

Human gene sym	Human locusli	Human refseq	Number of	Rat gene symbol	Rat locuslink	Rat refseq
FGFR3	2261	NM_000142	1		84489	NM_053429
SHH	6469	NM_000193	1		29499	NM_017221
KCNQ1	3784	NM_000218	1		84020	NM_032073
KIT	3815	NM_000222	1		64030	NM_022264
SCN4A	6329	NM_000334	1		25722	NM_013178
VDR	7421	NM_000376	1		24873	NM_017058
HSD17B1	3292	NM_000413	1	Hsd17b1	25322	NM_012851
SLC26A4	5172	NM_000441	1	Slc26a4	29440	NM_019214
THRB	7068	NM_000461	1	Thrb	24831	NM_012672
CYP11B2	1585	NM_000498	1	Cyp11b2	24294	NM_012538
KCNJ11	3767	NM_000525	1	Kcnj11	83535	NM_031358
NCAM1	4684	NM_000615	1	Ncam1	24586	NM_031521
ADORA2A	135	NM_000675	1	Adora2a	25369	NM_053294
ALDH3A1	218	NM_000691	1	Aldh3a1	25375	NM_031972
ALDH9A1	223	NM_000696	1	Aldh9a1	64040	NM_022273
CHRNA3	1136	NM_000743	1	Chrna3	25101	NM_052805
CHRN2	1141	NM_000748	1	Chrn2	54239	NM_019297
DRD4	1815	NM_000797	1	Drd4	25432	NM_012944
HTR6	3362	NM_000871	1	Htr6	64354	NM_024365
P4HB	5034	NM_000918	1	P4hb	25506	NM_012998
PDE1B	5153	NM_000924	1	Pde1b	29691	NM_022710
PTGER1	5731	NM_000955	1	Ptger1	25637	NM_013100
RPS9	6203	NM_001013	1		81772	NM_031108
RPS21	6227	NM_001024	1		81775	NM_031111
SLC2A4	6517	NM_001042	1	Slc2a4	25139	NM_012751
SLC12A2	6558	NM_001046	1		83629	NM_031798
ACTN3	89	NM_001104	1		171009	NM_133424
ANXA6	309	NM_001155	1		79125	NM_024156
AOX1	316	NM_001159	1		54349	NM_019363
APBA1	320	NM_001163	1		83589	NM_031779
BTEB1	687	NM_001206	1	Klf9	117560	NM_057211
ENTPD6	955	NM_001247	1		85260	NM_053498
CHK	1119	NM_001277	1	Chk	29194	NM_017127
CSNK1G2	1455	NM_001319	1		65278	NM_023102
CTBP1	1487	NM_001328	1	Ctbp1	29382	NM_019201
DNCI2	1781	NM_001378	1		116659	NM_053880
CELSR3	1951	NM_001407	1		83466	NM_031320
ACADSB	36	NM_001609	1	Acadsb	25618	NM_013084
AK2	204	NM_001625	1	Ak2	24184	NM_030986
AMD1	262	NM_001634	1	Amd1	81640	NM_031011
ARF1	375	NM_001658	1		64310	NM_022518
ATF4	468	NM_001675	1		79255	NM_024403
ATP12A	479	NM_001676	1		171028	NM_133517
ATP2B2	491	NM_001683	1	Atp2b2	24215	NM_012508
ATP5O	539	NM_001697	1		192241	NM_138883
BTC	685	NM_001729	1		64022	NM_022256
CRHR2	1395	NM_001883	1	Crhr2	64680	NM_022714
GFAP	2670	NM_002055	1	Gfap	24387	NM_017009
H2AFZ	3015	NM_002106	1		58940	NM_022674
HPN	3249	NM_002151	1	Hpn	29135	NM_017112
HSPD1	3329	NM_002156	1		63868	NM_022229

IL9R	3581 NM_002186	1 Il9r	24500 NM_017021
LUM	4060 NM_002345	1	81682 NM_031050
MAFK	7975 NM_002360	1	246760 NM_145673
MYOG	4656 NM_002479	1	29148 NM_017115
GPNMB	10457 NM_002510	1 Gpnmb	113955 NM_133298
NME2	4831 NM_002512	1	83782 NM_031833
