

Supplementary Table 1. Minor allele frequencies (MAF) in controls of nsSNPs tested for allelic association with lung cancer

SNP ID	Gene	Protein	Substitution		Control MAF
			Nucleotide	Amino acid	
rs16943991	ABC1	NP_071353	C/T	S1006L	0.06626
rs10491178	ABCA10	NP_525021	C/T	R1322X	0.05030
rs9282554	ABCA6	NP_525023	A/T	N610Y	0.04939
rs17684521	ABCA9	NP_525022	A/G	N785S	0.03828
rs1860447	ABCA9	NP_759018	G/A	R353H	0.05955
rs17545756	ABCB8	NP_009119	C/T	R304C	0.06607
rs16945930	ABCC11	NP_115972	G/A	V648I	0.01187
rs17822471	ABCC11	NP_115972	C/T	T546M	0.06888
rs17822931	ABCC11	NP_115972	G/A	G180R	0.12820
rs7193955	ABCC12	NP_150229	C/T	R1117C	0.21964
rs8187710	ABCC2	NP_000383	G/A	C1515Y	0.05378
rs11568658	ABCC4	NP_005836	G/T	G187W	0.02097
rs2274407	ABCC4	NP_005836	G/T	K304N	0.06366
rs25683	ACAT2	NP_005882	A/G	K211R	0.42107
rs17041850	ACOXL	NP_060778	C/T	P358L	0.05494
rs2305799	ACP5	NP_001602	G/A	V148M	0.12184
rs3740199	ADAM12	NP_003465	G/C	G48R	0.44917
rs2287749	ADAM19	NP_150377	G/A	G660D	0.13878
rs6595908	ADAMTS19	NP_598377	A/G	S367G	0.00501
rs1054480	ADAMTS2	NP_055059	C/T	P1177S	0.28882
rs2830585	ADAMTS5	NP_008969	G/A	R614H	0.16629
rs13166360	ADCY2	NP_065433	G/T	V142L	0.25753
rs3212254	ADCY4	NP_006862	C/A	P492Q	0.05020
rs1573496	ADH7	NP_000664	G/C	G80A	0.10074
rs1136410	ADPRT	NP_001609	T/C	V762A	0.14809
rs3219062	ADPRT	NP_001609	C/A	S383Y	0.00297
rs1048101	ADRA1A	NP_000671	T/C	C347R	0.44801
rs11858113	AF15Q14	NP_065113	T/C	M572T	0.39666
rs2070600	AGER	NP_001127	G/A	G82S	0.06893
rs1377210	AGXT2L1	NP_112569	T/C	S185P	0.08890
rs2297970	AIM1	XP_166300	G/A	C2018Y	0.30354
rs3747787	AIM1	XP_166300	T/C	C1114R	0.25790
rs783396	AIM1	XP_166300	A/C	E1819A	0.07427
rs12449580	AIP1	NP_055151	G/C	D90H	0.19402
rs2108978	AKAP10	NP_009133	G/A	R249H	0.39306
rs3734797	AKAP12	NP_005091	G/A	V1096I	0.02080
rs4843074	AKAP13	NP_006729	C/G	P1062A	0.35171
rs6964587	AKAP9	NP_005742	G/T	M463I	0.38307
rs1738023	AKR7A3	NP_036199	A/G	N215D	0.16425
rs1044243	ALCAM	NP_001618	C/T	T301M	0.12082
rs2275272	ALDH18A1	NP_002851	C/T	T299I	0.12727
rs2073478	ALDH1B1	NP_000683	G/T	R107L	0.40680
rs4878199	ALDH1B1	NP_000683	G/A	V253M	0.04261
rs671	ALDH2	NP_000681	G/A	E504K	0.00037
rs1551886	ALDH3B2	NP_000686	A/G	H361R	0.10357
rs7225107	ALOX15B	NP_001132	A/G	I676V	0.00928
rs3739922	ALS4	NP_055861	T/G	F1152C	0.03601
rs3195676	AMACR	NP_055139	G/A	V9M	0.45519
rs34677	AMACR	NP_055139	G/T	Q239H	0.13729
rs10407022	AMH	NP_000470	G/T	S49I	0.16741
rs17602729	AMPD1	NP_000027	C/T	Q12X	0.13341
rs1044250	ANGPTL4	NP_057193	C/T	T266M	0.31730
rs2304877	ANK1	NP_000028	G/A	R619H	0.05407
rs29372	ANK2	NP_001139	A/G	N687S	0.00019
rs9675365	ANKRD30B	XP_371111	C/G	F477L	0.46952
rs2288675	ANP32C	NP_036535	G/A	R71K	0.48570
rs1049550	ANXA11	NP_001148	C/T	R230C	0.40816
rs2294013	ANXA13	NP_004297	G/A	R86H	0.32707
rs11976480	AOAH	NP_001628	G/A	D28N	0.31760
rs12897422	AP1G2	NP_003908	C/T	S377F	0.14965
rs250430	APBB3	NP_006042	T/C	C238R	0.15383
rs1801166	APC	NP_000029	G/C	E1317Q	0.01022
rs459552	APC	NP_000029	T/A	V1822D	0.22189
rs1048945	APEX1	NP_001632	G/C	Q51H	0.04177
rs3136820	APEX1	NP_001632	T/G	D148E	0.47769
rs1047552	APH1B	NP_112591	T/G	F217L	0.02709
rs1367117	APOB	NP_000375	C/T	T98I	0.33624
rs1801702	APOB	NP_000375	G/C	R4270T	0.01745
rs533617	APOB	NP_000375	A/G	H1923R	0.03805
rs676210	APOB	NP_000375	C/T	P2739L	0.19829
rs5167	APOC4	NP_001637	T/G	L96R	0.33145

rs7412	APOE	NP_000032	C/T	R176C	0.07924
rs1801689	APOH	NP_000033	T/G	C325G	0.03074
rs1801690	APOH	NP_000033	G/C	W335S	0.05585
rs2076671	APOL5	NP_085145	C/T	T272M	0.32088
rs945508	ARHGEF11	NP_055599	A/G	H1427R	0.48033
rs139299	ARP10	NP_861438	G/C	K121N	0.46883
rs240768	ASCC3	NP_006819	A/G	Y2176C	0.04105
rs240780	ASCC3	NP_006819	C/G	S1995C	0.41630
rs16971436	ATBF1	NP_008816	A/C	T428P	0.01078
rs2230674	ATF1	NP_005162	C/G	P191A	0.04088
rs283526	ATF5	NP_036200	C/T	P121L	0.48938
rs2231909	ATF7IP	NP_060649	A/T	N348I	0.41558
rs2372536	ATIC	NP_004035	C/G	T116S	0.32420
rs1800056	ATM	NP_000042	T/C	F858L	0.01114
rs1800057	ATM	NP_000042	C/G	P1054R	0.02375
rs1800058	ATM	NP_000042	C/T	L1420F	0.01728
rs1801673	ATM	NP_000042	A/T	D1853V	0.00519
rs2235006	ATM	NP_000042	T/C	F582L	0.00019
rs3092856	ATM	NP_000042	C/T	H1380Y	0.00056
rs3218707	ATM	NP_000042	G/C	V182L	0.00037
rs4986761	ATM	NP_000042	T/C	S707P	0.01262
rs4987945	ATM	NP_000042	C/G	L546V	0.00019
rs17116056	ATP10A	NP_077816	C/A	S353Y	0.05312
rs2066703	ATP10A	NP_077816	C/T	T532M	0.07495
rs17368402	ATP1A4	NP_653300	G/A	E297K	0.12041
rs6427504	ATP1A4	NP_653300	G/A	G83D	0.28805
rs12968116	ATP8B1	NP_005594	G/A	R952Q	0.12918
rs2227928	ATR	NP_001175	T/C	M211T	0.41763
rs2229032	ATR	NP_001175	G/A	R2425Q	0.15362
rs2229033	ATR	NP_001175	G/C	K297N	0.01429
rs17782078	ATRN	NP_036202	T/C	I352T	0.05322
ss49785876	AXIN1	NP_851393	G/A	R805Q	0.00835
rs2240308	AXIN2	NP_004646	C/T	P50S	0.47081
rs1048108	BARD1	NP_000456	C/T	P24S	0.35940
rs2229571	BARD1	NP_000456	G/C	R378S	0.38447
rs3738888	BARD1	NP_000456	C/T	R658C	0.00874
ss49785881	BARD1	NP_000456	G/C	C557S	0.02839
rs1052486	BAT3	NP_004630	T/C	S625P	0.48306
rs3130618	BAT4	NP_149417	G/T	R41L	0.19031
rs1799807	BCHE	NP_000046	A/G	D98G	0.01744
rs3768235	BCL10	NP_003912	G/A	G213E	0.05549
rs3826007	BCL2A1	NP_004040	G/A	G82D	0.25056
rs9306198	BCL2L13	NP_056182	C/T	P360S	0.12690
rs1046248	BDKRB2	NP_000614	C/T	R14C	0.10320
rs2227279	BDKRB2	NP_000614	G/A	G354E	0.00074
rs6265	BDNF	NP_001700	G/A	V66M	0.19017
rs4151667	BF	NP_001701	T/A	L9H	0.04929
rs4807840	BGR	NP_112186	T/C	V143A	0.31276
rs7312857	BIN2	NP_057377	G/A	S48N	0.10958
rs2071214	BIRC5	NP_001159	G/A	E129K	0.05836
rs11852361	BLM	NP_000048	C/T	P868L	0.07561
rs16942	BRCA1	NP_009225	A/G	K1183R	0.32263
rs1799950	BRCA1	NP_009225	A/G	Q356R	0.05405
rs1799966	BRCA1	NP_009225	A/G	S1613G	0.32468
rs2227945	BRCA1	NP_009225	A/G	S1140G	0.00037
rs4986850	BRCA1	NP_009225	G/A	D693N	0.07477
rs4986852	BRCA1	NP_009225	G/A	S1040N	0.02342
rs11571746	BRCA2	NP_000050	T/C	S2835P	0.00019
rs11571747	BRCA2	NP_000050	A/C	E2856A	0.00353
rs11571833	BRCA2	NP_000050	A/T	K3326X	0.00928
rs144848	BRCA2	NP_000050	A/C	N372H	0.28073
rs169547	BRCA2	NP_000050	T/C	V2466A	0.00000
rs1799954	BRCA2	NP_000050	C/T	R2034C	0.00724
rs1801426	BRCA2	NP_000050	A/G	I3412V	0.00093
rs4987047	BRCA2	NP_000050	A/T	I2944F	0.00019
rs4987117	BRCA2	NP_000050	C/T	T1915M	0.03506
rs766173	BRCA2	NP_000050	A/C	N289H	0.03118
rs2302465	BST1	NP_004325	G/A	R125H	0.13027
rs3810813	BTBD12	NP_115820	C/T	S588F	0.06308
rs714181	BTBD12	NP_115820	C/T	P439L	0.07761
rs1801376	BUB1B	NP_001202	G/A	R349Q	0.29769
rs12146727	C1S	NP_001725	G/A	R119H	0.13201
rs12476147	C2orf10	NP_919226	A/T	Q261L	0.37959
rs1047286	C3	NP_000055	C/T	P314L	0.20434
rs2230210	C3	NP_000055	A/C	S1619R	0.00371
rs2274333	CA6	NP_001206	A/G	S90G	0.31062
rs7214723	CAMKK1	NP_115670	A/G	E375G	0.44556
rs4980999	CAMKK2	NP_006540	C/T	R363C	0.12361
rs508405	CAPN13	NP_653176	G/A	A280T	0.32207

