

Detailed information of the filtered 1,571 SNVs and 238 frameshifts

SYMBOL	Existing_variation	CDS_posi tion	Codons	678AF	family	case_sam	number of family (gene based)	case number (gene based)
AAGAB	rs529864603	517	Aat/Tat	-	43	G0043	1	1
AAK1	rs559248019	1016	gCc/gTc	-	3	G0103, G0003	1	1
AAR2	rs150912491, COSM5631179	805	Gag/Aag	0.00147493	8	G0008	1	1
AARD	rs201705799	368	cTg/cCg	-	40	G0040	1	1
AARS	rs764718265	865	Gat/Aat	0.00147493	3	G0103, G0003	1	1
AATK	rs574955059	2696	aCc/aAc	-	40	G0040	1	1
ABCA1	rs541344598	2534	gTc/gCc	-	17	G0117, G0017	1	1
ABCA10	rs201021667	269	gCt/gTt	-	4	G0104, G0004	1	1
ABCA2	rs572276239	4643	cCc/cTc	-	27	G0027	2	2
ABCA2	rs546363333	2860	Cgc/Tgc	0.00147493	15	G0015	2	2
ABCA3	rs760006956	1814	cGg/cAg	-	30	G0030	1	1
ABCA4	rs61749446, CM990034, CD033153, RISN_ABCR: c. 2827C>T, COSM3493478, COSM3493479	2827	Cgg/Tgg	0.00147493	6	G0106, G0006	3	4
ABCA4	rs1413097229	5945	tTc/tCc	-	5	G0005	3	4
ABCA4	rs201471607, CM970005	2894	aAt/aGt	-	45	G0045	3	4
ABCA6	rs188158113	4079	cCt/cAt	0.00294985	15	G0015	1	1
ABCA7	rs188971580	5191	Ggc/Agc	-	2	G0102, G0002	2	2
ABCA7	rs764544689, COSM3388542	1400	cGc/cTc	-	17	G0117, G0017	2	2
ABCB1	rs201418528	2384	tCc/tGc	0.00589971	39	G0039	1	1
ABCB8	rs565099004	1916	cGg/cAg	-	42	G0042	1	1
ABCC11	rs181009434, COSM6522816	3325	Gag/Aag	0.00294985	34	G0134, G0034	1	1
ABCC12	rs1384974328	1220	tCt/tGt	-	43	G0043	1	1
ACACA	rs781293486, COSM2152896, COSM2152897	1706	cGc/cAc	-	45	G0045	1	1
ACACB	rs769110318, COSM4760013	3889	Gtg/Atg	-	8	G0008	1	1
ACADSB	-	1237	Tat/Cat	-	39	G0039	1	1
ACAP3	rs761998533	1651	Cgc/Tgc	-	10	G0010	1	1
ACLY	rs532952188, COSM979367	2078	cCg/cTg	0.00147493	11	G0111, G0011	1	1
ACOT11	-	622-656	GACTGTAGCC GCATGGTGCC GGCTGAGAAG ACCCGt/t	-	37	G0137, G0037	1	4
ACOT11	-	665-690	aGTGTGGAGC TGGTCCTGCC TCCCCAC/a	-	37	G0137, G0037	1	4
ACP2	rs541800616	160	Gac/Aac	0.00147493	32	G0132, G0032	1	1

ACP6	rs372406040	63-66	gcGTAC/gc	0.00737463	31	G0031, G0029	1	1
ACTN1	rs774702709	781	Cgc/Tgc	-	17	G0117, G0017	1	1
ACY1	rs1476462581	346-347	tgc/tGgc	-	21	G0121, G0021	2	3
ACY1	rs778579986	877	Tgg/Cgg	-	30	G0030	2	3
ACY3	rs201375174	254	gAc/gGc	-	30	G0030	1	1
ADAM21	rs546931496	2044- 2045	gtt/gTtt	0.00294985	9	G0109, G0009	1	2
ADAM33	rs751952346	1449	gaC/gaG	0.00884956	7	G0007, G0029	1	1
ADAM8	rs772133212	696-697	-/AGAATCAC	-	11	G0111, G0011	1	1
ADAMTS18	rs866074735	1952	cGg/cAg	-	36	G0036	1	1
ADAMTS20	rs553106252, COSM4967349, COSM4967350, COSM4967351, COSM5970693, COSM5970694, COSM5970695	3112	Ggt/AgT	0.00147493	20	G0120, G0020	1	1
ADARB2	rs182864478	116	tTg/tCg	0.00147493	19	G0019	2	2
ADARB2	rs776987710	854	cGc/cAc	-	8	G0008	2	2
ADD3	rs760140619	2094- 2095	-/A	-	45	G0045	1	1
ADORA2A	rs142560733	877	Cgc/Tgc	-	17	G0117, G0017	1	1
ADRA1A	rs200422473	646	Cgg/Ggg	0.00737463	8	G0008	1	1
ADRA2B	rs771208116	382	Cgc/Tgc	-	9	G0109, G0009	1	1
ADSSL1	COSM3494130	1469	gGc/gAc	-	31	G0031	1	1
AFAP1	rs200872291, COSM1057729, COSM1154368	2119	Cgg/Tgg	-	15	G0015	1	1
AGAP3	rs117071005	2717	cGt/cAt	0.00442478	45	G0045	1	1
AGBL1	rs370339681	2413	Ggc/Agc	-	34	G0134, G0034	1	2
AGL	rs185947256, COSM5612610, COSM5612611	3290	cGc/cAc	0.00147493	6	G0106, G0006	1	1
AGPAT2	rs143244920	647	aAg/aTg	0.00147493	46	G0046	1	1
AGPAT5	rs754798200	605-606	cAT/c	-	41	G0041	1	1
AGRN	-	4566	ttG/ttT	-	10	G0010	1	1
AGT	rs570793167	206	cCt/cTt	-	46	G0046	1	1
AGXT	-	599	aTc/aCc	-	12	G0112, G0012	1	1
AHCYL1	rs375992787	640	Cgc/Tgc	-	15	G0015	1	1
AHDC1	rs774212366	1951	Gac/Aac	-	15	G0015	1	1
AHNAK	rs529615317	443	gGa/gTa	0.00737463	32	G0132, G0032	2	3
AHNAK	rs1158383434	10784	gGt/gAt	-	8	G0008	2	3
AHNAK2	rs372275526	3335- 3336	agc/agAc	0.00737463	46	G0046	1	2
AHNAK2	rs755971993	3330	ctG/ct	0.00737463	46	G0046	1	2
AIRE	rs139874934, COSM6374490, COSM6374491	946	Cgg/Tgg	-	30	G0030	1	1
AJAP1	rs202026791	1130	aCg/aTg	0.00589971	27	G0027	1	1

AKAP11	rs367790495, COSM4047685	665	aCg/aTg	0.00147493	15	G0015	1	1
AKAP9	rs189083857	5543	tCt/tGt	0.00737463	41	G0041	2	2
AKAP9	rs1242811961	11093	tTa/tCa	-	36	G0036	2	2
AKR1B15	rs751710875	646	Cac/ac	-	6	G0106, G0006	1	2
AKR1B15	rs752439948	647	cAc/cTc	-	6	G0106, G0006	1	4
AKR1C1	rs1188750311	394	Gat/at	0.00147493	11	G0111, G0011	1	1
ALDH16A1	-	508	Ggc/Agc	-	43	G0043	1	1
ALDH1B1	rs200179372	703	Gtg/Atg	-	2	G0102, G0002	2	2
ALDH1B1	COSM4522079	1144	Gca/Tca	-	9	G0109, G0009	2	4
ALDH1L2	rs541905823, COSM934277	2669	gCg/gTg	-	1	G0101, G0201, G0001	1	1
ALDH2	-	944	cAg/cGg	-	19	G0019	1	1
ALDH6A1	rs369485559	947	cGc/cAc	-	8	G0008	3	4
ALDH6A1	COSM5927708	637	Cga/Gga	-	37	G0137, G0037	3	4
ALDH6A1	rs370897364	458	tCc/tAc	-	10	G0010	3	4
ALDOB	rs77718928, CM983464, COSM216118	1013	gCg/gGg	-	20	G0120, G0020	1	1
ALGS	rs766260217	605	tAc/tGc	0.00147493	41	G0041	1	1
ALOX12B	rs764862348, CM103711	1324	Cgg/Tgg	-	40	G0040	1	1
ALPK3	rs1291790142	4097	cGg/cAg	0.00147493	39	G0039	2	2
ALPK3	rs769796609	5422	Cgg/Tgg	-	4	G0104, G0004	2	3
AMIG03	rs200455167, COSM1580471	1157	aCc/aAc	0.00147493	39	G0039	1	1
AMPD1	rs781393982, COSM5950901, COSM5950902	1796	aCg/aTg	-	38	G0038	1	1
AMPD3	rs3741040, CM940060	1744	Cgc/Tgc	0.00737463	43	G0043	2	2
AMPD3	rs749073244, COSM4573999	2205	ggA/gg	0.00147493	41	G0041	2	2
AMY2B	rs1328355650	1301	tTt/tCt	-	18	G0018	1	1
ANGPTL5	rs757195821, COSM1350319	491	cCg/cTg	-	36	G0036	1	1
ANK1	rs772564610	4744	Tgg/Cgg	0.00294985	27	G0027	1	1
ANK2	rs72556370, CM070016	11683	Gtg/Atg	-	43	G0043	1	1
ANKLE2	rs1423748351	1147	Atg/Gtg	0.00147493	27	G0027	1	1
ANKRD11	rs765490326	1385	aCa/aGa	-	21	G0121, G0021	1	1
ANKRD12	rs76101082	3292	Cat/Tat	0.00147493	36	G0036	1	1
ANKRD13C	-	1136	aGt/aAt	-	39	G0039	1	1
ANKRD24	rs199779504, COSM3227404, COSM3227405, COSM3227406	3038	cGa/cAa	0.00737463	8, 31	G0008, G0031	2	1
ANKRD33	rs770135401	1286	cCt/cTt	-	8, 37	G0137, G0008, G0037	2	1
ANKRD36	rs776494749	2461	Aaa/aa	-	39	G0039	1	1
ANKRD45	-	242	tTg/tGg	-	5	G0005	1	1
ANKS6	rs201104087	1391	aAt/aGt	0.00294985	32	G0132, G0032	1	1
ANKZF1	COSM5058690	1724	gCg/gg	-	21	G0121, G0021	1	1
ANO10	rs538680619	1643	cCt/cAt	-	36	G0036	2	2

ANO10	rs188443010, COSM5505152	676	Gct/Act	-	38	G0038	2	2
ANO4	-	2185	Gcc/Acc	-	43	G0043	1	1
ANXA11	rs777207980	1471	Ggg/Agg	-	30	G0030	1	1
AOC1	rs144106544	292	Cgt/Tgt	-	39	G0039	1	1
AOX1	rs149229670, COSM242985	1286	cGa/cAa	0.00884956	18	G0018	1	1
AP3D1	rs766937934	2267	cGc/cAc	-	7	G0007	1	1
AP5Z1	rs182694738	164	aCg/aTg	0.00147493	17	G0117, G0017	1	1
APC	rs756859993, CD055635, COS M48236	1984	Cta/Ata	0.00147493	6	G0106, G0006	1	1
APC2	rs141413463, COSM296739	1211	cCg/cTg	-	32	G0132, G0032	1	1
APCDD1	rs372013882	1058	tCg/tTg	0.00147493	27	G0027	1	1
APEX1	rs1413851946	478	Gct/Act	-	27	G0027	1	2
APEX1	rs780293860	496	Gtg/Atg	0.00147493	27	G0027	1	2
APOA4	rs746344058, COSM4548990, COSM5341404	461	cGg/cTg	0.00147493	41	G0041	1	1
APOB	rs143056106	7843	Cct/Gct	-	36	G0036	1	1
APOBEC3G	rs183180481	913	Gtg/Atg	-	27	G0027	1	1
APOL3	-	897-901	agGCAAGcc/ agcc	-	9	G0109, G0009	1	1
APP	rs200648330	188	aTt/aCt	-	45	G0045	1	1
APRT	rs762509151, CM910619, COS M6564024, COSM6564025, COS M6564026	200	cGa/cAa	-	38	G0038	1	1
ARAP2	rs138909144	2831	gGc/gAc	0.00294985	17	G0117, G0017	1	1
ARFGAP1	rs138744663	1045	Cgc/Tgc	-	32	G0132, G0032	1	1
ARFGAP3	rs147432132	950	tCa/tTa	0.00884956	32, 46	G0132, G0023, G0032, G0046	2	3
ARHGAP17	rs577832914, COSM3280805, COSM3280806	1889	cGc/cAc	-	20	G0120, G0020	1	1
ARHGAP9	rs78676655	178	Gac/Aac	-	8	G0008, G0016	1	1
ARHGEF10	rs146766107	2374	Ggg/Agg	-	21	G0121, G0021	3	4
ARHGEF10	rs187607027	3518	aCc/aGc	0.00147493	38	G0038	3	4
ARHGEF10	-	413	aAc/aTc	-	41	G0041	3	4
ARHGEF11	rs200642355	1382	aCg/aTg	-	7	G0033, G0007	1	1
ARHGEF12	rs192719576	2222	cGa/cAa	-	9	G0109, G0009	1	1
ARHGEF16	rs779557111	800	cCa/cTa	-	18	G0018	2	2
ARHGEF16	rs1479981531	1399	Gag/Aag	-	46	G0046	2	2
ARHGEF17	rs1160992608	5063	cCa/cTa	-	2	G0102, G0002	1	1
ARHGEF6	rs201896882	1406	cGg/cAg	0.00589971	34	G0134, G0034	1	1
ARID1A	-	223	Gac/Aac	-	36	G0036	1	1
ARPP21	rs201077683	2294	gTt/gGt	-	30	G0030	1	1
ARSI	rs200311766	408	caG/caC	-	10	G0010	1	1
ASB2	rs200751958	696	aaC/aaA	-	15	G0015	1	1

ASB4	rs201104760	1250	tTg/tCg	0.00884956	38	G0038	1	1
ASHL	rs142808913	4552	Aga/Gga	-	5	G0005	1	1
ASIC1	-	1630	Gag/Aag	-	19	G0019	1	1
ASMT	rs143703303, COSM4108407	28	Cgc/Tgc	0.00147493	42	G0042	1	1
ASPM	rs755585801	4052	gCa/gTa	-	2	G0102, G0002	2	2
ASPM	rs148364673	3821	cAa/cGa	-	46	G0046	2	3
ASTN2	rs369648543	3592	Gac/Aac	-	42	G0042	1	1
ATAD3C	rs535863359, COSM4021532	982	Cgt/Tgt	0.00147493	34	G0134, G0034	2	2
ATAD3C	COSM6266931	425	gGt/gTt	-	45	G0045	2	3
ATF6B	rs145410874	1880	aAt/aGt	0.00884956	21	G0121, G0021	2	2
ATF6B	rs148987710	1793	cGa/cAa	0.00442478	39	G0039	2	3
ATIC	rs1012442521	1268	aTt/aCt	0.00147493	31	G0031	1	1
ATM	-	1417- 1418	gaa/gACaa	-	43	G0043	1	1
ATPIA4	rs142592649	1186	Gtc/Atc	-	45	G0045	1	1
ATP2C2	rs150337815	2414	cTc/cGc	0.00294985	4	G0104, G0004	1	1
ATP6VOD1	rs141836885	769	Cgg/Tgg	-	5	G0005	1	1
ATP6V1B1	rs782166295	113	cGt/cAt	-	36	G0036	1	1
ATP6V1C2	rs772667434	349	Ctc/Ttc	0.00294985	39	G0039	1	1
ATP8B3	rs776488822	2888- 2889	cag/caCag	0.00294985	45	G0045	1	1
ATP8B4	rs757807390	662	aAg/ag	-	9	G0109, G0009	1	1
ATP9B	rs748242388, COSM1283589	2242	GtG/Atg	-	45	G0045	1	1
ATXN3	-	915-916	- /CAGCAGCAG CAGCAGCAG AGCA	0.00147493	42	G0042	2	3
ATXN3	-	915-916	- /CAGCAGCAG CAGCAGCAG AGCAGCA	-	42	G0042	2	4
ATXN3	-	915-916	- /CAGCAGGAG CAGCAGCAG AGCAGCAGCA GCAGCAGCAG CA	0.00147493	20	G0120, G0020	2	4
ATXN7L2	rs527573916, COSM4664736	1747	Cgg/Tgg	-	9	G0109, G0009	1	1
B4GALNT3	rs142204676	2978	cGc/cAc	-	18	G0018	1	1
B4GALT1	-	655	Gac/ac	-	3	G0103, G0003	1	1
B4GALT7	rs1383726308	762-763	acATtt/act t	-	32	G0132, G0032	1	1

BAZ2A	rs771910756	2188- 2189	ATc/c	0.00589971	39	G0039	1	2
BAZ2A	rs775297542	2185	Act/ct	0.00589971	39	G0039	1	2
BBS2	rs183275652	566	cGa/cTa	-	9	G0109, G0009	1	1
BCAR1	rs199806870	1888	Cgg/Tgg	0.00147493	6	G0106, G0006	1	2
BCM01	rs201365652	193	Ggt/Agt	-	5	G0005	1	1
BDP1	-	23	aGc/aCc	-	27	G0027	1	1
BHLHB9	COSM1112172	575	cCt/cTt	-	32	G0132, G0032	1	1
BHMT2	-	355	Tac/Cac	-	19	G0019	1	1
BICD1	rs576393370, COSM1644430	1108	Cgg/Tgg	-	43	G0043	1	1
BIN1	rs573529529	661	Gtg/Atg	-	38	G0038	1	1
BLVRB	rs752531257	119	cTg/cGg	-	13	G0113, G0013	1	1
BMP2	rs759121274, COSM444259	871	Cgc/Tgc	-	13	G0113, G0013	1	1
BMP8B	rs141647099	1175	cGc/cAc	-	18	G0018	1	1
BRCA2	rs200598289, CM1210132	9538	Ctt/Ttt	-	46	G0046	1	1
BRIP1	rs201869624	2440	Cgt/Tgt	0.00737463	10	G0010	1	1
BRSK2	rs779919104	2128	Gag/Aag	-	41	G0041	1	1
BSN	rs201531775	10324	Cgg/Tgg	0.00589971	46	G0046	1	1
BTG4	-	89-90	tTT/t	-	27	G0027	1	1
C10orf54	-	917	cCa/cGa	-	42	G0042	1	1
C10orf76	rs145558318	1480	Cgg/Tgg	0.00737463	20	G0120, G0020	1	1
C11orf54	rs181140249, COSM2224768, COSM4201844	587	cCt/cTt	0.00147493	34	G0134, G0034	1	1
C11orf86	-	198	ccG/cc	-	3	G0103, G0003	1	1
C12orf55	rs1328410004	2969	tAt/tGt	-	46	G0046	2	2
C12orf55	rs115691081	6281	gCa/gGa	-	19	G0019	2	2
C14orf37	rs1156835504	1233	atT/at	-	42	G0042	1	1
C15orf38 -AP3S2	rs184769920	809	gCt/gTt	-	34	G0134, G0034	1	1
C16orf3	rs761096651	155-156	ata/atGCCC CGCa	-	30	G0030	1	2
C16orf3	-	153-154	- /GCAGCCTGC CCCGT	-	30	G0030	1	2
C17orf11 2	rs1416552962	247	Aaa/aa	-	43	G0043	1	1
C17orf80	rs370146162	151	Cgt/Tgt	-	27	G0027	1	1
C17orf99	rs762618305	222	gtG/gt	0.00147493	39	G0039	1	1
C19orf80	rs778603181	224	gAa/ga	-	6	G0106, G0006	1	1
C19orf84	rs566140071	481	Gat/Cat	0.00442478	39	G0039	1	1
C1QB	rs149072794	406	Cgg/Tgg	-	5	G0005	1	1
C1QTNF2	rs780855979	800	aCc/aTc	-	5	G0005	1	1

C20orf19 6	rs74824950	427	Cgc/Tgc	-	2	G0102, G0002	1	1
C20orf26	rs184033073	578	cAt/cGt	-	34	G0134, G0034	1	1
C21orf59	COSM5456854, COSM5456855	128	cGc/cAc	-	41	G0041	1	1
C22orf39	rs752233579, COSM4767298, COSM4767299, COSM4767300	149	tGc/tAc	0.00442478	15	G0015	1	1
C2CD4D	rs1359978338	739-755	CCGCGGTCCC GCCCGGg/g	-	18	G0018	1	1
C2orf71	rs78874550	3395	gAa/gCa	0.00294985	18	G0018	1	1
C5	rs138933092, COSM274291	4432	Cgg/Tgg	0.00442478	41	G0041	1	1
C5orf60	rs368721701	168	ctC/ct	-	10	G0010	1	1
C6	-	1012	Ttt/Ctt	-	43	G0043	2	3
C6	rs267600638, COSM1437618	433	Cgc/Tgc	0.00147493	37	G0137, G0037	2	3
C6orf229	rs1054820155	649	Ttt/Ctt	-	5	G0005	1	1
C7	-	1744	Gtt/Ttt	-	41	G0041	1	1
C9orf117	rs563863732	98	cTg/cCg	-	41	G0041	1	1
C9orf171	rs760989281, COSM243415	350	aTt/at	-	38	G0038	2	2
C9orf171	rs201351590, COSM3780672	499	Ggc/Agc	-	45	G0045	2	3
C9orf3	rs1380580571	1381	Ctc/Ttc	-	11	G0111, G0011	1	1
C9orf50	rs142148319, COSM3328414	832	Gag/Aag	0.00294985	36	G0036	1	1
CA12	rs766998044	122	aAt/at	0.00147493	18	G0018	1	1
CA5A	rs377135599	244	Cca/Aca	0.00294985	9, 17	G0117, G0109, G0017, G0009	2	1
CA6	rs753185301	176	tAc/tGc	-	38	G0038	2	2
CA6	rs750061032, COSM4841368	662	aCg/aTg	-	27	G0027	2	2
CAB39L	-	266	aTa/aGa	-	39	G0039	1	1
CABIN1	rs150144657	3044	aTt/aCt	-	4	G0104, G0004	1	1
CABLES2	rs1434874404	163	Atc/Gtc	-	10	G0010	1	1
CABP1	rs543428199, COSM5672565	274	Cgg/Tgg	0.00884956	38, 45	G0038, G0045	2	1
CACNA1C	rs761966966	5242	Ggt/AgT	-	27	G0027	1	1
CACNA1E	rs758390509, COSM4496188, COSM4496189, COSM4496190	469	Cgc/Tgc	-	40	G0040	1	1
CACNA1G	rs954245034	3268	Cgc/Tgc	-	7	G0007	1	1
CACNA1H	rs200775729	5291	gCt/gGt	-	13	G0113, G0013	1	1
CAD	rs144305066	587	cGt/cAt	-	38	G0038	1	1
CALCR	rs554210532	890	tAt/tGt	-	27	G0027	1	1
CALHM1	-	233	cTg/cAg	-	42	G0042	1	1
CALML4	rs375356690	49	Ttt/Gtt	0.00147493	46	G0046	1	1
CAPG	rs578014741	1007	gAg/gTg	0.00147493	30	G0030	1	1
CAPN11	rs771549645	1199	cGc/cAc	-	30	G0030	1	1
CAPN12	rs567175208	772	Gga/Cga	-	19	G0019	1	1

