Exome

Gene panel Intellectual Disability , version 1, 18-2-2018

Leids Universitair Medisch Centrum

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
AAAS	NM_001173466	605378	93	100	100	99	95
AARS	NM_001605	601065	74	100	100	97	87
AARS2	NM_020745	612035	89	100	100	99	95
AASS	NM_005763	605113	92	100	100	98	91
ABCB11	NM_003742	603201	89	100	100	98	93
ABCB6	NM_005689	605452	95	100	100	99	95
ABCB7	NM_001271696	300135	99	100	100	98	95
ABCC6	NM_001171	603234	59	71	70	66	56
ABCC9	NM_005691	601439	94	100	100	98	93
ABCD1	NM_000033	300371	77	74	71	68	63
ABCD4	NM_005050	603214	92	100	99	98	89
ABHD5	NM_016006	604780	98	100	100	100	100
ABL1	NM_005157	189980	113	100	100	99	95
ACAD9	NM_014049	611103	82	100	99	98	97
ACADM	NM_001286043	607008	76	100	100	98	86
ACADS	NM_001302554	606885	98	100	100	99	99
ACADVL	NM_001270448	609575	98	100	99	98	95
ACAN	NM_013227	155760	88	88	87	85	79
ACAT1	NM_000019	607809	80	100	98	90	78
ACBD6	NM_032360	616352	83	100	99	87	71
ACO2	NM_001098	100850	114	97	93	88	79
ACOX1	NM_007292	609751	118	100	100	99	95
ACP5	NM_001111034	171640	121	100	99	98	97
ACSF3	NM_001127214	614245	85	100	100	98	92
ACSL4	NM_004458	300157	71	99	95	88	76
ACTA1	NM_001100	102610	69	100	98	92	87
ACTA2	NM_001141945	102620	64	100	99	95	79
ACTB	NM_001101	102630	81	100	100	99	97
ACTG1	NM_001199954	102560	75	100	100	100	100
ACTL6B	NM_016188	612458	89	100	100	100	97
ACVR1	NM_001105	102576	90	100	100	100	98
ACVR2B	NM_001106	602730	69	100	96	93	86
ACY1	NM_001198898	104620	92	100	100	99	97
ADA	NM_000022	608958	94	100	100	96	83
ADAM22	NM_021723	603709	78	100	100	97	94
ADAMTS10	NM_030957	608990	80	100	100	98	94
ADAMTS18	NM_199355	607512	84	100	100	99	94
ADAR	NM_001111	146920	86	100	100	98	91
ADCK3	NM_020247	NA	86	100	100	99	92
ADK	NM_001123	102750	74	100	99	92	74
ADNP	NM_001282531	611386	153	100	100	100	96
ADRA2B	NM_000682	104260	146	100	100	100	100

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ADSL	NM_001123378	608222	93	100	100	99	95
AFF2	NM_001169123	300806	86	100	99	97	90
AFF3	NM_001025108	601464	83	97	97	94	88
AFF4	NM_014423	604417	82	100	99	94	83
AFG3L2	NM_006796	604581	80	96	90	83	68
AGA	NM_000027	613228	91	100	100	99	91
AGK	NM_018238	610345	82	100	97	92	87
AGL	NM_000646	610860	90	100	100	98	91
AGO2	NM_012154	606229	68	88	88	86	81
AGPS	NM_003659	603051	46	100	96	82	45
AGTR2	NM_000686	300034	139	100	100	100	100
AGXT	NM_000030	604285	107	100	100	100	94
AHDC1	NM_001029882	615790	112	99	96	91	86
AHI1	NM_001134830	608894	81	100	97	90	78
AIFM1	NM_001130847	300169	91	100	100	98	93
AIMP1	NM_001142416	603605	69	100	96	86	69
AIPL1	NM_001285403	604392	83	100	100	100	97
AIRE	NM_000383	607358	66	100	99	92	77
AK2	NM_001199199	103020	81	100	99	96	89
AKR1D1	NM_005989	604741	68	99	95	91	81
AKT1	NM_001014431	164730	96	100	100	98	97
AKT3	NM_005465	611223	66	100	95	85	64
ALAD	NM_000031	125270	69	100	96	93	89
ALDH18A1	NM_001017423	138250	87	100	100	99	94
ALDH1A3	NM_000693	600463	74	100	100	97	86
ALDH3A2	NM_000382	609523	82	100	99	94	83
ALDH4A1	NM_003748	606811	77	100	99	96	81
ALDH5A1	NM_001080	610045	68	98	90	84	74
ALDH7A1	NM_001182	107323	70	99	93	82	69
ALDOA	NM_000034	103850	118	100	100	99	99
ALDOB	NM_000035	612724	91	100	99	97	89
ALG1	NM_019109	605907	0	31	30	28	24
ALG11	NM_001004127	613666	99	100	99	97	96
ALG12	NM_024105	607144	141	100	100	100	99
ALG13	NM_001039210	300776	80	100	100	96	82
ALG2	NM_033087	607905	80	100	100	100	100
ALG3	NM_001006941	608750	89	100	100	99	99
ALG6	NM_013339	604566	62	99	95	86	60
ALG8	NM_024079	608103	83	100	100	98	89
ALG9	NM_001077691	606941	81	100	100	99	96
ALMS1	NM_015120	606844	151	100	100	99	96
ALPL	NM_001177520	171760	81	100	100	100	97
ALS2	NM_001135745	606352	105	100	100	100	85
ALX1	NM_006982	601527	105	100	99	94	91
ALX3	NM_006492	606014	99	80	78	77	75

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ALX4	NM_021926	605420	97	100	100	95	89
AMER1	NM_152424	300647	84	100	98	96	91
AMPD2	NM_139156	102771	88	100	100	99	97
AMT	NM_000481	238310	95	100	100	100	97
ANK3	NM_020987	600465	106	100	100	99	94
ANKH	NM_054027	605145	76	100	100	98	91
ANKRD11	NM_001256182	611192	92	97	95	92	86
ANKRD26	NM_001256053	610855	51	97	87	71	51
ANO5	NM_001142649	608662	87	100	98	94	83
ANTXR1	NM_018153	606410	81	100	100	100	93
AP1S1	NM_001283	603531	64	100	99	98	95
AP1S2	NM_003916	300629	60	82	78	75	69
AP3B1	NM_003664	603401	73	100	95	87	70
AP3B2	NM_001278512	602166	86	99	98	96	91
AP4B1	NM_001253853	607245	96	100	100	99	95
AP4E1	NM_007347	607244	71	100	99	95	80
AP4M1	NM_004722	602296	89	100	100	98	97
AP4S1	NM_007077	607243	68	100	100	97	86
APOA1BP	NM_144772	NA	65	100	98	94	80
APOPT1	NM_032374	616003	63	100	99	95	83
APTX	NM_001195250	606350	79	95	94	89	81
AR	NM_001011645	313700	62	100	98	93	77
ARCN1	NM_001655	600820	89	100	100	100	95
ARFGEF2	NM_006420	605371	86	100	100	98	93
ARG1	NM_000045	608313	96	100	100	100	100
ARHGAP31	NM_020754	610911	118	100	99	97	88
ARHGEF6	NM_004840	300267	86	100	98	95	86
ARHGEF9	NM_001173479	300429	54	100	97	91	59
ARID1A	NM_006015	603024	107	99	97	94	91
ARID1B	NM_020732	614556	93	100	98	95	87
ARID2	NM_152641	609539	130	100	98	94	88
ARL13B	NM_001174151	608922	73	100	100	96	83
ARL14EP	NM_152316	612295	89	100	100	100	94
ARL6	NM_001278293	608845	71	100	99	90	63
ARMC4	NM_001290020	615408	70	94	93	91	82
ARMC9	NM_001271466	617612	79	100	100	97	92
ARSA	NM_001085428	607574	81	100	100	100	98
ARSB	NM_000046	611542	71	100	97	92	84
ARSE	NM_001282631	300180	85	100	96	87	65
ARX	NM_139058	300382	32	85	77	55	30
ASAH1	NM_001127505	613468	100	100	100	98	92
ASCC1	NM_001198798	614215	97	100	100	100	89
ASCC3	NM_006828	614217	83	100	98	93	83
ASCL1	NM_004316	100790	195	100	100	95	80
ASH1L	NM_018489	607999	112	100	100	99	92

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ASL	NM_000048	608310	67	100	99	98	94
ASPA	NM_001128085	608034	85	100	95	86	78
ASPH	NM_020164	600582	97	100	100	97	89
ASPM	NM_018136	605481	85	100	97	90	74
ASS1	NM_000050	603470	102	98	94	90	85
ASXL1	NM_015338	612990	109	100	99	97	90
ASXL2	NM_018263	612991	111	99	98	98	97
ASXL3	NM_030632	615115	113	100	99	99	95
ATAD3A	NM_001170536	612316	66	99	94	86	71
ATIC	NM_004044	601731	76	100	99	98	90
ATM	NM_000051	607585	79	100	97	88	76
ATOH7	NM_145178	609875	114	86	83	80	73
ATP13A2	NM_001141973	610513	82	100	100	99	94
ATP1A2	NM_000702	182340	112	100	100	99	97
ATP1A3	NM_001256214	182350	99	100	100	100	99
ATP2A2	NM_001681	108740	91	100	100	99	98
ATP6AP2	NM_005765	300556	31	93	67	52	38
ATP6V0A2	NM_012463	611716	78	100	100	98	91
ATP6V1B1	NM_001692	192132	96	100	100	100	98
ATP6V1B2	NM_001693	606939	77	100	100	97	89
ATP7A	NM_000052	300011	88	100	99	95	84
ATP8A2	NM_016529	605870	76	100	100	98	87
ATP8B1	NM_005603	602397	83	97	96	94	86
ATR	NM_001184	601215	84	100	99	95	82
ATRX	NM_138270	300032	74	99	97	90	73
AUH	NM_001698	600529	77	100	100	99	84
AUTS2	NM_015570	607270	89	99	97	94	90
AXIN1	NM_003502	603816	81	99	98	96	90
B3GALNT2	NM_152490	610194	70	100	99	97	85
B3GALT6	NM_080605	615291	52	70	65	60	52
B3GALTL	NM_194318	NA	65	100	97	91	75
B3GNT1	NM_006876	NA	93	100	100	99	95
B4GALT1	NM_001497	137060	76	100	99	97	89
B4GALT7	NM_007255	604327	80	100	97	94	87
B9D1	NM_001243473	614144	79	100	100	99	93
B9D2	NM_030578	611951	67	100	100	100	100
BANF1	NM_001143985	603811	52	98	81	66	52
BBS1	NM_024649	209901	91	100	100	100	97
BBS10	NM_024685	610148	128	100	100	99	97
BBS12	NM_001178007	610683	135	100	100	100	100
BBS2	NM_031885	606151	100	100	100	99	99
BBS4	NM_001252678	600374	95	100	100	98	87
BBS5	NM_152384	603650	88	100	95	83	64
BBS7	NM_018190	607590	99	99	96	92	86
BBS9	NM_198428	607968	87	99	97	93	81

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BCAP31	NM_001139457	300398	58	97	88	78	65
BCKDHA	NM_000709	608348	112	100	100	99	98
BCKDHB	NM_000056	248611	83	98	90	87	75
BCL11A	NM_022893	606557	101	98	98	98	97
BCOR	NM_001123383	300485	82	99	97	93	84
BCS1L	NM_001079866	603647	96	100	100	100	99
BFSP2	NM_003571	603212	79	100	98	92	73
BGN	NM_001711	301870	91	100	100	99	98
BHLHA9	NM_001164405	615416	19	75	49	37	32
BICD2	NM_001003800	609797	97	100	99	98	93
BIN1	NM_004305	601248	77	100	100	98	94
BLM	NM_001287248	604610	76	100	98	91	81
BLOC1S6	NM_012388	604310	79	100	96	91	80
BMP1	NM_006129	112264	103	100	100	100	98
BMP2	NM_001200	112261	120	100	100	98	97
BMP4	NM_001202	112262	108	100	100	100	100
BMPER	NM_133468	608699	85	100	99	96	84
BMPR1B	NM_001256793	603248	85	100	100	98	90
BOLA3	NM_212552	613183	55	100	90	82	59
BPIFB6	NM_174897	614110	87	100	100	98	93
BPTF	NM_004459	601819	113	97	95	93	90
BRAF	NM_004333	164757	51	94	84	72	51
BRAT1	NM_152743	614506	112	100	99	95	87
BRCA1	NM_007297	113705	105	100	100	98	94
BRCA2	NM_000059	600185	76	100	99	96	90
BRIP1	NM_032043	605882	93	100	99	94	77
BRPF1	NM_004634	602410	86	100	100	100	98
BRWD3	NM_153252	300553	77	99	97	92	82
BSND	NM_057176	606412	103	100	100	98	93
BTD	NM_001281723	609019	106	100	100	100	100
BUB1B	NM_001211	602860	86	100	99	97	90
C10orf2	NM_001163812	NA	139	100	100	100	99
C12orf4	NM_020374	616082	89	100	99	95	82
C12orf57	NM_001301838	615140	80	100	100	100	100
C12orf65	NM_152269	613541	77	100	100	96	92
C1QBP	NM_001212	601269	82	95	88	83	76
C21orf2	NM_001271441	603191	78	100	100	98	96
C21orf59	NM_021254	NA	76	100	97	93	90
C2CD3	NM_015531	615944	82	100	99	98	90
C2orf71	NM_001029883	613425	96	100	98	96	90
C4orf26	NM_001206981	NA	141	100	100	100	100
C5orf42	NM_023073	614571	75	100	98	94	85
C8orf37	NM_177965	614477	83	100	100	98	90
CA2	NM_000067	611492	86	100	100	100	93
CA5A	NM_001739	114761	74	100	98	89	81