rs3738372	CAPN2	NP_001739	A/C	K568Q	0.24471
rs12731961	CAPN9	NP_006606	C/T	R522W	0.18664
rs5743291	CARD15	NP_071445	G/A	V955I	0.09150
rs10512747	CARD6	NP_115976	C/T	S86L	0.11354
rs2043211	CARD8	NP_055774	T/A	C10X	0.31651
rs507879	CASP5	NP_004338	A/G	T90A	0.44082
rs1045485	CASP8	NP_001219	G/C	D302H	0.13127
rs1042636	CASR	NP_000379	A/G	R990G	0.07217
rs754615	CAST	NP_001741	G/C	C408S	0.39525
rs8940	CAV2	NP_001224	C/G	Q130E	0.17540
rs3208856	CBLC	NP_036248	C/T	H405Y	0.03342
rs1056892	CBR3	NP_001227	G/A	V244M	0.34996
rs3218089	CCND3	NP_001751	C/T	P134S	0.00019
rs2266690	CCNH	NP_001230	T/C	V270A	0.21352
rs2266691	CCNH	NP_001230	A/G	K138R	0.00093
rs2295615	CD48	NP_001769	G/C	E102Q	0.13545
rs13328900	CD5	NP_055022	C/T	A471V	0.48887
rs11567997	CDC25C	NP_001781	G/C	G297R	0.03029
rs3734166	CDC25C	NP_001781	C/T	R70C	0.25130
rs17209274	CDC45L	NP_003495	T/G	M356R	0.00000
rs13706	CDC6	NP_001245	G/A	V441I	0.11483
rs4135012	CDC6	NP_001245	G/A	D295N	0.02505
rs35195	CDH11	NP_001788	C/T	T255M	0.35765
rs4371716	CDH12	NP_004052	G/A	V68M	0.24164
rs2271023	CDH16	NP_004053	C/T	H257Y	0.03144
rs2289664	CDH2	NP_001783	A/G	N845S	0.02617
rs2288467	CDH9	NP_057363	A/G	Y6C	0.49481
rs11250	CENPC1	NP_001803	C/T	L341F	0.40167
rs10115703	CER1	NP_005445	C/T	R19W	0.07869
rs3747532	CER1	NP_005445	C/G	A65G	0.32404
rs5880	CETP	NP_000069	G/C	A390P	0.05372
rs10494745	CFHL4	NP_006675	G/A	G306E	0.10725
rs1800076	CFTR	NP_000483	G/A	R75Q	0.03711
rs1800100	CFTR	NP_000483	C/T	R668C	0.01169
rs213950	CFTR	NP_000483	G/A	V470M	0.39666
rs17356233	CHD1L	NP_004275	C/G	H350Q	0.24675
rs2275249	CHD1L	NP_004275	C/G	S743C	0.07978
rs506504	CHEK1	NP_001265	A/G	I471V	0.03526
rs17879961	CHEK2	NP_009125	T/C	I157T	0.00000
rs880633	CHI3L1	NP_001267	A/G	R145G	0.48608
rs2297950	CHIT1	NP_003456	G/A	G102S	0.29004
rs3205421	CHPT1	NP_064629	T/C	F162S	0.29065
rs2294451	CHTF18	NP_071375	C/T	P928L	0.21100
rs17409304	CLCA2	NP_006527	C/G	Q306E	0.35282
rs7537203	CLSPN	NP_071394	A/G	N525S	0.12723
rs17348572	CLSTN2	NP_071414	T/C	I331T	0.05071
rs9331936	CLU	NP_001822	A/C	N369H	0.00019
rs970547	COL12A1	NP_542376	G/A	G1894S	0.22338
rs4680	COMT	NP_000745	G/A	V158M	0.48905
rs6267	COMT	NP_000745	G/T	A72S	0.00019
rs10330	COPE	NP_009194	C/T	T117I	0.12350
rs11074359	COQ7	NP_057222	C/T	T103M	0.35736
rs11934749	CORIN	NP_006578	A/G	H525R	0.12913
rs2171492	CPA4	NP_057436	G/T	G303C	0.39766
rs17388190	CPA5	NP_525124	C/T	P79S	0.03494
rs7978197	CPM	NP_001865	G/A	R24H	0.01414
rs7422339	CPS1	NP_001866	C/A	T1406N	0.31725
rs8142477	CPT1B	NP_004368	C/G	S427C	0.10787
rs1799822	CPT2	NP_000089	A/G	M647V	0.22751
rs1052200	CPVL	NP_061902	G/A	R398H	0.13957
rs17047661	CR1	NP_000564	A/G	R1601G	0.00167
rs3917973	CSF3R	NP_000751	T/C	M231T	0.00148
rs3918021	CSF3R	NP_724781	C/T	R698C	0.00594
rs17773251	CSNK1A1L	NP_660204	G/C	R170S	0.08132
rs160277	CSPG2	NP_004376	G/T	D2937Y	0.38609
rs2287926	CSPG2	NP_004376	G/A	G428D	0.11725
rs1021737	CTH	NP_001893	G/T	S403I	0.29213
rs7021366	CTNNAL1	NP_003789	G/C	E527Q	0.28046
ss49785882	CTNNB1	NP_001895	A/G	N287S	0.00167
rs12338	CTSB	NP_001899	C/G	L26V	0.39418
rs10795446	CUBN	NP_001072	C/A	P389T	0.30386
rs1801222	CUBN	NP_001072	T/C	F253S	0.36850
rs2271462	CUBN	NP_001072	G/A	G1840S	0.01470
rs2356590	CUBN	NP_001072	C/A	P1971T	0.01429
rs3732378	CX3CR1	NP_001328	C/T	T280M	0.17227
rs4534	CYP11B1	NP_000488	G/A	R43Q	0.01447
rs6407	CYP11B1	NP_000488	G/A	A348T	0.00019
rs1799814	CYP1A1	NP_000490	C/A	T461N	0.04022
rs1056836	CYP1B1	NP_000095	G/C	V432L	0.45288

