

## Supplementary-File-1.txt

Gene lists of identified conserved and divergent transcriptional modules

# Conserved module C1

ENTREZ_GENE_ID	GENE_SYMBOL
11492	Adam19
11539	Adora1
11658	Alcam
11747	Anxa5
11774	Ap3b1
11796	Birc3
11807	Apoa2
11819	Nr2f2
11843	Arf4
11886	Asah1
11906	Atbf1
11931	Atp1b1
12010	B2m
12015	Bad
12048	Bcl2l1
12070	Ngfrap1
12151	Pcgf4
12156	Bmp2
12160	Bmp5
12168	Bmpr2
12175	Bnip2
12182	Bst1
12226	Btg1
12258	Serping1
12317	Calr
12336	Capns1
12351	Car4
12388	Ctnnd1
12389	Cav1
12395	Cbfa2t1h
12406	Serpinh1
12527	Cd9
12558	Cdh2
12558	Cdh2
12560	Cdh3
12563	Cdh6
12591	Cdx2
12740	Cldn4
12752	Cln3
12798	Cnn2
12804	Cntfr
12817	Col13a1
12825	Col3a1
12827	Col4a2
12830	Col4a5
13010	Cst3
13033	Ctsd
13078	Cyp1b1
13134	Dach1
13193	Dcx
13380	Dkk1
13392	Dlx2
13395	Dlx5
13430	Dnm2
13476	Reep5
13641	Efnb1
13663	Ei24
13666	Eif2ak3

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13731 Emp2  
13821 Epb4.111  
13823 Epb4.113  
13845 Ephb3  
13846 Ephb4  
13860 Eps8  
13865 Nr2f1  
14042 Ext1  
14049 Eya2  
14114 Fbln1  
14219 Ctgf  
14247 Fli1  
14337 Ft12  
14362 Fzd1  
14370 Fzd8  
14451 Gas1  
14462 Gata3  
14463 Gata4  
14465 Gata6  
14595 B4gal1  
14677 Gna1  
14683 Gnas  
14701 Gng12  
14734 Gpc3  
14828 Hspa5  
14854 Gss  
15110 Hand1  
15205 Hes1  
15211 Hexa  
15228 Foxg1  
15273 Hivep2  
15364 Hmga2  
15364 Hmga2  
15902 Id2  
16007 Cyr61  
16009 Igfbp3  
16011 Igfbp5  
16362 Irf1  
16392 Isl1  
16412 Itgb1  
16433 Cuzd1  
16476 Jun  
16478 Jund1  
16480 Jup  
16525 Kcnk1  
16531 Kcnma1  
16582 Kifc3  
16668 Krt1-18  
16775 Lama4  
16795 Large  
16796 Lasp1  
16870 Lhx2  
16949 Lox11  
16952 Anxa1  
17000 Ltbr  
17118 Marcks  
17127 Smad3  
17300 Foxc1  
17390 Mmp2  
17395 Mmp9  
17536 Mrg1  
17684 Cited2  
17692 Msl31

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17702 Msx2  
17776 Mast2  
17872 Myd116  
17886 Myh9  
17912 Myo1b  
17920 Myo6  
17966 Nbr1  
18028 Nfib  
18035 Nfkb1a  
18040 Nef3  
18214 Ddr2  
18451 P4ha1  
18472 Pafah1b1  
18484 Pam  
18508 Pax6  
18509 Pax7  
18611 Pea15  
18647 Pftk1  
18708 Pik3r1  
18717 Pip5k1c  
18741 Pitx2  
18744 Pja1  
18760 Prkcm  
18767 Pkia  
18769 Pkiq  
18783 Pla2g4a  
18810 Plec1  
19084 Prkar1a  
19122 Prnp  
19128 Pros1  
19157 Pscd1  
19224 Ptgs1  
19225 Ptgs2  
19227 Pthlh  
19242 Ptn  
19249 Ptpn13  
19268 Ptpnf  
19302 Pxmp3  
19344 LOC433464 Rab5b  
19414 Rasa3  
19645 Rb1  
19659 Rbp1  
19672 Rcn1  
19699 Reln  
19731 Rgl1  
20130 Rras  
20148 Dhrs3  
20167 Rtn2  
20185 Ncor1  
20195 S100a11  
20229 Sat1  
20254 Scg2  
20315 Cxcl12  
20316 Sdf2  
20333 Sec2211  
20348 Sema3c  
20363 Sepp1  
20377 Sfrp1  
20392 Sgce  
20527 Slc2a3  
20666 Sox11  
20692 Sparc  
20701 Serpina1a Serpina1b Serpina1c