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CA8	NM_004056	114815	74	100	97	96	89
CACNA1A	NM_000068	601011	67	99	98	95	83
CACNA1C	NM_001129827	114205	89	100	99	98	91
CACNA1D	NM_001128840	114206	88	100	100	99	95
CACNA1G	NM_001256327	604065	87	100	100	98	93
CACNA1H	NM_021098	607904	89	99	97	94	89
CACNB4	NM_001005747	601949	74	100	100	99	94
CACNG2	NM_006078	602911	81	100	100	98	96
CAMK2A	NM_015981	114078	72	100	100	99	89
CAMK2B	NM_172083	607707	75	100	100	99	95
CAMTA1	NM_015215	611501	105	100	99	98	94
CAPN10	NM_023083	605286	71	100	100	98	90
CAPRIN1	NM_203364	601178	108	100	99	96	90
CARS2	NM_024537	612800	82	100	100	98	91
CASC5	NM_144508	NA	78	98	95	91	81
CASK	NM_003688	300172	70	100	97	90	76
CASP2	NM_032983	600639	79	100	100	100	100
CAV1	NM_001753	601047	123	100	100	100	98
CBL	NM_005188	165360	94	100	100	97	92
CBS	NM_000071	613381	77	100	97	93	85
CC2D1A	NM_017721	610055	120	100	99	98	95
CC2D2A	NM_020785	612013	73	100	99	98	97
CCBE1	NM_133459	612753	74	100	98	90	76
CCDC103	NM_001258397	614677	95	100	100	100	84
CCDC114	NM_144577	615038	90	100	100	99	95
CCDC115	NM_032357	613734	60	92	91	88	77
CCDC151	NM_145045	615956	75	100	100	99	98
CCDC22	NM_014008	300859	74	99	97	94	88
CCDC39	NM_181426	613798	53	100	94	83	57
CCDC40	NM_017950	613799	78	100	99	97	89
CCDC41	NA	NA	NA	NA	NA	NA	NA
CCDC65	NM_033124	611088	67	100	99	94	79
CCDC78	NM_001031737	614666	85	100	100	100	100
CCDC8	NM_032040	614145	124	100	100	100	100
CCDC88A	NM_001254943	609736	74	99	94	85	71
CCDC88C	NM_001080414	611204	66	100	99	95	80
CCNA2	NM_001237	123835	94	100	100	100	96
CCND2	NM_001759	123833	83	100	100	100	99
CCNO	NM_021147	607752	80	100	99	95	90
CD151	NM_001039490	602243	102	100	100	100	90
CD96	NM_198196	606037	88	100	100	99	96
CDC45	NM_003504	603465	84	100	99	99	99
CDC6	NM_001254	602627	101	100	100	98	98
CDH1	NM_004360	192090	80	100	100	98	93
CDH15	NM_004933	114019	97	100	99	96	85

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CDH23	NM_001171932	605516	97	100	100	100	98
CDH3	NM_001793	114021	103	100	100	97	94
CDK10	NM_052987	603464	72	100	100	100	96
CDK13	NM_003718	603309	109	100	95	89	79
CDK16	NM_033018	311550	86	100	100	99	96
CDK5RAP2	NM_018249	608201	78	100	99	95	83
CDKL5	NM_003159	300203	85	100	99	96	90
CDKN1C	NM_000076	600856	63	85	77	70	63
CDON	NM_001243597	608707	85	100	99	96	89
CDT1	NM_030928	605525	81	99	98	97	95
CENPJ	NM_018451	609279	105	100	99	96	89
CEP104	NM_014704	616690	71	100	100	98	85
CEP135	NM_025009	611423	61	99	93	82	62
CEP152	NM_001194998	613529	91	100	97	94	87
CEP290	NM_025114	610142	49	96	85	69	49
CEP41	NM_001257158	610523	71	100	100	95	83
CEP57	NM_014679	607951	65	100	96	88	69
CEP63	NM_001042400	614724	77	100	97	95	83
CFC1	NM_001270421	605194	0	10	9	8	8
CFL2	NM_001243645	601443	100	100	100	93	85
CHAMP1	NM_001164144	616327	156	100	100	100	100
CHD2	NM_001042572	602119	98	100	100	100	94
CHD4	NM_001297553	603277	93	100	100	100	97
CHD7	NM_017780	608892	90	100	100	98	92
CHD8	NM_001170629	610528	100	100	100	99	96
CHM	NM_000390	300390	77	100	95	85	74
CHMP1A	NM_001083314	164010	84	100	100	99	96
CHRDL1	NM_001143981	300350	74	100	100	98	92
CHRNA1	NM_001039523	100690	74	100	100	97	89
CHRNA2	NM_000742	118502	115	100	100	100	99
CHRNA4	NM_001256573	118504	105	100	100	98	85
CHRNB2	NM_000748	118507	76	100	98	95	90
CHRND	NM_001256657	100720	131	100	100	99	98
CHRNG	NM_005199	100730	90	100	100	99	93
CHST14	NM_130468	608429	115	99	97	95	94
CHST3	NM_004273	603799	130	100	100	98	86
CHSY1	NM_014918	608183	105	95	94	94	92
CHUK	NM_001278	600664	84	100	100	97	93
CIB2	NM_006383	605564	94	100	100	98	97
CIC	NM_015125	612082	87	100	100	99	95
CIRH1A	NM_032830	NA	86	100	100	100	99
CISD2	NM_001008388	611507	0	23	23	23	23
CIT	NM_001206999	605629	71	100	98	94	85
CKAP2L	NM_152515	616174	107	100	99	98	93
CLCN4	NM_001830	302910	76	100	100	98	91

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CLCN7	NM_001114331	602727	80	100	99	99	95
CLCNKA	NM_001042704	602024	80	100	98	93	85
CLCNKB	NM_000085	602023	71	100	98	92	81
CLDN19	NM_148960	610036	131	100	96	93	88
CLIC2	NM_001289	300138	57	100	100	95	73
CLMP	NM_024769	611693	60	100	100	96	81
CLN3	NM_001286105	607042	131	100	100	99	95
CLN5	NM_006493	608102	89	100	97	94	88
CLN6	NM_017882	606725	83	100	100	96	83
CLN8	NM_018941	607837	134	100	100	100	100
CLP1	NM_001142597	608757	93	100	100	100	100
CLPB	NM_001258393	616254	73	100	100	99	93
CLPP	NM_006012	601119	87	100	99	95	93
CLTC	NM_001288653	118955	103	100	100	99	98
CNKSR1	NM_001297648	603272	73	100	100	100	98
CNKSR2	NM_001168648	300724	75	100	95	89	80
CNOT2	NM_014515	604909	87	100	100	99	89
CNOT3	NM_014516	604910	83	100	100	99	94
CNTNAP1	NM_003632	602346	103	100	99	98	95
CNTNAP2	NM_014141	604569	83	100	100	98	94
COA5	NM_001008215	613920	84	100	100	98	60
COASY	NM_001042529	609855	94	100	100	100	100
COG1	NM_018714	606973	76	100	100	99	95
COG4	NM_015386	606976	70	100	100	98	86
COG5	NM_181733	606821	84	100	97	92	83
COG7	NM_153603	606978	76	100	100	98	91
COG8	NM_032382	606979	98	100	100	95	88
COL10A1	NM_000493	120110	81	100	100	98	89
COL11A1	NM_080630	120280	67	98	95	92	78
COL11A2	NM_080679	120290	90	100	100	99	94
COL13A1	NM_080798	120350	61	100	99	97	80
COL18A1	NM_030582	120328	70	100	97	93	81
COL1A1	NM_000088	120150	98	100	99	99	96
COL25A1	NM_198721	610004	81	100	99	98	91
COL2A1	NM_033150	120140	90	100	100	99	95
COL3A1	NM_000090	120180	63	100	98	93	80
COL4A1	NM_001845	120130	81	100	98	95	88
COL4A2	NM_001846	120090	80	100	99	95	85
COL4A3	NM_000091	120070	68	99	98	95	84
COL4A3BP	NM_005713	604677	87	100	97	95	89
COL4A4	NM_000092	120131	70	100	98	94	81
COL6A1	NM_001848	120220	86	100	100	98	95
COL6A3	NM_057166	120250	108	100	100	99	94
COL9A1	NM_001851	120210	86	100	100	98	94
COL9A2	NM_001852	120260	72	100	99	95	84

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
COL9A3	NM_001853	120270	69	100	97	95	84
COLEC10	NM_006438	607620	90	100	100	100	88
COLEC11	NM_001255982	612502	99	100	100	100	95
COMP	NM_000095	600310	82	98	98	97	96
COQ2	NM_015697	609825	73	100	99	97	79
COQ4	NM_016035	612898	83	100	100	98	90
COQ5	NM_032314	616359	149	100	100	100	99
COQ9	NM_020312	612837	65	100	94	89	72
COX10	NM_001303	602125	144	100	100	98	89
COX14	NM_001257133	614478	65	100	100	94	84
COX15	NM_004376	603646	70	100	100	96	80
COX6B1	NM_001863	124089	83	100	100	100	100
COX7B	NM_001866	300885	84	76	56	53	53
CPA4	NM_016352	607635	77	100	100	99	98
CPAMD8	NM_015692	608841	79	98	96	92	85
CPS1	NM_001122633	608307	84	100	100	99	93
CRADD	NM_003805	603454	72	100	99	91	86
CRB1	NM_001257965	604210	114	100	100	100	100
CRB2	NM_173689	609720	98	100	96	90	77
CRBN	NM_001173482	609262	87	100	99	95	86
CREBBP	NM_004380	600140	82	99	97	92	81
CRELD1	NM_001031717	607170	74	100	97	96	90
CRIM1	NM_016441	606189	78	100	100	98	89
CRIPT	NM_014171	604594	28	100	84	44	0
CRX	NM_000554	602225	132	100	100	100	99
CRYAA	NM_000394	123580	91	100	100	100	98
CRYAB	NM_001289807	123590	62	100	98	94	85
CRYBA1	NM_005208	123610	79	100	100	97	94
CRYBA4	NM_001886	123631	75	100	100	99	79
CRYBB1	NM_001887	600929	89	100	100	96	87
CRYBB2	NM_000496	123620	75	100	100	100	100
CRYBB3	NM_004076	123630	85	100	100	99	91
CRYGC	NM_020989	123680	82	100	100	98	97
CRYGD	NM_006891	123690	77	100	100	92	84
CSNK1G1	NM_022048	606274	83	100	100	98	91
CSNK2A1	NM_177560	115440	87	100	100	98	90
CSNK2B	NM_001282385	115441	97	100	100	100	99
CSPP1	NM_001291339	611654	82	100	100	98	87
CSTA	NM_005213	184600	74	100	100	98	92
CSTB	NM_000100	601145	80	100	93	89	87
CTC1	NM_025099	613129	87	100	100	98	93
CTCF	NM_006565	604167	88	100	98	97	92
CTDP1	NM_001202504	604927	95	99	96	96	94
CTNNB1	NM_001098209	116806	102	100	100	100	99
CTNND1	NM_001085463	601045	88	100	100	100	95

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
CTNS	NM_001031681	606272	84	100	100	98	90
CTSA	NM_001167594	613111	74	100	100	100	95
CTSD	NM_001909	116840	101	100	98	98	97
CTSK	NM_000396	601105	77	100	100	99	89
CUL3	NM_001257197	603136	80	100	99	95	84
CUL4B	NM_003588	300304	65	99	91	79	63
CUL7	NM_014780	609577	90	100	100	100	98
CWC27	NM_005869	617170	56	100	95	83	59
CYB5R3	NM_001129819	613213	85	100	100	100	100
CYC1	NM_001916	123980	139	100	97	96	96
CYP1B1	NM_000104	601771	99	100	100	100	93
CYP24A1	NM_000782	126065	109	100	100	100	99
CYP2U1	NM_183075	610670	105	97	95	93	91
D2HGDH	NM_001287249	609186	82	100	99	96	87
DAG1	NM_001177643	128239	170	100	100	100	99
DARS	NM_001293312	603084	71	100	98	94	76
DARS2	NM_018122	610956	77	100	100	98	91
DBT	NM_001918	248610	71	100	96	90	72
DCAF17	NM_001164821	612515	69	100	97	89	69
DCC	NM_005215	120470	84	100	100	99	91
DCDC2	NM_001195610	605755	103	100	100	100	93
DCHS1	NM_003737	603057	99	100	100	99	98
DCX	NM_001195553	300121	71	100	100	99	87
DDB2	NM_000107	600811	114	100	99	98	93
DDC	NM_001242887	107930	71	100	97	92	80
DDHD1	NM_030637	614603	98	99	97	94	85
DDHD2	NM_015214	615003	91	100	100	98	90
DDOST	NM_005216	602202	82	100	100	99	96
DDR2	NM_001014796	191311	79	100	100	98	84
DDX11	NM_001257145	601150	84	93	90	88	81
DDX3X	NM_001193417	300160	64	100	99	96	88
DDX58	NM_014314	609631	83	100	99	95	87
DDX59	NM_001031725	615464	96	100	100	95	88
DEAF1	NM_001293634	602635	85	98	91	89	84
DECR1	NM_001359	222745	71	100	99	93	84
DENND5A	NM_001243254	617278	73	100	99	97	88
DEPDC5	NM_001007188	614191	80	100	100	99	90
DGAT1	NM_012079	604900	117	100	99	99	99
DGCR6	NM_005675	601279	66	100	91	77	71
DGCR6L	NM_033257	609459	58	100	90	76	69
DHCR24	NM_014762	606418	94	100	100	99	96
DHCR7	NM_001163817	602858	89	100	100	100	100
DHDDS	NM_001243565	608172	58	100	100	99	78
DHFR	NM_001290357	126060	52	100	96	90	54
DHODH	NM_001361	126064	63	100	100	98	79