rs1800440	CYP1B1	NP_000095	A/G	N453S	0.18189
rs2281891	CYP2C18	NP_000763	C/T	T385M	0.15340
rs10509681	CYP2C8	NP_000761	A/G	K399R	0.12287
rs11572103	CYP2C8	NP_000761	A/T	I269F	0.00204
rs1057910	CYP2C9	NP_000762	A/C	I359L	0.06385
rs12192544	CYP39A1	NP_057677	G/C	R23P	0.21618
rs2277119	CYP39A1	NP_057677	G/A	R103H	0.23117
rs4986907	CYP3A4	NP_059488	G/A	R162Q	0.00019
rs4986910	CYP3A4	NP_059488	T/C	M445T	0.00745
rs2257401	CYP3A7	NP_000756	G/C	R409T	0.09023
rs2297809	CYP4B1	NP_000770	C/T	R375C	0.13202
rs4646487	CYP4B1	NP_000770	C/T	R173W	0.13270
rs4646491	CYP4B1	NP_000770	C/T	R340C	0.13248
rs700241	DAB2	NP_001334	C/T	T586I	0.01169
rs2131107	DAG1	NP_004384	C/G	S14W	0.00019
rs2295000	DATF1	NP_542987	C/T	S535L	0.21831
rs6271	DBH	NP_000778	C/T	R535C	0.07584
rs8192506	DBI	NP_065438	A/G	M88V	0.04045
rs2229080	DCC	NP_005206	C/G	R201G	0.35974
rs3750898	DCLRE1A	NP_055696	G/C	D317H	0.22857
rs12022378	DCLRE1B	NP_073747	C/T	H61Y	0.17725
rs11908296	DDX27	NP_060365	G/T	G206V	0.22012
rs1140409	DDX5	NP_004387	T/G	S480A	0.06419
rs2271815	DEPC-1	NP_631917	C/T	R164C	0.00576
rs2434470	DEPC-1	NP_631917	C/G	D228E	0.25511
rs2271900	DEPDC6	NP_073620	A/G	N204S	0.27020
rs3765148	DHDH	NP_055290	G/A	G282R	0.06011
rs2062988	DHTKD1	NP_061176	C/G	I607M	0.17380
rs9262138	DHX16	NP_003578	A/G	D566G	0.06090
rs11653658	DHX33	NP_064547	C/G	H483D	0.07262
rs8069315	DHX33	NP_064547	C/T	R118C	0.12128
rs9438	DHX36	NP_065916	C/G	S416C	0.38683
rs3206824	DKK3	NP_037385	A/G	R335G	0.23135
rs2066575	DLEU1	NP_005878	T/A	C4S	0.25547
rs1110627	DLL3	NP_058637	T/C	L218P	0.47939
rs10931715	DNAH7	NP_061720	C/T	R545C	0.32709
rs1537232	DNAH8	NP_001362	C/T	T4106M	0.15343
rs874808	DNAH8	NP_001362	G/A	G807E	0.43613
rs17599639	DNAH9	NP_001363	G/A	R151H	0.03883
rs1990236	DNAH9	NP_001363	G/A	M4374I	0.18442
rs3744581	DNAH9	NP_001363	A/G	N2195S	0.21816
rs4785963	DNAJA3	NP_005138	A/T	N75Y	0.29156
rs8176927	DNASE1	NP_005214	G/T	R2S	0.00353
rs688906	DNCH2	XP_370652	A/G	K1413R	0.27580
rs11190305	DNMBP	NP_056036	T/G	C1413W	0.38953
rs11254408	DNMT2	NP_788274	G/T	D112Y	0.15312
rs1801158	DPYD	NP_000101	G/A	S534N	0.02209
rs1801265	DPYD	NP_000101	C/T	R29C	0.22208
rs3752095	DSG1	NP_001933	A/T	Y841F	0.13230
rs1024196	DST	NP_001714	T/C	L33S	0.05102
rs11756977	DST	NP_056363	G/A	R2291H	0.28712
rs4712138	DST	NP_056363	A/G	Q1308R	0.37588
rs4715630	DST	NP_056363	G/A	M2813I	0.24025
rs17470454	DTNBP1	NP_115498	C/T	P272S	0.05405
rs16939752	DUOX1	NP_059130	T/C	C1026R	0.11095
rs269868	DUOX2	NP_054799	C/T	S1067L	0.07978
rs3088142	DUSP13	NP_057448	G/A	C156Y	0.40896
rs1129923	DUSP23	NP_060293	G/A	G131S	0.09692
rs770087	DUSP6	NP_001937	T/G	S144A	0.19822
rs3741927	DYRK4	NP_003836	A/G	N189S	0.00186
rs11070136	DZIP1	NP_055749	C/T	P717S	0.34304
rs3218170	E2F2	NP_004082	G/A	G205R	0.01095
rs17841292	EEF2K	NP_037434	C/G	P75A	0.07662
rs1128431	EFTUD1	NP_078856	A/G	I617V	0.06385
rs11568849	EGF	NP_001954	A/C	S16R	0.00000
rs11569017	EGF	NP_001954	A/T	D784V	0.05417
rs4698803	EGF	NP_001954	A/T	E920V	0.20940
rs11543848	EGFR	NP_005219	G/A	R521K	0.24442
rs17322140	ELF2	NP_006865	C/T	P64L	0.00764
rs1141223	ENDOGL1	NP_005098	G/T	G277V	0.01245
rs10283100	ENPP2	NP_006200	T/C	S545P	0.05362
rs17601580	ENPP3	NP_005012	G/A	S786N	0.16394
rs6926570	ENPP5	NP_067547	A/G	I171V	0.48645
rs8082898	EPB41L3	NP_036439	A/G	Y575C	0.01707
rs2278106	EPHA7	NP_004431	C/T	P278S	0.02931
rs999765	EPHA8	NP_065387	G/C	E612Q	0.09926
rs1051740	EPHX1	NP_000111	T/C	Y113H	0.28627
rs751141	EPHX2	NP_001970	G/A	R287Q	0.11546
rs11102001	EPS8L3	NP_078802	C/T	P356S	0.05754

rs11652709	EPX	NP_000493	G/C	Q122H	0.32004
rs1058808	ERBB2	NP_004439	C/G	P1170A	0.32820
rs3213837	ERBB2IP	NP_061165	C/T	S274L	0.15065
rs3805466	ERBB2IP	NP_061165	C/T	S1112L	0.04716
rs1799793	ERCC2	NP_000391	G/A	D312N	0.33905
rs4150521	ERCC3	NP_000113	C/T	S704L	0.00390
rs1799802	ERCC4	NP_005227	C/T	P379S	0.00579
rs1800067	ERCC4	NP_005227	G/A	R415Q	0.07949
rs1800124	ERCC4	NP_005227	A/G	E875G	0.01929
rs2020955	ERCC4	NP_005227	T/C	S662P	0.00074
rs1047769	ERCC5	NP_000114	A/G	M254V	0.04102
rs17655	ERCC5	NP_000114	G/C	D1104H	0.21267
rs2227869	ERCC5	NP_000114	G/C	C529S	0.03545
rs2227870	ERCC5	NP_000114	C/A	A627E	0.00037
rs4150342	ERCC5	NP_000114	A/G	N879S	0.01264
rs2228526	ERCC6	NP_000115	A/G	M1097V	0.20167
rs2228527	ERCC6	NP_000115	A/G	R1213G	0.20201
rs2228528	ERCC6	NP_000115	G/A	G399D	0.16828
rs2228529	ERCC6	NP_000115	A/G	Q1413R	0.20167
rs4253047	ERCC6	NP_000115	G/A	G446D	0.01839
rs1318648	ESPL1	NP_036423	C/A	S614R	0.36419
rs6580942	ESPL1	NP_036423	C/A	A25D	0.32356
rs1047840	EXO1	NP_003677	G/A	E589K	0.39495
rs1776148	EXO1	NP_003677	A/G	E670G	0.37082
rs4149909	EXO1	NP_003677	A/G	N279S	0.03489
rs4149963	EXO1	NP_003677	C/T	T439M	0.07885
rs735943	EXO1	NP_003677	A/G	H354R	0.44991
rs9350	EXO1	NP_003677	C/T	P757L	0.15686
rs2302427	EZH2	NP_004447	G/C	D185H	0.07355
rs5969	F11	NP_000119	A/G	Q244R	0.00037
rs5983	F13A1	NP_000120	T/A	L589Q	0.00502
rs2243072	F2RL1	NP_005233	C/T	S21F	0.02674
rs324420	FAAH	NP_001432	C/A	P129T	0.20484
rs2239359	FANCA	NP_000126	G/A	G501S	0.39317
rs7190823	FANCA	NP_000126	A/G	T266A	0.42555
rs9282681	FANCA	NP_000126	A/G	T1328A	0.09295
rs9462088	FANCE	NP_068741	G/A	A502T	0.05145
rs2229424	FASN	NP_004095	G/A	R1694H	0.00000
rs1105168	FAT2	NP_001438	C/T	P4117L	0.45784
rs1432862	FAT2	NP_001438	C/T	R574C	0.47677
rs2304029	FAT2	NP_001438	G/C	Q3953H	0.05508
rs2304053	FAT2	NP_001438	C/T	P1164L	0.48512
rs9324700	FAT2	NP_001438	T/C	F686S	0.47644
rs10927851	FBLP-1	NP_060026	C/T	S191F	0.26342
rs11666735	FCAR	NP_579813	G/A	D113N	0.07908
rs16986050	FCAR	NP_579805	A/G	S173G	0.18553
rs4804773	FCER2	NP_001993	C/T	R62W	0.14109
rs351855	FGFR4	NP_002002	G/A	G388R	0.28712
rs376618	FGFR4	NP_002002	C/T	P136L	0.24164
rs4647932	FGFRL1	NP_068742	C/T	P464L	0.06101
rs9373985	FHL5	NP_065228	C/G	S243R	0.32356
rs1131356	FLNB	NP_001448	G/A	D1157N	0.24220
rs12632456	FLNB	NP_001448	G/A	V1471M	0.24188
rs3207090	FLVCR	NP_054772	C/T	T544M	0.48197
rs202676	FOLH1	NP_004467	T/C	Y75H	0.24091
rs3742076	FOXM1	NP_068772	T/C	S643P	0.15095
rs2071587	FOXN1	NP_003584	C/T	R69C	0.08386
rs867228	FPR1	NP_002020	A/C	E346A	0.20565
rs2496425	FREM2	XP_292193	T/C	F1036S	0.27730
rs2886059	FTHFD	NP_036322	G/T	V330F	0.15862
rs3808553	FZD6	NP_003497	A/C	M345L	0.46474
rs827528	FZD6	NP_003497	A/G	M33V	0.26308
rs1921	G1P2	NP_005092	G/A	S83N	0.38571
rs2435381	GALNACT-2	NP_061060	C/T	P479S	0.27790
rs8971	GART	NP_000810	A/G	D752G	0.22911
rs9984077	GART	NP_000810	G/A	V421I	0.23050
rs710187	GCAT	NP_055106	C/T	R39C	0.44415
rs1260326	GCKR	NP_001477	T/C	L446P	0.40253
rs1056104	GEMIN6	NP_079051	G/A	G140D	0.06686
rs16872235	GFM2	NP_115756	A/T	S300C	0.12894
rs7288201	GGTLA1	NP_004112	A/G	I475V	0.02579
rs5388	GH1	NP_000506	G/A	V136I	0.01225
rs6182	GHR	NP_000154	G/T	C440F	0.01133
rs6183	GHR	NP_000154	C/A	P495T	0.00000
rs4988492	GHRH	NP_066567	C/T	L75F	0.01263
rs2228078	GHRHR	NP_000814	T/C	M422T	0.01317
rs696217	GHRL	NP_057446	C/A	L72M	0.08349
rs4707358	GJB7	NP_940970	C/T	T20I	0.47921
rs2228224	GLI	NP_005260	G/A	G933D	0.37775