CAPN3	rs140425651, CD087763, COSM4054710, COSM4054711, COSM4054712	2071	Ggg/Agg	-	17	G0117, G0017	1	1
CAPN9	rs750599570	1073	tGg/tTg	-	43	G0043	1	1
CAPZA1	rs552715621	461	aTt/aCt	0.00147493	42	G0023, G0042	1	1
CARD10	rs768848343	1060	Gac/Aac	-	41	G0041	1	1
CARD14	rs199517469	536	cGc/cAc	0.00147493	42	G0042	1	1
CARD9	rs747645575, COSM4997032, COSM4997033	1183	Ctg/Gtg	0.00147493	30	G0030	1	1
CASP1	rs763427774, COSM5940114	496	Ctc/Gtc	0.00147493	43	G0043	1	1
CAT	rs768085681	787	Cgg/Tgg	-	39	G0039	1	1
CATSPERG	rs200132227	1727	aCc/aAc	0.00147493	5, 10, 36	G0036, G0010, G0005	3	3
CAV1	rs762818040, COSM7305644	437	cGt/cCt	-	27	G0027	1	1
CBS	-	860	cTc/cCc	-	18	G0018	1	1
CC2D2B	rs781694256	636-639	gaTTGT/ga	-	7	G0007	2	2
CC2D2B	rs180837482	892	Aca/Cca	0.00884956	46	G0046	2	2
CCBE1	rs768229052, COSM3422257	1037	cGc/cTc	0.00442478	1	G0101, G0201, G0001	1	1
CCDC13	-	1145	gAg/gGg	-	7	G0007	1	1
CCDC141	rs1049076130	1820	gAg/gGg	-	27	G0027	1	1
CCDC147	rs377507907, COSM3806404	1855	Cgg/Tgg	-	4	G0104, G0004, G0026	1	1
CCDC18	rs751571920	1871	gAa/gGa	0.00147493	38	G0038	1	1
CCDC42B	rs1315849639	304	GcG/Ccg	-	7	G0007	1	2
CCDC42B	-	745	Gga/Cga	-	7	G0007	1	3
CCDC64	-	630	ttG/ttT	-	43	G0043	1	1
CCDC66	rs200531719	1495	Cgc/Tgc	-	46	G0046	2	2
CCDC66	rs370165016	2497-2500	CAAca/ca	-	8, 46	G0008, G0046	2	3
CCDC92	rs201150051	667	Aga/Gga	-	17	G0117, G0017	1	1
CCR5	rs184279915, CM045132	806	tGc/tTc	-	40	G0040	1	1
CCT4	rs1410423761	1565	gCa/gGa	-	36	G0036	1	1
CD151	rs777777752	385	Acc/Gcc	-	19	G0019	1	1
CD22	rs762915716, COSM1290928	443	cCt/cAt	-	8	G0008	1	1
CD226	rs753756543	22	Ttg/Atg	-	9	G0109, G0009	1	1
CD248	rs146648668	2161	Cgc/Tgc	-	40	G0040	1	1
CD2BP2	rs199947984	601	Cgg/Tgg	-	40	G0040	1	1
CD36	rs1437127524	370	Cct/Tct	-	43	G0043	1	1
CD81	rs772052611	106	Cgc/Tgc	-	31	G0031	1	1
CDAN1	rs200401359	2776	Ggg/Agg	0.00294985	43	G0043	2	2
CDAN1	rs202001507	1401	gaA/gaC	0.00147493	45	G0045	2	2
CDCSL	rs550214338	1589	cGt/cCt	-	17	G0117, G0017	1	1

CDC6	rs763890621	629	gCc/gTc	-	3	G0103, G0003	1	1
CDCA7L	-	986	aCc/aAc	-	15	G0015	1	1
CDCP2	rs36013100	1223- 1224	ccc/ccAcC	-	43	G0043	1	1
CDH1	COSM6923900	2525	gCt/gGt	-	19	G0019	1	1
CDH23	rs202052174, CM021549	1103	cGc/cAc	-	41	G0041	1	1
CDH4	rs563836855	2465	cGg/cAg	0.00294985	36	G0036	1	1
CDHR1	rs146934914	1400	gAc/gCc	-	6	G0106, G0006	1	1
CDK12	rs201661022, COSM6909354, COSM94099	2960	tCt/tTt	-	5	G0005	1	1
CDK5RAP3	rs776945659	379	Ccc/Gcc	-	38	G0038	1	1
CDT1	-	236-237	agc/agCc	0.00294985	39	G0039	1	1
CEACAM1	-	532	Tgg/Ggg	-	4	G0104, G0004	1	1
CELSR2	-	3925	Ggc/Agc	-	15	G0015	1	1
CEP112	rs754858838	674	cCt/ct	-	21	G0121, G0021	1	1
CEP128	rs752734284	401	tAt/tGt	0.00147493	27	G0027	1	1
CEP164	-	4001	tGg/tg	-	36	G0036	1	1
CEP170B	rs771647102	1486	Cgc/Tgc	0.00147493	40	G0040	1	1
CEP63	rs200369496	61	Tgt/Ggt	0.00589971	31	G0031	1	1
CEP78	COSM1248105, COSM1248106, COSM3218529, COSM3218530, COSM4375210	1276	Gtg/Atg	-	42	G0042	1	1
CERCAM	rs753813668	818	cCg/cTg	-	3	G0103, G0003	1	1
CES5A	rs145397395	745	Gtg/Atg	0.00589971	45	G0045	1	1
CFH	rs548410144, COSM424921	2114	tCt/tTt	-	27	G0027	1	1
CFI	-	1679	aCc/aTc	-	13	G0113, G0013	2	2
CFI	-	1511	tAt/tGt	-	3	G0103, G0003	2	4
CFLAR	rs1382779113	365	cGa/cAa	-	13	G0113, G0013	1	1
CFTR	rs201591901, COSM1200906	3289	Cgc/Tgc	0.00147493	8	G0008	1	1
CGN	rs199865309	2884	Cgg/Tgg	-	30	G0030	1	1
CHCHD10	rs1028506132	223	Ggg/Agg	-	31	G0031	1	1
CHD1	COSM1200947	4162	Gat/Tat	-	7	G0007	1	1
CHD7	rs755233517	2699	cCt/cGt	-	46	G0046	1	1
CHD9	-	790	Gtc/Ttc	-	39	G0039	2	2
CHD9	rs756375296	5368	Act/Get	0.00147493	2	G0102, G0002	2	3
CHFR	rs1441931198	1031	tGt/tAt	-	31	G0031	1	1
CHIC2	rs201359795, COSM734183	101	gGc/gCc	0.00147493	1	G0101, G0201, G0001	1	1
CHMP1B	rs1216651201	79	Aag/Gag	-	36	G0036	1	1
CHMP7	rs1220598088	1099	Ggt/Tgt	-	40	G0040	1	1
CHRD	-	1394	cGc/cCc	-	5	G0005	1	1
CHRNA3	rs200364229	1495	Ctg/Atg	-	27	G0027	1	1
CHRNE	rs1396832846	1351	Ggg/Agg	-	38	G0038	1	1

CHNG	rs781781015	212	gCc/gAc	-	31	G0031	1	1
CHTF18	rs759731840	1360	Cgc/Tgc	-	9	G0109, G0009	1	2
CIC	rs202152564, COSM1394083	1766	cGg/cAg	-	8	G0008	1	1
CKAP2L	rs1037829641, COSM4084268	1445	cCt/cGt	0.00147493	36, 41	G0036, G0041	2	1
CLCN1	rs202119213, CM076109	1205	gCc/gTc	-	21	G0121, G0021	1	1
CLCNKB	rs764966080, COSM7328140, COSM7328141	1244	cTg/cAg	0.00147493	41	G0041	1	1
CLDN10	-	544	Tca/Cca	-	30	G0030	1	1
CLDN17	rs555547939	293	gGc/gAc	-	42	G0042	2	2
CLDN17	rs200995273	71	aCa/aAa	0.00442478	17	G0117, G0017	2	3
CLEC18B	-	1288	Gac/Aac	0.00737463	30	G0030	1	1
CLIC6	rs145427334, CM139408, COS M1413944, COSM5160189	1651	Gca/Aca	0.00294985	45	G0045	2	2
CLIC6	rs753268577	1688- 1689	ata/atAa	-	34	G0134, G0034	2	3
CLPB	-	1345	Gct/Cct	-	7	G0007	1	1
CMPE2	-	35	cTg/cCg	-	39	G0039	1	1
CMYA5	rs1273268085	10991	aGg/ag	0.00147493	31	G0031	1	1
CNBD1	-	571	Agc/Ggc	-	34	G0134, G0034	1	1
CNBD2	rs138969375	623	aCg/aTg	-	19	G0019	1	1
CNGB3	rs771941989	1198	Tgg/Cgg	-	36	G0036	1	1
CNMM1	rs775169506	2323	Gat/Aat	-	5	G0005	1	1
CNR2	rs762556883	340	Act/Cct	-	42	G0042	1	1
CNTN3	rs759480123	2204	gGg/gAg	0.00147493	6	G0106, G0006	1	1
CNTNAP3B	-	3640- 3641	cgg/cTTgg	-	46	G0046	1	1
CNTROB	rs193003277	2644	Cgg/Tgg	0.00737463	30	G0030	2	3
CNTROB	rs151174639	2674	Cgc/Tgc	0.00589971	5, 15	G0015, G0005	2	3
COA5	rs767843645	221	tAt/tGt	-	27	G0027	1	1
COCH	rs781725849, COSM6140327	212	tCg/tTg	-	38	G0038	1	1
COL11A1	-	4517	cCa/cTa	-	15	G0015	1	1
COL17A1	-	3686- 3687	ccg/ccCg	-	31	G0031	1	1
COL18A1	-	4369	Cat/Tat	-	41	G0041	1	1
COL1A1	rs148216434, CM123300	3766	Gcc/Acc	0.00442478	11	G0111, G0011	1	1
COL27A1	rs35446342	2159	cCc/cTc	0.00147493	46	G0046	2	2
COL27A1	rs372335521	5207	aCg/aTg	-	7	G0007	2	2
COL5A2	rs772448543	2852	gGg/gAg	-	38	G0038	1	1
COL5A3	rs757598023, COSM6633474	3253	Gga/Aga	-	41	G0041	1	1
COL6A1	rs376764211	3040	Cgc/Tgc	-	32	G0132, G0032	1	1
COL6A3	rs114852262, COSM1406592, COSM304306	3286	Cgc/Tgc	0.00884956	4	G0104, G0004	2	2
COL6A3	rs780597629, COSM1129275	5653	Gtg/Atg	-	45	G0045	2	3

COL6A6	rs114511272, COSM160146	536	aCg/aTg	0.00147493	39	G0039	1	1
COL9A1	rs1422617430, COSM3830947, COSM3830948, COSM3830949	2738	cGa/cCa	-	18	G0018	3	5
COL9A1	rs375684014	2348	cGt/cAt	-	2	G0102, G0002	3	5
COL9A1	rs767544695, COSM360998	1457	cGg/cAg	-	11	G0111, G0011	3	5
COL9A3	rs200153638	1339	Gac/Aac	-	30	G0030	1	1
COPG1	rs201252625	572	aTg/aCg	-	11	G0111, G0011	2	2
COPG1	rs533742765	2363	aCg/aTg	0.00147493	10	G0010	2	3
CORO6	rs372595207	1408	Ggc/Cgc	0.00294985	39	G0039	1	1
CORO7-PAM16	rs773483699, COSM4999524	1802	cGc/cAc	0.00737463	21	G0121, G0021	1	1
COX17	rs1440249464	70	Tgc/Ggc	-	10	G0010	1	1
CPA2	rs775390973	440-446	gTGAATAtt/ gt	-	10	G0010	1	1
CPA4	rs141042847, COSM216038	455	tCg/tTg	0.00294985	45	G0045	1	1
CPB1	rs759928901	576	gaG/gaC	0.00147493	34	G0134, G0034	1	1
CPB2	rs780886596	446	aTt/aCt	-	30	G0030	1	1
CPD	rs751569499	1027	Aac/Tac	-	36	G0036	1	1
CPN2	-	494	tTc/tCc	-	32	G0132, G0032	1	1
CPPED1	rs192649616	574	Gcg/Acg	0.00884956	5, 46	G0005, G0046	2	1
CPT1A	-	541	Gac/Cac	-	45	G0045	1	1
CPT1B	rs201978200	2239	Gcc/Acc	0.00147493	31	G0031	2	2
CPT1B	rs114814733	2185	Gag/Aag	-	38	G0038	2	2
CR1	-	345-346	-/C	-	21	G0121, G0021	1	1
CRAT	rs202114201	767	cGc/cAc	-	39	G0039	1	1
CRB2	rs868484209	3190	Ccc/Tcc	-	31	G0031	2	2
CRB2	rs1049615495	3839	cCg/cTg	0.00442478	5	G0005	2	2
CRIPAK	rs528457959	111-112	acATgt/acg t	0.00884956	15, 21, 46	G0121, G0015, G0021, G0046	3	4
CROCC	rs530489970	4702	Ggc/Tgc	0.00294985	10	G0010	1	1
CRTAM	rs760611485	946	Cat/Tat	0.00147493	10	G0010	1	1
CRYAA	rs756635396	259	Gtg/Atg	-	46	G0046	1	1
CRYBA2	rs189370242	317	aGc/aTc	-	39	G0039	1	1
CRYBA4	rs12053788, COSM4674825	77	cGg/cAg	-	38	G0038	1	1
CSPP1	rs764280843	383	cGg/cCg	-	37	G0137, G0037	1	1
CSRNP1	-	310	Ccc/Tcc	-	30	G0030	1	1
CSRNP3	rs569988957	730	Ggc/Agc	-	46	G0046	1	1
CTC1	rs771646414	2767	Ggg/Tgg	-	17	G0117, G0017	2	2
CTC1	rs745499039	1045	Ctt/Ttt	-	18	G0018	2	3
CTNNA3	rs750542481	1625	gGc/gTc	-	1	G0101, G0201, G0001	1	1
CTNNBIP1	rs147067665	7	Cgc/Tgc	-	41	G0041	1	1
CTRL	-	571	Tgg/Cgg	-	20	G0120, G0020	1	1

CTSE	rs782364178, COSM4617272, COSM4617273	1151	cGt/cAt	-	40	G0040	1	1
CTU2	rs1028786147	4	Tgt/Ggt	-	15	G0015	1	1
CUL7	rs749177837	2957- 2958	ccg/ccTACA TGCCg	-	34	G0134, G0034	2	2
CUL7	rs754112592, COSM3381600, COSM4808920	1403	cGg/cAg	-	8	G0008	2	3
CUL9	rs539870137	1091	cGc/cAc	0.00147493	17	G0117, G0017	1	1
CUX1	rs139293638, COSM138640	1726	Gag/Aag	0.00442478	21	G0121, G0021	1	1
CWF19L2	COSM6430722, COSM6430723	2363	gCc/gTc	-	41	G0041	1	1
CXCR2	-	742	Cgg/Ggg	-	46	G0046	1	1
CXorf36	rs767520578	811	Ctc/Atc	-	27	G0027	1	1
CYBR1	rs368686887	720	tgG/tgT	-	43	G0016, G0043	1	1
CYBA	rs149344911	226	Gtg/Atg	0.00147493	5	G0005	1	1
CYP11B2	rs772456092	1190	aTc/aCc	-	36	G0036	1	1
CYP2D6	rs532668079	1322	cGt/cAt	-	34, 36	G0134, G0034, G0036	4	5
CYP2D6	rs202102799, CM145215	1064	tAc/tGc	0.00442478	19	G0019	4	5
CYP2D6	rs185772085	1420	Cgg/Tgg	-	27	G0027	4	5
CYP2J2	rs199717190	1121	aAc/aTc	-	42	G0042	2	2
CYP2J2	rs776132354	1127	aTc/aAc	-	43	G0043	2	2
CYP3A7	rs139250712, COSM289871	418	Gga/Aga	0.00294985	4	G0104, G0004	1	1
CYP4X1	rs1283138120	164	cTt/cCt	-	18	G0018	1	1
CYP8B1	rs202192572, COSM4498090	511	Cgc/Tgc	0.00294985	40	G0040	1	1
CYTH4	-	329	gCc/gAc	-	4	G0104, G0004	1	1
DACT2	-	176-177	tgc/tgGCCC TGCAGCCCCC GCCCCGGCCC GCCCGCCCT Gc	-	19	G0019	1	1
DAK	rs190771207	940	Ctc/Ttc	-	8	G0008	1	1
DAPK1	rs759736720	2107	Ctt/Ttt	-	42	G0042	1	1
DAPK2	rs190782744	328	Gag/Aag	-	8	G0008	1	1
DARS	rs947544377	616	Ttc/Ctc	-	36	G0036	1	1
DBH	rs146922432, COSM1106487	275	cGt/cAt	-	8	G0008	2	2
DBH	rs201128036, COSM3847980	985	Cgc/Tgc	0.00294985	11	G0111, G0011	2	3
DCHS1	rs188298100	9745	Gcc/Tcc	0.00294985	31	G0031	2	2
DCHS1	rs568029252	8470	Gaa/Aaa	-	42	G0042	2	2
DCLX3	rs867911865	536	aGg/aCg	-	3	G0103, G0003	1	1
DDIT3	rs775586763	554	cGa/cAa	-	40	G0040	1	1
DDX1	rs11550369	183	atC/atG	-	41	G0041	1	1
DDX11	rs565676965	947	cCc/cTc	-	8	G0008	1	1
DDX31	rs201836014	1304	aTc/aCc	0.00147493	36	G0036	1	1

DDX53	COSM4798237	590	aGa/aAa	-	5	G0005	1	1
DECR2	rs1384661734	89	gTg/gCg	-	45	G0045	1	1
DEF8	rs147127076	191	tAt/tGt	-	42	G0042	1	1
DENND6A	rs754343499	703	Cgg/Tgg	-	38	G0038	1	1
DENND6B	rs774569952, COSM1206031	584	cCg/cTg	-	4	G0104, G0004	1	1
DEPDC5	rs376744360	3065	cCc/cAc	0.00294985	10	G0010	1	1
DES	COSM5529689	708	atC/atG	-	31	G0031	1	1
DFNB31	rs56059137, CM112938	1135	Cgg/Tgg	0.00884956	19	G0019	1	1
DFNB59	rs532114292, COSM1010057	887	cGa/cAa	0.00147493	8	G0008	1	1
DHX32	-	1616	cAt/cGt	-	31	G0031	1	1
DHX34	rs140449776, COSM6249709	2756	cGc/cAc	-	34	G0134, G0034	1	2
DIAPH3	rs145827856, COSM193039	1343	cGa/cCa	0.00294985	8	G0008	3	3
DIAPH3	rs760815388, COSM5842658	3124	Cgc/Tgc	0.00147493	39	G0039	3	3
DIAPH3	rs770994435	2267	aAc/aCc	-	38	G0038	3	3
DIMT1	rs543436948	686	aTa/aCa	0.00147493	34	G0134, G0034	1	1
DIP2B	rs371482745	4261	Cgc/Tgc	-	46	G0046	1	1
DIS3	rs562301195	1978	Aat/Gat	0.00442478	42	G0042	1	1
DIS3L	rs768644711	1603	Cgc/Tgc	-	8	G0008	1	1
DISC1	rs774371342	157	Ggg/Tgg	0.00147493	19	G0019	1	1
DISP2	rs199498239	3314	tTc/tGc	0.00294985	17	G0117, G0017	1	1
DKK4	rs201742431, COSM5750221	136	Gac/Tac	0.00147493	6	G0106, G0006	1	1
DMD	rs372832497	626	aTa/aCa	-	31	G0031	1	1
DMPK	rs776168530, COSM6301724, COSM6301725	1787	tCg/tTg	-	7	G0007	1	1
DMRT3	-	700	Ggc/Agc	-	27	G0027	1	1
DNAH1	-	10184	cTg/cGg	-	20	G0120, G0020	1	1
DNAH10	rs754524758, COSM5510650, COSM5510651	8998	Gtg/Atg	-	41	G0041	2	2
DNAH10	rs759073156, COSM936677, C OSM936678	12838	Ggg/Agg	-	34	G0134, G0034	2	3
DNAH11	rs750672801	5723	gAg/gCg	0.00147493	39	G0039	2	2
DNAH11	rs765308785	11767- 11770	TTAGtt/tt	-	34	G0134, G0034	2	3
DNAH14	rs373790753	7006	Gga/Agg	-	21	G0121, G0021	1	1
DNAH17	rs751759994	1942	Gtg/Atg	-	15	G0015	1	1
DNAH2	rs375174427	11635	Cgg/Tgg	-	38	G0038	1	1
DNAH3	rs764016913	4262	cTg/cCg	-	9	G0109, G0009	1	2
DNAH6	rs199554362	7975	Cgg/Tgg	-	40	G0040	1	1
DNAH7	rs752238407	2478- 2479	-/A	0.00737463	31, 45	G0031, G0045	2	2
DNAH8	rs139227429	13097	cGt/cTt	0.00442478	42	G0042	1	1
DNAH9	rs147183329	4604	cAg/cGg	0.00442478	12	G0112, G0012	1	2