NUP88	4927 NM_002532	1	113929 NM_053616
PAFAH1B3	5050 NM_002573	1	114113 NM_053654
PLD2	5338 NM_002663	1 Pld2	25097 NM_033299
MAPK9	5601 NM_002752	1	50658 NM_017322
PRSS11	5654 NM_002775	1 Prss11	65164 NM_031721
PSMA5	5686 NM_002790	1 Psma5	29672 NM_017282
SAFB	6294 NM_002967	1	64196 NM_022394
MAPK12	6300 NM_002969	1 Mapk12	60352 NM_021746
CX3CL1	6376 NM_002996	1	89808 NM_134455
SH3GL3	6457 NM_003027	1	81921 NM_031238
SLC6A12	6539 NM_003044	1	50676 NM_017335
SNCB	6620 NM_003085	1 Sncb	113893 NM_080777
SYT5	6861 NM_003180	1 Syt5	54309 NM_019350
TFAM	7019 NM_003201	1	83474 NM_031326
TGFA	7039 NM_003236	1 Tgfa	24827 NM_012671
TPT1	7178 NM_003295	1	116646 NM_053867
UGDH	7358 NM_003359	1	83472 NM_031325
GCM1	8521 NM_003643	1 Gcma	29394 NM_017186
BHLHB2	8553 NM_003670	1 Bhlhb2	79431 NM_053328
ATP6V0E	8992 NM_003945	1	94170 NM_053578
CAPN5	726 NM_004055	1	171495 NM_134461
ECHS1	1892 NM_004092	1 Echs1	140547 NM_078623
NINJ1	4814 NM_004148	1 Ninj1	25338 NM_012867
SLC1A2	6506 NM_004171	1 Slc1a2	29482 NM_017215
DAP	1611 NM_004394	1	64322 NM_022526
SPARCL1	8404 NM_004684	1 Sparcl1	25434 NM_012946
	9370 NM_004797	1	246253 NM_144744
CDK5	1020 NM_004935	1	140908 NM_080885
KCNA2	3737 NM_004974	1 Kcna2	25468 NM_012970
MJD	4287 NM_004993	1	60331 NM_021702
PDE1C	5137 NM_005020	1 Pde1c	81742 NM_031078
TLE3	7090 NM_005078	1	84424 NM_053400
CALM3	808 NM_005184	1 Calm3	24244 NM_012518
EPHA3	2042 NM_005233	1 Epha3	29210 NM_031564
GJA5	2702 NM_005266	1 Gja5	50563 NM_019280
PCMT1	5110 NM_005389	1 Pcmt1	25604 NM_013073
SIX3	6496 NM_005413	1	78974 NM_023990
VEGFC	7424 NM_005429	1	114111 NM_053653
GPR51	9568 NM_005458	1	83633 NM_031802
STMN1	3925 NM_005563	1	29332 NM_017166
DLL1	28514 NM_005618	1 Dll1	84010 NM_032063
UFD1L	7353 NM_005659	1	84478 NM_053418
VDAC3	7419 NM_005662	1	83532 NM_031355
MADH7	4092 NM_005904	1 Madh7	81516 NM_030858
MAT2A	4144 NM_005911	1	171347 NM_134351
FXYD3	5349 NM_005971	1 Fxyd4	64190 NM_022388

	7846 NM_006009	1	64158 NM_022298
SPATA2	9825 NM_006038	1	114210 NM_053675
	10411 NM_006105	1	59326 NM_021690
LGALS4	3960 NM_006149	1 Lgals4	25474 NM_012975
NFE2L2	4780 NM_006164	1	83619 NM_031789
PFKFB2	5208 NM_006212	1	24640 NM_080477
PRKCD	5580 NM_006254	1 Prkcd	170538 NM_133307
FBLN5	10516 NM_006329	1 Fbln5	29158 NM_019153
LYPLA1	10434 NM_006330	1 Lypla1	25514 NM_013006
HYOU1	10525 NM_006389	1	192235 NM_138867
SLC2A1	6513 NM_006516	1	24778 NM_138827
SC4MOL	6307 NM_006745	1	140910 NM_080886
BTG2	7832 NM_006763	1 Btg2	29619 NM_017259
STCH	6782 NM_006948	1 Stch	29734 NM_019271
LECT1	11061 NM_007015	1	81512 NM_030854