rs17040344	GLT6D1	NP_892019	C/T	P219S	0.08018
rs3764795	GML	NP_002057	C/T	R54C	0.04205
rs16932941	GNB3	NP_002066	G/A	G272S	0.06978
rs17128572	GOLGA5	NP_005104	C/G	A67G	0.07451
rs10787428	GPAM	NP_065969	A/G	E131G	0.39573
rs2228331	GPC1	NP_002072	A/G	S500G	0.28723
rs553717	GPC5	NP_004457	C/T	A155V	0.09985
rs8191371	GPI	NP_000166	T/C	I208T	0.02618
rs1801257	GPR56	NP_005673	C/G	S281R	0.49391
rs2230339	GPR68	NP_003476	G/A	R63Q	0.00000
rs363504	GRIK1	NP_000821	T/C	L902S	0.05083
rs17656320	GRM7	NP_000835	A/T	Y433F	0.46080
rs8190955	GSR	NP_000628	C/T	R110C	0.00167
rs2234951	GSTA2	NP_000837	C/T	P110S	0.03896
rs2397118	GSTA5	NP_714543	G/A	V55I	0.04007
rs7483	GSTM3	NP_000840	G/A	V224I	0.30093
rs1799811	GSTP1	NP_000843	C/T	A114V	0.08526
rs1046428	GSTZ1	NP_001504	T/C	M27T	0.21914
rs3177427	GSTZ1	NP_665877	G/A	E32K	0.31034
rs3732401	GTF2E1	NP_005504	C/T	P366S	0.04314
rs140054	GTSE1	NP_057510	T/C	W506R	0.07774
rs1328361	GUCY1B2	NP_004120	A/C	N316H	0.39636
rs17075173	GUCY1B2	NP_004120	G/A	V445I	0.14805
rs9568497	GUCY1B2	NP_004120	A/G	Y55C	0.42687
rs8069344	GUCY2D	NP_000171	T/A	L782H	0.13466
rs3104233	GZMA	NP_006135	T/C	M121T	0.01782
rs2236338	GZMB	NP_004122	T/C	Y247H	0.22507
rs1599882	GZMM	NP_005308	A/G	R221G	0.01134
rs4956145	HADHSC	NP_005318	T/C	L86P	0.07809
rs1185244	HELB	NP_387467	C/T	P966L	0.45158
rs4430553	HELB	NP_387467	T/C	L191P	0.47585
rs1799945	HFE	NP_000401	C/G	H63D	0.14994
rs1800562	HFE	NP_000401	G/A	C282Y	0.07483
rs16844401	HGFAC	NP_001519	G/A	R509H	0.07084
rs291466	HIBCH	NP_055177	T/C	M1T	0.40730
rs11549465	HIF1A	NP_001521	C/T	P582S	0.08185
rs2295778	HIF1AN	NP_060372	C/G	P41A	0.26308
rs11670988	HIPK4	NP_653286	G/A	R302Q	0.09665
rs3745764	HKR1	NP_861451	C/T	T628I	0.24824
rs6926628	HLA-DMA	NP_006111	G/C	G181A	0.03333
rs299284	HMMR	NP_036616	C/T	R92C	0.11181
rs1801105	HNMT	NP_008826	C/T	T105I	0.10538
rs7406910	HOXB7	NP_004493	A/G	T9A	0.09005
rs12651301	HOZFP	NP_694540	C/T	P246L	0.31948
rs1154510	HPD	NP_002141	A/G	T33A	0.12966
rs1042445	HRG	NP_000403	C/T	R448C	0.22584
rs3733011	HRG	NP_000403	T/C	I180T	0.11799
rs8191246	HSD17B2	NP_002144	A/G	X388W	0.00149
rs17145454	HSD17B4	NP_000405	T/C	W511R	0.08330
rs25640	HSD17B4	NP_000405	G/A	R106H	0.45286
rs4252589	HSPB2	NP_001532	G/A	G111S	0.00687
rs2307254	HUS1	NP_004498	C/A	Q147K	0.00540
rs1211554	HUS1B	NP_683762	G/T	D268Y	0.08855
rs1766848	HUS1B	NP_683762	C/A	H130Q	0.09397
rs5491	ICAM1	NP_000192	A/T	K56M	0.00149
rs5498	ICAM1	NP_000192	A/G	K469E	0.42913
rs2228615	ICAM5	NP_003250	G/A	A348T	0.39162
rs1044261	IDI2	NP_150286	G/A	W144X	0.07775
rs3747517	IFIH1	NP_071451	A/G	H843R	0.26420
rs1758567	IFNA13	NP_076918	T/C	V10A	0.05578
rs4986956	IFNAR2	NP_000865	T/C	F8S	0.06883
rs1125488	IFNE1	NP_795372	A/C	Q46H	0.07403
rs8191746	IGF2R	NP_000867	C/T	P203L	0.00000
rs8191844	IGF2R	NP_000867	C/G	T1184S	0.00019
rs4619	IGFBP1	NP_000587	A/G	I253M	0.34675
rs11575194	IGFBP5	NP_000590	C/T	R138W	0.03842
rs560096	IGHMBP2	NP_002171	T/C	L201S	0.14787
rs1538660	IKBKAP	NP_003631	C/T	P1158L	0.16091
rs3204145	IKBKAP	NP_003631	T/A	C1072S	0.16085
rs838827	IKBKAP	NP_003631	G/A	R525Q	0.06902
rs2307145	IL12RB2	NP_001550	G/C	Q426H	0.04827
rs4072111	IL16	NP_757366	C/T	P434S	0.10791
rs1043261	IL17RB	NP_061195	C/T	Q484X	0.08445
rs708567	IL17RC	NP_116121	C/T	S111L	0.44857
rs2243191	IL19	NP_037503	T/C	F175S	0.22416
rs17561	IL1A	NP_000566	G/T	A114S	0.29038
rs1342642	IL20RA	NP_055247	C/T	L382F	0.25900
rs7530511	IL23R	NP_653302	T/C	L310P	0.12370
rs1805012	IL4R	NP_000409	T/C	C431R	0.11076

rs1805016	IL4R	NP_000409	T/G	S752A	0.05341
rs3024678	IL4R	NP_000409	C/T	P675S	0.02323
rs2069860	IL6	NP_000591	A/T	D162V	0.00872
rs8192284	IL6R	NP_000556	A/C	D358A	0.41558
rs1494558	IL7R	NP_002176	T/C	I66T	0.32405
rs6897932	IL7R	NP_002176	C/T	T244I	0.27042
rs2241384	ILT7	NP_036408	C/T	P27L	0.18359
rs10943299	IMPG1	NP_001554	C/T	R704W	0.14036
rs1286823	INADL	NP_005790	A/C	E362A	0.11860
rs2229357	INHBC	NP_005529	G/A	R322Q	0.24591
rs3818511	INPP5A	NP_005530	A/G	K45R	0.22257
rs1801278	IRS1	NP_005535	G/A	G971R	0.07100
rs12520591	ITGA1	NP_852478	T/G	I961M	0.05382
rs4145748	ITGA1	NP_852478	C/T	T480M	0.05250
rs988574	ITGA1	NP_852478	A/G	E1108G	0.01670
rs2306022	ITGA11	NP_036343	G/A	V433M	0.09432
rs1800974	ITGA7	NP_002197	G/A	R651H	0.48844
rs2298033	ITGA8	XP_167711	C/T	S707F	0.01410
rs1716	ITGAE	NP_002199	C/T	R950W	0.32993
rs3744679	ITGAE	NP_002199	G/C	Q892H	0.05074
rs1064524	ITGAL	NP_002200	C/T	R214W	0.04844
rs678	ITIH1	NP_002206	A/T	E585V	0.35943
rs1127354	ITPA	NP_258412	C/A	P32T	0.07546
rs3213409	JAK3	NP_000206	G/A	V722I	0.00928
rs123509	KBTBD5	NP_689606	T/C	C617R	0.24016
rs17736370	KCNG4	NP_758857	G/A	C255Y	0.06006
rs3180098	KDEL3	NP_006846	T/G	V199G	0.30141
rs1870377	KDR	NP_002244	A/T	Q472H	0.24090
rs2305948	KDR	NP_002244	G/A	V297I	0.09595
rs1558878	KIAA1001	NP_055775	T/C	W274R	0.48886
rs1048328	KLK11	NP_006844	C/T	R134C	0.08287
rs198977	KLK2	NP_005542	C/T	R250W	0.23840
rs17632542	KLK3	NP_001639	T/C	I179T	0.07888
rs1841958	KLRC4	NP_038459	T/G	I29S	0.31069
rs1053230	KMO	NP_003670	C/T	R452C	0.22327
rs17678945	KRT1	NP_006112	G/T	A454S	0.02384
rs662471	LAMA1	NP_005550	A/G	M1340V	0.29833
rs2306942	LAMA2	NP_000417	G/A	V1138M	0.04551
rs875379	LAMA5	NP_005551	C/T	H1717Y	0.08983
rs2076222	LAMB3	NP_000219	C/A	A926D	0.02360
rs7410919	LAMC1	NP_002284	T/C	L888P	0.43260
rs869457	LAMC3	NP_006050	C/T	P522S	0.31514
rs7302981	LASS5	NP_671723	T/C	C75R	0.35616
rs2232607	LBP	NP_004130	A/G	D283G	0.01504
rs2232613	LBP	NP_004130	C/T	P333L	0.07535
rs5744204	LBP	NP_004130	G/A	V166M	0.01058
rs1041935	LGALS8	NP_006490	C/T	R36C	0.29855
rs6597801	LHPP	NP_071409	A/G	Q94R	0.10758
rs2303743	LIFR	NP_002301	A/G	I633M	0.00019
rs3730933	LIG1	NP_000225	A/G	N267S	0.00037
rs4987068	LIG1	NP_000225	G/A	R409H	0.02175
rs3136025	LIG3	NP_002302	G/A	R780H	0.00037
rs2232642	LIG4	NP_002303	G/A	A857T	0.00056
rs11574571	LILRB4	NP_006838	G/A	G190R	0.00111
rs731170	LILRB4	NP_006838	A/G	D223G	0.30669
rs2452600	LIM	NP_006448	C/T	S136F	0.32659
rs3829462	LIPC	NP_000227	C/A	F356L	0.02042
rs6083	LIPC	NP_000227	A/G	N215S	0.37412
rs814628	LIPF	NP_004181	A/G	T161A	0.16946
rs2000813	LIPG	NP_006024	C/T	T111I	0.30469
rs8002697	LN2	NP_699202	T/C	S198P	0.46231
rs17010021	LOXL3	NP_115992	A/T	I615F	0.03729
rs1983864	LOXL4	NP_115587	A/C	D405A	0.34157
rs328	LPL	NP_000228	C/G	S474X	0.10944
rs8178318	LPO	NP_006142	C/T	T105I	0.00037
rs4667591	LRP2	NP_004516	A/C	I4210L	0.20601
rs2306029	LRP4	XP_035037	A/G	S1524G	0.45147
rs17293705	LSS	NP_001001438	C/T	P688L	0.01678
rs2839158	LSS	NP_001001438	G/A	R175Q	0.16487
rs2857713	LTA	NP_000586	T/C	C13R	0.25761
rs2290427	LTBP1	NP_000618	C/A	P684Q	0.02487
rs8455	LXN	NP_064554	A/G	H53R	0.47681
rs12692566	LY75	NP_002340	G/T	K1321N	0.17941
rs1051006	MADD	NP_003673	G/A	V751M	0.17403
rs702689	MAP3K1	XP_042066	G/A	D940N	0.27458
rs17780143	MAP4K5	NP_006566	C/T	T633M	0.04775
rs17651549	MAPT	NP_058519	C/T	R370W	0.23618
rs6761637	MARCO	NP_006761	T/C	F282S	0.04738
rs2307289	MBD4	NP_003916	T/C	S342P	0.00186

