G)     |
| U2AF2      | PE - CGGAGGAGACGAGATGATTG (T/C)            |
| HBZ        | PE - GTCTGTGCATTTATGCTGTATGATCTCTAG (C/A)  |
| HBA2       | PE - GAACTTGTCCAGCGAGCAGTGCA (T/C)         |
| HBG1       | TGCGE                                      |
| EIF3I      | TGCGE                                      |
| KBTBD5     | PE - TGGTATGGTCTGAAGGCGCTGG (C/A)          |
| CRHR2      | PE - GCTGTGTGCGGTAAATCCTAGG (C/G)          |
| UQCRC2     | PE - GCACTGGTAGTAAGTGTATTACATGCA (C/T)     |
| GNA12      | PE - GATATTAGCTACTGAATAATCTGGACTAGT (G/A)  |
| TIMM17B    | PE - GGCAGTAGACGGCAAACGTATCG (T/G)         |
| TIMP4      | PE - CCGGCAGAGCGGTCAGAAGGA (C/A)           |
| DCTN5      | PE - TTCCTCCCCCTAACACAGATTTAAAGCTC (C/T)   |
| RBBP6      | PE - GTAGACCCCAAGCCAGAAAAGGTAAAGA (C/G)    |
| TNRC6A     | PE - CGTGGATTGTGCGCGTT (G/T)               |
| NARFL      | PE - GCCCGTGACTGTGGGGAAAC (GA)             |
| E17G8      | TGCGE                                      |
| MSLNL      | PE - CCTGCCTTTTCCGACTAATTAAAGAAATCA (C/A)  |
| SSTR5      | PE - TGAGGAAGTAGATTGTTGAGGTAATGATGT (C/T)  |
| PDGFRA_b   | PE - TTCTCCTGTTTGGAACGGACTCAA (A/G)        |
| H3F3B_b    | PE - AAGTATTTACAGTTCAGTACAAAATGACTT (T/G)  |
| UBE2I      | PE - TCTCTTCCTTCAGTCTTTTGTATTTT (G/A)      |
| COQ7       | PE - TCGATGAAATTGCATAGAATTATTTAACGA (G/A)  |
| PDXDC1     | TGCGE                                      |
| MYL3       | PE - GCCTCATCTCTGCCCTCGCA (T/G)            |
| ARF1_b     | PE - CAACTCCCATCCCTACCTCTTACCTC (C/T)      |
| ABAT       | PE - ATGCTGATCATGAAAAGGTAACCT (C/T)        |
| ATP6V0C    | PE - GTAAGGGTGTAACCAACATGCAAGAAAT (T/G)    |
| HN1L       | PE - GGTTGATAACTTTGTTGTGAGAGCGTGG (C/A)    |
| MRPS34     | PE - CCCTTAGCTTGGGATTCTTTCCC (T/C)         |
| NME3       | PE - ACATATCTACACTAAAAGCCAACTGTCT (A/T)    |
| C16ORF13   | PE - AGGAAGGTGAAGGCTGTTTTG (C/T)           |
| HBA2_a     | PE - CGAGGGGGCGTGTCATAGCAA (T/C)           |
| HBD        | PE - TTGCAAGGCATTGACCTCCGAGA (G/A)         |
| STUB1      | PE - GCTGGCCCGCAGTTTATG (C/T)              |
| LOC440335  | PE - CGTGGAGGCCTACCATTGAGGTAC (G/C)        |
| AURKB      | PE - GACGGCAGTCTGCACAGAACTT (T/G)          |
| C11ORF51   | PE - TTATTTAGCGTAAGGGCATTT (T/G)           |
| CCM2       | PE - CCTTGAACCTGTTAATGGTCTGC (G/A)         |
| M_NOHITS_3 | PE - GGTTAGTTTTGTAGTCCAATCACAAG (T/G)      |
| KIF9       | PE - CAGTACCATGTTGTTTTCTAGGCC (A/G)        |
| NGFR       | RD - Alu I                                 |
| SETD2      | PE - CAATTTACACACATCGTTGAAATACC (A/C)      |
| DRG2       | PE - GCTTGTCTTATTGCTAGAATGGGA (C/A)        |
| M_NOHITS_5 | PE - CATAACCTAAATGATATGACTGGTGTTT (C/T)    |
| MAP2K3     | PE - ATTGCTCCTAACCCCAAGTGCYGTCCCGT (A/G)   |

|            |                                                  |
|------------|--------------------------------------------------|
| MED9       | PE - CTCTTCCTCATCCTCTTCTTCTTC (T/C)              |
| RAI1       | PE - AATCCGCAGTCTTTCCAAGG (T/G)                  |
| RASD1      | PE - CTT GAC AAA CTT ACG AGT TCT CCT CCA A (T/C) |
| SHMT1      | PE - ACTTGCATGTGATGAAAAGTACAAG (G/T)             |
| PVALB      | PE - GGGGAAGGCACACAGTGATTTTCA (T/C)              |
| RAC1       | PE - AACCTATTTAGAAGGTCTTATTTTAAACC (T/A)         |
| ACTG1      | PE - CTGCAATGCAATAGAGGACTTGATTGTACT (C/G)        |
| ARPC1A     | PE - AAATTCAACTTGGTGGGAAATGTTCAA (A/G)           |
| M_NOHITS_8 | PE - AGTTAACCTAAGCTCAACTTT (T/A)                 |
| UTS2R      | PE - CTGGCCGAAGACACTGACCTCCT (A/G)               |
| ACTB       | PE - GATTGAAAACCTGGAACCGAAAGAAGATAAA (A/G)       |
| FOXK1      | PE - ACCTGCGCCACCACTTTTATGGTCCACAGC (G/A)        |
| BGN        | TGCGE                                            |
| E13G5      | PE - CATCATTCATGCTCGCTCCATCACAC (T/C)            |
| RENBP      | PE - CACTCCATGCCCTAATTGAACACTAAAC (A/G)          |
| TKTL2      | PE - CATCAGTGCAAAATGTATAGTGGAAGCTGT (G/A)        |
| EEF1G      | PE - AGATCTTCAAGTGAGGTTGCTG (C/G)                |
| SMC1A      | PE - CACAGATTGGCGAGATCCTGC (A/G)                 |
| TTC9C      | PE - GAACGCTGAAGAGGTGGATACCAG (G/A)              |
| ACTC1_a    | PE - CTCCTCCCAGCCTGGCAACT (A/C)                  |
| ADSS       | PE - ACAGGTTTGGGTTCTTTAAAAAGTACATGG (A/C)        |
| CALM1      | RD - HinF I                                      |
| OTUB1      | PE - GCGCAGGAGAGAATCCTATCC (G/T)                 |
| PRDX5      | PE - CACTTTACACAGCCCTTCCACCACTT (A/C)            |
| RBM4       | PE - TGGCCCTATGCCTCCACCATC (T/G)                 |
| CAPN1      | PE - CTTTGATCTCCAGTCAGAAGCAATCTTTTA (T/G)        |
| DPP3       | PE - TTGCAGGCTACTTTGTGATAATAGGAATCG (G/A)        |
| PYGM       | PE - CGATATTAAGGACTATGGGGTGGCG (C/T)             |
| TMED10     | PE - GGTTTATGCATTGGTGAAGGCAGAATAAG (T/G)         |
| FOXA3      | RD - Mnl I                                       |
| E14C12     | TGCGE                                            |
| E16G10     | PE - TGCTGCAGCCACACACCAAAGG (C/G)                |
| BANF1      | TGCGE                                            |
| CFL1       | PE - GCGCCAATTGACAGCTCAGAATACCA (A/C)            |
| E23C10     | PE - CCCATCCTCCATCGCCAGAAGTCT (A/C)              |
| KCNK1      | PE - GCCAGTGGACGTTCCCCAGGA (A/G)                 |
| PLCB3      | PE - CCATCCTCCATCGCCAGAAGTCT (A/C)               |
| RBM4B      | PE - TGACTTGTATAGTTTAGGTTTTGGCAGTTG (C/G)        |
| SULT6B1    | PE - ACTGCCGATGGCGACTATAACATTG (T/A)             |
| E16E8      | PE - TGTGGACCAACTAGGATTCCTCTTTTCAA (A/T)         |
| UCRC       | ALA                                              |
| CKM        | PE - CCCCGCCAACCATGTGAAAACA (C/G)                |
| CLPTM1     | PE - TTATATTCCAGTGATGATGATTAATATTAT (T/G)        |
| SNRPD2     | PE - AACTCTATTTCTGTGATGAAAAATTGCTCT (A/T)        |
| E17G3      | TGCGE                                            |
| C22ORF32   | PE - GGCCCGGCTTGGAATCTTACTC (C/T)                |
| CYP2C19    | PE - AAACACCAACATGTGAAATCTGCATA (C/A)            |
| E12E6      | PE - GGAAGCAGCACCTTGCGGATCAG (C/A)               |
| CYP2F1     | PE - TGGGCGATCAAATTATGCAGGCACTT (A/T)            |

|            |                                           |
|------------|-------------------------------------------|
| H3F3B_a    | PE - CGTGGCGAGCGTGCCTAGT (G/C)            |
| CAPNS1     | PE - CATCTTCACTTTTGGCGGGCTATGTATCT (G/C)  |
| SNAP23     | PE - GAGAGTCTCAGACACGACGTCCT (C/G)        |
| GMFG       | PE - CCGAATCGTGGCTAAAGGAGAAGCT (C/A)      |
| NCCRP1     | PE - TGCACTGACAAAGGTCAAAGA (G/A)          |
| RHOA       | PE - CTACCGGTATGTCAATTGTGAATTATCACT (G/T) |
| GNAT1      | RD - Dra I                                |
| TWF2       | PE - ATGATAGCATGCAAAGTATGGACTAAC (T/A)    |
| WFDC2      | PE - ACAACGAAAGTTTCTGATGGAGCC (A/G)       |
| CNBP       | PE - TGTGCATTCCC GCGCAAGGTG (G/C)         |
| BTG1_a     | PE - CACCCATGAGCCAACTTTAACCTACA (C/A)     |
| FLNB       | TGCGE                                     |
| TKT        | PE - GCTTCGATGTTCTGCTTATTGCC (G/C)        |
| E12A3      | PE - TTTTCGGGGAGCTTCAAGGCTG (C/T)         |
| RHO        | ASA                                       |
| LSM3       | PE - AAGTTTACACACATCTTTTAGAAATAGCC (A/T)  |
| SEC61A1    | PE - AGCTCTACTTTTCTAAAGACATTTCTCAT (G/C)  |
| RAB7A      | PE - TACGGCGGATGCTCGGGTG (C/T)            |
| IP6K2      | PE - GCAACCGTAAATAAGCTACTTGTAAGGAC (G/T)  |
| PRKAR2A    | PE - CATTGTACCTCAATGCCTTCCTAGTTCAAG (T/A) |
| ARPC4      | PE - GACACCCCAATAAATCCAAACAGTGCATT (C/A)  |
| NISCH      | PE - TCTGGGACTGTGGAGAGGCC (T/G)           |
| RPL29      | PE - CTGAAACAAATGGACTGAATTTAGCAC (C/T)    |
| PBRM1      | PE - GTCTTGAAAATCGTTGTCACGTCTATTTAT (T/A) |
| SPCS1      | PE - TCCAGCCACTCTCCTCCCTCT (G/C)          |
| ZYX        | PE - CTGAGCTTCCACCCCTGGTGTAC (A/C)        |
| MYL6       | TGCGE                                     |
| NANOG      | PE - ACAGAGCACCCAATTTTCCA (A/G)           |
| C3AR1      | PE - GAGGCATAGCAGGCTAGGATAA (T/C)         |
| GAPDH      | TGCGE                                     |
| ING4       | TGCGE                                     |
| FKBP1A     | RD - Mnl I                                |
| ASXL1      | PE - TACACAGAGCTTTGATGGTCCTATACGGT (C/A)  |
| E16A12     | PE - TCGCCAAGCATGGACATGGTTCC (T/C)        |
| GNAS       | PE - CCTCCCTCCAATTTGCACCCCT (T/C)         |
| ADNP       | SP                                        |
| SNAI2      | PE - TCCTGTACGAGAGCTACCCGCT (C/G)         |
| TNNC2      | PE - ACACCCTGACAAGCACCTCCC (T/C)          |
| UBE2V1     | PE - TCAGAGTACTGGAAAGGAGTTCCTGTTCA (T/A)  |
| SULF2      | PE - TTTGACTAACGTCCAGTAGATGT (T/C)        |
| NCOA5      | PE - TTCCCAATTTGTTACCAGCCCATCTC (T/C)     |
| MMP2_a     | PE - CACGTAGCCACCTGATCCAC (T/C)           |
| PDLIM7     | TGCGE                                     |
| TMED9      | PE - GGAATTTGGCAAATGAGACATCTTAAGGG (C/A)  |
| CTBP1      | PE - GTTTGAAGGAAGTGGCTGCAATGGAG (G/T)     |
| RPUSD4     | PE - GTTTGAAGGAAGTGGCTGCAATGGAG (G/T)     |
| TIG_NOHITS | PE - TGACAAATTTCTGTGGCCTGGAGCTGGCC (C/T)  |
| PROD1      | PE - GGTCTGAACACCCCATTTATT (T/G)          |
| FUS        | PE - GTCCTCCTGGTCCATCAGGTTTGGA (A/T)      |

|             |                                           |
|-------------|-------------------------------------------|
| TRIM69      | PE - TGAAGATTTGACCTGCGGTCTGTGC (A/C)      |
| VKORC1L1    | PE - TACCTCAAAGCATCTGGCAAGCCG (A/G)       |
| MVP         | PE - GCATGCCCCCTCTTGGAAGTGACAG (C/T)      |
| NME1        | PE - AAATGGATCTACGAGTAGACCTTGACCC (G/T)   |
| ALDOA       | PE - AGCGCCAGGTGTAGCCACTCA (T/G)          |
| E11G12      | TGCGE                                     |
| YPEL3       | PE - CAGTCTCCATCCTGCTCTGC (A/G)           |
| BOLA2       | PE - CGAGGTAGATGGTCACATAAATGGCAG (G/C)    |
| SULT1C4     | TGCGE                                     |
| ATP2A1      | PE - TCTTCTCCATCTCAGGCCTTCCC (G/A)        |
| CONTIG13340 | RD - Fnu4H I                              |
| E16E3       | TGCGE                                     |
| E50G8       | PE - AAAAGAAGCTGAAAATTAATAAAGGACTTG (G/A) |
| NFS1        | PE - GGACGAGAAAGCTGTTTGCGACTC (C/G)       |
| MAP1LC3A    | TGCGE                                     |
| C20ORF4     | PE - CAACTTGTCAATTTACCAGTAAAGGCAAAT (T/C) |
| MANBAL      | PE - CTTCAGACAAAAGGCATTATTTGAATGAA (G/C)  |
| BNIP1       | PE - CACAGGGTCTTCTGAACAAGGAATCAA (G/T)    |
| UQCRQ       | PE - CGATGTGAAGAAGAGACAATTCATTGCTTG (C/A) |
| CAMLG       | PE - CATAAACCGAAGTATTTAGGAATATGC (T/C)    |
| SKP1        | PE - AATGTTTTAGCATTTCCCTGGCAATGATAG (A/T) |
| SMAD5       | PE - GCAAACAAAACCTGCAATAATAACAGC (T/C)    |
| SEPT10_a    | PE - GTATCAAACCCATAGAAATGTTTCCAGAGA (C/G) |
| HNRNPA0     | PE - CCGTCCCCTACGCATCTTAGGC (G/T)         |
| E13E11      | PE - GCTACATAGACTGCCAGACAACACTACAAA (G/A) |
| HNRNPAB     | PE - ATTCAGAGACTGCACAGGTTTTGTAAAC (G/A)   |
| MATR3       | PE - GAAAACCAAAAGGTAGAATGCAAAA (C/A)      |
| UBE2D2      | PE - ATGGACTCAGAAGTATGCGATGTAATAACA (T/A) |
| E12A5       | PE - TGAAATCTTGTCTAATGAGATAAAACAAAC (G/A) |
| E14G1       | TGCGE                                     |
| PHF5A       | PE - TCCTCCACGTCACCTCTTCTTGAA (A/G)       |
| POLR3H      | PE - AAGACGATGGGTTGTTGCCACG (A/G)         |
| CSNK1E      | PE - AACTACCCCCCTTTGACTATCCCACAA (A/C)    |
| KDEL3       | PE - CATCAGGAACTATATTCAGAAAGCACCTT (T/G)  |
| TOM1        | TGCGE                                     |
| HOXC10      | RD - Pst I                                |
| ATP5G2      | PE - CCTTTCGTCCATTGTGCACAGGT (A/C)        |
| E54A1       | PE - GTTGGGGCCTCTAATTGGAGTGG (C/A)        |
| NACA        | PE - CCCATGTATTACTGGAAAGGCATAT (C/T)      |
| RARG        | PE - GTTGGCAGCTAAATAAAAACTCTGAG (A/T)     |
| KRT4        | ALA                                       |
| KRT5        | PE - CTTCGGAGGTGGACAAGGCG (C/G)           |
| OS9         | TGCGE                                     |
| CD63        | PE - GCTGCCTCAAGCTTTTTCTTGACCTTCAT (T/G)  |
| OBFC2B      | PE - GTTCTGGCCTCTCCAATCCTGC (G/A)         |
| RPS26       | PE - AAGAAGTCATAAGTGACTGTAGGATGTATT (A/G) |
| RHEBL1      | PE - CTTACTGCACAGACGCATCA (T/G)           |
| WNT1        | RD - Hinc II                              |
| DDX23       | PE - ACTATCTGGAGTGATACATTCTAACCTG (G/C)   |

|            |                                           |
|------------|-------------------------------------------|
| C5ORF4     | PE - TAGTCTCACCCCGCTGACCGA (A/G)          |
| SPARC      | RD - Dpn II                               |
| ATOX1      | TGCGE                                     |
| CD74       | PE - GGGCTTTGATTGGTCCTGGTGGA (G/C)        |
| SQSTM1     | PE - TCCTGCATTCTCACCGGGGGTTAT (G/A)       |
| CCNG1      | PE - TTCATGCCCATCTAGAGACTGCCT (A/T)       |
| PKM2       | TGCGE                                     |
| MYH9       | TGCGE                                     |
| ETF1       | PE - GACTAGATTGATCAAGCAGTTGGCCCTAA (C/A)  |
| LURP-1     | PE                                        |
| MGP        | ALA                                       |
| PRPSAP1    | PE - CCTACTCTCGCATATGATACAATGTTTT (G/C)   |
| SFRS2      |                                           |
| C17ORF28   | PE - GTCCTGTGGTTGGAGGTTTACCCTA (C/T)      |
| RAB37      | PE - TGTCCTCTCAGTTGAAAGTCATTAAACA (C/T)   |
| XYLT2      | PE - CCTCCTGTCCAAATGGAGTAGGCAT (G/T)      |
| APOH       | ALA                                       |
| DDX5       | PE - CTCAGAATGGTTTTGGTGGCGC (A/G)         |
| ETG990     | PE - CCCTAGATCTCCAAAGTTCACATGCA (T/A)     |
| GNA13      | RD - Mse I                                |
| PRKAR1A    | PE - GGTCTATAGCCAAAACATCTTTTGTGAAA (C/A)  |
| KCNJ16     | PE - GTATTGCCAAGTAAGTAAATATTGTCAGAG (G/T) |
| SOX9       | PE - GGCTCGAACGTGCTGCGA (C/G)             |
| SSTR2      | PE - AGTTCACCAGCATTTTCTGCTT (A/G)         |
| RPL38      | PE - CTGAAGACGGGTGGCAGT (G/T)             |
| ARHGDIA    | PE - GCTACTGACTCCTTTTCTGCACAC (A/C)       |
| CYP4F22    | PE - CATAGCATGTGCTGCAGTTAATCTCC (A/T)     |
| E13G1      | TGCGE                                     |
| PBX1       | PE - GTTCGCATTATTCGTAATGGTGCCTC (G/C)     |
| THOC4      | PE - CCACAATGCCAAGTCTTCATTACAGTAGA (C/G)  |
| ZNF248     | PE - GCGTGCGTTGATTATAGAAAGGTAGAA (A/G)    |
| ZNF717     | PE - GTTAGAATTTCTTGCTCAATTTAAGCAAAC (A/C) |
| P4HB       | TGCGE                                     |
| PKN2       | PE - GGA CTGTTGTGTCTAGTTCAGCATGAGG (T/A)  |
| ASF1A      | TGCGE                                     |
| ASF1B      | PE - AAACCAGCATTCTGGTAATGTGTGCCTA (A/C)   |
| E12C8      | ALA                                       |
| PGLS       | PE - GAAGCACTTAGTTGGTCACTTCCT (T/G)       |
| C19ORF43   | PE - AAAGTCCAGTAGTTCCTGGGAAAGTTATTT (T/G) |
| JUNB       | PE - GGGTGGACAGGTGCCCT (C/G)              |
| TYK2       | PE - GTCTCTCCAAACCATGCCCCAG (G/T)         |
| C19ORF52   | PE - CCTCTACCATGACGACAGCCTTGTATTT (A/C)   |
| DNM2       | RD - BsuR I                               |
| ELOF1      | TGCGE                                     |
| FARSA      | PE - CAAGTCCCTGCAAGGAACAGACATTA (C/T)     |
| GADD45GIP1 | PE - GCAGGTTTACGAAGGGTTAGC (G/A)          |
| E14C7      | PE - GCCATGTCACCCAGGTAGCTTCG (A/G)        |
| KHSRP      | PE - GGAGCAGTCCGAGAAGGTGATCG (C/T)        |
| C19ORF53   | ALA                                       |

|           |                                           |
|-----------|-------------------------------------------|
| E12A1     | TGCGE                                     |
| E15G10    | PE - ATTATTTTAATATGCAGAATAACACTAACA (G/A) |
| E14G3     | TGCGE                                     |
| ANAPC7    | ALA                                       |
| RAB35     | PE - TGCCAAGTTCTCTTTCTTTGCTCGTAA (G/A)    |
| DYNLL1    | PE - GCCTGGGATGGGACATCGCATC (G/A)         |
| SFRS9     | PE - CATGTAAAAGAAAAGTCCGGGCAGC (T/G)      |
| DDT       | PE - GAAGAGGGATGTTGGGCATTTTGC (G/A)       |
| MIF       | PE - CCGTTCCAGCCCACATTGGC (G/T)           |
| E14A8     | PE - TAGATTCGTTCCGCATTGTGGAATTGGT (A/C)   |
| FBXW8     | PE - AAAGTGTCTGAGTGTATGAAAATGTGATGG (A/C) |
| XBP1      | PE - CCTCTTTTGGGCGAGCCGAGTC (T/G)         |
| PPIF      | PE - AGCCAGAGTAATCCAACAAATGCAGCA (G/T)    |
| SLC20A1   | PE - CTGTGAACGAGAGTGGTCTGACGTAAC (T/C)    |
| PGAM2     | PE - GTACTGGCACTTATCTGATTTAGGGATGTT (C/G) |
| E15E3     | TGCGE                                     |
| MYL7      | RD - Bsl I                                |
| OGDH      | TGCGE                                     |
| TIA1      | PE - CATTGTGCAACTTCCTGCCAACATTT (C/A)     |
| E16A5     | TGCGE                                     |
| AP2M1     | PE - GGTGGCCTTGCTGTCAAGTTTTTAC (G/C)      |
| E12E10    | PE - TGAGCATCAGGAAGTGCTTTTCCTGC (G/A)     |
| E16C3     | TGCGE                                     |
| EIF4G1    | PE - GTGGCTACGAGAAGCAGAAGACGA (A/G)       |
| EIF5A     | TGCGE                                     |
| E13E8     | PE - GTACGAGTCAAGAGGAGCCATTCAGC (G/A)     |
| LAMP3     | PE - CTATCATATCGCAACAAAATCTTCTTGA (C/G)   |
| LOC563358 | PE - TCGTACAGGGACGGGATCCGA (T/G)          |
| PDCD10    | PE - CCGACTAATTCATCAAACAACTTGATACT (C/T)  |
| PRPF6     | ALA                                       |
| KPNA4     | PE - CGTTGACGTAGAGAGATTGTGGGG (G/A)       |
| RARRES1   | PE - ACCAAAATGCACTTGCAATGCTTTCAT (C/A)    |
| VWA5A     | TGCGE                                     |
| SCLY      | PE - CCTTGATTACTGTTATCCCCACTTTACCAT (G/A) |
| E14C4     | TGCGE                                     |
| E14G7     | TGCGE                                     |
| HDLBP     | PE - AAGTGAATACCTGCATGTGCTCC (T/C)        |
| HSD17B8   | PE - TGTTGTCTGTTATGTTGCAGTGCT (C/A)       |
| CIRBP_b   | ALA                                       |
| E54E6     | PE - TGCTTAGACAAAGACATAACCTCAACTTGA (A/G) |
| BOLA3     | TGCGE                                     |
| PDLIM2    | TGCGE                                     |
| ENTPD4    | PE - TTTCTCAGGTGATTTCTTTCGT (T/C)         |
| SFRP1     | PE - TGTGGTTTCAGCTTTTCAACTTCGA (T/G)      |
| E14E1     | TGCGE                                     |
| PHB2      | ALA                                       |
| AKAP7     | RD - Aci I                                |
| EGLN1     | PE - TTTGAGCACTCGGTGAAACAACG (T/G)        |
| MAL       | PE - GCTAGCTTTATAACAGCAAGTGGAACGT (G/C)   |

