

List of genes and the expressions included in the derivation of models

No.	HGNC symbol	log2 (fold change)	P value
1	A2ML1	0.107749	0.546712
2	ABCA13	0.168678	0.106603
3	ABCC12	0.204378	0.382756
4	ABHD11	0.013411	0.793824
5	ABRA	-0.27597	0.251709
6	ACACB	-0.02112	0.65127
7	ACAP2	0.011749	0.81426
8	ACVR1C	-0.0434	0.527109
9	ADAM21	0.021996	0.825973
10	ADAM32	0.251231	0.01765
11	ADAMTS15	0.034573	0.608829
12	ADAMTS17	-0.01115	0.845471
13	ADAMTS18	0.123477	0.322144
14	ADAMTS19	-0.10266	0.785979
15	ADAMTS20	0.202951	0.435478
16	ADAMTSL1	-0.0495	0.433574
17	ADGRF2	0.257533	0.417458
18	ADGRF3	0.003804	0.964744
19	ADGRF4	0.280307	0.271079
20	ADGRG4	0.418536	0.227989
21	ADGRG6	-0.03539	0.464811
22	ADGRG7	-0.0051	0.937301
23	ADPRHL1	0.057776	0.348282
24	AFG1L	-0.01518	0.792847
25	AGBL1	-0.02299	0.984707
26	AGBL4	0.202204	0.139423
27	AK9	0.026459	0.664093
28	AKNAD1	0.606008	0.000748
29	ALG10	0.020813	0.738713
30	ALKBH5	-0.01112	0.809879
31	AMER1	-0.00525	0.924928
32	AMER3	-0.03263	0.931132
33	AMMECR1	0.015428	0.777063
34	ANGPT1	0.054145	0.379729
35	ANKAR	-0.01654	0.795036
36	ANKFN1	0.097038	0.67936
37	ANKLE1	0.040396	0.619465
38	ANLN	0.088554	0.100788
39	ARHGAP42	0.004018	0.942
40	ARHGAP5	0.00582	0.904053
41	ARID2	0.004584	0.929947
42	ARL10	0.038715	0.525532

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43	ARL11	0.045037	0.523209
44	ARMCX4	-0.00799	0.892265
45	ARPP21	-0.04409	0.721571
46	ARSG	-0.01857	0.747765
47	ART5	0.354336	0.018036
48	ASB10	-0.09085	0.908221
49	ASB11	0.122449	0.501096
50	ASB14	0.030491	0.681992
51	ASB16	0.00186	0.978976
52	ATG9B	0.05264	0.459226
53	ATM	-0.02106	0.67473
54	ATOH7	-0.11734	0.204502
55	ATP6V0D2	0.182883	0.033932
56	ATP6V1C2	0.040769	0.530028
57	ATP6V1E2	0.018345	0.758746
58	ATRIP	0.006013	0.959686
59	AXDND1	0.152665	0.124293
60	B3GNT6	-0.10504	0.791763
61	B3GNT7	0.110077	0.088363
62	B4GALNT2	0.252213	0.193244
63	BCL2L11	-0.00676	0.89192
64	BCL2L14	-0.08711	0.24459
65	BEND7	-0.0078	0.881704
66	BEST4	-0.00677	0.934894
67	BICD2	0.010908	0.829927
68	BNC1	0.241918	0.078208
69	BNIPL	0.037935	0.598876
70	BRF1	0.007429	0.881239
71	BRS3	0.404776	0.132397
72	BRSK1	0.079892	0.194149
73	BRWD1	-0.03955	0.415093
74	BRWD3	0.000887	0.986628
75	BSND	0.334365	0.075979
76	BTBD16	-0.01473	0.812746
77	BTBD9	-0.00385	0.941912
78	BTNL9	-0.09451	0.096641
79	C10orf25	0.012454	0.833035
80	C11orf40	0.108545	0.951154
81	C11orf65	-0.01719	0.81927
82	C12orf40	-0.16271	0.606108
83	C15orf32	0.037593	0.981856
84	C15orf40	-0.017	0.742513
85	C16orf46	-0.00708	0.921824
86	C17orf77	0.085443	0.817567