DNAJC1	rs755362932	1467- 1468	agAgct/agc t	-	7	G0007	1	1
DNAJC12	rs375331138	77	tCg/tTg	0.00147493	42	G0042	1	1
DNAJC13	rs200244570, COSM6647220, COSM6647221	4145	cGt/cAt	0.00442478	39	G0039	1	1
DNM2	rs202060910	2312	cCg/cTg	-	42	G0042	1	1
DNMBP	rs116046885, COSM3433473, COSM3433474	3890	aAt/aGt	0.00294985	5	G0005	1	1
DOCK4	rs775492748	3530	aAa/aGa	-	45	G0045	1	1
DOCK6	rs551574920	5668	Cgt/Tgt	0.00294985	11	G0111, G0011	2	2
DOCK6	rs202209921	3163	Gtg/Atg	-	6	G0106, G0006	2	4
DOCK9	COSM4048987, COSM4048988, COSM4048989, COSM4048990, COSM4048991	3395	cGt/cAt	-	15	G0015	1	1
DOK1	-	355	Ttt/Ctt	-	39	G0039	1	1
DOPEY2	rs200255806	4030	Gtg/Ctg	-	19	G0019	1	1
DOTIL	-	4419	caG/caC	-	13	G0113, G0013	1	1
DPYD	rs570122671	2210	aCt/aTt	-	8	G0008	3	4
DPYD	COSM50544	2897	tCt/tTt	-	41	G0041	3	4
DPYD	-	509	cAg/cGg	-	4	G0104, G0004	3	4
DRD5	rs752776884	788	gAg/gGg	-	3	G0103, G0003	1	1
DRP2	rs767635431	2510	gCc/gAc	-	42	G0042	1	1
DSG1	rs202060380	2251	Ctg/Atg	0.00589971	18	G0018	1	1
DSPP	rs759290808	1052- 1053	gAA/g	-	41	G0041	1	1
DTHD1	rs577534478	1979	aTc/aGc	-	46	G0046	3	3
DTHD1	rs529758698	2260	Agt/gt	0.00737463	7, 41	G0007, G0041	3	3
DTNB	rs182089084	1009	Cgc/Tgc	0.00737463	2	G0102, G0002	1	1
DTX3L	rs191063500, COSM5428330	2186	cGt/cAt	0.00589971	15	G0015	1	1
DUOX2	rs530736554	1295	cGt/cAt	-	36	G0036	2	2
DUOX2	rs568196384	903	tgG/tgT	-	13	G0113, G0013	2	3
DUSP12	-	283	Gac/Cac	-	45	G0045	1	1
DUSP13	rs745338542	580	Cgc/Tgc	0.00147493	43	G0043	1	1
DUSP27	rs149727025	611	cGg/cAg	-	18	G0018	1	1
DUSP8	rs553329941	1798	Cgc/Tgc	-	39	G0039	1	1
DYDC2	rs757502266	131	aTa/aCa	0.00147493	42	G0042	1	1
DYRK1B	-	829	Cgc/Tgc	-	36	G0036	1	1
DYSF	rs185596534	4859	cGt/cAt	0.00737463	5	G0005	4	6
DYSF	rs200195517, COSM6650844, COSM6650845	1984	Ggg/Agg	-	13	G0113, G0013	4	6
DYSF	rs141536854, COSM5669657, COSM5669658	3337	Cgc/Tgc	-	41	G0041	4	6
DYSF	rs759505768	4970	tAc/tGc	0.00294985	3	G0103, G0003	4	6

DYX1C1	-	746	aCa/aTa	-	41	G0041	1	1
ECE2	rs368866385	772	Cgc/Tgc	-	36	G0036	3	4
ECE2	rs779580606	1180	Gcc/Ccc	-	5	G0005	3	4
ECE2	rs772740984, COSM3331037, COSM3331038, COSM3331039	2468	tTt/tCt	0.00294985	37	G0137, G0037	3	4
ECM1	rs776568678	1255	Cgg/Tgg	-	19	G0019	1	1
EDC4	rs1459242586	4030	Gtg/Atg	-	39	G0039	1	1
EDRF1	rs1301739219	2671	Gaa/Caa	-	39	G0039	1	1
EFCC1	rs753569809	547	Cgc/Tgc	0.00147493	12	G0112, G0012	1	1
EFHC1	rs140476054, COSM1080245	731	cGa/cAa	-	42	G0042	1	1
EFTUD2	rs755484427	2407	Cgg/Tgg	-	31	G0031	1	1
EGFLAM	rs1459360068	362	gGc/gAc	-	3	G0103, G0003	1	1
EHP1	rs769306204	1541	aTa/aCa	-	40	G0040	1	1
EHD4	-	235	Aga/Gga	-	39	G0039	1	1
EHHADH	rs752082700	910	Ggc/Agc	-	43	G0043	1	1
EID3	-	215	gAa/gGa	-	31	G0031	1	1
EIF2A	rs142526216, COSM6468553, COSM6468554	571	Agt/Tgt	0.00147493	36	G0036	1	1
EIF3A	rs375001473	3149	cGa/cAa	-	43	G0043	1	1
EIF4E2	rs367941662	178	Tac/Cac	-	21	G0121, G0021	1	1
ELTD1	-	1215	caC/caG	-	18	G0018	1	1
EML1	-	907	Atc/Ttc	-	37	G0137, G0037	2	2
EML1	rs772026903	2284	Aat/Gat	-	13	G0113, G0013	2	4
EML2	rs200186061	794	cGt/cTt	-	17	G0117, G0017	2	2
EML2	rs1016734116	278	gCg/gTg	-	4	G0104, G0004	2	4
EML5	rs564761258, COSM4415047, COSM4415048, COSM6653877, COSM6653878	2011	Cgg/Tgg	-	13	G0113, G0013	1	1
ENDOD1	rs543832194	1240	Cgg/Tgg	-	38	G0038	1	1
ENDOU	rs750395745	434	tCt/tTt	0.00147493	41	G0041	1	1
ENGASE	rs200896035	1162	Cgt/Tgt	0.00589971	19	G0019	2	2
ENGASE	rs372039816	730	Gct/Act	-	5	G0005	2	2
EN03	rs770822790	1123	Gag/Aag	-	38	G0038	1	1
ENPP1	-	1882	Tgt/Cgt	-	18	G0018	1	1
ENPP5	rs199876794	413	aTg/aCg	0.00737463	42	G0042	1	1
ENTPD3	rs138106324	1303	Ggt/AgT	-	36	G0036	2	2
ENTPD3	rs755913625	665	gGt/gAt	-	46	G0046	2	2
EP400	rs575639601	146	tCg/tTg	-	6	G0106, G0006	3	5
EP400	rs183260874	5167	Cgg/Tgg	0.00147493	3	G0103, G0003	3	5
EP400	rs760508158	8503	Ggt/AgT	-	41	G0041	3	5
EPHA2	rs760295557, COSM1185337	1820	gAg/gCg	0.00147493	19	G0019	1	1
EPPK1	rs782582986	6620- 6621	acg/acCTGG CCCAGGg	-	15	G0015	3	4

EPPK1	-	3067	Ttc/Gtc	-	6	G0106, G0006	3	4
EPPK1	-	1945	Gcc/Acc	-	31	G0031	3	4
EPSSL1	rs571265611	437	cTg/cCg	0.00294985	30	G0030	1	1
EPSSL2	rs1478618919, COSM5839562	1993	Gag/Aag	-	46	G0046	1	1
ERAP1	rs566514039, COSM1071460	1861- 1864	ACTGgc/gc	-	32	G0132, G0032	1	2
ESX1	-	71	gAg/gTg	-	21	G0121, G0021	1	1
ESYT3	rs140959397	898	Cgc/Tgc	0.00884956	39	G0039	1	1
ETFB	rs750230877	355	Ggt/AgT	-	17	G0117, G0017	1	1
EVC2	-	3461- 3462	cag/caCAGC CTCAG	-	40	G0040	1	1
EVI5	rs117711462	1060	Cgt/Tgt	0.00737463	19	G0019	2	2
EVI5	rs1442549073	1158	caG/caT	-	30	G0030	2	2
EVPL	rs764339679	4726	Cgg/gg	-	7	G0007	1	1
EVX2	-	1404	caG/caC	-	7	G0007	1	1
F13B	rs780257236, COSM4026587	877	Cgt/Tgt	-	3	G0103, G0003	2	2
F13B	rs1159732571	353	tGc/tAc	-	4	G0104, G0004	2	4
F8	rs782654096, CM002007, CS9 41472	6724	Gtg/Atg	0.00147493	8	G0008, G0023	1	1
FAAH	-	413	cCt/cAt	-	10	G0010	1	1
FAM107B	-	59	cAt/cTt	-	13	G0113, G0013	1	1
FAM109B	rs772414209	79-80	tgg/tGgg	-	41	G0041	1	1
FAM174A	rs370600341	542	aCg/aTg	0.00147493	19	G0019	1	1
FAM178B	rs764132573	1142	gGt/gTt	0.00147493	2, 30	G0102, G0002, G0030	2	1
FAM179B	rs749059577	4815- 4818	aaTTAC/aa	-	36	G0036	1	1
FAM188B	-	2216	aTc/aCc	-	21	G0121, G0021	1	2
FAM213B	rs779628951	112	Cgc/Tgc	0.00147493	27	G0027	1	1
FAM35A	rs532402243, COSM3726905, COSM3726906	1466	tGg/tTg	0.00442478	39	G0039	1	1
FAM46B	rs748383570	1118	gCg/gTg	-	19	G0019	1	1
FAM53B	rs199590785, COSM4573453	692	tGc/tAc	0.00294985	19	G0019, G0028	1	1
FAM65A	rs755848972	3451	Ctc/Ttc	-	18	G0018	1	1
FAM69B	rs200640066	196	Att/Gtt	-	42	G0042	2	2
FAM69B	rs370101799, COSM5172397	1120	Cgg/Tgg	-	10	G0010	2	2
FAM83H	rs192243687	52	Ggg/Agg	0.00442478	45	G0045	1	1
FAM91A1	rs764904538	606	caA/caT	0.00147493	45	G0045	1	1
FANCD2	rs767860064	3047	gTt/gAt	-	46	G0046	1	1
FANCI	rs200186938	13	Att/Gtt	-	40	G0040	1	1
FANCM	rs148304968, COSM3744333	2996	cCg/cTg	0.00442478	31	G0031	2	2
FANCM	rs202171930	1741	Cgt/Tgt	0.00147493	15	G0015	2	2
FASTKD1	rs770663534	202	Gtg/Atg	0.00294985	3	G0103, G0003	1	1

FAT4	rs554549454	502	Ggt/Cgt	0.00442478	15	G0015	2	2
FAT4	rs199797338, COSM332031, C OSM6166555	13082	gGt/gTt	0.00147493	43	G0043	2	2
FBN3	rs762955416	461	gGc/gAc	-	27	G0027	1	1
FBXL18	rs1415125158	1951	Ggg/Agg	-	45	G0045	1	1
FBXL6	rs782818627	1472	aGc/aAc	-	30	G0030	1	1
FBX06	rs765509743, COSM5977836	526	Gac/Aac	-	45	G0045	1	1
FCGBP	rs1334112320	12001- 12004	ACAGtc/tc	-	7	G0007	1	2
FCGBP	rs1168469801	4795- 4798	ACAGtc/tc	-	7	G0007	1	3
FDXR	rs199819323	158	aCg/aTg	0.00294985	39	G0039	1	1
FER1L6	COSM3929374	4887	tGg/tgT	-	43	G0043	1	1
FETUB	-	91-92	ctg/cAtg	-	43	G0043	1	1
FFAR3	rs544946440, COSM5365228	656	cGg/cAg	-	43	G0043	1	1
FGFR2	rs751433223	1391	gTc/gAc	-	21	G0121, G0021	1	1
FHL5	rs746596116	160	Gat/Aat	-	38	G0038	1	1
FLG	rs538406713, CD083307	7945	Agt/gt	-	3	G0103, G0003	2	3
FLG	rs750848650	7214- 7215	gCA/g	0.00589971	41	G0041	2	3
FLNA	rs782276654, COSM1117883	7504	Ggc/Agc	-	8	G0008	1	1
FLNB	rs756171533	5220- 5221	gtCaca/gtc a	-	40	G0040	1	1
FLNC	rs188476936	6280	Ggg/Agg	-	10	G0010	1	1
FMN2	rs775487367	1663	Cca/Tca	-	2	G0102, G0002	1	1
FM02	rs368359446, COSM1293227	1396	Gga/Agg	0.00442478	7	G0007, G0026	1	1
FM03	rs529940450	594	gaT/gaA	0.00589971	41	G0041	2	3
FM03	rs780358952	589-590	TGt/t	0.00589971	41	G0041	2	3
FM03	rs758324579	527	tAt/tGt	0.00147493	18	G0018	2	3
FM05	-	1455- 1456	- /TGGGGCTCG A	-	4	G0104, G0004	1	1
FN3KRP	rs191683466	466	Cag/Aag	0.00737463	40	G0040	2	2
FN3KRP	rs967016381	467	cAg/cGg	-	36	G0036	2	2
FNBP1	rs758733709, COSM204087, C OSM3328843	877	Cgc/Tgc	-	4	G0104, G0004	1	1
FNDC3B	rs200879993	2516	gCc/gTc	0.00147493	38	G0038	1	1
FOXC2	rs530376696	1352	cGg/cAg	-	2	G0102, G0002	1	1
FOXD4	rs572848687	384	agC/agA	-	43	G0043	1	1
FOXP2	rs1316271903	823	Cac/Tac	-	45	G0045	1	1
FPRI	rs149931707, COSM218594	368	cGc/cAc	-	15	G0015	1	1
FRMPD1	rs201737747	947	cGg/cAg	0.00294985	38	G0038	1	1
FRMPD3	rs750106183	4150	Cgc/Tgc	0.00294985	11	G0111, G0011	1	1

FRYL	rs759899611	8398	Cta/Gta	0.00294985	8	G0008	1	1
FUT1	rs574691621, CM973077, COS M3716503	658	Cgc/Tgc	-	34	G0134, G0034	1	1
FUT7	-	872-875	aATGAg/ag	-	43	G0043	2	2
FUT7	rs61730156	727	Cgc/Tgc	0.00294985	10	G0010	2	2
FXN	rs143396368, CM003732	494	cGt/cAt	-	45	G0045	1	1
G6PD	rs72554664, CM910164	1478	cGt/cAt	0.00147493	13	G0113, G0013	1	1
GABRA6	rs150866100	805	Gtc/Atc	-	39	G0039	1	1
GABRE	-	554	tAc/tGc	-	37	G0137, G0037	1	1
GABRR2	rs138360169	1370	aAc/aGc	-	5	G0005	1	1
GADD45G1 P1	rs540101166	233	tCg/tTg	0.00294985	46	G0046	1	1
GADL1	rs754856307	1472	aAc/aGc	-	5	G0005	1	1
GAL3ST2	rs576300819	29	aGa/aAa	-	12	G0112, G0012	1	1
GALNT15	rs368275393	143	gCc/gc	0.00294985	17	G0117, G0017	1	1
GALNT9	rs763299280	68	aTt/aCt	0.00147493	45	G0045	1	1
GALNTL6	rs151281441	850	Gac/Aac	-	39	G0039	1	1
GAS2L2	rs140842796	817	Cgc/Tgc	0.00294985	15, 40	G0015, G0040	2	1
GATSL3	rs753853345	859	Ccc/Tcc	-	41	G0041	1	1
GBP5	-	944	cTg/cAg	-	20	G0120, G0020	1	1
GBP6	rs781558002	765-766	aaCaa/aaa a	0.00442478	12	G0112, G0012	1	1
GDF7	rs551505619	1043	cGc/cAc	-	15	G0015	1	1
GDPD5	rs201873104	235	Cgc/Tgc	-	9	G0109, G0009	2	2
GDPD5	rs377353889	553	Cgc/Tgc	0.00294985	32	G0132, G0032	2	4
GEMIN5	-	2549	cCc/cGc	-	36	G0036	1	1
GFML	rs191462023, COSM7138699	622	Gag/Aag	0.00884956	17	G0117, G0017	1	1
GFPT2	rs755738463	1738	Ccc/Acc	0.00294985	10	G0010	1	1
GFRAL	-	947	tGt/tAt	-	45	G0045	1	1
GGA1	-	76	Gac/Cac	-	15	G0015	1	1
GGA2	rs775567103	1620	aaG/aaC	0.00294985	18	G0018	1	1
GGH	rs1329069782	248-249	tAT/t	-	43	G0043	1	1
GIMAP2	-	173	aCt/aTt	-	19	G0019	1	1
GIT1	rs893375990	53	gAc/gGc	-	38	G0038	1	1
GJD3	rs752593962	269-270	gtg/gtTg	0.00147493	34	G0134, G0034	1	1
GLI3	-	878	aCa/aTa	-	5	G0005	1	1
GLT8D1	-	815-816	gAG/g	-	31	G0031	1	1
GMNC	rs749453426	97	Gtt/Att	-	41	G0041	1	1
GNA15	rs1436462432	655	Tgg/Cgg	-	38	G0038	1	1
GNAS	rs545306394	11	cGc/cAc	-	10	G0010	1	1
GNAT1	rs768364063	653	aTc/aCc	0.00589971	39	G0039	1	1
GOLGA2	rs568691669	1378	Gag/Aag	0.00147493	20	G0120, G0020	2	2
GOLGA2	rs199818352, COSM7132116	1628	cGg/cAg	0.00147493	9	G0109, G0009	2	4

GOLGA3	COSM365023	2719	Gag/Aag	-	11	G0111, G0011	1	1
GOLGA6L10	rs775015067	924	agG/ag	0.00442478	38	G0038	1	1
GP2	rs192352686, COSM6078615	1039	Ggg/Agg	-	8	G0008	1	1
GPC2	-	74	gAg/gTg	-	40	G0040	1	1
GPC4	-	1295	tAc/tGc	-	31	G0031	1	1
GPD2	rs147743394	1661	cGt/cAt	-	19	G0019	1	1
GPIHBP1	-	40-41	tgc/tGCGGg c	0.00294985	42	G0042	1	1
GPR108	rs117917124	865	Gtc/Atc	0.00442478	30	G0030	1	1
GPR110	rs117217476	2162	aCg/aTg	-	42	G0042	1	1
GPR133	rs144814859	2329	Gtg/Atg	-	7	G0007	1	1
GPR157	rs190385903	722	aGc/aAc	-	5	G0005	1	1
GPR176	rs369009336	731	gCg/gTg	-	21	G0121, G0021	1	1
GPR37L1	rs565062364, COSM4887028, COSM5341840	682	Cgc/Tgc	-	42	G0042	1	1
GPR6	rs766061640	818	gCc/gTc	0.00294985	4	G0104, G0004, G0035	1	1
GPR65	rs775161260	909-913	aaTATAIta/ aata	-	40	G0040	1	1
GPR84	rs550573346	1	Atg/Ttg	0.00589971	5	G0005	1	1
GPR89A	-	130	Ttc/Ctc	-	38	G0038	1	1
GPR98	rs1364633852	2768	tTt/tCt	-	39	G0039	2	2
GPR98	rs1267857521	10594	Tgg/Cgg	-	18	G0018	2	2
GPSM1	rs569933588	1855	Cct/Act	0.00589971	38	G0038	2	2
GPSM1	rs782204726	445	Ctc/Ttc	-	8	G0008	2	2
GPT	rs200088103	397	Cgg/Tgg	0.00589971	11	G0111, G0011	2	2
GPT	rs754868571	968	cGc/cAc	-	30	G0030	2	3
GPT2	rs75707274	745	Cgg/Tgg	-	19	G0019	1	1
GRAMD4	rs778595816, COSM4688392	1063	Cgc/Tgc	-	30	G0030	1	1
GRB7	rs201421622, COSM2838234, COSM4266427	1216	Cgt/Tgt	0.00737463	11	G0111, G0011	1	1
GREB1	rs766349374, COSM4599614	3988	Gag/Aag	-	27	G0027	1	1
GRHL3	rs754709945	159	gaT/gaA	0.00147493	46	G0046	1	1
GRHPR	rs1230702576	640	Gtg/Atg	-	19	G0019	1	1
GRIK1	COSM1029813, COSM1029814, COSM4867906	1940	tCg/tGg	-	19	G0019	1	1
GRIP1	rs770934614	1147	Cgt/Tgt	-	39	G0039	1	1
GRK1	rs189451166	1612	Ggt/Agg	0.00884956	31	G0031	1	1
GRM2	rs754332134, COSM6675876	1975	Cgc/Tgc	-	45	G0045	1	1
GSN	rs764841269	8-35	cCGCACCCGCC CCGCGCCCGC	0.00442478	20, 30	G0120, G0030, G0020	2	1