|          |                                           |
|----------|-------------------------------------------|
| MALL     | PE - GCTCTATCGAAAGAATTTGATTGCC (A/G)      |
| TCP1     | PE - GCGTCCTGTCTAAGATTGAACGCGTGCTGA (G/A) |
| BTG1_b   | TGCGE                                     |
| CTGF     | PE - TCTGGGTCGGCAGCCTCCT (T/G)            |
| ZUFSP    | PE - CCCTATGAAGAAGTGCTAAGTACCC (C/A)      |
| FABP7    | PE - TGTTTTGTTAAATGGCCAATGTGTGGCTAC (T/G) |
| KIAA0776 | PE - CCTATCTAACGGAATGCACAAAGCGTA (G/C)    |
| ZNF292   | PE - TCCTCCCCATTGGAAGGCTTTTC (G/A)        |
| CIRBP_c  | PE - CCATAGCTGTCACCGCCACCT (G/C)          |
| COX7A2   | PE - TGCTTTGCGTCCACCAGTACCT (T/C)         |
| COL12A1  | PE - AACCCAGTAGAATAGAAATTACTTATGTAT (A/T) |
| TMEM14A  | PE - GCGCACATGTTACATTCCTAGGACC (A/C)      |
| PXDN     | PE - AAAGATTGCCTTTTGTGCCCATAAAGTA (A/C)   |
| PDIA6    | PE - CCACAGTAGGACAACAAGTTCTGCTC (G/A)     |
| ID2      | PE - CTGTGCGGGTCCGGGCA (T/C)              |
| PQLC3    | TGCGE                                     |
| YWHAQ    | PE - ACCAACAACGCGATCCGCTTTC (A/G)         |
| RHOB     | PE - CAGCCTCCTTTGGGCTCTTTAGTCTTTT (C/G)   |
| SDC1     | PE - TGGAAAGTGTTGATCCAGATCCAGT (C/T)      |
| CTSB     | PE - CAGCAGCCAATGTGCAACATCAAT (G/A)       |
| IRGC     | PE - CATTGTTAGTGGAAGGATGTGTTTTTTT (T/G)   |
| PGAM2_b  | PE - CTGCTTGAAAAAATCTCTCAAATCCAGCA (C/G)  |
| GPN1     | PE - CAACTACTGCCTTCCTGTTCTGAAAC (A/G)     |
| ZNF649   | PE - TTGTAGTTCTTCAAAGATTGTTATTAATA (C/G)  |
| LECT2    | TGCGE                                     |
| CYC1     | PE - CCACAGAATCCAATCGCCTGCC (A/G)         |
| E48C10   | PE - GGAATGTACATTCATGAAATTTAACCCCAA (C/A) |
| EPPK1    | PE - GGAAATGTGCTTCATCCAAATATATGTTGC (G/A) |
| PSCA     | PE - ACCCATAACGCTCTCCTTTGTTTTACAA (G/C)   |
| PUF60    | TGCGE                                     |
| VPS28    | PE - CGTGAGAGGGAGCCCGACAA (G/C)           |
| PRKRIP1  | ALA                                       |
| MYC      | PE - CCCAGAACTCTGTGACCATTTC (A/G)         |
| NDUFB9   | TGCGE                                     |
| RNF19A   | TGCGE                                     |
| PABPC1   | PE - TCGGTTCTGTCGGTGTTTCAC (G/T)          |
| UQCRB    | PE - TGTAATAGATATTTGGTTGTCCGCAGT (C/T)    |
| RBM12B   | PE - GTTCCCAAGAATCTACGTCTGTCCAA (G/A)     |
| CA2      | PE - GTTTATTATTATGCAATGTAATGGGAATGG (T/A) |
| NBN      | PE - GCAAGGTCTGAAGAATTTGAGAAGCGA (T/G)    |
| MRPS28   | PE - TGCTAATACGGTTTGGTAGGTAA (A/G)        |
| E15A2    | PE - ATGTGAGAAATGCCCTCATTAACTATAT (G/A)   |
| NUP37    | ASA                                       |
| RIOK3    | TGCGE                                     |
| YES1     | PE - CACAAATCTGCCAAAAGGACGTG (T/C)        |
| MYL12B   | PE - CTAGAACTTGTTGCATGCATTTAGCGCT (C/T)   |
| CNDP1    | ALA                                       |
| CYB5A    | PE - CGTGGCTCTAGCAAGAGACCTG (T/C)         |
| CHMP5    | PE - GGATGCAATTTCAATACTTCTCGTGTGTA (T/C)  |

|             |                                           |
|-------------|-------------------------------------------|
| MYO10       | PE - CTAGAGATGAAACCACTGAGGAGGGT (G/C)     |
| BASP1       | PE - TCGATCTGATTGCCTTGGCACAA (A/G)        |
| DAP         | PE - GCTGGTGGGAGGATAACCATTCCTCTTTAA (G/A) |
| KDSR        | PE - TGTGGATGAAGGGGATTTGTTAATGTGA (T/C)   |
| VPS4B       | PE - AAATATTTTATTTGACAGCAGCTTGCAACC (T/A) |
| ACOT13      | PE - AGCAGAATTTGAAAGCATCTCTAAATGTGT (G/T) |
| JARID2      | PE - TCATCCAGTTTATCATGAAGATGCCAACAC (G/A) |
| SERPINB6    | PE - TTTTGGTGTGGAGGGCAGGGTATTTTT (A/T)    |
| TXNDC5      | PE - TTCAGAAGTAGGAGATTTACGAAAATAAGG (T/A) |
| LYRM4       | PE - GCCAAGTCCAGCCATCACA (G/T)            |
| E15A11      | PE - CCAACATCTAGCTAAATGTTATGTTGGACA (G/A) |
| KBTBD2      | PE - GTACAGAACATTTAACGGCTAGAAA (A/C)      |
| LOC420992   | PE - CGCAGCCACACATAGTGCACCTCATAATA (T/C)  |
| TMSB15A     | TGCGE                                     |
| LOC792995   | TGCGE                                     |
| E17E10      | TGCGE                                     |
| FAM162A     | PE - TGTCTCAATGACCATGATGTCTTGCTTA (C/A)   |
| TAF9        | PE - TCTGTGGAAAAATTGGGCAATTTAATTATT (G/T) |
| FHL1        | PE - TCGCATGCCTCTCGCTCAGACA (A/C)         |
| SOX3        | PE - ACAATGTTTTATGCGATCCTGTGA (A/C)       |
| HMGB3       | PE - AATAAGAACAATGATTCTGTGAATATACTA (G/A) |
| VMA21       | TGCGE                                     |
| IDH2        | PE - TGTGACGTGGCTCCGTCGG (G/A)            |
| MFAP1       | PE - AGAACAACTAATCTATTGATGCTGCCTCTC (G/A) |
| IQGAP1      | TGCGE                                     |
| CLPX        | PE - AGTGACCGCGGTCAAGTGCAAA (A/C)         |
| GATM        | PE - ATCAGATGCATGAACTGTAAAGCTTGAAC (A/C)  |
| MCEE        | TGCGE                                     |
| MAPK6       | PE - GCAATGCAGGAAGTGACTGGACAAAAATA (A/C)  |
| LARP6       | PE - GCAAAATCTAGAAACCACTTAAAGTGAAAC (G/A) |
| SFTPC       | PE - GCCTAAAAGTCCAACCTGTCATAAAGCA (A/G)   |
| NPTN        | PE - GCTGACCACAACTGACATGCT (G/T)          |
| CONTIG22977 | RD - Msp I                                |
| ISL2        | PE - GCTCAAACTTTTGATTTTCTCTTCCGC (T/C)    |
| LIPC        | PE - GGTGGACGCCAAGAACCCATCT (A/G)         |
| HAPLN3      | TGCGE                                     |
| ABHD2       | PE - CAAAGAGTACCCAAAGGCTCCATGGAC (G/T)    |
| RHCG        | PE - GGACACTTCTGCGCCTTAGCTAG (A/G)        |
| MEX_NOHITS  | RD - Nla III                              |
| RAB11A      | PE - GAGATGACACGCATCGCTTTCCCA (C/G)       |
| TLE3        | PE - AATGGACCAAGTGAAATTCAGCACTTATGC (G/A) |
| PHLDA2      | PE - TTTAGTCAGGGTTTGGGCTTCCTAA (A/G)      |
| ATHL1       | PE - CAGTCAGGAAAAGGAAGGCCTGCA (G/A)       |
| LOC644003   | PE - CATCCTGCCATCAAGCAGGCCTGCATAGTC (T/G) |
| MUC5AC      | PE - TGCTGCTGCTGCTGTGGGTTG (G/T)          |
| TNNI2       | PE - AGGAAGAAAATGTTGAGTCCGAGTC (A/C)      |
| CD81        | PE - TGGAGGCTTGCTAGCGGGCAGT (C/T)         |
| FTH1        | PE - AAGGTGCCAACTACTTTGACTAGAA (G/C)      |
| C11ORF58    | PE - AATCTAGTGGTTCATAAGAATTCTGTATCT (T/A) |

|             |                                           |
|-------------|-------------------------------------------|
| RRAS2       | PE - GATCTTGACTTTTCAAACCTTGAG (G/A)       |
| SBF2        | ALA                                       |
| SPON1       | RD - Taq I                                |
| PAX6        | PE - GGGACTTGTATTTTACCTGCGCTG (A/G)       |
| CCND1       | TGCGE                                     |
| CD59        |                                           |
| ANXA2       | PE - AAGTACTGCTAGCGAGGCAGAC (G/A)         |
| LOC10009150 | TGCGE                                     |
| E15E9       | PE - GCAGATGGCTAGGGCCAAAGGTT (G/C)        |
| SERINC2     | PE - ACTCCATGGACAGCCATTGCATCC (A/G)       |
| TRNAU1AP    | PE - GATGTAACTTCCTGCTCAGTCCTCT (A/T)      |
| CTSL2       | PE - AGCCAACCACCTGTTTGCATTGCT (C/G)       |
| RCC1        | PE - AGCGCAGTCCTGTTAACGATTGG (T/C)        |
| T_          | RD - Msp I                                |
| SH3BGRL3    | TGCGE                                     |
| GRHL3       | PE - ACATTTTGTAAGTGCAGTAGGTATGAAC (T/G)   |
| E12G12      | TGCGE                                     |
| M_NOHITS_8  | PE - GCATTATTGGAGGTTATCGAKAAT (A/C)       |
| STMN1       | PE - TGAAGTGTTCCTTAAAGCCTTGCTCATGTA (G/A) |
| ZNF593      | PE - GCTCAAGTCATTTCTCCTCGATGG (A/G)       |
| E15A6       | TGCGE                                     |
| RRAGC       | TGCGE                                     |
| SF3A3       | PE - TGCTCCTCGGAACATGGGATCC (T/C)         |
| GNL2        | PE - CGGCGGTACTATCCCCGAGG (G/A)           |
| TRAPPC3     | PE - TCCCGAGGCGCGATCCGCTAC (A/T)          |
| ZNF706      | TGCGE                                     |
| E14C3       | PE - ACACGTGAACGATATCGGTCTTATTCAGC (C/A)  |
| E16C8       | PE - CCTGAACAGTTGCCTACAGGTGCA (C/T)       |
| GJB5        | PE - ATAGTTTTGTTATGTTATTGTGTATTTGTG (T/G) |
| E13G11      | PE - TGTCTGATTGCGCAGCTGTCCTTT (A/G)       |
| KHDRBS1     | PE - TCAATCATTTTAGGATTGTCAAAAGGAGGA (C/G) |
| KPNA6       | RD - Taq I                                |
| SFRS1       | PE - ACATGTACCAATAATGGTGGTTTAATT (A/T)    |
| YARS        | PE - GGGGTACCACATGAACCCCTGCT (T/A)        |
| RAB6A       | TGCGE                                     |
| DNAJB13     | PE - CTCTCTACTTAGCGGAAGCTCCCTA (G/T)      |
| LIPT2       | PE - GTTTATGGACCGCTTTCATCCTCGAA (C/T)     |
| SPCS2       | TGCGE                                     |
| STARD10     | TGCGE                                     |
| THRSP       | PE - AAGTGGAACGTGGACGATGCAA (A/G)         |
| SYTL2       | PE - CTCAAGGCACAGTAGGGAAGAAAGTC (A/C)     |
| UBL3        | PE - TTCAGTTCCATGGCGTCACAGAC (A/C)        |
| POSTN       | PE - ATTTAACAGTACCATTTGGTGCTGTAATTG (G/A) |
| E12G3       | PE - AATAAATACAGAATGTGTTGACTGTCCTC (A/C)  |
| C13ORF31    | PE - GGTAAGATGATTTTACCACGCTGGC (G/A)      |
| GTF2F2      | PE - AAGTCTTTTACGAGAACCTTTTGAACATGT (G/T) |
| ITM2B       | PE - ACACTTTCTAACTTCACTTAGTTGTTGCA (C/G)  |
| LCP1        | PE - TGGTGTTCTGCAGGGTTGTGAAC (A/C)        |
| RB1         | PE - AAAGTTGGAGGCTAGGAAAAA (G/A)          |

|             |                                            |
|-------------|--------------------------------------------|
| RAB33B      | PE - TGTTCTTTGTTTAAATAGTTACATCAT (A/G)     |
| LMO7        | PE - CCGTTGGTGGATTAAGGAGGGT (G/A)          |
| PICK1       | PE - CGGTATGGAAGTTGAGACTGTATGA (A/C)       |
| GPR143      | PE - TTCTGCATTGAGGCCATGTCATGCT (A/C)       |
| RPL24       | TGCGE                                      |
| THOC4_a     | PE - GTTGGTCTTTTCCACCGTTTCTTCC (A/C)       |
| COL8A1      | PE - ATATCAATGAAAACTCCGGTTCAGAAAAG (T/C)   |
| EIF1AX      | PE - GTAGTACAAAAACATCTACAATCAACTGAA (A/T)  |
| TM9SF2      | PE - TCAATTGTATTGTAAATGCTGTAATACATA (A/C)  |
| COL4A2      | PE - CTGAATCTTTCTCTAGCCAATGGTTCTG (T/C)    |
| ABHD13      | PE - CATATTTTAAACAGAAGTAGATTGAGAACAA (T/C) |
| MID1IP1     | SP                                         |
| BLZF1       | ALA                                        |
| DPT         | TGCGE                                      |
| SOD1        | PE - TTACATTTGTAAAAAGAAAATCACAGCATA (A/T)  |
| TIAM1       | PE - TTCATCAAATGGTATGCAACATAATTCTGA (A/T)  |
| ALCAM       | PE - AGAGAGAAGTTAGGGCTACAGAAAGCTT (C/T)    |
| ATP5O       | PE - ATGAGGGCCCCATAGGAAGTATTCATATT (T/G)   |
| RCAN1       | PE - CAACTAGTCACGTATGATGCACATATATTA (C/T)  |
| CD247       | PE - CTTAATGATTCCATCGTTTCTGTGTATGT (G/A)   |
| UPK1B       | PE - CCATAGGACCAATATTTACAGGCAA (C/T)       |
| FSTL1       | TGCGE                                      |
| CCDC58      | PE - CTGGAAGGCAGAGAGGGC (G/A)              |
| MAN1A2      | PE - CACCAACATGCCAGGCTCTGG (G/A)           |
| LOC643604   | PE - AGCAGAACCACCCAAACGCCAA (G/A)          |
| TPM2        | SP                                         |
| DNAJB5      | PE - AAAATGAAGTGTTTTTGCTGAAAGTTTTT (A/T)   |
| IER3IP1     | PE - GCTGTTGGTGACCGATTTTCAGTTC (A/G)       |
| SMAD2       | PE - GCCGTGTAAATTACACAATGTTAAAAA (G/A)     |
| ID3         | TGCGE                                      |
| ATP8B1      | PE - GCAGAAATGATGCAGTCCAGGAACATCA (A/G)    |
| ZFR         | PE - TCTAATCCATGCAAGAGACTTTCCTTT (G/C)     |
| MEX_NOHITS  | RD - Dde I                                 |
| MEX_NOHITS  | SP                                         |
| SEPP1       | TGCGE                                      |
| CONTIG95328 | PE - CCTCAGAGCGAATACTGCGTGC (C/T)          |
| PRKAA1      | TGCGE                                      |
| GPX8        | PE - TCGCCATCATTTCCATGAGCTCTC (A/G)        |
| SCAMP1      | PE - CATCTTTATTTTATTGGCATCATTGCAGC (T/C)   |
| HMGCR       | PE - AGCTGCTTGATAACCTAGACTTGAAGGC (G/C)    |
| MEX_NOHITS  | PE - GGAATGCCACTATTATTTTAAATGAATGCT (T/G)  |
| OCLN        | PE - TGAAACATACTTGACTTTTGCAACACTCA (G/A)   |
| VCAN        | RD - Rsa I                                 |
| E11G8       | PE - CGATAACATGGACTGTATTCAACGGCAAC (G/A)   |
| TNFAIP8     | PE - GATGTCCCATTCTGAATGGAATTGTACAAC (G/A)  |
| E14E6       | PE - ATGATGTTGATTATGTACCAATTAAAGAA (A/T)   |
| E14C5       | SP                                         |
| ANXA1       | PE - GATGTCATCAAGTTTCTCACAACCTTTA (G/C)    |
| HNRNPK      | TGCGE                                      |

|           |                                           |
|-----------|-------------------------------------------|
| FAM108B1  | TGCGE                                     |
| HSPA8     | ALA                                       |
| APLP2     | PE - AAGAAAACTACTGTAGACTGCAACG (A/T)      |
| E14E10    | TGCGE                                     |
| NNMT      | PE - GCCTCATTTACCTCTTTCACTTTGCG (G/A)     |
| LOC566020 | PE - ACCCCCTCCAGAAATCTTGGAAGTGT (C/T)     |
| ARCN1     | TGCGE                                     |
| FXD2      | PE - CCATGATCCCTCTCCATTGGCTC (A/G)        |
| PAFAH1B2  | PE - TGAGTTGGTAGCTTGACAGGCTAACT (G/A)     |
| MNT       | PE - TGCCAAGGAGTGACGTTTCATCCT (C/G)       |
| E11G11    | PE - GTAGCCAAATTAGGTCCAATGAACTAATTA (T/G) |
| E12A11    | PE - TGGAATTGCAACATAGTGGTGAACGCT (T/A)    |
| AATF      | PE - CCCGAGATTTGGAGCCTCATTCTTAAT (C/G)    |
| ATP2A3    | TGCGE                                     |
| BAZ1B     | PE - GCAAGCCGTTCTTCCAAAGTTC (T/C)         |
| E16C7     | PE - AGCTGTACAATTATTAAGCCTAGCAATCC (G/A)  |
| C7ORF42   | PE - TTCACCGCCGATGAGTTCCT (G/C)           |
| GBAS      | PE - AGTACAGGGCTCTTATTGGTAGCCCAT (C/G)    |
| MKS1      | PE - GTTACAGCATCAGTGGGATGTGGTATGT (A/T)   |
| POR       | TGCGE                                     |
| MED31     | PE - GAATGTATAATGGGTGATTCAAAAGAGT (G/A)   |
| CLTC      | PE - GACTGCTTCTTAACCTTTTAAACAGTCT (A/G)   |
| DOC2B     | PE - AAGATTGAGCGCTGGCACACACT (T/A)        |
| MED13     | PE - TCTTGAATAATGTTTCCGGTAGTCCATGTA (T/C) |
| PRR11     | PE - TGAAATCTCCTTAATGAATATGGCAGTTAT (C/A) |
| E11G4     | PE - TGAAGCATTACATGTCCAATATCTAACACC (C/A) |
| E17C12    | PE - AGACAGAAACACTCTGTGATGAACCATTG (T/G)  |
| CFLAR     | PE - AACCATTGGAAGCGTGCCAGATA (C/A)        |
| STAT1     | PE - AGGGATGGCTCCAACTCAAATGC (A/G)        |
| TOMM20    | PE - CTGTATTCTGACATACCAGTACTACATGTT (C/T) |
| TRA2B     | TGCGE                                     |
| DNAJB11   | PE - GAGTGTGGGGACATCCTAGCCA (G/A)         |
| ZC3H15    | PE - GCGTCTCCCTTTCTGTACGGTCGCGCGAG (G/C)  |
| SUMO3     | TGCGE                                     |
| E54C11    | PE - GGAATCATCATTGGTTCTAACTTGAAAAAT (G/T) |
| STT3B_a   | PE - TTTGAGCTGACTATTGATTATTCGGGC (A/G)    |
| FN1       | SP                                        |
| E12G1     | PE - ATTGAAAGGACCAGGATGAAGTTTGGACT (T/G)  |
| E12G7     | TGCGE                                     |
| NDUFA10   | PE - ACTTAGGGCTCATCTGGCTGCT (A/G)         |
| UGT1A1    | PE - TCCCAGTAACTGTCTGTGATCATAGGCT (C/G)   |
| COL6A1    | PE - GCGATCTTCTAGCAGGCAGAACAGGA (G/A)     |
| E13E6     | TGCGE                                     |
| ATP5G3    | PE - CGCCATGTGAAGTGTGGTGTACA (A/C)        |
| HOXD8     | RD - Hpa II                               |
| HOXD11    | RD - Sau96 I                              |
| E13A7     | PE - ATTAATAGGATCAATCTGAAGACATTATGC (A/G) |
| SCRN3     | PE - ATGCATGCCTGTTGATTACAAATA (C/T)       |
| GCA       | PE - TTCTGAAGTATGGAAGAGGAGGAAGGA (G/C)    |

|             |                                           |
|-------------|-------------------------------------------|
| RND3        | TGCGE                                     |
| HNMT        | PE - ACAACAGCACAAAGGACCTGTAAA (A/G)       |
| R3HDM1      | PE - AAAAGCAAACCAATCAGATCAAC (G/C)        |
| SNX4        | TGCGE                                     |
| E14A3       | PE - CTGCTTTGCCCTCCCATCCTCTG (C/G)        |
| NNMT_a      | PE - GGATACATTATCTGTACTTAACTAACATAA (G/T) |
| ZNF142      | PE - ATTTGGTAATGTTATTCTACTACTCCCAGA (A/G) |
| ACCN4       | PE - GTTCCAGTGGAAGCTCCCTTT (A/G)          |
| E19A7       | TGCGE                                     |
| CYP27B1     | TGCGE                                     |
| SLC37A3     | PE - GCATTGATGTACTGTGATGAAGCATCTG (C/T)   |
| FBXO7       | PE - GCTTTCATCTGATCAGGCACACCATC (A/G)     |
| CARDIAC-RNA | PE - ATTCCAAAGCCGATAAGGGA (G/C)           |
| E54G12      | PE - TCTCCATTCCAAAGCCGATAAGGGA (G/C)      |
| MTPN        | TGCGE                                     |
| IL17RA      | ALA                                       |
| FBXL14      | PE - TTAACCTCCACACGAACTGCTTCAG (G/A)      |
| WNT5B       | RD - Bgl II                               |
| E17C9       | TGCGE                                     |
| NTF3        | RD - Mnl I                                |
| TMEM19      | TGCGE                                     |
| UPK3B       | PE - CATGTAAATGGTGTTACTACTGAAGTGCAA (A/T) |
| TWF1        | ALA                                       |
| HIST1H2AG   | RD - Alu I                                |
| HIST1H1E    | PE - ACGATCCTACATGGGAGCCTCTTG (A/T)       |
| E12A4       | PE - AATGTTCTGCTGCCTGTCCTGCT (C/G)        |
| CDK2AP2     | PE - TTCAGGAATCTGGAGGTTTTGGTGAC (G/A)     |
| UBE2L3      | TGCGE                                     |
| C11ORF31    | PE - ATGTTGGCCTCCAATAGAAAGCCC (A/G)       |
| CTNND1      | PE - TCGGGTGGTAGGGTGGGGTGA (A/T)          |
| FTSJ3       | PE - GAGTAATTCCTTCTCATTGAGGTAAGTTC (C/T)  |
| TMX2        | TGCGE                                     |
| CTSK        | SP                                        |
| E17C5       | PE - AGAATATTGACAACAACATTTCTGGAATGA (A/G) |
| E17C6       | TGCGE                                     |
| FLJ36031    | TGCGE                                     |
| LUM         | PE - CTATTTGGTATTTTCCAACATTTGCAATGG (A/T) |
| PIM3        | TGCGE                                     |
| PAWR        | PE - AGAATGGACATTGATTTTCGTCAACAAAAT (T/G) |
| KITLG       | SSCP                                      |
| TIGRINUM-UV | RD - Rsa I                                |
| CALU        | PE - TCTTAAATCTGATTCAGCTAATATCCTCT (A/G)  |
| E15C7       | TGCGE                                     |
| LEP         | PE - CTTCTGAAACCTATCCAACGCAACTTTCTC (C/T) |
| IMPDH1      | TGCGE                                     |
| SND1        | TGCGE                                     |
| COPG2       | PE - AACTCCCTGTGCCGACATGACTA (T/G)        |
| TUBA1A      | PE - CGGACTTTAATCTGCTCGTAGAGTATGTAT (T/A) |
| RAP1B       | PE - ACAGACATTCTTCATCAACCAGTGACACG (C/T)  |

|          |                                           |
|----------|-------------------------------------------|
| TMEM5    | PE - CTTTCCTACCACAGACGAAAGAGGG (G/T)      |
| XRCC6BP1 | PE - TGTTTTAACTGCATGCTATGTACAACATGT (T/G) |
| ACADSB   | PE - AGGTTTCCTGAACATTGAGGGCAAA (A/T)      |
| EIF3A    | PE - CTGTGGAAGCTGCAAAGAAATACATCC (G/C)    |
| ABLIM1   | PE - AATTGTMTCACCGAGAACCCCCACCCCAT (C/A)  |
| TRIM8    | PE - AACACTATGTCACCAGTTAACCAGGAAG (T/A)   |
| COX15    | PE - CCGCAACACATCTATTAATGCAAAAATGAA (G/A) |
| ATP5B    | PE - CCCCAGAGCCGCACAGAC (T/A)             |
| ANKRD1   | PE - GGTGTGCTTTGTAGATGAATGTAGTCTCG (C/T)  |
| DNTT     | PE - CAATTTATATTTGTTTTATTGTAAGCATAC (G/A) |
| HIGD1A   | TGCGE                                     |
| CISD1    | TGCGE                                     |
| SGMS1    | PE - AAGACGGACAAGGGAGCAATTCAC (T/C)       |
| E16E2    | PE - AGCTTGGCTTTAGGCCATTTGAACAATC (C/A)   |
| MFAP2    | PE - GAAGTCGGTGACAAACCTCCATAAAC (T/G)     |
| SS18L2   | RD - Mse I                                |
| UBR4     | PE - CCTCTTGGTGGATTCTGCATCCCT (T/C)       |
| SFTPD    | ALA                                       |
| AP3M1    | PE - AGGAGACCTTTTCTAATGTCAGTTGAT (G/A)    |
| E15C8    | PE - ACAGAACTGCATATAACAGTATTCTTTGCT (A/T) |
| VDAC2    | PE - AGAGGCGTCCTCAAGCCTCCAA (T/A)         |
| ERRFI1   | PE - TTTAGAGACTGATTCTCAAACGAGAAATGA (C/T) |
| HSPG2    | TGCGE                                     |
| CDC42    | PE - AAACCATTATACTGTGTGGAGTGGATTTGC (C/A) |
| C1QB     | PE - GGCTGGATCACATAATTAAGTGGTGACA (T/G)   |
| PCBD1    | PE - CATGGTCAGAATGCACTGAAAC (C/T)         |
| C10ORF54 | PE - CCGCAATGTCACTGAGAAAGAACTCCA (C/T)    |
| PSAP     | PE - AAATTACAACCAAATTGTACAAACAAGKAT (T/C) |
| H2AFY2   | PE - GGACGCCAAATACCCCGAAAGAA (A/T)        |
| DDX21    | PE - ACAACCTCTAAGTTAGCGAAAAGCACT (T/G)    |
| KIAA0913 | PE - GGATGTGTATGCAAAAAGGGCCCATAAAT (C/T)  |
| MYOZ1    | PE - GTTTGCAGGTCTTGGTGTGCTTT (G/T)        |
| CCDC109A | TGCGE                                     |
| EIF4EBP2 | PE - GGTGGAATGCTTTGAAAACATGTATCGGT (G/T)  |
| SAR1A    | TGCGE                                     |
| CAMTA1   | PE - GGTATTCCACGTGCCATGTCCTC (T/C)        |
| RPL37A   | PE - GTGCCTGGACCTACAACACCA (C/G)          |
| CALM1_b  | TGCGE                                     |
| SLC4A5   | SSCP                                      |
| DCTN6    | PE - GCCACATTTTAGAATCTGCAGCCTACG (C/G)    |
| PTPN9    | PE - CTGTGGAATGGTCCGACTCTGATTTTGA (G/A)   |
| SFRS2_a  | TGCGE                                     |
| C9ORF156 | PE - CAGCGATGTAAGGCTTTATGTCAAGAAC (A/G)   |
| CLTA     | PE - TGGCAGAGTTTGACATGTTTCGGTTC (G/T)     |
| KLHL8    | PE - ATGATAAACGGACCATTTTACAAAGTGTT (T/A)  |
| ENO3_a   | SP                                        |
| MMRN1    | ALA                                       |
| C4ORF16  | PE - AGCCTGTTAGTGCTGCCC (G/A)             |
| HSDL2    | TGCGE                                     |