TEP1	7011 NM_007110	1 Tlp1	64523 NM_022591
POMT1	10585 NM_007171	1	84430 NM_053406
FBXO2	26232 NM_012168	1	85273 NM_053511
AP2A2	161 NM_012305	1 Ap2a2	81637 NM_031008
OSTF1	26578 NM_012383	1	259275 NM_148892
PITPNB	23760 NM_012399	1	114561 NM_053742
YWHAG	7532 NM_012479	1 Ywhag	56010 NM_019376
PCSK1N	27344 NM_013271	1 Pcsk1n	246333 NM_019279
CKTSF1B1	26585 NM_013372	1 Cktsf1b1	50566 NM_019282
YWHAB	7529 NM_014052	1 Ywhab	56011 NM_019377
	28992 NM_014067	1	246233 NM_139337
KCNK2	3776 NM_014217	1	170899 NM_172041
PGA5	5222 NM_014224	1	60372 NM_021753
	23154 NM_014284	1	89791 NM_053543
SDC3	9672 NM_014654	1	116673 NM_053893
	23155 NM_015127	1	170927 NM_133414
	23205 NM_015162	1	171410 NM_134389
POLR1A	25885 NM_015425	1	83581 NM_031772
RAP1B	5908 NM_015646	1	171337 NM_134346
COL5A3	50509 NM_015719	1 Col5a3	60379 NM_021760
TRIM17	51127 NM_016102	1 Trim17	64702 NM_022798
	51677 NM_016151	1	64666 NM_022702
TRPC4	7223 NM_016179	1	84494 NM_053434
NDRG2	57447 NM_016250	1	171114 NM_133583
AK3L1	50808 NM_016282	1	26956 NM_013218
HSD17B7	51478 NM_016371	1 Hsd17b7	29540 NM_017235
VAMP1	6843 NM_016830	1 Vamp1	25624 NM_013090
LDHC	3948 NM_017448	1 Ldhc	29634 NM_017266
	55006 NM_017910	1	192209 NM_138855
NUDT4	11163 NM_019094	1	94267 NM_053598
HTR7	3363 NM_019860	1 Htr7	65032 NM_022938
	56949 NM_020196	1	245976 NM_139109
	8470 NM_021069	1	114901 NM_053770
SLC5A6	8884 NM_021095	1 Slc5a6	170551 NM_130746
NGB	58157 NM_021257	1	85382 NM_033359
	60370 NM_021732	1	171386 NM_134373
DMRT1	1761 NM_021951	1	114498 NM_053706

ZNF148	7707 NM_021964	1 Znf148	58820 NM_031615
SPHK1	8877 NM_021972	1	170897 NM_133386
	64102 NM_022144	1	64104 NM_022290
LHX5	64211 NM_022363	1 Lhx5	124451 NM_139036
	80319 NM_025212	1 Idax	83824 NM_053342
	81671 NM_030938	1	192129 NM_138839
HNRPD	3184 NM_031370	1	79256 NM_024404
CD99L2	83692 NM_031462	1	171485 NM_134459
	84324 NM_032364	1	114481 NM_053690
MKI67IP	84365 NM_032390	1	246042 NM_139186
SLC30A2	7780 NM_032513	1 Slc30a2	25362 NM_012890
PPP1R14A	94274 NM_033256	1	114004 NM_130403
VIAAT	140679 NM_080552	1	83612 NM_031782
ASNS	440 NM_133436	1 Asns	25612 NM_013079
CYGB	114757 NM_134268	1 Staap	170520 NM_130744
MAPK14	1432 NM_139012	1	81649 NM_031020
NUP98	4928 NM_139131	1 Nup98	81738 NM_031074
SYNPR	132204 NM_144642	1	66030 NM_023974
PROM2	150696 NM_144707	1	192211 NM_138857
ISL2	64843 NM_145805	1	57233 NM_020471
ATP2A2	488 NM_170665	1	29693 NM_017290
MCP	4179 NM_172352	1 Mcp	29333 NM_019190
IL1R2	7850 NM_173343	1	117022 NM_053953
	257194 NM_173808	1	59318 NM_021682
