

Additional Table 3 Gene Ontology of the down-regulated cluster related to Figure 7

GO ID	Description	generatio	BgRatio	Pvalue	Gene name
GO:0005622	Intracellular	225	12702	0.000127	<i>Mapk11, Sox3, Stk11ip, Cenpm, Rrp1, Rcc1, Gfra3, Zbtb40, Top3b, Pim3, Chga, Hdhd5, Plod3, Zfp523, Foxj2, Cmip, Slc8b1, Pcsk1n, Sstr2, Prcc, Zfp219, Mgat1, Rbm38, Tbl3, Zbtb7a, Iqgap2, Cabin1, Tldc1, Fdxr, Cdc42bpb, Pex10, C1qtnf5, Ap4m1, Stk40, Gpc1, Tulp1, Nfkbil1, Arhgdia, Chaf1a, Sirt6, Cant1, Pnpla2, Smurf1, Klc3, Wipf2, Fam53a, Wdr24, Grk2, Hist2h2aa2, Ttc7, Recq15, Alas2, Pars2, Borcs6, Spns1, Zfp703, Emc10, Abcf1, Sfxn5, Lars2, Mnt, Hmgxb3, Rab26, Penk, Sla2, Pdk2, Tstd1, Gmppb, Zfp395, Sf3a2, Naa80, Lss, Pxn, Kazn, Rab7b, Pip5k1c, Spefl, Mypop, Abca6, Sil1, Gimap5, Mier2, Zfp408, Uslf1, Vars, Kdm4b, Galk1, Acsf3, Usp20, Gss, Hba-a1, Ddx27, Jund, Rab1b, Gtf2ird2, Gpatch3, Cluh, Socs7, Dnajb2, Tada3, Gsdmd, Aars2, Pm20d2, Scaf1, Dyrk1b, Mvd, Pjkl, Acyl, Phf1, Asb6, HpcA, Acsm3, Meis3, Clcn6, Pex6, Fasn, Inf2, Bmp1, Pwpp2b, Ncoa5, Isynal, Tmc6, Chpf, Nfe211, Fitm2, Iqcd, N4bp3, Fen1, Madd, Ppargc1b, Tmem266, Pacs1, Rangap1, Zfp768, Slc6a9, Aqp1, Isg15, Ighmbp2, Rxb, Taco1, Mustn1, Usp19, Frat1, Smarcd2, Snx21, Acvr2b, PcnA-ps2, Stk11, Opa3, Slc25a10, Scarb1, Fzd10, Tcof1, Ubn1, Prrxl1, Mlycd, Necab3, Pkn1, Prrc2a, Mta2, TnfaiP8l2, Pik3r2, BC037034, Pkmyt1, Ube2c, Zbtb3, Eef2, Polrmt, Rxra, Pom121, Crhbp, Plec, Wisp3, Nagpa, Cnn2, Fzd8, Tomm40, Espl1, Srf, Taok2, Chmp1a, Nectin1, Aspscr1, Rnf40, Egr3, Gli3, Ascc2, Xntrpc, Xylt2, Sbf1, Spats2l, Zfp57, Zdhhc1, Sufu, Wnt5a, Pcbp4, Samd4b, Gas6, Nsmf, Zfyve19, Fance, Coq8a, Pias4, Rexo1, Cotl1, Hr, Supt6, Vps37b, Pex26, Rnf122, Mcam, Arf6, Camk1g, Plpp7, Klhdc3, Engase, Pi4k2a, Sgo2a, Mapk4, Dapk3, Zbtb48, Rsc1a1, Cc2d1a, Wnt11</i>
GO:0044424	Intracellular part	223	12570	0.000134	