

HGNC Gene Symbol	Transcript (RefSeq)	Transcript (Ensembl)	Locus Reference Genomic (LRG) ID	% ROI covered by at least 20X	Problematic exons	# HGMD variants in problematic ROI regions	Regions excluded from CNV calling
ACD	NM_001082486.1	ENST00000219251		100			
ACP5	NM_001111034.2	ENST00000592828		100			
ACTB	NM_0011101.3	ENST00000331789	LRG_132	100			
ADA	NM_000022.2	ENST00000372874	LRG_16	100			
ADA2	NM_001282227.1	ENST00000399839		100			
ADAM17	NM_003183.4	ENST00000310823		99.9996			
ADAR	NM_001111.4	ENST00000368474		100			
AICDA	NM_020661.2	ENST00000229335	LRG_17	99.997			
AIRE	NM_000383.3	ENST00000291582	LRG_18	100			
AK2	NM_013411.3	ENST00000354858	LRG_133	100			
AP3B1	NM_001271769	ENST00000519295	LRG_170	99.9996			
APOL1	NM_145343.2	ENST00000319136	LRG_169	100			
ARPC1B	NM_005720	ENST00000252725		100			
ATM	NM_000051.3	ENST00000278616	LRG_135	99.9907		1 (CS135658)	
B2M	NM_004048.2	ENST00000558401		100			
BCL10	NM_003921.4	ENST00000370580		100			
BLM	NM_000057.2	ENST00000355112	LRG_20	100			
BLNK	NM_013314.3	ENST00000224337	LRG_21	100			
BLOC1S6	NM_012388.3	ENST00000220531	LRG_883	100			
BTK	NM_000061.2	ENST00000308731	LRG_128	100			
C1QA	NM_015991.2	ENST00000374642	LRG_22	100			
C1QB	NM_000491.3	ENST00000314933	LRG_23	100			
C1QC	NM_001114101.1	ENST00000374639	LRG_24	100			
C1R	NM_001733	ENST00000542285		100			
C1S	NM_201442/NM_001734	ENST00000328916	LRG_25	100			
C2	NM_000063.4	ENST00000299367	LRG_26	100			
C3	NM_000064.2	ENST00000245907	LRG_27	100			
C4A	NM_007293.2	ENST00000428956	LRG_137	20.0389	1-20, 22-24, 29-30, 32-41	5 (CD045879, CM094583, CD983970, CI931069, CI094587)	whole gene
C4B	NM_001002029.3	ENST00000435363	LRG_138	22.6978	1-19, 21-24, 31-41	4 (CM920135, CM940213, CD024038, CI094586)	whole gene
C5	NM_001735.2	ENST00000223642	LRG_28	100			
C6	NM_000065.2	ENST00000263413	LRG_29	100			
C7	NM_000587.2	ENST00000313164	LRG_30	100			
C8A	NM_000562.2	ENST00000361249	LRG_139	100			
C8B	NM_000066.2	ENST00000371237	LRG_31	100			
C8G	NM_000606.2	ENST00000224181		100			
C9	NM_001737.3	ENST00000263408	LRG_32	100			
CARD11	NM_032415.5	ENST00000396946	LRG_729	100			
CARD14	NM_024110.4	ENST00000344227		100			
CARD9	NM_052813.4	ENST00000371732	LRG_178	99.9997			
CASP10	NM_032977.3	ENST00000286186	LRG_33	99.9997			
CASP8	NM_001228.4	ENST00000358485	LRG_34	100			
CCBE1	NM_133459.3	ENST00000439986		100			
CD19	NM_001770.5	ENST00000538922	LRG_35	100			
CD247	NM_198053.2	ENST00000362089	LRG_36	100			
CD27	NM_001242.4	ENST00000266557	LRG_357	100			
CD3D	NM_000732.4	ENST00000300692	LRG_37	100			
CD3E	NM_000733.3	ENST00000361763	LRG_38	100			
CD3G	NM_000073.2	ENST00000532917	LRG_39	100			
CD40	NM_001250.4	ENST00000372285	LRG_40	100			
CD40LG	NM_000074.2	ENST00000370629	LRG_141	100			
CD46	NM_002389.4	ENST00000322875	LRG_155	100			