			GCTGCTTTGc /cc					
GSTM2	rs201905887	3	atG/atA	0.00737463	8	G0008	1	1
GSTM4	rs557974260	344	tGc/tAc	0.00294985	18	G0018	1	1
GTF2H1	rs191761375	1393	Tat/Cat	0.00442478	40	G0040	1	1
GTF3C1	rs202098384, COSM4059646	4562	aCg/aTg	0.00737463	45	G0045	1	1
GUCY2C	rs144618542	2662	Cgg/Tgg	-	18	G0018	2	2
GUCY2C	rs369775689	2114	cGc/cAc	-	38	G0038	2	2
GXYLT2	-	800	aAt/aGt	-	10	G0010	1	1
GYPC	rs747401272	291	aaG/aaC	0.00442478	11	G0111, G0011	1	1
HABP4	rs200039443	1135	Cgg/Tgg	0.00589971	4	G0104, G0004	2	2
HABP4	rs761804436	1220	gAa/gTa	-	8	G0008	2	3
HADH	-	400	Ctg/Atg	-	12	G0112, G0012	1	1
HAS1	rs550695209, COSM1000172	679	Gga/Aga	0.00147493	1	G0101, G0201, G0001	1	1
HAUS6	-	2333	gAa/gGa	-	19	G0019	1	1
HEATR6A	rs376184835	3513	ttA/ttC	0.00294985	38	G0038	1	1
HEATR5B	rs774231805	3251	cGa/cAa	-	30	G0030	1	1
HECTD4	rs559886195	10076	aGc/aTc	-	17	G0117, G0017	1	1
HELZ2	-	1265	cCt/cGt	-	6	G0106, G0006	1	2
HEPHL1	rs146491431	713	aGc/aCc	0.00442478	20	G0120, G0020	1	1
HERC1	-	6551	gTg/gCg	-	46	G0046	1	1
HGFAC	rs748662990, COSM5401123	1412	aCg/aTg	0.00147493	46	G0046	1	1
HHAT	rs529893253	1052	gTg/gAg	-	46	G0046	1	1
HHLA1	rs1248607808, COSM4461396 , COSM4461397	1312	Cca/Gca	-	27	G0027	1	1
HIP1R	rs1372273933, COSM1241257	1337	cGc/cAc	-	41	G0041	1	1
HIPK1	rs374785454	3134	aAt/aGt	-	32	G0132, G0032	1	1
HIPK2	rs760011575	25	Gcc/Acc	-	18	G0018	1	1
HIST1H2B B	-	80	gGt/gt	-	43	G0043	1	1
HIVEP1	rs190310786	3730	Gat/Cat	-	36	G0036	1	1
HK1	-	1142	aTt/aAt	-	21	G0121, G0021	1	1
HK3	rs748158768, COSM1567771, COSM1567772	2278	Gtc/Atc	0.00147493	34	G0134, G0034	2	2
HK3	rs777300098	700	Gtc/Ttc	-	42	G0042	2	3
HKDC1	rs142379141	173	aCg/aTg	0.00147493	27	G0027	1	1
HLA-A	-	263-264	aca/acAGAG ATCTCCAAGA CCAACGCACA GATTGACCTA GAGAGCCTGC	0.00147493	38	G0038	1	1

			GGATCGCGCT CCGCTa					
HLA-DQB1	rs769966559	310	Cgg/gg	0.00294985	36	G0033, G0036	1	2
HLA-DQB1	rs763272648	304-305	ggg/gAgg	0.00294985	36	G0033, G0036	1	2
HLA-DRB1	-	126-127	-/T	-	27	G0027	1	3
HLA-DRB1	-	121-122	aag/aCTCTa g	-	27	G0027	1	3
HLA-DRB1	COSM4603256	118-119	Cct/t	-	27	G0027	1	3
HLCS	-	20	aTg/aCg	-	39	G0039	1	1
HMCN1	rs184081240	11797	Aat/Tat	0.00147493	39	G0039	2	2
HMCN1	rs200402956	14162	aGa/aCa	-	30	G0030	2	2
HMGCLL1	rs181880690	746	gAc/gGc	0.00442478	37	G0137, G0037	1	1
HMHA1	-	2545	Ctc/Ttc	-	31	G0031	2	2
HMHA1	rs746687878	3133	Gat/Aat	0.00294985	6	G0106, G0006	2	3
HOGA1	-	401	aTg/aCg	-	15	G0015	1	1
HOXA1	rs1012526313	610	Act/Tct	-	39	G0039	1	1
HOXD11	COSM5002433	508	Cgc/Ggc	-	46	G0046	1	1
HOXD12	rs200302685	790	Gag/Aag	-	2	G0102, G0002	2	2
HOXD12	rs752197047	791	gAg/gCg	-	2	G0102, G0002	2	4
HPS5	rs760835753, COSM1604401	131	cGg/cAg	-	38	G0038	1	1
HSD17B14	rs113246661	46	Ggg/Agg	0.00147493	43	G0043	1	1
HSD17B3	-	179	aTt/aCt	-	2	G0102, G0002	1	1
HSD17B6	rs201098412, COSM3936064	116	tCg/tTg	-	42	G0042	1	1
HSPG2	rs755793917	5638	Ggg/Agg	-	12	G0112, G0012	1	2
HSPH1	-	1961	gAa/gGa	-	5	G0005	1	1
HTR3A	rs192036552	652	Ctg/Atg	0.00884956	6	G0106, G0006	1	1
HTR3D	rs1181708653	454	Tgt/Cgt	-	38	G0038	1	1
HYAL4	rs1446840377	1156	Agg/Ggg	0.00147493	43	G0043	1	1
ICAM3	-	415	Tgc/Cgc	-	27	G0027	1	1
IDO1	rs776049118	700	Ttg/Gtg	0.00147493	30	G0030	1	1
IFIH1	rs183412282, COSM3568533	1041	ttA/ttC	0.00442478	43	G0043	1	1
IFITM2	rs561320003	316	Aac/Gac	0.00442478	41	G0041	1	1
IFNAR1	rs777452321	1158- 1159	-/A	-	5	G0005	1	1
IFT122	rs761420085	2876	gAg/gGg	-	10	G0010	1	1
IFT88	rs766242235	1409	tAt/tGt	0.00294985	40	G0040	1	1
IGFLR1	rs368502918	748-749	CTg/g	0.00737463	4	G0104, G0004	1	1
IGFN1	rs751004841	10936- 10937	acc/aTcc	-	17	G0117, G0017	1	1
IGLON5	-	10	Cct/Gct	0.00442478	45	G0045	1	1
IGSP5	rs528886601	281	aCc/aGc	0.00294985	27	G0027	2	2
IGSP5	-	965	gAa/ga	-	39	G0039	2	2

IGSF8	rs145804168	943	Cgg/Tgg	-	1	G0101, G0201, G0001	1	1
IGSF9	rs774422090	649	Cac/Tac	-	13	G0113, G0013	1	1
INADL	rs757445412, COSM426535	1640- 1641	gAC/g	-	9	G0109, G0009	1	1
INF2	rs555680535	3737	tGt/tCt	0.00147493	36	G0036	1	1
INHBB	rs754953119	817	Cgg/Tgg	-	31	G0031	1	1
INHBC	rs531124629	118	Cgg/Tgg	0.00442478	43	G0043	1	1
IN080	rs142469845, COSM252547, C OSM252548	3995	tCg/tTg	-	19	G0019	1	1
INPP4A	rs369371577	2020	Cgt/Tgt	-	46	G0046	1	1
INSRR	-	1435	Cgc/Agc	0.00147493	41	G0041	2	2
INSRR	-	307	Gtc/Ttc	-	18	G0018	2	2
INVS	rs771362033	172	Gct/Cct	-	10	G0010	1	1
IPO9	rs776581782	197	gAt/gGt	-	1	G0101, G0201, G0001	1	1
IQUB	rs199749679	1463	gAt/gGt	-	27	G0027	1	1
IRAK1	rs200628697	1756	Gtg/Atg	-	34	G0134, G0034	1	1
IRAK4	rs1376102243	1117	Ttt/tt	-	9	G0109, G0009	1	1
ITGA11	rs145852498	2402	aCg/aTg	-	3	G0103, G0003	1	2
ITGA7	rs760358583, COSM1934921, COSM1934922, COSM4209198, COSM4209199	872	cGc/cAc	0.00147493	18	G0018	1	1
ITGA8	rs573999814, COSM1581075	2242	Cgt/Tgt	0.00147493	27	G0027	2	2
ITGA8	rs200196309	595	Tac/Cac	-	4	G0104, G0004	2	3
ITGAM	rs371133524, COSM1211022	910	Gca/Aca	-	6	G0106, G0006	1	1
ITGB3	rs554164072	1771	Gac/Cac	-	10	G0010	1	1
ITGB4	rs755072220	2926	Cgc/Tgc	0.00147493	30	G0030	1	1
ITIH1	rs200511784	944	cTc/cAc	-	2	G0102, G0002, G0014	1	1
ITM2C	rs199648200	449	cGg/cAg	-	27	G0027	1	1
ITPR2	-	1178	tGc/tAc	0.00147493	37	G0137, G0037	1	1
ITPR3	rs145811622	7588	Aag/Gag	-	34	G0134, G0034	1	1
ITSN2	rs151243708	1376	cGc/cAc	0.00884956	45	G0045	2	2
ITSN2	rs781105386	1798	Gat/Cat	-	43	G0043	2	2
JAG2	rs769776589, COSM398004	710	gGc/gAc	-	42	G0042	1	1
JAK2	rs760148809, COSM1187686	2423	tTg/tGg	-	7	G0007	1	1
JPH3	rs751969456	379	Gga/Aga	-	18	G0018	1	1
JUP	-	1768	Gtg/Atg	0.00147493	46	G0046	1	1
KALRN	rs144160219	989	cGc/cAc	-	34	G0134, G0034	1	1
KANK4	-	1605- 1606	agGGag/aga g	-	45	G0045	1	1
KBTD11	rs550216503	682	Ggg/Tgg	-	2	G0102, G0002	1	1

KBTBD12	rs773099182	370	Atg/Gtg	-	27	G0027	1	1
KCNC3	rs779810264	2098	Cgc/Tgc	0.00147493	12	G0112, G0012	1	1
KCNE3	rs121908441, CM086422	296	cGt/cAt	-	4	G0104, G0004	1	1
KCNG4	rs140682724	1253	aCg/aTg	0.00294985	41	G0041	1	1
KCNH3	rs373442567	454	Cgg/Tgg	-	5	G0005	1	1
KCNH7	rs781215953	1085	aAg/aGg	-	11	G0111, G0011	1	1
KCNH8	rs138146037	3062	aCg/aTg	0.00442478	30	G0030	2	2
KCNH8	rs548296338	524	tCt/tGt	-	27	G0027	2	2
KCNJ1	rs188249669, COSM325586	625	Ctc/Ttc	0.00294985	27	G0027	1	1
KCNJ11	rs145935651	941	cGc/cAc	-	8	G0008	1	1
KCNJ5	rs147070381	536	aAt/aGt	-	36	G0036	1	1
KCNK17	rs1339489287	320	tTc/tCc	-	27	G0027	1	1
KCNN2	rs772670260	82	Gac/Aac	-	9	G0109, G0009	1	1
KCNT1	rs568539413, COSM5522948, COSM5522949	625	Cgc/Tgc	0.00442478	20	G0120, G0020	1	1
KCTD14	rs749788519	502	Gtg/Atg	-	38	G0038	1	1
KCTD15	rs757755499, COSM6278232, COSM6278233	331	Cgc/Tgc	-	27	G0027	1	1
KDELR3	rs758152725	440-441	ata/atAa	-	46	G0046	1	1
KDMA	rs200823669	1874	aTt/aCt	0.00294985	5	G0005	1	1
KDM4C	rs370623028	2488	Ggt/Agg	0.00442478	9	G0109, G0009	1	1
KDM6B	rs199635992	1232	cGg/cAg	-	10	G0010	1	1
KDM7A	rs1434730277	1670	tTc/tGc	-	36	G0036	1	1
KDR	rs41469552, COSM5609233, C OSM6966632	2524	Cgt/Tgt	-	43	G0043	1	1
KIAA0100	-	5188	Cca/Tea	-	27	G0027	1	1
KIAA0196	-	2141	cTt/cCt	-	7	G0007	1	1
KIAA0319	rs746661484	1288	Gtc/tc	-	10	G0010	1	1
KIAA1033	rs765881333, COSM7163722	877	Cgg/Tgg	-	8	G0008	1	1
KIAA1217	rs41279868	1523	cGc/cAc	-	20	G0120, G0020	3	4
KIAA1217	rs780371689	2120	gTg/gGg	0.00147493	30	G0030	3	4
KIAA1217	rs761928869	2251	Gtg/Atg	-	7	G0007	3	4
KIAA1257	rs376957597	630	gcC/gc	0.00442478	21	G0121, G0021	1	1
KIAA1407	COSM4695639, COSM4695640	1430	cCt/ct	-	21	G0121, G0021	1	1
KIAA1522	rs754751165	956	cGg/cAg	-	31	G0031	1	1
KIAA1524	rs34788499	173	tGc/tAc	0.00147493	45	G0045	1	1
KIDINS220	rs1321650239	2102	gGa/gTa	-	15	G0015	1	1
KIF13B	rs541841891	4324	Gga/Aga	0.00294985	45	G0045	1	1
KIF14	rs189517715	1408	Ttt/Att	0.00147493	37	G0137, G0037	1	1
KIF17	rs113995871	2585	gAg/gTg	0.00294985	18	G0018	1	1
KIF1A	rs759228543	3604	Cgc/Tgc	-	10	G0010	1	1
KIF20A	rs564342284, COSM3237094	2023	Cgg/Tgg	-	8	G0008	1	1

KIF26A	-	4795	Ggg/Tgg	-	32	G0132, G0032	1	1
KIF26B	rs368190159	6008	cGa/cAa	0.00294985	12	G0112, G0012	1	1
KIF4A	rs371383515, COSM6341684, COSM6341685	1174	Aat/Cat	0.00442478	46	G0046	1	1
KIR2DL3	rs778624555	325	Tat/at	0.00147493	4	G0104, G0004	1	1
KIRREL2	rs553235458	1033	Tgg/Ggg	0.00589971	30	G0030	1	1
KISS1R	rs766694658	631	Gcg/Acg	0.00294985	7	G0007	1	1
KLHL23	-	1627	Ctt/tt	-	18	G0018	1	1
KLHL3	rs139384947, COSM3608785	466	Cgt/Tgt	-	12	G0112, G0012	1	1
KLK4	COSM4080521	628	Ccc/Tcc	-	1	G0101, G0201, G0001	1	1
KMT2B	rs1222636315	13	Gcg/Acg	-	45	G0045	1	2
KMT2B	rs1276578109	3808	Cgc/Tgc	-	45	G0045	1	2
KREMN1	rs543288387	835	Cgt/Tgt	0.00442478	34	G0134, G0034	1	1
KRT10	rs764791942	1459- 1460	cac/cGGCGG CGGCTac	-	30	G0030	1	2
KRT10	rs762667965	1457- 1458	ggc/ggAAGC Tc	-	30	G0030	1	2
KRT15	rs1445365258, COSM3795601	641	cGa/cAa	-	3	G0103, G0003	1	1
KRT17	rs369304694, COSM300190	1294	Cgc/Tgc	0.00147493	40	G0040	2	2
KRT17	rs754891141	286	Gcc/Tcc	-	5	G0005	2	2
KRT2	rs753237809	1394	gAg/gTg	0.00294985	7	G0007, G0028	1	1
KRT24	rs146614779	449	cGc/cAc	-	36	G0036	1	1
KRT33B	rs199518913	191	aAc/aGc	0.00884956	45	G0045	1	1
KRT35	rs373692022	1039	Cgc/Tgc	-	3	G0103, G0003	1	1
KRT36	rs778532074	842	gAg/gGg	-	32	G0132, G0032	1	1
KRT40	rs185411291	934	Gcc/Ccc	0.00442478	5	G0005	1	1
KRT71	rs991709906	1297	Cgc/Ggc	0.00147493	10	G0010	1	1
KRT72	rs183502770	830	gAc/gGc	0.00737463	36	G0036	1	1
KRT73	rs116282210	634	Cgc/Tgc	0.00147493	3, 8, 36	G0103, G0008, G0036, G0003	3	4
KRT74	-	139	Agt/Ggt	-	31	G0031	1	1
KRT79	rs200223773, COSM1285840	428	cGg/cAg	0.00147493	34	G0134, G0034	1	1
KRT81	-	59	cCg/cTg	-	2	G0102, G0002	1	1
KRT83	rs755560254	1237	Cgc/Tgc	-	3	G0103, G0003	1	2
KRT85	rs1243599228	1061	gAg/gGg	-	20	G0120, G0020	1	1
KRTAP10-6	rs782042574	365	cCt/ct	-	15	G0015	1	1
KRTAP5-5	rs762422220	156-157	-/GGAG	0.00737463	30, 41	G0041, G0030	2	1
KRTAP9-2	-	35-41	aCCTGCTGc/ ac	-	41	G0041	1	2
KRTAP9-2	-	44-51	aGGACCACC/ a	-	41	G0041	1	2

LACTB2	-	541	Atg/Gtg	0.00147493	37	G0137, G0037	1	1
LACTBL1	rs1475639586	1336	Ggg/Cgg	0.00147493	3	G0103, G0003	1	1
LAMA1	rs766305855, COSM3146138	137	cCg/cTg	-	4	G0104, G0004	1	2
LAMA2	rs143638361	8842	Ggt/Agt	0.00294985	19	G0019	2	2
LAMA2	rs200796753	9340	Gtt/Ttt	0.00294985	42	G0042	2	2
LAMA3	rs1386094240	7222	Gaa/Aaa	-	15	G0015	1	1
LAMA5	rs559408041	1249	Aac/Tac	-	40	G0040	2	2
LAMA5	rs753064723	6064	Cgg/Tgg	-	15	G0015	2	2
LAMB1	rs143268795	4642	Cgt/Tgt	0.00442478	43	G0043	1	1
LAMB2	rs565229873	3533	cGt/cAt	0.00147493	45	G0045	1	1
LAMB3	rs78483218	3368	aTg/aAg	0.00737463	20	G0120, G0020	1	1
LAMB4	rs1340845504	950	cCt/cTt	-	17	G0117, G0017	2	2
LAMB4	rs767522676	239	cCg/cTg	0.00737463	38	G0038	2	3
LAMC3	rs77114147	962	gCc/gTc	-	41	G0041	2	2
LAMC3	rs776309232	835	Gag/Aag	-	3	G0103, G0003	2	3
LANCL3	rs781840615	191	gGg/gCg	-	32	G0132, G0032	1	1
LATS2	rs1211577619, COSM6228128 , COSM6228129	1055	cGg/cAg	-	34	G0134, G0034	1	1
LCN10	rs563466548	298	Gac/Cac	-	27	G0027	1	1
LCP1	-	185	gAt/gTt	-	8	G0008	1	1
LDB3	-	1709	gCc/gAc	-	46	G0046	1	1
LDHAL6A	rs761154863	557	cAt/cGt	0.00442478	10	G0010	1	1
LEFTY1	rs376691125	580	Cgg/Tgg	-	1	G0101, G0201, G0001	1	1
LEMD2	rs754016545	89	gTc/gCc	-	46	G0046	1	1
LEPREL1	rs115596050	889	Cgc/Tgc	0.00884956	7	G0007	1	1
LFNG	rs746683505, COSM1088742, COSM1154805, COSM1154806	1123	Cgc/Tgc	-	42	G0042	1	1
LGR4	rs200626048	1625	cGt/cAt	0.00147493	32	G0132, G0032	1	1
LGR6	rs778567528	250	Ggc/Tgc	0.00294985	37	G0137, G0037	1	1
LHCR	-	505	Ttt/Ctt	-	42	G0042	1	1
LHX1	rs538710873	1193	cCc/cAc	-	36	G0036	1	1
LIAS	rs144133667, CM1110080	746	cGt/cAt	-	1	G0101, G0201, G0001	1	1
LIMS2	rs780405230, COSM6436288, COSM7315183	148	Gag/Aag	-	19	G0019	1	1
LING04	rs377197858	338	cTg/cCg	-	10	G0010	1	1
LIPF	rs757093902	1157	aTc/aCc	0.00147493	43	G0043	1	1
LMBR1L	rs761533217	1031	tCc/tTc	-	42	G0042	1	1
LMBRD2	-	1573	Att/Ttt	-	34	G0134, G0034	1	1
LMF1	rs574656841, COSM3513399	1406	gCg/gTg	0.00884956	19	G0019	1	1
LMTK3	rs764037955	1985	gGg/gAg	-	10	G0010	1	1
LNX1	rs139696663	1243	Ggt/Agt	-	37	G0137, G0037	1	1

