

Supplementary Table-3

D-BPG	D-BPG	D-BPG	D-BPG	D-BPG	D-EPG	D-EPG	D-EPG	D-EPG	D-EPG
CL1	CL2	CL3	CL4		CL1	CL2	CL3	CL4	CL5
2610008E11Rik	Abhd12	1190002N15Rik	9030624J02Rik		9230104L09Rik	Ajuba	AI427809	Acsbg1	A730046J19Rik
2810474O19Rik	Acyp2	A730017C20Rik	Afap111		Adamts19	Anxa7	Agpat5	Actn1	Aacs
Abca1	Akr1b7	Aard	Aftph		Adck5	Apc	Aldh6a1	Ahcy	Acat1
Adhfe1	Arnt2	Abat	Agtr2		Aebp1	Arfgef1	Ccdc88c	Aprt	Acbd4
Akap7	Calcr1	Abi3bp	Akap8l		Ahnak	Atp11b	Cd55	Arpc1b	Adam10
Akr1c14	Ccnd2	Abtb2	Akirin1		Alad	Cab39	Cdc27	Bspry	Add3
Akr1cl	Cd83	Acsm3	Ank		Aldh1a2	Calu	Cgnl1	Casp12	Adora1
Aldh3b1	Cdk6	Adamts1	Arhgap31		Ano1	Coa5	Chpf	Ccnd1	Agrn
Angpt2	Cdo1	Adamts16	Atp6ap1		Aqp5	Dnajc10	Chst4	Chaf1b	Ak7
Ankrd50	Cited1	Aff1	B3galnt1		Arl4c	Dusp8	Crlf1	Col6a1	Akap13
Anxa3	Clip3	Aldh1a1	Bbx		Asic2	Fkbp9	Dnajc21	Creb3	Aldh1a7
Ar	Cotl1	Aldh1b1	Caskin1		Azin1	Hsp90aa1	Eea1	Creb5	Ank3
Arhgap29	Cpa2	Aldh2	Ccdc170		B4galt5	Klf4	Elavl2	Csrp1	Ankrd29
Arhgap42	Dnm2	Amph	Cd34		B4galt6	Mlec	Ermp1	Dbi	Anpep
Arhgef28	Dpp10	Ank2	Cgn		Bcar3	Naa50	Fbl	Dctpp1	Anxa1
Armcx5	Efhd2	Aplp2	Clstn2		Bicc1	Ncoa4	Gfra4	Dpm3	Anxa11
Asap2	Fez1	App	Col9a2		Bmp2	Otud4	Haus4	Efna1	Aox3
Bcat1	Gstm7	Arhgef40	Cpe		Bnc2	Ptprg	Herc6	Eif5a	Aplp1
Bicd1	Hspb6	Arl6ip1	Cyp2j6		Cav1	Rasa1	Il17rd	Eps8l2	Apoc1
Bmp2k	Ifitm1	Armcx3	Dhrs3		Cd2ap	Smc1a	lpo5	Fabp5	Apoe
Bmp3	Itm2a	Armcx6	Dkk3		Cd320	Trim12c	Irx5	Fam129a	Arhgap26
Bst2	Kcnh1	Atp2b4	Edil3		Cd9	Ubn1	Jph1	Fgfr1	Arhgef12
Car8	Kif26b	Atp6v0e2	Eif4e3		Cebpb	Ubr5	Mat2b	Frmd4b	Arid5a
Cdc42ep5	Magi2	B3gat1	Epha7		Cenpe	Uchl1	N4bp3	Glul	Arid5b
Cdh12	Mfap2	Bambi	Fam198a		Colq	Wwc2	Nus1	Hspb1	Arsa
Cfh	Mlf1	Bche	Fkbp4		Csgalnact1		P2rx7	Ifitm3	Atf3
Chka	Mras	Btg1	Fkbp6		Cst12		Pcgf5	Igfbp2	Atp13a3
Chn2	Mt3	Cachd1	Fut8		Cst8		Pdcd4	Illdr2	Atp1b1
Cnot1	Mtch1	Cacna1d	Gdi1		Ctnna1		Pde10a	Itgb8	Atp2b1
Cntnap5a	Nnat	Cadm4	Gdpd1		Cybrd1		Plbd2	Kif23	Atp6v0e
Col8a1	Pcdh7	Casp6	Gja1		D630039A03Rik		Raph1	Krt17	B2m
Crispld2	Popdc3	Cdh23	Gtf2a1		Dcn		Rarres1	Lama5	B3gnt7
Ctsl	Prdx1	Cdk5	Hsd3b1		Ece1		Rassf3	Loxl2	B3gnt9
Ctxn3	Ptgds	Cdkn1b	Hspa13		Ehd2		Rnf144b	Mcm7	B4galt1
Cyp2j9	Ptgis	Cela1	Hspa4		Elf4		Rpia	Mical2	B4galt4
Ddah1	Pwwp2b	Chst15	Itgb5		Elov15		Rsad2	Mre11a	Bace2
Dennd5b	Rel	Cln3	Itih5		Ephb1		Slc12a2	Myl12a	Bcam
Dpf1	Sema3c	Clu	Klhl25		F11r		Slc16a1	Palld	Bex2
Dpp6	Sh3bgr	Cmb1	Klhl5		F3		Slc44a1	Pcna	Boc
Dst	Slc15a2	Cmtm3	Lamb1		Fam83g		Slc4a3	Pcx	Bok
Egfr	Slco1a4	Col18a1	Map3k5		Fhod3		Stim1	Pglyrp1	Brca2