rs2307293	MBD4	NP_003916	G/C	D568H	0.00965
rs1800450	MBL2	NP_000233	G/A	G54D	0.14365
rs1805005	MC1R	NP_002377	G/T	V60L	0.11374
rs2270968	MCCC1	NP_064551	A/C	H464P	0.25902
rs17203645	MCM2	NP_004517	G/A	A396T	0.01281
rs2307313	MCM2	NP_004517	G/A	A727T	0.00037
rs9975588	MCM3AP	NP_003897	C/T	S102L	0.40428
rs4707569	MDN1	NP_055426	T/G	F440V	0.18074
rs16952692	ME2	NP_002387	C/T	P114L	0.01076
rs233223	MEP1B	NP_005916	T/C	S546P	0.29176
rs616114	MEP1B	NP_005916	C/T	P695L	0.40527
rs1878326	MFGE8	NP_005919	C/A	L76M	0.33717
rs17129219	MF12	NP_005920	G/A	A559T	0.00241
rs12917	MGMT	NP_002403	C/T	L84F	0.12983
rs2308321	MGMT	NP_002403	A/G	I143V	0.14068
rs2308327	MGMT	NP_002403	A/G	K178R	0.14100
rs10134365	MIA2	NP_473365	G/C	D547H	0.20397
rs607567	MICL	NP_963919	T/G	C71G	0.35863
rs1063535	MKI67	NP_002408	C/T	P2608L	0.47808
rs2020873	MLH1	NP_000240	C/T	H718Y	0.00019
rs17782839	MLH3	NP_055196	T/C	S966P	0.01726
rs3735156	MLL3	NP_733751	G/C	R526P	0.01322
rs4144738	MLZE	NP_113603	T/C	M475T	0.46642
rs17293607	MMP10	NP_002416	G/A	G65R	0.15102
rs17099450	MMP8	NP_002415	C/G	S3C	0.04917
rs2250889	MMP9	NP_004985	G/C	R574P	0.03457
rs17112809	MMS19L	NP_071757	G/A	V526I	0.00803
rs1868024	MOGAT1	NP_477513	T/C	S162P	0.22636
rs2593943	MORC	NP_055244	C/T	H836Y	0.43046
rs3762697	MORC	NP_055244	A/G	M478V	0.15664
rs2272843	MOV10L1	NP_061868	C/A	A1179E	0.13791
rs2340601	MOV10L1	NP_061868	G/A	V650I	0.23716
rs3810971	MOV10L1	NP_061868	C/T	R182C	0.23746
rs6088	MPL	NP_005364	G/A	E168K	0.00000
rs17742683	MPP3	NP_001923	A/G	R585G	0.09829
rs2429387	MRC2	NP_006030	G/A	R1156H	0.01503
rs2298553	MS4A12	NP_060186	C/T	Q71X	0.43829
rs569108	MS4A2	NP_000130	A/G	E237G	0.02136
rs1019670	MS4A6A	NP_690590	A/T	N150I	0.39310
ss49785891	MSH2	NP_000242	C/G	H46Q	0.00130
rs5745549	MSH4	NP_002431	G/A	S914N	0.03340
rs16900023	MSH5	NP_002432	C/T	P786S	0.01837
rs2020908	MSH6	NP_000170	C/G	L396V	0.00725
rs1062633	MST1R	NP_002438	A/G	R1335G	0.48413
rs2230590	MST1R	NP_002438	A/G	Q523R	0.48440
rs1950902	MTHFD1	NP_005947	A/G	K134R	0.19710
rs2236225	MTHFD1	NP_005947	G/A	R653Q	0.45761
rs1801133	MTHFR	NP_005948	C/T	A222V	0.34268
rs2274976	MTHFR	NP_005948	G/A	R594Q	0.05516
rs8923	MTHFS	NP_006432	A/G	T202A	0.09707
rs1805087	MTR	NP_000245	A/G	D919G	0.18580
rs10380	MTRR	NP_002445	C/T	H595Y	0.09759
rs1532268	MTRR	NP_002445	C/T	S175L	0.37021
rs162036	MTRR	NP_002445	A/G	K350R	0.11563
rs16879334	MTRR	NP_002445	C/G	P450R	0.02987
rs2287780	MTRR	NP_002445	C/T	R415C	0.02989
rs2303080	MTRR	NP_002445	T/A	S257T	0.02931
rs3739407	MTUS1	XP_372031	T/C	C148R	0.19736
rs1611770	MUC1	NP_002447	G/A	V135M	0.00019
rs3826942	MUM1	NP_116242	G/A	G220R	0.24786
rs3219484	MUTYH	NP_036354	G/A	V22M	0.06962
rs3219489	MUTYH	NP_036354	G/C	Q335H	0.25613
ss49785896	MUTYH	NP_036354	G/A	G393D	0.00744
ss49785898	MUTYH	NP_036354	A/G	Y165C	0.00315
rs3817552	MYBPC1	NP_002456	C/G	H506Q	0.14718
rs3729986	MYBPC3	NP_000247	G/A	V158M	0.10264
rs16967494	MYH11	NP_002465	G/A	A1234T	0.29435
rs133885	MYO18B	NP_115997	G/A	G44E	0.43632
rs17704912	MYO18B	NP_115997	G/C	W1037S	0.06861
rs3859866	MYO18B	NP_115997	G/C	W547C	0.01341
rs6004901	MYO18B	NP_115997	G/C	G2395A	0.02598
rs9624909	MYO18B	NP_115997	C/T	S925L	0.23144
rs1999240	MYO3A	NP_059129	C/A	R1313S	0.42926
rs3758449	MYO3A	NP_059129	G/A	S956N	0.44983
rs17511668	N4BP2	NP_060647	G/T	S101I	0.24397
rs2137722	NALP1	NP_055737	C/T	R1322C	0.04972
rs1799930	NAT2	NP_000006	G/A	R197Q	0.28595
rs2820289	NAV1	NP_065176	C/T	S1270L	0.07551
rs16937251	NAV2	NP_660093	G/C	Q468H	0.03396