CD59	NM_203330.2	ENST00000395850	LRG_41	100			
CD79A	NM_001783.3	ENST00000221972	LRG_42	100			
CD79B	NM_001039933.1	ENST00000392795	LRG_43	100			
CD81	NM_004356.3	ENST00000263645	LRG_142	100			
CD8A	NM_001768.6	ENST00000409511	LRG_44	100			
CEBPE	NM_001805.2	ENST00000206513	LRG_45	100			
CFB	NM_001710.5	ENST00000425368	LRG_136	100			
CFD	NM_001928.2	ENST00000327726	LRG_46	100			
CFH	NM_000186.3	ENST00000367429	LRG_47	100			exon 20
CFHR1	NM_002113.2	ENST00000320493	LRG_149	90.8573	1-6	1 (CM098960)	whole gene
CFHR2	NM_005666.3	ENST00000367415		95.0427	1	0	exon 1
CFHR3	NM_021023.5	ENST00000367425	LRG_175	90.4165	1-6	1 (CD098961)	whole gene
CFHR4	NM_001201551.1	ENST00000367416		100			exon 9
CFHR5	NM_030787.3	ENST00000256785	LRG_227	100			
CFI	NM_000204.3	ENST00000394634	LRG_48	100			
CFP	NM_002621.2	ENST00000247153	LRG_129	100			

CHD7	NM 017780.2	ENST00000423902	LRG 176	100			
CIITA	NM 000246.3	ENST00000324288	LRG 49	100			
CLPB	NM 030813.5	ENST00000294053		100			
COPA	NM 001098398.1	ENST00000368069		100			
CORO1A	NM 007074.3	ENST00000219150	LRG 195	92.0077	11	0	
CR2	NM 001006658.2	ENST00000367057	LRG 348	100			
CSF2RA	NM 001161529.1	ENST00000432318	LRG 186	100			
CSF3R	NM 156039.3	ENST00000373103	LRG 144	100			
CTLA4	NM 005214.4	ENST00000302823		100			
CTPS1	NM 001905.3	ENST00000372621		100			
CTSC	NM 001814.4	ENST00000227266	LRG 50	100			
CXCR4	NM 003467.2	ENST00000409817	LRG 51	100			
CYBA	NM 000101.3	ENST00000261623	LRG 52	100			
CYBB	NM 000397.3	ENST00000378588	LRG 53	100			
DCLRE1B	NM 001319946.1	ENST00000369563		100			
DCLRE1C	NM 001033855.2	ENST00000378278	LRG 54	99.96		1 (CS119472)	
DKC1	NM 001363.3	ENST00000369550	LRG 55	100			
DNMT3B	NM 006892.3	ENST00000328111	LRG 56	100			
DOCK2	NM 004946.2	ENST00000256935		100			
DOCK8	NM 203447.3	ENST00000453981	LRG 196	99.9993			
ELANE	NM 001972.2	ENST00000590230	LRG 57	100			
EPG5	NM 020964.2	ENST00000282041		99.9923			
F12	NM 000505.3	ENST00000253496	LRG 145	100			
FADD	NM 003824.3	ENST00000301838	LRG 228	100			
FAS	NM 000043.4	ENST00000355740	LRG 134	100			
FASLG	NM 000639.1	ENST00000367721	LRG 58	100			
FCGR3A	NM 001127593.1	ENST00000367969	LRG 60	99.9961			whole gene
FCGR3B	NM 000570.4	ENST00000531221		96.3311	3	0	whole gene
FCN3	NM 003665.2	ENST00000270879	LRG 171	100			
FERMT3	NM 178443.2	ENST00000279227	LRG 180	100			
FOXP1	NM 003593.2	ENST00000226247	LRG 61	100			
FOXP3	NM 014009.3	ENST00000376207	LRG 62	100			
FPR1	NM 001193306	ENST00000595042	LRG 146	100			
G6PC3	NM 138387.3	ENST00000269097	LRG 182	100			
GATA2	NM 001145661.1	ENST00000341105	LRG 295	100			
GFI1	NM 005263.3	ENST00000370332	LRG 63	100			
HAX1	NM 006118.3	ENST00000328703	LRG 64	100			
ICOS	NM 012092.3	ENST00000316386	LRG 65	100			
IFIH1	NM 022168.3	ENST00000263642		100			