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20716 Serpina3n  
20719 Serpinb6a  
20745 Spock1  
20832 Ssr4  
20847 Stat2  
20848 Stat3  
20866 Stim1  
20897 Stra6  
20971 Sdc4  
20972 Syng1  
21372 Tbl1x  
21412 Tcf21  
21413 Tcf4  
21648 Dynlt1  
21807 Tsc22d1  
21814 Tgfbr3  
21923 Tnc  
22057 Tob1  
22160 Twist1  
22164 Tnfrsf4  
22190 Ubc  
22352 Vim  
22359 Vldlr  
22388 wdr1  
22433 xbp1  
22601 Yap1  
22661 Zfp148  
22673 Zfp185  
22771 Zic1  
23802 Amfr  
23849 Klf6  
23882 Gadd45g  
23908 Hs2st1  
23959 Nt5e  
24059 Slco2a1  
24136 Zfhx1b  
26364 Cd97  
26410 Map3k8  
26450 Rbbp9  
26903 Dysf  
26921 Map4k4  
26943 Serinc3  
26949 Vat1  
27273 Pdk4  
27277 Golga5  
27279 Tnfrsf12a  
27280 Phlda3  
27528 D0H4S114  
29810 Bag3  
29875 Iqgap1  
30934 Tor1b  
30940 Usp25  
50722 Dkk1  
50766 Crim1  
50917 Galns  
52250 Reep1  
54130 Actr1a  
54132 Pdlim1  
54170 Rragc  
54604 Pcnx  
54635 Pdgfc  
54725 Igsf4a  
55938 Apom

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55983 Pdzn3  
56048 Lgals8  
56213 Htra1  
56277 Tmem45a  
56350 Arl3  
56376 Pdlim5  
56397 Morf4l2  
56404 Trip4  
56440 Snx1  
56496 Tspan6  
56516 Rbms2  
56637 Gsk3b  
56736 Rnf14  
56760 Clec1b  
57265 Fzd2  
57751 Rnf25  
58180 Hic2  
59004 Pias4  
59024 Med12  
59036 Dact1  
59042 Cope  
60611 Foxj2  
63857 Bcmo1  
64058 Perp  
64213 St7  
64292 Ptges  
64296 Abhd8  
65960 Twsg1  
65970 D15Erttd366e  
66071 Ethe1  
66214 1190002H23Rik  
66273 1810020D17Rik  
66290 Atp6v1g1  
66375 Dhrr7  
66624 Spcs2  
66810 Rbm22  
66905 M6prbp1  
66970 Ssbp2  
66980 Zdhhc6  
67009 Ttc23  
67057 Yaf2  
67123 Ubap1  
67155 Smarca2  
67252 Cap2  
67422 Dhdds  
67443 Map1lc3b  
67771 Arpc5  
67776 Loh11cr2a  
67887 Tmem66  
67916 Ppap2b  
68010 Bambi  
68024 Hist1h2bc Hist1h2be Hist1h2bg  
68539 Tmem109  
68581 Tmed10  
68792 SrpX2  
68842 Tulp4  
69080 Gmpa  
69190 Dym  
69225 0710008K08Rik  
69957 Cdc16  
70097 Sash1  
70122 Mllt3  
70152 Mett17a

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70349 Copb1  
 70350 Basp1  
 70369 Bag5  
 71586 Ifih1  
 71704 Arhgef3  
 71711 Mus81  
 71712 1200002N14Rik  
 71929 Tmem123  
 71994 Cnn3  
 72065 Rap2c  
 73024 2900064A13Rik  
 73389 Hbp1  
 74122 Tmem43  
 74150 Slc35f5  
 74277 Chic2  
 74302 Mtmr3  
 74318 Hod  
 74385 4932432K03Rik  
 74747 Ddit4  
 75212 Rnf121  
 76238 Grhpr  
 76459 Car12  
 76560 Prss8  
 76740 C920006C10Rik  
 76969 Chst1  
 78514 Arhgap10  
 78834 Zfp623  
 78928 Pigt  
 80884 Maged2  
 80888 Hspb8  
 80985 4930467E23Rik Trim44  
 94043 Tm2d1  
 94184 2210010A19Rik  
 94216 Col4a6  
 94352 Lox12  
 98267 Stk17b  
 99237 Tm9sf4  
 99543 Olfm13  
 99712 Cept1  
 100317 AU040320  
 102580 Alg9  
 104625 Cnot6  
 105785 Kdelr3  
 106143 Cggbp1  
 107022 Gramd3  
 107338 Gbf1  
 107581 Col16a1  
 107765 Ankrd1  
 107975 Pacs1  
 108089 Rnf144  
 108148 Galnt2  
 108705 Pttglip  
 109905 Rap1a  
 114584 Clic1  
 114664 Dhrr8  
 170719 Oxr1  
 193385 6330500D04Rik  
 211499 Tmem87a  
 216197 Ckap4  
 216440 4632413K17Rik  
 216643 Gabrp  
 217039 Ggnbp2  
 217410 Trib2