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87	C17orf78	0.243355	0.12313
88	C1orf127	-0.01003	0.905782
89	C20orf197	0.046364	0.699081
90	C2CD6	0.114305	0.250728
91	C2orf15	0.030655	0.684383
92	C4orf33	-0.02607	0.650669
93	C4orf36	0.020208	0.754653
94	C5orf22	0.007157	0.888392
95	C5orf24	0.002936	0.951131
96	C5orf64	0.028776	0.842551
97	C6orf141	0.240394	0.007331
98	C9orf66	0.018297	0.855215
99	C9orf72	-0.02974	0.589966
100	CABP4	0.098557	0.185728
101	CACNA2D4	0.053632	0.404139
102	CACNG5	0.230258	0.669765
103	CACNG6	0.083133	0.791766
104	CADM2	0.272439	0.111682
105	CALHM4	0.001573	0.996398
106	CALML6	-0.05907	0.461171
107	CALR3	0.048379	0.700065
108	CAMK2N2	0.059316	0.376919
109	CAMKK1	0.012674	0.843721
110	CAPN13	-0.05066	0.770906
111	CARD16	0.014181	0.807671
112	CASC4	-0.01845	0.692858
113	CASKIN1	0.179109	0.119712
114	CASP8	0.009888	0.845013
115	CATSPER1	0.120954	0.185959
116	CATSPER2	-0.00528	0.935464
117	CBARP	0.128873	0.106965
118	CBLL2	0.006481	0.997798
119	CCDC125	-0.02328	0.639796
120	CCDC13	-0.0012	0.987341
121	CCDC140	0.030317	0.977058
122	CCDC150	0.005965	0.921582
123	CCDC171	0.000156	0.998159
124	CCDC185	0.316214	0.199001
125	CCDC197	0.438508	0.120377
126	CCDC27	0.376469	0.135566
127	CCDC57	-0.00042	0.993327
128	CCDC65	0.036657	0.59538
129	CCDC69	-0.03436	0.490825
130	CCDC89	0.123744	0.356186

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131	CCL5	-0.02687	0.609729
132	CD200R1	0.057947	0.428186
133	CD276	0.021176	0.652031
134	CD300LF	0.039493	0.551291
135	CD300LG	-0.13168	0.185942
136	CDC14C	0.192565	0.508379
137	CDC42SE2	-0.00288	0.952349
138	CDH23	-0.00608	0.909749
139	CDH24	0.041497	0.488374
140	CDK15	-0.0047	0.977291
141	CDK8	0.016012	0.761184
142	CENPBD1	-0.00717	0.904065
143	CEP19	0.056633	0.400496
144	CES5A	-0.05385	0.464141
145	CFAP161	-0.07156	0.49163
146	CFAP47	0.083749	0.572286
147	CFAP53	0.071897	0.327159
148	CFAP57	-0.13105	0.073822
149	CIB3	0.215785	0.239356
150	CILP2	0.103748	0.211539
151	CLDN15	-0.0382	0.43985
152	CLDN19	0.028606	0.811686
153	CLEC4C	-0.03897	0.867247
154	CLEC4D	0.039516	0.812942
155	CLEC4F	-0.08342	0.345681
156	CLSPN	0.157727	0.015971
157	CNBD1	0.723938	0.074602
158	CNBD2	0.051003	0.527253
159	CNOT6L	-0.02803	0.575164
160	CNOT7	-0.00278	0.954267
161	CNOT9	0.017255	0.721458
162	CNPY3	0.007501	0.871871
163	CNTNAP4	0.112791	0.594413
164	CNTNAP5	0.583528	0.0621
165	COBL	-0.01577	0.744763
166	COP1	-0.00636	0.89331
167	COPS9	0.018265	0.711766
168	CORO6	0.082634	0.269426
169	COX6B2	0.051228	0.671711
170	CPA6	0.072963	0.601138
171	CPO	0.088087	0.427917
172	CRB2	0.0302	0.772959
173	CREG2	0.277896	0.002559
174	CRYGN	0.232407	0.195323