<i>Mapk11, Sox3, Stk11ip, Cenpm, Rrp1, Rcc1, Gfra3, Zbtb40, Top3b, Pim3, Chga, Hdhd5, Plod3, Zfp523, Foxj2, Cmip, Slc8b1, Pcsk1n, Sstr2, Prcc, Zfp219, Mgat1, Rbm38, Tbl3, Zbtb7a, Iqgap2, Cabin1, Tldc1, Fdxr, Cdc42bpb, Pex10, C1qtnf5, Ap4m1, Stk40, Gpc1, Tulp1, Nfkbil1, Arhgdia, Chaf1a, Sirt6, Cant1, Pnpla2, Smurf1, Klc3, Wipf2, Fam53a, Wdr24, Grk2, Hist2h2aa2, Ttc7, Recq15, Alas2, Pars2, Borcs6, Spns1, Zfp703, Emc10, Abcf1, Sfxn5, Lars2, Mnt, Hmgxb3, Rab26, Penk, Sla2, Pdk2, Tstd1, Gmppb, Zfp395, Sf3a2, Naa80, Lss, Pxn, Kazn, Rab7b, Pip5k1c, Spefl, Mypop, Abca6, Sil1, Gimap5, Mier2, Zfp408, Uslf1, Vars, Kdm4b, Galk1, Acsf3, Usp20, Gss, Hba-a1, Ddx27, Jund, Rab1b, Gtf2ird2, Gpatch3, Cluh, Socs7, Dnajb2, Tada3, Gsdmd, Aars2, Pm20d2, Scaf1, Dyrk1b, Mvd, Pjkl, Acyl, Phf1, Asb6, HpcA, Acsm3, Meis3, Clcn6, Pex6, Fasn, Inf2, Bmp1, Pwpp2b, Ncoa5, Isynal, Tmc6, Chpf, Nfe211, Fitm2, Iqcd, N4bp3, Fen1, Madd, Ppargc1b, Tmem266, Pacs1, Rangap1, Zfp768, Slc6a9, Aqp1, Isg15, Ighmbp2, Rxb, Taco1, Mustn1, Usp19, Frat1, Smarcd2, Snx21, Acvr2b, PcnA-ps2, Stk11, Opa3, Slc25a10, Scarb1, Fzd10, Tcof1, Ubn1, Prrxl1, Mlycd, Necab3, Pkn1, Prrc2a, Mta2, TnfaiP8l2, Pik3r2, BC037034, Pkmyt1, Ube2c, Zbtb3, Eef2, Polrmt, Rxra, Pom121, Crhbp, Plec, Wisp3, Nagpa, Cnn2, Fzd8, Tomm40, Espl1, Srf, Taok2, Chmp1a, Aspscr1, Rnf40, Egr3, Gli3, Ascc2, Xntrpc, Xylt2, Sbf1, Spats2l, Zfp57, Zdhhc1, Sufu, Wnt5a, Pcbp4, Samd4b, Gas6, Nsmf, Zfyve19, Fance, Coq8a, Pias4, Rexo1, Cotl1, Hr, Supt6, Vps37b, Pex26, Rnf122, Mcam, Arf6, Camk1g, Plpp7, Klhdc3, Engase, Pi4k2a, Sgo2a, Mapk4, Dapk3, Zbtb48, Rsc1a1, Cc2d1a, Wnt11</i>
GO:0043231	Intracellular membrane-bounded organelle	177	9662	0.000509	<i>Mapk11, Sox3, Cenpm, Rrp1, Rcc1, Zbtb40, Chga, Hdhd5, Plod3, Zfp523, Foxj2, Cmip, Slc8b1, Pcsk1n, Prcc, Zfp219, Mgat1, Rbm38, Tbl3, Zbtb7a, Cabin1, Fdxr, Pex10, Ap4m1, Stk40, Gpc1, Nfkbil1, Arhgdia, Chaf1a, Sirt6, Cant1, Pnpla2, Smurf1, Wipf2, Fam53a, Wdr24, Grk2, Hist2h2aa2, Recq15, Alas2, Pars2, Borcs6, Spns1, Zfp703, Emc10, Abcf1, Sfxn5, Lars2, Mnt, Hmgxb3, Rab26, Sla2, Pdk2, Tstd1, Gmppb, Zfp395, Sf3a2, Lss, Kazn, Rab7b, Pip5k1c, Mypop, Abca6, Sil1, Gimap5, Mier2, Zfp408, Uslf1, Vars, Kdm4b, Acsf3, Ddx27, Jund, Rab1b, Gtf2ird2, Gpatch3, Socs7, Dnajb2, Tada3, Gsdmd, Aars2, Pm20d2, Scaf1, Dyrk1b, Mvd, Phf1, Acsm3, Meis3, Clcn6, Pex6, Fasn, Bmp1, Pwpp2b, Ncoa5, Tmc6, Chpf, Nfe211, Fitm2, Fen1, Ppargc1b, Pacs1, Rangap1, Zfp768, Aqp1, Ighmbp2, Rxb, Taco1, Mustn1, Usp19, Frat1, Smarcd2, Snx21, PcnA-ps2, Stk11, Opa3, Slc25a10, Fzd10, Tcof1, Ubn1, Prrxl1, Mlycd, Necab3, Pkn1, Prrc2a, Mta2, Pik3r2, Pkmyt1, Ube2c, Zbtb3, Polrmt, Rxra, Pom121, Crhbp, Wisp3, Nagpa, Fzd8, Tomm40, Espl1, Srf, Taok2, Chmp1a, Aspscr1, Rnf40, Egr3, Gli3, Ascc2, Xntrpc, Xylt2, Sbf1, Spats2l, Zfp57, Zdhhc1, Sufu, Wnt5a, Nsmf, Fance, Coq8a, Pias4, Rexo1, Cotl1, Hr, Supt6, Vps37b, Pex26, Rnf122, Mcam, Arf6, Camk1g, Plpp7, Klhdc3, Pi4k2a,</i>

GO:0043227	Membrane-bounded organelle	181	10019	0.000905	<p><i>Sgo2a, Mapk4, Dapk3, Zbtb48, Rsc1a1, Cc2d1a</i></p> <p><i>Mapk11, Sox3, Cenpm, Rrp1, Rcc1, Zbtb40, Chga, Hdhd5, Plod3, Zfp523, Foxj2, Cmip, Slc8b1, Pcsk1n, Prcc, Zfp219, Mgat1, Rbm38, Tbl3, Zbtb7a, Cabin1, Fdxr, Pex10, C1qtnf5, Ap4m1, Stk40, Gpc1, Nfkbil1, Arhgdia, Chaf1a, Sirt6, Cant1, Pnpla2, Smurf1, Wipf2, Fam53a, Wdr24, Grk2, Hist2h2aa2, Recql5, Alas2, Pars2, Borcs6, Spns1, Zfp703, Emc10, Abcf1, Sfxn5, Lars2, Mnt, Hmgxb3, Rab26, Penk, Sla2, Pdk2, Tstd1, Gmppb, Zfp395, Sf3a2, Lss, Kazn, Rab7b, Pip5k1c, Mypop, Abca6, Sil1, Gimap5, Mier2, Zfp408, Usf1, Vars, Kdm4b, Acsf3, Ddx27, Jund, Rab1b, Gtf2ird2, Gpatch3, Socs7, Dnajb2, Tada3, Gsdmd, Aars2, Pm20d2, Scaf1, Dyrk1b, Mvd, Phf1, Acsm3, Meis3, Clcn6, Pex6, Fasn, Bmp1, Pwwp2b, Ncoa5, Tmc6, Chpf, Nfe2l1, Fitm2, N4bp3, Fen1, Ppargc1b, Pacs1, Rangap1, Zfp768, Slc6a9, Aqp1, Ighmbp2, Rxrb, Taco1, Mustn1, Usp19, Frat1, Smarcd2, Snx21, Pena-ps2, Stk11, Opa3, Slc25a10, Fzd10, Tcof1, Ubn1, Prrxl1, Mlycd, Necab3, Pkn1, Prrc2a, Mta2, Pik3r2, Pkmyt1, Ube2c, Zbtb3, Polrmt, Rxra, Pom121, Crhbp, Plec, Wisp3, Nagpa, Fzd8, Tomm40, Esp1l, Srf, Taok2, Chmp1a, Aspser1, Rnf40, Egr3, Gli3, Ascc2, Xntrpc, Xylt2, Sbf1, Spats2l, Zfp57, Zdhhc1, Sufu, Wnt5a, Nsmf, Fance, Coq8a, Pias4, Rexo1, Cotl1, Hr, Supt6, Vps37b, Pex26, Rnf122, Mcam, Arf6, Camk1g, Plpp7, Klhdc3, Pi4k2a, Sgo2a, Mapk4, Dapk3, Zbtb48, Rsc1a1, Cc2d1a</i></p>