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
DHRS3	NM_004753	612830	90	100	100	100	99
DHTKD1	NM_018706	614984	78	100	99	97	90
DHX30	NM_138615	616423	117	100	100	100	99
DIAPH1	NM_005219	602121	84	100	100	97	90
DIP2B	NM_173602	611379	84	100	100	99	95
DIRAS3	NM_004675	605193	118	100	100	100	100
DIS3L2	NM_001257282	614184	95	100	100	100	95
DKC1	NM_001142463	300126	74	100	100	98	90
DLAT	NM_001931	608770	74	100	99	94	78
DLD	NM_001289751	238331	79	100	100	99	89
DLG3	NM_001166278	300189	66	100	97	93	76
DLG4	NM_001365	602887	139	100	100	100	96
DLL3	NM_203486	602768	72	97	94	90	81
DLL4	NM_019074	605185	114	100	100	99	97
DLX5	NM_005221	600028	89	100	99	92	82
DMD	NM_004019	300377	92	100	100	100	99
DMP1	NM_004407	600980	104	100	100	98	97
DMPK	NM_001288766	605377	103	100	100	99	96
DNA2	NM_001080449	601810	110	100	98	94	87
DNAAF3	NM_001256714	614566	94	100	96	90	79
DNAH5	NM_001369	603335	76	100	99	95	85
DNAJB13	NM_153614	610263	87	100	100	94	88
DNAJC12	NM_021800	606060	92	100	100	100	99
DNAJC19	NM_145261	608977	108	100	98	94	77
DNM1	NM_001288737	602377	105	99	98	97	93
DNM1L	NM_001278464	603850	82	100	98	92	81
DNMT1	NM_001379	126375	76	100	100	98	91
DNMT3A	NM_153759	602769	85	100	99	98	90
DNMT3B	NM_175849	602900	84	100	100	99	94
DOCK6	NM_020812	614194	85	100	99	96	90
DOCK7	NM_001271999	615730	79	99	98	95	86
DOCK8	NM_001193536	611432	76	100	99	97	90
DOK7	NM_001256896	610285	128	100	100	100	100
DOLK	NM_014908	610746	132	100	100	100	100
DONSON	NM_017613	611428	88	99	91	83	75
DPAGT1	NM_001382	191350	66	100	100	100	92
DPCD	NM_015448	616467	82	100	100	100	100
DPH1	NM_001383	603527	99	100	100	100	99
DPM1	NM_003859	603503	90	100	98	92	78
DPM2	NM_003863	603564	74	100	99	96	94
DPM3	NM_018973	605951	114	100	100	100	100
DPYD	NM_001160301	612779	81	100	100	97	91
DRC1	NM_145038	615288	65	100	100	97	79
DSE	NM_001080976	605942	76	100	99	93	84
DSG1	NM_001942	125670	92	100	98	94	89

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
DSPP	NM_014208	125485	107	98	96	89	66
DSTYK	NM_015375	612666	90	100	98	94	82
DVL1	NM_004421	601365	84	100	99	97	94
DVL3	NM_004423	601368	92	100	100	100	100
DYM	NM_017653	607461	74	100	98	91	75
DYNC1H1	NM_001376	600112	97	100	100	99	97
DYNC2H1	NM_001377	603297	74	99	93	81	66
DYRK1A	NM_130438	600855	86	100	100	100	99
DYX1C1	NM_001033560	NA	66	100	98	89	74
EBF3	NM_001005463	607407	84	100	100	98	93
EBP	NM_006579	300205	60	100	96	90	69
ECEL1	NM_001290787	605896	86	100	98	94	91
EDA	NM_001005610	300451	104	100	100	93	91
EDN1	NM_001168319	131240	88	100	100	100	100
EDNRA	NM_001166055	131243	103	100	100	100	91
EDNRB	NM_001201397	131244	98	100	99	95	90
EED	NM_003797	605984	52	100	94	85	57
EEF1A2	NM_001958	602959	93	100	99	94	92
EEF1B2	NM_001037663	600655	82	100	97	88	83
EFNB1	NM_004429	300035	89	100	100	100	99
EFTUD2	NM_001258353	603892	79	100	100	97	88
EGR2	NM_000399	129010	93	100	100	100	99
EHMT1	NM_024757	607001	80	96	95	94	84
EIF2AK3	NM_004836	604032	91	98	95	91	84
EIF2S3	NM_001415	300161	68	98	94	88	74
EIF4A3	NM_014740	608546	62	100	100	98	83
ELAC2	NM_018127	605367	82	100	100	98	96
ELMO2	NM_133171	606421	75	100	99	97	87
ELN	NM_001081755	130160	73	100	100	98	95
ELOVL4	NM_022726	605512	65	100	99	96	82
ELP2	NM_001242877	616054	81	100	99	97	91
EMC1	NM_001271427	616846	74	100	100	98	91
EMG1	NM_006331	611531	94	100	100	100	99
EMX2	NM_001165924	600035	106	100	100	100	100
ENPP1	NM_006208	173335	94	94	90	84	75
ENTPD1	NM_001164178	601752	82	100	100	99	92
EOGT	NM_173654	614789	93	100	100	100	95
EOMES	NM_001278183	604615	79	100	100	98	96
EP300	NM_001429	602700	113	100	99	98	96
EPB41L1	NM_001258329	602879	83	100	96	93	88
EPG5	NM_020964	615068	82	100	98	95	83
ERBB3	NM_001005915	190151	138	100	100	100	87
ERCC1	NM_202001	126380	56	100	99	92	68
ERCC2	NM_001130867	126340	71	100	100	99	95
ERCC3	NM_000122	133510	63	100	98	91	72

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
ERCC4	NM_005236	133520	99	100	100	99	93
ERCC5	NM_000123	133530	91	100	100	97	89
ERCC6	NM_000124	609413	108	100	100	100	96
ERCC6L2	NM_020207	615667	97	100	99	97	89
ERCC8	NM_001290285	609412	76	100	95	84	69
ERF	NM_001301035	611888	113	100	100	100	94
ERLIN1	NM_001100626	611604	89	100	100	100	100
ERLIN2	NM_001003791	611605	94	100	100	100	94
ERMARD	NM_001278531	615532	88	100	99	95	83
ESCO2	NM_001017420	609353	95	100	97	92	85
ETFA	NM_000126	608053	85	100	100	99	93
ETFB	NM_001014763	130410	75	100	100	99	90
ETFDH	NM_001281737	231675	75	100	100	98	93
ETHE1	NM_014297	608451	96	100	100	95	82
EVC	NM_153717	604831	80	95	91	86	79
EVC2	NM_001166136	607261	78	100	99	95	83
EXOSC3	NM_001002269	606489	138	98	91	88	79
EXPH5	NM_015065	612878	125	100	100	99	98
EXT1	NM_000127	608177	69	100	98	94	83
EXT2	NM_001178083	608210	75	100	99	97	87
EYA1	NM_172059	601653	84	100	100	100	95
EZH2	NM_001203249	601573	96	100	100	97	91
FAH	NM_000137	613871	86	100	100	98	87
FAM105B	NA	NA	NA	NA	NA	NA	NA
FAM111A	NM_001142519	615292	197	100	100	98	97
FAM120C	NM_001300788	300741	61	100	98	94	70
FAM126A	NM_032581	610531	83	100	98	95	82
FAM134B	NM_019000	NA	99	100	100	94	84
FAM161A	NM_001201543	613596	100	100	99	94	83
FAM20A	NM_001243746	611062	64	100	95	92	78
FAM20C	NM_020223	611061	80	100	100	100	96
FAM58A	NM_152274	NA	57	80	76	70	64
FANCA	NM_001018112	607139	94	100	100	98	94
FANCB	NM_001018113	300515	69	100	93	82	64
FANCC	NM_001243744	613899	100	100	100	98	86
FANCD2	NM_001018115	613984	78	100	98	95	89
FANCE	NM_021922	613976	88	95	93	93	92
FANCF	NM_022725	613897	178	100	100	100	99
FANCG	NM_004629	602956	121	100	100	100	97
FANCI	NM_001113378	611360	89	100	99	98	95
FANCL	NM_018062	608111	77	100	99	92	75
FANCM	NM_020937	609644	74	100	95	87	73
FAR1	NM_032228	616107	53	97	93	81	54
FARS2	NM_006567	611592	96	100	100	100	99
FASN	NM_004104	600212	118	100	100	99	96

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
FAT4	NM_001291285	612411	146	100	100	99	98
FBLN1	NM_006486	135820	86	100	98	97	93
FBN1	NM_000138	134797	90	100	100	99	95
FBN2	NM_001999	612570	90	100	100	99	94
FBP1	NM_000507	611570	70	100	99	96	84
FBXL4	NM_001278716	605654	121	100	100	100	100
FBXO11	NM_025133	607871	65	100	98	91	80
FBXO25	NM_183421	609098	0	21	21	20	19
FBXW4	NM_022039	608071	66	100	100	97	84
FEZF1	NM_001024613	613301	106	100	100	100	99
FGD1	NM_004463	300546	78	99	96	91	84
FGF10	NM_004465	602115	89	100	100	100	94
FGF12	NM_004113	601513	63	100	100	100	97
FGF3	NM_005247	164950	87	100	99	91	78
FGF9	NM_002010	600921	63	100	100	99	84
FGFR1	NM_001174067	136350	84	100	100	98	93
FGFR2	NM_000141	176943	90	100	99	97	87
FGFR3	NM_000142	134934	92	100	99	97	92
FH	NM_000143	136850	94	93	91	87	79
FHL1	NM_001159703	300163	64	100	97	91	77
FIG4	NM_014845	609390	97	100	99	97	89
FKBP14	NM_017946	614505	57	100	100	96	78
FKRP	NM_001039885	606596	93	100	100	100	100
FKTN	NM_001198963	607440	78	100	96	90	81
FLAD1	NM_001184892	610595	185	100	100	100	100
FLG	NM_002016	135940	121	100	97	95	94
FLNA	NM_001110556	300017	103	100	100	100	99
FLNB	NM_001164317	603381	83	100	100	97	90
FLT4	NM_182925	136352	87	100	99	98	96
FLVCR1	NM_014053	609144	92	100	98	94	89
FLVCR2	NM_017791	610865	72	100	100	100	90
FMN2	NM_020066	606373	91	91	88	84	73
FMR1	NM_001185075	309550	72	100	96	88	70
FN1	NM_212474	135600	78	100	100	97	87
FOLR1	NM_016724	136430	71	100	100	100	100
FOXC1	NM_001453	601090	61	96	85	73	57
FOXC2	NM_005251	602402	91	100	100	92	82
FOXE1	NM_004473	602617	76	100	92	70	60
FOXE3	NM_012186	601094	33	75	63	54	33
FOXF1	NM_001451	601089	98	100	100	98	96
FOXG1	NM_005249	164874	115	91	81	77	74
FOXL2	NM_023067	605597	88	98	91	83	72
FOXN1	NM_003593	600838	89	100	100	97	89
FOXP1	NM_001012505	605515	144	100	100	100	100
FOXP2	NM_001172767	605317	79	100	100	99	93

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
FOXP3	NM_014009	300292	83	100	97	93	82
FOXRED1	NM_017547	613622	71	100	100	98	88
FRAS1	NM_025074	607830	79	100	99	97	88
FREM1	NM_144966	608944	81	100	99	96	86
FREM2	NM_207361	608945	106	100	100	98	93
FRMD4A	NM_018027	616305	85	100	99	95	89
FRMD7	NM_194277	300628	83	100	99	97	90
FRMPD4	NM_014728	300838	90	100	99	96	83
FRRS1L	NM_014334	604574	93	83	75	74	73
FRY	NM_023037	614818	81	100	98	96	91
FTCD	NM_006657	606806	70	98	95	93	81
FTL	NM_000146	134790	133	100	100	98	96
FTO	NM_001080432	610966	93	100	100	96	89
FTSJ1	NM_001282157	300499	86	100	100	99	98
FUCA1	NM_000147	612280	80	100	100	100	98
FYCO1	NM_024513	607182	80	100	100	99	97
FZD5	NM_003468	601723	135	100	100	100	100
FZD6	NM_001164615	603409	112	100	100	100	100
G6PC3	NM_138387	611045	80	100	100	99	92
GAA	NM_000152	606800	94	100	100	99	92
GABBR2	NM_005458	607340	82	97	94	89	80
GABRA1	NM_000806	137160	99	100	100	100	100
GABRB2	NM_000813	600232	98	100	100	100	95
GABRB3	NM_001191321	137192	94	100	99	98	96
GABRG2	NM_000816	137164	90	100	100	100	96
GAD1	NM_000817	605363	74	100	100	97	86
GALC	NM_001201402	606890	71	100	99	94	79
GALE	NM_000403	606953	102	100	100	100	99
GALK1	NM_000154	604313	97	100	100	99	97
GALNS	NM_000512	612222	69	100	98	94	85
GALT	NM_000155	606999	111	100	100	100	98
GAMT	NM_000156	601240	81	98	92	91	90
GAS8	NM_001286209	605178	89	100	100	98	89
GATA2	NM_001145661	137295	70	100	98	91	82
GATA4	NM_002052	600576	73	91	81	75	68
GATA6	NM_005257	601656	83	96	89	81	74
GATAD2B	NM_020699	614998	73	100	100	94	76
GATM	NM_001482	602360	82	100	100	100	96
GBA	NM_000157	606463	114	100	100	100	100
GBA2	NM_020944	609471	109	100	100	100	99
GCDH	NM_000159	608801	94	100	100	99	97
GCH1	NM_000161	600225	64	100	100	92	73
GCSH	NM_004483	238330	43	85	77	65	28
GDF1	NM_001492	602880	38	85	63	56	49
GDF3	NM_020634	606522	103	100	100	100	100

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
GDF5	NM_000557	601146	136	100	100	100	99
GDF6	NM_001001557	601147	103	100	100	100	90
GDI1	NM_001493	300104	98	100	100	100	98
GFAP	NM_001131019	137780	66	100	98	92	75
GFER	NM_005262	600924	58	100	98	84	57
GFM1	NM_024996	606639	70	100	98	94	84
GHR	NM_000163	600946	105	100	100	100	92
GJA1	NM_000165	121014	151	100	100	100	100
GJA3	NM_021954	121015	144	100	100	100	92
GJA8	NM_005267	600897	125	100	100	100	98
GJB2	NM_004004	121011	114	100	100	100	99
GJB3	NM_024009	603324	171	100	100	100	100
GJC2	NM_020435	608803	28	84	61	49	44
GK	NM_203391	300474	52	89	75	67	52
GLB1	NM_001135602	611458	73	100	95	90	81
GLDC	NM_000170	238300	74	95	89	85	75
GLDN	NM_181789	608603	80	100	96	94	90
GLE1	NM_001499	603371	72	100	100	99	92
GLI2	NM_005270	165230	100	100	100	99	96
GLI3	NM_000168	165240	92	100	99	97	89
GLIS2	NM_032575	608539	126	100	100	99	95
GLIS3	NM_001042413	610192	90	100	99	94	86
GLMN	NM_053274	601749	49	100	91	76	49
GLUD1	NM_005271	138130	71	99	91	80	70
GLUL	NM_001033044	138290	75	100	99	95	91
GM2A	NM_000405	613109	76	100	100	100	99
GMNN	NM_001251989	602842	84	100	93	86	85
GMPPA	NM_013335	615495	88	100	100	100	96
GMPPB	NM_013334	615320	133	100	100	100	100
GNA11	NM_002067	139313	101	100	99	95	91
GNA14	NM_004297	604397	78	100	100	100	98
GNAI1	NM_001256414	139310	60	100	96	86	60
GNAI3	NM_006496	139370	61	100	96	88	78
GNAO1	NM_020988	139311	100	100	100	100	95
GNAQ	NM_002072	600998	45	84	71	61	43
GNAS	NM_016592	139320	163	100	100	100	100
GNB1	NM_001282538	139380	90	100	100	100	93
GNB3	NM_001297571	139130	109	100	100	100	98
GNB5	NM_016194	604447	82	100	98	94	88
GNPAT	NM_014236	602744	98	100	98	95	86
GNPTAB	NM_024312	607840	103	100	99	98	89
GNPTG	NM_032520	607838	144	100	99	99	98
GNS	NM_002076	607664	75	99	95	86	71
GON4L	NM_001282861	610393	95	100	98	94	89
GORAB	NM_152281	607983	132	100	99	97	92