IFNGR1	NM 000416.2	ENST00000367739	LRG 66	100			
IFNGR2	NM 005534.3	ENST00000290219	LRG 67	100			
IGHM		ENST00000390559		100			
IGKC		ENST00000390237		100			
IGLL1	NM 020070.2	ENST00000330377	LRG 69	100			
IKBKB	NM 001556.2	ENST00000520810		100			
IKBKG	NM_001099857.2	ENST00000369609	LRG_70	39.6866	3-10	41 (upon request)	exons 3-10
IKZF1	NM 006060.5	ENST00000439701		100			
IL10	NM 000572.2	ENST00000423557		100			
IL10RA	NM 001558.3	ENST00000227752	LRG 151	100			
IL10RB	NM 000628.4	ENST00000290200	LRG 152	100			
IL12B	NM 002187.2	ENST00000231228	LRG 71	100			
IL12RB1	NM 005535.1	ENST00000600835	LRG 72	100			
IL17A	NM 002190.2	ENST00000340057		100			
IL17F	NM 052872.3	ENST00000336123	LRG 356	100			
IL17RA	NM 014339.6	ENST00000319363	LRG 355	100			
IL17RC	NM 153461.3	ENST00000295981		100			
IL1RN	NM 173841.2	ENST00000259206	LRG 188	100			
IL21	NM 021803.3	ENST00000264497		100			
IL21R	NM 181079.4	ENST00000337929	LRG 731	100			
IL22	NM 020525	ENST00000538666		100			
IL2RA	NM 000417.2	ENST00000379959	LRG 73	100			
IL2RG	NM 000206.2	ENST00000374202	LRG 150	100			
IL36RN	NM 173170.1	ENST00000393200	LRG 730	100			
IL7R	NM 002185.3	ENST00000303115	LRG 74	100			
INO80	NM 017553.2	ENST00000361937		100			
IRAK4	NM 016123.3	ENST00000448290	LRG 75	100			
IRF7	NM 001572.3	ENST00000397566		100			
IRF8	NM 002163.2	ENST00000268638	LRG 294	100			
ISG15	NM 005101.3	ENST00000379389		100			
ITCH	NM 031483.4	ENST00000262650	LRG 354	100			
ITGAM	NM 001145808.1	ENST00000544665		100			
ITGB2	NM 000211.3	ENST00000397850	LRG 76	100			
ITK	NM 005546.3	ENST00000422843	LRG 189	100			
JAGN1	NM 032492.3	ENST00000307768		100			
JAK3	NM 000215.3	ENST00000458235	LRG 77	100			
KRAS	NM 033360.3	ENST00000256078	LRG 344	100			
LAMTOR2	NM 014017.3	ENST00000368305	LRG 81	100			
LCK	NM 005356.4	ENST00000336890	LRG 153	100			

LIG1	NM 000234.1	ENST00000263274	LRG 78	100			
LIG4	NM 002312.3	ENST00000356922	LRG 79	100			
LPIN2	NM 014646.2	ENST00000261596	LRG 174	100			
LRBA	NM 006726.4	ENST00000357115		99.9972			
LYST	NM 000081.3	ENST00000389794	LRG 143	100			
MAGT1	NM 032121.5	ENST00000358075	LRG 353	100			
MALT1	NM 006785.3	ENST00000348428		99.9983			
MAP3K14	NM 003954.4	ENST00000344686		100			
MASP2	NM 006610.3	ENST00000400897	LRG 82	100			
MBL2	NM 000242.2	ENST00000373968	LRG 154	100			
MCM4	NM 005914.3	ENST00000262105		100			
MEFV	NM 000243.2	ENST00000219596	LRG 190	100			
MOGS	NM 006302.2	ENST00000233616		100			
MPO	NM 000250.1	ENST00000225275	LRG 84	100			
MRE11	NM 005591	ENST00000323929	LRG 85	100			
MS4A1	NM 152866.2	ENST00000534668	LRG 140	100			
MSH6	NM 000179.2	ENST00000234420	LRG 219	100			
MTHFD1	NM 005956.3	ENST00000216605		100			
MVK	NM 000431.2	ENST00000228510	LRG 156	100			
MYD88	NM 001172567.1	ENST00000417037	LRG 157	100			
NBN	NM 002485.4	ENST00000265433	LRG 158	100			