LOH12CR1	rs565487491, COSM7297812	403	Cgc/Tgc	-	27	G0027	1	1
LPIN3	rs540639290	1933	Atc/Gtc	-	46	G0046	1	1
LRBA	rs1169976512	526	Ctt/Att	-	42	G0042	1	1
LRCB3	rs1328386882	2266	Gtt/Ttt	-	43	G0043	1	1
LRFN2	rs558275173, COSM5423702	821	cGc/cAc	0.00147493	39	G0039	1	1
LRIG2	rs766583393	2423	aTt/aCt	-	10	G0010	1	1
LRP1B	rs760507481	11153	aCg/aTg	-	46	G0046	1	1
LRP5L	rs745893925	436	Gag/Aag	-	37	G0137, G0037	1	1
LRR1	rs1467104305	824	cGc/cAc	-	30	G0030	1	1
LRRC16B	rs1165918885	1351	Agt/Tgt	-	42	G0042	1	1
LRRC26	rs757607709, COSM6379122	227	cTg/cAg	-	7	G0007	1	1
LRRC40	rs201949703	328	Ctt/Gtt	0.00147493	5	G0005	1	1
LRRK1	rs78605716, COSM1735675, COSM1735676, COSM1735677	5104	Ggc/Agc	0.00589971	3	G0103, G0003	1	1
LRRK2	rs542083503	2405	aGc/aAc	-	36	G0036	1	1
LSAMP	-	946	Gga/Aga	-	6	G0106, G0006	1	1
LSMD1	-	479	aTt/aCt	-	19	G0019	1	1
LSP1	rs148262402	982	Gac/Tac	-	12	G0112, G0012	1	1
LURAP1L	rs144810120	476	tCc/tAc	-	34	G0134, G0034	1	1
LYG1	rs763298730	510	agC/agA	-	43	G0043	1	1
LYPD3	rs202084369	653	gGg/gAg	0.00589971	4	G0104, G0004	2	3
LYPD3	rs767515075	658	Cgc/Tgc	-	41	G0041	2	4
LYPD3	rs760902305, COSM6244042	200	gCg/gTg	-	41	G0041	2	4
LYST	rs200353560	8624	cGt/cAt	0.00442478	27	G0027	2	2
LYST	rs866163204	7493	tGt/tAt	-	19	G0019	2	2
LYZ	rs181359106	178	Get/Act	-	30	G0030	1	1
LYZL4	rs754880624	299	cTg/cCg	-	41	G0041	1	1
LZTR1	-	947	gTg/gCg	-	15	G0015	1	1
MACF1	rs760647921, COSM4165187, COSM4165188, COSM4165189	11294	cGa/cAa	-	40	G0040	1	1
MADCAM1	rs760633258	736-737	cGg/cAGGAG cG	0.00442478	46	G0046	1	2
MADCAM1	rs770954228	737-738	cGg/ccCTCC CGACACCACC TCCCAg	0.00884956	46	G0046	1	2
MADD	-	4379	gTg/gCg	-	31	G0031	1	1
MAFG	rs1051803653, COSM3523710	485	tCg/tTg	-	46	G0046	1	1
MAGEL2	-	1802	cTc/cGc	-	39	G0039	1	1
MALSU1	rs758127169	23	gCg/gGg	-	8	G0008	1	1
MAN1B1	rs1026723062	1235	aCa/aTa	-	36	G0036	1	1
MAN2A2	rs374790154	3206	tCg/tTg	-	6	G0106, G0006	1	1
MAN2B2	rs375847435	1118	cGg/cAg	0.00147493	4	G0104, G0004	2	3
MAN2B2	rs769256789	2193	tcA/tc	-	10	G0010	2	3

MAN2C1	-	1728	ttC/ttA	-	41	G0041	1	1
MAN3C4	rs1390570991	69-70	ctCTgc/ctg c	-	40	G0040	1	1
MAP1A	rs759475015	884	aCg/aTg	-	2	G0102, G0002	1	2
MAP3K11	rs34594252, COSM930456	845	gCc/gGc	-	1	G0101, G0201, G0001	1	1
MAP3K19	rs766757166	3217	Ggc/Agc	-	8	G0008	1	1
MAP3K8	-	539	gAa/gTa	-	39	G0039	1	1
MAPK15	rs201842849	419	cCg/cTg	0.00294985	30, 43	G0030, G0043	2	1
MARK4	rs771153722	178	Cgc/Tgc	-	38	G0038	1	1
MASP2	rs202214079	1727	aCc/aTc	-	13	G0113, G0013	2	2
MASP2	rs369814452	1656- 1659	tgTCTG/tg	-	5	G0005	2	3
MAST3	rs183075772	1499	tCg/tTg	-	10	G0010	1	1
MAST4	rs773838694	692	cGg/cAg	-	18	G0018	1	1
MBD6	-	822-831	ccGAGCAATA AT/cc	-	45	G0045	1	1
MBOAT1	-	38	cGc/cAc	-	3	G0103, G0003	1	2
MBOAT7	-	1043	aCc/aTc	-	45	G0045	1	1
MCC	rs764969229	857	aTa/aCa	-	13	G0113, G0013	1	1
MCM3	rs759584307, COSM7285634, COSM7285635	1202	cGg/cAg	-	5	G0005	1	1
MCM3AP	rs201315959	2653	Ctc/Ttc	0.00442478	5, 36	G0036, G0005	2	2
MCM4	rs1160424466	1987	Gct/Tct	-	17	G0117, G0017	1	1
MCM5	rs752267017	2020	Cgc/Tgc	-	43	G0043	1	1
MCTP1	rs902992073	2051	aTc/aCc	-	20	G0120, G0020	1	1
MDN1	rs116142530, COSM4004149	15779	tCt/tGt	0.00589971	3	G0103, G0003	1	1
MECOM	rs751214857	2662	Tcg/Ccg	-	8	G0008	1	1
MECP2	rs267608370	1487	aGa/aCa	-	31	G0031	1	1
MED17	rs770189924, COSM6032609	48	gaG/gaC	0.00147493	39	G0039	1	1
MEGF11	rs778987546	1385	gAt/gGt	-	7	G0007	1	1
MEIS3	rs145236300	463	Gac/Aac	0.00737463	46	G0046	1	1
MEP1B	rs201378742, COSM4609865	394	Cgg/Tgg	0.00442478	39	G0039	1	1
METTL21A	-	425	gGt/gTt	-	41	G0041	1	1
METTL21C	rs750731316	590	tAc/tGc	-	12	G0112, G0012	1	1
MFSD10	rs761717730	275	aTt/aCt	-	11	G0111, G0011	1	1
MFSD2B	rs780243243	459	caG/caC	-	38	G0038	1	1
MFSD3	rs200098980	499	Ttt/Ctt	0.00147493	19	G0019	1	1
MIA3	rs558711082, COSM282795	146	cGc/cAc	-	10	G0010	1	1
MICAL3	rs1382068134	1752	gaC/gaG	-	8	G0008	1	1
MIDN	-	235	Cgg/Tgg	-	42	G0042	1	1
MIP	-	450	gaC/gaA	-	6	G0106, G0006	1	1

MITF	rs531830542, COSM1425243, COSM1425244, COSM5048198, COSM5048199	1498	Gga/Aga	-	8	G0008	1	1
MLF2	rs749240926	566	gCc/gTc	-	2	G0102, G0002	1	1
MLLT4	rs752837797, COSM6713479, COSM6713480, COSM6713481	4667	cGg/cAg	-	38	G0038	1	1
MMP11	rs747116604	1430	tTc/tAc	-	42	G0042	1	1
MMP15	rs139447490	646	Ggt/AgT	-	21	G0121, G0021	1	2
MMP17	rs529878434	365	cGc/cAc	-	31	G0031	1	1
MMP28	rs181150846, COSM7204188	130	Gga/Aga	0.00147493	40	G0040	2	3
MMP28	rs754748330	265-266	ccc/cAcc	-	34	G0134, G0034	2	5
MMP28	rs751213333	265	Ccc/Acc	-	34	G0134, G0034	2	5
MMP9	rs573936612	1843	Ggg/Tgg	-	40	G0040	3	4
MMP9	rs771359021	737	aCc/aTc	0.00147493	46	G0046	3	4
MMP9	rs752547204	1119	tGc/tgG	-	2	G0102, G0002	3	4
MN1	rs45473596	1783	Gtg/Atg	0.00884956	21	G0121, G0021	1	1
MNAT1	rs118051600	250	Aaa/Caa	0.00294985	11	G0111, G0011	1	2
MORC1	rs778222894	1228	Cca/Tca	-	34	G0134, G0034	1	1
MOSP3	rs200656454	332	cGc/cAc	0.00442478	12	G0112, G0012	1	1
MPND	rs112901068	211	Acc/Ccc	0.00147493	31	G0031	1	1
MPO	-	940	Cgc/Agc	-	31	G0031	1	1
MPPE1	rs745864672, COSM1215442	601	Ggg/Agg	-	42	G0042	1	1
MROH2A	rs544881453	3436	Ggc/Agc	0.00737463	21	G0121, G0021	2	3
MROH2A	rs868430856	4184	gCc/gGc	-	10	G0010	2	3
MS4A10	-	78	caG/ca	-	4	G0104, G0004	1	1
MSH4	rs116141807	1063	Ata/Gta	0.00294985	21	G0121, G0021	2	2
MSH4	rs780475342, COSM4974976, COSM4974977	1751	tCt/tGt	-	42	G0042	2	3
MSH5	rs561487480	2053	Gcg/Acg	0.00294985	18, 32	G0132, G0032, G0018	3	4
MSH5	rs746903566, COSM1077666, COSM1077667	860	cGt/cAt	-	38	G0038	3	4
MST1	rs757261199	1181	gGc/gc	0.00589971	31	G0031	1	1
MTG2	rs776112821	1078	Cgg/Tgg	-	6	G0106, G0006	1	1
MTHFD1L	rs143492706	1856	aCg/aTg	0.00147493	10, 42	G0010, G0042	2	1
MTR3	rs1405482130	2867	gGg/gTg	-	36	G0036	1	1
MTRR	rs762091582	385	Acc/Ccc	-	4	G0104, G0004	1	1
MUC2	rs199865570	1337	aCg/aTg	0.00737463	15, 18	G0015, G0033, G0018	2	2
MUC4	rs765526194	11368- 11369	acc/aTGcc	-	27	G0027	2	4
MUC4	rs773637310	11365- 11366	GAc/c	-	27	G0027	2	4

MUC4	rs765175314	4913- 4914	gct/gcCct	-	19	G0019	2	4
MUC4	rs758453704	4910- 4911	aAT/a	-	19	G0019	2	4
MUC5B	rs371813527	15532	Gtg/Ctg	0.00442478	4	G0104, G0004	1	1
MUC6	rs778261724	722-723	cCT/c	-	15	G0015	1	1
MUL1	COSM903262	61	Gtc/tc	-	27	G0027	1	1
MUM1	-	2060	gGg/gAg	-	5	G0005	1	1
MUT	-	1475	tAc/tGc	-	42	G0042	2	2
MUT	rs753288303, CM060371	1280	gGt/gAt	-	40	G0040	2	2
MXRA5	rs763919603	6329	cGc/cAc	-	46	G0046	1	1
MYBPC3	rs764849803	122	cGc/cAc	-	19	G0019	1	1
MYCBPAP	rs565867401	551	aGt/aTt	-	27	G0027	1	1
MYH1	rs183833836	2231	aAg/aCg	0.00147493	3	G0103, G0003, G0026	1	1
MYH11	rs200315340, COSM215633, C OSM4787352	3217	Gac/Aac	-	20	G0120, G0020	1	1
MYH14	rs773412410	4988	cGg/cAg	-	13	G0113, G0013	1	1
MYH3	-	928	Gac/Cac	-	7	G0007	1	1
MYH6	-	1543	Ggc/Tgc	-	31	G0031	1	1
MYH8	-	584	aTc/aCc	-	7	G0007	1	1
MYL4	rs200195383	339	ttT/ttG	0.00294985	45	G0035, G0045	1	1
MYLK	rs147008323	2023	Gga/Agg	0.00884956	10	G0010	1	1
MYO10	rs764475028	5344	Tgg/Cgg	-	3	G0103, G0003	1	1
MYO15A	rs565206764	1022	tAc/tGc	0.00442478	46	G0023, G0046	1	1
MYO16	COSM6037685	4250	gGg/gTg	-	40	G0040	2	2
MYO16	rs1181418336, COSM5987657	5104	Gaa/Aaa	-	43	G0043	2	2
MYO18A	rs374576391	5570	gAg/gTg	-	30	G0030	1	1
MYO19	rs552225872	1937	gTg/gGg	-	38	G0038	1	1
MYO1D	-	703-704	gct/gGct	-	8	G0008	1	1
MYO1F	rs992168732, COSM4557876	745	Gac/Aac	-	6	G0106, G0006	1	1
MYO1H	rs544074593	2072	gAa/gCa	-	27	G0027	3	3
MYO1H	rs758198897	1675	Aca/Gca	-	36	G0036	3	3
MYO1H	rs759230534	1742	tCc/tGc	-	15	G0015	3	3
MYO3A	rs199597249	112	Gta/Tta	0.00147493	41	G0041	2	2
MYO3A	rs758858112	1325	cAt/cGt	-	39	G0039	2	2
MYO7A	rs117966637, CM1212017	3602	tGt/tCt	0.00442478	4, 5	G0104, G0004, G0005	3	5
MYO7A	rs375182858	688	Gcg/Acg	-	6	G0106, G0006	3	5
MYO1D	rs544592180	263	cAc/cGc	0.00442478	4, 42	G0104, G0004, G0029, G0042	2	1
MYOM2	rs140558918	2969	gTg/gGg	-	8	G0008	3	3
MYOM2	-	629	gGc/gCc	-	40	G0040	3	3

MYOM2	rs755061905	832	Gtc/Ttc	-	10	G0010	3	3
MYT1	rs144747841	1123	Cgg/Tgg	-	46	G0046	1	1
MZF1	rs551259916, COSM6721285	1787	cCc/cGc	-	7	G0007	1	1
N4BP2	rs116990509	4174	Ttt/Gtt	0.00589971	4	G0104, G0004	1	1
NAALADL1	rs139461439	2026	Cgc/Tgc	-	10	G0010	1	1
NACAD	rs1388048004	3986	cCt/cTt	-	15	G0015	2	2
NACAD	rs79883167, COSM6560332, COSM6560376	886	Gac/Aac	0.00294985	39	G0039	2	2
NADK	rs538580250	1438	Atg/Gtg	0.00147493	36	G0036	1	1
NAGA	rs545476351, COSM6356431	673	Gtg/Atg	-	15	G0015	1	1
NAT10	-	88	Ggg/Agg	-	20	G0120, G0020	1	1
NAT8	rs772139400	147	ggG/gg	-	15	G0015	1	1
NAV3	-	3722	cCa/cTa	-	19	G0019	1	1
NCAN	rs777170009, COSM711022, COSM711023	3355	Cgc/Tgc	-	6	G0106, G0006	1	1
NCAPD2	rs764486667	697	Cgt/Tgt	-	41	G0041	1	1
NCBP2	rs759229687	281	gCg/gTg	-	45	G0045	1	1
NCKAP5L	rs550214977	3520	Cac/Tac	0.00589971	5	G0005	1	1
NCOR1	rs183518783, COSM5851889, COSM5851890	4333	Cgt/Tgt	-	20	G0120, G0020	2	2
NCOR1	rs772538472	5216	cGg/cAg	-	42	G0042	2	3
NDUFAP5	rs140825882	965	gGt/gAt	0.00147493	30	G0030	1	1
NEB	rs371605774, COSM3297783	10463	cGt/cAt	-	46	G0046	1	1
NEK1	rs1309738215	641	aAg/aGg	-	45	G0045	1	1
NELFB	rs753890137, COSM1107098	686	aCg/aTg	-	39	G0039	1	1
NET1	rs761367377	1630-1631	gtt/gTt	-	34	G0134, G0034	1	1
NEURL2	rs766087342	164	tTc/tCc	-	18	G0018	1	1
NFIC	rs1346461153, COSM5855428, COSM5855429	1133	aCg/aTg	-	36	G0036	1	1
NFXL1	-	2093	tGc/tTc	-	3	G0103, G0003	1	1
NHLRC3	rs772023282, COSM4575923	509	tAt/tGt	0.00147493	38	G0038	1	1
NINJ2	rs201831432	343	Ctc/Gtc	0.00294985	15	G0015	1	1
NIPAL1	rs572130928	2	aTg/aGg	0.00294985	7	G0007	3	3
NIPAL1	rs190045000	93	tgT/tgG	0.00147493	42	G0023, G0042	3	3
NIPAL1	rs777029979	707	aTa/aCa	-	43	G0043	3	3
NIT2	rs777950856, COSM4111766	763	Cgc/Tgc	-	20	G0120, G0020	1	1
NKX2-1	rs1269165387	158	aGc/aAc	-	31	G0031	1	1
NLN	rs201670063, COSM6351264	1450	Ccc/Tcc	0.00147493	45	G0045	2	2
NLN	-	1859	gCt/gTt	-	3	G0103, G0003	2	3
NLRC3	rs765941259, COSM1609314, COSM2919580	1171	Cgc/Tgc	0.00737463	15	G0015	2	2
NLRC3	rs756678302	545	tCt/tGt	0.00147493	8	G0008	2	2

NLRP3	rs994458759, COSM5744525	1096	Cgg/Tgg	-	45	G0045	1	1
NME2	rs776130833	215	cCg/cTg	0.00147493	45	G0045	1	1
NMRAL1	rs201897065	659	aCg/aTg	0.00294985	42	G0042	1	1
NMRK1	rs144657237, COSM1110075, COSM4874593	291	atC/atG	-	27	G0027	1	1
NMUR2	rs200336223, COSM3245193, COSM6861486	650	aTc/aAc	0.00737463	46	G0046	2	2
NMUR2	rs763859624	686	aTg/aCg	-	34	G0134, G0034	2	3
NOC2L	rs199697037	1801	Gtg/Atg	0.00442478	13	G0113, G0013	1	1
NOD1	rs201002349	205	Cgc/Tgc	-	12	G0112, G0012	1	1
NOP2	rs550998848	664	Gag/Aag	-	40	G0040	1	1
NOTCH1	rs750876781	2713	Gag/Aag	-	36	G0036	1	1
NPBWR2	rs781667572	436	Gtg/Atg	-	46	G0046	1	1
NPEPL1	rs773472422	253	Cgg/Tgg	-	43	G0043	1	1
NPHP3	-	520	Att/Ttt	-	41	G0041	1	1
NPHP4	rs374387338, CD110624	3403	Cgc/Tgc	-	5	G0005	1	1
NPIPA5	-	868-934	CTCACTCCCC TTCCACCCTC AGCTCTACCC TCAGCGGATG ATAATCTCAA GACACCTGCC GAGTGTctg/ tg	-	5	G0005	1	1
NPRI1	rs142618216	2470	Gcg/Ccg	-	36	G0036	1	1
NR1D2	rs781368436	1375	Cgt/Tgt	-	43	G0043	1	1
NRAP	-	1841	gAg/gGg	-	41	G0041	2	2
NRAP	rs746917952	882-883	-/AT	-	40	G0040	2	2
NRCAM	rs370347834, COSM1292396, COSM1292397	3782	gGg/gAg	0.00294985	13	G0113, G0013	1	1
NRDE2	rs776488985, COSM3729604	3385	Gcc/Acc	-	15	G0015	1	1
NRG1	-	1895	aCg/aAg	-	45	G0045	1	1
NRK	rs35115195	2039	gAa/gGa	0.00147493	34	G0134, G0034	1	1
NSUN5	rs782178743	1344- 1347	aaAGAA/aa	0.00294985	38	G0038	1	1
NT5E	COSM1187101	1327	Ggc/Cgc	-	32	G0132, G0032	1	1
NTSR1	rs781494549	400	Tgg/Cgg	-	10	G0010	2	3
NTSR1	rs1383266510	518	cCc/cTc	-	8	G0008	2	3
NTSR1	rs1461174736, COSM5166127	674	aCc/aAc	0.00147493	18	G0018	2	3
NUMBL	rs746596158	865	Gcc/Acc	-	18	G0018	1	1
NUP153	rs200406494	938	cAg/cTg	-	21	G0121, G0021	2	2
NUP153	rs369696629	50	cGg/cAg	-	41	G0041	2	3

NUPL2	rs199844379	521	tAt/tGt	0.00589971	21, 40	G0121, G0040, G0023, G0021	2	1
NWD1	rs778823432	3955	Gac/Aac	0.00442478	30	G0030	1	1
NXPE1	rs79916924, COSM5431505, C OSM5431506	1214	tGc/tTc	0.00737463	39	G0039	1	1
OBSCN	rs370234174, COSM1995570, COSM1995571, COSM1995572, COSM1995573	9427	Ggc/Cgc	0.00737463	8	G0008	6	10
OBSCN	rs371324697	18980	cCg/cTg	-	1	G0101, G0201, G0001	6	10
OBSCN	-	21	agC/agA	-	5	G0005	6	10
OBSCN	rs781156170	15008	gGt/gTt	-	31	G0031	6	10
OBSCN	rs772564832	18028	Gaa/Aaa	-	31	G0031	6	10
OBSCN	rs1378528618	21168	ctG/ct	-	36	G0036	6	10
OBSCN	rs776567153	25745	cGc/cAc	-	3	G0103, G0003	6	10
OBSL1	-	5072- 5073	ggc/ggGc	-	30	G0030	2	2
OBSL1	rs759494566, COSM3391502, COSM4945826	3295	Gtg/Atg	-	13	G0113, G0013	2	3
OCSTAMP	rs1198446423	547	Cgg/Tgg	-	3	G0103, G0003	1	1
ODAM	rs373877978	262	Cca/Tca	0.00147493	36, 38	G0036, G0038	2	1
OFCC1	rs532628181	692	tGt/tAt	0.00294985	31	G0031	1	1
OGFOD1	rs768021183	1155	acT/ac	0.00294985	6	G0106, G0006	1	1
OLFML3	rs747572756	95	cGc/cAc	-	15	G0015	1	1
OPNISW	rs946529537	955	Tgt/Cgt	-	30	G0030	1	1
OR2A12	rs368735311, COSM292656	300	acT/ac	0.00294985	3	G0103, G0003	1	1
OR2L3	rs772682683	249	gaT/ga	0.00147493	34	G0134, G0034	1	1
OR4D11	rs114639827	902	cTg/cGg	0.00294985	2	G0102, G0002	1	1
OR4F21	rs563787219	29-30	tct/tcCt	-	19	G0019	1	1
OR4M1	rs557109490	628	Tgt/Cgt	-	45	G0045	1	1
OR4M2	-	91-92	ttt/tTCTA TCCtt	-	8	G0008	1	1
OR5H1	rs1448983585	712	Ttt/tt	-	41	G0041	1	1
OR5H6	rs539049214	238-239	GGg/g	0.00442478	27	G0027	1	1
OSBP2	rs772707852	1961	cGg/cAg	-	46	G0046	1	1
OTOA	rs141343424, COSM335416	1885	Cgc/Tgc	-	42	G0042	1	1
OTOF	rs144562626, COSM4093359, COSM4093360, COSM4093361	5405	gCg/gTg	-	10	G0010	1	1
OTOG	rs980878787	1585	Cgg/Tgg	-	42	G0042	2	2
OTOG	-	4372	Tgt/Cgt	-	31	G0031	2	2
OTOGL	-	3292	Tgg/Cgg	-	27	G0027	1	1
OTOP1	-	235	Gcc/Acc	-	8	G0008	1	1
OTUD6B	-	175	Aaa/aa	-	17	G0117, G0017	1	1

