

**Supplementary Table: Rare variants predicted to change the primary sequence of the gene product**

Coordinate	Gene	Nucleotide change	Consequence
1:924522	<i>CTDP1</i>	c.1990C>A	Nonsyn SNV
1:104890731	<i>LOC106558999</i>	c.-56+1_-56+2insT	Splicing
2:33828898	<i>ADARB2</i>	c.1879G>A	Nonsyn SNV
2:42310546	<i>SPINK5</i>	c.293A>T	Nonsyn SNV
2:43248005	<i>IL6ST</i>	c.12G>T	Nonsyn SNV
2:48844920	<i>IPO11</i>	c.2096G>A	Nonsyn SNV
2:48844931	<i>IPO11</i>	c.2107C>A	Nonsyn SNV
2:52647551	<i>CD180</i>	c.646C>T	Nonsyn SNV
<b>2:57243653</b>	<b><i>HEXB</i></b>	<b>c.945_947delCCT</b>	<b>Del</b>
2:58350523	<i>CCDC113</i>	c.913G>A	Nonsyn SNV
2:58579428	<i>CNGB1</i>	c.214C>T	Nonsyn SNV
2:58781765	<i>ADGRG3</i>	c.1595C>T	Nonsyn SNV
2:65342376	<i>LOC487290</i>	c.203G>A	Nonsyn SNV
2:76408401	<i>LACTBL1</i>	c.677C>T	Nonsyn SNV
3:18314343	<i>ADGRV1</i>	c.3502C>T	Nonsyn SNV
4:57953189	<i>SLC36A2</i>	c.958C>T	Nonsyn SNV
4:59883859	<i>SH3TC2</i>	c.1273G>A	Nonsyn SNV
6:8811313	<i>MUC17</i>	c.1294_1295insAGACGTGACCACATCATCAGTATCTCCAG ATGGGACCACATCAGCAGCTGCTCCA	Stopgain
6:12571677	<i>TNRC18</i>	c.4857C>G	Nonsyn SNV
6:13248516	<i>SDK1</i>	c.2912G>T	Nonsyn SNV
6:15276899	<i>ELFN1</i>	c.1886C>T	Nonsyn SNV
6:15413161	<i>TMEM184A</i>	c.166C>T	Nonsyn SNV
6:36540441	<i>PPL</i>	c.4405C>T	Nonsyn SNV
6:36661974	<i>ZNF500</i>	c.1361G>A	Nonsyn SNV
6:39118587	<i>IGFALS</i>	c.1900G>A	Nonsyn SNV
6:39121141	<i>NUBP2</i>	c.37G>A	Nonsyn SNV
6:39478018	<i>LOC448801</i>	c.116C>T	Nonsyn SNV
6:39511373	<i>CACNA1H</i>	c.6328G>T	Nonsyn SNV
6:39518309	<i>CACNA1H</i>	c.4445G>A	Nonsyn SNV
6:39978234	<i>PIGQ</i>	c.292G>T	Nonsyn SNV
6:39984223	<i>NHLRC4</i>	c.1259G>A	Nonsyn SNV
6:39984362	<i>NHLRC4</i>	c.1120G>A	Nonsyn SNV
6:39984617	<i>NHLRC4</i>	c.865G>A	Nonsyn SNV
6:40429609	<i>LOC611642</i>	c.278G>A	Nonsyn SNV
6:40654696	<i>LOC611675</i>	c.993_994insCTGCCTCCATCTACCTATGTTCTTAATGTATG TATACACCCAGG	Ins
6:40823680	<i>DENND2D</i>	c.264G>T	Nonsyn SNV
9:36330268	<i>CA4</i>	c.412A>G	Nonsyn SNV
11:3522330	<i>LOC474642</i>	c.328C>T	Stopgain
11:12337210	<i>SNCAIP</i>	c.997C>G	Nonsyn SNV
14:40359259	<i>HOXA11</i>	c.664_665insCGG	Ins
14:43195886	<i>NOD1</i>	c.1534G>A	Nonsyn SNV
15:1570206	<i>HIVEP3</i>	c.3269C>T	Nonsyn SNV
15:3345340	<i>LOC100855618</i>	c.1268C>T	Nonsyn SNV
15:5952737	<i>SH3D21</i>	c.308G>A	Nonsyn SNV
15:6922899	<i>ZMYM1</i>	c.319G>T	Nonsyn SNV
15:7005024	<i>ZMYM6</i>	c.2847A>G	Nonsyn SNV
15:8995338	<i>ORC1</i>	c.2554G>A	Nonsyn SNV
15:15536284	<i>BEST4</i>	c.479C>T	Nonsyn SNV
15:16132552	<i>KLF18</i>	c.1367A>T	Nonsyn SNV
15:17495861	<i>LOC100855686</i>	c.40C>T	Nonsyn SNV
15:17763635	<i>KLHL33</i>	c.565G>C	Nonsyn SNV

Coordinate	Gene	Nucleotide change	Consequence
15:18124446	<i>TPPP2</i>	c.479G>A	Nonsyn SNV
15:22772701	<i>LOC106559776</i>	c.39_41delTGT	Del
15:51916068	<i>DCHS2</i>	c.9953C>T	Nonsyn SNV
16:5993505	<i>COR13M1</i>	c.125A>C	Nonsyn SNV
16:20282728	<i>PTPRN2</i>	c.1516G>A	Nonsyn SNV
18:26154975	<i>LOC106559966</i>	c.443G>C	Nonsyn SNV
18:46124790	<i>LOC102153419</i>	c.938G>A	Nonsyn SNV
18:53442696	<i>LGALS12</i>	c.407T>C	Nonsyn SNV
22:52246650	<i>CCDC168</i>	c.2524C>T	Nonsyn SNV
22:52356145	<i>ERCC5</i>	c.1658C>T	Nonsyn SNV
23:8212869	<i>ACVR2B</i>	c.431C>T	Nonsyn SNV
23:8790242	<i>TTC21A</i>	c.782A>C	Nonsyn SNV
23:8853006	<i>XIRP1</i>	c.2857C>T	Nonsyn SNV
24:44550537	<i>PPP1R3D</i>	c.683G>A	Nonsyn SNV
25:35432289	<i>LOC106557768</i>	c.556delT	Frameshift Del
25:35432291	<i>LOC106557768</i>	c.558_559delCC	Stopgain
25:37253297	<i>ZNF596</i>	c.157A>G	Nonsyn SNV
27:1770147	<i>PRR13</i>	c.344A>T	Nonsyn SNV
27:2448245	<i>KRT2</i>	c.392G>C	Nonsyn SNV
27:38938186	<i>VWF</i>	c.6380C>T	Nonsyn SNV
31:29813863	<i>C31H21orf140</i>	c.738_740delCTA	Del
31:38348044	<i>LOC100685181</i>	c.241G>A	Nonsyn SNV
31:38355090	<i>LOC611489</i>	c.568_569insCACCTCCA	Frameshift Ins
33:29155279	<i>TNK2</i>	c.1597G>A	Nonsyn SNV
36:3337579	<i>GALNT5</i>	c.1166A>G	Nonsyn SNV
X:1454947	<i>XG</i>	c.358G>A	Nonsyn SNV
X:1459432	<i>XG</i>	c.399C>G	Nonsyn SNV
X:6822143	<i>WWC3</i>	c.2382G>C	Nonsyn SNV
X:77011557	<i>TCEAL4</i>	c.250_270delAAGCCAGCGGAGAGCGAGGGG	Del