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217449 Ttc15  
218772 Rarb  
218952 Plekhc1  
224020 Pik4ca  
225115 Svit  
226251 Ablim1  
226422 Rab71l1  
226548 Aph1a  
226564 Fmo4  
226641 Atf6  
226861 Hhat  
226977 Actr1b  
228359 Arhgap1  
229600 BC028528  
229877 Rap1gds1  
230709 Zmpste24  
231382 Tmprss11d  
233895 BC006909  
235106 Hnt  
235439 Herc1  
235441 Usp3  
238055 Apob  
244349 Myst3  
246277 Csad  
269951 Idh2  
326618 Tpm4  
347722 Centg2  
386612 Thoc6

# Conserved module C2

ENTREZ_GENE_ID	GENE_SYMBOL
11566	Adss
11834	Aqr
12367	Casp3
12469	Cct8
12593	Cdy1
12607	Cebpz
13018	Ctcf
13590	Lefty1
13829	Epb4.9
13877	Erh
14087	Fanca
14853	Gspt2
15516	Hspcb
16468	Jarid2
17350	Mlh1
18109	Mycn
18392	Orc1l
18477	Prdx1
20184	Rxrip110
20637	Snrp70
20867	Stip1
21357	Tarbp2
21374	Tbp
21399	Tcea1
21815	Tgif
21844	Tiam1
22239	Ugt8a
22612	Yes1
26901	Deb1
26939	Polr3e
50783	Lsm4

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50883 Chek2  
54169 Myst4  
56505 Ruvb11  
56515 Rnf138  
57312 Mrps31  
58200 Ppp1r1a  
59014 Rrs1  
60315 Myg1  
65102 Nif311  
66143 Eef1e1  
66249 1810003N24Rik  
66514 Asrg11  
67005 Polr3k  
67030 Fanc1  
67102 D16Ertd472e  
67669 0610007P06Rik  
67834 Idh3a  
67870 2310057D15Rik  
67966 Zcchc10  
68493 1110007M04Rik  
68845 1110061L23Rik  
69499 2310007F12Rik  
69956 2810422B04Rik  
71919 D15Ertd682e  
72416 Lrp1rc  
73804 Kif2c  
74249 Lrrc2  
81898 Sf3b1  
98828 G431001I09Rik  
107869 Cth  
110960 Tars  
170789 Acot8  
208606 1500011J06Rik  
227937 Pkp4  
234138 BC019943  
252870 Usp7  
269113 Nup54

# Conserved module C3

ENTREZ_GENE_ID	GENE_SYMBOL
11534	Adk
12035	Bcat1
17869	Myc
17993	Ndufs4
18044	Nfya
18477	Prdx1
20719	Serp1nb6a
20917	Suc1g2
20972	Syngr1
23983	Pcbp1
26440	Psm1a1
28036	D3wsu161e
28146	D3Ucl1a1
51792	Ppp2r1a
56458	Foxo1
66361	LOC433478 zfand1
66464	Taf12
66475	Rps23
66925	Sdhd
67603	Dusp6
67763	Prpsap1
69178	Snx5

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75826 Senp2  
97541 Qars  
109672 Cyb5  
225027 Sfrs7  
231413 Grsf1  
271457 Rab5a

# Divergent module D1

ENTREZ_GENE_ID	GENE_SYMBOL
18491	Pappa
22590	Xpa
72560	Naalad2
63913	Niban
14725	Lrp2
19246	Ptpn1
52906	Ahi1
14859	Gsta3
74158	Josd1
26357	Abcg2
57321	Terf2ip
19736	Rgs4
56374	Tmem59
56431	Dstn
13850	Ephx2
210126	Lpp
12349	Car2
14063	F2r11
234875	Ttc13
20750	Spp1
21827	Thbs3
269037	Gm672
18606	Enpp2
13609	Edg1
18552	Pcsk5
30953	Schip1
16323	Inhba
15414	Hoxb6
57319	Smpd13a
15413	Hoxb5
12799	Cnp1
56839	Lgi1
217473	Ankmy2
12640	Cga
64085	C1stn2
20540	Slc7a7
328365	Rai17
16449	Jag1
26448	Rage
13803	Enc1
60595	Actn4
13614	Edn1
230796	wdtd1
65114	Vps35
393082	LOC554292 Ubie
12737	Cldn1
215707	D5Bwg0834e
216724	Rufy1
19434	Rax
109711	Actn1
77781	Epm2aip1
94249	Slc24a3
18163	Ctnnd2

