

## Supplemental Table 1

Probe Set ID	Gene Symbol	relative expression
10406519	Hapln1	9.26
10405047	Aspn	9.06
10536363	Tac1	6.99
10606369	Itm2a	6.98
10583071	Mmp3	6.85
10440091	Col8a1	6.74
10521537	4Cyt11	6.48
10492798	Sfrp2	6.44
10406504	Edil3	6.11
10601942	Nrk	5.86
10552064	Krtdap	5.79
10384223	Igfbp3	5.60
10554249	Acan	5.56
10345921	1500015O10Rik	5.41
10487040	Fbn1	5.39
10593123	Tagln	5.31
10379518	Ccl7	5.28
10347277	Igfbp2	4.97
10365991	Epyc	4.78
10606366	Zcchc5	4.74
10407327	Emb	4.65
10587315	Gsta4	4.63
10409579	Cxcl14	4.63
10471567	C130021I20Rik	4.55
10439895	Alcam	4.53
10435641	Fstl1	4.46
10531724	Plac8	4.45
10585438	Crabp1	4.28
10351293	Dpt	4.23
10398319	Dlk1	4.20
10424119	Nov	4.17
10376778	Mfap4	4.11
10344897	Sulf1	4.02
10584628	Thy1	4.01
10555323	P4ha3	3.95
10453057	Cyp1b1	3.93
10469066	Ccdc3	3.91
10601412	Lpar4	3.83
10417212	Itgbl1	3.81
10477920	Myl9	3.80
10543959	Ptn	3.77
10411229	F2r	3.74
10447951	Thbs2	3.72
10492021	Postn	3.69
10601648	Tnmd	3.65

Probe Set ID	Gene Symbol	relative expression
10569341	H19	3.59
10396476	Rhoj	3.57
10492448	Ptx3	3.54
10458999	Fbn2	3.47
10561187	Mia1	3.46
10541075	Cxcl12	3.46
10537062	Mest	3.44
10474700	Thbs1	3.43
10559790	Zim1	3.37
10436304	Abi3bp	3.36
10439710	Phldb2	3.35
10418193	Plac9	3.32
10503659	Epha7	3.30
10421853	Lect1	3.30
10365559	Igf1	3.28
10545707	Actg2	3.24
10536444	Foxp2	3.22
10410931	Vcan	3.19
10406845	Foxd1	3.17
10541496	Mfap5	3.16
10594066	Loxl1	3.14
10374777	Efemp1	3.13
10519886	Sema3c	3.11
10506488	Ppap2b	3.10
10364149	S100b	3.09
10398075	Serpina3n	3.08
10456018	Arsi	3.07
10360391	Ifi203	3.07
10501608	Vcam1	3.06
10409314	Msx2	3.04
10511363	Penk1	3.03
10502081	Enpep	3.00
10358664	Hmcn1	2.98
10583809	Cnn1	2.97
10559796	Peg3	2.96
10601846	2900062L11Rik	2.96
10439009	Apod	2.95
10607848	Egfl6	2.94
10576051	Foxc2	2.94
10367634	Akap12	2.94
10429564	Ly6a	2.93
10588037	Rbp1	2.93
10429568	Ly6c1	2.92
10490818	Stmn2	2.88
10601848	6530401D17Rik	2.86

Probe Set ID	Gene Symbol	relative expression
10455954	EG240327	2.85
10398326	Meg3	2.83
10592420	AW551984	2.82
10455961	ligp1	2.81
10348240	3110079O15Rik	2.81
10398362	Rian	2.80
10542470	Mgst1	2.79
10402347	Ifi27	2.78
10422728	Dab2	2.77
10505489	Pappa	2.77
10578649	Odz3	2.76
10424140	Col14a1	2.74
10467013	Prkg1	2.73
10423080	C1qtnf3	2.72
10599348	Gria3	2.66
10576639	Nrp1	2.66
10471067	Prrx2	2.65
10367982	Gpr126	2.63
10469457	Plxdc2	2.61
10357870	Prelp	2.61
10399691	Id2	2.59
10531994	Mpa2l	2.58
10407126	Plk2	2.55
10401527	Ltbp2	2.54
10439299	Stfa3	2.52
10414025	Gdf10	2.52
10508676	Matn1	2.51
10569429	Cdkn1c	2.50
10447649	Fndc1	2.49
10467124	Acta2	2.48
10374366	Egfr	2.48
10536294	Peg10	2.47
10350516	Ptgs2	2.46
10482181	Strbp	2.46
10569344	Igf2	2.46
10551852	Clip3	2.46
10530841	Igfbp7	2.45
10395103	Pxdn	2.45
10359280	Pappa2	2.45
10542575	Pde3a	2.44
10359689	Atp1b1	2.44
10577164	Gas6	2.43
10439514	Gap43	2.43
10595695	Zic1	2.42
10606835	Bex2	2.40