OX11L	rs368187089	1120	Gca/Aca	-	21	G0121, G0021	1	1
OXCT2	rs549272179, COSM4386370	1187	cTt/cCt	-	39	G0039	1	1
OXTR	rs544737187	635	cCg/cTg	-	13	G0113, G0013	1	1
P2RX3	rs569824102	538	Cgt/Tgt	-	9	G0109, G0009	1	1
PA2G4	rs757246439	922	Ctc/Ttc	-	21	G0121, G0021	1	1
PAMR1	rs201179105, COSM2115885, COSM7259599	301	Ggt/Tgt	0.00884956	19	G0019	1	1
PAPL	rs766945709	719	aTc/aAc	0.00147493	13	G0113, G0013	1	1
PARK7	rs367584305	218	cCa/cTa	-	19	G0019	1	1
PARVA	rs780347455	385	Cgc/Tgc	-	45	G0045	1	1
PASK	rs534891436, COSM1186178, COSM1186179, COSM7224536, COSM7224537	2686	Ggg/Agg	-	34	G0134, G0034	1	1
PBRM1	rs753344888	2678	tAt/tGt	-	19	G0019	1	1
PBX4	rs200360885	677	aAt/aGt	0.00147493	18	G0018	1	1
PCCB	rs777295424	493	Atg/Gtg	-	40	G0040	1	1
PCDH15	rs1321327269	475	Ctc/Gtc	-	45	G0045	1	1
PCDHA4	COSM1261267, COSM1261268	761	aAt/aGt	-	19	G0019	1	1
PCDHA5	rs781894789, COSM246435, C OSM246436, COSM4441253	1486	Cgg/Tgg	-	30	G0030	1	1
PCDHA6	-	2095	Tac/Cac	-	17	G0117, G0017	1	1
PCDHB14	-	391	Cct/Tct	-	31	G0031	1	1
PCDHB3	-	1664	aAc/aGc	-	7	G0007, G0029	1	1
PCDHB7	-	508	Tac/Cac	-	3	G0103, G0003	2	3
PCDHB7	-	1987	Gtg/Atg	-	19	G0019	2	3
PCDHGA12	rs201006002, COSM138516, C OSM138517	1738	Cgc/Ggc	-	10	G0010	1	1
PCDHGA9	rs552765425	1337	aAt/aGt	-	27	G0027	2	2
PCDHGA9	rs770372146	1992- 1998	atAGCTGAC/ at	-	15	G0015	2	2
PCDHGB7	-	809	gAc/gGc	-	5	G0005	1	1
PCK1	rs768176085	1553	cGg/cAg	-	43	G0043	1	1
PCNT	rs199515373	2708	cTc/cCc	0.00589971	31	G0031	1	1
PCNX	-	1811	gAt/gCt	-	38	G0038	1	1
PCNXL2	rs1187864073	3	atG/atA	-	18	G0018	1	1
PCSK6	rs1459787573, COSM6076707 , COSM6076708	2300	cGc/cAc	-	27	G0027	1	1
PDE11A	rs539571955	1981	Gtt/Ttt	-	13	G0113, G0013	2	4
PDE11A	rs752822096, COSM6576369	605	cGt/cAt	0.00147493	17	G0117, G0017	2	4
PDE6A	-	829	Gtg/Ctg	-	38	G0038	1	1
PDE6B	rs752738349, CM083744	1811	aCc/aTc	0.00147493	5	G0005	1	1
PDE8A	rs761340368	2227	Cgc/Tgc	-	4	G0104, G0004	1	1
PDE8B	-	1	Atg/Gtg	0.00294985	45	G0045	1	1

PDGRL	rs552327131	685	Cgg/Tgg	-	15	G0015	1	1
PDHA2	rs375555988	856	Cgt/Tgt	-	38	G0038	1	1
PDK1	-	850	Gca/Aca	-	37	G0137, G0037	1	1
PDLM7	rs768479307	665	cCg/cTg	-	15	G0015	1	1
PDPR	rs200737166	1751	cGc/cAc	-	10	G0010	1	1
PDSS2	rs201366565	281	cTg/cCg	-	43	G0043	1	1
PDZD7	rs201268590	1267	Gcc/Acc	0.00737463	30	G0030	1	1
PDZD8	COSM167339	1243	Cga/Gga	-	8	G0008	1	1
PEPD	rs762303328	151	Ggg/Agg	0.00147493	18	G0018	1	1
PERP	rs759496728	391	Gtg/Atg	-	8	G0008	1	1
PEX16	rs544053792	877	Cgc/Tgc	-	40	G0040	1	1
PGAP2	rs200164387	52	Cgc/Tgc	0.00442478	39	G0039	1	1
PGR	-	554	cTg/cGg	-	21	G0121, G0021	1	1
PHF13	rs116985105	125	aTc/aGc	0.00147493	17	G0117, G0017	1	1
PHF19	rs753741689	1351	Gct/Tct	-	39	G0039	1	1
PHGDH	-	559	Ggt/Tgt	-	32	G0132, G0032	1	1
PHKB	rs202167409	391	Cgt/Tgt	0.00294985	4	G0104, G0004, G0026	1	1
PHPT1	rs756851059, COSM5410766	370	Ggc/Agc	-	8	G0008	1	1
PHRF1	rs541891058, COSM3728229, COSM3728230	4817	aAg/aGg	-	3	G0103, G0003	1	1
PI4KA	rs370079057	4639	Gcc/Acc	-	46	G0046	1	1
PIDD	rs757832682	1004	gTg/gAg	-	5	G0005	1	1
PIEZ01	rs766429217	6584	tCg/tTg	-	30	G0030	2	2
PIEZ01	rs969200104	3050	cTg/cCg	0.00737463	13	G0113, G0013	2	3
PIEZ02	rs551918181	6556	Gtg/Atg	-	27	G0027	1	1
PIGK	rs771962727	238	Agt/Ggt	-	30	G0030	1	1
PIGN	rs576797024	896	cAg/cGg	0.00147493	4	G0104, G0004	2	2
PIGN	rs1283080958	838-839	TTa/a	-	18	G0018	2	3
PIGP	rs745437791	356	gCa/gAa	-	42	G0042	1	1
PIGQ	rs780499636	194	aCc/aTc	-	5	G0005	1	1
PIGT	rs758480164	581	cCc/cTc	-	9	G0109, G0009	1	2
PIGZ	rs767850219	1408- 1409	cgg/cCgg	0.00147493	30	G0030	1	1
PIK3C2B	rs914119854, COSM6588704	3109	Cgc/Tgc	-	3	G0103, G0003	1	1
PIK3CG	rs376453517, COSM1447114, COSM6471505	3062	cGt/cAt	0.00884956	41	G0041	1	1
PINLYP	rs952018147	133	Ttc/Gtc	-	41	G0041	1	1
PIPOX	rs200945242	824	gGc/gCc	0.00589971	37	G0137, G0037	1	1
PKD1	rs578031762, COSM3507471	12455	aAa/aCa	0.00442478	38	G0038	3	4
PKD1	rs146096401, CM074428	6496	Cgc/Tgc	-	17	G0117, G0017	3	4
PKD1	rs111244530, CM1110581	9388	Cgg/Tgg	-	40	G0040	3	4
PKD1L1	rs1462326657	1394	aAt/at	-	5	G0005	1	1

PKD2L1	rs1325319853	1370	aTc/aAc	-	31	G0031	1	1
PKD2L2	rs1021499841	28	Ggc/Agc	-	5	G0005	1	1
PKHD1	rs375145340	847	Ttt/Ctt	-	36	G0036	1	1
PKLR	rs149946271, CM061903	1379	gTg/gCg	0.00442478	2	G0102, G0002	1	1
PKN1	rs35132656	1324	Cgg/Tgg	-	19	G0019	1	1
PKNOX2	rs201383194, COSM3397521	251	aCg/aTg	-	34	G0134, G0034	1	1
PLA1A	rs1054158463	103	Tgc/Cgc	-	11	G0111, G0011	1	1
PLA2G1B	rs1421462546	64	Cgg/Ggg	0.00147493	10	G0010	1	1
PLA2G6	-	1233	gcC/gc	-	10	G0010	1	1
PLB1	rs201142749	1924	Gga/Cga	-	39	G0039	1	1
PLBD2	rs199763130, COSM4038997	1042	Cgc/Tgc	-	46	G0046	1	1
PLCG1	rs749293903	1693	Gct/Act	-	43	G0043	1	1
PLCG2	rs1325870340, COSM1380103, COSM1380104	1958	cGc/cAc	-	20	G0120, G0020	1	1
PLD1	rs200121582, COSM6748508, COSM6748509	1171	Cgc/Tgc	-	8	G0008	1	1
PLEC	rs543632870	9679	Gag/Aag	-	15	G0015	5	7
PLEC	rs549098011, COSM4715430, COSM4715431, COSM4715432, COSM4715433, COSM4715434, COSM4715435, COSM4715436	5437	Cgc/Tgc	-	38	G0038	5	7
PLEC	rs782618187	13897	Ggc/Agc	-	34	G0134, G0034	5	7
PLEC	-	4843	Ctg/Atg	-	21	G0121, G0021	5	7
PLEC	-	3949	Cgg/Tgg	-	40	G0040	5	7
PLEKHB1	rs766497372	155	gGa/gCa	0.00147493	10	G0010	1	1
PLEKHG2	-	674	cAc/cGc	-	40	G0040	1	1
PLEKHG3	rs143017607	1678	Cgg/Tgg	0.00589971	45	G0045	1	1
PLEKHG5	rs766490061, COSM5950630, COSM5950631, COSM5950632	970	Cgg/Tgg	-	18	G0018	1	1
PLEKHH1	rs185661133	2362	Ctc/Ttc	-	41	G0041	1	1
PLIN4	rs747124466, COSM4610852, COSM4610853	2205	caA/ca	-	15	G0015	1	1
PLOD3	rs143577626, COSM1083409	887	cCc/cAc	0.00147493	41	G0041	1	1
PLSCR5	rs574529361	275-276	aac/aaATTA AAAac	0.00442478	5	G0005	1	1
PLXNB1	rs146977900	991	Cgg/Tgg	0.00147493	43	G0043	1	1
PLXNB3	-	1007	gCg/gTg	-	4	G0104, G0004	1	1
PLXNC1	rs745637787	2000	aTt/aCt	-	10	G0010	1	1
PMEL	rs774579250	1540	Gtg/Atg	-	11	G0111, G0011	1	1
PMFBP1	-	2254	Ctc/Ttc	-	4	G0104, G0004	1	1
PNKP	rs756933064	1103	gTt/gCt	-	17	G0117, G0017	1	1
PNLIPRP1	COSM2054739	422	cGa/cAa	-	4	G0104, G0004	1	1
PNLIPRP3	rs747767087	456-457	-/A	0.00147493	19	G0019	1	1

PNPLA5	-	431	tTg/tg	-	7	G0007	1	1
PODXL	rs199939288	1642	Gac/Aac	0.00294985	5	G0005	1	1
POLG	rs796052895	86	tCc/tGc	-	27	G0027	1	1
POLG2	rs56299915	1282	Ctt/Ttt	0.00884956	6	G0106, G0006	2	2
POLG2	-	281	gGg/gAg	-	30	G0030	2	3
POLQ	rs759231797, COSM4982874	409	Cgg/Tgg	0.00294985	19	G0019	1	1
POLR3C	-	987	agT/ag	-	46	G0046	1	1
POP7	-	232	Atc/Ttc	-	21	G0121, G0021	1	1
POTEM	rs1339780190	466	Gat/at	-	38	G0038	1	1
POUIF1	rs201065285, COSM328923	302	aCc/aAc	0.00294985	9	G0109, G0009	2	2
POUIF1	rs773983156	487	Aat/Gat	-	40	G0040	2	3
POU3F1	-	166	Gag/Cag	-	36	G0036	1	1
PPFIA2	rs779034444	775	Ggt/Cgt	-	17	G0117, G0017	1	1
PPIF	rs199568797	340	Ggc/Agc	0.00294985	2	G0102, G0002	1	1
PPP1R15A	-	1631- 1634	gATCCg/gg	-	45	G0045	1	1
PPP1R26	rs756321419, COSM4717092	1249	Gag/Aag	-	7	G0007	1	1
PPP1R3F	rs143845422	1589	aCg/aTg	0.00147493	4	G0104, G0004	1	1
PPP2R2B	rs199878645, COSM3210463	674	aCg/aTg	0.00589971	31	G0031	1	1
PPP4R4	rs193133475	2087	gAt/gCt	0.00147493	31	G0031	1	1
PPRC1	rs542386144, COSM1345435	2287	Cgc/Tgc	-	7	G0007	1	1
PRAM1	rs1157373245	1181	cCt/cAt	-	46	G0046	1	1
PRAMEF1	rs531127236	1058	aCc/ac	0.00589971	40, 41	G0040, G0041	2	1
PRDM1	rs202200155, COSM3726491, COSM3726492	239	gAg/gTg	-	32	G0132, G0032	1	1
PRDM15	-	2907	aaG/aaC	-	15	G0015	1	1
PRKCSH	rs148975956	1249	Gag/Aag	0.00294985	36	G0036	2	2
PRKCSH	COSM1176516	280	Gat/Aat	-	11	G0111, G0011	2	3
PRMT10	rs1308333881	2526- 2527	- /AAAGCAATG TCAGCATCAC A	-	40	G0040	1	1
PROC	-	870	aaC/aa	-	20	G0120, G0020	1	1
PROKR2	rs202203360, CM083839	337	Tac/Cac	0.00589971	38	G0038	1	1
PRPF40B	-	1137	caT/caG	-	36	G0036	1	1
PRR21	-	181-208	TCCACGGCTC TTCACCCATG TCCCTTCAcc /cc	-	46	G0046	1	1
PRRG2	rs763555009	580	Ccc/Tcc	0.00442478	39	G0039	1	1
PRRT4	rs1367546452	95	gCc/gAc	-	30	G0030	1	1
PRSS12	rs189873467	2476	Gga/Aga	0.00442478	15	G0015	1	1
PRSS33	rs777181326	196	Ctc/Gtc	-	17	G0117, G0017	1	1

PRSS36	rs745365099	1321	Ggg/Agg	0.00294985	41	G0041	1	1
PRTFDC1	rs1997974379	553	Tat/Cat	0.00147493	37	G0137, G0037	1	1
PRTG	rs753514502, COSM3420458	808	Cgc/Tgc	-	2	G0102, G0002	1	1
PSD4	-	2426	tTa/tCa	-	39	G0039	1	1
PSMB3	-	362	aTt/aCt	-	6	G0106, G0006	1	1
PSTPIP1	-	478	Cgc/Ggc	-	46	G0046	1	1
PTER	rs373285172	911	cGg/cAg	0.00294985	2	G0102, G0002	1	1
PTGER2	-	91	Atg/Ctg	-	10	G0010	1	1
PTGES2	rs1286455333	107	gCt/gTt	-	27	G0027	1	1
PTGES3L- AARSD1	rs1265958843	1674	ttT/tt	-	17	G0117, G0017	1	1
PTGIR	rs201614820, COSM4718791, COSM6085275	401	cGc/cAc	-	30	G0030	1	1
PTK6	rs538978244	1294	Ccc/Acc	0.00294985	45	G0045	1	1
PTPRB	rs562005529	2642	tCc/tTc	-	7	G0007	1	1
PTPRC	rs1448955102	2101	Gga/Aga	-	41	G0041	1	1
PTPRH	-	2595- 2596	ccCAtc/cct c	-	19	G0019	1	1
PTPRR	rs192322137, COSM1364042, COSM4211068	1321	Gat/Aat	0.00442478	45	G0023, G0045	1	1
PTPRT	rs200157212, COSM1632299	3733	Gcc/Acc	0.00147493	30	G0030	1	1
PTPRU	rs774218458	2311	Cgc/Tgc	-	15	G0015	1	1
PTPRZ1	-	5984	aGt/aTt	-	19	G0019	1	1
PUM2	-	2989	Cag/Aag	-	5	G0005	1	1
PVR	rs1344159048, COSM1195311	368	tGc/tTc	0.00147493	30	G0030	1	1
PVRIG	rs567979530	262	Ctg/Gtg	-	7	G0007	1	1
PWP2	rs140425447	47	cGg/cAg	-	3	G0103, G0003	1	1
PXDNL	rs757814221, COSM5102019, COSM7285214	3070	Gac/ac	-	36	G0036	1	1
PYROXD2	rs538505970	1600	Cgc/Tgc	0.00884956	36	G0036	1	1
RAB11FIP 1	rs752866106, COSM1192821	3387	aaA/aa	-	10	G0010	1	1
RAB11FIP 3	rs377134682	703	Ggg/Cgg	-	42	G0042	1	1
RAB36	rs371958147	226	Ccc/Tcc	-	30	G0030	1	1
RAB37	rs772174577	413	cAg/cCg	0.00442478	18	G0018	1	1
RAB3D	-	410	tGt/tAt	-	7	G0007	1	1
RABEP2	rs547810304	1613	cGc/cAc	-	36	G0036	1	1
RAD52	-	460	Gcc/Acc	-	15	G0015	1	1
RAD54L	rs186059216	788	gGa/gAa	-	27	G0027	2	2
RAD54L	-	904	Aag/Gag	-	9	G0109, G0009	2	3
RANBP6	rs779821505	1829	tCt/tGt	-	37	G0137, G0037	1	1
RARS2	rs201386427, COSM4528799	1564	Gtc/Atc	-	38	G0038	1	1

RASA3	rs768252374	244	Gat/Aat	-	18	G0018	1	1
RASP1	rs758838913	1636	Cgc/Tgc	-	18	G0018	1	1
RBBP6	-	158	aCg/aGg	-	39	G0039	1	1
RBL2	rs555878756	596	gAa/gGa	-	18	G0018	1	1
RBM20	rs563762318	3545	cGc/cAc	0.00884956	31	G0031	1	1
RBM23	COSM3386471	70	Gag/ag	-	7	G0007	1	1
RBP1	rs559625725	117	ggC/gg	0.00147493	36	G0036	1	1
RBPJL	rs374158575	257	cGg/cAg	-	12	G0112, G0012	1	1
RCAN3	rs55532587	253	Aaa/Gaa	-	7	G0007	1	1
RCBTB1	rs750464806	646	Gga/Cga	-	8	G0008	1	1
RCL1	rs114612763	239	cTg/cCg	0.00737463	19	G0019	1	1
RDH13	rs772801401, COSM1223461	136	Gcc/Acc	-	12	G0112, G0012	1	1
RECK	rs189825349, COSM7114723	1279	Cgg/Tgg	0.00442478	34	G0134, G0034	1	1
REQL	rs201573409	1382	cAt/cGt	-	45	G0045	1	1
REQL5	rs769645716, COSM5748576, COSM5748577, COSM5748578	1046	cGg/cCg	-	43	G0043	1	1
RELN	rs114501042, COSM1166178	8863	Cgc/Tgc	0.00442478	9	G0109, G0009	2	2
RELN	rs758326853	2075	gAc/gTc	-	27	G0027	2	3
RELT	rs772929908	1169- 1170	cCT/c	-	41	G0041	1	1
REPS1	-	1049	gTg/gCg	-	11	G0111, G0011	1	1
RFCL	rs762425047, COSM6301049	1226	gGc/gAc	-	45	G0045	1	1
RFPL4AL1	-	755	cCa/cAa	-	6	G0106, G0006	1	1
RFWD2	-	1325	aCa/aGa	-	5	G0005	1	1
RFY1	-	503	gTg/gCg	-	27	G0027	1	1
RFY7	rs191773270	3494	cGg/cAg	-	40	G0040	1	1
RGAG1	-	2576	tCc/tAc	-	32	G0132, G0032	1	1
RGL1	rs78436705	1051	Gct/Act	0.00589971	3	G0103, G0003	1	1
RGS12	rs751248865	214	Gtg/Atg	-	1	G0101, G0201, G0001	1	1
RGS18	rs201015118	571	Cgt/Tgt	-	7	G0007	1	1
RHDPF2	rs369829771	325	Cgc/Tgc	0.00147493	11, 15	G0111, G0015, G0011	2	1
RHD	-	890	cTg/cg	-	27	G0027	1	1
RIMS1	-	2054	gTt/gCt	-	40	G0040	2	2
RIMS1	rs1239451677, COSM6425010	3136	Aaa/aa	0.00294985	11	G0111, G0011	2	3
RIN1	-	2300	cCt/ct	-	2	G0102, G0002	1	1
RIOK1	rs748291152	952	Gcc/Acc	-	7	G0007	1	1
RIPK3	rs759209004	1534- 1535	tgg/tTgg	0.00147493	3	G0103, G0003	1	1
RIPK4	rs773928153, COSM4886372, COSM4886373	1843	Ggg/Agg	-	15	G0015	1	1
RNASEH1	rs200811242	569	gCc/gTc	0.00442478	30	G0030	1	1