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175	CRYZL1	-0.01489	0.77944
176	CSF3R	0.032765	0.577342
177	CSMD1	0.227049	0.186638
178	CTCFL	0.167705	0.21118
179	CXorf58	0.068479	0.545408
180	CYB5D1	-0.06492	0.371356
181	CYP11B1	0.327953	0.541258
182	CYP2A6	-0.05444	0.370632
183	CYP2E1	-0.12439	0.013121
184	DCAF4L2	0.206184	0.436884
185	DDR1	0.017062	0.736826
186	DDX31	0.01339	0.801303
187	DEFB119	-0.0823	0.976642
188	DEFB125	-0.14143	0.943111
189	DENND1B	-0.00227	0.965146
190	DEPDC4	0.002259	0.974856
191	DGKB	0.073941	0.4803
192	DGKH	0.002606	0.963027
193	DHH	-0.05488	0.570215
194	DIP2A	-0.02414	0.640223
195	DIP2B	-0.01391	0.774626
196	DIRC1	0.082168	0.903572
197	DNAH11	-0.00362	0.958274
198	DNAH17	0.007461	0.911126
199	DNAH6	-0.01719	0.796434
200	DNAJB7	0.085755	0.498117
201	DNAJC5G	0.321773	0.029051
202	DSG2	0.053937	0.282546
203	DST	-0.02328	0.60648
204	DTD1	0.04274	0.407962
205	DYDC1	0.009633	0.955235
206	EDARADD	0.050122	0.505061
207	EFCAB3	0.240628	0.587704
208	ELOA3	0.000474	0.999875
209	ENTHD1	-0.09471	0.694149
210	EPHA10	0.171615	0.176729
211	EPHB3	0.112731	0.098954
212	ERC1	-0.01151	0.81678
213	ERICH5	0.024951	0.648281
214	ERVV-1	0.619095	0.163458
215	ESRRA	-0.00675	0.884352
216	ESX1	0.120554	0.911871
217	ETV3	0.006549	0.89858
218	EYA3	0.006632	0.898616

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219	FAM117B	0.007849	0.889065
220	FAM122C	-0.00211	0.973871
221	FAM124A	0.089069	0.192439
222	FAM129C	-0.15842	0.075523
223	FAM71A	-0.05246	0.941333
224	FAM71C	-0.05373	0.913791
225	FAM71D	0.164447	0.108626
226	FAM71E2	-0.01262	0.989887
227	FAM9B	0.051992	0.639305
228	FANCB	0.137176	0.078465
229	FBXL18	0.033342	0.570257
230	FBXO39	-0.08443	0.321334
231	FCRL3	-0.13941	0.092745
232	FERD3L	-0.01281	0.996636
233	FGF1	0.001976	0.977931
234	FGF4	0.387501	0.360186
235	FIGNL1	0.025665	0.641813
236	FLCN	-0.00946	0.849733
237	FMR1NB	0.219386	0.286741
238	FOXP2	-0.13723	0.198361
239	FRAS1	0.109773	0.140616
240	GABRG1	-0.14542	0.42811
241	GAL3ST2	-0.12589	0.352021
242	GAL3ST3	0.119696	0.698944
243	GALNT8	-0.06877	0.495721
244	GAMT	-0.03141	0.468259
245	GAPT	0.013108	0.876124
246	GAS2L2	0.578865	0.047901
247	GATA4	0.008238	0.867105
248	GCSAML	-0.06802	0.689839
249	GIMAP1	-0.03345	0.558
250	GIPC3	-0.00871	0.88045
251	GJA10	0.198554	0.52919
252	GJD3	-0.23586	0.149266
253	GPBAR1	0.060295	0.370845
254	GPR101	0.036354	0.889065
255	GPR156	0.292635	0.02507
256	GPR182	-0.1786	0.042788
257	GPR6	0.006483	0.997242
258	GPR78	0.204678	0.446101
259	GPR82	0.137894	0.124425
260	GPRC6A	0.492941	0.199408
261	GRHL1	0.013751	0.806553
262	GRIK5	-0.00338	0.968035