	149371 NM_175876	1	245709 NM_139043
P2RY2	5029 NM_176071	1 P2ry2	29597 NM_017255
CAPN3	825 NM_000070	1 Capn3	29155 NM_017117
SCN5A	6331 NM_000335	1 Scn5a	25665 NM_013125
GPD2	2820 NM_000408	1 Gpd2	25062 NM_012736
IGF2	3481 NM_000612	1 Igf2	24483 NM_031511
ADRA1D	146 NM_000678	1 Adra1d	29413 NM_024483
GRIN2C	2905 NM_000835	1 Grin2c	24411 NM_012575
PAM	5066 NM_000919	1 Pam	25508 NM_013000
PTGS2	5743 NM_000963	1	29527 NM_017232
CORT	1325 NM_001302	1 Cort	25305 NM_012835
G6PT1	2542 NM_001467	1 G6pt1	29573 NM_031589
GFRA2	2675 NM_001495	1 Gfra2	25136 NM_012750
ADPRT	142 NM_001618	1 Adprt	25591 NM_013063
ALCAM	214 NM_001627	1	79559 NM_031753
C1S	716 NM_001734	1	192262 NM_138900
GAPD	2597 NM_002046	1 Gapd	24383 NM_017008
HPCAL1	3241 NM_002149	1	50871 NM_017356
HSPE1	3336 NM_002157	1 Hspe1	25462 NM_012966
ITIH3	3699 NM_002217	1	50693 NM_017351
MDK	4192 NM_002391	1 Mdk	81517 NM_030859
NPTX1	4884 NM_002522	1	266777 NM_153735
PFKL	5211 NM_002626	1 Pflkl	25741 NM_013190
PTHLH	5744 NM_002820	1 Pthlh	24695 NM_012636
SLC18A3	6572 NM_003055	1 Slc18a3	60422 NM_031663
SPAG4	6676 NM_003116	1	83623 NM_031792
TRPC1	7220 NM_003304	1	89821 NM_053558
VIM	7431 NM_003380	1	81818 NM_031140

PRPF18	8559 NM_003675	1	171552 NM_138523
HAND1	9421 NM_004821	1	59112 NM_021592
STX8	9482 NM_004853	1 Stx8	59074 NM_031656
SLC4A3	6508 NM_005070	1 Slc4a3	24781 NM_017049
GFI1	2672 NM_005263	1 Gfi1	24388 NM_012566
GLUD1	2746 NM_005271	1 Glud1	24399 NM_012570
GPRK5	2869 NM_005308	1 Gprk5	59075 NM_030829
PODXL	5420 NM_005397	1	192181 NM_138848
INPP5D	3635 NM_005541	1 Inpp5d	54259 NM_019311
CENTA1	11033 NM_006869	1	171097 NM_133567
NRG1	3084 NM_013956	1	112400 NM_031588
HERPUD1	9709 NM_014685	1	85430 NM_053523
	51449 NM_016297	1	246302 NM_145085
BET1L	51272 NM_016526	1 Bet1l	54400 NM_019368
COQ3	51805 NM_017421	1 Coq3	29309 NM_019187
	55690 NM_018026	1	171444 NM_134406
	55523 NM_018702	1	117088 NM_133302
MST1	4485 NM_020998	1 Mst1	24566 NM_024352
	134526 NM_130767	1	170570 NM_130747
ARHV	171177 NM_133639	1	171581 NM_138542
CACNG1	786 NM_000727	1 Cacng1	29658 NM_019255
ACTN1	87 NM_001102	1 Actn1	81634 NM_031005
PCYT2	5833 NM_002861	1	89841 NM_053568
SLC16A1	6566 NM_003051	1 Slc16a1	25027 NM_012716
TGFB2	7042 NM_003238	1	81809 NM_031131
THOP1	7064 NM_003249	1 Thop1	64517 NM_172075
TXNL	9352 NM_004786	1	140922 NM_080887
P2RXL1	9127 NM_005446	1 P2rxl1	25041 NM_012721
PDE4A	5141 NM_006202	1 Pde4a	25638 NM_013101
S100B	6285 NM_006272	1 S100b	25742 NM_013191
ANP32A	8125 NM_006305	1 Anp32a	25379 NM_012903