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
GPAA1	NM_003801	603048	101	100	99	99	98
GPC3	NM_001164618	300037	73	99	93	87	75
GPC6	NM_005708	604404	76	100	100	99	96
GPHN	NM_020806	603930	96	100	99	98	92
GPR126	NM_198569	NA	89	100	99	97	89
GPR179	NM_001004334	614515	102	100	100	99	95
GPR56	NM_001290142	NA	85	100	100	100	96
GPSM2	NM_013296	609245	78	100	99	94	84
GPX4	NM_001039848	138322	134	100	98	97	94
GRHL2	NM_024915	608576	80	100	100	100	96
GRHL3	NM_198174	608317	83	100	100	99	95
GRIA1	NM_001114183	138248	88	100	100	99	97
GRIA3	NM_007325	305915	73	100	98	94	78
GRIK2	NM_021956	138244	90	100	99	95	91
GRIN1	NM_001185091	138249	75	100	100	99	98
GRIN2A	NM_000833	138253	98	100	100	100	99
GRIN2B	NM_000834	138252	94	100	99	97	94
GRIN2D	NM_000836	602717	65	81	72	67	62
GRM1	NM_001278064	604473	106	100	100	99	98
GRM6	NM_000843	604096	94	95	90	84	80
GSPT2	NM_018094	300418	120	100	100	100	100
GSS	NM_000178	601002	65	100	99	97	87
GTF2E2	NM_002095	189964	63	100	97	89	69
GTF2H5	NM_207118	608780	67	100	97	88	63
GTPBP3	NM_001195422	608536	139	100	100	100	99
GUCY2C	NM_004963	601330	82	100	100	98	89
GUSB	NM_000181	611499	62	82	81	78	67
GZF1	NM_022482	613842	133	100	100	98	96
H19	NA	NA	NA	NA	NA	NA	NA
HACE1	NM_020771	610876	85	100	99	96	83
HADH	NM_001184705	601609	77	100	100	100	99
HADHA	NM_000182	600890	64	99	95	90	77
HARS	NM_001258040	142810	91	100	100	100	99
HAX1	NM_001018837	605998	98	100	100	100	100
HCCS	NM_001122608	300056	60	100	99	96	75
HCFC1	NM_005334	300019	78	99	97	92	81
HCN1	NM_021072	602780	88	100	100	95	88
HDAC4	NM_006037	605314	87	100	100	97	86
HDAC8	NM_001166418	300269	84	100	100	100	100
HEATR2	NM_017802	NA	70	89	83	76	66
HECW2	NM_020760	617245	82	100	99	95	89
HEPACAM	NM_152722	611642	78	93	87	85	83
HESX1	NM_003865	601802	44	100	97	79	33
HEXA	NM_000520	606869	64	100	100	95	76
HEXB	NM_000521	606873	100	100	99	95	82

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
HGSNAT	NM_152419	610453	75	96	95	92	76
HIBCH	NM_014362	610690	75	98	84	73	64
HINT1	NM_005340	601314	52	98	84	69	51
HIRA	NM_003325	600237	73	100	99	96	85
HIST1H1E	NM_005321	142220	87	100	100	100	100
HIST1H4B	NM_003544	602829	163	100	100	100	100
HIST1H4C	NM_003542	602827	69	100	100	100	90
HIST3H3	NM_003493	602820	155	100	100	100	100
HIVEP2	NM_006734	143054	130	100	100	100	100
HLCS	NM_000411	609018	107	100	100	100	100
HMGB3	NM_001301229	300193	48	84	72	64	45
HMGCL	NM_001166059	613898	84	100	100	99	93
HMGCS2	NM_005518	600234	79	100	100	98	92
HMX1	NM_018942	142992	17	69	47	43	22
HNF1B	NM_000458	189907	84	100	96	91	83
HNF4A	NM_000457	600281	77	100	99	96	92
HNMT	NM_001024074	605238	85	100	100	100	88
HNRNPH2	NM_001032393	300610	117	100	100	100	100
HNRNPK	NM_002140	600712	65	93	88	82	68
HNRNPU	NM_004501	602869	91	100	100	99	95
HOXA1	NM_005522	142955	112	100	100	100	100
HOXA11	NM_005523	142958	65	100	91	84	80
HOXA13	NM_000522	142959	87	80	73	68	59
HOXB1	NM_002144	142968	96	100	100	100	100
HOXC13	NM_017410	142976	93	100	100	100	98
HOXD13	NM_000523	142989	138	100	100	97	95
HPD	NM_002150	609695	116	100	100	98	85
HPGD	NM_001145816	601688	59	100	100	97	72
HPRT1	NM_000194	308000	49	98	90	79	45
HPS1	NM_182639	604982	68	100	100	100	90
HPSE2	NM_001166245	613469	74	100	100	97	84
HR	NM_018411	602302	84	100	99	95	90
HRAS	NM_001130442	190020	103	100	100	100	100
HSD17B10	NM_001037811	300256	78	100	100	99	96
HSD17B4	NM_000414	601860	69	99	97	94	80
HSD3B7	NM_025193	607764	101	100	98	96	95
HSF4	NM_001040667	602438	89	100	99	99	97
HSPD1	NM_002156	118190	75	99	96	91	82
HSPG2	NM_001291860	142461	82	99	98	96	91
HTRA2	NM_145074	606441	92	100	100	99	95
HUWE1	NM_031407	300697	74	100	98	94	82
HYAL1	NM_153282	607071	76	100	100	100	98
HYDIN	NM_001198542	610812	71	96	91	86	75
HYLS1	NM_145014	610693	129	100	100	100	100
IARS	NM_002161	600709	85	100	100	98	91

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
IARS2	NM_018060	612801	73	100	100	100	96
IDS	NM_000202	300823	81	100	99	93	82
IDUA	NM_000203	252800	114	99	96	94	90
IER3IP1	NM_016097	609382	68	100	92	88	88
IFIH1	NM_022168	606951	81	100	98	91	80
IFITM5	NM_001025295	614757	56	100	96	86	73
IFT122	NM_001280541	606045	83	100	99	96	88
IFT140	NM_014714	614620	90	100	99	96	88
IFT172	NM_015662	607386	74	100	100	98	92
IFT43	NM_001255995	614068	69	100	100	100	87
IFT52	NM_016004	617094	82	100	100	95	83
IFT80	NM_001190241	611177	53	98	86	71	53
IGBP1	NM_001551	300139	88	100	98	94	90
IGF1	NM_001111284	147440	67	100	100	100	97
IGF1R	NM_000875	147370	74	100	100	97	88
IGF2	NM_000612	147470	70	100	100	100	100
IGFBP7	NM_001253835	602867	57	98	91	86	57
IGHMBP2	NM_002180	600502	73	100	97	94	84
IGSF1	NM_001170963	300137	60	100	100	98	88
IHH	NM_002181	600726	99	100	100	100	100
IKBKG	NM_001099856	300248	0	2	2	2	1
IL11	NM_000641	147681	59	98	91	78	52
IL11RA	NM_001142784	600939	94	100	100	100	97
IL1RAPL1	NM_014271	300206	87	100	100	97	87
IMPAD1	NM_017813	614010	97	100	100	100	93
INPP4A	NM_001134224	600916	78	100	100	97	91
INPP5E	NM_019892	613037	70	100	97	91	81
INPP5K	NM_001135642	607875	60	100	100	98	83
INPPL1	NM_001567	600829	90	100	99	97	96
IQSEC2	NM_015075	300522	66	99	98	94	77
IRF6	NM_001206696	607199	79	100	97	87	75
IRX5	NM_005853	606195	68	100	100	91	72
ISPD	NM_001101426	614631	87	100	97	88	72
ITCH	NM_031483	606409	84	100	99	96	85
ITGA3	NM_002204	605025	106	100	99	98	95
ITGA6	NM_000210	147556	113	100	99	98	95
ITGA7	NM_002206	600536	99	100	100	99	96
ITGA8	NM_003638	604063	82	100	100	97	86
ITPR1	NM_002222	147265	91	100	100	99	94
IVD	NM_002225	607036	67	100	100	99	90
JAG1	NM_000214	601920	88	99	99	98	93
JAGN1	NM_032492	616012	81	100	100	100	100
JAK3	NM_000215	600173	77	99	98	96	91
JAM3	NM_032801	606871	91	100	100	100	94
KANK1	NM_001256876	607704	101	100	100	99	95

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
KANSL1	NM_001193465	612452	87	100	99	96	91
KARS	NM_005548	601421	86	100	99	96	92
KAT6A	NM_001099412	601408	107	100	100	98	95
KAT6B	NM_012330	605880	112	100	99	98	97
KBTBD13	NM_001101362	613727	118	100	100	99	93
KCNA2	NM_001204269	176262	120	100	100	100	91
KCNB1	NM_004975	600397	98	100	100	98	96
KCNC1	NM_001112741	176258	92	100	100	100	100
KCNC3	NM_004977	176264	52	74	61	55	52
KCNE1	NM_000219	176261	245	100	100	100	100
KCNH1	NM_002238	603305	104	100	100	99	94
KCNH5	NM_139318	605716	95	100	100	97	93
KCNJ1	NM_000220	600359	129	100	100	100	100
KCNJ10	NM_002241	602208	132	100	99	96	95
KCNJ11	NM_000525	600937	146	100	100	100	100
KCNJ6	NM_002240	600877	129	100	100	100	97
KCNK9	NM_001282534	605874	100	100	100	100	100
KCNMA1	NM_001271518	600150	79	100	100	98	93
KCNQ1	NM_181798	607542	87	100	100	99	94
KCNQ1OT1	NA	NA	NA	NA	NA	NA	NA
KCNQ2	NM_172107	602235	84	100	99	98	93
KCNQ3	NM_001204824	602232	78	100	99	95	87
KCNQ5	NM_001160133	607357	101	99	98	96	92
KCNT1	NM_001272003	608167	84	100	99	98	86
KCTD1	NM_001136205	613420	75	100	100	100	97
KCTD7	NM_001167961	611725	111	100	100	100	100
KDM1A	NM_015013	609132	84	100	99	96	92
KDM5A	NM_001042603	180202	89	100	100	99	97
KDM5B	NM_006618	605393	88	100	100	98	92
KDM5C	NM_001146702	314690	90	100	99	98	94
KDM6A	NM_001291421	300128	83	96	90	83	70
KDM6B	NM_001080424	611577	118	99	98	97	95
KIAA0226	NM_001145642	NA	69	100	99	96	83
KIAA0586	NM_014749	610178	83	100	98	94	84
KIAA1109	NM_015312	611565	88	100	98	95	85
KIAA1279	NM_015634	NA	105	100	100	100	96
KIAA2022	NM_001008537	NA	116	100	100	98	95
KIDINS220	NM_020738	615759	97	100	100	98	95
KIF11	NM_004523	148760	72	97	94	84	63
KIF14	NM_014875	611279	86	100	96	86	69
KIF1A	NM_001244008	601255	71	100	97	95	83
KIF22	NM_001256269	603213	173	100	100	100	99
KIF2A	NM_001098511	602591	71	100	95	85	68
KIF4A	NM_012310	300521	72	100	97	94	82
KIF5C	NM_004522	604593	76	100	100	98	84

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
KIF7	NM_198525	611254	73	96	91	85	76
KIRREL3	NM_032531	607761	76	100	99	97	86
KIT	NM_000222	164920	90	100	100	99	97
KITLG	NM_000899	184745	66	100	98	95	81
KLF1	NM_006563	600599	81	100	100	96	88
KLF8	NM_001159296	300286	94	100	100	100	93
KLHL15	NM_030624	300980	122	100	100	99	98
KLHL40	NM_152393	615340	84	100	100	100	99
KLHL7	NM_001031710	611119	74	100	100	96	84
KMT2A	NM_001197104	159555	105	100	100	99	96
KMT2B	NM_014727	606834	95	97	97	96	94
KMT2D	NM_003482	602113	102	100	100	99	97
KPNA7	NM_001145715	614107	77	100	100	99	92
KPTN	NM_007059	615620	73	100	100	99	97
KRAS	NM_033360	190070	63	100	100	92	55
KRBOX4	NM_001129898	300585	76	100	100	100	100
KRIT1	NM_004912	604214	61	100	98	89	62
KRT74	NM_175053	608248	98	100	100	100	97
L1CAM	NM_024003	308840	90	100	100	99	96
L2HGDH	NM_024884	609584	85	100	98	95	84
LAMA1	NM_005559	150320	74	100	100	97	86
LAMA2	NM_001079823	156225	84	100	100	98	95
LAMB1	NM_002291	150240	100	100	100	99	95
LAMC3	NM_006059	604349	89	100	99	97	91
LAMP2	NM_002294	309060	73	94	92	89	83
LARGE	NM_004737	NA	74	100	99	96	88
LARP7	NM_016648	612026	64	92	76	66	56
LARS2	NM_015340	604544	79	100	100	100	96
LAS1L	NM_031206	300964	56	100	98	94	66
LBR	NM_002296	600024	81	97	90	81	71
LDB3	NM_001080116	605906	99	100	100	100	99
LEFTY2	NM_001172425	601877	56	100	95	86	66
LEMD3	NM_001167614	607844	98	100	97	93	83
LEPRE1	NM_001146289	NA	77	100	100	100	99
LFNG	NM_002304	602576	94	100	100	100	98
LGI1	NM_005097	604619	83	100	99	94	92
LGI4	NM_139284	608303	73	99	97	94	88
LHX3	NM_178138	600577	66	100	100	95	81
LHX4	NM_033343	602146	86	100	100	100	98
LIAS	NM_001278592	607031	90	100	100	100	100
LIG4	NM_001098268	601837	125	100	100	99	96
LIN28B	NM_001004317	611044	94	100	100	98	97
LINS	NM_001040616	NA	88	100	100	96	89
LIPN	NM_001102469	613924	83	100	99	94	80
LIPT1	NM_015929	610284	169	100	100	100	97