rs1805794	NBS1	NP_002476	G/C	E185Q	0.32026
ss49785899	NBS1	NP_002476	C/T	R215W	0.00315
rs232518	NCAM2	NP_004531	T/C	L350P	0.37728
rs2230782	NCOA3	NP_006525	G/C	Q586H	0.09091
rs2303580	NEDD4	NP_006145	G/A	R260Q	0.19811
rs8191612	NEIL2	NP_659480	C/T	R103W	0.00000
rs8191664	NEIL2	NP_659480	G/T	R257L	0.01264
rs10146482	NEK9	NP_149107	G/A	R429H	0.46399
rs8176786	NELL1	NP_006148	C/T	R354W	0.05440
rs4648072	NFKB1	NP_003989	A/G	M507V	0.00631
rs11466111	NGFB	NP_002497	G/A	R80Q	0.01725
rs12882191	NIN	NP_057434	A/C	Q1131P	0.25148
rs2073347	NIN	NP_057434	G/A	G1326E	0.25363
rs2275848	NINJ1	NP_004139	C/A	A110D	0.19450
rs1048135	NMI	NP_004679	C/T	S16L	0.48086
rs1895245	NMUR2	NP_064552	C/A	F315L	0.19186
rs2297518	NOS2A	NP_000616	C/T	S608L	0.20030
rs3918234	NOS3	NP_000594	A/T	Q982L	0.00316
rs3749930	NOX3	NP_056533	C/A	T171K	0.04697
rs1287637	NPHP4	NP_055917	T/A	L939X	0.18200
rs17472401	NPHP4	NP_055917	C/T	R848W	0.02413
rs1800566	NQO1	NP_000894	C/T	P187S	0.17714
rs4986998	NQO1	NP_000894	C/T	R139W	0.04429
rs17300141	NQO2	NP_000895	G/A	G58D	0.03363
rs6958498	NRCAM	NP_005001	C/G	P539A	0.22309
rs2229742	NRIP1	NP_003480	C/G	R448G	0.10085
rs2228637	NRP1	NP_003864	C/G	F561L	0.01058
rs1805378	NTHL1	NP_002519	T/C	I176T	0.00167
rs3087469	NTHL1	NP_002519	C/T	R21W	0.00019
rs6336	NTRK1	NP_002520	C/T	H604Y	0.05960
rs4866	NUDT1	NP_002443	G/A	V83M	0.00595
rs1048201	NUDT6	NP_009014	G/A	R209Q	0.16927
rs3750913	NUMA1	NP_006176	C/G	A794G	0.02505
rs17050550	OGG1	NP_002533	G/T	A85S	0.00149
rs1805373	OGG1	NP_002533	G/A	R229Q	0.00000
rs3219012	OGG1	NP_002533	C/T	A288V	0.00260
rs2307413	ORC5L	NP_859531	A/T	K52N	0.00019
rs10067	OVGP1	NP_002548	C/G	H604Q	0.07501
rs17027633	OVGP1	NP_002548	C/A	D332E	0.05405
rs25644	P2RX4	NP_002551	A/G	S242G	0.11041
rs1718119	P2RX7	NP_002553	G/A	A348T	0.38307
rs17525809	P2RX7	NP_002553	T/C	V76A	0.06849
rs2230912	P2RX7	NP_002553	A/G	Q460R	0.16437
rs2277838	P2RXL1	NP_005437	G/A	R232H	0.18153
rs1748020	PADI4	NP_036519	C/T	S275F	0.05609
rs17811673	PAICS	NP_006443	A/C	K201N	0.06396
rs11700112	PAK7	NP_065074	G/C	R335P	0.09499
rs1047991	PAPD1	NP_060579	C/T	R162C	0.27941
rs3093921	PARP2	NP_005475	A/G	D186G	0.02171
rs6761641	PASK	NP_055963	T/G	F1266C	0.08763
rs17096946	PCDHB7	NP_061763	G/A	E187K	0.01041
rs17286891	PCDHB7	NP_061763	G/A	E120K	0.11138
rs17096961	PCDHB8	NP_061993	G/A	S745N	0.16636
rs2740583	PCDHB8	NP_061993	T/C	F767L	0.34577
rs7700833	PCDHB8	NP_061993	C/T	A322V	0.01039
rs2472647	PCDHGA1	NP_061735	G/A	V152I	0.02561
rs11575951	PCDHGA4	NP_061740	G/C	D683H	0.01948
rs4329068	PCDHGA4	NP_061740	G/A	R641K	0.05072
rs2072315	PCDHGA7	NP_114476	A/G	E188G	0.44461
rs17097231	PCDHGB2	NP_061746	C/G	P26R	0.09417
rs2240697	PCDHGB3	NP_061747	C/G	N389K	0.44824
rs6867460	PCDHGB5	NP_061748	G/A	G188S	0.13238
rs707555	PCK1	NP_002582	G/C	V184L	0.14082
rs8192708	PCK1	NP_002582	A/G	I267V	0.11577
rs17514547	PCM1	NP_006188	G/A	R1251H	0.02950
rs208753	PCM1	NP_006188	A/G	M597V	0.19692
rs2706762	PCYOX1	NP_057381	C/T	S149F	0.16023
rs1051738	PDE4A	NP_006193	C/A	A497E	0.18973
rs2229137	PDHA2	NP_005381	A/C	M280L	0.00019
rs17165851	PDLIM4	NP_003678	G/T	G259C	0.08655
rs285584	PDZRN4	NP_037509	G/A	G171S	0.15831
rs3177253	PECI	NP_006108	G/A	M17I	0.26512
rs9436	PELP1	NP_055204	A/T	T1126S	0.24527
rs648802	PERP	NP_071404	C/G	P143R	0.45167
rs4791641	PFAS	NP_036525	C/T	P367L	0.49722
rs1057037	PFKL	NP_002617	A/T	D284V	0.07931
rs3800324	PGBD1	NP_115896	G/A	G244E	0.04378
rs473267	PGM3	NP_056414	G/A	D466N	0.26039
rs2020880	PGR	NP_000917	C/T	S865L	0.00019

rs3107275	PHACS	NP_115981	C/T	P421L	0.40554
rs11604561	PIK3C2A	NP_002636	A/G	T1415A	0.11975
rs1078543	PINX1	NP_060354	A/T	S254C	0.12005
rs2072193	PLA2G3	NP_056530	C/G	S322R	0.06187
rs1051931	PLA2G7	NP_005075	T/C	V379A	0.19629
rs2227564	PLAU	NP_002649	T/C	L141P	0.25763
rs4760	PLAUR	NP_002650	T/C	L317P	0.15763
rs933135	PLCD1	NP_006216	G/A	R257H	0.01300
rs11569636	PLTP	NP_006218	C/A	S124Y	0.00056
rs1145231	PMS1	NP_000525	T/C	M394T	0.00111
rs1145234	PMS1	NP_000525	T/C	Y793H	0.00093
rs2066455	PMS1	NP_000525	G/C	E720D	0.00019
rs2066459	PMS1	NP_000525	G/A	R202K	0.01231
rs1805318	PMS2	NP_000526	A/T	T597S	0.01855
rs1805323	PMS2	NP_000526	C/A	T485K	0.04119
rs1805324	PMS2	NP_000526	G/A	M622I	0.02145
rs3739186	PNKP	NP_009185	T/A	Y196N	0.00019
rs17679445	PNPO	NP_060599	G/A	R116Q	0.07161
rs3136797	POLB	NP_002681	C/G	P242R	0.01708
rs3218772	POLD1	NP_002682	C/T	R30W	0.01429
rs3218775	POLD1	NP_002682	G/A	R849H	0.00761
rs5744760	POLE	NP_006222	A/G	N336S	0.00019
rs2307456	POLH	NP_006493	G/T	G209V	0.00186
rs6941583	POLH	NP_006493	A/T	M647L	0.02968
rs3218783	POLI	NP_009126	G/A	E251K	0.00353
rs3218784	POLI	NP_009126	A/G	I236M	0.03214
rs3218786	POLI	NP_009126	T/C	F507S	0.03270
rs8305	POLI	NP_009126	G/A	A706T	0.30297
rs3730477	POLL	NP_037406	C/T	R438W	0.22658
rs1381057	POLQ	NP_006587	A/G	Q2648R	0.29944
rs3218634	POLQ	NP_006587	C/G	L2673V	0.07167
rs3218642	POLQ	NP_006587	C/A	P1516T	0.02282
rs3218649	POLQ	NP_006587	C/G	T1117R	0.34892
rs3218651	POLQ	NP_006587	A/G	H1336R	0.16091
rs487848	POLQ	NP_006587	C/T	A716V	0.07108
rs532411	POLQ	NP_006587	C/T	A2439V	0.07098
rs17038460	POLR3B	NP_060552	A/G	T740A	0.06957
rs3917594	PON1	NP_000437	G/A	W194X	0.00000
rs6954345	PON2	NP_000296	C/G	S311C	0.24091
rs17184326	POP1	NP_055844	A/C	K522N	0.12797
rs13787	PPA2	NP_789843	G/C	K85N	0.47403
rs1801282	PPARG	NP_056953	C/G	P12A	0.11466
rs11959820	PPARGC1B	NP_573570	C/A	R292S	0.03080
rs2660744	PPAT	NP_002694	C/T	Q488X	0.15515
rs8207	PPIG	NP_004783	A/G	N699D	0.26735
rs11264542	PRCC	NP_955448	C/T	P136S	0.20779
rs2277339	PRIM1	NP_000937	A/C	D5A	0.10749
rs1051992	PRKCDBP	NP_659477	T/C	L158P	0.45824
rs12828016	PRKWINK1	NP_061852	G/T	M1808I	0.39450
rs17755373	PRKWINK1	NP_061852	C/T	P1823L	0.00856
rs2286007	PRKWINK1	NP_061852	C/T	T665I	0.06962
rs956868	PRKWINK1	NP_061852	A/C	T1056P	0.15325
rs2294008	PSCA	NP_005663	C/T	T1M	0.45360
rs4907	PSMB3	NP_002786	A/T	M34L	0.09499
rs241419	PSMB9	NP_002791	G/A	V32I	0.03285
rs1043307	PSMD9	NP_002804	A/G	E197G	0.28393
rs1177573	PSMD9	NP_002804	C/T	R134W	0.00000
rs11573590	PTCH2	NP_003729	C/T	T988M	0.02024
rs1409986	PTGER3	NP_000948	T/C	S375P	0.08448
rs5794	PTGS1	NP_000953	G/A	V481I	0.00835
rs12500797	PTPN13	NP_006255	G/A	E1606K	0.10732
rs989902	PTPN13	NP_006255	T/G	Y2062D	0.41058
rs3739124	PTPN18	NP_055184	A/G	M193V	0.00000
rs3793524	PTPN3	NP_002820	G/C	A90P	0.34392
rs1178027	PTPRA	NP_543030	C/T	P109L	0.09874
rs10977171	TPPRD	NP_002830	C/G	Q447E	0.04694
rs4807697	PTPRS	NP_002841	T/C	C1457R	0.00353
rs6811863	PTTG2	NP_006598	G/C	R44P	0.44224
rs6472285	PTTG3	NP_066280	T/C	I16T	0.03322
rs11574151	PURG	NP_037489	A/C	E241A	0.00056
rs2242089	PYCRL	NP_075566	G/A	V105M	0.18256
rs11858624	PYGO1	NP_056432	C/A	P299H	0.07016
rs2305165	R3HDM	NP_056176	A/C	Q632P	0.06849
rs1805327	RAD1	NP_002844	A/G	E281G	0.07230
rs373572	RAD18	NP_064550	G/A	R302Q	0.27190
rs1805329	RAD23B	NP_002865	C/T	A249V	0.19351
rs7487683	RAD52	NP_602296	G/A	G180R	0.04065
rs2074654	RAMP3	NP_005847	T/C	W56R	0.06085
rs2229774	RARG	NP_000957	C/T	S427L	0.06669