|            |                                             |
|------------|---------------------------------------------|
| H2AFZ      | PE - GAAAGTTCAGTTGTAGTCCATGGTGTTTAA (G/T)   |
| KLF4       | PE - GACTGTTCATGGCAGTATTGR (T/A)            |
| RAD23B     | PE - TGCTAACTTCCTTCTACAGCAGAATTTTGA (C/T)   |
| SCOC       | PE - AAAACAAGTGATTTCTATTTGGTAT (A/G)        |
| LARP7      | PE - TAGAAAGTATCGCCAAAGCGGACATG (T/C)       |
| TBCKL      | PE - GACCAAAGTCAGTTTGAAGATCTAGAAA (A/G)     |
| NDUFC1     | PE - TGCAGGGAAGACGAATAGCTAG (G/A)           |
| ARFIP1     | PE - CTCCTAATTTCTGCAATTAACCTTTAGAA (A/C)    |
| PDGFC      | PE - CCAGTTGGGATTGTATCATGATGCTTAA (T/A)     |
| CHDH       | SP                                          |
| TMEM165    | PE - TGCTCGGTATCCCGCAGAA (A/G)              |
| KIT        | SP                                          |
| PDGFRA     | RD - Rsa I                                  |
| CNGA1      | PE - ACAGTCAAGACTGCTCTGTAAACCAACTC (A/G)    |
| SLC2A9     | PE - GCATTGCATTAAAAATAATAAATTGACT (A/G)     |
| WDR1       | PE - TGGACCATCTCCTTCAAATGAATACCC (A/G)      |
| C20ORF27   | PE - AGGTCAGAATGTTCTGGTGGATTAATG (G/C)      |
| CDC25A     | PE - CCACGAAGAGCAGTCTGTAGG (G/A)            |
| E15C10     | TGCGE                                       |
| KAZALD1    | TGCGE                                       |
| MEX_NOHITS | RD - Tsp509 I                               |
| MGC97528   | TGCGE                                       |
| KCTD3      | PE - TCTTTCAGCCAGGACTACAACCTTGTAAACAA (T/C) |
| PYGO2      | PE - CAGAACTGTACGCTCTTTCAGTGT (A/G)         |
| EPHX1      | ALA                                         |
| GTPBP2     | PE - ACCACACAGTCTAGTGACCCTTGAAGA (G/A)      |
| TMEM63B    | PE - CATGATTGAGCAGCACTTGACAAAG (T/G)        |
| HSP90AB1   | PE - CTGCATCTCAGACAGACCCAGCC (A/C)          |
| C6ORF226   | RD-ApaLI                                    |
| RPS6       | SP                                          |
| CCDC127    | PE - TTTTCAACATAGCTGGTTTTTCACCCTGT (C/T)    |
| ARRB1      | PE - AGAGCCGTTCTGGAGTCG (T/C)               |
| SFTPD_b    | PE - CGAGCCACCCATATGCATCACTGCAGTAAT (G/A)   |
| COX7B      | PE - CTGAGGGACCTTCACTTCTAGCAAATTT (G/A)     |
| SSR2_b     | PE - TTGGCAATCCTGACTAATCCTTTAGTACC (G/A)    |
| E15G1      | PE - AAATGATGCTCCAGTGAGAATAATTGAAA (T/G)    |
| AP4S1      | PE - TCAGACAGCTGAGGACACCAC (C/G)            |
| EAPP       | RD - Aci I                                  |
| THBS1      | PE - AGCTCCCGTGCATAAACATAGAA (T/A)          |
| ACTC1      | PE - TCTCTGGAGCCACCTGGCC (C/G)              |
| ERH        | PE - CAGCGCCCTCCCTCCATTGA (T/C)             |
| CHURC1     | PE - GTCACCCTAGCATAAATGCGGTCA (T/A)         |
| SFRS4-like | PE - ATATTTAATACATTGATTCACACAGTACTC (G/A)   |
| TRMT5      | PE - CATTCAAAATTGATGAAATCTCTAAAAAG (C/T)    |
| ARF6       | PE - CACCACTCCTACCAGCCAAAGAGTG (C/A)        |
| MAP4K5     | PE - GATAACCCTACAGCGCACAGCAATCT (C/G)       |
| RPS29      | PE - GGTCGTTTCATGCAGCCTTCCC (T/G)           |
| NID2       | PE - CTTAAGAGGAAATGTGCAGCCATTAT (T/G)       |
| C14ORF129  | PE - TCCTATGAATTCCTCTGATAAGGATTAGC (G/T)    |

|             |                                           |
|-------------|-------------------------------------------|
| CNIH        | PE - CTGTTCCAAACTGCAAGCAACTCAAA (C/T)     |
| FERMT2      | PE - CTGCTTAATGTTGTAAGCTTGACCTATGTT (G/A) |
| NPC2        | PE - CATTCTTTTAAATTGTTTCTCCTCAAGGTC (C/A) |
| FCF1        | RD - Dpn II                               |
| LGMN        | PE - GCACTCCACCGGGTATTGTTTCC (A/G)        |
| WARS        | PE - CAGTCGAGGCGCGTATTCTTATATCC (G/A)     |
| AHSA1       | PE - GCGGAGCGAACCAAGCGG (G/A)             |
| UBR7        | PE - GCTAAATGTGTGCTGCTTGCTTT (A/G)        |
| CDC42BPB    | PE - TTCTTGGCACTTTTTCTCCACAAATAAAAC (T/G) |
| PPP1R13B    | PE - CCAACTCTGGAAGAACCACAAGTATTCTA (A/G)  |
| E16C9       | TGCGE                                     |
| COL1A1      | RD - Eae I                                |
| DLX3        | RD - Dpn II                               |
| LSM6        | ALA                                       |
| PHB         | PE - GTGAATACATCTCSGAACTWTATCAGAAGC (G/T) |
| ARF1_a      | PE - GACTGGCTCTCCAACCAGCTGAAAA (A/G)      |
| CCDC56      | PE - TCATGTTTTGCTCTGCTGTGCAGT (G/A)       |
| CONTIG81034 | RD - Tsp509 I                             |
| PSME3       | PE - AGTTGAGAACATGAGTGTTCAAGTTCATA (A/G)  |
| NSF         | PE - ATACCTATATAGGAACGATCTTTCACCGGC (A/G) |
| E15G4       | TGCGE                                     |
| MAPT        | TGCGE                                     |
| CRHR1       | PE - AAATGTTGTTGATCTTTGTGAATTCT (G/T)     |
| GH1         | PE - GCACCATTGATTCCCYTAGTTATTGGG (C/G)    |
| E17E11      | PE - TGTGGCGTGGACAAATACTACTACATTGT (C/G)  |
| PCK2        | PE - GGTGAAGAAGATGTGAGTGCTGTAACGAA (A/G)  |
| MDP1        | PE - CACTACCCCTTTCGACGTTGGTC (A/T)        |
| TGM1        | PE - AAGTGATGGTTTTGACGAAAGTATCTAACA (A/C) |
| HIST2H3A    | PE - GTGACCCTCTTGGCGTGGATG (T/G)          |
| SDR39U1     | PE - GAATCTATGAAATGTACTGCAGCTTCGC (T/A)   |
| TMEM85      | PE - TCCAAATCTCAACCAGTCATTCTTCGAG (C/A)   |
| TCELL       | RD - BsuR I                               |
| NDRG2       | TGCGE                                     |
| RABIF       | PE - ACCTGCATCATTGTCTCTACTATAACTAAC (T/C) |
| TMEM183A    | PE - CCTCCCCACCGGAAATGTTTATAACTC (G/T)    |
| CSRP1       | PE - AGCCGTCACTCAAAGCACGAATG (G/A)        |
| E15A9       | TGCGE                                     |
| NAV1        | PE - CTGGAATAACTGCCACATGGACAGG (A/C)      |
| RPLP2       | TGCGE                                     |
| SRPK1       | PE - CAGCAAATAGACTGGAATAAAGACCC (A/G)     |
| TMEM167B    | TGCGE                                     |
| E17C3       | PE - ACCTGTCTTCGTCTTTACTATAATTGTTTG (T/A) |
| TAF11       | TGCGE                                     |
| MEX_NOHITS  | RD - Bsl I                                |
| RPL10A      | PE - CGTGCGTGCTCTTTACATCAAGAGCA (C/G)     |
| CAPZA1      | TGCGE                                     |
| CYP2A13     | PE - GAGGGTGCACCTGTATGCCACAAA (A/G)       |
| RHOA_b      | PE - CGCTTTTTACTTATAGAATCAGACAGCGCT (A/G) |
| RAB7L1      | PE - TCCAGAATCATCCCAAAGCTGCAAT (C/G)      |

|             |                                           |
|-------------|-------------------------------------------|
| SNRPE       | PE - GCAAGGATGCTGCCCCCT (T/G)             |
| TAF8        | PE - TCCGCCACCGAGCGCAC (C/T)              |
| CTGF_a      | TGCGE                                     |
| TPRG1L      | PE - TCTCTCAAGATGGACAATGTCAAAAGGAAA (G/A) |
| GNB1        | TGCGE                                     |
| LOC10022474 | TGCGE                                     |
| MAD2L2      | PE - GGAGAAGTCTGAATTTGAAGCTGCACA (G/T)    |
| TARDBP      | PE - CAGCAGTGTAGCTTAAAATACCCGACG (G/C)    |
| E11E11      | PE - GACGCTGAGCCTAGATGCGCC (C/A)          |
| NPDC1       | PE - CTACTTTGGCACTTTTCATGTTTGAGGT (C/T)   |
| COBRA1      | PE - GGTAAATCCATGCTGGGTGTTTCGGG (T/G)     |
| TNC         | PE - GTTTTAGAACCAGCCATATTTTAAACAACC (C/T) |
| WDR5        | PE - AAATGAAGCTTAAGTGTGTCTGGGAG (A/T)     |
| NOTCH1      | PE - CATTTCTAGACATTTGAACTAGCTCTTCA (G/T)  |
| APEX1       | PE - AAGAACCTTTGACRGGGGTTCAAG (A/G)       |
| LHX2        | PE - TTTGACTAAAGGTCATTTCTTTTTTAAAGA (G/A) |
| C9ORF78     | PE - AACTGATTACCTGTAGGACCTCTAGCA (C/T)    |
| C9ORF16     | PE - CATCAGATTTGGCTATAAGTGACCACAAAC (C/A) |
| TOR1A       | RD - Ava I                                |
| FKBP10      | RD - Alu I                                |
| KRT24       | ALA                                       |
| EIF1        | PE - TGCTACATTAATGTAATAAACGGCATCATC (T/A) |
| KRT12       | RD - Fnu4H I                              |
| KRT17       | RD - Aci I                                |
| LOC10001602 | TGCGE                                     |
| RARA        | PE - CGACCCTGCAGTAAATGTAAGTG (T/G)        |
| HOXB13      | RD - Nsi I                                |
| SNF8        | PE - GTGATCTAGTGGGATCAAACCCTAAAGACC (C/T) |
| NFE2L1      | PE - AGTAATAAATTATAGATCTGCCTCATCAAC (A/G) |
| RPL19       | SP                                        |
| MED1        | PE - CTCCAGCGAGCGGTCTTC (G/A)             |
| KEAP1       | PE - GAGCTGTGTCTCACTGCAGATTTCG (A/T)      |
| G2G13       | RD - Mnl I                                |
| MED24       | PE - CTCCCCTCGATGGGTGGTGTAGG (A/G)        |
| THRA        | SSCP                                      |
| SFRS3       | ALA                                       |
| MEX_NH_165  | #N/A                                      |
| TCF19       | PE - AGTATCCGTCCAGTTCGGG (T/C)            |
| MR1         | PE - AGGAAGGTCCGCAKCTGC (T/G)             |

| Gene ID  | Marker2 Forward Primer     | Marker2 Reverse Primer     |
|----------|----------------------------|----------------------------|
| SPEN     |                            |                            |
| SPAG7    |                            |                            |
| ENO3     | GTGACCCATTGTCTCAAGAATATCTG | GCAACACTAAACTAATCTGGTCTCAA |
| PCOLCE2  |                            |                            |
| PSMB6    |                            |                            |
| EIF4A1   |                            |                            |
| E16A9    |                            |                            |
| CLDN7    |                            |                            |
| CIRBP    | AGGTGGATCGTACAGAGACAGTTAC  | CGACTAAATTATCAAAAAGCTAAGGC |
| CNN2     |                            |                            |
| E12E2    |                            |                            |
| GPX4     |                            |                            |
| SLC39A3  |                            |                            |
| BSG      |                            |                            |
| CDC34    |                            |                            |
| PRTN3    |                            |                            |
| SFRS14   | TTGTTTGTGCTTTAACTCAGATTTC  | ATATGGACCAAGACACATACAAGGTA |
| NDUFA13  |                            |                            |
| USE1     |                            |                            |
| UHRF1    |                            |                            |
| E17C2    |                            |                            |
| EEF2     | CATTGGTATTCAGCCTTATAGGTTTT | TTGAGATCAGGTTTATTGGTTAAATG |
| MYO1F    |                            |                            |
| NDUFA11  |                            |                            |
| BTBD2    | TAAGACCTGCTTCACGTTTTGCTAC  | CAAGTAAAGGGTTTCTCTTGTTAAGG |
| OAZ1     |                            |                            |
| LSM7     |                            |                            |
| MAPRE1   |                            |                            |
| SAFB     | TGCTGAGTTAACGCGCTCTTAT     | GAGACTTGGTTCAAGACTTACTACCC |
| ATP5E    |                            |                            |
| MCL1     |                            |                            |
| ERO1L    |                            |                            |
| IFIH1    |                            |                            |
| KRTCAP2  |                            |                            |
| C1ORF230 |                            |                            |
| PRG4     |                            |                            |
| S100A11  |                            |                            |
| S100A13  |                            |                            |
| S100A4   |                            |                            |
| E12E11   |                            |                            |
| TPM3     |                            |                            |
| RPS27    |                            |                            |
| ANP32E   |                            |                            |
| TXNIP    |                            |                            |
| SSR2     |                            |                            |

|           |                            |                           |
|-----------|----------------------------|---------------------------|
| DYNC1LI2  |                            |                           |
| ATP6V0D1  |                            |                           |
| TPPP3     |                            |                           |
| HDGF      |                            |                           |
| NUTF2     |                            |                           |
| UFC1      |                            |                           |
| TMEM188   |                            |                           |
| LUC7L3    |                            |                           |
| PSMD11    |                            |                           |
| U2AF1_b   |                            |                           |
| FXYD3     |                            |                           |
| E12C7     |                            |                           |
| COX6B1    |                            |                           |
| POLR2L    |                            |                           |
| NUCB1     |                            |                           |
| FTH1_b    |                            |                           |
| FTL       |                            |                           |
| KRTAP10-1 |                            |                           |
| LOC733905 |                            |                           |
| CD163L1   |                            |                           |
| SACS      |                            |                           |
| GPI       |                            |                           |
| ITLN1     |                            |                           |
| GABARAPL2 |                            |                           |
| HNRNPK_b  |                            |                           |
| NQO1      |                            |                           |
| VPS4A     |                            |                           |
| APRT      | TTATTCTTTGCTGCAGTATGATTAGC | GTAGGACGAAAAGAAAAATGGAGTG |
| CA5B      |                            |                           |
| MAP1LC3B  |                            |                           |
| GMDS      |                            |                           |
| TEAD4     |                            |                           |
| E24A11    |                            |                           |
| E12A2     |                            |                           |
| E13E7     |                            |                           |
| LIG1      |                            |                           |
| MOCS3     |                            |                           |
| SFRS7     |                            |                           |
| LOC769550 |                            |                           |
| MMP2      |                            |                           |
| NUDT21    |                            |                           |
| ETHE1     |                            |                           |
| SODEFRIN  |                            |                           |
| RABAC1    |                            |                           |
| MC1R      |                            |                           |
| MGST3     |                            |                           |
| APOE      |                            |                           |
| PRDX6     |                            |                           |
| FMO3      |                            |                           |

|          |                            |                            |
|----------|----------------------------|----------------------------|
| ARPC5    |                            |                            |
| NCF2     |                            |                            |
| RGS2     |                            |                            |
| GLUL     |                            |                            |
| CLCA2    |                            |                            |
| RGS5     |                            |                            |
| COL11A1  |                            |                            |
| IFI44L   |                            |                            |
| GNG5     |                            |                            |
| SEPT10_b | AAGCATTCTTAAGTGAAAAGTTGGAG | TTCTGGTACTAGTAGTTCTGCGtTTG |
| E12G5    |                            |                            |
| E17G11   |                            |                            |
| FPGT     | ACTGTAGACTGAAAATGGAGTTTGTG | TCAAAGGCAATTCTATTTTTATGTG  |
| GPR177   |                            |                            |
| LEPROT   |                            |                            |
| USP1     | ATGAGGGAAAGTGGTTACTATTTGAC | GTAAGAAAGAATGGAAAGAGCAATTC |
| PSMA4    |                            |                            |
| C8A      |                            |                            |
| TMEM59   |                            |                            |
| SLC1A7   |                            |                            |
| SCP2     |                            |                            |
| EPS15    | AGAAAGAGAGACTTGCCAGGTTA    | GAATATGGTTAGAATCCTCCTACACA |
| TXNDC12  |                            |                            |
| KIAA0494 |                            |                            |
| FAAH     |                            |                            |
| E17G7    |                            |                            |
| PRDX1    |                            |                            |
| DAZL     |                            |                            |
| TMLHE    |                            |                            |
| THRB     |                            |                            |
| STT3B    |                            |                            |
| SH3BP5   |                            |                            |
| C7ORF41  | CTTGTGCTCTTGAGAATAAATCACAT | AATTAGAAGGAAGAGGAACAAAAACA |
| E12C2    |                            |                            |
| NGLY1    |                            |                            |
| VWDE     |                            |                            |
| COL1A2   |                            |                            |
| UHRF2    |                            |                            |
| NMT2     | GCGGATAATCAAGTAGCTAAATCCTA | GTGGTTCATAAAGAGAACGTGAATAA |
| VIM      |                            |                            |
| EIF1B    | TGATTCTTTGCAATAAACAGACTTTC | GTATCAGACAGCAAGAACAAAAAGAG |
| IGF2BP3  |                            |                            |
| TOMM7    |                            |                            |
| KIF15    |                            |                            |
| E54A6    |                            |                            |
| HOXA4    |                            |                            |
| HOXA9    |                            |                            |
| CBX3     |                            |                            |
| CYCS     |                            |                            |

|                    |                             |                             |
|--------------------|-----------------------------|-----------------------------|
| ABI2               |                             |                             |
| KIF5B              |                             |                             |
| CREM               | TTTATTGTCGTAAAGCAGAATAGGTG  | CTTCTAGTACAGCAAACACGACTTTC  |
| WDR60              |                             |                             |
| U2AF2              |                             |                             |
| HBZ                |                             |                             |
| HBA2               | CTTTTAACGGTACTTGCTGGTCA     | AGCCTGTAACCAAGACCTACTTTG    |
| HBG1               | TGGTGTATATTCATTTTCTTGCTGTT  | GACATTGTATATGAACCAACATGTGA  |
| EIF3I              |                             |                             |
| KBTBD5             |                             |                             |
| CRHR2              |                             |                             |
| UQCRC2             |                             |                             |
| GNA12              |                             |                             |
| TIMM17B            |                             |                             |
| TIMP4              | TAGACAGTGCATACTTGAAGATGTTG  | TGGTCAATGAAAATATGTACTGAAAAA |
| DCTN5              |                             |                             |
| RBBP6              | GAAAATGTAGCAAAAAGAGCATTCTAA | TTTAGGGACTTTCAGAGGAGAATTT   |
| TNRC6A             |                             |                             |
| NARFL              |                             |                             |
| E17G8              |                             |                             |
| MSLNL              |                             |                             |
| SSTR5              |                             |                             |
| PDGFRA_b           |                             |                             |
| H3F3B_b            |                             |                             |
| UBE2I              |                             |                             |
| COQ7               |                             |                             |
| PDXDC1             |                             |                             |
| MYL3               |                             |                             |
| ARF1_b             |                             |                             |
| ABAT               |                             |                             |
| ATP6V0C            |                             |                             |
| HN1L               |                             |                             |
| MRPS34             |                             |                             |
| NME3               |                             |                             |
| C16ORF13           |                             |                             |
| HBA2_a             | CTTCTTAATCATCATATCCTGGCAGT  | TGTCTAGGTATGACGTTGTTTTTCTC  |
| HBD                |                             |                             |
| STUB1              |                             |                             |
| LOC440335          |                             |                             |
| AURKB              |                             |                             |
| C11ORF51           |                             |                             |
| CCM2               |                             |                             |
| M_NOHITS_397_CTG1  |                             |                             |
| KIF9               |                             |                             |
| NGFR               |                             |                             |
| SETD2              |                             |                             |
| DRG2               |                             |                             |
| M_NOHITS_5137_CTG1 |                             |                             |
| MAP2K3             |                             |                             |

|                   |                            |                            |
|-------------------|----------------------------|----------------------------|
| MED9              |                            |                            |
| RAI1              |                            |                            |
| RASD1             |                            |                            |
| SHMT1             |                            |                            |
| PVALB             | ACTATTTTATACCGTACCAGGTCCAC | TTTTATTTGCCTTCTTCCAGTCAC   |
| RAC1              | TCAACAAATTAAACTCCACTCTGAAC | GATAATAGAATGCTCAATGACTGCAT |
| ACTG1             | AGAAAACTGGAAGACCAGAGTATGT  | TAAGGCAGAAAATACAAAAACACTTG |
| ARPC1A            |                            |                            |
| M_NOHITS_899_CTG1 |                            |                            |
| UTS2R             |                            |                            |
| ACTB              | CCGTAAATGTTTCTAAATGACAGTTG | GGAAAGAAAGTACAATCAAGTCCTTC |
| FOXK1             |                            |                            |
| BGN               | CCATACAGTTTGGAAACTACAAGAAA | AATACATCCTAATTCTGTTTGAAGC  |
| E13G5             |                            |                            |
| RENBP             | ACCTACCTTGGATgTTACATGTTTT  | GTCACCTTCAGCAAACCCTTAG     |
| TKTL2             | GCAAAATGTATAGTGGAAGCTGTAAA | CGTTTGTTATTGAATCATCTCCTCTA |
| EEF1G             |                            |                            |
| SMC1A             |                            |                            |
| TTC9C             |                            |                            |
| ACTC1_a           |                            |                            |
| ADSS              | ACACTTTTGAaCAGGATGGTATCTC  | CAATATAAAACAGGTTTGGGTCTT   |
| CALM1             | GCACAAGAAGGAATGAAATTCTTTAG | AAAATTGAAGTAGTGAAGGACAGACC |
| OTUB1             |                            |                            |
| PRDX5             |                            |                            |
| RBM4              |                            |                            |
| CAPN1             | GGTTACAGATGACAATGTTTGCTTAG | TAGAGCAGTAAGGTAggatgggtaAG |
| DPP3              |                            |                            |
| PYGM              | TACTTCAAGGACAAGAGTGGTATTTG | GCAGGTGGATATCCTAATAAAAGAAC |
| TMED10            |                            |                            |
| FOXA3             |                            |                            |
| E14C12            |                            |                            |
| E16G10            |                            |                            |
| BANF1             | ATATTATTGGGGCTTAGGCAGTTAG  | ATAACTAAACAAATGGACAGCATGAA |
| CFL1              | GTTACTGAAGGAGCTTCCACCTATAC | ATTGGTCCATTAATAAAAGGAATGAG |
| E23C10            |                            |                            |
| KCNK1             |                            |                            |
| PLCB3             |                            |                            |
| RBM4B             |                            |                            |
| SULT6B1           |                            |                            |
| E16E8             |                            |                            |
| UCRC              |                            |                            |
| CKM               |                            |                            |
| CLPTM1            |                            |                            |
| SNRPD2            |                            |                            |
| E17G3             |                            |                            |
| C22ORF32          |                            |                            |
| CYP2C19           | CTCCTTGAAGGCTGTTGGAAAT     | TTCACAGTATTCCAAATATCATGGTT |
| E12E6             |                            |                            |
| CYP2F1            |                            |                            |

|                |                            |                            |
|----------------|----------------------------|----------------------------|
| H3F3B_a        |                            |                            |
| CAPNS1         |                            |                            |
| SNAP23         |                            |                            |
| GMFG           |                            |                            |
| NCCRP1         |                            |                            |
| RHOA           | ACTCACTGTAACAAATGGCTAACAAG | GATATAGCACAACTGCAATAGGTCAT |
| GNAT1          |                            |                            |
| TWF2           | CTCTGTTAGTCCATATCAGTTTGCAT | CCCAGGGTTAGAGTAGCAATAAGTAG |
| WFDC2          |                            |                            |
| CNBP           |                            |                            |
| BTG1_a         |                            |                            |
| FLNB           | AGACTACGTTTTGGCTGTGAAATG   | GTCCTCCATTGACTGAATATAAAGGT |
| TKT            | AAACTTTCAAACTGTGGTGACTTTA  | ATTGTACATTGTTTCATTGCGATAAG |
| E12A3          |                            |                            |
| RHO            |                            |                            |
| LSM3           |                            |                            |
| SEC61A1        |                            |                            |
| RAB7A          | TATCCCATAATTCATGAAACTCAAAA | TTGTACAGAATACTGCCTCTATCTGG |
| IP6K2          |                            |                            |
| PRKAR2A        | AATATCTCGCATTATGAGGAGCAG   | AAAGGTCCACGCCTCTCTTATT     |
| ARPC4          | ATTGGTACAATGACTCTCTCTTTGTG | AATGCAACAAGAGATAACACTCTCAG |
| NISCH          |                            |                            |
| RPL29          |                            |                            |
| PBRM1          |                            |                            |
| SPCS1          |                            |                            |
| ZYX            |                            |                            |
| MYL6           |                            |                            |
| NANOG          |                            |                            |
| C3AR1          |                            |                            |
| GAPDH          |                            |                            |
| ING4           |                            |                            |
| FKBP1A         | AGAGGACTTAAAAATACCACAAATCC | AGGGGAAAAATAAAAACATACTGAGA |
| ASXL1          |                            |                            |
| E16A12         |                            |                            |
| GNAS           | GTGTTTCGAACTCCTTATTTCTCATT | GATTTGGATACAGTTGATTTTACGAA |
| ADNP           |                            |                            |
| SNAI2          |                            |                            |
| TNNC2          |                            |                            |
| UBE2V1         |                            |                            |
| SULF2          |                            |                            |
| NCOA5          | CCCTTATGGTGAATATGTAGTTTTGG | CTGTACAATAATGCAACCTCTTGTCT |
| MMP2_a         |                            |                            |
| PDLIM7         |                            |                            |
| TMED9          |                            |                            |
| CTBP1          |                            |                            |
| RPUSD4         |                            |                            |
| TIG_NOHITS_253 |                            |                            |
| PROD1          |                            |                            |
| FUS            |                            |                            |