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263	GRK7	0.166111	0.342678
264	GSC	0.437044	0.009892
265	GTF2A1L	0.172768	0.68054
266	GUCA1A	0.289595	0.255471
267	H1FOO	0.002301	0.997154
268	HAS3	0.005597	0.931856
269	HDAC9	-0.00615	0.925963
270	HEATR9	-0.26899	0.037526
271	HELB	0.000253	0.996578
272	HERPUD2	-0.00915	0.853194
273	HFE	-0.02384	0.637267
274	HIPK1	-0.00283	0.95366
275	HIPK4	0.018764	0.843529
276	HOXC12	-0.14652	0.744789
277	HOXD4	0.152609	0.258242
278	HPS4	-0.00751	0.880515
279	HS6ST2	0.06768	0.656193
280	HS6ST3	0.361864	0.107459
281	HSH2D	0.006386	0.918143
282	HSPA6	0.067793	0.256524
283	HTR3C	0.299378	0.291114
284	HTR6	0.081258	0.796294
285	ICK	-0.02907	0.560457
286	IDI2	0.106364	0.731573
287	IFNL1	-0.25427	0.319386
288	IFNL2	0.043781	0.950966
289	IGSF3	0.109278	0.042296
290	IL11RA	-0.01329	0.795071
291	IL12RB1	0.00477	0.939686
292	IL23R	-0.15148	0.262119
293	IL27	-0.09078	0.125501
294	IL31RA	-0.03453	0.829072
295	ILDR1	0.168631	0.086757
296	IQCD	0.080437	0.243241
297	IQCF1	-0.11159	0.87242
298	IRF6	-0.02976	0.524766
299	ITGB1	0.004236	0.923505
300	ITIH5	0.048835	0.421023
301	JAK1	-0.01594	0.724645
302	JMJD6	0.018801	0.706553
303	JPH1	0.117073	0.169344
304	JPH2	-0.00635	0.932937
305	KBTBD6	-0.01156	0.83278
306	KCNE4	0.064641	0.289121

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307	KCNG3	0.550515	0.043658
308	KCNG4	-0.06101	0.870813
309	KCNH8	-0.11822	0.450348
310	KCTD18	-0.0194	0.715208
311	KDM1B	0.012021	0.818578
312	KIF19	-0.04989	0.565604
313	KIF6	-0.01548	0.853546
314	KLC3	0.062746	0.589426
315	KLF11	-0.00395	0.936612
316	KLF14	0.284774	0.302722
317	KLHDC1	-0.05268	0.427428
318	KLHDC7A	0.023102	0.683177
319	KLHDC7B	0.023681	0.719936
320	KLHL10	-0.00761	0.947183
321	KLHL4	0.102147	0.192773
322	KLK8	0.450574	0.285161
323	KNL1	0.002086	0.96821
324	KRT73	0.128742	0.639855
325	KRT74	-0.13542	0.910342
326	KRT78	0.539818	0.097014
327	KSR2	0.232732	0.034229
328	LACC1	0.012262	0.826972
329	LACTB	-0.01669	0.733185
330	LEAP2	-0.05002	0.287765
331	LETM2	-0.00104	0.988955
332	LHX4	0.103204	0.146735
333	LIN9	0.029082	0.616436
334	LMLN	-0.0265	0.650356
335	LMNTD1	0.228984	0.65867
336	LMX1A	0.135169	0.442389
337	LRRC15	0.099262	0.339885
338	LRRC7	0.051142	0.494965
339	LRRN4	-0.04414	0.716424
340	LSM14B	0.002747	0.955511
341	LUZP1	0.022261	0.671735
342	M1AP	0.139662	0.143735
343	MAB21L3	0.009801	0.896802
344	MACF1	-0.00912	0.841537
345	MAGEB18	0.297933	0.842075
346	MAGEB6	0.810412	0.007492
347	MAGEE2	0.651079	0.05381
348	MAN1A2	0.004995	0.916957
349	MAP3K6	0.026237	0.629977
350	MAPK1	-0.00024	0.995846