NCF1	NM_000265.5	ENST00000289473	LRG_87	68.9749	1, 5, 8-9, 11	6 (CS014965, CS014966, CM961019, CD101818, CD014969, CD094221)	exons 1, 3-11
NCF2	NM 000433.3	ENST00000367535	LRG 88	100			
NCF4	NM 013416.3	ENST00000397147	LRG 159	100			
NFAT5	NM 138714.3	ENST00000432919		99.9962			
NFKB1	NM 003998.3	ENST00000226574		100			
NFKB2	NM 001288724.1	ENST00000369966		100			
NFKBIA	NM 020529.2	ENST00000216797	LRG 89	100			
NHEJ1	NM 024782.2	ENST00000356853	LRG 90	100			
NHP2	NM 017838.3	ENST00000274606	LRG 346	100			
NLRC4	NM 021209.4	ENST00000404025		100			
NLRP12	NM 144687.3	ENST00000324134	LRG 181	100			
NLRP3	NM 004895.4	ENST00000336119	LRG 197	100			
NOD2	NM 022162.1	ENST00000300589	LRG 177	100			
NOP10	NM 018648.3	ENST00000328848	LRG 345	100			
NRAS	NM 002524.4	ENST00000369535	LRG 92	100			
ORAI1	NM 032790.3	ENST00000330079	LRG 93	99.4254	1	0	
PARN	NM 002582.3	ENST00000437198		100			
PGM3	NM 001199917.1	ENST00000506587		100			
PIK3CD	NM 005026.3	ENST00000377346	LRG 191	100			
PIK3R1	NM 181523.2	ENST00000521381	LRG 453	100			
PLCG2	NM 002661.4	ENST00000359376	LRG 376	100			
PMS2	NM_000535.5	ENST00000265849	LRG_161	99.1136	15	2 (CM1515443, CI146161)	exons 13-15
PNP	NM 000270.3	ENST00000361505	LRG 91	100			
POLE	NM 006231.3	ENST00000320574	LRG 789	100			
PRF1	NM 001083116.1	ENST00000441259	LRG 94	100			
PRKCD	NM 006254.3	ENST00000394729		100			
PRKDC	NM 006904.6	ENST00000314191	LRG 162	99.9996			
PSMB8	NM 004159.4	ENST00000374882		100			
PSTPIP1	NM 003978.3	ENST00000558012	LRG 172	100			
PTPRC	NM 002838.4	ENST00000442510	LRG 95	99.8531	27	0	
RAB27A	NM 004580.4	ENST00000396307	LRG 96	100			
RAC2	NM 002872.3	ENST00000249071	LRG 97	100			
RAG1	NM 000448.2	ENST00000299440	LRG 98	100			
RAG2	NM 000536.3	ENST00000311485	LRG 99	100			
RBCK1	NM 031229.2	ENST00000356286	LRG 728	100			
RFX5	NM 000449.3	ENST00000290524	LRG 101	100			
RFXANK	NM 003721.3	ENST00000303088	LRG 102	100			
RFXAP	NM 000538.3	ENST00000255476	LRG 103	100			
RHOH	NM 004310.4	ENST00000381799	LRG 736	100			
RMRP	NR 003051.3	ENST00000602361	LRG 163	100			
RNASEH2A	NM 006397.2	ENST00000221486	LRG 278	100			
RNASEH2B	NM 001142279.2	ENST00000336617	LRG 279	100			
RNASEH2C	NM 032193.3	ENST00000308418	LRG 280	100			
RNF168	NM 152617.3	ENST00000318037	LRG 185	100			
RNF31	NM 017999.4	ENST00000324103		100			
RORC	NM 005060.3	ENST00000318247		100			
RPSA	NM 002295.4	ENST00000301821	LRG 735	100			
RTKL1	NM 016434.3	ENST00000508582		100			
SAMHD1	NM 015474.3	ENST00000262878	LRG 281	100			
SART3	NM 014706.3	ENST00000228284		100			
SBDS	NM 016038.2	ENST00000246868	LRG 104	100			
SEMA3E	NM 012431.2	ENST00000307792		100			

SERPING1	NM 000062.2	ENST00000278407	LRG 105	100			
SH2D1A	NM 002351.4	ENST00000371139	LRG 106	100			
SH3BP2	NM 001122681.1	ENST00000503393		100			