|             |                            |                            |
|-------------|----------------------------|----------------------------|
| TRIM69      |                            |                            |
| VKORC1L1    |                            |                            |
| MVP         |                            |                            |
| NME1        | AAATGGATCTACGAGTAGACCTTGAC | TGAATTTATTACAAAGTGCTTTGAGC |
| ALDOA       | GATCACCTGGAAACTTAAGATGATTT | GACACTACAAGAGTGAGACTCAGAGC |
| E11G12      |                            |                            |
| YPEL3       |                            |                            |
| BOLA2       |                            |                            |
| SULT1C4     |                            |                            |
| ATP2A1      |                            |                            |
| CONTIG13340 |                            |                            |
| E16E3       |                            |                            |
| E50G8       |                            |                            |
| NFS1        |                            |                            |
| MAP1LC3A    |                            |                            |
| C20ORF4     |                            |                            |
| MANBAL      |                            |                            |
| BNIP1       |                            |                            |
| UQCRQ       |                            |                            |
| CAMLG       |                            |                            |
| SKP1        |                            |                            |
| SMAD5       |                            |                            |
| SEPT10_a    |                            |                            |
| HNRNPA0     |                            |                            |
| E13E11      |                            |                            |
| HNRNPAB     |                            |                            |
| MATR3       |                            |                            |
| UBE2D2      |                            |                            |
| E12A5       |                            |                            |
| E14G1       |                            |                            |
| PHF5A       |                            |                            |
| POLR3H      |                            |                            |
| CSNK1E      |                            |                            |
| KDEL3       |                            |                            |
| TOM1        |                            |                            |
| HOXC10      |                            |                            |
| ATP5G2      | TTCAGATGTATGTAGCGGTATTCATT | ACCTTCCTTCAGAGAAACAGACG    |
| E54A1       |                            |                            |
| NACA        |                            |                            |
| RARG        |                            |                            |
| KRT4        |                            |                            |
| KRT5        | ACTCACACACAATCTGTCTAAATTCC | ATTACCTCTGATCTGAATGGAAGAGT |
| OS9         |                            |                            |
| CD63        |                            |                            |
| OBFC2B      |                            |                            |
| RPS26       |                            |                            |
| RHEBL1      |                            |                            |
| WNT1        |                            |                            |
| DDX23       |                            |                            |

|            |                            |                            |
|------------|----------------------------|----------------------------|
| C5ORF4     |                            |                            |
| SPARC      |                            |                            |
| ATOX1      |                            |                            |
| CD74       |                            |                            |
| SQSTM1     |                            |                            |
| CCNG1      | CCTTTCCTTATTTTGCAATTTATCAT | TTGAGCAATTATTTGTAAAAAGGTG  |
| PKM2       |                            |                            |
| MYH9       |                            |                            |
| ETF1       |                            |                            |
| LURP-1     |                            |                            |
| MGP        |                            |                            |
| PRPSAP1    |                            |                            |
| SFRS2      |                            |                            |
| C17ORF28   |                            |                            |
| RAB37      |                            |                            |
| XYLT2      |                            |                            |
| APOH       | TCATCCAGGAATATTCTAAAAATGAA | CCTCAGACAATAAGCAAAGTACTGAC |
| DDX5       |                            |                            |
| ETG990     |                            |                            |
| GNA13      |                            |                            |
| PRKAR1A    | AGGCCACCTTTAGTGAATATATCAAG | AGGACAATCTAGAACAAATGGAAAAC |
| KCNJ16     | AACTGCTGCTAAGACTGCAAATC    | GGAATAATCAACACAACTAGTCTCCA |
| SOX9       |                            |                            |
| SSTR2      |                            |                            |
| RPL38      |                            |                            |
| ARHGDIA    |                            |                            |
| CYP4F22    |                            |                            |
| E13G1      |                            |                            |
| PBX1       |                            |                            |
| THOC4      |                            |                            |
| ZNF248     |                            |                            |
| ZNF717     |                            |                            |
| P4HB       |                            |                            |
| PKN2       | CAGGACATGTTTAAGGAGTTTGATTA | CATCTGAAGTAGGAAATGCTGATTTA |
| ASF1A      | GATTGCATGTAATTCAAAGAATATGG | TATCTGTAGCTCCATGAACACTACCT |
| ASF1B      |                            |                            |
| E12C8      |                            |                            |
| PGLS       |                            |                            |
| C19ORF43   |                            |                            |
| JUNB       |                            |                            |
| TYK2       | CTTTTCACGAGAAATATAAGGCTCAG | GATATTATGGCAGGGTCAGGTTTAT  |
| C19ORF52   |                            |                            |
| DNM2       |                            |                            |
| ELOF1      | AGTGGATGTGTACAGTGATTGGATAG | CAAAGTGAGGTTCAATTCTCTTTTAC |
| FARSA      | ATGATCAAATATGGCATCAACAAC   | ATCCCGCAGAATAAATAAATAATGTC |
| GADD45GIP1 |                            |                            |
| E14C7      |                            |                            |
| KHSRP      |                            |                            |
| C19ORF53   |                            |                            |

|           |                             |                            |
|-----------|-----------------------------|----------------------------|
| E12A1     |                             |                            |
| E15G10    |                             |                            |
| E14G3     |                             |                            |
| ANAPC7    | GTGATTTGGAGGGAAGTGACAGT     | GCAAAAGTAATTGGGTACAGAAAAAT |
| RAB35     |                             |                            |
| DYNLL1    | AAACATTTCAATTTATTTCTACCTGGG | TAAGCTTTCCTCAAGATCTTTACAGC |
| SFRS9     |                             |                            |
| DDT       |                             |                            |
| MIF       |                             |                            |
| E14A8     |                             |                            |
| FBXW8     |                             |                            |
| XBP1      |                             |                            |
| PPIF      |                             |                            |
| SLC20A1   |                             |                            |
| PGAM2     |                             |                            |
| E15E3     |                             |                            |
| MYL7      | TTGACTACAAGTCACTGTGTTACATT  | ATGGTTCCTGATACCAACATTTTTA  |
| OGDH      | AGACCATACAACCTTTAAATAAACCCG | AGTTAAGCATTATAGTAGCAGCAGA  |
| TIA1      | TGTAATGTTTAAGGTCCTTGTTTGAA  | ACAAAATGAAAAGAATACCCCTTGAG |
| E16A5     |                             |                            |
| AP2M1     | ATTGGCAGGAGTGGGATCTAC       | CTTCCCTCACTAAAGGAGAAACAT   |
| E12E10    |                             |                            |
| E16C3     |                             |                            |
| EIF4G1    |                             |                            |
| EIF5A     |                             |                            |
| E13E8     |                             |                            |
| LAMP3     | GTTGCAGTTGGACTTACAGTAGTCAT  | CTAAGTTTCATTGAGGGTAGAAAAGG |
| LOC563358 |                             |                            |
| PDCD10    |                             |                            |
| PRPF6     |                             |                            |
| KPNA4     | AGGGTTCCAATTTTAGGAAGATTTTT  | TCCTATTCTCTTATGCTTACAAGGCT |
| RARRES1   |                             |                            |
| VWA5A     |                             |                            |
| SCLY      | CTTATCATCAAAGACCTGAAGCAAG   | GGAAGTACTGCAAACTATTACCACA  |
| E14C4     |                             |                            |
| E14G7     |                             |                            |
| HDLBP     |                             |                            |
| HSD17B8   |                             |                            |
| CIRBP_b   |                             |                            |
| E54E6     |                             |                            |
| BOLA3     |                             |                            |
| PDLIM2    | CATGTACTGTGAAAAGCATGCAC     | GACATCCCCTGGCAGATCC        |
| ENTPD4    |                             |                            |
| SFRP1     |                             |                            |
| E14E1     |                             |                            |
| PHB2      |                             |                            |
| AKAP7     |                             |                            |
| EGLN1     |                             |                            |
| MAL       |                             |                            |

|          |                            |                             |
|----------|----------------------------|-----------------------------|
| MALL     |                            |                             |
| TCP1     |                            |                             |
| BTG1_b   |                            |                             |
| CTGF     |                            |                             |
| ZUFSP    |                            |                             |
| FABP7    |                            |                             |
| KIAA0776 |                            |                             |
| ZNF292   |                            |                             |
| CIRBP_c  |                            |                             |
| COX7A2   |                            |                             |
| COL12A1  |                            |                             |
| TMEM14A  |                            |                             |
| PXDN     |                            |                             |
| PDIA6    |                            |                             |
| ID2      |                            |                             |
| PQLC3    |                            |                             |
| YWHAQ    |                            |                             |
| RHOB     | CTCAGGACACACAAAAGACTAAAGAG | ATTGCACATAGAGGAGGAATGGT     |
| SDC1     |                            |                             |
| CTSB     |                            |                             |
| IRGC     | ACAGAGGTTGTCGTCTTCAGTAACTA | CAACAAATATTAATTTGCAAGATGCT  |
| PGAM2_b  |                            |                             |
| GPN1     |                            |                             |
| ZNF649   | ACGTGATTTTGCTTAATAGTAGGGTT | AAACATTGTAGTTCTTCAAAGATTGTT |
| LECT2    |                            |                             |
| CYC1     |                            |                             |
| E48C10   |                            |                             |
| EPPK1    |                            |                             |
| PSCA     |                            |                             |
| PUF60    |                            |                             |
| VPS28    |                            |                             |
| PRKRIP1  |                            |                             |
| MYC      |                            |                             |
| NDUFB9   |                            |                             |
| RNF19A   |                            |                             |
| PABPC1   |                            |                             |
| UQCRB    |                            |                             |
| RBM12B   |                            |                             |
| CA2      | TTAAGTAAAGTAGGCCTGCCATAAAG | TAATCATTCATACCAGGTGAATCCTA  |
| NBN      |                            |                             |
| MRPS28   |                            |                             |
| E15A2    |                            |                             |
| NUP37    |                            |                             |
| RIOK3    |                            |                             |
| YES1     |                            |                             |
| MYL12B   |                            |                             |
| CNDP1    | ACAATTACTTGAAAGGCACAAAATA  | GGAAAGAGAAATGGTGTGTATGTTA   |
| CYB5A    | GTTTGTACATGGGTGAAGAGTAAGTC | TTAAACAAAGTGTTTGCAAGGTAGAG  |
| CHMP5    | CATTACCAACTTGTTTCATATCCTTG | ACCTCTTTTAACGTCTTGTGAAAAAT  |

|                          |                            |                             |
|--------------------------|----------------------------|-----------------------------|
| MYO10                    |                            |                             |
| BASP1                    |                            |                             |
| DAP                      | AGAAGCCACACCCAAGTGTAGA     | ATTCAACAAGGATTTATTGCGAAAG   |
| KDSR                     |                            |                             |
| VPS4B                    |                            |                             |
| ACOT13                   |                            |                             |
| JARID2                   |                            |                             |
| SERPINB6                 |                            |                             |
| TXNDC5                   |                            |                             |
| LYRM4                    |                            |                             |
| E15A11                   |                            |                             |
| KBTBD2                   |                            |                             |
| LOC420992                |                            |                             |
| TMSB15A                  | AGGAACTTCTCTGCTTTATTCTGCT  | TATAATTCAATTCTGCACAAAGAACA  |
| LOC792995                |                            |                             |
| E17E10                   |                            |                             |
| FAM162A                  |                            |                             |
| TAF9                     |                            |                             |
| FHL1                     |                            |                             |
| SOX3                     |                            |                             |
| HMGB3                    |                            |                             |
| VMA21                    | GATTAAACTTTTCCAGATTCTCTTGC | GTTGTCCACAAAAAGTAGGTTTCAGTA |
| IDH2                     |                            |                             |
| MFAP1                    |                            |                             |
| IQGAP1                   |                            |                             |
| CLPX                     |                            |                             |
| GATM                     |                            |                             |
| MCEE                     |                            |                             |
| MAPK6                    |                            |                             |
| LARP6                    |                            |                             |
| SFTPC                    | ATATGAATATCGTGTGATTAACGGAA | CATTGTACAGATACTTCCCTGTTCTT  |
| NPTN                     | TTCATTGAACTATTTGCTTCCTTATG | AAGGCTGATGTAAGGAGTTTATGAAT  |
| CONTIG22977              |                            |                             |
| ISL2                     |                            |                             |
| LIPC                     |                            |                             |
| HAPLN3                   |                            |                             |
| ABHD2                    | GATTCCTCAGAGGCTGAATATGAGT  | GTGCACTTCAATCTGTTGCTTTATAC  |
| RHCG                     |                            |                             |
| MEX_NOHITS_2369_CONTIG_1 |                            |                             |
| RAB11A                   | TGCGTAATGTTTCTTACTACCACACT | GACAGTTTGACAACAATGAGTTTCTT  |
| TLE3                     | GATCGAAATCCACTCTAACCATTTAC | GATAGACAGACTTTACATTCCCTGCAC |
| PHLDA2                   |                            |                             |
| ATHL1                    |                            |                             |
| LOC644003                | AAATATGTATTCTGGGAAAAGAATGG | ACGTGCAGCATATAGAAAATACAAAG  |
| MUC5AC                   |                            |                             |
| TNNI2                    |                            |                             |
| CD81                     |                            |                             |
| FTH1                     |                            |                             |
| C11ORF58                 |                            |                             |

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|-------------------|--------------------------|----------------------------|
| RRAS2             |                          |                            |
| SBF2              |                          |                            |
| SPON1             |                          |                            |
| PAX6              |                          |                            |
| CCND1             |                          |                            |
| CD59              |                          |                            |
| ANXA2             |                          |                            |
| LOC100091509      |                          |                            |
| E15E9             |                          |                            |
| SERINC2           |                          |                            |
| TRNAU1AP          |                          |                            |
| CTSL2             | GAACGATGGTTATGTTCTCATGTC | AGCCTAGACATTACTATTGAAGCAAA |
| RCC1              | AGAATCGTTTGGTCCTGTCTGT   | ATACTGAACGATTCATCCCAAAAAG  |
| T_                |                          |                            |
| SH3BGRL3          |                          |                            |
| GRHL3             |                          |                            |
| E12G12            |                          |                            |
| M_NOHITS_886_CTG2 |                          |                            |
| STMN1             |                          |                            |
| ZNF593            |                          |                            |
| E15A6             |                          |                            |
| RRAGC             |                          |                            |
| SF3A3             |                          |                            |
| GNL2              |                          |                            |
| TRAPPC3           |                          |                            |
| ZNF706            |                          |                            |
| E14C3             |                          |                            |
| E16C8             |                          |                            |
| GJB5              |                          |                            |
| E13G11            |                          |                            |
| KHDRBS1           |                          |                            |
| KPNA6             |                          |                            |
| SFRS1             |                          |                            |
| YARS              |                          |                            |
| RAB6A             |                          |                            |
| DNAJB13           |                          |                            |
| LIPT2             |                          |                            |
| SPCS2             |                          |                            |
| STARD10           |                          |                            |
| THRSP             |                          |                            |
| SYTL2             |                          |                            |
| UBL3              |                          |                            |
| POSTN             |                          |                            |
| E12G3             |                          |                            |
| C13ORF31          |                          |                            |
| GTF2F2            |                          |                            |
| ITM2B             |                          |                            |
| LCP1              |                          |                            |
| RB1               |                          |                            |

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|--------------------------|----------------------------|----------------------------|
| RAB33B                   |                            |                            |
| LMO7                     |                            |                            |
| PICK1                    |                            |                            |
| GPR143                   |                            |                            |
| RPL24                    |                            |                            |
| THOC4_a                  |                            |                            |
| COL8A1                   |                            |                            |
| EIF1AX                   |                            |                            |
| TM9SF2                   |                            |                            |
| COL4A2                   |                            |                            |
| ABHD13                   | CTATACAAATTCCAAGATGTGTTGCT | AGTAAATGACAGTTGGAGAATAACCC |
| MID1IP1                  |                            |                            |
| BLZF1                    | ATTTCAAACATTGCTGATAGAAGTTG | CCTGCTAGGAGAAATTAAGCATAAC  |
| DPT                      |                            |                            |
| SOD1                     |                            |                            |
| TIAM1                    |                            |                            |
| ALCAM                    |                            |                            |
| ATP5O                    |                            |                            |
| RCAN1                    |                            |                            |
| CD247                    |                            |                            |
| UPK1B                    |                            |                            |
| FSTL1                    |                            |                            |
| CCDC58                   |                            |                            |
| MAN1A2                   |                            |                            |
| LOC643604                |                            |                            |
| TPM2                     |                            |                            |
| DNAJB5                   | CTACCTTCTTCTTAGAACTGCCTCAG | ACTACAGTCCTATGAAACATGGTCAC |
| IER3IP1                  |                            |                            |
| SMAD2                    |                            |                            |
| ID3                      |                            |                            |
| ATP8B1                   |                            |                            |
| ZFR                      | TGATAGCTCTTAAAAGAAACCAGACA | GTAGCTCAAATCCATGACAGTAAGA  |
| MEX_NOHITS_2377_CONTIG_1 |                            |                            |
| MEX_NOHITS_2354_CONTIG_1 |                            |                            |
| SEPP1                    |                            |                            |
| CONTIG95328              |                            |                            |
| PRKAA1                   |                            |                            |
| GPX8                     |                            |                            |
| SCAMP1                   |                            |                            |
| HMGCR                    | GTCAAAAGTAAACCTACAAAGCTTCC | AATAACCACTTTAAGCAGAACCAAGT |
| MEX_NOHITS_906_CONTIG_1  |                            |                            |
| OCLN                     | GACTATCGGAATAAAAGGAAACACTG | GAGTGTTGCAAAAGTCAAGTATGTTT |
| VCAN                     |                            |                            |
| E11G8                    |                            |                            |
| TNFAIP8                  |                            |                            |
| E14E6                    |                            |                            |
| E14C5                    |                            |                            |
| ANXA1                    | TGAAACCAAAGGTGATTATGAAACTA | CAGCTATGACATATAGGCAAGAATGT |
| HNRNPK                   |                            |                            |

|           |                             |                            |
|-----------|-----------------------------|----------------------------|
| FAM108B1  |                             |                            |
| HSPA8     |                             |                            |
| APLP2     |                             |                            |
| E14E10    |                             |                            |
| NNMT      |                             |                            |
| LOC566020 |                             |                            |
| ARCN1     |                             |                            |
| FXVD2     |                             |                            |
| PAFAH1B2  |                             |                            |
| MNT       |                             |                            |
| E11G11    |                             |                            |
| E12A11    |                             |                            |
| AATF      |                             |                            |
| ATP2A3    |                             |                            |
| BAZ1B     | GCGAAAGAATAAGAAATGAAGAGACT  | GAAGAATATAACTATGCCTTTCTGCC |
| E16C7     |                             |                            |
| C7ORF42   |                             |                            |
| GBAS      |                             |                            |
| MKS1      |                             |                            |
| POR       |                             |                            |
| MED31     | CTATTTTCATCTGAGTACCGTTGAATG | TAATGTAGAACTAAATGGCATCcTTC |
| CLTC      |                             |                            |
| DOC2B     |                             |                            |
| MED13     |                             |                            |
| PRR11     |                             |                            |
| E11G4     |                             |                            |
| E17C12    |                             |                            |
| CFLAR     | TTACTCACTGCTACTACAGCACACAC  | AGGTTAAAAGCTCAGATCAATCAAAT |
| STAT1     |                             |                            |
| TOMM20    |                             |                            |
| TRA2B     |                             |                            |
| DNAJB11   |                             |                            |
| ZC3H15    |                             |                            |
| SUMO3     | AAGATGAGGATACCATTGATGTGTT   | GCAGAGAAATAATATTGGTTTTAGCA |
| E54C11    |                             |                            |
| STT3B_a   |                             |                            |
| FN1       |                             |                            |
| E12G1     |                             |                            |
| E12G7     |                             |                            |
| NDUFA10   |                             |                            |
| UGT1A1    | CTGAACTGGGTCCAGTACCACT      | ATTTCTGGACTTTGTTCTATTTTCCC |
| COL6A1    | TCAAACAATCTCTAGAAAGATGTCACT | TATGGTGACCACTAATGAGACTTATG |
| E13E6     |                             |                            |
| ATP5G3    |                             |                            |
| HOXD8     |                             |                            |
| HOXD11    |                             |                            |
| E13A7     |                             |                            |
| SCRN3     | TTTTACAGAACAAGAATTATGACGCT  | CATGCAGAAATAAGTGCTGATAAAAT |
| GCA       |                             |                            |

|             |                            |                             |
|-------------|----------------------------|-----------------------------|
| RND3        |                            |                             |
| HNMT        |                            |                             |
| R3HDM1      |                            |                             |
| SNX4        |                            |                             |
| E14A3       |                            |                             |
| NNMT_a      |                            |                             |
| ZNF142      |                            |                             |
| ACCN4       |                            |                             |
| E19A7       |                            |                             |
| CYP27B1     |                            |                             |
| SLC37A3     |                            |                             |
| FBXO7       |                            |                             |
| CARDIAC-RNA |                            |                             |
| E54G12      |                            |                             |
| MTPN        | GTGGACCTCCTAGAGGTTTACTTAGA | GTAGACTTACTGAAAAGCAGCAAGGT  |
| IL17RA      |                            |                             |
| FBXL14      | ACTGGACTCTATGTAGACTCAGCCC  | CTCTTCTTTTAAATACACGTTAGCCC  |
| WNT5B       |                            |                             |
| E17C9       |                            |                             |
| NTF3        |                            |                             |
| TMEM19      | TTTCTTCTATTCTTGTTGCTCTGGTA | AAAGACAAAGTGACTGCAGTAAAAGA  |
| UPK3B       |                            |                             |
| TWF1        | GACTTTGGTACTCCAGAACTGAATAA | ACCAGAAAGTATAAATATGGTCCAGC  |
| HIST1H2AG   | CTTTATAACTAGGCCATCCAAATGTT | ATAAGTCATGATATAGTGGCATCCAA  |
| HIST1H1E    |                            |                             |
| E12A4       |                            |                             |
| CDK2AP2     |                            |                             |
| UBE2L3      | ACCTGGCAGAGGAATACTCCAAG    | AGTGTACAGTTCCAACAAGTAGAACC  |
| C11ORF31    |                            |                             |
| CTNND1      |                            |                             |
| FTSJ3       |                            |                             |
| TMX2        |                            |                             |
| CTSK        |                            |                             |
| E17C5       |                            |                             |
| E17C6       |                            |                             |
| FLJ36031    |                            |                             |
| LUM         | AGAATTAAACATTTGCGTCTGGAT   | GTTGATTTACTTGTgGTTAACCCCTCT |
| PIM3        | GTGAAGTCTGAAGACTGTGACCTTAG | CTTGCTTAAATAAAAGGTCAGTCTTG  |
| PAWR        | GATGAAAATGAACAACTAAAACAGGA | GACGAAAATCAATGTCCATTCTACTA  |
| KITLG       |                            |                             |
| TIGRINUM-UV |                            |                             |
| CALU        |                            |                             |
| E15C7       |                            |                             |
| LEP         |                            |                             |
| IMPDH1      |                            |                             |
| SND1        |                            |                             |
| COPG2       |                            |                             |
| TUBA1A      | GAGGAAGATGAGGATGAGTTTTAAGT | GAAGAGCTTAAATCAGCCAACAAT    |
| RAP1B       |                            |                             |

|          |                            |                             |
|----------|----------------------------|-----------------------------|
| TMEM5    |                            |                             |
| XRCC6BP1 |                            |                             |
| ACADSB   |                            |                             |
| EIF3A    |                            |                             |
| ABLIM1   |                            |                             |
| TRIM8    | TTTCAAATTCGAACAAAACTAAAGTG | GCATACTCAAATCAACAAAGGAAGTA  |
| COX15    |                            |                             |
| ATP5B    |                            |                             |
| ANKRD1   |                            |                             |
| DNTT     |                            |                             |
| HIGD1A   |                            |                             |
| CISD1    |                            |                             |
| SGMS1    |                            |                             |
| E16E2    |                            |                             |
| MFAP2    |                            |                             |
| SS18L2   |                            |                             |
| UBR4     |                            |                             |
| SFTPD    |                            |                             |
| AP3M1    |                            |                             |
| E15C8    |                            |                             |
| VDAC2    |                            |                             |
| ERRFI1   |                            |                             |
| HSPG2    |                            |                             |
| CDC42    | ACATTAAAAGCAATGTTTAAAGCAAA | TAGGACATGTTTGTAGCACAAGTACA  |
| C1QB     |                            |                             |
| PCBD1    |                            |                             |
| C10ORF54 |                            |                             |
| PSAP     |                            |                             |
| H2AFY2   |                            |                             |
| DDX21    |                            |                             |
| KIAA0913 |                            |                             |
| MYOZ1    |                            |                             |
| CCDC109A |                            |                             |
| EIF4EBP2 |                            |                             |
| SAR1A    |                            |                             |
| CAMTA1   | AAAATTGTGACCATTCACTTTTGATA | CGTTGCAATATGAGTAAAAACAGACT  |
| RPL37A   |                            |                             |
| CALM1_b  |                            |                             |
| SLC4A5   |                            |                             |
| DCTN6    |                            |                             |
| PTPN9    | CCAAACTTGGGACCAATATTACTTT  | AAAAGCGTAACTTCAAGTCTTTCATT  |
| SFRS2_a  | GAGGAAGTTACGGACGTAGGAGT    | GTCAACGAAATGTTACAAATAACCAC  |
| C9ORF156 |                            |                             |
| CLTA     |                            |                             |
| KLHL8    |                            |                             |
| ENO3_a   |                            |                             |
| MMRN1    | GTTATATCGCACATAAGGTCAGAAGA | CTCTTGCAATTAGAAGCATGTATCATT |
| C4ORF16  |                            |                             |
| HSDL2    |                            |                             |