Probe Set ID	Gene Symbol	relative expression
10352905	Cd34	2.40
10372028	Plxnc1	2.40
10397633	Flrt2	2.39
10344990	Crispld1	2.39
10604542	Hs6st2	2.38
10403584	Nid1	2.38
10571567	Sorbs2	2.37
10512499	Tpm2	2.37
10346015	Col3a1	2.36
10400967	Six1	2.36
10498309	Pfn2	2.36
10455901	Slc27a6	2.32
10362186	Moxd1	2.30
10401673	Tgfb3	2.30
10543939	BC064033	2.29
10606868	Bex1	2.29
10362091	Raet1d	2.28
10502778	Lphn2	2.27
10436945	Slc5a3	2.26
10577315	Angpt2	2.25
10363541	Ass1	2.24
10507101	OTTMUSG00000008561	2.24
10594044	Islr	2.24
10432045	Col2a1	2.23
10481845	Fam125b	2.23
10394488	Matn3	2.22
10488378	Thbd	2.22
10394534	Osr1	2.22
10529651	Msx1	2.22
10509901	Mfap2	2.21
10496125	Dkk2	2.20
10584208	Cdon	2.20
10477169	Id1	2.19
10492682	1110032E23Rik	2.17
10410766	Nr2f1	2.16
10485198	Tspan18	2.15
10550388	Gng8	2.15
10345777	Il1rl2	2.14
10540085	Fbln2	2.13
10453394	Six2	2.13
10546661	Foxp1	2.13
10367772	Samd5	2.13
10522749	Lphn3	2.13
10489759	Sulf2	2.12
10598626	Tspan7	2.12

Probe Set ID	Gene Symbol	relative expression
10366746	Lrig3	2.12
10485070	Mdk	2.11
10548892	Arhgdib	2.11
10506050	Nfia	2.11
10359870	Pbx1	2.10
10427796	Npr3	2.10
10361771	Plagl1	2.09
10494351	Mtmr11	2.09
10461148	Snhg1	2.09
10385248	Hmmr	2.09
10583008	Casp12	2.08
10405063	Ogn	2.07
10533050	Hspb8	2.07
10382328	Sox9	2.07
10454632	Camk4	2.06
10404407	Foxc1	2.05
10536845	Flnc	2.04
10348739	Sned1	2.03
10424082	Aard	2.02
10445237	LOC627626	2.02
10359908	Rgs4	2.02
10583207	Maml2	2.01
10483401	Spc25	2.01
10531177	Adamts3	2.01
10478698	Eya2	2.01
10504424	Reck	2.00
10599927	Aff2	1.99
10399908	Prkar2b	1.99
10427895	Basp1	1.99
10429515	Lynx1	1.99
10481540	Fnbp1	1.99
10529656	Nsg1	1.98
10498386	Igsf10	1.97
10530870	Epha5	1.97
10366346	Phlda1	1.97
10452419	Efna5	1.97
10375360	Ebf1	1.97
10408557	Serpinb1a	1.96
10568536	Cpxm2	1.95
10515836	Ccnb1	1.95
10599001	Agtr2	1.94
10362201	Ctgf	1.94
10368409	Lama2	1.94
10519815	Cacna2d1	1.93
10422244	Slitrk6	1.92

Probe Set ID	Gene Symbol	relative expression
10576973	Col4a1	1.91
10399725	Sox11	1.91
10423836	Cthrc1	1.90
10362538	Lama4	1.90
10433114	Itga5	1.90
10484371	Calcl	1.89
10436623	Chodl	1.89
10540122	Slc6a6	1.89
10476969	Pygb	1.88
10571142	Gpr124	1.88
10369154	Man1a	1.88
10547740	C1s	1.87
10491732	Fat4	1.87
10535231	Ttyh3	1.87
10564527	Nr2f2	1.87
10344803	Cspp1	1.86
10416230	Tnfrsf10b	1.86
10514255	Mlit3	1.86
10376950	Pmp22	1.86
10513208	Svep1	1.85
10599581	2610018G03Rik	1.85
10496494	Tspan5	1.85
10435948	Ccdc80	1.85
10460541	Cd248	1.85
10346607	Fzd7	1.85
10417176	Zic2	1.84
10439612	Boc	1.84
10346150	Tmeff2	1.84
10486102	Gpr176	1.84
10368495	Rspo3	1.83
10522288	Shisa3	1.83
10366293	Csrp2	1.83
10451547	LOC100043385	1.83
10394498	Wdr35	1.82
10521972	Pcdh7	1.82
10557156	Plk1	1.82
10369688	Tet1	1.81
10360985	Cenpf	1.81
10419288	Gch1	1.81
10436941	Mrps6	1.80
10570957	Sfrp1	1.80
10529977	Ppargc1a	1.80
10472321	Slc4a10	1.79
10496580	Gbp3	1.79
10402211	Fbln5	1.79