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351	MBD3L1	-0.12796	0.869284
352	MBD3L2	-0.07338	0.97224
353	MBNL2	-0.01036	0.828867
354	MCF2L	-0.01652	0.751865
355	MCMD2C2	0.013292	0.836626
356	MDS2	0.2268	0.03792
357	MEGF11	-0.10474	0.357315
358	MFAP3	0.013872	0.803823
359	MFSD2A	-0.02021	0.725924
360	MFSD6L	-0.07022	0.65893
361	MIER3	0.000632	0.99022
362	MIPOL1	0.037936	0.523768
363	MMEL1	0.072065	0.453884
364	MMP21	-0.20735	0.090629
365	MOGAT1	-0.19389	0.030518
366	MPP4	0.174122	0.128257
367	MRGPRX1	0.041955	0.987727
368	MRGPRX3	0.391907	0.267485
369	MRGPRX4	0.156577	0.702443
370	MSANTD3	0.039825	0.446019
371	MSI2	-0.01465	0.767995
372	MTBP	0.035183	0.564034
373	MYO1H	0.020789	0.851874
374	MYO3B	0.08818	0.376641
375	MYOZ3	0.075624	0.402113
376	NAV3	-0.03163	0.620419
377	NEDD1	0.027668	0.610515
378	NEGR1	0.066265	0.521364
379	NETO1	0.02466	0.90452
380	NEUROD2	-0.05675	0.759819
381	NEXN	-0.00961	0.87489
382	NFKBID	0.020524	0.747115
383	NIPA1	0.002626	0.959415
384	NKAIN3	0.093687	0.671604
385	NKD1	-0.06626	0.306745
386	NKX6-3	0.010569	0.978865
387	NLRC4	0.036817	0.574356
388	NLRP10	0.271555	0.711042
389	NLRP11	0.073476	0.354649
390	NLRP13	0.327771	0.637196
391	NLRP14	-0.17372	0.157828
392	NLRP5	0.814695	0.024282
393	NLRP6	-0.14555	0.028203
394	NLRP8	0.3738	0.459771

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395	NLRP9	-0.24639	0.130176
396	NMNAT2	0.029395	0.727638
397	NOX5	-0.03357	0.764468
398	NPHP3	0.014488	0.79953
399	NXNL2	0.046954	0.758049
400	NYAP1	0.005462	0.944651
401	ODF3	0.171131	0.700517
402	ODF4	-0.25513	0.747583
403	OR5P2	-0.01135	0.997018
404	OR5P3	-0.00098	0.999742
405	OTUD7A	0.004723	0.944716
406	OXER1	-0.0189	0.713873
407	OXGR1	0.024689	0.923098
408	PANX2	0.039329	0.457998
409	PARD3B	-0.03376	0.522495
410	PARP15	-0.05835	0.39064
411	PAX1	0.088353	0.842475
412	PAX8	0.04336	0.470029
413	PCDH10	0.038506	0.841857
414	PCDH15	0.022552	0.926052
415	PCDHAC1	0.306745	0.11621
416	PCDHGA4	-0.02426	0.753867
417	PCDHGB7	-0.02964	0.700775
418	PCSK6	-0.05152	0.266886
419	PDE5A	-0.01791	0.762175
420	PDE7A	0.024315	0.650693
421	PDE8A	-0.02703	0.582627
422	PELO	0.021252	0.673243
423	PGLYRP3	0.473133	0.334607
424	PHC3	-0.00049	0.992442
425	PIGX	0.018263	0.724812
426	PIP4K2B	-0.00651	0.891235
427	PITPNM2	-0.00321	0.948532
428	PKD1L1	0.060584	0.43897
429	PKHD1	-0.07219	0.276939
430	PLB1	0.066362	0.323768
431	PLCD3	0.055464	0.328731
432	PLCXD2	-0.01267	0.826518
433	PLXNA3	0.037327	0.477654
434	PNPLA1	0.098814	0.574138
435	POLR2J2	0.338323	0.419897
436	POTED	0.116005	0.925104
437	POU5F2	0.296836	0.074636
438	PP2D1	0.050179	0.597494