|                          |                             |                             |
|--------------------------|-----------------------------|-----------------------------|
| H2AFZ                    | GATTGGCTGGCTATAAAACAATC     | AAAAAGCAAGGACGAAGATAAGC     |
| KLF4                     |                             |                             |
| RAD23B                   | GAAGGACTTGTTATTCAGGCATATTT  | CTTCTCAGAGTTCCAGCCCTC       |
| SCOC                     | ATATATTGAAAACTTAATGTCGGCCT  | ATTACTGGTTTCATTTTTCTACCACC  |
| LARP7                    |                             |                             |
| TBCKL                    | GTTACCCAAGAATCTGTATACTGGAC  | TCAACCCTATATAAAGTCGGTGTACT  |
| NDUFC1                   |                             |                             |
| ARFIP1                   |                             |                             |
| PDGFC                    | ACAAATCATTGACGGATGTTCTTCT   | ACACTTTAAGCATCATGATACAATCC  |
| CHDH                     |                             |                             |
| TMEM165                  |                             |                             |
| KIT                      |                             |                             |
| PDGFRA                   |                             |                             |
| CNGA1                    | GTCACGAAAATTGAGAAAATGATAAC  | GCAGTTTCATCTGTAAAATCATCAAT  |
| SLC2A9                   |                             |                             |
| WDR1                     |                             |                             |
| C20ORF27                 |                             |                             |
| CDC25A                   |                             |                             |
| E15C10                   |                             |                             |
| KAZALD1                  |                             |                             |
| MEX_NOHITS_2379_CONTIG_1 |                             |                             |
| MGC97528                 |                             |                             |
| KCTD3                    |                             |                             |
| PYGO2                    |                             |                             |
| EPHX1                    |                             |                             |
| GTPBP2                   | AAGCTACTGTTTCAGAGAAGGAGTCAC | AAAACATGCTCAGTTCTTTTTATGC   |
| TMEM63B                  |                             |                             |
| HSP90AB1                 | AAAGGCTGACTCCTGTTATAGTGTTT  | AAAAATTGCAACAAATACAACCTTCTG |
| C6ORF226                 |                             |                             |
| RPS6                     |                             |                             |
| CCDC127                  |                             |                             |
| ARRB1                    |                             |                             |
| SFTPD_b                  |                             |                             |
| COX7B                    |                             |                             |
| SSR2_b                   |                             |                             |
| E15G1                    |                             |                             |
| AP4S1                    |                             |                             |
| EAPP                     |                             |                             |
| THBS1                    |                             |                             |
| ACTC1                    |                             |                             |
| ERH                      |                             |                             |
| CHURC1                   |                             |                             |
| SFRS4-like               |                             |                             |
| TRMT5                    |                             |                             |
| ARF6                     | ATGGCTAACTTCCAACACAAATCTT   | GATTTTTCTTTAAAATAAGCACCTCC  |
| MAP4K5                   | GAGCAGACCAACAGATAACCCTAC    | AGGGAACACTTCTCTCTTAGCTTTTA  |
| RPS29                    |                             |                             |
| NID2                     |                             |                             |
| C14ORF129                | TTCATCACATTCTACTTCACAAATCA  | CTAGGCAAGCAAGCTTTCTAATAGTT  |

|                          |                            |                            |
|--------------------------|----------------------------|----------------------------|
| CNIH                     |                            |                            |
| FERMT2                   | ATGAAAGCTTAGACGAAGAGATGTTT | GAAAAGTTATAACAAATGGCTTGGAT |
| NPC2                     |                            |                            |
| FCF1                     |                            |                            |
| LGMN                     |                            |                            |
| WARS                     |                            |                            |
| AHSA1                    |                            |                            |
| UBR7                     |                            |                            |
| CDC42BPB                 | CATAGGAATCAGCTAACACTGGATG  | TTGAATCCATTGTAGAAGAGAATTTG |
| PPP1R13B                 |                            |                            |
| E16C9                    |                            |                            |
| COL1A1                   |                            |                            |
| DLX3                     |                            |                            |
| LSM6                     |                            |                            |
| PHB                      |                            |                            |
| ARF1_a                   |                            |                            |
| CCDC56                   | AAGAGAAGTTCCTAGATGAGTTGGAG | TGAAGAGAGAACTCAAAGTGTCTGAT |
| CONTIG81034              |                            |                            |
| PSME3                    |                            |                            |
| NSF                      |                            |                            |
| E15G4                    |                            |                            |
| MAPT                     |                            |                            |
| CRHR1                    |                            |                            |
| GH1                      |                            |                            |
| E17E11                   |                            |                            |
| PCK2                     |                            |                            |
| MDP1                     |                            |                            |
| TGM1                     |                            |                            |
| HIST2H3A                 |                            |                            |
| SDR39U1                  |                            |                            |
| TMEM85                   |                            |                            |
| TCELL                    |                            |                            |
| NDRG2                    |                            |                            |
| RABIF                    |                            |                            |
| TMEM183A                 |                            |                            |
| CSRP1                    |                            |                            |
| E15A9                    |                            |                            |
| NAV1                     | ATGCTGCTGAAACTGCAAGAG      | CACCAGGTTTGCCTCATTTG       |
| RPLP2                    |                            |                            |
| SRPK1                    |                            |                            |
| TMEM167B                 |                            |                            |
| E17C3                    |                            |                            |
| TAF11                    |                            |                            |
| MEX_NOHITS_2397_CONTIG_1 |                            |                            |
| RPL10A                   |                            |                            |
| CAPZA1                   |                            |                            |
| CYP2A13                  |                            |                            |
| RHOA_b                   |                            |                            |
| RAB7L1                   | TATCTGGTAACGGTGACTACATCAAT | ATCATTCAAGCAGTTTAAATATGCAG |

|              |                            |                             |
|--------------|----------------------------|-----------------------------|
| SNRPE        |                            |                             |
| TAF8         |                            |                             |
| CTGF_a       |                            |                             |
| TPRG1L       |                            |                             |
| GNB1         |                            |                             |
| LOC100224741 |                            |                             |
| MAD2L2       |                            |                             |
| TARDBP       |                            |                             |
| E11E11       |                            |                             |
| NPDC1        |                            |                             |
| COBRA1       |                            |                             |
| TNC          |                            |                             |
| WDR5         |                            |                             |
| NOTCH1       |                            |                             |
| APEX1        |                            |                             |
| LHX2         | GACTGTGACCTCCGTCTTGA       | CTTGCTCAGTCCACAAAAGTGA      |
| C9ORF78      |                            |                             |
| C9ORF16      |                            |                             |
| TOR1A        |                            |                             |
| FKBP10       |                            |                             |
| KRT24        |                            |                             |
| EIF1         |                            |                             |
| KRT12        | AGTCGTCGACGGCAAAGTG        | TTTGTTCAAGTTTTCAACATTTTCTTC |
| KRT17        |                            |                             |
| LOC100016027 |                            |                             |
| RARA         |                            |                             |
| HOXB13       |                            |                             |
| SNF8         | CAAGAGAACATGGACATAGACTCTGA | CACTCGTCTTAATCCAGAAACTATCA  |
| NFE2L1       | ACTATGCTCTACAATATGCCAATGAT | ATACGATTCCCACACCAACTTAGTA   |
| RPL19        |                            |                             |
| MED1         |                            |                             |
| KEAP1        |                            |                             |
| G2G13        |                            |                             |
| MED24        |                            |                             |
| THRA         |                            |                             |
| SFRS3        |                            |                             |
| MEX_NH_165   |                            |                             |
| TCF19        |                            |                             |
| MR1          |                            |                             |

| Gene ID  | Marker2 Genotyping Method                 |
|----------|-------------------------------------------|
| SPEN     |                                           |
| SPAG7    |                                           |
| ENO3     | PE - AGGGTATGGCCTACTGGCAAGG (G/A)         |
| PCOLCE2  |                                           |
| PSMB6    |                                           |
| EIF4A1   |                                           |
| E16A9    |                                           |
| CLDN7    |                                           |
| CIRBP    | PE - CGTACCTGTTTGTITTTTTTCCATGCATT (G/A)  |
| CNN2     |                                           |
| E12E2    |                                           |
| GPX4     |                                           |
| SLC39A3  |                                           |
| BSG      |                                           |
| CDC34    |                                           |
| PRTN3    |                                           |
| SFRS14   | PE - CTTTAGCAGTTGATGTTTTATATTTGTGTT (A/G) |
| NDUFA13  |                                           |
| USE1     |                                           |
| UHRF1    |                                           |
| E17C2    |                                           |
| EEF2     | PE - GGGCACGCAAGGTGCCGT (C/A)             |
| MYO1F    |                                           |
| NDUFA11  |                                           |
| BTBD2    | PE - AAGTCTTGACAAAGTTAATTCGGGTTTGCC (G/A) |
| OAZ1     |                                           |
| LSM7     |                                           |
| MAPRE1   |                                           |
| SAFB     | PE - ACTTACTACCCGGTGCCCTGAAGTATTCGY (G/A) |
| ATP5E    |                                           |
| MCL1     |                                           |
| ERO1L    |                                           |
| IFIH1    |                                           |
| KRTCAP2  |                                           |
| C1ORF230 |                                           |
| PRG4     |                                           |
| S100A11  |                                           |
| S100A13  |                                           |
| S100A4   |                                           |
| E12E11   |                                           |
| TPM3     |                                           |
| RPS27    |                                           |
| ANP32E   |                                           |
| TXNIP    |                                           |
| SSR2     |                                           |

|           |                                          |
|-----------|------------------------------------------|
| DYNC1LI2  |                                          |
| ATP6V0D1  |                                          |
| TPPP3     |                                          |
| HDGF      |                                          |
| NUTF2     |                                          |
| UFC1      |                                          |
| TMEM188   |                                          |
| LUC7L3    |                                          |
| PSMD11    |                                          |
| U2AF1_b   |                                          |
| FXYD3     |                                          |
| E12C7     |                                          |
| COX6B1    |                                          |
| POLR2L    |                                          |
| NUCB1     |                                          |
| FTH1_b    |                                          |
| FTL       |                                          |
| KRTAP10-1 |                                          |
| LOC733905 |                                          |
| CD163L1   |                                          |
| SACS      |                                          |
| GPI       |                                          |
| ITLN1     |                                          |
| GABARAPL2 |                                          |
| HNRNPK_b  |                                          |
| NQO1      |                                          |
| VPS4A     |                                          |
| APRT      | PE - CCTACTACACCATTCCCCATTGACCATTG (C/A) |
| CA5B      |                                          |
| MAP1LC3B  |                                          |
| GMDS      |                                          |
| TEAD4     |                                          |
| E24A11    |                                          |
| E12A2     |                                          |
| E13E7     |                                          |
| LIG1      |                                          |
| MOCS3     |                                          |
| SFRS7     |                                          |
| LOC769550 |                                          |
| MMP2      |                                          |
| NUDT21    |                                          |
| ETHE1     |                                          |
| SODEFRIN  |                                          |
| RABAC1    |                                          |
| MC1R      |                                          |
| MGST3     |                                          |
| APOE      |                                          |
| PRDX6     |                                          |
| FMO3      |                                          |

|          |                                           |
|----------|-------------------------------------------|
| ARPC5    |                                           |
| NCF2     |                                           |
| RGS2     |                                           |
| GLUL     |                                           |
| CLCA2    |                                           |
| RGS5     |                                           |
| COL11A1  |                                           |
| IFI44L   |                                           |
| GNG5     |                                           |
| SEPT10_b | TGCGE                                     |
| E12G5    |                                           |
| E17G11   |                                           |
| FPGT     | PE - CCTTTAATACTTTAACAAATGCCTTTCTGA (C/T) |
| GPR177   |                                           |
| LEPROT   |                                           |
| USP1     | ALA                                       |
| PSMA4    |                                           |
| C8A      |                                           |
| TMEM59   |                                           |
| SLC1A7   |                                           |
| SCP2     |                                           |
| EPS15    | PE - ACTGTCAAATGTATGTACTTTTGAAACCAT (T/G) |
| TXNDC12  |                                           |
| KIAA0494 |                                           |
| FAAH     |                                           |
| E17G7    |                                           |
| PRDX1    |                                           |
| DAZL     |                                           |
| TMLHE    |                                           |
| THRB     |                                           |
| STT3B    |                                           |
| SH3BP5   |                                           |
| C7ORF41  | TGCGE                                     |
| E12C2    |                                           |
| NGLY1    |                                           |
| VWDE     |                                           |
| COL1A2   |                                           |
| UHRF2    |                                           |
| NMT2     | PE - TTGTAAGTGGTGGATTCCTCTAACTC (G/A)     |
| VIM      |                                           |
| EIF1B    | PE - GCTTGTCTAGCCACTTGAAGTGTCAT (G/A)     |
| IGF2BP3  |                                           |
| TOMM7    |                                           |
| KIF15    |                                           |
| E54A6    |                                           |
| HOXA4    |                                           |
| HOXA9    |                                           |
| CBX3     |                                           |
| CYCS     |                                           |

|                    |                                          |
|--------------------|------------------------------------------|
| ABI2               |                                          |
| KIF5B              |                                          |
| CREM               | PE - ATGTGGACTTCGAGAAAGGACCTTTG (C/A)    |
| WDR60              |                                          |
| U2AF2              |                                          |
| HBZ                |                                          |
| HBA2               | PE - GAACTTGTCCAGCGAGCAGTGCA (T/C)       |
| HBG1               | ALA                                      |
| EIF3I              |                                          |
| KBTBD5             |                                          |
| CRHR2              |                                          |
| UQCRC2             |                                          |
| GNA12              |                                          |
| TIMM17B            |                                          |
| TIMP4              | PE - GATGTGTGCGCCACATGCAAAGG (G/C)       |
| DCTN5              |                                          |
| RBBP6              | PE - CCCCAAGCCAGAAAAGGTTAAGA (C/G)       |
| TNRC6A             |                                          |
| NARFL              |                                          |
| E17G8              |                                          |
| MSLNL              |                                          |
| SSTR5              |                                          |
| PDGFRA_b           |                                          |
| H3F3B_b            |                                          |
| UBE2I              |                                          |
| COQ7               |                                          |
| PDXDC1             |                                          |
| MYL3               |                                          |
| ARF1_b             |                                          |
| ABAT               |                                          |
| ATP6V0C            |                                          |
| HN1L               |                                          |
| MRPS34             |                                          |
| NME3               |                                          |
| C16ORF13           |                                          |
| HBA2_a             | PE - TATTTGCTAATCAAACAACGCATCACTGT (A/C) |
| HBD                |                                          |
| STUB1              |                                          |
| LOC440335          |                                          |
| AURKB              |                                          |
| C11ORF51           |                                          |
| CCM2               |                                          |
| M_NOHITS_397_CTG1  |                                          |
| KIF9               |                                          |
| NGFR               |                                          |
| SETD2              |                                          |
| DRG2               |                                          |
| M_NOHITS_5137_CTG1 |                                          |
| MAP2K3             |                                          |

|                   |                                            |
|-------------------|--------------------------------------------|
| MED9              |                                            |
| RAI1              |                                            |
| RASD1             |                                            |
| SHMT1             |                                            |
| PVALB             | PE - GGGGAAGGCACACAGTGATTTCTGA (T/C)       |
| RAC1              | PE - AGCACTAAAAGACATTATCTTCAAGAATGG (G/T)  |
| ACTG1             | PE - TCCTCTATTGCATTGCAGAACTTACGAA (T/A)    |
| ARPC1A            |                                            |
| M_NOHITS_899_CTG1 |                                            |
| UTS2R             |                                            |
| ACTB              | PE - GATTGAAAACCTGGAACCGAAAGAAGATAAA (A/G) |
| FOXK1             |                                            |
| BGN               | PE - CCTTCCCGTCTCAAGTGTATGTGCAC (G/A)      |
| E13G5             |                                            |
| RENBP             | PE - CCTTTCTTTCTTGAAATGCAGAATGTTTAA (C/T)  |
| TKTL2             | PE - TTGATCTAAAATTGCAAATGTCCCAAGATT (A/T)  |
| EEF1G             |                                            |
| SMC1A             |                                            |
| TTC9C             |                                            |
| ACTC1_a           |                                            |
| ADSS              | PE - GGAGAAGACGATCCAATCCC (C/T)            |
| CALM1             | PE - CCGTCCAGGGAAGAACAATTGCTCA (C/A)       |
| OTUB1             |                                            |
| PRDX5             |                                            |
| RBM4              |                                            |
| CAPN1             | ALA                                        |
| DPP3              |                                            |
| PYGM              | TGCGE                                      |
| TMED10            |                                            |
| FOXA3             |                                            |
| E14C12            |                                            |
| E16G10            |                                            |
| BANF1             | PE - GCCGCATTGAAGCATGGGATTCT (C/G)         |
| CFL1              | PE - GCCTGACCTTGCCTTAAAGGGTC (A/G)         |
| E23C10            |                                            |
| KCNK1             |                                            |
| PLCB3             |                                            |
| RBM4B             |                                            |
| SULT6B1           |                                            |
| E16E8             |                                            |
| UCRC              |                                            |
| CKM               |                                            |
| CLPTM1            |                                            |
| SNRPD2            |                                            |
| E17G3             |                                            |
| C22ORF32          |                                            |
| CYP2C19           | ALA                                        |
| E12E6             |                                            |
| CYP2F1            |                                            |

|                |                                           |
|----------------|-------------------------------------------|
| H3F3B_a        |                                           |
| CAPNS1         |                                           |
| SNAP23         |                                           |
| GMFG           |                                           |
| NCCRP1         |                                           |
| RHOA           | PE - CCGGTATGTCAATTGTGAATTATCACT (G/T)    |
| GNAT1          |                                           |
| TWF2           | PE - TGTCCATAACATTTCTACTTGAGAAGAAGG (G/C) |
| WFDC2          |                                           |
| CNBP           |                                           |
| BTG1_a         |                                           |
| FLNB           | TGCGE                                     |
| TKT            | PE - GCTTCGATGTTCTGCTTATTGCC (G/C)        |
| E12A3          |                                           |
| RHO            |                                           |
| LSM3           |                                           |
| SEC61A1        |                                           |
| RAB7A          | PE - AACTCTGTGGTACAAGCACGATGC (A/G)       |
| IP6K2          |                                           |
| PRKAR2A        | PE - TGTACCTCAATGCCTTCCTAGTTCAAG (T/A)    |
| ARPC4          | PE - AAGCTGCCTTGTCATGTCATACA (G/A)        |
| NISCH          |                                           |
| RPL29          |                                           |
| PBRM1          |                                           |
| SPCS1          |                                           |
| ZYX            |                                           |
| MYL6           |                                           |
| NANOG          |                                           |
| C3AR1          |                                           |
| GAPDH          |                                           |
| ING4           |                                           |
| FKBP1A         | PE - GTTACTTAACCTCTTCCCCACAGCTG (A/T)     |
| ASXL1          |                                           |
| E16A12         |                                           |
| GNAS           | PE - CTGTCGCTCAGCAGTGAGAAAAGTG (A/G)      |
| ADNP           |                                           |
| SNAI2          |                                           |
| TNNC2          |                                           |
| UBE2V1         |                                           |
| SULF2          |                                           |
| NCOA5          | PE - CTGATGTGCATCTGTATTCCTGACAGA (C/T)    |
| MMP2_a         |                                           |
| PDLIM7         |                                           |
| TMED9          |                                           |
| CTBP1          |                                           |
| RPUSD4         |                                           |
| TIG_NOHITS_253 |                                           |
| PROD1          |                                           |
| FUS            |                                           |

|             |                                           |
|-------------|-------------------------------------------|
| TRIM69      |                                           |
| VKORC1L1    |                                           |
| MVP         |                                           |
| NME1        | PE - GGGTCCCACACAGAAGGCCCTTAA (C/G)       |
| ALDOA       | PE - GGCTTGCCACCGGATTATTG (G/A)           |
| E11G12      |                                           |
| YPEL3       |                                           |
| BOLA2       |                                           |
| SULT1C4     |                                           |
| ATP2A1      |                                           |
| CONTIG13340 |                                           |
| E16E3       |                                           |
| E50G8       |                                           |
| NFS1        |                                           |
| MAP1LC3A    |                                           |
| C20ORF4     |                                           |
| MANBAL      |                                           |
| BNIP1       |                                           |
| UQCRQ       |                                           |
| CAMLG       |                                           |
| SKP1        |                                           |
| SMAD5       |                                           |
| SEPT10_a    |                                           |
| HNRNPA0     |                                           |
| E13E11      |                                           |
| HNRNPAB     |                                           |
| MATR3       |                                           |
| UBE2D2      |                                           |
| E12A5       |                                           |
| E14G1       |                                           |
| PHF5A       |                                           |
| POLR3H      |                                           |
| CSNK1E      |                                           |
| KDEL3       |                                           |
| TOM1        |                                           |
| HOXC10      |                                           |
| ATP5G2      | PE - AGAGAAACAGACGTCCCAACGGAT (T/G)       |
| E54A1       |                                           |
| NACA        |                                           |
| RARG        |                                           |
| KRT4        |                                           |
| KRT5        | PE - GTGCTGGCAATAAGCTTCCATCATACATAG (T/G) |
| OS9         |                                           |
| CD63        |                                           |
| OBFC2B      |                                           |
| RPS26       |                                           |
| RHEBL1      |                                           |
| WNT1        |                                           |
| DDX23       |                                           |

|            |                                           |
|------------|-------------------------------------------|
| C5ORF4     |                                           |
| SPARC      |                                           |
| ATOX1      |                                           |
| CD74       |                                           |
| SQSTM1     |                                           |
| CCNG1      | PE - TGTTTCATGCCCCATCTAGAGACTGCCT (A/T)   |
| PKM2       |                                           |
| MYH9       |                                           |
| ETF1       |                                           |
| LURP-1     |                                           |
| MGP        |                                           |
| PRPSAP1    |                                           |
| SFRS2      |                                           |
| C17ORF28   |                                           |
| RAB37      |                                           |
| XYLT2      |                                           |
| APOH       | ALA                                       |
| DDX5       |                                           |
| ETG990     |                                           |
| GNA13      |                                           |
| PRKAR1A    | PE - ATAAATCTGATTTACTGTATGTGGTAAATA (T/G) |
| KCNJ16     | PE - AATAAGTGTGGAGAACATAACACATTCACA (C/A) |
| SOX9       |                                           |
| SSTR2      |                                           |
| RPL38      |                                           |
| ARHGDIA    |                                           |
| CYP4F22    |                                           |
| E13G1      |                                           |
| PBX1       |                                           |
| THOC4      |                                           |
| ZNF248     |                                           |
| ZNF717     |                                           |
| P4HB       |                                           |
| PKN2       | PE - GTGGATGACAGGGGTTTGGGG (G/A)          |
| ASF1A      | PE - CAGCATTCTGGTAATGTGTGCCTA (A/C)       |
| ASF1B      |                                           |
| E12C8      |                                           |
| PGLS       |                                           |
| C19ORF43   |                                           |
| JUNB       |                                           |
| TYK2       | PE - TTTTAAGCTTTTTCCAAAGTTTCCAGAAGA (A/C) |
| C19ORF52   |                                           |
| DNM2       |                                           |
| ELOF1      | PE - GGCACATTCTAAGAAGCTGGTTTTCAAT (C/T)   |
| FARSA      | PE - GCCCATAGCTGCGAGCCCTCT (A/G)          |
| GADD45GIP1 |                                           |
| E14C7      |                                           |
| KHSRP      |                                           |
| C19ORF53   |                                           |

|           |                                           |
|-----------|-------------------------------------------|
| E12A1     |                                           |
| E15G10    |                                           |
| E14G3     |                                           |
| ANAPC7    | PE - GCTCCTCTGCACCGTTTCAG (A/G)           |
| RAB35     |                                           |
| DYNLL1    | PE - CCTGGGATGGGACATCGCATC (G/A)          |
| SFRS9     |                                           |
| DDT       |                                           |
| MIF       |                                           |
| E14A8     |                                           |
| FBXW8     |                                           |
| XBP1      |                                           |
| PPIF      |                                           |
| SLC20A1   |                                           |
| PGAM2     |                                           |
| E15E3     |                                           |
| MYL7      | PE - CAGTAGATGCAGACCGCAGTGTATAAT (C/T)    |
| OGDH      | PE - GTGAAATAGAGTTGTAGAAACAAGCGTGT (G/A)  |
| TIA1      | PE - CAGGGATGGCTGCCACTTGTA AAAAC (G/T)    |
| E16A5     |                                           |
| AP2M1     | PE - GTGGCCTTGCTGTCAAGTTTTTCAC (G/C)      |
| E12E10    |                                           |
| E16C3     |                                           |
| EIF4G1    |                                           |
| EIF5A     |                                           |
| E13E8     |                                           |
| LAMP3     | PE - CTATCATATCGCAACAAAATCTTCTTGACT (C/G) |
| LOC563358 |                                           |
| PDCD10    |                                           |
| PRPF6     |                                           |
| KPNA4     | PE - GCTTGATGAAAGAACTGCATTTTCCCC (C/A)    |
| RARRES1   |                                           |
| VWA5A     |                                           |
| SCLY      | ALA                                       |
| E14C4     |                                           |
| E14G7     |                                           |
| HDLBP     |                                           |
| HSD17B8   |                                           |
| CIRBP_b   |                                           |
| E54E6     |                                           |
| BOLA3     |                                           |
| PDLIM2    | PE - CCCTGCCCTGCACTCCTGA (G/T)            |
| ENTPD4    |                                           |
| SFRP1     |                                           |
| E14E1     |                                           |
| PHB2      |                                           |
| AKAP7     |                                           |
| EGLN1     |                                           |
| MAL       |                                           |

|          |                                           |
|----------|-------------------------------------------|
| MALL     |                                           |
| TCP1     |                                           |
| BTG1_b   |                                           |
| CTGF     |                                           |
| ZUFSP    |                                           |
| FABP7    |                                           |
| KIAA0776 |                                           |
| ZNF292   |                                           |
| CIRBP_c  |                                           |
| COX7A2   |                                           |
| COL12A1  |                                           |
| TMEM14A  |                                           |
| PXDN     |                                           |
| PDIA6    |                                           |
| ID2      |                                           |
| PQLC3    |                                           |
| YWHAQ    |                                           |
| RHOB     | PE - GGCCCTCATGCAGCAAGA (A/G)             |
| SDC1     |                                           |
| CTSB     |                                           |
| IRGC     | PE - TTTCCGAAACAAATTACATGTGTATAACTT (G/A) |
| PGAM2_b  |                                           |
| GPN1     |                                           |
| ZNF649   | PE - TTACAAATGTATTCAGGTAATTGGCAGAAT (G/T) |
| LECT2    |                                           |
| CYC1     |                                           |
| E48C10   |                                           |
| EPPK1    |                                           |
| PSCA     |                                           |
| PUF60    |                                           |
| VPS28    |                                           |
| PRKRIP1  |                                           |
| MYC      |                                           |
| NDUFB9   |                                           |
| RNF19A   |                                           |
| PABPC1   |                                           |
| UQCRB    |                                           |
| RBM12B   |                                           |
| CA2      | PE - GTTTATTATTATGCAATGTAATGGGAATGG (T/A) |
| NBN      |                                           |
| MRPS28   |                                           |
| E15A2    |                                           |
| NUP37    |                                           |
| RIOK3    |                                           |
| YES1     |                                           |
| MYL12B   |                                           |
| CNDP1    | TGCGE                                     |
| CYB5A    | TGCGE                                     |
| CHMP5    | TGCGE                                     |

|                          |                                           |
|--------------------------|-------------------------------------------|
| MYO10                    |                                           |
| BASP1                    |                                           |
| DAP                      | PE - CTGCTAATTTGTGAAAATATGCTGGTGGGA (T/G) |
| KDSR                     |                                           |
| VPS4B                    |                                           |
| ACOT13                   |                                           |
| JARID2                   |                                           |
| SERPINB6                 |                                           |
| TXNDC5                   |                                           |
| LYRM4                    |                                           |
| E15A11                   |                                           |
| KBTBD2                   |                                           |
| LOC420992                |                                           |
| TMSB15A                  | PE - GGAAGGGTTCTACTTTTGTGTGTTTCATG (G/A)  |
| LOC792995                |                                           |
| E17E10                   |                                           |
| FAM162A                  |                                           |
| TAF9                     |                                           |
| FHL1                     |                                           |
| SOX3                     |                                           |
| HMGB3                    |                                           |
| VMA21                    | PE - GCGGATCAGTGATCGTCTTGCAATC (T/G)      |
| IDH2                     |                                           |
| MFAP1                    |                                           |
| IQGAP1                   |                                           |
| CLPX                     |                                           |
| GATM                     |                                           |
| MCEE                     |                                           |
| MAPK6                    |                                           |
| LARP6                    |                                           |
| SFTPC                    | PE - AAGATGTGTCCTGAGGGTCTAGAAATGGA (T/G)  |
| NPTN                     | PE - ATTTTACCAAATATTAGTTCAGCAAAAGAC (C/A) |
| CONTIG22977              |                                           |
| ISL2                     |                                           |
| LIPC                     |                                           |
| HAPLN3                   |                                           |
| ABHD2                    | SP                                        |
| RHCG                     |                                           |
| MEX_NOHITS_2369_CONTIG_1 |                                           |
| RAB11A                   | TGCGE                                     |
| TLE3                     | PE - GGACCAGTGAAATTCAGCACTTATGC (G/A)     |
| PHLDA2                   |                                           |
| ATHL1                    |                                           |
| LOC644003                | PE - CAGTCAGGAAAAGGAAGGCCTGCA (G/A)       |
| MUC5AC                   |                                           |
| TNNI2                    |                                           |
| CD81                     |                                           |
| FTH1                     |                                           |
| C11ORF58                 |                                           |