<b>Entpd1</b>	Smpdl3b	Col27a1	Map4k4		Flrt1		Stom	Plat	Bub1
<b>Epdr1</b>	Sox4	Col3a1	Mapk6		Gm2a		Syne2	Plp2	C1qtnf1
<b>Fam19a5</b>	Syt7	Col5a2	Matn2		Gng13		Tkt	Ppl	C2
<b>Fdps</b>	Tma7	Colec12	Myl9		Got1		Tmem255a	Prkcz	Cacnb3
<b>Gadd45g</b>	Traf1	Cx3cl1	Nrbp2		Gprc5c			Prr5l	Cald1
<b>Galnt7</b>	Tspan15	Cyp1b1	Ntn4		Hs3st3a1			Rab32	Capn6
<b>Gas6</b>	Tuba1a	Dag1	Ogt		Hsd17b2			Rasl11a	Car9
<b>Gdpd2</b>	Txnip	Dync1i1	Os9		Hspb8			Rbbp8	Casz1
<b>Gls</b>	Ucp2	Ehd3	P4ha1		Igf1			Rbm3	Ccdc92
<b>Gprasp1</b>	Unc119	Eif4a2	Pabpn1		Ii16			Rnaseh2b	Cd74
<b>Gpsm1</b>	Vcan	Elovl2	Pfn2		Ii4ra			Rps6ka3	Cd82
<b>Greb1</b>	Zfp667	Emc2	Plk2		Ipo7			Samd4	Cdc42bpb
<b>Greb1l</b>	Zyx	Emx2	Plxnc1		Irx3			Scpep1	Cdc42ep1
<b>Gstm1</b>		Etl4	Rbbp6		Isoc1			Sptlc2	Cdc42ep3
<b>Gstm2</b>		Etnk2	Rlim		Itpr1			Tagln2	Cdon
<b>Gtf2e2</b>		Fam110c	Scd2		Lnpep			Tbrg1	Celf2
<b>Hey1</b>		Fam3c	Slc12a6		Lrrc3b			Tcof1	Cenpb
<b>Hif1a</b>		Fam69a	Slc27a1		Lrrc8e			Timp1	Cep55
<b>Hpgd</b>		Fbn2	Slc37a2		Ly6d			Tm4sf1	Ces2g
<b>Hsd17b7</b>		Fbxl17	Smad3		Man2b2			Tmco1	Chchd6
<b>Hsph1</b>		Fbxo21	Sprn		Mfsd2a			Tmem196	Chmp4b
<b>Inha</b>		Fkbp10	Stk4		Mme			Tnfaip2	Cish
<b>Inhbb</b>		Fmn12	Stxbp6		Mmp15			Tpm4	Clec2l
<b>Itga6</b>		Fndc5	Tdrd5		Mpzi2			Trim6	Clic4
<b>Itga9</b>		Foxl2	Tle2		Myc			Tspan4	Cnbp
<b>Itm2b</b>		Foxp1	Tm9sf2		Mycn			Unc45b	Cnn3
<b>Kctd14</b>		Foxp4	Tmem178		Myof			Wnt2b	Col12a1
<b>Ldhb</b>		G0s2	Tmem86a		Naaa			Wsb2	Col4a2
<b>Lipg</b>		Gatm	Tpd52		Nckap5			Xaf1	Cry1
<b>Lman1</b>		Gm826	Xylt2		Nde1			Zfp185	Csrnp1
<b>Lpl</b>		Gpc4	Zfhx4		Nek7				Ctdspl
<b>Lrp4</b>		Grem2			Nmnat2				Cth
<b>Ltbp1</b>		Gria3			Nrn1				Cxcl16
<b>Mafb</b>		Gstm6			Nsmce1				Cygb
<b>Map1b</b>		Hist2h2be			Pank3				Dab2ip
<b>Mgst1</b>		Hmgcs1			Pdpm				Dbn1
<b>Mical3</b>		Hs3st1			Pebp1				Dennd4c
<b>Mid1ip1</b>		Irf2bp2			Plau				Dgkz
<b>Mro</b>		Islr			Plekhh3				Dhcr24
<b>Msrb2</b>		Itm2c			Ppfi1p1				Dnajc6
<b>Myo10</b>		Kctd12			Ppip5k2				Dsp
<b>Myo1b</b>		Kitl			Ppp2r2c				Efhd1
<b>Myo1e</b>		Lama1			Ppp4r2				Egfl6
<b>Naalad2</b>		Lbh			Prkcb				Ehd1
<b>Ncald</b>		Lbx2			Procr				Ei24
<b>Ndrp2</b>		Lmcd1			Prune2				Eif4h