GLS	2744 NM_014905	1 Glis	24398 NM_012569
NINJ2	4815 NM_016533	1	59115 NM_021595
PCTK1	5127 NM_033019	1	81741 NM_031077
MAF	4094 NM_005360	1 Maf	54267 NM_019318
SIAT4B	6483 NM_006927	1 Siat5	64442 NM_031695
	54716 NM_020208	1	113918 NM_133296
ARRB1	408 NM_004041	1 Arrb1	25387 NM_012910
SPATA7	55812 NM_018418	1	192225 NM_138862
	103910 NM_033546	1	50685 NM_017343
HPSE	10855 NM_006665	1 Hpse	64537 NM_022605
PLA2G6	8398 NM_003560	1	116672 NM_053892
MBL2	4153 NM_000242	2 Mbl2	64668 NM_022704
PROC	5624 NM_000312	2 Proc	25268 NM_012803
CACNA1B	774 NM_000718	2	257648 NM_147141
CACNA2D1	781 NM_000722	2 Cacna2d1	25399 NM_012919
CHRNA4	1137 NM_000744	2 Chrna4	25590 NM_024354
CRH	1392 NM_000756	2	81648 NM_031019
CYP26A1	1592 NM_000783	2	154985 NM_130408
GRIN2D	2906 NM_000836	2 Grin2d	24412 NM_022797
ADCY8	114 NM_001115	2 Adcy8	29241 NM_017142
CDS1	1040 NM_001263	2	81925 NM_031242

G22P1	2547 NM_001469	2 G22p1	25019 NM_139080
CRHBP	1393 NM_001882	2 Crhbp	29625 NM_139183
EDN2	1907 NM_001956	2 Edn2	24324 NM_012549
ITPKB	3707 NM_002221	2 Itpkb	54260 NM_019312
KCNN4	3783 NM_002250	2	65206 NM_023021
MGAT3	4248 NM_002409	2 Mgat3	29582 NM_019239
PRPS2	5634 NM_002765	2 Prps2	24689 NM_012634
SLC4A2	6522 NM_003040	2 Slc4a2	24780 NM_017048
SQLE	6713 NM_003129	2 Sqle	29230 NM_017136
TCF4	6925 NM_003199	2 Tcf4	84382 NM_053369
UCP2	7351 NM_003355	2 Ucp2	54315 NM_019354
BSN	8927 NM_003458	2 Bsn	29138 NM_019146
MADD	8567 NM_003682	2	94193 NM_053585
BANF1	8815 NM_003860	2	114087 NM_053631
HAP1	9001 NM_003949	2 Hap1	29430 NM_024133
DDIT3	1649 NM_004083	2 Ddit3	29467 NM_024134
PDCD8	9131 NM_004208	2	83533 NM_031356
ARL3	403 NM_004311	2 Arl3	64664 NM_022700
RAB4A	5867 NM_004578	2 Rab4a	25532 NM_013019
SLC9A5	6553 NM_004594	2	192215 NM_138858
JAK2	3717 NM_004972	2 Jak2	24514 NM_031514
PIP5K2A	5305 NM_005028	2	116723 NM_053926
FGR	2268 NM_005248	2	79113 NM_024145
GPR24	2847 NM_005297	2	83567 NM_031758
SCARB1	949 NM_005505	2 Scarb1	25073 NM_031541
NR4A2	4929 NM_006186	2 Nr4a2	54278 NM_019328
CIB1	10519 NM_006384	2	81823 NM_031145
	10630 NM_006474	2 Gp38	54320 NM_019358
TXNL2	10539 NM_006541	2 Txnl2	58815 NM_032614
KHDRBS1	10657 NM_006559	2	117268 NM_130405
	7805 NM_006762	2	89783 NM_053538
C12orf8	10961 NM_006817	2	117030 NM_053961
	25805 NM_012342	2	83837 NM_139082
	28960 NM_014026	2	266605 NM_153302
	26330 NM_014364	2	66020 NM_023964
	9755 NM_014726	2	266764 NM_172021
SNAP91	9892 NM_014841	2 Snap91	65178 NM_031728
LPHN1	22859 NM_014921	2	65096 NM_022962
	25907 NM_015444	2	117582 NM_057212
	8862 NM_017413	2	58812 NM_031612