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|-------------------|------------------------------------------|
| RRAS2             |                                          |
| SBF2              |                                          |
| SPON1             |                                          |
| PAX6              |                                          |
| CCND1             |                                          |
| CD59              |                                          |
| ANXA2             |                                          |
| LOC100091509      |                                          |
| E15E9             |                                          |
| SERINC2           |                                          |
| TRNAU1AP          |                                          |
| CTSL2             | PE - GCCAACCACCTGTTTGCATTGCT (C/G)       |
| RCC1              | PE - ACATTGTCCATTGATGAACAGATTTCATA (T/C) |
| T_                |                                          |
| SH3BGRL3          |                                          |
| GRHL3             |                                          |
| E12G12            |                                          |
| M_NOHITS_886_CTG2 |                                          |
| STMN1             |                                          |
| ZNF593            |                                          |
| E15A6             |                                          |
| RRAGC             |                                          |
| SF3A3             |                                          |
| GNL2              |                                          |
| TRAPPC3           |                                          |
| ZNF706            |                                          |
| E14C3             |                                          |
| E16C8             |                                          |
| GJB5              |                                          |
| E13G11            |                                          |
| KHDRBS1           |                                          |
| KPNA6             |                                          |
| SFRS1             |                                          |
| YARS              |                                          |
| RAB6A             |                                          |
| DNAJB13           |                                          |
| LIPT2             |                                          |
| SPCS2             |                                          |
| STARD10           |                                          |
| THRSP             |                                          |
| SYTL2             |                                          |
| UBL3              |                                          |
| POSTN             |                                          |
| E12G3             |                                          |
| C13ORF31          |                                          |
| GTF2F2            |                                          |
| ITM2B             |                                          |
| LCP1              |                                          |
| RB1               |                                          |

|                          |                                           |
|--------------------------|-------------------------------------------|
| RAB33B                   |                                           |
| LMO7                     |                                           |
| PICK1                    |                                           |
| GPR143                   |                                           |
| RPL24                    |                                           |
| THOC4_a                  |                                           |
| COL8A1                   |                                           |
| EIF1AX                   |                                           |
| TM9SF2                   |                                           |
| COL4A2                   |                                           |
| ABHD13                   | PE - AACATCTTCATTAAGACCAAGGATGGC (A/G)    |
| MID1IP1                  |                                           |
| BLZF1                    | PE - AAACAGTTGTGCAAACAGCTCTAGAA (C/G)     |
| DPT                      |                                           |
| SOD1                     |                                           |
| TIAM1                    |                                           |
| ALCAM                    |                                           |
| ATP5O                    |                                           |
| RCAN1                    |                                           |
| CD247                    |                                           |
| UPK1B                    |                                           |
| FSTL1                    |                                           |
| CCDC58                   |                                           |
| MAN1A2                   |                                           |
| LOC643604                |                                           |
| TPM2                     |                                           |
| DNAJB5                   | PE - GGTCAGTAGTTTGTGGTTTAAATGAAATT (T/A)  |
| IER3IP1                  |                                           |
| SMAD2                    |                                           |
| ID3                      |                                           |
| ATP8B1                   |                                           |
| ZFR                      | TGCGE                                     |
| MEX_NOHITS_2377_CONTIG_1 |                                           |
| MEX_NOHITS_2354_CONTIG_1 |                                           |
| SEPP1                    |                                           |
| CONTIG95328              |                                           |
| PRKAA1                   |                                           |
| GPX8                     |                                           |
| SCAMP1                   |                                           |
| HMGCR                    | PE - GCTGCTTGATAACCTAGACTTGAAGGC (C/G)    |
| MEX_NOHITS_906_CONTIG_1  |                                           |
| OCLN                     | PE - CAGTGACTATGACAACAACAAGGCATAATC (G/A) |
| VCAN                     |                                           |
| E11G8                    |                                           |
| TNFAIP8                  |                                           |
| E14E6                    |                                           |
| E14C5                    |                                           |
| ANXA1                    | PE - CCAGCAGCAGAAGAAAGTGATCTAAGA (G/A)    |
| HNRNPK                   |                                           |

|           |                                       |
|-----------|---------------------------------------|
| FAM108B1  |                                       |
| HSPA8     |                                       |
| APLP2     |                                       |
| E14E10    |                                       |
| NNMT      |                                       |
| LOC566020 |                                       |
| ARCN1     |                                       |
| FXVD2     |                                       |
| PAFAH1B2  |                                       |
| MNT       |                                       |
| E11G11    |                                       |
| E12A11    |                                       |
| AATF      |                                       |
| ATP2A3    |                                       |
| BAZ1B     | PE - CCCACCTCAATCCCTCTTGCC (T/G)      |
| E16C7     |                                       |
| C7ORF42   |                                       |
| GBAS      |                                       |
| MKS1      |                                       |
| POR       |                                       |
| MED31     | PE - CCATGGTGCAGGAAGAGAGCCTATAT (G/A) |
| CLTC      |                                       |
| DOC2B     |                                       |
| MED13     |                                       |
| PRR11     |                                       |
| E11G4     |                                       |
| E17C12    |                                       |
| CFLAR     | TGCGE                                 |
| STAT1     |                                       |
| TOMM20    |                                       |
| TRA2B     |                                       |
| DNAJB11   |                                       |
| ZC3H15    |                                       |
| SUMO3     | PE - GCACAGTGTCTCTAGGGAGAAGTC (G/A)   |
| E54C11    |                                       |
| STT3B_a   |                                       |
| FN1       |                                       |
| E12G1     |                                       |
| E12G7     |                                       |
| NDUFA10   |                                       |
| UGT1A1    | PE - CCAGTAACTGTCTGTGATCATAGGCT (C/G) |
| COL6A1    | PE - CGAAGAACTGCATGAATCGCAGGA (C/A)   |
| E13E6     |                                       |
| ATP5G3    |                                       |
| HOXD8     |                                       |
| HOXD11    |                                       |
| E13A7     |                                       |
| SCRN3     | PE - AAGCACAGTGTGATGCCTCTCACAC (A/C)  |
| GCA       |                                       |

|             |                                           |
|-------------|-------------------------------------------|
| RND3        |                                           |
| HNMT        |                                           |
| R3HDM1      |                                           |
| SNX4        |                                           |
| E14A3       |                                           |
| NNMT_a      |                                           |
| ZNF142      |                                           |
| ACCN4       |                                           |
| E19A7       |                                           |
| CYP27B1     |                                           |
| SLC37A3     |                                           |
| FBXO7       |                                           |
| CARDIAC-RNA |                                           |
| E54G12      |                                           |
| MTPN        | PE - CGAATCACTCCGTGACGCCTTAG (G/C)        |
| IL17RA      |                                           |
| FBXL14      | PE - CCTTAACCTCCACACGAACTGCTTCAG (G/A)    |
| WNT5B       |                                           |
| E17C9       |                                           |
| NTF3        |                                           |
| TMEM19      | PE - GTTTCACATCTCACAGGGATCACCA (A/T)      |
| UPK3B       |                                           |
| TWF1        | ALA                                       |
| HIST1H2AG   | PE - ACGAACTGTTTTTAAATGTTATTACGTGA (A/C)  |
| HIST1H1E    |                                           |
| E12A4       |                                           |
| CDK2AP2     |                                           |
| UBE2L3      | PE - ATTCAGTGAAAAGAGACCGATGGACTGAC (A/G)  |
| C11ORF31    |                                           |
| CTNND1      |                                           |
| FTSJ3       |                                           |
| TMX2        |                                           |
| CTSK        |                                           |
| E17C5       |                                           |
| E17C6       |                                           |
| FLJ36031    |                                           |
| LUM         | TGCGE                                     |
| PIM3        | PE - TCACTGGGCTGTCGTTGAACTTT (G/T)        |
| PAWR        | PE - GCAGCTGACACGATAGGTGGTGG (G/A)        |
| KITLG       |                                           |
| TIGRINUM-UV |                                           |
| CALU        |                                           |
| E15C7       |                                           |
| LEP         |                                           |
| IMPDH1      |                                           |
| SND1        |                                           |
| COPG2       |                                           |
| TUBA1A      | PE - CGGACTTTAATCTGCTCGTAGAGTATGTAT (T/A) |
| RAP1B       |                                           |

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|----------|------------------------------------------|
| TMEM5    |                                          |
| XRCC6BP1 |                                          |
| ACADSB   |                                          |
| EIF3A    |                                          |
| ABLIM1   |                                          |
| TRIM8    | PE - ACAGTCTGTGTCTTAACATAAATGAAAAC (A/G) |
| COX15    |                                          |
| ATP5B    |                                          |
| ANKRD1   |                                          |
| DNTT     |                                          |
| HIGD1A   |                                          |
| CISD1    |                                          |
| SGMS1    |                                          |
| E16E2    |                                          |
| MFAP2    |                                          |
| SS18L2   |                                          |
| UBR4     |                                          |
| SFTPD    |                                          |
| AP3M1    |                                          |
| E15C8    |                                          |
| VDAC2    |                                          |
| ERRFI1   |                                          |
| HSPG2    |                                          |
| CDC42    | PE - CATTATACTGTGTGGAGTGGATTTC (C/A)     |
| C1QB     |                                          |
| PCBD1    |                                          |
| C10ORF54 |                                          |
| PSAP     |                                          |
| H2AFY2   |                                          |
| DDX21    |                                          |
| KIAA0913 |                                          |
| MYOZ1    |                                          |
| CCDC109A |                                          |
| EIF4EBP2 |                                          |
| SAR1A    |                                          |
| CAMTA1   | PE - GGGTATTCCACGTGCCATGTCCTC (T/C)      |
| RPL37A   |                                          |
| CALM1_b  |                                          |
| SLC4A5   |                                          |
| DCTN6    |                                          |
| PTPN9    | PE - GTGGAATGGTCCGACTCTGATTTTGA (G/A)    |
| SFRS2_a  | PE - GTCCCGGTCCGTCCGACG (G/A)            |
| C9ORF156 |                                          |
| CLTA     |                                          |
| KLHL8    |                                          |
| ENO3_a   |                                          |
| MMRN1    | ALA                                      |
| C4ORF16  |                                          |
| HSDL2    |                                          |

|                          |                                           |
|--------------------------|-------------------------------------------|
| H2AFZ                    | PE - CGTTCGGAGCGTTGTGTAACC (A/G)          |
| KLF4                     |                                           |
| RAD23B                   | PE - AGGTGCAAGTCTCTTGCTTTTCAGTCATC (G/A)  |
| SCOC                     | PE - TCTAAAAACAAGTGATTTCTATTTGGTAT (A/G)  |
| LARP7                    |                                           |
| TBCKL                    | PE - TTGACCAAAGTCAGTTTGAAGATCTAGAAA (A/G) |
| NDUFC1                   |                                           |
| ARFIP1                   |                                           |
| PDGFC                    | PE - AGTGAGAAACAATGGATATCTGAGTTAGTT (T/A) |
| CHDH                     |                                           |
| TMEM165                  |                                           |
| KIT                      |                                           |
| PDGFRA                   |                                           |
| CNGA1                    | PE - GTCAAGACTGCTCTGTAAACCAACTC (A/G)     |
| SLC2A9                   |                                           |
| WDR1                     |                                           |
| C20ORF27                 |                                           |
| CDC25A                   |                                           |
| E15C10                   |                                           |
| KAZALD1                  |                                           |
| MEX_NOHITS_2379_CONTIG_1 |                                           |
| MGC97528                 |                                           |
| KCTD3                    |                                           |
| PYGO2                    |                                           |
| EPHX1                    |                                           |
| GTPBP2                   | PE - CCACACAGTCTAGTGACCCTTGAAGA (G/A)     |
| TMEM63B                  |                                           |
| HSP90AB1                 | PE - CGCAGTGTGCGTTCTGTCC (C/T)            |
| C6ORF226                 |                                           |
| RPS6                     |                                           |
| CCDC127                  |                                           |
| ARRB1                    |                                           |
| SFTPD_b                  |                                           |
| COX7B                    |                                           |
| SSR2_b                   |                                           |
| E15G1                    |                                           |
| AP4S1                    |                                           |
| EAPP                     |                                           |
| THBS1                    |                                           |
| ACTC1                    |                                           |
| ERH                      |                                           |
| CHURC1                   |                                           |
| SFRS4-like               |                                           |
| TRMT5                    |                                           |
| ARF6                     | PE - AATAAATATTAAGATGCCTACGAGGGACTC (G/A) |
| MAP4K5                   | PE - CATTTGAAATGTGTATCATGGTTTTCTTTA (G/T) |
| RPS29                    |                                           |
| NID2                     |                                           |
| C14ORF129                | PE - GGCAGGCAATGTAGCATTGAAACTTAA (G/A)    |

|                          |                                           |
|--------------------------|-------------------------------------------|
| CNIH                     |                                           |
| FERMT2                   | PE - AATGCTATCATGAGATGTGGCG (G/A)         |
| NPC2                     |                                           |
| FCF1                     |                                           |
| LGMN                     |                                           |
| WARS                     |                                           |
| AHSA1                    |                                           |
| UBR7                     |                                           |
| CDC42BPB                 | ALA                                       |
| PPP1R13B                 |                                           |
| E16C9                    |                                           |
| COL1A1                   |                                           |
| DLX3                     |                                           |
| LSM6                     |                                           |
| PHB                      |                                           |
| ARF1_a                   |                                           |
| CCDC56                   | PE - CCTCGATTGACCAAATCTCATTAAAGAAGC (C/T) |
| CONTIG81034              |                                           |
| PSME3                    |                                           |
| NSF                      |                                           |
| E15G4                    |                                           |
| MAPT                     |                                           |
| CRHR1                    |                                           |
| GH1                      |                                           |
| E17E11                   |                                           |
| PCK2                     |                                           |
| MDP1                     |                                           |
| TGM1                     |                                           |
| HIST2H3A                 |                                           |
| SDR39U1                  |                                           |
| TMEM85                   |                                           |
| TCELL                    |                                           |
| NDRG2                    |                                           |
| RABIF                    |                                           |
| TMEM183A                 |                                           |
| CSRP1                    |                                           |
| E15A9                    |                                           |
| NAV1                     | PE - CGGTTTTAAATTTGTTTTCAACAAATTAT (G/T)  |
| RPLP2                    |                                           |
| SRPK1                    |                                           |
| TMEM167B                 |                                           |
| E17C3                    |                                           |
| TAF11                    |                                           |
| MEX_NOHITS_2397_CONTIG_1 |                                           |
| RPL10A                   |                                           |
| CAPZA1                   |                                           |
| CYP2A13                  |                                           |
| RHOA_b                   |                                           |
| RAB7L1                   | PE - GCTCCATGGGAATTGCACAGATTCAACTA (G/C)  |

|              |                                           |
|--------------|-------------------------------------------|
| SNRPE        |                                           |
| TAF8         |                                           |
| CTGF_a       |                                           |
| TPRG1L       |                                           |
| GNB1         |                                           |
| LOC100224741 |                                           |
| MAD2L2       |                                           |
| TARDBP       |                                           |
| E11E11       |                                           |
| NPDC1        |                                           |
| COBRA1       |                                           |
| TNC          |                                           |
| WDR5         |                                           |
| NOTCH1       |                                           |
| APEX1        |                                           |
| LHX2         | PE - GGAACCATCTTGGAACAGAAGGAACC (A/G)     |
| C9ORF78      |                                           |
| C9ORF16      |                                           |
| TOR1A        |                                           |
| FKBP10       |                                           |
| KRT24        |                                           |
| EIF1         |                                           |
| KRT12        | PE - GTCTTCTTAATATTTCTGTTCAACCTCTTC (G/A) |
| KRT17        |                                           |
| LOC100016027 |                                           |
| RARA         |                                           |
| HOXB13       |                                           |
| SNF8         | PE - CACTCGATGATAGTTCGCTGTTCTGAG (C/T)    |
| NFE2L1       | PE - ACAGAAGGACAGGAGGAAGTGACG (T/C)       |
| RPL19        |                                           |
| MED1         |                                           |
| KEAP1        |                                           |
| G2G13        |                                           |
| MED24        |                                           |
| THRA         |                                           |
| SFRS3        |                                           |
| MEX_NH_16    |                                           |
| TCF19        |                                           |
| MR1          |                                           |

| Gene ID  | Marker3 Forward Primer | Marker3 Reverse Primer |
|----------|------------------------|------------------------|
| SPEN     |                        |                        |
| SPAG7    |                        |                        |
| ENO3     |                        |                        |
| PCOLCE2  |                        |                        |
| PSMB6    |                        |                        |
| EIF4A1   |                        |                        |
| E16A9    |                        |                        |
| CLDN7    |                        |                        |
| CIRBP    |                        |                        |
| CNN2     |                        |                        |
| E12E2    |                        |                        |
| GPX4     |                        |                        |
| SLC39A3  |                        |                        |
| BSG      |                        |                        |
| CDC34    |                        |                        |
| PRTN3    |                        |                        |
| SFRS14   |                        |                        |
| NDUFA13  |                        |                        |
| USE1     |                        |                        |
| UHRF1    |                        |                        |
| E17C2    |                        |                        |
| EEF2     |                        |                        |
| MYO1F    |                        |                        |
| NDUFA11  |                        |                        |
| BTBD2    |                        |                        |
| OAZ1     |                        |                        |
| LSM7     |                        |                        |
| MAPRE1   |                        |                        |
| SAFB     |                        |                        |
| ATP5E    |                        |                        |
| MCL1     |                        |                        |
| ERO1L    |                        |                        |
| IFIH1    |                        |                        |
| KRTCAP2  |                        |                        |
| C1ORF230 |                        |                        |
| PRG4     |                        |                        |
| S100A11  |                        |                        |
| S100A13  |                        |                        |
| S100A4   |                        |                        |
| E12E11   |                        |                        |
| TPM3     |                        |                        |
| RPS27    |                        |                        |
| ANP32E   |                        |                        |
| TXNIP    |                        |                        |
| SSR2     |                        |                        |

|           |  |  |
|-----------|--|--|
| DYNC1LI2  |  |  |
| ATP6V0D1  |  |  |
| TPPP3     |  |  |
| HDGF      |  |  |
| NUTF2     |  |  |
| UFC1      |  |  |
| TMEM188   |  |  |
| LUC7L3    |  |  |
| PSMD11    |  |  |
| U2AF1_b   |  |  |
| FXYD3     |  |  |
| E12C7     |  |  |
| COX6B1    |  |  |
| POLR2L    |  |  |
| NUCB1     |  |  |
| FTH1_b    |  |  |
| FTL       |  |  |
| KRTAP10-1 |  |  |
| LOC733905 |  |  |
| CD163L1   |  |  |
| SACS      |  |  |
| GPI       |  |  |
| ITLN1     |  |  |
| GABARAPL2 |  |  |
| HNRNPK_b  |  |  |
| NQO1      |  |  |
| VPS4A     |  |  |
| APRT      |  |  |
| CA5B      |  |  |
| MAP1LC3B  |  |  |
| GMDS      |  |  |
| TEAD4     |  |  |
| E24A11    |  |  |
| E12A2     |  |  |
| E13E7     |  |  |
| LIG1      |  |  |
| MOCS3     |  |  |
| SFRS7     |  |  |
| LOC769550 |  |  |
| MMP2      |  |  |
| NUDT21    |  |  |
| ETHE1     |  |  |
| SODEFRIN  |  |  |
| RABAC1    |  |  |
| MC1R      |  |  |
| MGST3     |  |  |
| APOE      |  |  |
| PRDX6     |  |  |
| FMO3      |  |  |

|          |                            |                            |
|----------|----------------------------|----------------------------|
| ARPC5    |                            |                            |
| NCF2     |                            |                            |
| RGS2     |                            |                            |
| GLUL     |                            |                            |
| CLCA2    |                            |                            |
| RGS5     |                            |                            |
| COL11A1  |                            |                            |
| IFI44L   |                            |                            |
| GNG5     |                            |                            |
| SEPT10_b | AAGCATTCTCAAATGGAATACTGAC  | CGCTACACAGATCTCAAGTTGTCT   |
| E12G5    |                            |                            |
| E17G11   |                            |                            |
| FPGT     |                            |                            |
| GPR177   |                            |                            |
| LEPROT   |                            |                            |
| USP1     |                            |                            |
| PSMA4    |                            |                            |
| C8A      |                            |                            |
| TMEM59   |                            |                            |
| SLC1A7   |                            |                            |
| SCP2     |                            |                            |
| EPS15    |                            |                            |
| TXNDC12  |                            |                            |
| KIAA0494 |                            |                            |
| FAAH     |                            |                            |
| E17G7    |                            |                            |
| PRDX1    |                            |                            |
| DAZL     |                            |                            |
| TMLHE    |                            |                            |
| THRB     |                            |                            |
| STT3B    |                            |                            |
| SH3BP5   |                            |                            |
| C7ORF41  |                            |                            |
| E12C2    |                            |                            |
| NGLY1    |                            |                            |
| VWDE     |                            |                            |
| COL1A2   |                            |                            |
| UHRF2    |                            |                            |
| NMT2     |                            |                            |
| VIM      |                            |                            |
| EIF1B    | TGATTCTTTGCAATAAACAGACTTTC | CCTGCACATAGAATCACAAAAATAGT |
| IGF2BP3  |                            |                            |
| TOMM7    |                            |                            |
| KIF15    |                            |                            |
| E54A6    |                            |                            |
| HOXA4    |                            |                            |
| HOXA9    |                            |                            |
| CBX3     |                            |                            |
| CYCS     |                            |                            |

|                    |                       |                            |
|--------------------|-----------------------|----------------------------|
| ABI2               |                       |                            |
| KIF5B              |                       |                            |
| CREM               |                       |                            |
| WDR60              |                       |                            |
| U2AF2              |                       |                            |
| HBZ                |                       |                            |
| HBA2               |                       |                            |
| HBG1               | TCAGCAGCAGCTATCACTGAG | CTTCATGTGTTTCAGGAGGTTAAGTA |
| EIF3I              |                       |                            |
| KBTBD5             |                       |                            |
| CRHR2              |                       |                            |
| UQCRC2             |                       |                            |
| GNA12              |                       |                            |
| TIMM17B            |                       |                            |
| TIMP4              |                       |                            |
| DCTN5              |                       |                            |
| RBBP6              |                       |                            |
| TNRC6A             |                       |                            |
| NARFL              |                       |                            |
| E17G8              |                       |                            |
| MSLNL              |                       |                            |
| SSTR5              |                       |                            |
| PDGFRA_b           |                       |                            |
| H3F3B_b            |                       |                            |
| UBE2I              |                       |                            |
| COQ7               |                       |                            |
| PDXDC1             |                       |                            |
| MYL3               |                       |                            |
| ARF1_b             |                       |                            |
| ABAT               |                       |                            |
| ATP6V0C            |                       |                            |
| HN1L               |                       |                            |
| MRPS34             |                       |                            |
| NME3               |                       |                            |
| C16ORF13           |                       |                            |
| HBA2_a             |                       |                            |
| HBD                |                       |                            |
| STUB1              |                       |                            |
| LOC440335          |                       |                            |
| AURKB              |                       |                            |
| C11ORF51           |                       |                            |
| CCM2               |                       |                            |
| M_NOHITS_397_CTG1  |                       |                            |
| KIF9               |                       |                            |
| NGFR               |                       |                            |
| SETD2              |                       |                            |
| DRG2               |                       |                            |
| M_NOHITS_5137_CTG1 |                       |                            |
| MAP2K3             |                       |                            |

|                   |                            |                            |
|-------------------|----------------------------|----------------------------|
| MED9              |                            |                            |
| RAI1              |                            |                            |
| RASD1             |                            |                            |
| SHMT1             |                            |                            |
| PVALB             |                            |                            |
| RAC1              |                            |                            |
| ACTG1             | AGAAAACTGGAAGACCAGAGTATGT  | TAAGGCAGAAAATACAAAAACACTTG |
| ARPC1A            |                            |                            |
| M_NOHITS_899_CTG1 |                            |                            |
| UTS2R             |                            |                            |
| ACTB              |                            |                            |
| FOXK1             |                            |                            |
| BGN               | ATCAGTGTAGGCAAACCTCTGTAGTG | AATACATCCTAATTCTGTTTGGAAGC |
| E13G5             |                            |                            |
| RENBP             |                            |                            |
| TKTL2             | AGCCTAATGAACTCTTGGATATGTTT | TAGTACACAAGTAAAGTATGCTGCCC |
| EEF1G             |                            |                            |
| SMC1A             |                            |                            |
| TTC9C             |                            |                            |
| ACTC1_a           |                            |                            |
| ADSS              |                            |                            |
| CALM1             | GGACAAATACTTAAGGAGAAGCAAAG | ATCATACAGGGTATACAAACACCTCA |
| OTUB1             |                            |                            |
| PRDX5             |                            |                            |
| RBM4              |                            |                            |
| CAPN1             | GGTTACAGATGACAATGTTTGCTTAG | AGGCAACATGACGTAAAGTTAAGG   |
| DPP3              |                            |                            |
| PYGM              |                            |                            |
| TMED10            |                            |                            |
| FOXA3             |                            |                            |
| E14C12            |                            |                            |
| E16G10            |                            |                            |
| BANF1             |                            |                            |
| CFL1              | GATGTAATATTGTGTCAACTCGAACC | ATTGGTCCATTAATAAAAGGAATGAG |
| E23C10            |                            |                            |
| KCNK1             |                            |                            |
| PLCB3             |                            |                            |
| RBM4B             |                            |                            |
| SULT6B1           |                            |                            |
| E16E8             |                            |                            |
| UCRC              |                            |                            |
| CKM               |                            |                            |
| CLPTM1            |                            |                            |
| SNRPD2            |                            |                            |
| E17G3             |                            |                            |
| C22ORF32          |                            |                            |
| CYP2C19           |                            |                            |
| E12E6             |                            |                            |
| CYP2F1            |                            |                            |