RNASEH2B	rs770203126	269	cCt/cTt	0.00147493	3	G0103, G0003	1	1
RNF125	-	377	tAt/tGt	-	34	G0134, G0034	1	1
RNF135	rs534146867	55	Ctc/Atc	-	38	G0038	1	1
RNF167	rs375969052	583	Cgt/Tgt	-	18	G0018	1	1
RNF168	rs758883953	1	Atg/Gtg	-	36	G0036	1	1
RNF175	rs746350015	590-591	tTt/t	0.00737463	38	G0038	1	1
RNF38	-	944	tTa/tCa	-	18	G0018	1	1
RNFT1	-	569	aTt/aCt	0.00294985	5	G0005	1	1
ROCK1	rs577744892, COSM6996793	3992	aCg/aTg	0.00294985	43	G0043	1	1
ROM1	rs760155276, COSM1355406	331	Ggg/gg	0.00589971	10	G0010	1	1
RP1L1	rs750925370	3955- 3956	gcg/gGGGTG CAGTTAGAGG AAACTAAAAC AGAAGAAGGG CTGcg	0.00294985	4	G0104, G0004	1	2
RPGR	rs761610612	3122	gAg/gg	-	43	G0043	1	3
RPGR	rs767219869	3119	gAg/gg	-	43	G0043	1	3
RPGR	rs752785210, COSM757316	3109	Gag/ag	-	43	G0043	1	3
RPL7A	rs781795890	619	Gtg/Atg	-	30	G0030	1	1
RPS6KB2	-	526	Gct/Act	-	2	G0102, G0002	1	1
RPS6KL1	rs142645360	469	Ggg/Agg	-	41	G0041	1	1
RRP12	rs190732812	1550	tGt/tAt	0.00147493	5	G0005	1	1
RRP15	rs964792302	578	aGt/aTt	-	12	G0112, G0012	1	1
RRP7A	rs780035106, COSM3964373	814	Cgg/Tgg	-	36	G0036	1	1
RSAD2	rs186289991	394	Cgg/Tgg	0.00737463	38	G0038	1	1
RSPH4A	-	1976	cCc/cTc	-	21	G0121, G0021	1	2
RTDR1	rs147001523	250	Cgc/Tgc	-	12	G0112, G0012	1	2
RTN2	rs561968273	79	Gga/Aga	0.00147493	2	G0102, G0002, G0014	1	1
RTN4IP1	rs190556786	1015	Cgc/Tgc	0.00442478	38	G0038	1	1
RUNDC3B	-	1199	cTt/cCt	-	27	G0027	1	1
RUNX3	rs200345680	58	Gac/Aac	-	43	G0043	1	1
RUSC2	rs751467649	2539	Cgg/Tgg	-	6	G0106, G0006	1	1
RXFP1	-	1362	atG/atA	-	40	G0040	1	1
RYR1	rs757284447	1882	Cgt/Tgt	-	12	G0112, G0012	1	1
RYR2	rs940667860	2401	Cgc/Agc	-	38	G0038	1	1
RYR3	rs577194736, COSM1264749	4541	cGt/cAt	-	2	G0102, G0002	2	2
RYR3	rs767324617	8447	tTt/tAt	-	42	G0042	2	3
SALL3	COSM212361	2989	Cgc/Tgc	-	11	G0111, G0011	1	1
SAMD11	rs201596485	580	Cgg/Tgg	-	15	G0015	1	1
SAMD3	rs146866847	440	tAt/tGt	-	42	G0042	1	1
SAMD9L	-	444-445	gcTAAA/gca a	-	41	G0041	1	1

SAMHD1	-	592	Tgt/Cgt	-	36	G0036	1	1
SAMM50	rs78038328	800	cGg/cAg	0.00884956	4, 15, 18	G0104, G0015, G0004, G0018	3	4
SAMSN1	rs756805588, COSM402225, C OSM402226	728	aCg/aTg	-	42	G0042	1	1
SARDH	-	1777	Ctc/Ttc	-	2	G0102, G0002	2	2
SARDH	rs781037442	629	aCc/aAc	-	46	G0046	2	3
SCEL	rs553291205	1150- 1151	att/aATGTC tt	0.00442478	8	G0008	1	1
SCMH1	rs192535871	1738	Cgc/Tgc	-	42	G0042	1	1
SCN1A	rs764501421	5708	tAt/tGt	-	19	G0019	1	1
SCN5A	rs199473180, CM024644, COS M5071769	2893	Cgc/Tgc	-	46	G0046	1	1
SCRIB	rs761006834	1703	aCg/aTg	-	42	G0042	1	1
SDCCAG8	rs1452709438	1958	gGg/gAg	-	9	G0109, G0009	1	1
SDK1	rs61738675	5177	cCc/cTc	-	30	G0030	1	1
SDK2	rs180851428	247	Cgc/Tgc	0.00589971	43	G0043	1	1
SEC24A	rs779917289	2777	gCt/gTt	-	6	G0106, G0006	1	1
SEC31B	rs150250505	3263	cGc/cAc	0.00147493	27	G0027	1	1
SEMA4B	-	2347	Gat/Cat	-	19	G0019	1	1
SEMA4D	rs75298730, COSM3221601, C OSM7216579	1544	gCg/gTg	0.00884956	4	G0104, G0004	1	1
SEMA6D	-	1534	Ctc/Atc	-	40	G0040	1	1
SEMA7A	rs200895370, CM144400	442	Cgg/Tgg	0.00147493	15	G0015	1	1
SEPN1	COSM6865378, COSM6865379	1013	tCt/tTt	-	42	G0042	1	1
SERPINB1 0	rs578228782, COSM1711487, COSM4994386	92	tCt/tTt	-	43	G0043	1	1
SERPINB4	COSM3144516	3	atG/atC	-	6	G0106, G0006	1	2
SERPINB6	rs1462226443	1025	tGt/tAt	0.00147493	4	G0104, G0004	1	1
SERPINB7	rs1200268601	521-522	gct/gcTt	-	1	G0101, G0201, G0001	1	1
SERPINC1	rs774393305	1094	gAg/gGg	-	39	G0039	1	1
SETBP1	rs748289164	2873	gAg/gGg	0.00147493	13	G0113, G0013	1	1
SEZ6L2	rs776157439, COSM4601679, COSM4601680	814	Cgg/Tgg	0.00294985	43	G0043	1	1
SFRP4	rs571165714	206	tGc/tCc	-	42	G0042	1	1
SFXN2	rs145922011	704	aTg/aCg	0.00147493	45	G0045	1	1
SFXN3	rs747242755	49	Cct/Gct	-	15	G0015	1	1
SGCA	rs759841180	832	Ccc/Tcc	0.00294985	7	G0007	1	1
SGSM2	rs183516323	2266	Cgc/Tgc	0.00147493	45	G0045	1	1
SGSM3	rs202034135, COSM4725513	848	aCg/aTg	0.00147493	10	G0010	1	1
SH2D7	rs760318762, COSM5690251	238	Cga/Gga	-	38	G0038	1	1
SH3BGR	rs747363583	251	cAa/cGa	-	15	G0015	1	1

SH3GL1	rs751507640	1001	aCg/aTg	0.00294985	6	G0106, G0006	1	2
SHANK3	rs376862893	898	Cgt/Tgt	0.00147493	43	G0043	3	8
SHANK3	-	1370- 1371	agc/agCGCA GCCCCGCGGC CCCGGAGCCc	-	27	G0027	3	8
SHANK3	rs1461926484	1371- 1383	agCTGTATTC GAATT/ag	-	5	G0005	3	8
SHANK3	-	1374	tgt/tg	-	27	G0027	3	8
SHANK3	-	1380- 1383	cgAATT/cg	-	27	G0027	3	8
SHANK3	-	1387- 1388	gct/gGCCCC GGCCCCGCGC CCGGCct	-	7, 27	G0007, G0027	2	8
SHANK3	-	1394- 1395	ttc/ttCGTG CGCCCCGCCC CGGc	-	27	G0027	3	8
SHC2	rs181971319	878	aCc/aTc	0.00737463	13	G0113, G0013	1	1
SHISA5	rs140407949, COSM1423754	497	cCg/cTg	-	8	G0008	1	1
SHPK	rs755670371, COSM355076	1270	Gtg/Atg	-	8	G0008	1	1
SHROOM1	rs201123145	1759	Cgg/Tgg	0.00294985	42	G0042	1	1
SHROOM3	rs79007254	1241	cGg/cAg	-	39	G0039	1	1
SIDT1	rs200970930	1216	Gac/Aac	-	7	G0007	1	1
SIGIRR	COSM3397671, COSM3397672	258	aaC/aaA	-	41	G0041	1	1
SIGLEC11	-	1024- 1025	tcc/tTcc	-	6	G0106, G0006	1	1
SIGLEC5	rs1313520949	31-32	tgg/tTgg	-	3	G0103, G0003	1	1
SIPA1L1	rs148266566	2752	Tat/Cat	0.00884956	8	G0008	1	1
SIPA1L3	-	3140	cGg/cAg	-	45	G0045	1	1
SIRPB1	rs748935536	1143- 1144	-/G	0.00147493	15	G0015	1	1
SIX3	rs528794855	17	cCc/cTc	-	42	G0042	1	1
SKA2	rs140203033, COSM3680517, COSM3680518, COSM3680519, COSM3680520, COSM4000239, COSM4000240, COSM4000241, COSM4000242	62	tAc/tTc	0.00442478	31	G0031	1	1
SKIV2L	rs766514567	3604	Cgc/Tgc	-	27	G0027	1	1
SKOR2	rs913239603	1645	Ggg/Tgg	-	46	G0046	1	1
SKP2	rs144572232	819	caT/caA	-	38	G0038	1	1
SLAMF8	rs200702110	367	Gat/Aat	-	41	G0041	1	1
SLC12A3	rs200253241	2605	Aag/Gag	0.00147493	40	G0040	1	1
SLC13A4	-	920	gTg/gCg	-	37	G0137, G0037	1	1
SLC14A1	rs538368217, CM090446	1064	gGa/gAa	0.00147493	43	G0043	1	1

SLC14A2	rs780338834	2309	gCt/gAt	0.00147493	1	G0101, G0201, G0001	1	1
SLC15A1	rs201813894	214	Ctt/Ttt	-	39	G0039	1	1
SLC15A5	rs1232067761	184	Tgc/Cgc	-	4	G0104, G0004	1	1
SLC16A1	rs765301781	629	tCt/tGt	-	8	G0008, G0033	1	1
SLC16A14	rs202122599, COSM6238786	217	Gcc/Acc	-	7	G0007	1	1
SLC17A5	rs754164697, COSM5907431	373	Cct/Tct	0.00147493	34	G0134, G0034	1	1
SLC18A1	rs147512321	1435	Cgg/Tgg	0.00442478	10	G0010	1	1
SLC22A1	rs200684404, COSM3023620	350	cCg/cTg	0.00884956	39	G0039	1	1
SLC22A12	rs121907896, CM042474	269	cGc/cAc	0.00737463	31, 43	G0031, G0043	2	1
SLC22A13	rs763597766, COSM4532501	188	aGt/aAt	-	4	G0104, G0004	2	2
SLC22A13	rs765934579	1094	aCg/aTg	-	30	G0030	2	3
SLC22A18	rs747365992	1145	aCg/aTg	-	30	G0030	1	1
SLC22A25	rs183404476	1376	cTa/cCa	-	8	G0008	1	1
SLC23A1	-	1214	cAg/cGg	-	30	G0030	1	1
SLC24A4	-	418	Gct/Tct	-	17	G0117, G0017	1	1
SLC25A13	rs751343245	809	gAc/gGc	0.00147493	46	G0046	1	1
SLC25A19	-	898	Ttc/Ctc	-	31	G0031	1	1
SLC25A2	rs200019700	113	cAg/cCg	0.00442478	43	G0043	1	1
SLC25A40	-	61	Gcc/Ccc	-	19	G0019	1	1
SLC25A41	rs745556777	100-101	caa/cCaa	0.00442478	27	G0027	1	1
SLC26A10	rs201885178	262	Ggc/Agc	-	37	G0137, G0037	1	1
SLC26A11	rs762620664	1324	Ttc/Atc	-	46	G0046	1	1
SLC26A8	rs559176786	2191	Gta/Ata	-	34	G0134, G0034	1	1
SLC27A1	rs767912506	1544	cGa/cAa	-	4	G0104, G0004	1	1
SLC27A6	COSM138505	1802	tAt/tGt	-	27	G0027	1	1
SLC28A1	rs141708518, COSM1129078	1030	Gga/Agg	-	31	G0031	1	1
SLC2A10	rs780949856, COSM1226229	331	Gcc/Acc	-	30	G0030	1	1
SLC2A12	rs767792114	1659	aaG/aaC	0.00147493	18	G0018	1	1
SLC2A3	rs201528048	1100	aTt/aCt	0.00589971	30	G0030	1	1
SLC2A8	rs749728472	354	caG/ca	0.00147493	18, 34	G0134, G0034, G0018, G0016	2	1
SLC30A5	rs1257192918, COSM1069664	907	Cgt/Tgt	-	31	G0031	1	1
SLC34A2	rs538449848, COSM3603107	1732	Cgc/Tgc	-	40	G0040	1	1
SLC35E2	rs768364590, COSM4381190	370	Ctc/tc	0.00589971	11	G0111, G0011	1	1
SLC35F2	rs758701096	502	Gtg/Atg	-	46	G0046	1	1
SLC35G6	rs181565883, COSM1386350	934	Ggg/Agg	0.00589971	8	G0008	1	1
SLC39A13	-	922	Ggg/gg	-	41	G0041	1	1
SLC44A5	rs368941842	1943	tAc/tGc	-	27	G0027	1	1
SLC45A2	-	149	gCg/gAg	-	39	G0039	1	2
SLC45A2	rs1249304563	148	Gcg/Acg	-	39	G0039	1	2
SLC45A4	rs553495013	1548	atT/atG	0.00147493	20	G0120, G0020	1	1
SLC47A2	rs749440332	835	Ggt/Agt	-	45	G0045	1	1

SLC50A1	-	337	Ggc/gc	-	46	G0046	1	1
SLC5A7	rs199693962	1529	aAa/aCa	0.00884956	19	G0019	1	1
SLC6A13	rs536955832	967	Ggc/Cgc	-	40	G0040	1	1
SLC6A15	rs199711818, COSM4045157	1451	aCg/aTg	-	12	G0112, G0012	1	1
SLC6A19	rs548464253	779	aCg/aTg	0.00147493	21	G0121, G0021	1	1
SLC6A20	rs371916242	157	Gtg/Atg	-	10, 18	G0010, G0018	2	1
SLC7A2	rs201373242	1421	tAc/tGc	0.00737463	41	G0041	1	1
SLC7A4	rs749721216	81-84	tcCACc/tc	-	4	G0104, G0004	1	2
SLC7A4	rs769210948	78-79	-/G	-	4	G0104, G0004	1	4
SLC8A1	rs761140370, COSM3581629, COSM3581630, COSM3581631	877	Ggg/Agg	-	7	G0007	1	1
SLC9A3	rs561447879	2342	gTg/gCg	0.00147493	10	G0010	1	1
SLC01C1	-	758	aTt/aAt	-	8	G0008	1	1
SLC02A1	rs566240756	1624	Cgt/Tgt	0.00294985	31	G0031	1	1
SLC04A1	rs775283350, COSM724862	278	cCg/cTg	-	19	G0019	1	1
SLIT3	rs200615379	2251	Ccc/Tcc	-	38	G0038	1	1
SLX4	rs377440877, COSM2919767	1499	aCg/aTg	-	19	G0019	1	1
SMARCA1	rs186125032	2324	cCa/cAa	0.00589971	40	G0040	1	1
SMARCC2	rs111975931	2260	Agc/Tgc	0.00147493	40	G0040	1	1
SMC1B	rs201275855, COSM3063092, COSM3063093	1675	Ttt/Ctt	0.00147493	10	G0010	1	1
SMC5	COSM1187728	722	cAg/cGg	-	39	G0039	1	1
SMIM4	rs765339309	131	cGc/cTc	-	38	G0038	1	1
SMOX	-	1315	Tgt/Cgt	-	38	G0038	1	1
SMPD1	rs202081954, CM023143	995	cCc/cGc	0.00147493	15	G0015, G0026	1	1
SMPD3	rs762435024	439	Acc/Ccc	-	38	G0038	1	1
SMYD1	rs547967061	1003	Tgc/Cgc	0.00147493	31	G0031	1	1
SMYD4	rs1223576905	2215	Gaa/Aaa	-	17	G0117, G0017	1	1
SNED1	rs539832902	3016	Cgc/Tgc	-	34	G0134, G0034	1	1
SNRK	rs552460740	902	cGc/cAc	-	43	G0043	1	1
SNTB1	rs547745148, COSM4760754	824	aCg/aGg	0.00294985	34	G0134, G0034	1	1
SNTB2	rs1283066809	575-576	ctg/ctGGAG GGTGAGCGGG GCCGGCCGg	0.00737463	39	G0039	1	1
SNTG2	rs749824915	1619	tAa/ta	0.00442478	9	G0109, G0009	1	1
SOGA2	rs372807917	4405	Cgg/Tgg	0.00294985	45	G0045	1	1
SORL1	rs578053448, COSM1973237	5837	aCc/aTc	0.00442478	9	G0109, G0009	1	1
SOX4	rs763234364	1151	tCc/tGc	-	18	G0018	1	1
SP140L	rs769236348	1220	gAg/gGg	0.00589971	10	G0010	1	1
SPATA18	-	1270	Tgt/Cgt	-	38	G0038	1	1
SPATA6L	rs370606890	443	gGa/gAa	0.00294985	30	G0030	1	1
SPC25	COSM3569597	572	cTt/cCt	-	19	G0019	1	1
SPHKAP	rs200169181	1208	gCa/gAa	0.00147493	12	G0112, G0012	1	1

SPINK5	rs199757347, CM013063	652	Cga/Gga	-	6	G0106, G0006	1	2
SPTA1	rs769869467	5852	cTa/cGa	-	8	G0008	2	2
SPTA1	rs781647129, COSM6122034	2542	Cgc/Tgc	-	5	G0005	2	2
SPTBN2	rs533645041, COSM3723700, COSM3723701	1786	Cgc/Tgc	-	27	G0027	2	2
SPTBN2	rs143640999	4921	Gcg/Acg	-	18	G0018	2	2
SREBF1	rs748039234	92	gGt/gAt	-	32	G0132, G0032	1	1
SRGAP2	-	446	cGt/cAt	-	4	G0104, G0004	1	1
SRL	rs778207177, COSM1742606	1250	tCc/tGc	0.00147493	41	G0041	1	1
SSC5D	rs1165804011	589	Cgg/gg	-	8	G0008	1	1
SSPN	rs760508335	670	Ttc/Ctc	-	38	G0038	1	1
STAB1	-	1448	gCt/gGt	-	4	G0104, G0004	1	1
STAMBPL1	-	164	gGa/gAa	-	31	G0031	1	1
STK32C	rs760583604	337	Cgg/Tgg	-	19	G0019	1	1
STK36	rs371037310	88	Gtg/Atg	-	7	G0007	1	1
STON1- GTF2A1L	rs747845774	1850	gTc/gAc	-	17, 27	G0117, G0027, G0017	2	1
STXBP4	-	95	gGc/gTc	-	7	G0007	1	1
SULF2	rs1280877367	449	gGc/gCc	-	9	G0109, G0009	1	1
SUN3	rs181233090	538	Gac/Aac	0.00589971	43	G0043	1	1
SYCE1L	rs368565145	160	Cgg/Tgg	0.00294985	3, 43	G0103, G0003, G0043	2	1
SYDE2	rs1193031525	1582	Aaa/Gaa	-	41	G0041	1	1
SYNE2	rs181966989	6185	gAg/gGg	0.00884956	38	G0038	2	2
SYNE2	rs191057574	16374	caA/caT	0.00589971	45	G0045	2	2
SYTL2	rs188240250	2498	aGt/aAt	0.00589971	38	G0038	1	1
SZT2	rs755302772	8870	cGa/cAa	-	31	G0031	1	1
TAF1C	rs184969494	232	Cct/Gct	-	38	G0038	2	2
TAF1C	rs775914678, COSM7077423	1250	cCg/cTg	-	30	G0030	2	2
TAF2	rs537891410, COSM1095512, COSM1095514	2575	Cgg/Tgg	0.00147493	18	G0018	1	1
TAMM41	-	623	aAt/aGt	-	38	G0038	1	1
TAP1	rs756843631	2098	Ggg/Agg	-	10	G0010	1	1
TARS	rs138936240	1838	gGt/gAt	-	20	G0120, G0020	2	2
TARS	rs768094694	2105	cAg/cGg	0.00294985	7	G0007	2	3
TAS1R3	rs548456115	1208	gCc/gTc	-	19, 46	G0019, G0046	2	1
TAS2R3	rs146979075	71	aAt/aGt	0.00147493	8	G0008	1	1
TAZ	COSM6527453	788	cGg/cAg	-	41	G0041	1	1
TBCID17	rs752017150	1003	Gag/Aag	-	45	G0045	1	1
TBL3	rs1232676880	1255	Ggt/Agt	-	46	G0046	3	3
TBL3	rs749858979	1453	Gtg/Atg	-	43	G0043	3	3
TBL3	rs745933962	2084	gCc/gTc	-	19	G0019, G0026	3	3
TBRG4	rs778788135	704	tCg/tGg	-	40	G0040	1	1