Probe Set ID	Gene Symbol	relative expression
10504106	Il11ra1	1.79
10427862	Cdh6	1.79
10350753	Glul	1.78
10399588	Zfp125	1.77
10476314	Prnp	1.77
10356333	Snord82	1.76
10434291	B3gnt5	1.76
10355893	Epha4	1.76
10358816	Lamc1	1.76
10487645	Cpxm1	1.76
10384885	Spnb2	1.75
10595560	Tbx18	1.75
10595211	Col12a1	1.75
10457587	Zfp521	1.75
10446376	Man2a1	1.75
10377319	Myh10	1.74
10371770	Gas2l3	1.74
10496204	Cenpe	1.73
10514177	Bnc2	1.73
10433776	Snai2	1.73
10366266	Pawr	1.72
10571444	Slc7a2	1.72
10556076	Olfml1	1.72
10477187	Tpx2	1.71
10346365	Sgol2	1.71
10346348	2810022L02Rik	1.70
10345101	Col9a1	1.70
10381298	Ramp2	1.69
10594774	Ccnb2	1.69
10572024	Spock3	1.69
10462796	Kif11	1.69
10514939	Podn	1.68
10594251	Kif23	1.67
10604743	Snord61	1.67
10455761	Prdm6	1.67
10586118	Calml4	1.67
10515090	Cdkn2c	1.66
10604576	Gpc3	1.66
10445325	Rcan2	1.66
10359571	Fmo1	1.66
10539263	Loxl3	1.66
10482434	Gtdc1	1.66
10485963	Arhgap11a	1.65
10442037	Zfp97	1.65
10522503	Pdgfra	1.65

Probe Set ID	Gene Symbol	relative expression
10562657	EG434179	1.65
10403108	Hmgn2	1.65
10493449	Thbs3	1.65
10370000	Gstt1	1.65
10385271	Ccng1	1.65
10580795	Ccdc102a	1.64
10562251	Scn1b	1.64
10554938	Rab30	1.64
10403464	Dip2c	1.64
10351039	Gas5	1.63
10519857	Hgf	1.63
10519998	Lrrc17	1.62
10580056	ENSMUSG00000074219	1.62
10497122	Depdc1a	1.62
10358476	Prg4	1.62
10466800	Pgm5	1.62
10364950	Gadd45b	1.62
10395409	Meox2	1.62
10542677	Etnk1	1.62
10499870	Lor	1.61
10454709	Kif20a	1.61
10606902	4930488E11Rik	1.60
10496519	Unc5c	1.60
10399360	Rhob	1.60
10601878	Tceal1	1.59
10569714	Cacng7	1.59
10601844	Bhlhb9	1.58
10434758	St6gal1	1.58
10356172	5033414K04Rik	1.58
10546725	Pdzrn3	1.57
10400984	Tmem30b	1.55
10558150	Htra1	1.54
10528008	Steap2	1.54
10408600	Serpinb6a	1.54
10414527	Pnp2	1.54
10452556	Rab12	1.54
10375065	Sh3pxd2b	0.65
10489204	Tgm2	0.65
10577792	Plekha2	0.64
10388488	Fam101b	0.63
10502240	Npnt	0.63
10446763	Lbh	0.63
10413609	Mustn1	0.62
10366848	B4galnt1	0.62
10570516	Kbtbd11	0.61