<b>Nipal1</b>	Lpar1	Ptprb	Eln
<b>Nr5a2</b>	Lrpap1	Rhox8	Emd
<b>Nrip1</b>	Lrrfp1	Rpusd1	Emp2
<b>Nxn12</b>	Maged1	Scarb1	Enpp2
<b>Odf2</b>	Maged2	Sdc1	Epcam
<b>Olfml3</b>	Mamld1	Sdk2	Epha2
<b>Pak3</b>	Marcks	Sh3d19	Ephb2
<b>Pank1</b>	Mgp	Sh3tc2	Ephb4
<b>Pfkfb3</b>	Mmp11	Sipa12	Epn3
<b>Pla2r1</b>	Mmp14	Soat1	Esco2
<b>Pln</b>	Mmp16	Tbc1d4	Esyt1
<b>Plod2</b>	Ncam1	Timeless	Exoc3l4
<b>Pls3</b>	Nell1	Tiparp	Ezr
<b>Plxna2</b>	Nfatc4	Tmem109	Fam168b
<b>Polr1a</b>	Notch2	Tmem132a	Fam84b
<b>Ppp1r14a</b>	Nr3c2	Trim2	Fbln1
<b>Ppt1</b>	Nrep	Ttc38	Fbln2
<b>Prlr</b>	Nsg1	Tuba1c	Fdxr
<b>Prss23</b>	Oit3	Utrn	Fgf3
<b>Ptch1</b>	Osbp15	Wt1	Filip11
<b>Rabgap1l</b>	Pald1		Flna
<b>Rai14</b>	Pbx2		Fmnl1
<b>Rai2</b>	Pbx3		Folr1
<b>Rasd1</b>	Pcdh11x		Fosb
<b>Rasgef1b</b>	Pced1b		Galk1
<b>Rgs22</b>	Pcsk6		Galnt4
<b>Ryr2</b>	Pde1a		Gas1
<b>S100a10</b>	Pdzrn4		Gata1
<b>Sat2</b>	Peg10		Gata3
<b>Scap</b>	Pgrmc1		Gbp2
<b>Scg5</b>	Pik3ip1		Gdf9
<b>Scube1</b>	Pla2g4a		Gjb3
<b>Sfrp4</b>	Plekhf1		Glrx
<b>Shisa9</b>	Plin2		Gm17660
<b>Slc18a2</b>	Prkar1b		Gm1968
<b>Slc23a2</b>	Prkar2b		Golim4
<b>Slc25a30</b>	Ptn		Gpc3
<b>Slc25a37</b>	Pygb		Gpcpd1
<b>Slc25a42</b>	R3hdm1		Gpd2
<b>Slc40a1</b>	Rasgrp1		Gpm6a
<b>Smarca1</b>	Rassf2		Grk5
<b>Smoc1</b>	Rgs2		Gsn
<b>Snca</b>	Rnf152		Gss
<b>Socs2</b>	Sbk1		H2-D1
<b>Son</b>	Scara3		H2-K1
<b>Srgap1</b>	Serpnb6a		H2-Q4