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
LIPT2	NM_001144869	617659	61	100	99	83	73
LMBRD1	NM_018368	612625	61	99	93	83	62
LMNA	NM_170708	150330	66	99	96	91	79
LMX1B	NM_002316	602575	86	100	97	91	76
LONP1	NM_001276480	605490	86	100	100	100	97
LRAT	NM_001301645	604863	174	100	100	100	100
LRBA	NM_001199282	606453	82	100	100	97	89
LRIG2	NM_014813	608869	94	100	99	97	91
LRIT3	NM_198506	615004	24	51	50	49	48
LRP1	NM_002332	107770	104	100	100	99	98
LRP2	NM_004525	600073	90	100	100	99	96
LRP4	NM_002334	604270	85	100	99	98	92
LRP5	NM_001291902	603506	97	100	100	99	98
LRP6	NM_002336	603507	94	100	99	98	93
LRPAP1	NM_002337	104225	90	100	99	97	84
LRPPRC	NM_133259	607544	87	100	100	97	87
LRRC6	NM_012472	614930	94	100	96	94	91
LTBP2	NM_000428	602091	75	100	99	97	92
LTBP3	NM_001164266	602090	85	100	99	98	92
LYST	NM_000081	606897	84	99	97	91	81
MAB21L2	NM_006439	604357	165	100	100	100	100
MAF	NM_005360	177075	62	85	81	76	69
MAFB	NM_005461	608968	106	100	99	96	93
MAGEL2	NM_019066	605283	108	95	90	86	78
MAGI2	NM_012301	606382	68	96	92	89	82
MAGT1	NM_032121	300715	75	100	100	95	84
MAMLD1	NM_001177465	300120	96	100	100	98	95
MAN1B1	NM_016219	604346	91	100	100	99	95
MAN2B1	NM_000528	609458	96	100	99	96	92
MANBA	NM_005908	609489	77	100	99	95	80
MAOA	NM_000240	309850	68	100	100	99	89
MAP2K1	NM_002755	176872	78	100	96	90	81
MAP2K2	NM_030662	601263	80	99	96	92	80
MAP3K1	NM_005921	600982	84	99	95	91	84
MAP3K7	NM_145332	602614	78	100	100	98	90
MAPK10	NM_138981	602897	82	100	100	100	95
MAPRE2	NM_001143827	605789	83	100	99	97	91
MASP1	NM_139125	600521	84	100	100	98	84
MAT1A	NM_000429	610550	79	100	98	96	89
MATN3	NM_002381	602109	60	87	86	84	71
MBD5	NM_018328	611472	135	100	100	99	98
MBOAT7	NM_001146082	606048	68	100	100	96	89
MBTPS2	NM_015884	300294	80	100	99	94	85
MC2R	NM_000529	607397	126	100	100	96	95
MCCC1	NM_020166	609010	98	100	99	98	95

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
MCCC2	NM_022132	609014	80	100	100	98	90
MCEE	NM_032601	608419	86	100	100	100	100
MCM5	NM_006739	602696	78	100	100	98	92
MCOLN1	NM_020533	605248	100	100	99	99	98
MCPH1	NM_001172575	607117	103	100	100	98	83
MDH2	NM_001282404	154100	72	100	100	99	96
MECOM	NM_001164000	165215	104	100	100	97	83
MECP2	NM_004992	300005	79	100	97	93	84
MECR	NM_001024732	608205	81	100	100	98	91
MED12	NM_005120	300188	73	100	98	95	85
MED13L	NM_015335	608771	77	100	100	97	87
MED17	NM_004268	603810	92	100	99	97	93
MED23	NM_015979	605042	90	100	99	98	91
MED25	NM_030973	610197	92	100	100	98	95
MEF2A	NM_001130927	600660	86	100	97	92	88
MEF2C	NM_001193347	600662	93	100	98	95	93
MEGF10	NM_001256545	612453	85	100	100	99	89
MEGF8	NM_001271938	604267	81	100	99	96	89
MEOX1	NM_001040002	600147	72	100	100	100	75
MESP2	NM_001039958	605195	86	100	95	92	88
MFRP	NM_031433	606227	77	100	100	100	99
MFSD2A	NM_001287808	614397	78	100	100	100	96
MFSD8	NM_152778	611124	88	100	100	97	85
MGAT2	NM_002408	602616	119	100	100	100	100
MGP	NM_001190839	154870	89	100	96	96	86
MIB1	NM_020774	608677	82	100	100	98	88
MICU1	NM_001195518	605084	74	100	96	91	88
MID1	NM_001193281	300552	133	100	99	97	90
MIR17HG	NA	NA	NA	NA	NA	NA	NA
MIR184	NA	NA	NA	NA	NA	NA	NA
MITF	NM_198159	156845	89	100	100	100	96
MKKS	NM_018848	604896	138	100	100	100	99
MKS1	NM_017777	609883	89	100	99	97	90
MLC1	NM_015166	605908	68	100	100	96	77
MLYCD	NM_012213	606761	68	98	95	92	80
MMAA	NM_172250	607481	93	100	100	100	100
MMAB	NM_052845	607568	71	100	100	98	89
MMACHC	NM_015506	609831	128	100	100	100	100
MMADHC	NM_015702	611935	60	97	88	81	63
MMP13	NM_002427	600108	98	100	100	99	94
MMP14	NM_004995	600754	95	100	100	99	97
MMP21	NM_147191	608416	71	100	96	91	81
MNX1	NM_001165255	142994	71	100	100	96	79
MOCS1	NM_005943	603707	67	100	98	92	81
MOCS2	NM_004531	603708	80	100	100	100	90

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
MOGS	NM_001146158	601336	95	100	100	100	99
MORC2	NM_014941	616661	94	100	100	99	96
MPDU1	NM_004870	604041	76	100	100	98	95
MPDZ	NM_003829	603785	88	99	98	95	89
MPI	NM_001289155	154550	73	100	100	99	96
MPLKIP	NM_138701	609188	48	100	100	98	49
MPV17	NM_002437	137960	87	100	100	100	98
MRE11A	NM_005591	NA	38	98	86	64	39
MRPS22	NM_020191	605810	87	100	97	89	85
MRPS34	NM_001300900	611994	119	100	100	99	97
MSL3	NM_001282174	300609	56	97	91	83	60
MSX1	NM_002448	142983	110	100	96	93	89
MSX2	NM_002449	123101	92	100	100	96	82
MTF1	NM_005955	600172	91	100	100	100	98
MTHFR	NM_005957	607093	74	100	100	99	96
MTM1	NM_000252	300415	64	100	95	83	70
MTMR14	NM_022485	611089	73	100	98	95	89
MTO1	NM_012123	614667	104	100	98	96	95
MTOR	NM_004958	601231	80	100	99	97	89
MTR	NM_001291939	156570	87	100	100	99	95
MTRR	NM_024010	602568	88	100	99	98	92
MUT	NM_000255	609058	89	100	99	93	83
MVK	NM_001301182	251170	80	100	100	99	89
MYCN	NM_001293231	164840	113	100	100	99	94
MYH10	NM_001256012	160776	84	100	99	97	92
MYH3	NM_002470	160720	74	100	99	97	92
MYH6	NM_002471	160710	74	99	95	90	82
MYH8	NM_002472	160741	93	100	100	99	95
MYH9	NM_002473	160775	75	100	99	97	91
MYLK	NM_053031	600922	89	100	100	100	100
MYO5A	NM_000259	160777	80	100	98	93	78
MYO5B	NM_001080467	606540	78	99	96	94	86
MYO7A	NM_001127179	276903	81	100	99	97	88
MYOC	NM_000261	601652	120	100	100	98	92
MYPN	NM_001256267	608517	88	100	99	97	90
MYT1	NM_004535	600379	99	100	100	97	94
MYT1L	NM_015025	613084	87	100	100	99	97
NAA10	NM_001256119	300013	75	100	99	96	89
NAA15	NM_057175	608000	67	100	98	90	69
NACC1	NM_052876	610672	108	100	100	100	98
NADK2	NM_001287340	615787	108	100	100	100	97
NAGA	NM_000262	104170	73	100	100	99	90
NAGLU	NM_000263	609701	76	96	93	92	87
NAGS	NM_153006	608300	70	100	100	96	92
NALCN	NM_052867	611549	97	100	100	98	91

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
NANS	NM_018946	605202	67	100	100	97	83
NBAS	NM_015909	608025	88	100	99	96	91
NBN	NM_002485	602667	62	100	98	87	66
NCAPD2	NM_014865	615638	94	100	100	98	95
NCAPD3	NM_015261	609276	84	100	99	96	86
NCAPH	NM_001281710	602332	78	100	100	99	96
NDE1	NM_001143979	609449	71	100	100	96	83
NDN	NM_002487	602117	95	99	94	83	64
NDNL2	NM_138704	NA	126	100	100	100	100
NDP	NM_000266	300658	76	100	100	100	94
NDST1	NM_001543	600853	98	100	100	100	99
NDUFA1	NM_004541	300078	106	100	100	100	93
NDUFA10	NM_004544	603835	73	99	97	94	87
NDUFA11	NM_001193375	612638	79	100	99	91	85
NDUFA12	NM_001258338	614530	105	100	100	100	88
NDUFA9	NM_005002	603834	85	100	97	92	82
NDUFAF2	NM_174889	609653	36	94	79	60	30
NDUFB11	NM_001135998	300403	125	99	97	95	94
NDUFS1	NM_001199983	157655	85	100	100	100	96
NDUFS2	NM_004550	602985	69	100	100	99	95
NDUFS3	NM_004551	603846	103	100	100	99	99
NDUFS4	NM_002495	602694	81	100	100	95	92
NDUFS7	NM_024407	601825	87	100	100	98	96
NDUFS8	NM_002496	602141	85	100	100	99	91
NDUFV1	NM_001166102	161015	106	100	99	98	96
NEB	NM_004543	161650	83	100	99	98	92
NEDD4L	NM_001144964	606384	90	100	99	97	91
NEK1	NM_001199397	604588	71	100	98	92	79
NEK8	NM_178170	609799	104	100	100	99	96
NEU1	NM_000434	608272	108	100	99	96	94
NF1	NM_001042492	613113	82	94	92	90	81
NFIA	NM_001134673	600727	114	100	100	97	94
NFIX	NM_001271043	164005	117	100	100	99	94
NFU1	NM_001002755	608100	46	100	91	74	46
NGLY1	NM_001145294	610661	87	100	100	99	93
NHP2	NM_001034833	606470	116	100	100	100	100
NHS	NM_001136024	300457	119	100	100	100	94
NIPBL	NM_133433	608667	82	98	95	90	77
NKX2-1	NM_001079668	600635	62	100	95	79	64
NKX2-5	NM_001166176	600584	83	100	100	100	97
NKX3-2	NM_001189	602183	64	100	98	93	86
NKX6-2	NM_177400	605955	78	95	88	86	85
NLGN3	NM_018977	300336	96	100	100	98	92
NLGN4X	NM_001282145	300427	119	100	99	97	94
NLRP5	NM_153447	609658	98	100	98	96	94

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
NMNAT1	NM_001297778	608700	91	100	100	98	96
NNAT	NM_181689	603106	99	100	100	100	75
NODAL	NM_018055	601265	126	100	100	97	84
NOG	NM_005450	602991	146	100	100	100	100
NONO	NM_001145410	300084	72	100	99	96	93
NOP10	NM_018648	606471	96	100	100	100	97
NOTCH1	NM_017617	190198	86	99	98	96	90
NOTCH2	NM_001200001	600275	82	100	100	98	91
NOTCH3	NM_000435	600276	87	97	94	90	76
NPC1	NM_000271	607623	86	100	99	97	91
NPC2	NM_006432	601015	90	100	100	100	98
NPHP1	NM_001128179	607100	80	100	100	97	89
NPHP3	NM_153240	608002	87	100	98	94	87
NPHP4	NM_001291593	607215	85	100	100	98	92
NPHS1	NM_004646	602716	79	100	100	98	92
NPHS2	NM_014625	604766	77	100	100	99	95
NPR2	NM_003995	108961	95	100	100	99	96
NR1I3	NM_001077470	603881	65	100	100	100	92
NR2F1	NM_005654	132890	127	100	100	100	97
NR2F2	NM_001145155	107773	191	100	100	100	100
NR5A1	NM_004959	184757	75	100	99	96	90
NRAS	NM_002524	164790	97	100	100	100	98
NRXN1	NM_001135659	600565	95	100	100	99	96
NRXN2	NM_015080	600566	83	99	96	93	86
NRXN3	NM_001272020	600567	104	100	100	100	99
NSD1	NM_172349	606681	121	100	100	99	96
NSDHL	NM_001129765	300275	94	100	100	96	91
NSUN2	NM_017755	610916	79	98	95	91	82
NT5C3A	NM_001002009	606224	47	98	88	73	46
NTRK1	NM_001007792	191315	83	100	99	97	93
NTRK2	NM_001018064	600456	95	100	100	99	97
NUBPL	NM_001201574	613621	77	100	100	98	93
NUP107	NM_020401	607617	82	100	97	93	86
NUP62	NM_001193357	605815	90	100	100	100	86
NUS1	NM_138459	610463	97	74	62	61	61
NYX	NM_022567	300278	93	100	98	96	95
OBSL1	NM_001173408	610991	89	100	100	100	98
OCLN	NM_002538	602876	101	96	92	87	85
OCRL	NM_000276	300535	83	100	99	98	92
OFD1	NM_003611	300170	50	89	77	68	50
OPHN1	NM_002547	300127	71	100	98	95	86
ORC1	NM_001190818	601902	73	100	98	92	77
ORC4	NM_001190879	603056	47	99	91	76	43
ORC6	NM_014321	607213	86	100	100	100	90
OSGEP	NM_017807	610107	101	100	98	95	93