SLC29A3	NM 018344.5	ENST00000373189		100			
SLC35C1	NM 018389.4	ENST00000314134	LRG 107	100			
SLC37A4	NM 001164277.1	ENST00000357590	LRG 187	99.9389	6	0	
SLC46A1	NM 080669.3	ENST00000440501	LRG 183	99.9347	4	0	
SMARCAL1	NM 014140.3	ENST00000357276	LRG 108	100			
SP110	NM 080424.2	ENST00000258381	LRG 109	100			
SPINK5	NM 006846.3	ENST00000359874	LRG 110	100			
STAT1	NM 007315.3	ENST00000361099	LRG 111	100			
STAT2	NM 005419.3	ENST00000314128		100			
STAT3	NM 139276.2	ENST00000264657	LRG 112	100			
STAT5B	NM 012448.3	ENST00000293328	LRG 192	99.9998			
STIM1	NM 003156.3	ENST00000300737	LRG 164	100			
STK4	NM 006282.2	ENST00000372806	LRG 535	100			
STX11	NM 003764.3	ENST00000367568	LRG 113	100			
STXBP2	NM 006949.2	ENST00000221283	LRG 165	100			
TAP1	NM 000593.5	ENST00000354258	LRG 166	100			
TAP2	NM 000544.3	ENST00000374899	LRG 167	100			
TAPBP	NM 003190.4	ENST00000426633	LRG 114	100			
TAZ	NM 000116.3	ENST00000299328	LRG 131	100			
TBK1	NM 013254.3	ENST00000331710		99.9986			
TBX1	NM 080647.1	ENST00000332710	LRG 226	95.4855	3	0	
TCF3	NM 003200.3	ENST00000262965		100			
TCN2	NM 000355.2	ENST00000215838	LRG 116	100			
TERC	NR 001566.1	ENST00000602385	LRG 347	100			
TERT	NM 198253.2	ENST00000310581	LRG 343	100			
THBD	NM 000361.2	ENST00000377103	LRG 168	100			
TICAM1	NM 182919.3	ENST00000248244	LRG 358	100			
TINF2	NM 012461.2	ENST00000267415		100			
TLR3	NM 003265.2	ENST00000296795	LRG 117	100			
TMC6	NM 007267.6	ENST00000322914	LRG 118	100			
TMC8	NM 152468.4	ENST00000318430	LRG 119	100			
TMEM173	NM 198282.3	ENST00000330794		100			
TNFRSF13B	NM 012452.2	ENST00000261652	LRG 120	100			
TNFRSF13C	NM 052945.3	ENST00000291232	LRG 184	100			
TNFRSF1A	NM 001065.3	ENST00000162749	LRG 193	100			
TNFRSF4	NM 003327.3	ENST00000379236		100			
TNFSF12	NM 003809.2	ENST00000293825		100			
TPP2	NM 003291	ENST00000376065		100			
TRAC		ENST00000478163		100			
TRAF3	NM 145725.2	ENST00000560371	LRG 229	100			
TRAF3IP2		ENST00000340026		100			
TREX1	NM 033629.4	ENST00000422277	LRG 282	100			
TRNT1	NM 001302946.1	ENST00000251607		100			
TTC37	NM 014639.3	ENST00000358746	LRG 173	100			
TTC7A	NM 001288953.1	ENST00000319190		100			
TYK2	NM 003331.4	ENST00000525621	LRG 121	100			
UNC119	NM 005148.3	ENST00000335765	LRG 341	100			
UNC13D	NM 199242.2	ENST00000207549	LRG 122	100			
UNC93B1	NM 030930.2	ENST00000227471	LRG 123	100			
UNG	NM 080911.2	ENST00000242576	LRG 124	100			
USB1	NM 024598.3	ENST00000219281	LRG 352	100			
VPS13B	NM 017890.4	ENST00000358544	LRG 351	99.9992			
VPS45	NP 009190.2	ENST00000369130		100			
WAS	NM 000377.2	ENST00000376701	LRG 125	100			
WIPF1	NM 001077269.1	ENST00000392547	LRG 374	100			
XIAP	NM 001167.3	ENST00000371199	LRG 19	99.9986			
ZAP70	NM 001079.3	ENST00000264972	LRG 126	100			
ZBTB24	NM 014797.2	ENST00000230122	LRG 326	100			