

**Table S7: Prominence enrichment for Ectoderm and Mesenchyme genes in Figure 3B**

enriched in:	Ectoderm	Mesenchyme
FnP	<i>Abcg1, Ace2, Clu, Dct, Eya2, Fgf17, Gadd45g, Gjd2, Gpnmb, Hapln1, Itgb6, Jakmp2, Lrp2, Mitf, Msx2, Nmnat2, Otx1, Pcdh20, Pcp4l1, Pla2r1, Pls1, Pmel, Rasef, Rdh10, Rorb, Six6, Slc24a5, Slc27a2, Slc45a2, Tmem30b, Trpc1, Tyr</i>	<i>Acsm4, Adamts3, Agr3, AI464131, Alcam, Aldh1a3, Alx1, Ano1, Apod, Aqp1, Arhgdig, Atp1b1, Atp8b4, Blnk, Cadps, Calb2, Car12, Ccdc171, Cdh10, Cdhr1, Celf3, Ckmt1, Cldn11, Cldn9, Clu, Cntfr, Col8a1, Crabp1, Crlf1, Crym, Cyfp2, D930020B18Rik, Dcc, Ddit4l, Dmrt3, Dub2a, Ebf1, Elavl2, Elavl3, Elf5, Emx2, Entpd5, Eps8, Ermn, Eya2, Fam107a, Fam150b, Fap, Fezf1, Foxc1, Fstl5, Galm, Gata2, Gcnt2, Glyatl3, Gm9866, Gpm6a, Gstm1, Gstm3, Gstm6, Hey1, Hpse2, Htr3b, Igfbp7, Igsf5, Inmt, Insm1, Kif19a, Krt23, Krt8, Lhx2, Maob, Mapk10, Med12l, Mfng, Mtap1b, Myo6, Myt1l, Ncam2, Nhlh2, Nol4, Nr2e1, Nrnx1, Olfr15, Otx2, P4ha3, Papss2, Pax6, Pax7, Pax9, Pcdh11x, Pcdh19, Pgm2l1, Pid1, Plch1, Ppfia2, Prdm16, Prkca, Prph, Prr15, Reln, Rerg, Rprm, Rtn1, S100z, Scg3, Serpine2, Six2, Slc17a6, Slc27a2, Slco4c1, Sox5, Sox9, Sp8, Spock3, Stra6, Sult1e1, Svop1, Tbx22, Tex15, Thsd7b, Ttc39b, Uchl1, Ugt2a1, Wif1, Wnt5a, Zdhhc2</i>
FnP & MxP	<i>Lhx2, Cyp26c1, Aldh1a3, Slc7a11, Pax6, Cxcr4, Adcy8, Gria2, Dkk4</i>	<i>Cpxm2, E330013P04Rik, Elavl4, Gabra1, Glis3, Has2, Hpgd, Ina, Mdga2, Neurod1, Nhlh1, Nts, Pax3, Prkg2, Rassf9, Scn9a, Sox2, Stmn2, Tubb3</i>
MxP	<i>Adamts17, Aldh1a1, Bmpr1b, Cbln1, Col14a1, Cyp26a1, Diras2, Efhc2, Gata3, Gpx6, Lrrtm1, Mical2, Mtmr10, Ngf, Nkain2, Ptch2, Rhox4e, Sema3e, Slc34a2, Sox14, Sstr2, Unc13c, Vgll2, Wif1</i>	<i>A830018L16Rik, Akap6, Avpr1a, Cdh19, Chrna3, Egfl6, Enpp2, Fabp7, Foxl2, Foxl2os, Gabrb2, Gm9911, Greb1l, Gria1, Gsbs, Hey2, Htr1b, Itga8, Itih5, Mettl11b, Pappa2, Pax1, Pde1a, Plcb1, Plp1, Pou3f3, Prdm1, Ptx3, Sgk1, Snaicp, Sncg, Sstr1</i>
MxP & MdP	<i>Aldh1a1, Chl1, Dcn, Dmrt2, Egfl6, Fndc1, Gjb2, Gjb6, Ifitm3, Irx2, Krt15, Nell2, Pitx1, Pitx2, Rassf9, Serpinb5, Sox2</i>	<i>A630033H20Rik, Abi3bp, Acta2, Actc1, Adam23, Adamts9, Aldh1a2, Apcdd1, Arpp21, Asb4, Barx1, C1qtnf7, Cacna2d3, Car3, Cbln4, Cdh15, Chodl, Chst2, Cntn6, Col6a1, Col6a2, Col6a3, Colec12, Cpa3, Cpne8, Csgalnact1, Cxcl12, Cyp1b1, Dlx1, Dlx1as, Dpyd, Ebf3, Ednrb, Efemp1, Eph3, Fez1, Fgf18, Fgfr4, Figf, Flnc, Fndc5, Foxf2, Frzb, Galntl6, Gata6, Gfra3, Gm10210, Gm10664, Gm10759, Gpr126, Gpr17, Gpr50, Grid1, Griks, Hoxd8, Igf1, Igfbp3, Jazf1, Kcna4, Kctd12, Kera, Klhl31, Lepr, Lgi1, Lhfp12, Lhx6, Lhx8, Lpar4, Lrrc17, Lrrn1, Lum, Mab2111, Mab2112, Matn2, Mef2c, Megf10, Meox2, Mir134, Mir494, Mmrn1, Myh3, Myot, Ndnf, Nefl, Nefm, Nfatc2, Ogn, Olfm12b, Osr1, Osr2, Pcdh10, Pcdh9, Pde3a, Peg10, Pgm5, Plxna4, Postn, Prr16, Prss35, Ptpzr1, Rapsn, Rfx8, Runx2, S1pr3, Satb2, Shisa3, Shox2, Sim2, Slc16a7, Slc24a3, Slit3, Slitrk6, Smoc2, Sytl2, Tbx15, Tbx18, Tbx3, Timp3, Tmc3, Tmem100, Tnc, Tnn, Tnnc2, Tpm2, Trps1, Trps1, Ttyh2, Tubb6, Twist2, Zeb2</i>
MdP	<i>4833423E24Rik, 4921506M07Rik, Acpp, Amot, Ankrd6, Anxa8, Barx2, Cd44, Celf2, Cftr, Dapl1, Dhrr3, Dsc3, Dsg1c, Dsg2, Dsg3, Fam19a4, Fgf9, Foxa1, Foxa2, Frmpd1, Gfra1, Gm7676, Gsdmc, Hoxa5, Hs6st2, Ifi202b, Ifitm1, Kazald1, Kcnh1, Krt17, Krt6a, Mctp2, Meis1, Mgat4a, Mirlet7f-1, Nkx2-3, Palmd, Pdgd, Plch1, Plek2, Pon2, Serpinb10, Shh, Slc12a2, Slc39a8, SNORD116.7, Spon2, Sult5a1, Tagln, Tecrl, Tlx1, Tmprss11a, Tmprss11bnl, Tmprss11d, Trim29, Ttc6, Upk1b, Zak</i>	<i>Ablm3, Acta1, Actn2, Adamts15, AF357355, AF357428, Aff2, Agr2, Angptl1, Asphd2, Aspn, Atp2a1, AW551984, C77370, Casq2, Ccdc141, Ccnb3, Cdkn1c, Chrna1, Chrna6, Chrn1, Chrng, Cited1, Clcn5, Corin, Cyp2s1, Cysltr1, Dcll1, Des, Dgkk, Dio2, Dkk1, Dlk1, Dlx5, Dlx6, Fam159a, Fgf7, Fitm1, Fndc3c1, Fzd4, Gap43, Gatm, Gbx2, Gfra1, Gfra2, Gm23736, Gm5127, Gsc, Hand2, Hfe2, Hgf, Hic1, Islr, Islr2, Itm2a, Kansl1, Kbtbd10, Lipa, Lsp1, Magel2, Masp1, Meg3, Meox1, Mir1197, Mir154, Mir300, Mir369, Mir377, Mir380, Mir381, Mir382, Mir487b, Mir758, Mstn, Mum1l1, Musk, Mybpc1, Mybph, Myf5, Myh8, Myl1, Myl4, Mylk4, Mylpf, Myod1, Myof, Myog, Myom1, Myoz2, Ndn, Neb, Nexn, Nr5a2, Nrk, Olfm13, Pamr1, Panx3, Pde7b, Peg3, Pgcpc, Plac1, Plagl1, Pmp22, Ptgfr, Ptn, Rgs4, Rgs5, Rps6ka3, Rxrg, Scin, Sdc2, Sdpr, Sfrp4, Slc7a8, Smpx, Smyd1, SNORD113.1, Sparcl1, Stom, Syt6, Tac1, Tbx4, Tbx5, Tcf21, Tecrl, Thbs4, Timp1, Tmem173, Tmem45a, Tmem8c, Tnnc1, Tnni1, Tnnt1, Tnnt2, Trpc5, Tshz2, Ttn, Ttn, Zim1, Zmat4</i>
MdP & FnP	<i>Ano1</i>	<i>Acan, Adcy5, Alpk2, Alx3, BC006965, Bmpr1b, Car14, Ccl21, Col2a1, Col9a1, Cthrc1, Cxcl13, Dcx, Dmrt2, Dpep1, Ebf2, Eya4, Fibin, Flrt2, Foxc2, Foxd1, Foxf1a, Hapln1, Homer2, Lect1, Lgr5, Lrrn3, Mecom, Mxk, Mybl1, Pdlim3, Pknos2, Plce1, Rbm24, Rspo2, Scrn1, Scube1, Sfrp1, Slc26a7, Slc6a17, Sned1, Tgfb2, U6.44, Ubl4b, Unc5c, Wwp2, Zcchc5</i>
all 3*		<i>Pantr1</i>

\* enriched in different processes at different ages