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
OTC	NM_000531	300461	84	100	100	99	91
OTOGL	NM_173591	614925	73	100	96	88	71
OTUD6B	NM_016023	612021	71	100	99	90	74
OTX2	NM_001270523	600037	96	100	100	99	96
OXCT1	NM_000436	601424	85	100	99	98	90
P4HB	NM_000918	176790	79	100	100	97	93
PACS1	NM_018026	607492	79	100	99	98	92
PACS2	NM_001243127	610423	88	100	100	99	94
PAFAH1B1	NM_000430	601545	69	89	80	73	66
PAH	NM_000277	612349	83	100	100	100	93
PAK3	NM_001128168	300142	69	100	98	94	85
PALB2	NM_024675	610355	104	100	100	99	97
PANK2	NM_024960	606157	114	100	100	100	100
PAPSS2	NM_004670	603005	79	100	99	96	84
PARN	NM_002582	604212	82	100	100	97	86
PARP1	NM_001618	173870	66	100	99	94	84
PAX1	NM_001257096	167411	70	94	89	84	73
PAX2	NM_003987	167409	108	100	100	99	93
PAX3	NM_000438	606597	83	100	100	100	96
PAX6	NM_000280	607108	90	100	100	100	96
PAX8	NM_013992	167415	70	100	100	98	88
PAX9	NM_006194	167416	168	97	97	95	85
PC	NM_000920	608786	108	100	100	100	98
PCBD1	NM_001289797	126090	66	100	100	100	69
PCCA	NM_001127692	232000	68	99	93	89	76
PCCB	NM_000532	232050	84	100	100	100	93
PCDH19	NM_001105243	300460	146	100	100	97	90
PCGF2	NM_007144	600346	77	100	99	95	80
PCNT	NM_006031	605925	77	100	97	93	84
PCYT1A	NM_005017	123695	69	99	96	91	87
PDCD10	NM_007217	609118	71	100	99	89	77
PDE10A	NM_001130690	610652	82	100	99	99	95
PDE4D	NM_001197218	600129	84	100	100	98	89
PDE6G	NM_002602	180073	87	100	100	100	100
PDE6H	NM_006205	601190	70	100	97	77	72
PDGFRB	NM_002609	173410	87	100	98	95	89
PDHA1	NM_000284	300502	71	100	96	94	83
PDHX	NM_003477	608769	90	100	100	97	90
PDSS1	NM_014317	607429	79	97	91	87	83
PDSS2	NM_020381	610564	84	99	95	91	83
PECR	NM_018441	605843	77	100	100	100	96
PEPD	NM_001166057	613230	72	100	99	96	92
PET100	NM_001171155	614770	84	100	93	91	91
PEX1	NM_001282677	602136	84	100	99	96	89
PEX10	NM_002617	602859	77	100	93	91	89

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
PEX11B	NM_001184795	603867	68	100	100	99	96
PEX12	NM_000286	601758	91	100	100	100	100
PEX13	NM_002618	601789	109	100	100	100	100
PEX14	NM_004565	601791	78	100	99	97	90
PEX16	NM_004813	603360	93	100	100	100	98
PEX19	NM_002857	600279	72	100	99	97	87
PEX2	NM_000318	170993	111	100	100	100	100
PEX26	NM_017929	608666	102	100	100	95	83
PEX3	NM_003630	603164	65	100	99	94	74
PEX5	NM_000319	600414	67	100	99	96	84
PEX6	NM_000287	601498	101	99	95	92	86
PEX7	NM_000288	601757	83	100	96	91	83
PGAP1	NM_024989	611655	63	100	96	88	67
PGAP2	NM_001283039	615187	112	100	100	100	97
PGAP3	NM_033419	611801	67	100	98	96	90
PGK1	NM_000291	311800	48	93	87	78	46
PGM1	NM_001172818	171900	86	100	100	98	89
PGM3	NM_001199917	172100	97	100	100	99	93
PHACTR1	NM_001242648	608723	74	100	100	98	86
PHACTR2	NM_014721	608724	85	100	100	97	90
PHACTR3	NM_183246	608725	71	100	100	97	83
PHACTR4	NM_023923	608726	84	100	100	96	85
PHC1	NM_004426	602978	97	100	97	93	88
PHF10	NM_133325	613069	47	86	75	66	46
PHF21A	NM_016621	608325	65	100	99	94	74
PHF6	NM_001015877	300414	56	100	94	85	61
PHF8	NM_001184897	300560	62	100	98	94	76
PHGDH	NM_006623	606879	81	100	100	97	90
PHIP	NM_017934	612870	91	98	95	90	80
PHOX2B	NM_003924	603851	82	100	98	94	91
PIEZO1	NM_001142864	611184	105	100	99	98	94
PIEZO2	NM_022068	613629	77	100	99	97	90
PIGA	NM_002641	311770	64	94	84	76	68
PIGG	NM_001289055	616918	92	100	100	99	97
PIGL	NM_004278	605947	52	100	100	94	53
PIGN	NM_012327	606097	83	100	98	92	76
PIGO	NM_001201484	614730	105	100	100	99	96
PIGQ	NM_148920	605754	90	100	100	99	97
PIGT	NM_001184728	610272	133	100	100	100	100
PIGV	NM_017837	610274	107	100	100	100	99
PIGW	NM_178517	610275	109	100	100	99	97
PIGY	NM_001042616	610662	80	100	100	100	100
PIH1D3	NM_001169154	300933	61	100	90	74	65
PIK3CA	NM_006218	171834	75	100	100	99	93
PIK3R1	NM_181524	171833	95	100	100	98	94

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
PIK3R2	NM_005027	603157	73	95	94	92	83
PIP5K1C	NM_001300849	606102	74	97	96	95	88
PITX1	NM_002653	602149	105	98	94	91	83
PITX2	NM_001204397	601542	129	100	100	100	99
PITX3	NM_005029	602669	54	100	97	86	57
PKD1L1	NM_138295	609721	78	100	100	98	90
PKHD1	NM_138694	606702	89	100	100	98	94
PLA2G6	NM_001004426	603604	69	100	98	94	84
PLAA	NM_001031689	603873	106	100	99	95	88
PLCB1	NM_182734	607120	84	100	100	100	96
PLCB4	NM_000933	600810	79	100	98	95	84
PLCE1	NM_001288989	608414	91	100	99	98	94
PLCG2	NM_002661	600220	70	100	100	98	89
PLEC	NM_201380	601282	85	100	100	99	95
PLK4	NM_001190801	605031	76	100	98	90	77
PLOD1	NM_000302	153454	78	100	97	95	89
PLOD2	NM_000935	601865	78	100	97	92	78
PLOD3	NM_001084	603066	81	100	100	97	87
PLP1	NM_001128834	300401	71	100	99	97	80
PLXND1	NM_015103	604282	78	99	97	94	84
PMM2	NM_000303	601785	96	100	100	98	96
PMS2	NM_000535	600259	8	50	44	40	36
PNKP	NM_007254	605610	82	100	100	99	97
PNPLA1	NM_001145716	612121	102	100	100	100	99
PNPLA2	NM_020376	609059	79	100	99	99	96
PNPT1	NM_033109	610316	43	98	87	70	34
POC1A	NM_001161580	614783	76	100	100	100	98
POC1B	NM_001199777	614784	59	100	98	91	69
POGZ	NM_145796	614787	93	99	99	98	95
POLD1	NM_001256849	174761	86	98	96	93	85
POLG	NM_001126131	174763	80	100	99	98	91
POLR1A	NM_015425	616404	69	100	99	95	83
POLR1C	NM_203290	610060	76	100	99	98	97
POLR1D	NM_001206559	613715	109	100	100	100	100
POLR3A	NM_007055	614258	88	100	100	99	95
POLR3B	NM_001160708	614366	86	100	100	97	88
POMGNT1	NM_001290129	606822	85	100	100	99	93
POMGNT2	NM_032806	614828	146	100	100	100	100
POMP	NM_015932	613386	83	100	94	92	78
POMT1	NM_007171	607423	77	100	98	97	92
POMT2	NM_013382	607439	76	100	99	97	93
PORCN	NM_203475	300651	91	100	100	99	92
POT1	NM_015450	606478	60	100	98	89	64
POU1F1	NM_001122757	173110	75	100	97	95	93
PPA2	NM_176866	609988	91	100	95	88	76

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
PPM1D	NM_003620	605100	110	100	100	99	97
PPP1CB	NM_206876	600590	69	100	100	94	78
PPP1R15B	NM_032833	613257	104	100	100	99	98
PPP2R1A	NM_014225	605983	100	100	100	99	96
PPP2R5D	NM_001270476	601646	125	100	100	100	100
PPP3CA	NM_000944	114105	85	100	97	93	87
PPT1	NM_000310	600722	105	100	100	100	100
PQBP1	NM_001032381	300463	116	100	100	100	100
PRDM12	NM_021619	616458	68	90	88	84	74
PRDM6	NM_001136239	616982	79	100	89	83	81
PREPL	NM_001171613	609557	77	100	99	95	84
PRKAR1A	NM_001278433	188830	62	98	90	83	64
PRKD1	NM_002742	605435	103	100	99	96	89
PRMT7	NM_001184824	610087	76	100	100	98	90
PRMT9	NM_138364	616125	96	100	100	98	97
PROP1	NM_006261	601538	82	91	84	79	63
PROSC	NM_007198	NA	77	100	95	93	84
PROX2	NM_001243007	615094	115	100	100	97	89
PRPS1	NM_001204402	311850	79	100	100	100	100
PRRT2	NM_001256443	614386	94	100	100	100	100
PRRX1	NM_022716	167420	72	100	100	98	92
PRSS12	NM_003619	606709	88	100	100	99	93
PRSS56	NM_001195129	613858	66	100	98	93	78
PRUNE	NM_021222	NA	85	100	100	98	90
PSAP	NM_001042465	176801	76	100	100	98	92
PSAT1	NM_021154	610936	39	94	78	64	35
PSMA7	NM_002792	606607	84	100	100	98	89
PSMB8	NM_148919	177046	96	100	100	97	85
PSMD12	NM_002816	604450	71	100	94	86	75
PSPH	NM_004577	172480	80	100	100	97	94
PTCH1	NM_001083604	601309	78	100	99	98	93
PTCHD1	NM_173495	300828	116	100	100	100	99
PTDSS1	NM_001290225	612792	93	100	100	100	86
PTEN	NM_000314	601728	94	100	97	89	78
PTF1A	NM_178161	607194	102	99	90	81	72
PTH	NM_000315	168450	88	100	100	96	93
PTH1R	NM_000316	168468	82	100	100	98	93
PTHLH	NM_002820	168470	121	100	100	100	100
PTPN11	NM_002834	176876	82	99	94	88	77
PTPN14	NM_005401	603155	98	99	97	96	92
PTPRF	NM_002840	179590	110	100	100	99	97
PTRH2	NM_016077	608625	142	100	100	100	100
PTS	NM_000317	612719	92	100	99	96	89
PUF60	NM_001271099	604819	124	100	100	99	98
PURA	NM_005859	600473	156	99	89	87	85

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
PVRL1	NM_203286	NA	84	100	100	100	99
PVRL4	NM_030916	NA	74	100	100	99	96
PXDN	NM_012293	605158	95	100	100	97	87
PYCR1	NM_153824	179035	65	100	98	93	74
PYCR2	NM_013328	616406	93	100	99	98	95
PYGL	NM_002863	613741	93	100	100	100	93
PYROXD1	NM_024854	617220	44	91	76	65	45
QARS	NM_001272073	603727	125	100	100	100	99
QDPR	NM_000320	612676	72	100	100	97	74
QKI	NM_001301085	609590	83	100	100	100	99
QRICH1	NM_017730	617387	108	100	99	96	83
RAB11A	NM_001206836	605570	107	100	100	100	98
RAB11B	NM_004218	604198	108	100	100	100	100
RAB18	NM_001256412	602207	81	100	99	91	83
RAB23	NM_001278666	606144	81	100	100	93	72
RAB39B	NM_171998	300774	82	100	100	100	100
RAB3GAP1	NM_001172435	602536	80	100	99	97	88
RAB3GAP2	NM_012414	609275	72	100	97	90	77
RAB40AL	NM_001031834	300405	108	100	100	100	100
RABL6	NM_001173989	610615	70	100	100	97	82
RAC1	NM_018890	602048	70	100	96	89	81
RAD21	NM_006265	606462	60	98	94	84	63
RAD50	NM_005732	604040	65	97	91	82	65
RAD51	NM_001164270	179617	77	100	100	100	94
RAD51C	NM_002876	602774	96	100	100	100	100
RAF1	NM_002880	164760	87	100	100	99	95
RAI1	NM_030665	607642	139	100	100	100	99
RALGDS	NM_001271775	601619	73	100	99	97	88
RANBP2	NM_006267	601181	0	12	12	11	11
RAPGEF1	NM_005312	600303	68	100	100	97	89
RAPSN	NM_005055	601592	82	100	95	95	92
RARB	NM_001290216	180220	77	100	100	100	97
RARS2	NM_020320	611524	86	100	100	98	83
RASA1	NM_022650	139150	80	98	93	83	65
RAX	NM_013435	601881	76	100	90	82	76
RBBP8	NM_002894	604124	84	100	100	96	84
RBM10	NM_001204466	300080	114	100	99	98	96
RBM28	NM_018077	612074	85	100	100	100	98
RBM8A	NM_005105	605313	79	100	100	99	95
RBPJ	NM_005349	147183	100	97	90	81	69
RECQL4	NM_004260	603780	118	100	100	99	97
RELN	NM_005045	600514	87	100	100	98	92
RERE	NM_001042682	605226	66	96	88	77	62
RET	NM_020975	164761	73	100	98	92	82
RFT1	NM_052859	611908	74	100	100	97	88