Probe Set ID	Gene Symbol	relative expression
10484894	Ptprj	0.61
10499108	Glt28d2	0.61
10436442	Fam60a	0.61
10460237	Unc93b1	0.61
10381809	Itgb3	0.61
10388545	Abr	0.60
10502156	Ccdc109b	0.60
10359034	Qsox1	0.60
10603051	Ap1s2	0.59
10535043	Pdgfa	0.59
10437639	Emp2	0.58
10567355	Gprc5b	0.58
10354588	Stk17b	0.57
10595840	Acpl2	0.57
10451061	Runx2	0.57
10348829	Farp2	0.57
10544523	Rny1	0.57
10435305	Itgb5	0.57
10562211	Fxyd1	0.57
10388194	Spns2	0.57
10425116	Cdc42ep1	0.56
10483081	Fap	0.56
10587733	Ctsh	0.56
10415857	Fam167a	0.56
10436978	Cbr3	0.55
10421361	Bmp1	0.55
10569618	Ano1	0.55
10585778	Sema7a	0.55
10440376	Lipi	0.55
10366951	Ndufa4l2	0.55
10428604	Tnfrsf11b	0.54
10455826	Megf10	0.54
10550877	Kcnn4	0.54
10560685	Bcl3	0.54
10556381	Mical2	0.54
10554789	Ctsc	0.54
10372177	Tmtc2	0.53
10414360	Lgals3	0.53
10444883	Cdsn	0.53
10376201	Gpx3	0.53
10358299	EG214403	0.53
10404059	Hist1h1c	0.53
10501586	S1pr1	0.53
10372648	Lyz2	0.52
10380501	Dlx3	0.52

Probe Set ID	Gene Symbol	relative expression
10447006	Vit	0.52
10410039	Ptch1	0.51
10355984	Serpine2	0.51
10459730	Me2	0.51
10571274	Gsr	0.51
10522946	Ambn	0.51
10434698	Fetub	0.51
10474915	Gchfr	0.51
10503188	Chd7	0.50
10386020	Slc36a2	0.50
10500808	Olfml3	0.50
10392464	Fam20a	0.50
10505008	Slc44a1	0.49
10474229	Cd59a	0.49
10509030	Runx3	0.49
10538150	Tmem176a	0.48
10587616	Prss35	0.48
10351400	Fam78b	0.48
10421810	1190002H23Rik	0.48
10485117	Creb3l1	0.47
10456184	Apcdd1	0.47
10499363	Bglap1	0.47
10517587	Alpl	0.47
10464471	Gal	0.46
10500327	Hist2h3c2	0.46
10503098	Lyn	0.46
10428857	Mtss1	0.45
10410460	3110006E14Rik	0.45
10551185	Tgfb1	0.45
10523506	Bmp3	0.44
10407955	Epdr1	0.44
10595094	2310046A06Rik	0.43
10552919	Hrc	0.43
10476395	Bmp2	0.43
10467768	Loxl4	0.42
10423520	Sema5a	0.42
10529034	Cgref1	0.42
10389617	Ppm1e	0.41
10433003	Sp7 (Osterix)	0.41
10597239	Pth1r	0.41
10471424	Fam102a	0.41
10483249	Galnt3	0.40
10345675	Npas2	0.40
10489569	Pltp	0.40
10603492	Porcn	0.40

Probe Set ID	Gene Symbol	relative expression
10466712	Mamdc2	0.40
10403842	Elmo1	0.40
10404053	Hist1h2bc	0.40
10603485	Ebp	0.40
10523717	Spp1	0.40
10369388	Unc5b	0.39
10581479	Smpd3	0.39
10402705	Gm266	0.39
10509992	Hspb7	0.38
10489878	Ptgis	0.37
10406434	Mef2c	0.37
10593499	AI593442	0.37
10583044	Mmp13	0.36
10492355	Mme	0.36
10389022	Myo1d	0.36
10601659	Srpx2	0.36
10430425	Lgals2	0.36
10401891	Ston2	0.36
10457644	Cdh2	0.36
10571715	Enpp6	0.36
10385776	Tcf7	0.34
10360406	Ifi205	0.33
10576581	Kcnk1	0.33
10536667	Ptprz1	0.33
10591135	Fat3	0.32
10418092	A830039N20Rik	0.31
10508614	Fabp3	0.31
10523693	Dmp1	0.30
10606016	Il2rg	0.30
10525989	Gpr133	0.28
10418053	Kcnma1	0.27
10382435	Gprc5c	0.26
10439651	Cd200	0.26
10422822	Lifr	0.25
10354777	Satb2	0.25
10380566	Phospho1	0.25
10607499	Phex	0.23
10388160	Slc13a5	0.22
10490913	Car3	0.21
10523701	Ibsp	0.19
10502224	Sgms2	0.19
10592355	Panx3	0.19
10405058	Omd	0.18
10358339	Cfh	0.16
10569011	Ifitm5	0.16
10403834	Sfrp4	0.15
10499358	Bglap2	0.14