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439	PPP1R3B	-0.06187	0.190431
440	PROM2	-0.06056	0.503082
441	PROSER3	0.014831	0.801765
442	PRR22	-0.0152	0.80831
443	PRSS33	0.183509	0.623691
444	PRSS36	0.007409	0.908357
445	PRUNE2	0.067812	0.324873
446	PSKH2	0.111822	0.859298
447	PTCHD1	0.075	0.63455
448	PTK6	0.020672	0.736085
449	PTPN11	-0.01488	0.746547
450	PTPN21	-0.0093	0.861098
451	PTPRC	-0.03773	0.48237
452	PUS10	-0.00532	0.920959
453	PXK	0.006637	0.899611
454	PXT1	-0.08015	0.518826
455	RAB42	0.127347	0.058917
456	RAD9B	0.019976	0.796757
457	RAET1E	0.162065	0.099581
458	RAI1	0.015546	0.765384
459	RANBP3L	-0.22401	0.004261
460	RANGAP1	0.009839	0.825257
461	RAPH1	-0.03466	0.554655
462	RASEF	0.071708	0.251726
463	RAX2	0.097086	0.853472
464	RBAK	-0.01323	0.803127
465	RBBP6	-0.01143	0.815276
466	RBFOX1	0.409778	0.121485
467	RDH10	-0.02163	0.641372
468	RECQL4	0.030694	0.548731
469	RFC2	0.015536	0.75329
470	RFFL	-0.01645	0.736673
471	RFX4	0.253943	0.262444
472	RFX6	0.185885	0.376737
473	RHBDL2	0.131986	0.08806
474	RHBDL3	0.02377	0.804787
475	RHOXF1	-0.02885	0.820753
476	RIBC1	0.030456	0.672057
477	RICTOR	0.006653	0.89522
478	RIMS1	-0.24532	0.188592
479	RLN3	-0.08809	0.788082
480	RMDN2	-0.02737	0.613345
481	RNF168	0.009237	0.858856
482	RNFT2	0.14426	0.026177

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483	RPTN	0.191689	0.792937
484	RTL3	0.221565	0.462375
485	RTP3	-0.17058	0.002377
486	RTTN	-0.01241	0.823626
487	RXFP1	0.047393	0.569997
488	RXFP2	0.059789	0.963328
489	SALL3	0.279561	0.46436
490	SCAMP1	-0.00431	0.931117
491	SCARB1	0.005836	0.890697
492	SCGB1C1	-0.04227	0.973953
493	SCIN	0.184911	0.018911
494	SDCCAG8	-0.00298	0.95456
495	SDE2	-0.02126	0.671588
496	SDR9C7	0.143838	0.323531
497	SEC16B	-0.07693	0.204835
498	SEC62	-0.01176	0.793609
499	SENP1	0.007549	0.888106
500	SENP8	-0.03789	0.561912
501	SEPSECS	-0.03247	0.509401
502	SERPINA12	0.085021	0.250886
503	SERPINA9	0.056511	0.567195
504	SERPINB11	-0.31272	0.422225
505	SERPINB12	-0.13251	0.946524
506	SGCZ	0.777709	0.031564
507	SH2D1B	-0.02862	0.734438
508	SH2D3C	-0.01176	0.82432
509	SIGLEC11	0.035834	0.636971
510	SIM1	0.123662	0.437542
511	SLAMF6	-0.08382	0.20692
512	SLC16A11	-0.14995	0.006231
513	SLC17A8	0.221208	0.183129
514	SLC18A2	-0.08089	0.389111
515	SLC23A3	-0.01526	0.828072
516	SLC25A27	-0.01712	0.780755
517	SLC26A1	-0.03287	0.516848
518	SLC26A7	-0.0079	0.929788
519	SLC29A2	-0.01125	0.82873
520	SLC2A13	0.014255	0.791188
521	SLC30A8	0.39461	0.11874
522	SLC34A3	0.187123	0.097263
523	SLC35G3	-0.06829	0.836484
524	SLC36A1	0.041302	0.444085
525	SLC39A12	-0.1059	0.623456
526	SLC39A13	0.004477	0.926875