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
RFX6	NM_173560	612659	96	100	100	98	90
RGS7	NM_001282778	602517	87	100	100	97	91
RIN2	NM_001242581	610222	88	100	100	99	94
RIPK4	NM_020639	605706	86	100	100	98	95
RIT1	NM_001256820	609591	87	100	100	100	100
RLIM	NM_016120	300379	103	100	99	94	91
RMND1	NM_001271937	614917	66	100	100	97	75
RMRP	NA	NA	NA	NA	NA	NA	NA
RNASEH2A	NM_006397	606034	89	100	100	99	98
RNASEH2B	NM_001142279	610326	79	99	95	90	81
RNASEH2C	NM_032193	610330	159	100	100	100	100
RNASET2	NM_003730	612944	79	98	95	94	93
RNF113A	NM_006978	300951	114	100	100	100	100
RNF135	NM_032322	611358	66	100	100	98	88
RNF168	NM_152617	612688	113	100	100	94	87
RNU4ATAC	NA	NA	NA	NA	NA	NA	NA
ROBO3	NM_022370	608630	81	100	97	93	80
ROGDI	NM_024589	614574	75	100	99	99	97
ROR2	NM_004560	602337	96	100	100	99	94
RPE65	NM_000329	180069	99	100	100	99	95
RPGRIP1	NM_020366	605446	88	100	100	99	95
RPGRIP1L	NM_001127897	610937	85	100	98	92	80
RPL10	NM_001256577	312173	90	100	98	95	82
RPS19	NM_001022	603474	68	100	98	91	72
RPS23	NM_001025	603683	77	92	84	77	59
RPS26	NM_001029	603701	105	99	94	91	89
RPS28	NM_001031	603685	75	100	96	92	89
RPS6KA3	NM_004586	300075	67	99	92	84	67
RRAS	NM_006270	165090	76	100	96	92	82
RRM2B	NM_015713	604712	98	100	100	98	91
RSPH1	NM_080860	609314	103	100	100	99	94
RSPH3	NM_031924	615876	101	100	98	93	89
RSPO4	NM_001029871	610573	68	100	100	100	96
RSPRY1	NM_133368	616585	78	100	100	99	93
RTEL1	NM_016434	608833	93	100	98	96	89
RTN4IP1	NM_032730	610502	64	100	99	95	73
RTTN	NM_173630	610436	81	99	98	95	89
RUNX2	NM_001015051	600211	86	100	100	100	99
RYR1	NM_000540	180901	79	99	97	94	87
RYR3	NM_001036	180903	89	100	99	97	92
SACS	NM_001278055	604490	111	100	100	100	99
SALL1	NM_001127892	602218	111	100	100	98	91
SALL4	NM_020436	607343	104	100	97	95	92
SAMD9L	NM_152703	611170	125	100	100	100	100
SAMHD1	NM_015474	606754	89	100	99	92	80

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
SATB2	NM_001172509	608148	78	100	97	90	84
SBDS	NM_016038	607444	110	100	100	100	98
SC5D	NM_006918	602286	92	100	100	98	96
SCAPER	NM_001145923	611611	90	98	98	96	90
SCARF2	NM_153334	613619	84	98	93	87	81
SCN11A	NM_001287223	604385	83	100	98	95	83
SCN1A	NM_001165963	182389	90	100	99	95	84
SCN1B	NM_001037	600235	107	100	96	96	96
SCN2A	NM_001040142	182390	94	100	97	94	88
SCN3A	NM_001081676	182391	108	100	99	95	90
SCN4A	NM_000334	603967	112	100	99	98	93
SCN8A	NM_001177984	600702	103	100	100	99	97
SCO1	NM_004589	603644	91	100	99	96	82
SCO2	NM_001169109	604272	90	100	100	100	98
SCRIB	NM_182706	607733	94	100	99	98	93
SCYL1	NM_001048218	607982	102	100	100	100	97
SDCCAG8	NM_006642	613524	79	100	100	97	91
SDHA	NM_001294332	600857	75	81	76	72	66
SDHAF1	NM_001042631	612848	54	100	100	100	95
SEC23A	NM_006364	610511	76	100	98	94	81
SEC23B	NM_006363	610512	86	100	98	97	93
SEC24D	NM_014822	607186	77	100	100	97	87
SEC61A1	NM_013336	609213	76	100	100	99	97
SECISBP2	NM_001282688	607693	77	100	98	93	85
SERAC1	NM_032861	614725	79	100	99	94	87
SET	NM_001248000	600960	53	96	91	85	59
SETBP1	NM_001130110	611060	90	100	100	96	87
SETD1A	NM_014712	611052	103	100	99	97	94
SETD5	NM_001080517	615743	92	100	100	100	99
SF3B4	NM_005850	605593	72	100	99	91	83
SGCE	NM_001099400	604149	65	100	96	91	69
SGSH	NM_000199	605270	95	96	95	93	90
SH3BP2	NM_001122681	602104	89	100	100	100	95
SH3PXD2B	NM_001017995	613293	98	100	100	98	87
SHANK1	NM_016148	604999	65	95	87	81	69
SHANK2	NM_133266	603290	97	100	100	99	95
SHANK3	NM_033517	606230	88	94	88	83	76
SHH	NM_000193	600725	66	100	99	97	90
SHOC2	NM_007373	602775	99	100	100	97	88
SHOX	NM_000451	312865	0	0	0	0	0
SHROOM3	NM_020859	604570	110	100	99	97	94
SHROOM4	NM_020717	300579	83	100	99	97	89
SIK1	NM_173354	605705	85	99	97	93	84
SIL1	NM_001037633	608005	86	100	98	96	88
SIN3A	NM_001145357	607776	82	100	99	95	86

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
SIX1	NM_005982	601205	97	100	96	91	86
SIX3	NM_005413	603714	139	100	99	95	89
SIX5	NM_175875	600963	45	99	88	74	41
SIX6	NM_007374	606326	193	100	100	100	100
SKI	NM_003036	164780	84	100	98	93	90
SKIV2L	NM_006929	600478	102	100	100	99	97
SLC12A1	NM_000338	600839	87	100	100	99	95
SLC12A5	NM_020708	606726	89	100	100	99	92
SLC12A6	NM_001042494	604878	76	100	100	100	96
SLC13A5	NM_001284509	608305	78	100	100	99	95
SLC16A2	NM_006517	300095	45	98	88	75	37
SLC17A5	NM_012434	604322	82	100	96	95	89
SLC19A3	NM_025243	606152	111	100	100	100	99
SLC1A2	NM_004171	600300	81	100	98	93	80
SLC1A4	NM_001193493	600229	87	100	100	99	97
SLC22A5	NM_003060	603377	84	100	100	100	98
SLC24A1	NM_001254740	603617	103	100	100	100	92
SLC24A4	NM_153648	609840	69	100	100	97	83
SLC25A15	NM_014252	603861	73	99	95	91	89
SLC25A19	NM_001126121	606521	61	100	97	91	73
SLC25A20	NM_000387	613698	62	100	100	98	86
SLC25A22	NM_001191060	609302	95	100	100	98	93
SLC25A24	NM_013386	608744	86	100	100	95	88
SLC25A26	NM_001164796	611037	78	100	97	96	86
SLC25A38	NM_017875	610819	79	100	97	93	85
SLC25A4	NM_001151	103220	91	100	100	98	84
SLC26A2	NM_000112	606718	151	100	100	100	99
SLC27A4	NM_005094	604194	88	100	100	100	99
SLC2A1	NM_006516	138140	111	100	100	100	97
SLC2A10	NM_030777	606145	114	100	100	98	91
SLC2A2	NM_000340	138160	109	100	100	100	99
SLC31A1	NM_001859	603085	77	98	93	89	87
SLC33A1	NM_001190992	603690	112	99	95	90	88
SLC35A1	NM_001168398	605634	92	100	100	98	88
SLC35A2	NM_001282648	314375	76	100	100	100	97
SLC35C1	NM_001145265	605881	129	100	100	98	95
SLC35D1	NM_015139	610804	106	100	97	90	78
SLC39A13	NM_001128225	608735	105	100	100	96	92
SLC39A8	NM_001135146	608732	86	100	100	100	94
SLC45A1	NM_001080397	605763	82	100	100	98	96
SLC46A1	NM_080669	611672	107	100	99	90	77
SLC4A1	NM_000342	109270	83	100	100	99	98
SLC4A11	NM_001174089	610206	103	100	100	99	97
SLC4A4	NM_003759	603345	81	100	99	97	92
SLC52A3	NM_033409	613350	80	100	100	98	86

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
SLC5A5	NM_000453	601843	76	100	100	95	89
SLC5A7	NM_021815	608761	79	100	100	98	87
SLC6A1	NM_003042	137165	79	100	100	99	93
SLC6A17	NM_001010898	610299	90	100	100	99	97
SLC6A3	NM_001044	126455	83	100	100	99	95
SLC6A5	NM_004211	604159	74	100	100	99	89
SLC6A8	NM_001142806	300036	55	99	93	84	63
SLC6A9	NM_001024845	601019	99	100	100	100	100
SLC9A6	NM_001177651	300231	74	99	94	88	75
SLC9A9	NM_173653	608396	74	100	99	94	87
SLX4	NM_032444	613278	91	100	100	98	95
SMAD2	NM_001003652	601366	97	100	100	98	92
SMAD3	NM_001145102	603109	93	100	100	98	87
SMAD4	NM_005359	600993	77	100	100	98	95
SMARCA2	NM_001289400	600014	78	100	100	100	92
SMARCA4	NM_001128844	603254	89	100	100	99	97
SMARCAL1	NM_014140	606622	79	100	100	97	93
SMARCB1	NM_001007468	601607	99	100	100	100	100
SMARCE1	NM_003079	603111	63	99	91	85	71
SMC1A	NM_001281463	300040	76	100	100	98	93
SMC3	NM_005445	606062	68	98	91	83	66
SMCHD1	NM_015295	614982	65	100	97	91	73
SMG9	NM_019108	613176	65	100	100	99	91
SMO	NM_005631	601500	89	100	98	95	91
SMOC1	NM_022137	608488	71	100	98	94	79
SMOC2	NM_001166412	607223	77	100	98	93	81
SMPD1	NM_001007593	607608	106	100	99	96	89
SMS	NM_001258423	300105	66	90	81	75	65
SNAP25	NM_003081	600322	79	100	100	96	89
SNAP29	NM_004782	604202	91	100	100	100	100
SNIP1	NM_024700	608241	93	100	99	96	95
SNORD107	NA	NA	NA	NA	NA	NA	NA
SNORD108	NA	NA	NA	NA	NA	NA	NA
SNORD109A	NA	NA	NA	NA	NA	NA	NA
SNORD109B	NA	NA	NA	NA	NA	NA	NA
SNORD116@	NA	NA	NA	NA	NA	NA	NA
SNORD118	NA	NA	NA	NA	NA	NA	NA
SNORD64	NA	NA	NA	NA	NA	NA	NA
SNRPB	NM_198216	182282	65	100	100	97	88
SNRPE	NM_003094	128260	71	100	96	88	83
SNRPN	NM_022806	182279	106	100	99	91	83
SNURF	NM_022804	NA	111	100	100	100	95
SNX14	NM_020468	616105	58	100	94	82	60
SNX3	NM_152827	605930	91	100	100	92	86
SOBP	NM_018013	613667	107	99	96	93	86

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
SON	NM_001291411	182465	131	100	97	94	89
SOS1	NM_005633	182530	70	100	97	90	76
SOX10	NM_006941	602229	61	100	98	90	67
SOX11	NM_003108	600898	120	100	100	100	97
SOX17	NM_022454	610928	82	100	100	100	100
SOX2	NM_003106	184429	151	100	100	100	99
SOX3	NM_005634	313430	59	95	80	73	56
SOX5	NM_001261415	604975	65	100	98	92	72
SOX9	NM_000346	608160	100	100	100	98	92
SPAG1	NM_172218	603395	76	100	95	85	66
SPARC	NM_003118	182120	93	100	100	100	89
SPATA5	NM_145207	613940	90	100	100	98	87
SPECC1L	NM_001254732	614140	95	100	100	99	94
SPEG	NM_001173476	615950	75	100	100	95	92
SPG11	NM_025137	610844	82	100	98	93	82
SPG20	NM_001142294	NA	92	100	98	93	92
SPR	NM_003124	182125	109	100	100	94	71
SPRED1	NM_152594	609291	114	100	98	97	97
SPRTN	NM_001010984	616086	104	100	100	100	100
SPRY2	NM_005842	602466	97	100	100	100	100
SPTAN1	NM_001195532	182810	88	100	100	98	93
SPTLC2	NM_004863	605713	88	100	100	100	99
SRCAP	NM_006662	611421	87	100	100	99	97
SRD5A3	NM_024592	611715	78	100	99	97	94
SRGAP3	NM_001033117	606525	68	100	100	98	89
SRPX2	NM_014467	300642	56	100	98	90	64
SRY	NM_003140	480000	42	100	100	86	0
ST14	NM_021978	606797	84	100	99	98	97
ST3GAL3	NM_001270463	606494	92	100	100	100	97
ST3GAL5	NM_001042437	604402	114	100	100	95	78
STAG1	NM_005862	604358	79	100	96	88	73
STAMBP	NM_201647	606247	77	100	98	93	85
STAR	NM_000349	600617	78	100	100	100	99
STAT1	NM_007315	600555	77	100	98	97	88
STAT2	NM_005419	600556	91	100	100	99	96
STAT5B	NM_012448	604260	90	99	96	93	86
STIL	NM_001282938	181590	106	100	100	97	90
STIM1	NM_001277962	605921	82	100	97	92	87
STRA6	NM_001199040	610745	79	100	100	99	93
STS	NM_000351	300747	75	100	97	94	79
STT3A	NM_001278503	601134	90	100	100	99	90
STT3B	NM_178862	608605	80	100	99	95	83
STX1B	NM_052874	601485	145	100	100	96	88
STXBP1	NM_001032221	602926	76	100	100	99	91
SUCLA2	NM_003850	603921	59	96	88	78	63

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
SUCLG1	NM_003849	611224	77	100	100	96	85
SUFU	NM_016169	607035	78	100	100	98	96
SUMF1	NM_182760	607939	73	100	98	91	79
SUMO1	NM_001005782	601912	23	83	63	40	0
SUOX	NM_000456	606887	119	100	100	100	99
SURF1	NM_001280787	185620	67	100	100	100	97
SUV420H1	NM_001300908	NA	144	100	100	99	98
SYN1	NM_133499	313440	66	93	88	85	72
SYNE1	NM_182961	608441	81	100	99	97	89
SYNGAP1	NM_006772	603384	83	97	96	91	79
SYP	NM_003179	313475	61	100	100	97	84
SYT1	NM_001135805	185605	103	100	99	98	95
SYT14	NM_001256006	610949	121	100	100	95	94
SZT2	NM_015284	615463	101	100	100	99	97
TAB2	NM_001292035	605101	164	100	100	97	90
TAC3	NM_013251	162330	64	100	100	91	81
TACO1	NM_016360	612958	55	99	94	83	59
TACR3	NM_001059	162332	101	100	100	99	97
TAF1	NM_001286074	313650	80	100	98	96	90
TAF13	NM_005645	600774	65	100	100	100	82
TAF2	NM_003184	604912	83	100	97	91	74
TANC2	NM_025185	615047	90	100	99	98	93
TANGO2	NM_001283215	616830	103	100	100	98	95
TAPT1	NM_153365	612758	75	95	92	86	73
TARS2	NM_001271895	612805	83	100	99	95	89
TAT	NM_000353	613018	86	100	100	100	96
TAZ	NM_181311	300394	68	100	100	100	91
TBC1D23	NM_001199198	617687	67	97	95	88	70
TBC1D24	NM_001199107	613577	119	100	100	100	98
TBCD	NM_005993	604649	80	98	96	94	88
TBCE	NM_001079515	604934	80	100	100	99	95
TBCK	NM_033115	616899	67	100	96	88	73
TBL1XR1	NM_024665	608628	58	96	80	68	60
TBR1	NM_006593	604616	102	100	100	100	95
TBX1	NM_005992	602054	80	94	90	87	83
TBX15	NM_152380	604127	81	100	100	100	93
TBX18	NM_001080508	604613	70	100	96	91	76
TBX20	NM_001077653	606061	72	100	100	98	87
TBX22	NM_001109879	300307	98	100	96	93	84
TBX3	NM_016569	601621	77	100	97	92	76
TBX4	NM_018488	601719	100	99	98	96	93
TBX5	NM_000192	601620	84	100	100	100	100
TBXAS1	NM_001130966	274180	82	100	100	100	96
TCF12	NM_003205	600480	79	100	100	100	95
TCF20	NM_005650	603107	99	100	100	100	100