rs4151539	RB1	NP_000312	C/G	A525G	0.00019
rs17337252	RB1CC1	NP_055596	T/C	M234T	0.49091
rs17800727	RBL2	NP_005602	A/G	Y210C	0.29416
rs1122206	RDH8	NP_056540	C/G	H136Q	0.13967
rs390659	RDS	NP_000313	C/G	Q304E	0.20624
rs1065751	RECQL	NP_002898	G/A	V102I	0.00074
rs6499	RECQL	NP_002898	G/C	D495H	0.00761
rs3087386	REV1L	NP_057400	T/C	F257S	0.44087
rs3087399	REV1L	NP_057400	A/G	N373S	0.12171
rs3087401	REV1L	NP_057400	G/A	A1003T	0.00111
rs3087403	REV1L	NP_057400	G/A	V138M	0.28399
rs3204953	REV3L	NP_002903	G/A	V2986I	0.14591
rs3218599	REV3L	NP_002903	G/C	D1734H	0.02026
rs3218600	REV3L	NP_002903	C/T	S1142L	0.02956
rs3218604	REV3L	NP_002903	G/C	G1845R	0.00000
rs458017	REV3L	NP_002903	A/G	Y1078C	0.05941
rs136478	RFPL2	NP_006596	G/A	C51Y	0.47699
rs34899	RHOBTB3	NP_055714	A/G	N262D	0.41648
rs3851294	RIPK5	NP_056190	T/C	C641R	0.09231
rs12590446	RNASE9	XP_372508	T/C	F169S	0.22913
rs7247284	RNASEH2A	NP_006388	T/C	L202S	0.03192
rs11159	RNASET2	NP_003721	C/T	R236W	0.07414
rs3862618	ROBO3	XP_370663	G/A	R575H	0.10482
rs1045142	ROCK1	NP_005397	G/A	R1262Q	0.30798
rs1998206	ROS1	NP_002935	A/C	T145P	0.14051
rs619203	ROS1	NP_002935	C/G	S2229C	0.26197
rs2293869	RP1	NP_006260	A/T	N985Y	0.40649
rs2941256	RRN3	NP_060897	A/G	I348M	0.11109
rs11551944	RTN3	NP_006045	C/A	A6E	0.14202
rs4780144	RYR3	NP_001027	C/T	R1641C	0.02690
rs6495228	RYR3	NP_001027	G/A	G2270E	0.14915
rs5713	SAH	NP_005613	T/C	L100P	0.01486
rs940389	SALF	NP_758515	G/C	R127T	0.32380
rs13894	SAT2	NP_597998	C/T	R126C	0.07517
rs3733227	SCD4	NP_079182	G/C	E197Q	0.33004
rs7675987	SCFD2	NP_689753	T/C	L512S	0.36178
rs2000746	SDCCAG3L	XP_371118	T/C	I361T	0.24885
rs2269961	SEC14L3	NP_777635	G/A	R214H	0.20717
rs4820853	SEC14L3	NP_777635	T/C	I103T	0.31521
rs17738527	SEC14L4	NP_777637	G/A	E211K	0.24907
rs9606739	SEC14L4	NP_777637	C/G	R124G	0.24665
rs17807673	SEC23B	NP_006354	C/T	P433L	0.14697
rs2273526	SEC23B	NP_006354	C/G	H489Q	0.10762
rs5355	SELE	NP_000441	C/T	L575F	0.04052
rs5361	SELE	NP_000441	A/C	S149R	0.09547
rs5368	SELE	NP_000441	C/T	H468Y	0.09398
rs3177980	SELL	NP_000646	T/C	F193L	0.26969
rs6125	SELP	NP_002996	G/A	V209M	0.05310
rs6130	SELP	NP_002996	C/T	S500F	0.00000
rs1527482	SEMA3C	NP_006370	G/A	V337M	0.00669
rs532598	SEMA6D	NP_065909	G/A	S478N	0.31556
rs17414086	SENP6	NP_056386	C/T	T121M	0.37611
rs9250	SENP6	NP_056386	A/G	Y1106C	0.37602
rs17580	SERPINA1	NP_000286	A/T	E288V	0.05065
rs1885137	SERPINA11	XP_170754	A/C	E412A	0.41970
rs6115	SERPINA5	NP_000615	G/A	S64N	0.33352
rs724558	SERPINB10	NP_005015	T/C	I99T	0.19158
rs963075	SERPINB10	NP_005015	C/T	R246C	0.25993
rs6100	SERPINB2	NP_002566	G/A	R229H	0.00130
rs6104	SERPINB2	NP_002566	C/G	S413C	0.22152
rs3826616	SERPINB8	NP_002631	A/G	H359R	0.42295
rs6092	SERPINE1	NP_000593	G/A	A15T	0.12022
rs17246389	SERPINI2	NP_006208	T/G	L6V	0.26559
rs7998427	SETDB2	NP_114121	A/G	E117G	0.32375
rs2243639	SFTPD	NP_003010	A/G	T180A	0.40835
rs12440118	SH3BP3	NP_071918	T/C	W103R	0.15399
rs6258	SHBG	NP_001031	C/T	P185L	0.00743
rs6259	SHBG	NP_001031	G/A	D356N	0.12054
rs344141	ShrmL	NP_065910	C/G	P468A	0.36488
rs3821979	ShrmL	NP_065910	T/A	L146H	0.12830
rs9283633	SI	NP_001032	A/G	T231A	0.40297
rs16982743	SIGLEC12	NP_443729	C/T	Q29X	0.18263
rs2278831	SIGLEC5	NP_003821	T/C	F322S	0.07077
rs8108074	SIGLEC5	NP_003821	C/T	R358W	0.16443
rs2005199	SIGLEC6	NP_001236	C/T	L262F	0.06143
rs10409962	SIGLEC8	NP_055257	T/C	S170P	0.06399
rs3734354	SIM1	NP_005059	C/A	P352T	0.13108
rs3742636	SIX4	NP_059116	A/C	H584P	0.29083
rs2014576	SIX5	NP_787071	C/T	P635S	0.45784

rs723685	SLC22A16	NP_149116	T/C	V252A	0.08813
rs1048047	SLC22A18	NP_002546	G/A	R12Q	0.41744
rs1050152	SLC22A4	NP_003050	C/T	L503F	0.43316
rs9678851	SLC4A1AP	NP_060628	C/A	P139T	0.41508
rs3740469	SLK	NP_055535	C/T	T697I	0.23875
rs805657	SLK	NP_055535	G/A	C552Y	0.16834
rs2228257	SMARCA3	NP_003062	G/C	E362Q	0.00019
rs1048197	SMPD2	NP_003071	C/T	P3L	0.03291
rs2233919	SMUG1	NP_055126	C/T	Q3X	0.00000
rs1802376	SNX1	NP_003090	G/A	D466N	0.02173
rs495820	SNX15	NP_037438	C/T	R334C	0.08082
rs9658625	SOAT2	NP_003569	A/G	E14G	0.06093
rs1804027	SP110	NP_004500	T/C	M523T	0.48922
rs3948464	SP110	NP_004500	T/C	L425S	0.14363
rs1049544	SPARCL1	NP_004675	C/G	H106D	0.34641
rs7698628	SPARCL1	NP_004675	C/A	A49D	0.34783
rs4660	SPP1	NP_000573	G/A	R287H	0.00019
rs169068	SSTR5	NP_001044	C/T	P335L	0.45566
rs17667603	ST14	NP_068813	C/A	R381S	0.07732
rs17292725	STARD6	NP_631910	C/T	R19X	0.03415
rs2066815	STAT2	NP_005410	C/T	T448M	0.00037
rs194520	STEAP2	NP_694544	T/G	F17C	0.46157
rs1052763	STK22B	NP_443732	C/T	T280M	0.17923
rs6945306	STK31	NP_113602	G/C	Q71H	0.27964
rs1344642	STK36	NP_056505	G/A	R583Q	0.44989
rs1863704	STK36	NP_056505	G/A	G1003D	0.39569
rs2273535	STK6	NP_003591	T/A	F31I	0.21231
rs4987024	SULT1A2	NP_001045	A/T	Y62F	0.01003
rs11569705	SULT1E1	NP_005411	G/T	D22Y	0.00316
rs17766354	SYNE2	NP_878918	C/G	P1297A	0.03878
rs7211875	TADA2L	NP_001479	C/T	P6S	0.15225
rs16867245	TAF1B	NP_005671	C/T	T487M	0.12282
rs2230131	TAF1C	NP_005670	C/T	P793L	0.09016
rs4150176	TAF1C	NP_005670	G/A	R816H	0.04697
rs4252233	TAF9	NP_003178	C/T	T6M	0.01842
rs13096789	TA-KRP	NP_115894	T/C	C394R	0.13711
rs3758938	TBX10	NP_005986	A/C	K101T	0.31229
rs10494217	TBX15	XP_371284	C/A	H50N	0.17840
rs4135113	TDG	NP_003202	G/A	G199S	0.01689
rs1334811	TEK	NP_000450	G/A	V486I	0.03955
rs682632	TEK	NP_000450	A/C	Q346P	0.03750
rs1713456	TEP1	NP_009041	G/A	C1468Y	0.17607
rs1760897	TEP1	NP_009041	T/C	S116P	0.31675
rs1760903	TEP1	NP_009041	C/T	R1055C	0.44618
rs1760904	TEP1	NP_009041	T/C	S1195P	0.46264
rs2104978	TEP1	NP_009041	A/G	H2562R	0.06396
rs3749195	TGM4	NP_003232	C/T	R372C	0.47937
rs937838	TGM4	NP_003232	G/C	S249T	0.08479
rs897945	THAP9	NP_078948	G/T	L299F	0.44135
rs17632786	THBS1	NP_003237	A/G	N700S	0.13275
rs2304306	THEA	NP_056362	C/T	P165L	0.02343
rs2291739	TIMELESS	NP_003911	C/T	P1018L	0.43102
rs10498796	TINAG	NP_055279	G/A	R381H	0.19395
rs1058768	TINAG	NP_055279	T/C	S158P	0.35431
rs2305397	TIP120B	XP_371617	C/T	P383L	0.46582
rs3732675	TIP120B	XP_371617	T/C	S440P	0.41534
rs1046268	TJP3	NP_055243	T/C	M931T	0.45604
rs2067019	TJP3	NP_055243	G/A	R38H	0.19628
rs3923647	TLR1	NP_003254	A/T	H305L	0.03098
rs4833095	TLR1	NP_003254	A/G	N248S	0.22560
rs5743611	TLR1	NP_003254	G/C	R80T	0.08652
rs11466658	TLR10	NP_112218	C/T	R525W	0.02987
rs3775291	TLR3	NP_003256	C/T	L412F	0.29126
rs4986791	TLR4	NP_003257	C/T	T359I	0.05826
rs5031050	TLR4	NP_003257	T/A	F302Y	0.00019
rs5743813	TLR6	NP_006059	C/T	H345Y	0.00019
rs2186797	TMEM16A	NP_060513	T/C	F582S	0.06636
rs1532918	TMF1	NP_009045	G/C	D798H	0.13655
rs1941635	TMPRSS4	NP_063947	T/G	V208G	0.04397
rs2274750	TNC	NP_002151	G/A	A1781T	0.02514
rs1805034	TNFRSF11A	NP_003830	C/T	A192V	0.49032
rs2073618	TNFRSF11B	NP_002537	C/G	N3K	0.44100
rs11573986	TNFRSF14	NP_003811	G/A	G174E	0.00000
rs1061622	TNFRSF1B	NP_001057	T/G	M196R	0.24295
rs7273698	TNFRSF5	NP_690593	C/T	R182W	0.00056
rs11569892	TNFRSF8	NP_001234	G/A	C273Y	0.01431
rs1009382	TNXB	NP_061978	G/A	G2578E	0.28582
rs185819	TNXB	NP_061978	A/G	H1248R	0.47090
rs204900	TNXB	NP_061978	T/G	S873A	0.08519