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527	SLC39A5	-0.03628	0.456312
528	SLC44A5	0.097356	0.327104
529	SLC46A1	-0.01739	0.72401
530	SLC4A1	-0.04617	0.750937
531	SLC5A3	0.023566	0.658515
532	SLC9A7	0.018474	0.723952
533	SLCO6A1	0.4085	0.163681
534	SLFN13	0.056779	0.353202
535	SLFN5	-0.02435	0.641731
536	SLFNL1	-0.0326	0.705627
537	SMC1B	0.027076	0.757394
538	SMCR8	-0.00195	0.969677
539	SNRNP48	-0.00915	0.860747
540	SNX13	-0.00433	0.931732
541	SNX18	0.00199	0.967958
542	SOCS4	-0.00073	0.989011
543	SP7	0.339932	0.193417
544	SPATA17	0.06272	0.553485
545	SPEF2	0.022567	0.703157
546	SPRR4	0.083439	0.960093
547	SRCAP	-0.00958	0.837027
548	SRSF12	0.0812	0.251093
549	SSMEM1	0.060336	0.871845
550	ST7L	0.015654	0.775745
551	STARD6	0.69803	0.000706
552	STK38	-0.00342	0.943772
553	STMN1	0.038686	0.405142
554	STON2	0.000113	0.998454
555	STOX1	0.058358	0.428615
556	STPG4	0.149431	0.41828
557	STX6	0.017516	0.729075
558	SULT1C4	0.022912	0.748467
559	SUOX	-0.02599	0.588045
560	SVEP1	-0.00713	0.908781
561	SYN1	0.006393	0.929066
562	SYN2	0.293033	0.007149
563	SYNRG	-0.0214	0.664485
564	SYTL5	-0.10692	0.127249
565	TAAR8	0.141294	0.896204
566	TAAR9	0.111639	0.931075
567	TAB3	0.002846	0.952738
568	TAC4	-0.10101	0.354695
569	TAF1L	0.150831	0.553094
570	TAF5	-0.00403	0.943954

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571	TAF8	-0.01608	0.749126
572	TAGAP	-0.0355	0.582305
573	TAS1R2	0.184594	0.644791
574	TAS2R38	0.239172	0.733546
575	TAS2R39	-0.01135	0.997018
576	TAS2R40	-0.02899	0.984969
577	TAS2R41	-0.04828	0.986526
578	TAS2R50	0.053059	0.864704
579	TBATA	0.581933	0.03601
580	TC2N	0.014223	0.805428
581	TEAD1	0.003176	0.94769
582	TEDDM1	-0.32723	0.152532
583	TEKT5	2.83E-05	0.999731
584	TENM1	-0.01671	0.847715
585	TENT5D	0.184594	0.714274
586	TERB1	0.0732	0.629932
587	TEX55	0.256637	0.781174
588	TFAP2B	0.161874	0.692027
589	THEM4	0.01303	0.79782
590	THRA	0.00409	0.935587
591	TIGD1	0.041805	0.48674
592	TIGD4	0.143293	0.166402
593	TIMD4	0.074236	0.438684
594	TIRAP	-0.0136	0.804523
595	TLR4	0.005505	0.921579
596	TM2D3	-0.0163	0.737025
597	TMC2	0.122114	0.337275
598	TMEM106A	0.016536	0.779271
599	TMEM145	0.051445	0.517233
600	TMEM163	0.149382	0.095319
601	TMEM171	-0.04478	0.480739
602	TMEM182	0.007557	0.903224
603	TMEM190	0.16636	0.408184
604	TMEM196	-0.0732	0.940307
605	TMEM266	0.054713	0.421229
606	TMEM67	0.052817	0.39577
607	TMEM74	0.118162	0.079783
608	TMX3	-0.00457	0.928771
609	TNFRSF10A	-0.00265	0.962731
610	TNFRSF13C	-0.10098	0.203944
611	TNRC6A	-0.02073	0.670029
612	TRDN	0.198092	0.48482
613	TRIM40	0.170433	0.22034
614	TRIML2	0.652621	0.095577