DPYSL5	56896 NM_020134	2	65208 NM_023023
	59343 NM_021627	2	78973 NM_023989
SLC38A1	81539 NM_030674	2 Slc38a1	170567 NM_138832
	83716 NM_031476	2	171547 NM_138518
BCL2L1	598 NM_138578	2 Bcl2l1	24888 NM_031535
	219928 NM_145015	2	266762 NM_153722
SSBP3	23648 NM_145716	2	84354 NM_053358
QDPR	5860 NM_000320	2	64192 NM_022390
TTPA	7274 NM_000370	2 Ttpa	25571 NM_013048
NR0B1	190 NM_000475	2 Nr0b1	58850 NM_053317
EPO	2056 NM_000799	2 Epo	24335 NM_017001
GTF3C1	2975 NM_001520	2	171063 NM_133541

IFRD1	3475 NM_001550	2 lfrd1	29596 NM_019242
INPPL1	3636 NM_001567	2 Inppl1	65038 NM_022944
GPX4	2879 NM_002085	2 Gpx4	29328 NM_017165
IRF1	3659 NM_002198	2 Irf1	24508 NM_012591
YWHAH	7533 NM_003405	2 Ywhah	25576 NM_013052
ATF3	467 NM_004024	2 Atf3	25389 NM_012912
BNIP3L	665 NM_004331	2	140923 NM_080888
HNRPU	3192 NM_004501	2	117280 NM_057139
LRAT	9227 NM_004744	2 Lrat	64047 NM_022280
KCNC1	3746 NM_004976	2 Kcnc1	25327 NM_012856
GFRA1	2674 NM_005264	2 Gfra1	25454 NM_012959
SLC20A1	6574 NM_005415	2	81826 NM_031148
MADH2	4087 NM_005901	2 Madh2	29357 NM_019191
DUOX2	50506 NM_014080	2	79107 NM_024141
NSFL1C	55968 NM_016143	2	83809 NM_031981
PFN2	5217 NM_053024	2	81531 NM_030873
SLC35A4	113829 NM_080670	2	257647 NM_147140
RGN	9104 NM_152869	2 Rgn	25106 NM_031546
RBBP7	5931 NM_002893	2	83712 NM_031816
SOCS3	9021 NM_003955	2	89829 NM_053565
YIF1	10897 NM_020470	2	171441 NM_172017
	115827 NM_138453	2	171058 NM_133536
PLEC1	5339 NM_000445	3	64204 NM_022401
IGFBP1	3484 NM_000596	3 Igfbp1	25685 NM_013144
TAC1	6863 NM_003182	3 Tac1	24806 NM_012666
TMPO	7112 NM_003276	3 Tmpo	25359 NM_012887
TLE1	7088 NM_005077	3 Tle4	25565 NM_019141
ARPC1B	10095 NM_005720	3 Arpc1b	54227 NM_019289
TRIM9	114088 NM_015163	3	155812 NM_130420
INSR	3643 NM_000208	3 Insr	24954 NM_017071
DNAJA1	3301 NM_001539	3	65028 NM_022934
AXIN2	8313 NM_004655	3 Axin2	29134 NM_024355
	23424 NM_014290	3	85425 NM_138871
KCNK9	51305 NM_016601	3	84429 NM_053405
APOA5	116519 NM_052968	3 Apoa5	140638 NM_080576
XYLT2	64132 NM_022167	3	64134 NM_022296
SS18L1	26039 NM_015558	3	192352 NM_138918
FHL1	2273 NM_001449	4 Fhl1	25177 NM_145669
MAP3K8	1326 NM_005204	4	116596 NM_053847
SLC27A5	10998 NM_012254	4	79111 NM_024143
	55832 NM_018448	4	117152 NM_054004
ANKH	56172 NM_054027	4	114506 NM_053714
LMNA	4000 NM_170707	4	60374 NM_021755
GAD2	2572 NM_000818	4 Gad2	24380 NM_012563
RAB10	10890 NM_016131	4	50993 NM_017359
CYP1B1	1545 NM_000104	5 Cyp1b1	25426 NM_012940
BSG	682 NM_001728	6 Bsg	25246 NM_012783
STC2	8614 NM_003714	6	63878 NM_022230