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66498 1500034J01Rik  
 14634 Gli3  
 192231 Hexim1  
 214742 Rcor3  
 68585 Rtn4  
 14048 Eya1  
 12876 Cpe  
 11891 Rab27a  
 14265 Fmr1  
 99929 Tiparp  
 15424 Hoxc5  
 20293 Ccl12  
 76295 Atp11b  
 69538 Antxr1  
 102098 Arhgef18  
 11979 Atp7b  
 16842 Lef1  
 26416 Mapk14  
 76497 Ppp1r11  
 17384 Mmp10  
 170750 Xpnpep1  
 106504 Stk38  
 140577 Ankrd6  
 29871 Scmh1  
 330260 Pon2  
 56405 Dusp14  
 12159 Bmp4  
 106766 AW049765  
 21353 Tank  
 67199 Pfdn1  
 13507 Dsc3  
 54216 Pcdh7  
 109934 Abr  
 54713 Zfp312  
 140483 Hnmt  
 53374 Chst3  
 68449 Tbc1d10b  
 15446 Hpgd  
 72425 2410042D21Rik  
 252973 Grhl2  
 11690 Alox5ap  
 67890 Ufm1  
 68770 Phtf2  
 15417 Hoxb9  
 75646 Rai14  
 233489 Picalm  
 30937 Lmcd1  
 13426 Dync1i1  
 20700 Serpina1a Serpina1b Serpina1c  
 56699 Cdc42ep4  
 12192 Zfp3611  
 218035 Vps41  
 66148 Dnajc15

# Divergent module D2

ENTREZ_GENE_ID	GENE_SYMBOL
56407	Trpc4ap
18301	Fxyd5
68614	Letmd1
56491	Vapb
15117	Has2
12972	Cryz

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19051 Gsbs  
14579 Gem  
17129 Smad5  
27360 Add3  
14678 Gnai2  
11520 Adfp  
170755 Sgk3  
17125 Smad1  
219150 Hmbox1  
20911 Stxbp2  
319765 C330012H03Rik  
22214 Ube2h  
73181 Nfatc4  
26403 Map3k11  
140740 Sec63  
17984 Ndn  
14635 Galk1  
21928 Tnfaip2  
72674 Adipor1  
29876 Clic4  
319162 Hist3h2a  
17475 Mpdz  
83814 Nedd41  
19378 Aldh1a2  
13039 Cts1  
73124 Golph4  
72433 Rab38  
20442 St3gal1  
216157 ORF61  
80877 Lrba  
18516 Pbx3  
12162 Bmp7  
21406 Tcf12  
56209 Mir16  
72535 Aldh1b1  
14131 Fcgr3  
105245 Txndc5  
11820 App  
11479 Acvr1b  
27045 Nit1  
18571 Pcd6ip  
11600 Angpt1  
13716 E11  
72475 Ssbp3  
70231 Gorasp2  
15212 Hexb  
16008 Igfbp2  
18555 Pctk1  
12522 Cd83  
207742 Rnf43  
54446 Nfat5  
72193 Sfrs2ip  
216565 Ehbp1

# Divergent module D3

ENTREZ_GENE_ID	GENE_SYMBOL
102162	Taf51
67574	Glt28d1
71793	Phf22
56455	Dynl11
67994	Mrps11

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13665 Eif2s1  
234374 Ddx49  
12224 Klf5  
75320 Etnk1  
17979 Ncoa3  
16994 Ltb  
246696 Slc25a28  
68995 Mcts1  
56040 Rplp1  
73739 Pgea1  
15929 Idh3g  
12905 Cradd  
12396 Cbfa2t2h  
232440 H2afj LOC632401  
246196 Zfp277  
13690 Eif4g2  
17532 Mras  
225326 Pik3c3  
67628 Anp32b  
22044 Trh  
70356 St13  
66141 Ifitm3  
20226 Sars  
20257 Stmn2  
80915 Dusp12  
83409 Mapbpip  
20918 Eif1  
13870 Ercc1  
110173 Manba  
21888 Tle4  
13195 Ddc  
105083 Pelo  
19359 Rad23b  
66912 Bzw2  
11486 Ada  
83397 Akap12  
76467 Msrb2  
54353 Scap2