|                |                            |                            |
|----------------|----------------------------|----------------------------|
| H3F3B_a        |                            |                            |
| CAPNS1         |                            |                            |
| SNAP23         |                            |                            |
| GMFG           |                            |                            |
| NCCRP1         |                            |                            |
| RHOA           |                            |                            |
| GNAT1          |                            |                            |
| TWF2           |                            |                            |
| WFDC2          |                            |                            |
| CNBP           |                            |                            |
| BTG1_a         |                            |                            |
| FLNB           |                            |                            |
| TKT            |                            |                            |
| E12A3          |                            |                            |
| RHO            |                            |                            |
| LSM3           |                            |                            |
| SEC61A1        |                            |                            |
| RAB7A          |                            |                            |
| IP6K2          |                            |                            |
| PRKAR2A        |                            |                            |
| ARPC4          | ATTGGTACAATGACTCTCTCTTTGTG | AATGCAACAAGAGATAACACTCTCAG |
| NISCH          |                            |                            |
| RPL29          |                            |                            |
| PBRM1          |                            |                            |
| SPCS1          |                            |                            |
| ZYX            |                            |                            |
| MYL6           |                            |                            |
| NANOG          |                            |                            |
| C3AR1          |                            |                            |
| GAPDH          |                            |                            |
| ING4           |                            |                            |
| FKBP1A         |                            |                            |
| ASXL1          |                            |                            |
| E16A12         |                            |                            |
| GNAS           |                            |                            |
| ADNP           |                            |                            |
| SNAI2          |                            |                            |
| TNNC2          |                            |                            |
| UBE2V1         |                            |                            |
| SULF2          |                            |                            |
| NCOA5          | CCCTTATGGTGAATATGTAGTTTTGG | CTGTACAATAATGCAACCTCTTGTCT |
| MMP2_a         |                            |                            |
| PDLIM7         |                            |                            |
| TMED9          |                            |                            |
| CTBP1          |                            |                            |
| RPUSD4         |                            |                            |
| TIG_NOHITS_253 |                            |                            |
| PROD1          |                            |                            |
| FUS            |                            |                            |

|             |                            |                            |
|-------------|----------------------------|----------------------------|
| TRIM69      |                            |                            |
| VKORC1L1    |                            |                            |
| MVP         |                            |                            |
| NME1        |                            |                            |
| ALDOA       | GTACACATCTGTGTGTCTCGCTT    | TCTAGGATTCTAAATCCACCCACTAC |
| E11G12      |                            |                            |
| YPEL3       |                            |                            |
| BOLA2       |                            |                            |
| SULT1C4     |                            |                            |
| ATP2A1      |                            |                            |
| CONTIG13340 |                            |                            |
| E16E3       |                            |                            |
| E50G8       |                            |                            |
| NFS1        |                            |                            |
| MAP1LC3A    |                            |                            |
| C20ORF4     |                            |                            |
| MANBAL      |                            |                            |
| BNIP1       |                            |                            |
| UQCRQ       |                            |                            |
| CAMLG       |                            |                            |
| SKP1        |                            |                            |
| SMAD5       |                            |                            |
| SEPT10_a    |                            |                            |
| HNRNPA0     |                            |                            |
| E13E11      |                            |                            |
| HNRNPAB     |                            |                            |
| MATR3       |                            |                            |
| UBE2D2      |                            |                            |
| E12A5       |                            |                            |
| E14G1       |                            |                            |
| PHF5A       |                            |                            |
| POLR3H      |                            |                            |
| CSNK1E      |                            |                            |
| KDEL3       |                            |                            |
| TOM1        |                            |                            |
| HOXC10      |                            |                            |
| ATP5G2      |                            |                            |
| E54A1       |                            |                            |
| NACA        |                            |                            |
| RARG        |                            |                            |
| KRT4        |                            |                            |
| KRT5        | ATGAGGACAATGATGTAACTGGATTA | TATCGAAATAGTACATCACCAGCTTC |
| OS9         |                            |                            |
| CD63        |                            |                            |
| OBFC2B      |                            |                            |
| RPS26       |                            |                            |
| RHEBL1      |                            |                            |
| WNT1        |                            |                            |
| DDX23       |                            |                            |

|            |                          |                            |
|------------|--------------------------|----------------------------|
| C5ORF4     |                          |                            |
| SPARC      |                          |                            |
| ATOX1      |                          |                            |
| CD74       |                          |                            |
| SQSTM1     |                          |                            |
| CCNG1      |                          |                            |
| PKM2       |                          |                            |
| MYH9       |                          |                            |
| ETF1       |                          |                            |
| LURP-1     |                          |                            |
| MGP        |                          |                            |
| PRPSAP1    |                          |                            |
| SFRS2      |                          |                            |
| C17ORF28   |                          |                            |
| RAB37      |                          |                            |
| XYLT2      |                          |                            |
| APOH       |                          |                            |
| DDX5       |                          |                            |
| ETG990     |                          |                            |
| GNA13      |                          |                            |
| PRKAR1A    |                          |                            |
| KCNJ16     |                          |                            |
| SOX9       |                          |                            |
| SSTR2      |                          |                            |
| RPL38      |                          |                            |
| ARHGDIA    |                          |                            |
| CYP4F22    |                          |                            |
| E13G1      |                          |                            |
| PBX1       |                          |                            |
| THOC4      |                          |                            |
| ZNF248     |                          |                            |
| ZNF717     |                          |                            |
| P4HB       |                          |                            |
| PKN2       |                          |                            |
| ASF1A      |                          |                            |
| ASF1B      |                          |                            |
| E12C8      |                          |                            |
| PGLS       |                          |                            |
| C19ORF43   |                          |                            |
| JUNB       |                          |                            |
| TYK2       |                          |                            |
| C19ORF52   |                          |                            |
| DNM2       |                          |                            |
| ELOF1      |                          |                            |
| FARSA      | ATGATCAAATATGGCATCAACAAC | ATCCCGCAGAATAAATAAATAATGTC |
| GADD45GIP1 |                          |                            |
| E14C7      |                          |                            |
| KHSRP      |                          |                            |
| C19ORF53   |                          |                            |

|           |                             |                            |
|-----------|-----------------------------|----------------------------|
| E12A1     |                             |                            |
| E15G10    |                             |                            |
| E14G3     |                             |                            |
| ANAPC7    |                             |                            |
| RAB35     |                             |                            |
| DYNLL1    |                             |                            |
| SFRS9     |                             |                            |
| DDT       |                             |                            |
| MIF       |                             |                            |
| E14A8     |                             |                            |
| FBXW8     |                             |                            |
| XBP1      |                             |                            |
| PPIF      |                             |                            |
| SLC20A1   |                             |                            |
| PGAM2     |                             |                            |
| E15E3     |                             |                            |
| MYL7      |                             |                            |
| OGDH      | AGACCATACAACCTTTAAATAAACCCG | TAAAACATACACAGGTTGTCTGGAGT |
| TIA1      |                             |                            |
| E16A5     |                             |                            |
| AP2M1     |                             |                            |
| E12E10    |                             |                            |
| E16C3     |                             |                            |
| EIF4G1    |                             |                            |
| EIF5A     |                             |                            |
| E13E8     |                             |                            |
| LAMP3     |                             |                            |
| LOC563358 |                             |                            |
| PDCD10    |                             |                            |
| PRPF6     |                             |                            |
| KPNA4     |                             |                            |
| RARRES1   |                             |                            |
| VWA5A     |                             |                            |
| SCLY      |                             |                            |
| E14C4     |                             |                            |
| E14G7     |                             |                            |
| HDLBP     |                             |                            |
| HSD17B8   |                             |                            |
| CIRBP_b   |                             |                            |
| E54E6     |                             |                            |
| BOLA3     |                             |                            |
| PDLIM2    |                             |                            |
| ENTPD4    |                             |                            |
| SFRP1     |                             |                            |
| E14E1     |                             |                            |
| PHB2      |                             |                            |
| AKAP7     |                             |                            |
| EGLN1     |                             |                            |
| MAL       |                             |                            |

|          |  |  |
|----------|--|--|
| MALL     |  |  |
| TCP1     |  |  |
| BTG1_b   |  |  |
| CTGF     |  |  |
| ZUFSP    |  |  |
| FABP7    |  |  |
| KIAA0776 |  |  |
| ZNF292   |  |  |
| CIRBP_c  |  |  |
| COX7A2   |  |  |
| COL12A1  |  |  |
| TMEM14A  |  |  |
| PXDN     |  |  |
| PDIA6    |  |  |
| ID2      |  |  |
| PQLC3    |  |  |
| YWHAQ    |  |  |
| RHOB     |  |  |
| SDC1     |  |  |
| CTSB     |  |  |
| IRGC     |  |  |
| PGAM2_b  |  |  |
| GPN1     |  |  |
| ZNF649   |  |  |
| LECT2    |  |  |
| CYC1     |  |  |
| E48C10   |  |  |
| EPPK1    |  |  |
| PSCA     |  |  |
| PUF60    |  |  |
| VPS28    |  |  |
| PRKRIP1  |  |  |
| MYC      |  |  |
| NDUFB9   |  |  |
| RNF19A   |  |  |
| PABPC1   |  |  |
| UQCRB    |  |  |
| RBM12B   |  |  |
| CA2      |  |  |
| NBN      |  |  |
| MRPS28   |  |  |
| E15A2    |  |  |
| NUP37    |  |  |
| RIOK3    |  |  |
| YES1     |  |  |
| MYL12B   |  |  |
| CNDP1    |  |  |
| CYB5A    |  |  |
| CHMP5    |  |  |

|                          |  |  |
|--------------------------|--|--|
| MYO10                    |  |  |
| BASP1                    |  |  |
| DAP                      |  |  |
| KDSR                     |  |  |
| VPS4B                    |  |  |
| ACOT13                   |  |  |
| JARID2                   |  |  |
| SERPINB6                 |  |  |
| TXNDC5                   |  |  |
| LYRM4                    |  |  |
| E15A11                   |  |  |
| KBTBD2                   |  |  |
| LOC420992                |  |  |
| TMSB15A                  |  |  |
| LOC792995                |  |  |
| E17E10                   |  |  |
| FAM162A                  |  |  |
| TAF9                     |  |  |
| FHL1                     |  |  |
| SOX3                     |  |  |
| HMGB3                    |  |  |
| VMA21                    |  |  |
| IDH2                     |  |  |
| MFAP1                    |  |  |
| IQGAP1                   |  |  |
| CLPX                     |  |  |
| GATM                     |  |  |
| MCEE                     |  |  |
| MAPK6                    |  |  |
| LARP6                    |  |  |
| SFTPC                    |  |  |
| NPTN                     |  |  |
| CONTIG22977              |  |  |
| ISL2                     |  |  |
| LIPC                     |  |  |
| HAPLN3                   |  |  |
| ABHD2                    |  |  |
| RHCG                     |  |  |
| MEX_NOHITS_2369_CONTIG_1 |  |  |
| RAB11A                   |  |  |
| TLE3                     |  |  |
| PHLDA2                   |  |  |
| ATHL1                    |  |  |
| LOC644003                |  |  |
| MUC5AC                   |  |  |
| TNNI2                    |  |  |
| CD81                     |  |  |
| FTH1                     |  |  |
| C11ORF58                 |  |  |

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|-------------------|--|--|
| RRAS2             |  |  |
| SBF2              |  |  |
| SPON1             |  |  |
| PAX6              |  |  |
| CCND1             |  |  |
| CD59              |  |  |
| ANXA2             |  |  |
| LOC100091509      |  |  |
| E15E9             |  |  |
| SERINC2           |  |  |
| TRNAU1AP          |  |  |
| CTSL2             |  |  |
| RCC1              |  |  |
| T_                |  |  |
| SH3BGRL3          |  |  |
| GRHL3             |  |  |
| E12G12            |  |  |
| M_NOHITS_886_CTG2 |  |  |
| STMN1             |  |  |
| ZNF593            |  |  |
| E15A6             |  |  |
| RRAGC             |  |  |
| SF3A3             |  |  |
| GNL2              |  |  |
| TRAPPC3           |  |  |
| ZNF706            |  |  |
| E14C3             |  |  |
| E16C8             |  |  |
| GJB5              |  |  |
| E13G11            |  |  |
| KHDRBS1           |  |  |
| KPNA6             |  |  |
| SFRS1             |  |  |
| YARS              |  |  |
| RAB6A             |  |  |
| DNAJB13           |  |  |
| LIPT2             |  |  |
| SPCS2             |  |  |
| STARD10           |  |  |
| THRSP             |  |  |
| SYTL2             |  |  |
| UBL3              |  |  |
| POSTN             |  |  |
| E12G3             |  |  |
| C13ORF31          |  |  |
| GTF2F2            |  |  |
| ITM2B             |  |  |
| LCP1              |  |  |
| RB1               |  |  |

|                          |                            |                            |
|--------------------------|----------------------------|----------------------------|
| RAB33B                   |                            |                            |
| LMO7                     |                            |                            |
| PICK1                    |                            |                            |
| GPR143                   |                            |                            |
| RPL24                    |                            |                            |
| THOC4_a                  |                            |                            |
| COL8A1                   |                            |                            |
| EIF1AX                   |                            |                            |
| TM9SF2                   |                            |                            |
| COL4A2                   |                            |                            |
| ABHD13                   |                            |                            |
| MID1IP1                  |                            |                            |
| BLZF1                    |                            |                            |
| DPT                      |                            |                            |
| SOD1                     |                            |                            |
| TIAM1                    |                            |                            |
| ALCAM                    |                            |                            |
| ATP5O                    |                            |                            |
| RCAN1                    |                            |                            |
| CD247                    |                            |                            |
| UPK1B                    |                            |                            |
| FSTL1                    |                            |                            |
| CCDC58                   |                            |                            |
| MAN1A2                   |                            |                            |
| LOC643604                |                            |                            |
| TPM2                     |                            |                            |
| DNAJB5                   |                            |                            |
| IER3IP1                  |                            |                            |
| SMAD2                    |                            |                            |
| ID3                      |                            |                            |
| ATP8B1                   |                            |                            |
| ZFR                      |                            |                            |
| MEX_NOHITS_2377_CONTIG_1 |                            |                            |
| MEX_NOHITS_2354_CONTIG_1 |                            |                            |
| SEPP1                    |                            |                            |
| CONTIG95328              |                            |                            |
| PRKAA1                   |                            |                            |
| GPX8                     |                            |                            |
| SCAMP1                   |                            |                            |
| HMGCR                    |                            |                            |
| MEX_NOHITS_906_CONTIG_1  |                            |                            |
| OCLN                     |                            |                            |
| VCAN                     |                            |                            |
| E11G8                    |                            |                            |
| TNFAIP8                  |                            |                            |
| E14E6                    |                            |                            |
| E14C5                    |                            |                            |
| ANXA1                    | TGAAACCAAAGGTGATTATGAAACTA | CAGCTATGACATATAGGCAAGAATGT |
| HNRNPK                   |                            |                            |

|           |                           |                            |
|-----------|---------------------------|----------------------------|
| FAM108B1  |                           |                            |
| HSPA8     |                           |                            |
| APLP2     |                           |                            |
| E14E10    |                           |                            |
| NNMT      |                           |                            |
| LOC566020 |                           |                            |
| ARCN1     |                           |                            |
| FXVD2     |                           |                            |
| PAFAH1B2  |                           |                            |
| MNT       |                           |                            |
| E11G11    |                           |                            |
| E12A11    |                           |                            |
| AATF      |                           |                            |
| ATP2A3    |                           |                            |
| BAZ1B     |                           |                            |
| E16C7     |                           |                            |
| C7ORF42   |                           |                            |
| GBAS      |                           |                            |
| MKS1      |                           |                            |
| POR       |                           |                            |
| MED31     |                           |                            |
| CLTC      |                           |                            |
| DOC2B     |                           |                            |
| MED13     |                           |                            |
| PRR11     |                           |                            |
| E11G4     |                           |                            |
| E17C12    |                           |                            |
| CFLAR     |                           |                            |
| STAT1     |                           |                            |
| TOMM20    |                           |                            |
| TRA2B     |                           |                            |
| DNAJB11   |                           |                            |
| ZC3H15    |                           |                            |
| SUMO3     | AAGATGAGGATACCATTGATGTGTT | GCAGAGAAATAATATTGGtTTTAGCA |
| E54C11    |                           |                            |
| STT3B_a   |                           |                            |
| FN1       |                           |                            |
| E12G1     |                           |                            |
| E12G7     |                           |                            |
| NDUFA10   |                           |                            |
| UGT1A1    |                           |                            |
| COL6A1    |                           |                            |
| E13E6     |                           |                            |
| ATP5G3    |                           |                            |
| HOXD8     |                           |                            |
| HOXD11    |                           |                            |
| E13A7     |                           |                            |
| SCRN3     |                           |                            |
| GCA       |                           |                            |

|             |  |  |
|-------------|--|--|
| RND3        |  |  |
| HNMT        |  |  |
| R3HDM1      |  |  |
| SNX4        |  |  |
| E14A3       |  |  |
| NNMT_a      |  |  |
| ZNF142      |  |  |
| ACCN4       |  |  |
| E19A7       |  |  |
| CYP27B1     |  |  |
| SLC37A3     |  |  |
| FBXO7       |  |  |
| CARDIAC-RNA |  |  |
| E54G12      |  |  |
| MTPN        |  |  |
| IL17RA      |  |  |
| FBXL14      |  |  |
| WNT5B       |  |  |
| E17C9       |  |  |
| NTF3        |  |  |
| TMEM19      |  |  |
| UPK3B       |  |  |
| TWF1        |  |  |
| HIST1H2AG   |  |  |
| HIST1H1E    |  |  |
| E12A4       |  |  |
| CDK2AP2     |  |  |
| UBE2L3      |  |  |
| C11ORF31    |  |  |
| CTNND1      |  |  |
| FTSJ3       |  |  |
| TMX2        |  |  |
| CTSK        |  |  |
| E17C5       |  |  |
| E17C6       |  |  |
| FLJ36031    |  |  |
| LUM         |  |  |
| PIM3        |  |  |
| PAWR        |  |  |
| KITLG       |  |  |
| TIGRINUM-UV |  |  |
| CALU        |  |  |
| E15C7       |  |  |
| LEP         |  |  |
| IMPDH1      |  |  |
| SND1        |  |  |
| COPG2       |  |  |
| TUBA1A      |  |  |
| RAP1B       |  |  |

|          |  |  |
|----------|--|--|
| TMEM5    |  |  |
| XRCC6BP1 |  |  |
| ACADSB   |  |  |
| EIF3A    |  |  |
| ABLIM1   |  |  |
| TRIM8    |  |  |
| COX15    |  |  |
| ATP5B    |  |  |
| ANKRD1   |  |  |
| DNTT     |  |  |
| HIGD1A   |  |  |
| CISD1    |  |  |
| SGMS1    |  |  |
| E16E2    |  |  |
| MFAP2    |  |  |
| SS18L2   |  |  |
| UBR4     |  |  |
| SFTPD    |  |  |
| AP3M1    |  |  |
| E15C8    |  |  |
| VDAC2    |  |  |
| ERRFI1   |  |  |
| HSPG2    |  |  |
| CDC42    |  |  |
| C1QB     |  |  |
| PCBD1    |  |  |
| C10ORF54 |  |  |
| PSAP     |  |  |
| H2AFY2   |  |  |
| DDX21    |  |  |
| KIAA0913 |  |  |
| MYOZ1    |  |  |
| CCDC109A |  |  |
| EIF4EBP2 |  |  |
| SAR1A    |  |  |
| CAMTA1   |  |  |
| RPL37A   |  |  |
| CALM1_b  |  |  |
| SLC4A5   |  |  |
| DCTN6    |  |  |
| PTPN9    |  |  |
| SFRS2_a  |  |  |
| C9ORF156 |  |  |
| CLTA     |  |  |
| KLHL8    |  |  |
| ENO3_a   |  |  |
| MMRN1    |  |  |
| C4ORF16  |  |  |
| HSDL2    |  |  |

|                          |                            |                            |
|--------------------------|----------------------------|----------------------------|
| H2AFZ                    |                            |                            |
| KLF4                     |                            |                            |
| RAD23B                   |                            |                            |
| SCOC                     |                            |                            |
| LARP7                    |                            |                            |
| TBCKL                    |                            |                            |
| NDUFC1                   |                            |                            |
| ARFIP1                   |                            |                            |
| PDGFC                    |                            |                            |
| CHDH                     |                            |                            |
| TMEM165                  |                            |                            |
| KIT                      |                            |                            |
| PDGFRA                   |                            |                            |
| CNGA1                    |                            |                            |
| SLC2A9                   |                            |                            |
| WDR1                     |                            |                            |
| C20ORF27                 |                            |                            |
| CDC25A                   |                            |                            |
| E15C10                   |                            |                            |
| KAZALD1                  |                            |                            |
| MEX_NOHITS_2379_CONTIG_1 |                            |                            |
| MGC97528                 |                            |                            |
| KCTD3                    |                            |                            |
| PYGO2                    |                            |                            |
| EPHX1                    |                            |                            |
| GTPBP2                   |                            |                            |
| TMEM63B                  |                            |                            |
| HSP90AB1                 | ATTAAATCATGCAGGCTATTTAACAC | GCATTCTTTTAATCTCaatgAACAAA |
| C6ORF226                 |                            |                            |
| RPS6                     |                            |                            |
| CCDC127                  |                            |                            |
| ARRB1                    |                            |                            |
| SFTPD_b                  |                            |                            |
| COX7B                    |                            |                            |
| SSR2_b                   |                            |                            |
| E15G1                    |                            |                            |
| AP4S1                    |                            |                            |
| EAPP                     |                            |                            |
| THBS1                    |                            |                            |
| ACTC1                    |                            |                            |
| ERH                      |                            |                            |
| CHURC1                   |                            |                            |
| SFRS4-like               |                            |                            |
| TRMT5                    |                            |                            |
| ARF6                     |                            |                            |
| MAP4K5                   |                            |                            |
| RPS29                    |                            |                            |
| NID2                     |                            |                            |
| C14ORF129                | CACGAGACCATATATTCTTTATTGGA | TGATTTGTGAAGTAGAATGTGATGAA |

|                          |  |  |
|--------------------------|--|--|
| CNIH                     |  |  |
| FERMT2                   |  |  |
| NPC2                     |  |  |
| FCF1                     |  |  |
| LGMN                     |  |  |
| WARS                     |  |  |
| AHSA1                    |  |  |
| UBR7                     |  |  |
| CDC42BPB                 |  |  |
| PPP1R13B                 |  |  |
| E16C9                    |  |  |
| COL1A1                   |  |  |
| DLX3                     |  |  |
| LSM6                     |  |  |
| PHB                      |  |  |
| ARF1_a                   |  |  |
| CCDC56                   |  |  |
| CONTIG81034              |  |  |
| PSME3                    |  |  |
| NSF                      |  |  |
| E15G4                    |  |  |
| MAPT                     |  |  |
| CRHR1                    |  |  |
| GH1                      |  |  |
| E17E11                   |  |  |
| PCK2                     |  |  |
| MDP1                     |  |  |
| TGM1                     |  |  |
| HIST2H3A                 |  |  |
| SDR39U1                  |  |  |
| TMEM85                   |  |  |
| TCELL                    |  |  |
| NDRG2                    |  |  |
| RABIF                    |  |  |
| TMEM183A                 |  |  |
| CSRP1                    |  |  |
| E15A9                    |  |  |
| NAV1                     |  |  |
| RPLP2                    |  |  |
| SRPK1                    |  |  |
| TMEM167B                 |  |  |
| E17C3                    |  |  |
| TAF11                    |  |  |
| MEX_NOHITS_2397_CONTIG_1 |  |  |
| RPL10A                   |  |  |
| CAPZA1                   |  |  |
| CYP2A13                  |  |  |
| RHOA_b                   |  |  |
| RAB7L1                   |  |  |

|              |  |  |
|--------------|--|--|
| SNRPE        |  |  |
| TAF8         |  |  |
| CTGF_a       |  |  |
| TPRG1L       |  |  |
| GNB1         |  |  |
| LOC100224741 |  |  |
| MAD2L2       |  |  |
| TARDBP       |  |  |
| E11E11       |  |  |
| NPDC1        |  |  |
| COBRA1       |  |  |
| TNC          |  |  |
| WDR5         |  |  |
| NOTCH1       |  |  |
| APEX1        |  |  |
| LHX2         |  |  |
| C9ORF78      |  |  |
| C9ORF16      |  |  |
| TOR1A        |  |  |
| FKBP10       |  |  |
| KRT24        |  |  |
| EIF1         |  |  |
| KRT12        |  |  |
| KRT17        |  |  |
| LOC100016027 |  |  |
| RARA         |  |  |
| HOXB13       |  |  |
| SNF8         |  |  |
| NFE2L1       |  |  |
| RPL19        |  |  |
| MED1         |  |  |
| KEAP1        |  |  |
| G2G13        |  |  |
| MED24        |  |  |
| THRA         |  |  |
| SFRS3        |  |  |
| MEX_NH_165   |  |  |
| TCF19        |  |  |
| MR1          |  |  |

| Gene ID  | Maker3 Genotyping Method |
|----------|--------------------------|
| SPEN     |                          |
| SPAG7    |                          |
| ENO3     |                          |
| PCOLCE2  |                          |
| PSMB6    |                          |
| EIF4A1   |                          |
| E16A9    |                          |
| CLDN7    |                          |
| CIRBP    |                          |
| CNN2     |                          |
| E12E2    |                          |
| GPX4     |                          |
| SLC39A3  |                          |
| BSG      |                          |
| CDC34    |                          |
| PRTN3    |                          |
| SFRS14   |                          |
| NDUFA13  |                          |
| USE1     |                          |
| UHRF1    |                          |
| E17C2    |                          |
| EEF2     |                          |
| MYO1F    |                          |
| NDUFA11  |                          |
| BTBD2    |                          |
| OAZ1     |                          |
| LSM7     |                          |
| MAPRE1   |                          |
| SAFB     |                          |
| ATP5E    |                          |
| MCL1     |                          |
| ERO1L    |                          |
| IFIH1    |                          |
| KRTCAP2  |                          |
| C1ORF230 |                          |
| PRG4     |                          |
| S100A11  |                          |
| S100A13  |                          |
| S100A4   |                          |
| E12E11   |                          |
| TPM3     |                          |
| RPS27    |                          |
| ANP32E   |                          |
| TXNIP    |                          |
| SSR2     |                          |