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615	TRIOBP	0.006086	0.902986
616	TRNT1	-0.01798	0.735391
617	TRPV3	0.028344	0.728413
618	TSGA10IP	0.028622	0.800419
619	TSNARE1	0.003651	0.945044
620	TSPEAR	-0.10363	0.196641
621	TSSK3	-0.04911	0.594653
622	TTC39C	-0.03347	0.458365
623	TTLL10	-0.11302	0.361699
624	TTLL12	-0.00286	0.951825
625	TVP23C	0.023503	0.734506
626	UBA7	-0.02606	0.585621
627	UCN3	0.004775	0.989084
628	UHKM1	-0.00493	0.912668
629	UMODL1	0.099358	0.544506
630	UROC1	-0.09753	0.151843
631	USH1G	0.490082	0.027133
632	USP28	-0.00734	0.887795
633	UTS2R	0.122894	0.586154
634	VN1R2	0.045053	0.968902
635	VN1R5	0.262385	0.431305
636	VNN3	0.016719	0.762316
637	VPS18	-0.00354	0.942336
638	VSTM4	-0.03656	0.490195
639	VT11A	0.001739	0.973578
640	VWA5B1	0.431682	0.063191
641	WBP2NL	0.035946	0.619721
642	WDR17	0.009587	0.933943
643	WDR62	0.073406	0.190062
644	WDR64	0.036609	0.752839
645	WDR88	-0.05029	0.501486
646	WFDC10B	0.295752	0.427261
647	WFDC11	0.086347	0.971288
648	WFDC12	0.41625	0.181298
649	WFDC2	0.094932	0.376598
650	WFDC6	0.073069	0.964078
651	WFDC9	0.084893	0.965257
652	WFIKKN1	-0.08474	0.257391
653	WNT9A	0.120491	0.239797
654	WNT9B	-0.02116	0.866168
655	WWP2	-0.00064	0.989453
656	ZDHHC11	-0.03123	0.618132
657	ZDHHC15	0.017078	0.85422
658	ZIC5	0.211947	0.06586

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659	ZIM3	0.233169	0.643747
660	ZMYM6	-0.00176	0.974195
661	ZNF101	-0.01527	0.78384
662	ZNF114	0.070866	0.469992
663	ZNF333	-0.00386	0.945803
664	ZNF341	0.029911	0.59214
665	ZNF396	-0.00493	0.938658
666	ZNF41	-0.00645	0.910009
667	ZNF417	-0.00755	0.900222
668	ZNF441	-0.04774	0.41325
669	ZNF485	0.024275	0.700824
670	ZNF512	0.014498	0.78042
671	ZNF547	-0.00432	0.948322
672	ZNF555	-0.03894	0.507514
673	ZNF560	0.648243	0.035117
674	ZNF563	-0.04135	0.450024
675	ZNF570	0.020547	0.728055
676	ZNF572	0.012623	0.841496
677	ZNF583	-0.00331	0.956078
678	ZNF619	-0.0048	0.935836
679	ZNF625	0.075075	0.512469
680	ZNF626	0.031266	0.619493
681	ZNF709	0.075619	0.406803
682	ZNF75D	-0.03083	0.567428
683	ZNF777	-0.00516	0.919566
684	ZNF781	0.120517	0.110873
685	ZSCAN20	0.059875	0.386049
686	ZSCAN4	-0.13451	0.544609

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