TBX20	rs766692577, COSM4980502, COSM4980503	374	tCg/tTg	-	43	G0043	2	2
TBX20	rs777729947	321	aaG/aaC	-	38	G0038	2	2
TBX21	rs150328272	1025	cCg/cGg	-	15	G0015	1	1
TCEA3	rs769709955	699	aaG/aa	-	37	G0137, G0037	1	1
TCEB3B	rs199906751	1715- 1718	aAAGAc/ac	0.00884956	37	G0137, G0037	1	1
TCF12	-	100	Ggg/Agg	-	43	G0043	2	2
TCF12	-	797	tAt/tGt	-	5	G0005	2	2
TCN2	rs754057087, COSM4137385	652	Cgg/Tgg	-	8	G0008	1	1
TCOF1	rs1193701835, COSM4530662 , COSM4530663, COSM4530664	1717	Ggg/Cgg	-	11	G0111, G0011	1	1
TCPI10	rs778595860, COSM216006	806	cCa/ca	0.00442478	8, 12	G0112, G0008, G0012	2	1
TCPI1L2	-	1389- 1390	ccAGga/ccg a	-	27	G0027	1	1
TCTN2	rs777300500	1375	Tta/Gta	-	7	G0007	1	1
TDRD12	rs1350637914	2690	tTt/tCt	-	30, 31, 45	G0031, G0030, G0045	3	3
TDRD6	rs776362451	3584- 3587	tTAAGt/tt	-	12	G0112, G0012	1	1
TECTA	rs773390351	3748	Gat/Cat	-	30	G0030	1	1
TEKT5	rs754117595	1193	cGg/cAg	-	45	G0045	1	1
TELO2	rs150934316	2003	cGg/cAg	-	18	G0018	1	1
TENC1	rs776215521	794	gCg/gTg	-	34	G0134, G0034	1	1
TENM1	-	5826	aaC/aaG	-	10	G0010	1	1
TENM3	rs1324366891	2555	gTt/gAt	-	27	G0027	1	1
TENM4	rs761633956	6572	cGc/cAc	-	13	G0113, G0013	2	2
TENM4	rs1225850519, COSM1561959 , COSM1561960	409	Cgg/Tgg	-	7	G0007	2	3
TEP1	rs374371530	5792	cTc/cAc	0.00147493	17	G0117, G0017	1	1
TES	rs201105521	935	gAg/gGg	-	46	G0046	1	1
TEX36	rs754785788	3	atG/atT	0.00442478	30	G0030	1	1
TG	rs762221625	4604	gAc/gGc	-	45	G0045	1	1
TGIF1	rs557930227	238-239	gcc/gCcc	0.00147493	21	G0121, G0021	1	1
TGM3	rs145397721	874	Cgg/Tgg	-	19	G0019	1	1
TGM7	rs368966307	1039	Cgg/Tgg	-	8	G0008	1	1
THBS1	rs756577387	2463	caG/caC	-	45	G0045	1	1
THBS2	rs182173220	2782	Cgg/Tgg	-	31	G0031	1	1
THBS3	rs35484178	1084	Cgg/Tgg	-	42	G0042	1	1
THEM6	-	56	cTg/cGg	0.00147493	7	G0007	1	1
THGLL	rs539232902	188	cAt/cGt	0.00147493	39	G0039	1	1
THRAP3	rs202131608	1541	gGc/gTc	-	19	G0019	1	1

TICAM1	rs139939816, COSM5566404	1678	Cgg/Tgg	0.00589971	15	G0015	1	1
TIGIT	rs202226565	225	tGg/tgT	-	27	G0027	1	1
TINAG	rs147494351	971	aGc/aAc	0.00442478	7, 9	G0109, G0007, G0009	2	1
TJP1	rs376188031	578	cGg/cAg	0.00737463	13	G0113, G0013	1	1
TJP2	rs144396411, CM144353	427	Gct/Act	0.00737463	39	G0039	1	1
TJP3	rs757975962	1971- 1972	acTGtg/act g	-	21	G0121, G0021	2	3
TJP3	rs147561084	2443	Gac/Aac	-	45	G0045	2	3
TLDC2	rs148426788	550	Cgc/Tgc	0.00442478	39, 41	G0039, G0041	2	1
TM4SF5	rs754045383	425	tGg/tg	-	42	G0042	1	1
TM7SF3	rs186054450, COSM693543	826	Gct/Act	-	39	G0039	1	1
TMC2	-	745	Gtg/Atg	-	40	G0040	2	2
TMC2	rs747236523	772	Tgg/Cgg	-	18	G0018	2	2
TMC3	rs191284515, COSM6077934	2113	Cgg/Tgg	-	3	G0103, G0003	1	1
TMC7	-	749	tAc/tGc	-	42	G0042	1	1
TMCC2	-	1004	gTg/gAg	-	38	G0038	1	1
TMEM104	COSM5481401	59	tAc/tCc	-	39	G0039	1	1
TMEM121	COSM4793741	110	cGc/cTc	-	37	G0137, G0037	1	1
TMEM132C	rs565112858	220	Aac/Cac	0.00294985	37	G0137, G0033, G0037, G0028	1	1
TMEM175	rs752406714, COSM4614018	430-431	TGt/t	-	38	G0038	1	1
TMEM178B	-	716	gGa/gAa	-	15	G0015	1	1
TMEM237	-	874-878	GACTTt/t	-	3	G0103, G0003	1	1
TMEM25	rs782103908	321-322	tgCTct/tgc t	0.00147493	19	G0019	1	1
TMEM260	rs144930038	1342	Cgt/Tgt	-	19	G0019	1	1
TMEM27	rs779199141	86	cTt/cAt	0.00147493	6	G0106, G0006	1	1
TMEM62	rs752059710, COSM2187910	871	Cgg/Tgg	0.00147493	15	G0015	1	1
TMOD4	rs191076675	193	Cga/Gga	0.00442478	36	G0036	2	2
TMOD4	rs969428801	155	cGt/cCt	0.00147493	7	G0007	2	2
TMPRSS11 A	rs769204666	299-300	aat/aaAt	-	38	G0038	1	1
TMPRSS11 E	rs1255282650	517	Tat/Gat	-	12	G0112, G0012	1	1
TMPRSS9	rs199503794	2545	Cgg/Tgg	-	39	G0039	2	2
TMPRSS9	rs778658722	2938	Tgc/Cgc	-	7	G0007	2	2
TNC	rs1457338880	143	gTg/gCg	-	21	G0121, G0021	1	1
TNN	rs1475000410	1193	gTg/gGg	-	7	G0007	1	1
TNNI3	rs3729712	235	Cgc/Tgc	0.00589971	42	G0042	1	1
TNR	rs1358679064, COSM676977	856	Ggc/Agc	-	30	G0030	1	1
TNS4	rs148022611, COSM33158	1924	Cgc/Tgc	0.00589971	37	G0137, G0037	1	1
TNXB	rs750096562	1343	aCg/aTg	0.00147493	31	G0031	1	1

TOM5	-	36	gaC/gaG	-	39	G0039	1	1
TP53BP2	rs199696500, COSM904439, C OSM904440	3304	Gaa/Aaa	-	31	G0031	1	1
TP63	rs767906723	1807	Gac/Cac	-	40	G0040	1	1
TPH2	-	662	gGt/gAt	-	10	G0010	1	1
TPFN	rs540916630	1973	tCc/tTc	0.00294985	3	G0103, G0003	1	1
TPTE	-	1527- 1536	taTCTACCAA AA/ta	0.00147493	32	G0132, G0032	1	1
TRABD2B	rs750996564	424	Ggc/Agc	0.00147493	17	G0117, G0017	1	1
TRAF2	rs754682470	922	Cgg/Tgg	-	34	G0134, G0034	1	1
TRAF5	rs139835688	335	aAt/aGt	-	9	G0109, G0009	1	1
TRAPPC11	-	1553	gAa/gGa	-	39	G0039	1	1
TRAPPC12	rs1297428988	2158	Gcc/Acc	-	30	G0030	1	1
TRIB1	rs55953723	892	Cgt/Tgt	-	36	G0036	1	1
TRIM17	rs777115873	637	Gag/ag	-	27	G0027	1	1
TRIM35	rs200747493	927	aaC/aaA	0.00737463	27	G0027	1	1
TRIM36	rs766317936	1981	Cct/Tct	-	36	G0036	1	1
TRIM45	rs549498742, COSM349735	108	ttC/ttG	-	8	G0008	1	1
TRIM46	-	1462	Ggc/Tgc	-	4	G0104, G0004	1	1
TRIM58	rs778640167	638-639	cAG/c	0.00294985	41	G0041	1	2
TRIM58	rs745706169	644	cTg/cg	0.00294985	41	G0041	1	2
TRIM7	rs749740849	1036	Ttg/Gtg	-	43	G0043	1	1
TRIO	rs146453151	199	Cca/Tca	0.00294985	10, 36	G0036, G0010	3	3
TRIO	rs200262568	8846	aTc/aCc	0.00294985	38	G0038	3	3
TRNT1	rs747332169	448	Cgc/Tgc	-	5	G0005	1	1
TRPM1	rs771110434	2524	Gat/Cat	0.00147493	10, 40	G0040, G0010	2	1
TRPM2	rs769582649	3725- 3735	gCCCGGCACC TC/g	-	39	G0039	1	1
TRPM7	rs761192564	250	Aca/Gca	-	15	G0015	1	1
TRPS1	rs146506752, CM051657, COS M1454386, COSM1454387	2441	cGg/cTg	0.00884956	39	G0039	1	1
TSC2	rs142257684	1609	Cgc/Tgc	0.00442478	15	G0015	2	2
TSC2	COSM4392693, COSM4392694, COSM5122079	1169	aCg/aTg	-	42	G0042	2	2
TSHZ3	rs1213840232, COSM7110801 , COSM7110802	1093	Cgg/Tgg	-	38	G0038	1	1
TSKS	-	244	Gtg/Ctg	-	45	G0045	1	1
TSPAN13	rs182748185	112	Ggg/Agg	-	12	G0112, G0012	1	1
TSPAN6	-	296-297	ctc/ctTc	-	8	G0008	1	1
TSPYL4	rs1342923571	961	Ggc/Tgc	-	43	G0043	1	1
TTC17	rs146700988	2054	aAt/aGt	0.00442478	19	G0019	1	1
TTC37	rs749337189	3464- 3465	aAA/a	-	17	G0117, G0017, G0014	1	1

TTC40	rs190287668	7457	cTg/cCg	-	15	G0015	1	1
TTC6	rs1374857977	2807	gCc/gAc	-	30	G0030	1	1
TTL3	-	1630- 1631	ATg/g	-	39	G0039	1	1
TUBA3D	COSM3406872	1056	aaG/aaC	-	42	G0042	1	1
TUBA8	rs185024084	736	Ggg/Agg	-	19	G0019	1	1
TUBGCP4	rs183013671	998	cGc/cAc	0.00442478	5	G0005	1	1
TULP4	rs148065194	4310	cGg/cAg	-	19	G0019	1	1
TXNDC11	rs777496513, COSM2142325, COSM2142326	2146	GtG/Atg	0.00147493	41	G0041	1	1
TXNRD2	rs192869629	1150	Ggc/Cgc	0.00147493	5	G0005	1	1
UBA1	rs185589110	574	Cgg/Tgg	0.00294985	8	G0008	1	1
UBR4	rs763353559, COSM7300084, COSM7300085, COSM7300086, COSM7300087	10274	cGc/cAc	-	46	G0046	1	1
UBXN2A	rs187715305, COSM720882	247	Gat/Aat	0.00442478	3	G0103, G0003	1	1
UCP2	rs200027152, COSM5882130	694	Gcc/Acc	0.00294985	39	G0039	2	2
UCP2	rs11549044	286	Cgc/Tgc	-	9	G0109, G0009	2	3
UCP3	rs201993988	601	Gac/Aac	-	43	G0043	1	1
UGDH	-	886	Gta/Ata	-	31	G0031	1	1
ULK4	rs764207580	1076	tTt/tCt	0.00737463	39	G0039	1	1
UMPS	rs17843776	88	Agc/Ggc	-	31	G0031	2	2
UMPS	rs142349403	320	cGt/cAt	-	30	G0030	2	2
UPB1	rs200145797, CM142183	91	Ggc/Agc	0.00589971	43	G0043	1	1
UPK1A	rs577633517	617	cGc/cAc	-	4	G0104, G0004	1	1
UPK3A	rs777174751	596	aCg/aTg	-	34	G0134, G0034	1	1
UPP1	rs758600283	280	Cgc/Tgc	-	8	G0008	1	1
UQCC2	rs201734830	45	gaA/gaC	0.00294985	46	G0046	1	1
URB1	rs187237891	179	cCa/cTa	0.00737463	13	G0113, G0013	1	2
USB1	rs778666156	646	Ggt/AgT	-	45	G0045	1	1
USH2A	rs144892841	9041	aCc/aAc	-	38	G0038	2	2
USH2A	rs149553844	6670	Ggt/AgT	-	19	G0019	2	2
USP13	rs192477140	1732	Cct/Gct	0.00294985	8	G0008	1	1
USP20	rs201286389, COSM3328620, COSM3328621, COSM3328622	989	cGc/cAc	0.00737463	7	G0007	1	1
USP31	rs759757564, COSM4442757, COSM5473714	3715	Cgg/Tgg	-	30	G0030	1	1
USP35	rs755648903	1035	caC/caA	-	40	G0040	1	1
UTP3	rs1393479795	201-202	gtACag/gta g	-	6	G0106, G0006	1	1
UTRN	rs367914911	4345	Cgt/Tgt	-	8	G0008	1	1
VANGL2	-	437	gAg/gGg	-	6	G0106, G0006	1	1
VASP	rs376225995, COSM3732322	974	tCg/tTg	-	27	G0027	1	1

VAX2	-	814	Tac/Cac	-	17	G0117, G0017	1	1
VCAN	rs183984308, COSM3139775	9454	Ctc/Gtc	0.00442478	39	G0039	1	1
VCX	rs752893781	385-386	CAG/g	-	45	G0033, G0035, G0045	1	2
VCX	-	388-445	GTGGAGGAAC CACTGAGTCA GGAGAGCGAG GTGGAAGAAC CACTGAGTCA GGAGAGCCag /ag	-	45	G0033, G0035, G0045	1	2
VPS13B	rs1478296228	1612	Atg/Gtg	-	43	G0043	2	2
VPS13B	-	1743	ccT/cc	-	42	G0042	2	2
VPS16	rs376818050, COSM3544975	784	Cgg/Tgg	0.00294985	27	G0027	1	1
VPS33B	rs149121639, COSM4400756	1148	aTt/aCt	-	6, 38	G0106, G0006, G0038	2	1
VPS52	rs750380612, COSM4740580	482	cGc/cTc	-	37	G0137, G0037	1	1
VPS53	-	95	cCa/cTa	-	7	G0007	1	1
VRK3	-	667	Aag/Gag	-	30	G0030	1	1
VSIG10L	-	1941	gaC/gaG	-	9	G0109, G0009	1	1
VTA1	rs771170161	374	aTa/aGa	-	10	G0010	1	1
VTN	rs781937745	1348	Cgc/Tgc	-	38	G0038	1	1
VWA2	rs543340185, COSM5492698, COSM5492699	1450	Cgg/Tgg	0.00147493	10	G0010	1	1
VWDE	rs199964998	470	gCg/gTg	-	6	G0106, G0006	1	1
VWF	rs1374965841	2323	Gtg/Atg	-	38	G0038	1	1
WBP2NL	-	133	Ggt/Tgt	-	36	G0036	1	1
WDFY3	rs754028635	3295	Ggc/Agc	-	30	G0030	1	1
WDPCP	rs141011629	1079	tCg/tTg	0.00294985	11	G0111, G0011	1	1
WDR24	rs746133131, COSM5035828, COSM5035829	988	Gac/Aac	-	19	G0019	1	1
WDR25	rs764591765, COSM223730, C OSM4243338	1480	Gat/Aat	0.00147493	27	G0027	1	1
WDR52	rs138169971	1475	tGc/tTc	-	7	G0007	1	1
WDR62	-	2613- 2614	-/C	-	40	G0040	1	1
WDR7	-	1442	gAt/gGt	-	6	G0106, G0006	1	1
WDR81	rs146081272	3688	Cgc/Tgc	0.00884956	36	G0036	3	4
WDR81	rs1485459176	218	cTg/cg	-	8	G0008	3	4
WDR81	rs774204130	4423	Gag/Aag	-	12	G0112, G0012	3	4
WDR83	rs1371682023	487	Gac/Cac	-	27	G0027	1	1
WDR87	rs569972759	6155	tTa/tCa	-	15	G0015	1	1
WDR93	rs779540687	1070	tTc/tGc	-	21	G0121, G0021	1	1

WDSUB1	rs147091578	308	tGc/tAc	-	11	G0111, G0011	1	1
WFDC10A	rs200591893	148	Tgc/Ggc	-	30	G0030	1	1
WIPF2	-	41	cCt/cTt	-	27	G0027	1	1
WISP3	-	515	cCt/cTt	-	21	G0121, G0021	1	1
WNK2	-	3524	aCg/aTg	-	10	G0010	1	1
WNT5A	COSM2781244	643	Cgc/Tgc	-	17	G0117, G0017	1	1
WNT5A	rs749859751	604	Cgg/Tgg	-	27	G0027	1	1
WFOX	rs200820063	445	Gca/Aca	-	32	G0132, G0032	1	1
XAB2	rs200271935	1546	Gca/Aca	-	42	G0042	1	1
XDH	rs200911206, COSM6823708	2676	atC/atG	-	8	G0008	1	1
XKR9	rs532745388	373-376	ATAGat/at	0.00884956	31	G0031	1	1
XPA	-	809-810	tAT/t	-	10	G0010	1	1
XPPEP1	rs776967246	1376	tCg/tTg	-	27	G0027	1	1
XPO6	rs1175672309, COSM5958773 , COSM5958774	3218	tGt/tAt	-	32	G0132, G0032	1	1
XRCC1	rs199748521, COSM6330859	1675	Cgg/Tgg	-	45	G0045	1	1
XRR1	rs371595882	608	cCg/cTg	-	7	G0007	1	1
YEATS2	rs1210377435	371	tCt/tTt	-	31	G0031	1	1
YJEPN3	rs200227282	673	Gtg/Atg	-	43	G0043	1	1
ZC2HC1C	rs150713060, COSM957951	329	tCg/tGg	-	41	G0041	1	1
ZC3H12A	rs200751940	418	Atc/Gtc	0.00737463	27	G0027	1	1
ZC3H8	rs749495265	542	cAg/cTg	-	8	G0008	1	1
ZDHC8	rs201892248	1168	Cgt/Tgt	-	3	G0103, G0003	1	1
ZEB1	rs746075441	1844	aTt/aCt	-	9	G0109, G0009	1	1
ZFHX3	rs202087317	10853	cCg/cAg	0.00294985	30	G0023, G0030	1	1
ZFYVE26	rs193244014	5225	tCt/tGt	0.00147493	19	G0019	1	1
ZHY2	rs146351736	436	Cgc/Tgc	-	12	G0112, G0012	1	1
ZNF138	-	549	aaC/aa	-	7	G0007	1	1
ZNF16	rs1296370579	66-67	-/C	-	4	G0104, G0004	1	1
ZNF208	rs747610843, COSM3531435, COSM3531436, COSM3531437, COSM6149925, COSM6149926, COSM6149927	3265	Gaa/aa	-	3	G0103, G0003	1	2
ZNF226	rs577789425	2275- 2276	ATa/a	0.00147493	40	G0040	1	1
ZNF257	rs1163784525	1302- 1303	gaAGag/gaa g	-	31	G0031	1	1
ZNF280D	rs866653627, COSM3816402	2773	Gag/Aag	-	7	G0007	1	1
ZNF33A	rs774989567	1728- 1729	acAGgg/acg g	-	31	G0031	1	1
ZNF358	rs370159121	361	Gac/Aac	-	15	G0015	1	1
ZNF397	rs756865049	1274	tAt/tCt	-	3	G0103, G0003	1	1
ZNF41	rs762710331	1859	tCg/tTg	-	19	G0019	1	1

ZNF410	rs201376759, COSM3401461	107	aTt/aAt	0.00589971	18	G0018	1	1
ZNF469	rs1227724367	4624	Gaa/Aaa	-	8	G0008	1	1
ZNF486	-	212-213	cCT/c	-	38	G0038	1	1
ZNF541	rs535118056	2980	Cgg/Tgg	0.00884956	15	G0015	1	1
ZNF554	-	375	gcT/gc	-	19	G0019	1	1
ZNF570	rs776195962	974	aCg/aTg	0.00147493	19	G0019	1	1
ZNF592	rs145238866	2908	Cgc/Tgc	0.00737463	39	G0039	1	1
ZNF623	rs201994151, COSM1195577	943	Gga/Aga	-	46	G0046	1	1
ZNF680	rs768145929	434	tGt/tt	-	11	G0111, G0011	1	1
ZNF721	-	1984- 1985	att/aAtt	-	5	G0005	1	1
ZNF774	rs140260727	757	Cac/Tac	0.00589971	42	G0042	1	1
ZNF787	-	1096- 1097	GAc/c	0.00147493	8	G0008	1	2
ZNF787	-	1094	gAc/gc	0.00147493	8	G0008	1	2
ZNF853	rs1207967872	1435	Cgc/Tgc	-	5	G0005	1	1
ZNF878	rs775948772	507-508	-/A	-	31	G0031	1	1
ZNF880	rs746933147	1250- 1251	ttt/ttCAGG AGAt	0.00147493	7	G0007	1	1
ZNF90	rs781905801	710-713	gAATa/ga	-	27	G0027	2	2
ZNF90	rs782539471	1566- 1572	tcAGTCCT/ tc	-	19	G0019	2	2
ZRANB3	-	3083	gGa/gTa	-	7	G0007	2	2
ZRANB3	rs774807770	2345	cGc/cAc	-	27	G0027	2	2