<b>St3gal4</b>	Serpine2								Hdac5
<b>St3gal5</b>	Serpinf1								Hdac7
<b>Sym</b>	Slc16a2								Hdc
<b>Tcf4</b>	Slc16a4								Herpud1
<b>Tenm4</b>	Slc22a17								Hoxc5
<b>Tgfa</b>	Slc25a23								Hoxc8
<b>Thbs1</b>	Slc4a2								Hoxd9
<b>Tmem45a</b>	Simap								Hspa2
<b>Tmprss13</b>	Smarcd3								Ii34
<b>Top1</b>	Smpx								Irf5
<b>Tpd52l1</b>	Sox11								Isoc2a
<b>Trib2</b>	Srgap3								Itga3
<b>Tspan18</b>	St5								Jup
<b>Ubc</b>	Stk39								Kcnab1
<b>Unc93b1</b>	Stmn1								Kcnd2
<b>Wipi1</b>	Supt3								Kcne1l
<b>Xist</b>	Sytl4								Kcnf1
<b>Zeb1</b>	Tcf12								Kcnh6
<b>Zfp292</b>	Tet3								Kdm3a
<b>Zim1</b>	Thbs2								Kifc3
	Tjp1								Klf6
	Tmem206								Krt18
	Tmx2								Krt19
	Tns3								Krt7
	Trabd2b								Krt8
	Tril								Lama3
	Trp53i11								Lamb2
	Tsc22d1								Lfng
	Ucp1								Lgals2
	Zfp41								Lgals9
	Zhx3								Lgr5
									Lhx9
									Limch1
									Lmna
									Lmnb1
									Loxl1
									Lrrc7
									Lsr
									Ltbp3
									Ltbp4
									Luzp1
									Lypd6b
									Map1a
									Map3k1
									Mapk13
									Mapk3

									Mbnl3
									Mcl1
									Mcm6
									Me1
									Megf6
									Mest
									Met
									Mfge8
									Mpp2
									Msln
									Mt1
									Mt2
									Mtr
									Mxi1
									Mxra8
									Mybpc3
									Myo1c
									Myo1d
									Myzap
									Nab1
									Nav2
									Ncapg
									Ndrp1
									Ndufb4
									Necab3
									Nfib
									Nfil3
									Nfix
									Nid2
									Npc1
									Nr3c1
									Nrap
									Ntng1
									Nudt17
									Nxf3
									Oat
									Olfml2b
									Oplah
									Orai1
									Pam
									Paqr8
									Pard6b
									Parva
									Parvb
									Pdgfa
									Pdim5

									Pdlim7
									Pdzd2
									Pgap1
									Pkhd111
									Plcd1
									Plch1
									Pld3
									Ppp1r13b
									Pqlc1
									Prdx3
									Prkab1
									Prph
									Prrg3
									Prrt4
									Prss35
									Prss8
									Pygm
									Qsox1
									Rarres2
									Rasal1
									Rasl10a
									Rassf10
									Rbm47
									Rbms2
									Rbpms2
									Reep1
									Rin2
									Rnd3
									Rnf128
									Rogdi
									Rragd
									Rrbp1
									Rrm1
									Rspo1
									Rtn1
									Rtn4r1
									S100a1
									Sbspon
									Scube2
									Sec31a
									Sec61a1
									Sema3a
									Sema3f
									Serinc3
									Serpina3g
									Serpinb1a

								Serping1
								Setd7
								Sft2d2
								Sgpl1
								Sh2d4a
								Sh3bp5
								Sik1
								Slc29a1
								Slc31a2
								Slc38a4
								Slc48a1
								Slc4a4
								Slc9a3r1
								Slco5a1
								Smagp
								Socs3
								Spats2l
								Specc1
								Star
								Stat1
								Stat3
								Stx17
								Stx3
								Svs5
								Syng1
								Synpr
								Syt14
								Tchh
								Tenm3
								Tfcp2l1
								Tfeb
								Thra
								Timp2
								Tinagl1
								Tjp2
								Tln1
								Tm4sf5
								Tmem151a
								Tmem151b
								Tmem65
								Tmem98
								Tnfaip8
								Tnfrsf12a
								Tnfrsf19
								Tnfrsf1a
								Tnfrsf1b

									Tnks1bp1
									Tnni1
									Tox3
									Tram1
									Trib1
									Tspan1
									Tspan5
									Twsg1
									Ube2l6
									Upk1b
									Upk3b
									Vat1l
									Vcl
									Vdr
									Vsnl1
									Vwa5a
									Wdtdc1
									Wls
									Xpnpep2
									Zfyve21