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
TCF4	NM_001243226	602272	77	100	100	99	93
TCN2	NM_000355	613441	80	100	100	100	99
TCOF1	NM_000356	606847	89	100	99	98	92
TCTN1	NM_001173975	609863	65	100	99	96	84
TCTN2	NM_001143850	613846	83	100	99	97	86
TCTN3	NM_001143973	613847	80	100	100	100	96
TDRD7	NM_014290	611258	103	100	99	96	88
TECPR2	NM_014844	615000	85	100	100	99	94
TECR	NM_138501	610057	78	100	100	99	98
TEK	NM_000459	600221	99	100	100	99	93
TELO2	NM_016111	611140	74	100	97	93	83
TERC	NA	NA	NA	NA	NA	NA	NA
TERT	NM_198253	187270	83	100	97	95	92
TFAP2A	NM_003220	107580	84	100	98	93	90
TFAP2B	NM_003221	601601	85	100	97	96	88
TFRC	NM_001128148	190010	88	100	99	97	86
TGDS	NM_014305	616146	64	100	95	83	60
TGFB1	NM_000660	190180	78	100	98	91	77
TGFB2	NM_001135599	190220	90	100	100	99	97
TGFB3	NM_003239	190230	100	100	100	100	100
TGFBR1	NM_004612	190181	94	92	92	92	92
TGFBR2	NM_001024847	190182	95	100	100	100	100
TGIF1	NM_174886	602630	108	100	100	100	100
TH	NM_000360	191290	60	100	98	93	76
THAP1	NM_018105	609520	84	100	100	100	99
THOC2	NM_001081550	300395	66	100	96	87	70
THOC6	NM_001142350	615403	179	100	100	100	100
THRA	NM_199334	190120	92	100	100	99	97
TIMM8A	NM_001145951	300356	61	100	100	93	85
TINF2	NM_001099274	604319	106	100	100	100	100
TK2	NM_001172643	188250	84	100	100	100	95
TKT	NM_001135055	606781	81	100	99	96	90
TLK2	NM_001284333	608439	82	99	96	91	82
TLL1	NM_012464	606742	82	100	100	99	94
TM4SF20	NM_024795	615404	101	100	100	100	100
TMCO1	NM_001256165	614123	80	100	98	93	86
TMEM114	NM_001290095	611579	85	100	100	100	100
TMEM126B	NM_001193537	615533	64	100	97	93	70
TMEM135	NM_001168724	616360	84	100	98	92	83
TMEM165	NM_018475	614726	88	100	100	97	95
TMEM199	NM_152464	616815	63	100	100	99	94
TMEM216	NM_001173991	613277	69	100	97	93	80
TMEM231	NM_001077418	614949	74	100	99	94	90
TMEM237	NM_152388	614423	77	100	99	98	89
TMEM260	NM_017799	617449	85	99	94	88	78

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
TMEM5	NM_014254	NA	102	100	97	89	78
TMEM67	NM_001142301	609884	57	99	92	80	63
TMEM70	NM_017866	612418	65	100	94	91	76
TMEM8C	NM_001080483	NA	81	100	100	100	99
TMPRSS6	NM_153609	609862	72	100	99	95	84
TMTC3	NM_181783	617218	60	100	95	83	61
TNFRSF13B	NM_012452	604907	64	100	100	95	86
TNNI2	NM_003282	191043	74	100	100	100	92
TNPO2	NM_001136195	603002	95	100	100	100	99
TOE1	NM_025077	613931	110	100	100	100	99
TP63	NM_001114978	603273	96	100	100	100	100
TPM2	NM_001301227	190990	98	100	100	100	98
TPP1	NM_000391	607998	85	100	100	100	95
TRAIP	NM_005879	605958	96	100	100	100	93
TRAPPC11	NM_199053	614138	86	100	99	97	91
TRAPPC12	NM_016030	614139	96	100	100	100	91
TRAPPC2	NM_001128835	300202	72	95	79	70	59
TRAPPC9	NM_031466	611966	75	100	100	99	90
TREX1	NM_007248	606609	146	100	100	100	100
TRIM32	NM_001099679	602290	99	100	100	100	99
TRIM37	NM_001005207	605073	75	100	99	98	89
TRIO	NM_007118	601893	82	99	97	95	88
TRIP11	NM_004239	604505	82	97	89	79	63
TRIP12	NM_001284214	604506	90	100	99	98	94
TRIP13	NM_001166260	604507	88	100	100	100	93
TRIP4	NM_016213	604501	74	100	99	93	85
TRIT1	NM_017646	617840	69	100	100	99	91
TRMT1	NM_001136035	611669	86	100	98	96	94
TRMT10A	NM_001134665	616013	82	100	100	92	75
TRMT10C	NM_017819	615423	92	100	100	100	97
TRPM1	NM_001252020	603576	86	100	99	97	89
TRPS1	NM_001282902	604386	128	100	100	100	100
TRPV3	NM_001258205	607066	80	100	100	96	85
TRPV4	NM_001177431	605427	77	100	100	99	96
TSC1	NM_001162426	605284	82	100	99	95	90
TSC2	NM_000548	191092	105	100	100	99	94
TSEN15	NM_001300766	608756	62	100	96	90	76
TSEN2	NM_001145394	608753	85	100	99	95	80
TSEN34	NM_001282333	608754	74	99	95	91	85
TSEN54	NM_207346	608755	78	99	98	96	93
TSHB	NM_000549	188540	149	100	100	100	100
TSHR	NM_000369	603372	109	100	98	97	93
TSHZ1	NM_005786	614427	128	100	100	98	97
TSPAN7	NM_004615	300096	77	100	100	98	83
TSR2	NM_058163	300945	57	100	100	98	82

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
TTC19	NM_001271420	613814	75	100	98	95	86
TTC25	NM_031421	617095	74	100	100	97	90
TTC37	NM_014639	614589	75	100	100	97	89
TTC7A	NM_001288951	609332	73	100	97	95	90
TTC8	NM_198310	608132	80	100	99	94	83
TTI2	NM_001102401	614426	73	100	100	97	86
TTN	NM_133437	188840	136	100	100	100	99
TUBA1A	NM_006009	602529	77	100	99	93	85
TUBA8	NM_001193414	605742	104	100	100	98	94
TUBB	NM_001293213	191130	106	100	98	97	95
TUBB2A	NM_001069	615101	55	85	72	62	53
TUBB2B	NM_178012	612850	57	85	78	82	56
TUBB3	NM_001197181	602661	83	100	100	100	97
TUBB4A	NM_001289130	602662	105	100	100	100	88
TUBG1	NM_001070	191135	92	100	100	100	100
TUBGCP4	NM_014444	609610	76	99	98	95	86
TUBGCP6	NM_020461	610053	107	100	99	98	96
TUFM	NM_003321	602389	120	100	100	98	95
TUSC3	NM_006765	601385	91	100	100	99	94
TWIST1	NM_000474	601622	125	100	91	83	66
TWIST2	NM_001271893	607556	94	100	100	100	100
TXNL4A	NM_006701	611595	75	100	100	100	83
TYR	NM_000372	606933	101	100	100	100	100
TYRP1	NM_000550	115501	102	100	100	100	99
UBA5	NM_198329	610552	88	100	91	81	69
UBE2A	NM_181762	312180	90	100	100	100	100
UBE2T	NM_014176	610538	98	100	100	98	91
UBE3A	NM_000462	601623	74	99	94	87	76
UBE3B	NM_130466	608047	81	100	100	98	89
UBR1	NM_174916	605981	79	100	98	93	80
UBR7	NM_175748	613816	82	100	100	98	89
UBTF	NM_001076683	600673	90	100	100	99	98
UGT1A1	NM_000463	191740	119	100	100	100	99
UMPS	NM_000373	613891	117	100	100	98	97
UNC80	NM_182587	612636	76	100	99	97	89
UPB1	NM_016327	606673	88	100	100	98	97
UPF3B	NM_080632	300298	53	94	85	69	52
UQCRB	NM_001254752	191330	89	100	100	98	91
UQCRQ	NM_014402	612080	99	100	100	100	100
UROC1	NM_001165974	613012	76	100	100	98	90
UROS	NM_000375	606938	78	100	100	99	88
USB1	NM_001195302	613276	72	100	100	100	88
USP18	NM_017414	607057	54	58	58	56	52
USP27X	NM_001145073	300975	138	100	100	100	100
USP7	NM_001286457	602519	69	97	94	87	76

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
USP9X	NM_001039590	300072	79	99	95	88	74
UVSSA	NM_020894	614632	80	100	100	99	93
VAC14	NM_018052	604632	65	100	98	94	80
VANGL1	NM_001172411	610132	88	100	100	99	98
VARS2	NM_001167734	612802	87	100	100	99	94
VDR	NM_000376	601769	64	100	100	99	95
VIP	NM_003381	192320	78	100	100	100	100
VIPAS39	NM_001193314	613401	83	100	100	99	94
VLDLR	NM_003383	192977	115	100	100	99	96
VPS13B	NM_017890	607817	87	100	98	95	89
VPS33B	NM_001289149	608552	78	100	100	100	98
VRK1	NM_003384	602168	77	100	97	95	85
VSX2	NM_182894	142993	70	100	100	98	94
WAC	NM_100264	615049	103	100	98	95	89
WDPCP	NM_015910	613580	90	100	96	92	79
WDR11	NM_018117	606417	77	98	97	95	86
WDR19	NM_025132	608151	81	100	99	95	86
WDR26	NM_001115113	617424	79	99	97	92	73
WDR34	NM_052844	613363	65	100	100	98	86
WDR35	NM_001006657	613602	85	100	99	97	87
WDR45	NM_001029896	300526	66	99	97	94	91
WDR45B	NM_019613	609226	60	99	91	85	72
WDR60	NM_018051	615462	76	100	98	94	86
WDR62	NM_001083961	613583	106	100	100	99	92
WDR73	NM_032856	616144	135	100	100	99	94
WDR81	NM_001163809	614218	116	100	100	99	97
WNK3	NM_001002838	300358	86	100	99	95	87
WNT1	NM_005430	164820	159	100	100	93	93
WNT10B	NM_003394	601906	124	100	100	100	99
WNT3	NM_030753	165330	104	100	98	94	82
WNT4	NM_030761	603490	119	95	95	95	94
WNT5A	NM_001256105	164975	100	100	100	100	96
WNT7A	NM_004625	601570	116	100	100	100	98
WRAP53	NM_001143990	612661	90	100	100	100	98
WT1	NM_001198552	607102	73	100	99	94	81
WWOX	NM_001291997	605131	92	100	100	100	99
XPA	NM_000380	611153	45	100	98	79	38
XPC	NM_004628	613208	90	100	100	98	91
XPNPEP3	NM_022098	613553	86	100	100	99	91
XRCC4	NM_003401	194363	86	100	100	98	89
XYLT1	NM_022166	608124	83	97	91	89	83
XYLT2	NM_022167	608125	109	100	98	96	95
YAP1	NM_001282097	606608	83	99	95	90	80
YWHAG	NM_012479	605356	127	100	100	99	86
YY1	NM_003403	600013	84	100	100	97	84

HGNC approved gene symbol	Transcript	OMIM gene ID	median depth	% covered >10x	% covered >20x	% covered >30x	% covered >50x
ZBTB16	NM_006006	176797	99	100	100	99	98
ZBTB18	NM_205768	608433	140	100	99	98	97
ZBTB20	NM_001164342	606025	131	100	100	100	100
ZBTB24	NM_014797	614064	98	100	100	100	99
ZBTB40	NM_001083621	612106	79	100	99	96	92
ZC4H2	NM_018684	300897	62	100	99	93	76
ZCCHC8	NM_017612	616381	84	100	99	93	84
ZDHHC15	NM_144969	300576	71	100	96	95	88
ZDHHC9	NM_001008222	300646	43	100	95	80	31
ZEB1	NM_001128128	189909	105	100	100	99	96
ZEB2	NM_014795	605802	110	100	100	99	97
ZFP57	NM_001109809	612192	87	100	100	98	96
ZFPM2	NM_012082	603693	156	100	100	99	97
ZFYVE26	NM_015346	612012	72	100	99	94	81
ZIC1	NM_003412	600470	171	100	100	100	100
ZIC2	NM_007129	603073	85	97	95	92	88
ZIC3	NM_003413	300265	115	100	100	100	98
ZMPSTE24	NM_005857	606480	75	100	100	98	90
ZMYM6	NM_007167	613567	88	100	99	96	94
ZMYND10	NM_015896	607070	89	100	100	100	97
ZMYND11	NM_212479	608668	85	100	100	98	93
ZNF335	NM_022095	610827	94	100	100	99	97
ZNF41	NM_007130	314995	70	100	100	99	94
ZNF462	NM_021224	617371	138	100	100	99	97
ZNF526	NM_133444	614387	115	100	100	100	100
ZNF592	NM_014630	613624	111	100	100	100	99
ZNF599	NM_001007248	NA	101	100	100	100	99
ZNF674	NM_001146291	300573	77	100	100	97	92
ZNF711	NM_021998	314990	87	100	98	93	86
ZNF713	NM_182633	616181	92	100	100	100	92
ZNF750	NM_024702	610226	120	100	100	100	99
ZNF81	NM_007137	314998	71	100	96	91	74
ZSWIM6	NM_020928	615951	92	95	92	90	83