|           |  |
|-----------|--|
| DYNC1LI2  |  |
| ATP6V0D1  |  |
| TPPP3     |  |
| HDGF      |  |
| NUTF2     |  |
| UFC1      |  |
| TMEM188   |  |
| LUC7L3    |  |
| PSMD11    |  |
| U2AF1_b   |  |
| FXYD3     |  |
| E12C7     |  |
| COX6B1    |  |
| POLR2L    |  |
| NUCB1     |  |
| FTH1_b    |  |
| FTL       |  |
| KRTAP10-1 |  |
| LOC733905 |  |
| CD163L1   |  |
| SACS      |  |
| GPI       |  |
| ITLN1     |  |
| GABARAPL2 |  |
| HNRNPK_b  |  |
| NQO1      |  |
| VPS4A     |  |
| APRT      |  |
| CA5B      |  |
| MAP1LC3B  |  |
| GMDS      |  |
| TEAD4     |  |
| E24A11    |  |
| E12A2     |  |
| E13E7     |  |
| LIG1      |  |
| MOCS3     |  |
| SFRS7     |  |
| LOC769550 |  |
| MMP2      |  |
| NUDT21    |  |
| ETHE1     |  |
| SODEFRIN  |  |
| RABAC1    |  |
| MC1R      |  |
| MGST3     |  |
| APOE      |  |
| PRDX6     |  |
| FMO3      |  |

|          |                                           |
|----------|-------------------------------------------|
| ARPC5    |                                           |
| NCF2     |                                           |
| RGS2     |                                           |
| GLUL     |                                           |
| CLCA2    |                                           |
| RGS5     |                                           |
| COL11A1  |                                           |
| IFI44L   |                                           |
| GNG5     |                                           |
| SEPT10_b | PE - CCTGCATTGTATGGTTCCTTGAATGTTATA (G/C) |
| E12G5    |                                           |
| E17G11   |                                           |
| FPGT     |                                           |
| GPR177   |                                           |
| LEPROT   |                                           |
| USP1     |                                           |
| PSMA4    |                                           |
| C8A      |                                           |
| TMEM59   |                                           |
| SLC1A7   |                                           |
| SCP2     |                                           |
| EPS15    |                                           |
| TXNDC12  |                                           |
| KIAA0494 |                                           |
| FAAH     |                                           |
| E17G7    |                                           |
| PRDX1    |                                           |
| DAZL     |                                           |
| TMLHE    |                                           |
| THRB     |                                           |
| STT3B    |                                           |
| SH3BP5   |                                           |
| C7ORF41  |                                           |
| E12C2    |                                           |
| NGLY1    |                                           |
| VWDE     |                                           |
| COL1A2   |                                           |
| UHRF2    |                                           |
| NMT2     |                                           |
| VIM      |                                           |
| EIF1B    | ALA                                       |
| IGF2BP3  |                                           |
| TOMM7    |                                           |
| KIF15    |                                           |
| E54A6    |                                           |
| HOXA4    |                                           |
| HOXA9    |                                           |
| CBX3     |                                           |
| CYCS     |                                           |

|                    |                                  |
|--------------------|----------------------------------|
| ABI2               |                                  |
| KIF5B              |                                  |
| CREM               |                                  |
| WDR60              |                                  |
| U2AF2              |                                  |
| HBZ                |                                  |
| HBA2               |                                  |
| HBG1               | PE - ACCACGTGACCTGCTCCCGAA (T/C) |
| EIF3I              |                                  |
| KBTBD5             |                                  |
| CRHR2              |                                  |
| UQCRC2             |                                  |
| GNA12              |                                  |
| TIMM17B            |                                  |
| TIMP4              |                                  |
| DCTN5              |                                  |
| RBBP6              |                                  |
| TNRC6A             |                                  |
| NARFL              |                                  |
| E17G8              |                                  |
| MSLNL              |                                  |
| SSTR5              |                                  |
| PDGFRA_b           |                                  |
| H3F3B_b            |                                  |
| UBE2I              |                                  |
| COQ7               |                                  |
| PDXDC1             |                                  |
| MYL3               |                                  |
| ARF1_b             |                                  |
| ABAT               |                                  |
| ATP6V0C            |                                  |
| HN1L               |                                  |
| MRPS34             |                                  |
| NME3               |                                  |
| C16ORF13           |                                  |
| HBA2_a             |                                  |
| HBD                |                                  |
| STUB1              |                                  |
| LOC440335          |                                  |
| AURKB              |                                  |
| C11ORF51           |                                  |
| CCM2               |                                  |
| M_NOHITS_397_CTG1  |                                  |
| KIF9               |                                  |
| NGFR               |                                  |
| SETD2              |                                  |
| DRG2               |                                  |
| M_NOHITS_5137_CTG1 |                                  |
| MAP2K3             |                                  |

|                   |                                          |
|-------------------|------------------------------------------|
| MED9              |                                          |
| RAI1              |                                          |
| RASD1             |                                          |
| SHMT1             |                                          |
| PVALB             |                                          |
| RAC1              |                                          |
| ACTG1             | PE - TGCAATGCAATAGAGGACTTGATTGTACT (C/G) |
| ARPC1A            |                                          |
| M_NOHITS_899_CTG1 |                                          |
| UTS2R             |                                          |
| ACTB              |                                          |
| FOXK1             |                                          |
| BGN               | PE - CTCTTTGGGATTTGGATTTGTAGTGGTTC (C/T) |
| E13G5             |                                          |
| RENBP             |                                          |
| TKTL2             | TGCGE                                    |
| EEF1G             |                                          |
| SMC1A             |                                          |
| TTC9C             |                                          |
| ACTC1_a           |                                          |
| ADSS              |                                          |
| CALM1             | PE - GAAAGGAAACTACACCACAACAGGCAAC (T/G)  |
| OTUB1             |                                          |
| PRDX5             |                                          |
| RBM4              |                                          |
| CAPN1             | PE - CCTCGGGCTAGAGCAGTAAGGTA (A/G)       |
| DPP3              |                                          |
| PYGM              |                                          |
| TMED10            |                                          |
| FOXA3             |                                          |
| E14C12            |                                          |
| E16G10            |                                          |
| BANF1             |                                          |
| CFL1              | TGCGE                                    |
| E23C10            |                                          |
| KCNK1             |                                          |
| PLCB3             |                                          |
| RBM4B             |                                          |
| SULT6B1           |                                          |
| E16E8             |                                          |
| UCRC              |                                          |
| CKM               |                                          |
| CLPTM1            |                                          |
| SNRPD2            |                                          |
| E17G3             |                                          |
| C22ORF32          |                                          |
| CYP2C19           |                                          |
| E12E6             |                                          |
| CYP2F1            |                                          |

|                |                                           |
|----------------|-------------------------------------------|
| H3F3B_a        |                                           |
| CAPNS1         |                                           |
| SNAP23         |                                           |
| GMFG           |                                           |
| NCCRP1         |                                           |
| RHOA           |                                           |
| GNAT1          |                                           |
| TWF2           |                                           |
| WFDC2          |                                           |
| CNBP           |                                           |
| BTG1_a         |                                           |
| FLNB           |                                           |
| TKT            |                                           |
| E12A3          |                                           |
| RHO            |                                           |
| LSM3           |                                           |
| SEC61A1        |                                           |
| RAB7A          |                                           |
| IP6K2          |                                           |
| PRKAR2A        |                                           |
| ARPC4          | TGCGE                                     |
| NISCH          |                                           |
| RPL29          |                                           |
| PBRM1          |                                           |
| SPCS1          |                                           |
| ZYX            |                                           |
| MYL6           |                                           |
| NANOG          |                                           |
| C3AR1          |                                           |
| GAPDH          |                                           |
| ING4           |                                           |
| FKBP1A         |                                           |
| ASXL1          |                                           |
| E16A12         |                                           |
| GNAS           |                                           |
| ADNP           |                                           |
| SNAI2          |                                           |
| TNNC2          |                                           |
| UBE2V1         |                                           |
| SULF2          |                                           |
| NCOA5          | PE - CTTGTTCAATCAGTTGTGAAAATTATTCTA (A/G) |
| MMP2_a         |                                           |
| PDLIM7         |                                           |
| TMED9          |                                           |
| CTBP1          |                                           |
| RPUSD4         |                                           |
| TIG_NOHITS_253 |                                           |
| PROD1          |                                           |
| FUS            |                                           |

|             |                                           |
|-------------|-------------------------------------------|
| TRIM69      |                                           |
| VKORC1L1    |                                           |
| MVP         |                                           |
| NME1        |                                           |
| ALDOA       | PE - CCACCTCAATCGAGTCCCCAGC (G/A)         |
| E11G12      |                                           |
| YPEL3       |                                           |
| BOLA2       |                                           |
| SULT1C4     |                                           |
| ATP2A1      |                                           |
| CONTIG13340 |                                           |
| E16E3       |                                           |
| E50G8       |                                           |
| NFS1        |                                           |
| MAP1LC3A    |                                           |
| C20ORF4     |                                           |
| MANBAL      |                                           |
| BNIP1       |                                           |
| UQCRQ       |                                           |
| CAMLG       |                                           |
| SKP1        |                                           |
| SMAD5       |                                           |
| SEPT10_a    |                                           |
| HNRNPA0     |                                           |
| E13E11      |                                           |
| HNRNPAB     |                                           |
| MATR3       |                                           |
| UBE2D2      |                                           |
| E12A5       |                                           |
| E14G1       |                                           |
| PHF5A       |                                           |
| POLR3H      |                                           |
| CSNK1E      |                                           |
| KDEL3       |                                           |
| TOM1        |                                           |
| HOXC10      |                                           |
| ATP5G2      |                                           |
| E54A1       |                                           |
| NACA        |                                           |
| RARG        |                                           |
| KRT4        |                                           |
| KRT5        | PE - CAGAGGGAATAGAATAGATGTGATTGACAT (C/A) |
| OS9         |                                           |
| CD63        |                                           |
| OBFC2B      |                                           |
| RPS26       |                                           |
| RHEBL1      |                                           |
| WNT1        |                                           |
| DDX23       |                                           |

|            |                                       |
|------------|---------------------------------------|
| C5ORF4     |                                       |
| SPARC      |                                       |
| ATOX1      |                                       |
| CD74       |                                       |
| SQSTM1     |                                       |
| CCNG1      |                                       |
| PKM2       |                                       |
| MYH9       |                                       |
| ETF1       |                                       |
| LURP-1     |                                       |
| MGP        |                                       |
| PRPSAP1    |                                       |
| SFRS2      |                                       |
| C17ORF28   |                                       |
| RAB37      |                                       |
| XYLT2      |                                       |
| APOH       |                                       |
| DDX5       |                                       |
| ETG990     |                                       |
| GNA13      |                                       |
| PRKAR1A    |                                       |
| KCNJ16     |                                       |
| SOX9       |                                       |
| SSTR2      |                                       |
| RPL38      |                                       |
| ARHGDIA    |                                       |
| CYP4F22    |                                       |
| E13G1      |                                       |
| PBX1       |                                       |
| THOC4      |                                       |
| ZNF248     |                                       |
| ZNF717     |                                       |
| P4HB       |                                       |
| PKN2       |                                       |
| ASF1A      |                                       |
| ASF1B      |                                       |
| E12C8      |                                       |
| PGLS       |                                       |
| C19ORF43   |                                       |
| JUNB       |                                       |
| TYK2       |                                       |
| C19ORF52   |                                       |
| DNM2       |                                       |
| ELOF1      |                                       |
| FARSA      | PE - CACAAGGTGAACCTGCAGATGGTCTA (T/C) |
| GADD45GIP1 |                                       |
| E14C7      |                                       |
| KHSRP      |                                       |
| C19ORF53   |                                       |

|           |                                           |
|-----------|-------------------------------------------|
| E12A1     |                                           |
| E15G10    |                                           |
| E14G3     |                                           |
| ANAPC7    |                                           |
| RAB35     |                                           |
| DYNLL1    |                                           |
| SFRS9     |                                           |
| DDT       |                                           |
| MIF       |                                           |
| E14A8     |                                           |
| FBXW8     |                                           |
| XBP1      |                                           |
| PPIF      |                                           |
| SLC20A1   |                                           |
| PGAM2     |                                           |
| E15E3     |                                           |
| MYL7      |                                           |
| OGDH      | PE - AGTGAAATAGAGTTGTAGAAACAAGCGTGT (G/A) |
| TIA1      |                                           |
| E16A5     |                                           |
| AP2M1     |                                           |
| E12E10    |                                           |
| E16C3     |                                           |
| EIF4G1    |                                           |
| EIF5A     |                                           |
| E13E8     |                                           |
| LAMP3     |                                           |
| LOC563358 |                                           |
| PDCD10    |                                           |
| PRPF6     |                                           |
| KPNA4     |                                           |
| RARRES1   |                                           |
| VWA5A     |                                           |
| SCLY      |                                           |
| E14C4     |                                           |
| E14G7     |                                           |
| HDLBP     |                                           |
| HSD17B8   |                                           |
| CIRBP_b   |                                           |
| E54E6     |                                           |
| BOLA3     |                                           |
| PDLIM2    |                                           |
| ENTPD4    |                                           |
| SFRP1     |                                           |
| E14E1     |                                           |
| PHB2      |                                           |
| AKAP7     |                                           |
| EGLN1     |                                           |
| MAL       |                                           |

|          |  |
|----------|--|
| MALL     |  |
| TCP1     |  |
| BTG1_b   |  |
| CTGF     |  |
| ZUFSP    |  |
| FABP7    |  |
| KIAA0776 |  |
| ZNF292   |  |
| CIRBP_c  |  |
| COX7A2   |  |
| COL12A1  |  |
| TMEM14A  |  |
| PXDN     |  |
| PDIA6    |  |
| ID2      |  |
| PQLC3    |  |
| YWHAQ    |  |
| RHOB     |  |
| SDC1     |  |
| CTSB     |  |
| IRGC     |  |
| PGAM2_b  |  |
| GPN1     |  |
| ZNF649   |  |
| LECT2    |  |
| CYC1     |  |
| E48C10   |  |
| EPPK1    |  |
| PSCA     |  |
| PUF60    |  |
| VPS28    |  |
| PRKRIP1  |  |
| MYC      |  |
| NDUFB9   |  |
| RNF19A   |  |
| PABPC1   |  |
| UQCRB    |  |
| RBM12B   |  |
| CA2      |  |
| NBN      |  |
| MRPS28   |  |
| E15A2    |  |
| NUP37    |  |
| RIOK3    |  |
| YES1     |  |
| MYL12B   |  |
| CNDP1    |  |
| CYB5A    |  |
| CHMP5    |  |

|                          |  |
|--------------------------|--|
| MYO10                    |  |
| BASP1                    |  |
| DAP                      |  |
| KDSR                     |  |
| VPS4B                    |  |
| ACOT13                   |  |
| JARID2                   |  |
| SERPINB6                 |  |
| TXNDC5                   |  |
| LYRM4                    |  |
| E15A11                   |  |
| KBTBD2                   |  |
| LOC420992                |  |
| TMSB15A                  |  |
| LOC792995                |  |
| E17E10                   |  |
| FAM162A                  |  |
| TAF9                     |  |
| FHL1                     |  |
| SOX3                     |  |
| HMGB3                    |  |
| VMA21                    |  |
| IDH2                     |  |
| MFAP1                    |  |
| IQGAP1                   |  |
| CLPX                     |  |
| GATM                     |  |
| MCEE                     |  |
| MAPK6                    |  |
| LARP6                    |  |
| SFTPC                    |  |
| NPTN                     |  |
| CONTIG22977              |  |
| ISL2                     |  |
| LIPC                     |  |
| HAPLN3                   |  |
| ABHD2                    |  |
| RHCG                     |  |
| MEX_NOHITS_2369_CONTIG_1 |  |
| RAB11A                   |  |
| TLE3                     |  |
| PHLDA2                   |  |
| ATHL1                    |  |
| LOC644003                |  |
| MUC5AC                   |  |
| TNNI2                    |  |
| CD81                     |  |
| FTH1                     |  |
| C11ORF58                 |  |

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|-------------------|--|
| RRAS2             |  |
| SBF2              |  |
| SPON1             |  |
| PAX6              |  |
| CCND1             |  |
| CD59              |  |
| ANXA2             |  |
| LOC100091509      |  |
| E15E9             |  |
| SERINC2           |  |
| TRNAU1AP          |  |
| CTSL2             |  |
| RCC1              |  |
| T_                |  |
| SH3BGRL3          |  |
| GRHL3             |  |
| E12G12            |  |
| M_NOHITS_886_CTG2 |  |
| STMN1             |  |
| ZNF593            |  |
| E15A6             |  |
| RRAGC             |  |
| SF3A3             |  |
| GNL2              |  |
| TRAPPC3           |  |
| ZNF706            |  |
| E14C3             |  |
| E16C8             |  |
| GJB5              |  |
| E13G11            |  |
| KHDRBS1           |  |
| KPNA6             |  |
| SFRS1             |  |
| YARS              |  |
| RAB6A             |  |
| DNAJB13           |  |
| LIPT2             |  |
| SPCS2             |  |
| STARD10           |  |
| THRSP             |  |
| SYTL2             |  |
| UBL3              |  |
| POSTN             |  |
| E12G3             |  |
| C13ORF31          |  |
| GTF2F2            |  |
| ITM2B             |  |
| LCP1              |  |
| RB1               |  |

|                          |                                        |
|--------------------------|----------------------------------------|
| RAB33B                   |                                        |
| LMO7                     |                                        |
| PICK1                    |                                        |
| GPR143                   |                                        |
| RPL24                    |                                        |
| THOC4_a                  |                                        |
| COL8A1                   |                                        |
| EIF1AX                   |                                        |
| TM9SF2                   |                                        |
| COL4A2                   |                                        |
| ABHD13                   |                                        |
| MID1IP1                  |                                        |
| BLZF1                    |                                        |
| DPT                      |                                        |
| SOD1                     |                                        |
| TIAM1                    |                                        |
| ALCAM                    |                                        |
| ATP5O                    |                                        |
| RCAN1                    |                                        |
| CD247                    |                                        |
| UPK1B                    |                                        |
| FSTL1                    |                                        |
| CCDC58                   |                                        |
| MAN1A2                   |                                        |
| LOC643604                |                                        |
| TPM2                     |                                        |
| DNAJB5                   |                                        |
| IER3IP1                  |                                        |
| SMAD2                    |                                        |
| ID3                      |                                        |
| ATP8B1                   |                                        |
| ZFR                      |                                        |
| MEX_NOHITS_2377_CONTIG_1 |                                        |
| MEX_NOHITS_2354_CONTIG_1 |                                        |
| SEPP1                    |                                        |
| CONTIG95328              |                                        |
| PRKAA1                   |                                        |
| GPX8                     |                                        |
| SCAMP1                   |                                        |
| HMGCR                    |                                        |
| MEX_NOHITS_906_CONTIG_1  |                                        |
| OCLN                     |                                        |
| VCAN                     |                                        |
| E11G8                    |                                        |
| TNFAIP8                  |                                        |
| E14E6                    |                                        |
| E14C5                    |                                        |
| ANXA1                    | PE - CCAGCAGCAGAAGAAAGTGATCTAAGA (G/A) |
| HNRNPK                   |                                        |

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|-----------|-------------------------------------------|
| FAM108B1  |                                           |
| HSPA8     |                                           |
| APLP2     |                                           |
| E14E10    |                                           |
| NNMT      |                                           |
| LOC566020 |                                           |
| ARCN1     |                                           |
| FXVD2     |                                           |
| PAFAH1B2  |                                           |
| MNT       |                                           |
| E11G11    |                                           |
| E12A11    |                                           |
| AATF      |                                           |
| ATP2A3    |                                           |
| BAZ1B     |                                           |
| E16C7     |                                           |
| C7ORF42   |                                           |
| GBAS      |                                           |
| MKS1      |                                           |
| POR       |                                           |
| MED31     |                                           |
| CLTC      |                                           |
| DOC2B     |                                           |
| MED13     |                                           |
| PRR11     |                                           |
| E11G4     |                                           |
| E17C12    |                                           |
| CFLAR     |                                           |
| STAT1     |                                           |
| TOMM20    |                                           |
| TRA2B     |                                           |
| DNAJB11   |                                           |
| ZC3H15    |                                           |
| SUMO3     | PE - CTTAGAGGACTTTACCAAAATGTTTGATCA (C/T) |
| E54C11    |                                           |
| STT3B_a   |                                           |
| FN1       |                                           |
| E12G1     |                                           |
| E12G7     |                                           |
| NDUFA10   |                                           |
| UGT1A1    |                                           |
| COL6A1    |                                           |
| E13E6     |                                           |
| ATP5G3    |                                           |
| HOXD8     |                                           |
| HOXD11    |                                           |
| E13A7     |                                           |
| SCRN3     |                                           |
| GCA       |                                           |

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|-------------|--|
| RND3        |  |
| HNMT        |  |
| R3HDM1      |  |
| SNX4        |  |
| E14A3       |  |
| NNMT_a      |  |
| ZNF142      |  |
| ACCN4       |  |
| E19A7       |  |
| CYP27B1     |  |
| SLC37A3     |  |
| FBXO7       |  |
| CARDIAC-RNA |  |
| E54G12      |  |
| MTPN        |  |
| IL17RA      |  |
| FBXL14      |  |
| WNT5B       |  |
| E17C9       |  |
| NTF3        |  |
| TMEM19      |  |
| UPK3B       |  |
| TWF1        |  |
| HIST1H2AG   |  |
| HIST1H1E    |  |
| E12A4       |  |
| CDK2AP2     |  |
| UBE2L3      |  |
| C11ORF31    |  |
| CTNND1      |  |
| FTSJ3       |  |
| TMX2        |  |
| CTSK        |  |
| E17C5       |  |
| E17C6       |  |
| FLJ36031    |  |
| LUM         |  |
| PIM3        |  |
| PAWR        |  |
| KITLG       |  |
| TIGRINUM-UV |  |
| CALU        |  |
| E15C7       |  |
| LEP         |  |
| IMPDH1      |  |
| SND1        |  |
| COPG2       |  |
| TUBA1A      |  |
| RAP1B       |  |

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| TMEM5    |  |
| XRCC6BP1 |  |
| ACADSB   |  |
| EIF3A    |  |
| ABLIM1   |  |
| TRIM8    |  |
| COX15    |  |
| ATP5B    |  |
| ANKRD1   |  |
| DNTT     |  |
| HIGD1A   |  |
| CISD1    |  |
| SGMS1    |  |
| E16E2    |  |
| MFAP2    |  |
| SS18L2   |  |
| UBR4     |  |
| SFTPD    |  |
| AP3M1    |  |
| E15C8    |  |
| VDAC2    |  |
| ERRFI1   |  |
| HSPG2    |  |
| CDC42    |  |
| C1QB     |  |
| PCBD1    |  |
| C10ORF54 |  |
| PSAP     |  |
| H2AFY2   |  |
| DDX21    |  |
| KIAA0913 |  |
| MYOZ1    |  |
| CCDC109A |  |
| EIF4EBP2 |  |
| SAR1A    |  |
| CAMTA1   |  |
| RPL37A   |  |
| CALM1_b  |  |
| SLC4A5   |  |
| DCTN6    |  |
| PTPN9    |  |
| SFRS2_a  |  |
| C9ORF156 |  |
| CLTA     |  |
| KLHL8    |  |
| ENO3_a   |  |
| MMRN1    |  |
| C4ORF16  |  |
| HSDL2    |  |

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|--------------------------|------------------------------------------|
| H2AFZ                    |                                          |
| KLF4                     |                                          |
| RAD23B                   |                                          |
| SCOC                     |                                          |
| LARP7                    |                                          |
| TBCKL                    |                                          |
| NDUFC1                   |                                          |
| ARFIP1                   |                                          |
| PDGFC                    |                                          |
| CHDH                     |                                          |
| TMEM165                  |                                          |
| KIT                      |                                          |
| PDGFRA                   |                                          |
| CNGA1                    |                                          |
| SLC2A9                   |                                          |
| WDR1                     |                                          |
| C20ORF27                 |                                          |
| CDC25A                   |                                          |
| E15C10                   |                                          |
| KAZALD1                  |                                          |
| MEX_NOHITS_2379_CONTIG_1 |                                          |
| MGC97528                 |                                          |
| KCTD3                    |                                          |
| PYGO2                    |                                          |
| EPHX1                    |                                          |
| GTPBP2                   |                                          |
| TMEM63B                  |                                          |
| HSP90AB1                 | ALA                                      |
| C6ORF226                 |                                          |
| RPS6                     |                                          |
| CCDC127                  |                                          |
| ARRB1                    |                                          |
| SFTPD_b                  |                                          |
| COX7B                    |                                          |
| SSR2_b                   |                                          |
| E15G1                    |                                          |
| AP4S1                    |                                          |
| EAPP                     |                                          |
| THBS1                    |                                          |
| ACTC1                    |                                          |
| ERH                      |                                          |
| CHURC1                   |                                          |
| SFRS4-like               |                                          |
| TRMT5                    |                                          |
| ARF6                     |                                          |
| MAP4K5                   |                                          |
| RPS29                    |                                          |
| NID2                     |                                          |
| C14ORF129                | PE - TGTTATTGCTCCAGGTATTGAGCATGAGG (C/G) |

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|--------------------------|--|
| CNIH                     |  |
| FERMT2                   |  |
| NPC2                     |  |
| FCF1                     |  |
| LGMN                     |  |
| WARS                     |  |
| AHSA1                    |  |
| UBR7                     |  |
| CDC42BPB                 |  |
| PPP1R13B                 |  |
| E16C9                    |  |
| COL1A1                   |  |
| DLX3                     |  |
| LSM6                     |  |
| PHB                      |  |
| ARF1_a                   |  |
| CCDC56                   |  |
| CONTIG81034              |  |
| PSME3                    |  |
| NSF                      |  |
| E15G4                    |  |
| MAPT                     |  |
| CRHR1                    |  |
| GH1                      |  |
| E17E11                   |  |
| PCK2                     |  |
| MDP1                     |  |
| TGM1                     |  |
| HIST2H3A                 |  |
| SDR39U1                  |  |
| TMEM85                   |  |
| TCELL                    |  |
| NDRG2                    |  |
| RABIF                    |  |
| TMEM183A                 |  |
| CSRP1                    |  |
| E15A9                    |  |
| NAV1                     |  |
| RPLP2                    |  |
| SRPK1                    |  |
| TMEM167B                 |  |
| E17C3                    |  |
| TAF11                    |  |
| MEX_NOHITS_2397_CONTIG_1 |  |
| RPL10A                   |  |
| CAPZA1                   |  |
| CYP2A13                  |  |
| RHOA_b                   |  |
| RAB7L1                   |  |

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|--------------|--|
| SNRPE        |  |
| TAF8         |  |
| CTGF_a       |  |
| TPRG1L       |  |
| GNB1         |  |
| LOC100224741 |  |
| MAD2L2       |  |
| TARDBP       |  |
| E11E11       |  |
| NPDC1        |  |
| COBRA1       |  |
| TNC          |  |
| WDR5         |  |
| NOTCH1       |  |
| APEX1        |  |
| LHX2         |  |
| C9ORF78      |  |
| C9ORF16      |  |
| TOR1A        |  |
| FKBP10       |  |
| KRT24        |  |
| EIF1         |  |
| KRT12        |  |
| KRT17        |  |
| LOC100016027 |  |
| RARA         |  |
| HOXB13       |  |
| SNF8         |  |
| NFE2L1       |  |
| RPL19        |  |
| MED1         |  |
| KEAP1        |  |
| G2G13        |  |
| MED24        |  |
| THRA         |  |
| SFRS3        |  |
| MEX_NH_165   |  |
| TCF19        |  |
| MR1          |  |