rs2269429	TNXB	NP_061978	G/A	G2555S	0.08411
rs2293925	TOP1MT	NP_443195	C/T	R525W	0.45065
rs17301766	TOPBP1	NP_008958	C/T	S730L	0.21354
rs3192149	TOPBP1	NP_008958	A/C	K370Q	0.23163
rs1042522	TP53	NP_000537	C/G	P72R	0.26281
rs2602141	TP53BP1	NP_005648	A/C	K1136Q	0.30402
rs560191	TP53BP1	NP_005648	C/G	D353E	0.30506
rs689647	TP53BP1	NP_005648	G/A	G412S	0.10872
rs17110563	TPH2	NP_775489	C/T	P206S	0.00167
rs2295275	TRERF1	NP_060885	T/A	C590S	0.05660
rs6537825	TRIM33	NP_056990	T/C	I840T	0.06496
rs4236480	TRPV5	NP_062815	G/A	R154H	0.25680
rs3739915	TTF1	NP_031370	G/T	G360V	0.04924
rs12720356	TYK2	NP_003322	T/G	I684S	0.09558
rs1042602	TYR	NP_000363	C/A	S192Y	0.37356
rs712665	U2AF1L1	NP_005074	A/G	S155G	0.34341
rs2076485	UBD	NP_006389	T/C	I68T	0.24861
rs13406898	UGT1A3	NP_061966	C/T	T144I	0.00019
rs1105879	UGT1A6	NP_001063	A/C	R184S	0.33698
rs4148301	UGT2A1	NP_006789	G/A	G308R	0.08751
rs2289043	UNC5C	NP_003719	T/C	M721T	0.30175
rs17618795	UNC93A	NP_061847	G/A	W151X	0.08510
rs11022079	USP47	NP_060414	G/T	G75V	0.30969
rs3743044	USP8	NP_005145	A/G	D443G	0.02412
rs2234500	VAX2	NP_036608	C/G	P254R	0.08699
rs10735810	VDR	NP_000367	T/C	M1T	0.38582
rs2272996	VNN1	NP_004657	A/G	N131S	0.27050
rs2294757	VNN1	NP_004657	C/T	T26I	0.37087
rs4895943	VNN3	NP_523239	G/A	C132Y	0.46938
rs6138482	VSX1	NP_955457	G/A	R217H	0.19974
rs216321	VWF	NP_000543	A/G	Q852R	0.09354
rs3790549	WARS2	NP_056651	G/C	A267P	0.03848
rs2707466	WNT16	NP_057171	C/T	T253I	0.44026
rs2908004	WNT16	NP_057171	G/A	G72R	0.43864
rs3793771	WNT8B	NP_003384	G/C	C11S	0.22616
rs4968281	WNT9B	NP_003387	T/C	M106T	0.26322
rs1346044	WRN	NP_000544	T/C	C1367R	0.25297
rs1800390	WRN	NP_000544	A/G	T324A	0.00353
rs2725362	WRN	NP_000544	G/T	L1074F	0.47273
rs4987236	WRN	NP_000544	G/A	V114I	0.06482
rs3764340	WWOX	NP_061030	C/G	P282A	0.04796
rs17011368	XDH	NP_000370	A/G	I703V	0.03506
rs3176750	XPA	NP_000371	C/G	L252V	0.00056
rs25487	XRCC1	NP_006288	A/G	Q399R	0.35271
rs25489	XRCC1	NP_006288	G/A	R280H	0.04143
rs3218536	XRCC2	NP_005422	G/A	R188H	0.08098
rs3734091	XRCC4	NP_003392	G/T	A247S	0.00798
rs28360135	XRCC4	NP_003392	T/C	I134T	0.03451
rs3769148	ZAK	NP_057737	C/T	S531L	0.49424
rs17502738	ZBTB5	NP_055687	A/G	D300G	0.19164
rs2297241	ZC3HAV1	NP_064504	C/G	H565Q	0.12868
rs4874147	ZC3HDC3	NP_055932	A/G	S452G	0.27276
rs315675	ZCCHC4	XP_376310	T/A	L395H	0.10572
rs2282076	ZFP37	NP_003399	T/A	V7D	0.40524
rs9868848	ZFYVE20	NP_071735	T/C	L591P	0.04402
rs2235967	ZFYVE26	NP_056161	G/A	C1457Y	0.35595
rs17265513	ZHX3	NP_055850	A/G	N310S	0.19179
rs210280	ZNF11B	NP_008886	C/T	R145C	0.14222
rs1469087	ZNF135	NP_003427	G/A	G22D	0.14408
rs12236219	ZNF169	NP_919301	C/T	R368C	0.04434
rs12350212	ZNF169	NP_919301	G/C	Q583H	0.10093
rs1536690	ZNF169	NP_919301	C/T	P59L	0.17243
rs10500557	ZNF19	NP_008892	G/A	R224Q	0.03203
rs16978899	ZNF233	NP_861421	T/C	S247P	0.00000
rs2125579	ZNF235	NP_004225	A/C	H296P	0.44838
rs2276211	ZNF236	NP_031371	C/T	S166L	0.01802
rs2032729	ZNF24	NP_008896	A/G	N220S	0.07591
rs11539696	ZNF277	NP_068834	G/A	V352M	0.05923
rs1061769	ZNF283	XP_371174	G/A	C811Y	0.42701
rs871546	ZNF295	NP_065778	A/C	K218Q	0.26660
rs1345658	ZNF30	NP_919306	G/A	R298K	0.47161
rs2232434	ZNF305	NP_055539	A/G	N392D	0.05048
rs733743	ZNF306	NP_077819	G/C	R3T	0.07384
rs6456880	ZNF311	XP_212581	A/C	K718Q	0.40253
rs6925178	ZNF311	XP_212581	G/T	D203Y	0.24195
rs10948072	ZNF318	NP_055160	C/T	T1112I	0.10000
rs853684	ZNF323	NP_112161	A/G	K8R	0.40479
rs2278415	ZNF350	NP_067645	A/T	R501S	0.13049
rs4986771	ZNF350	NP_067645	T/C	S472P	0.03655

rs12541381	ZNF406	NP_065914	C/T	P102S	0.24879
rs27230	ZNF434	NP_060280	T/C	Y120H	0.20358
rs388706	ZNF45	NP_003416	A/G	T299A	0.50000
rs3814160	ZNF488	NP_694579	C/T	P249S	0.12041
rs2920217	ZNF509	NP_660334	A/C	Y320S	0.30045
rs4438413	ZNF525	XP_375646	G/A	D140N	0.37616
rs4452075	ZNF527	XP_030378	A/G	H213R	0.15967
rs3737506	ZNF532	NP_060651	A/C	E761D	0.02894
rs1366257	ZNF534	XP_496320	G/A	G289E	0.03137
rs1428180	ZNF534	XP_496320	T/C	F166S	0.03135
rs1975937	ZNF540	NP_689819	A/T	D53V	0.17755
rs6510130	ZNF544	NP_055295	C/G	H203D	0.01842
rs2111543	ZNF546	NP_848639	G/C	R243T	0.02692
rs10421121	ZNF556	NP_079243	C/T	R137C	0.05613
rs1059199	ZNF562	NP_060126	G/A	E188K	0.00019
rs3752365	ZNF573	NP_689573	G/C	G166A	0.20445
rs1820128	ZNF600	NP_940859	T/C	C209R	0.14288
rs321937	ZNF610	NP_775801	G/C	R216P	0.12593
rs8065506	ZNF624	NP_065838	G/T	K135N	0.26549
rs7258368	ZNF625	NP_660276	G/A	V41M	0.10884