GO:0043229	Intracellular organelle	192	10833	0.00148	<p><i>Mapk11, Sox3, Cenpm, Rrp1, Rcc1, Zbtb40, Top3b, Chga, Hdhd5, Plod3, Zfp523, Foxj2, Cmip, Slc8b1, Pcsk1n, Prcc, Zfp219, Mgat1, Rbm38, Tbl3, Zbtb7a, Iqgap2, Cabin1, Fdxr, Cdc42bpb, Pex10, Ap4m1, Stk40, Gpc1, Nfkbil1, Arhgdia, Chaf1a, Sirt6, Cant1, Pnpla2, Smurf1, Klc3, Wipf2, Fam53a, Wdr24, Grk2, Hist2h2aa2, Recql5, Alas2, Pars2, Borcs6, Spns1, Zfp703, Emc10, Abcf1, Sfxn5, Lars2, Mnt, Hmgxb3, Rab26, Sla2, Pdk2, Tstd1, Gmppb, Zfp395, Sf3a2, Lss, Pxn, Kazn, Rab7b, Pip5k1c, Spefl, Mypop, Abca6, Sil1, Gimap5, Mier2, Zfp408, Usf1, Vars, Kdm4b, Acsf3, Usp20, Hba-a1, Ddx27, Jund, Rab1b, Gtf2ird2, Gpatch3, Socs7, Dnajb2, Tada3, Gsdmd, Aars2, Pm20d2, Scaf1, Dyrk1b, Mvd, Phf1, Acsm3, Meis3, Clcn6, Pex6, Fasn, Bmp1, Pwwp2b, Ncoa5, Tmc6, Chpf, Nfe2l1, Fitm2, Iqcd, Fen1, Ppargc1b, Pacs1, Rangap1, Zfp768, Slc6a9, Aqp1, Ighmbp2, Rxrb, Taco1, Mustn1, Usp19, Frat1, Smarcd2, Snx21, Pena-ps2, Stk11, Opa3, Slc25a10, Fzd10, Tcof1, Ubn1, Prrxl1, Mlycd, Necab3, Pkn1, Prrc2a, Mta2, Pik3r2, BC037034, Pkmyt1, Ube2c, Zbtb3, Eef2, Polrmt, Rxra, Pom121, Crhbp, Plec, Wisp3, Nagpa, Cnn2, Fzd8, Tomm40, Esp1l, Srf, Taok2, Chmp1a, Aspser1, Rnf40, Egr3, Gli3, Ascc2, Xntrpc, Xylt2, Sbf1, Spats2l, Zfp57, Zdhhc1, Sufu, Wnt5a, Nsmf, Zfyve19, Fance, Coq8a, Pias4, Rexo1, Cotl1, Hr, Supt6, Vps37b, Pex26, Rnf122, Mcam, Arf6, Camk1g, Plpp7, Klhdc3, Pi4k2a, Sgo2a, Mapk4, Dapk3, Zbtb48, Rsc1a1, Cc2d1a</i></p>
GO:0043226	Organelle	201	11474	0.001824	<p><i>Mapk11, Sox3, Stk11ip, Cenpm, Rrp1, Rcc1, Zbtb40, Top3b, Chga, Hdhd5, Plod3, Zfp523, Foxj2, Cmip, Slc8b1, Pcsk1n, Prcc, Zfp219, Mgat1, Rbm38, Tbl3, Zbtb7a, Iqgap2, Cabin1, Fdxr, Cdc42bpb, Pex10, C1qtnf5, Ap4m1, Stk40, Gpc1, Tulp1, Nfkbil1, Arhgdia, Chaf1a, Sirt6, Cant1, Pnpla2, Smurf1, Klc3, Wipf2, Fam53a, Wdr24, Grk2, Hist2h2aa2, Recql5, Alas2, Pars2, Borcs6, Spns1, Zfp703, Emc10, Abcf1, Sfxn5, Lars2, Mnt, Hmgxb3, Rab26, Penk, Sla2, Pdk2, Tstd1, Gmppb, Zfp395, Sf3a2, Lss, Pxn, Kazn, Rab7b, Pip5k1c, Spefl, Mypop, Abca6, Sil1, Gimap5, Mier2, Zfp408, Usf1, Vars, Kdm4b, Acsf3, Usp20, Hba-a1, Ddx27, Jund, Rab1b, Gtf2ird2, Gpatch3, Socs7, Dnajb2, Tada3, Naglu, Gsdmd, Lrfn2, Aars2, Pm20d2, Scaf1, Dyrk1b, Mvd, Phf1, Acsm3, Meis3, Clcn6, Pex6, Fasn, Bmp1, Pwwp2b, Ncoa5, Tmc6, Chpf, Nfe2l1, Fitm2, Iqcd, N4bp3, Fen1, Ppargc1b, Pacs1, Rangap1, Zfp768, Slc6a9, Aqp1, Ighmbp2, Rxrb, Taco1, Mustn1, Usp19, Frat1, Smarcd2, Snx21, Pena-ps2, Stk11, Opa3, Slc25a10, Scarb1, Fzd10, Tcof1, Ubn1, Prrxl1, Mlycd, Necab3, Pkn1, Prrc2a, Mta2, Pik3r2, BC037034, Pkmyt1, Ube2c, Zbtb3, Eef2, Polrmt, Rxra, Pom121, Crhbp, Plec, Wisp3, Nagpa, Cnn2, Fzd8, Tomm40, Esp1l, Srf, Taok2, Chmp1a, Nectin1, Aspser1, Rnf40, Egr3, Gli3, Ascc2, Xntrpc, Xylt2, Sbf1, Spats2l, Zfp57, Zdhhc1, Sufu, Wnt5a, Nsmf, Zfyve19, Fance, Coq8a, Pias4, Rexo1, Cotl1, Hr, Supt6, Vps37b, Pex26, Rnf122, Mcam, Arf6, Camk1g, Plpp7, Klhdc3, Pi4k2a, Sgo2a, Mapk4, Dapk3, Zbtb48, Rsc1a1, Cc2d1a</i></p>
GO:0005634	Nucleus	118	6291	0.004911	<p><i>Mapk11, Sox3, Cenpm, Rrp1, Rcc1, Zbtb40, Zfp523, Foxj2, Cmip, Prcc, Zfp219, Rbm38, Tbl3, Zbtb7a, Cabin1, Stk40, Gpc1, Nfkbil1, Arhgdia, Chaf1a, Sirt6, Pnpla2, Wipf2, Fam53a, Grk2, Hist2h2aa2, Recql5, Zfp703, Abcf1, Mnt, Hmgxb3, Sla2, Pdk2, Zfp395, Sf3a2, Kazn, Pip5k1c, Mypop, Abca6, Mier2, Zfp408, Usf1, Kdm4b, Ddx27, Jund, Gtf2ird2, Gpatch3, Socs7, Dnajb2, Tada3, Gsdmd, Pm20d2, Scaf1, Dyrk1b, Phf1, Meis3, Pwwp2b, Ncoa5, Tmc6, Nfe2l1, Fen1, Ppargc1b, Rangap1, Zfp768, Aqp1, Ighmbp2, Rxrb, Taco1, Mustn1, Frat1, Smarcd2, Pena-ps2, Stk11, Slc25a10, Fzd10, Tcof1, Ubn1, Prrxl1, Pkn1, Prrc2a, Mta2,</i></p>



					<i>Pik3r2, Pkmyt1, Ube2c, Zbtb3, Rxra, Pom121, Crhbp, Esp1, Srf, Taok2, Chmp1a, Aspscr1, Rnf40, Egr3, Gli3, Ascc2, Xntrpc, Sbf1, Spats2l, Zfp57, Sufu, Nsmf, Fance, Pias4, Rexo1, Coil1, Hr, Supt6, Mcam, Plpp7, Klhdc3, Sgo2a, Mapk4, Dapk3, Zbtb48, Rsc1a1, Cc2d1a</i>
GO:0000228	Nuclear chromosome	16	509	0.005508	<i>Rcc1, Zbtb7a, Chaf1a, Sirt6, Uspf1, Kdm4b, Fen1, Smarcd2, Mta2, Rxra, Srf, Chmp1a, Zfp57, Nsmf, Klhdc3, Sgo2a</i>
GO:0031974	Membrane-enclosed lumen	70	3430	0.006041	<i>Mapk11, Sox3, Rrp1, Rcc1, Foxj2, Cmip, Prcc, Tbl3, Zbtb7a, Cabin1, Stk40, Gpc1, Chaf1a, Sirt6, Pnpla2, Wipf2, Recql5, Abcf1, Mnt, Sla2, Pdk2, Sf3a2, Kazn, Pip5k1c, Abca6, Uspf1, Kdm4b, Ddx27, Tada3, Gsdmd, Pm20d2, Phf1, Pwwp2b, Fen1, Ppargc1b, Rangap1, Zfp768, Mustn1, Smarcd2, Stk11, Slc25a10, Fzd10, Tcof1, Ubn1, Prrc2a, Mta2, Pkmyt1, Rxra, Pom121, Srf, Taok2, Chmp1a, Aspscr1, Rnf40, Gli3, Ascc2, Sbf1, Spats2l, Zfp57, Nsmf, Fance, Pias4, Rexo1, Hr, Klhdc3, Sgo2a, Dapk3, Zbtb48, Rsc1a1, Cc2d1a</i>
GO:0031981	Nuclear lumen	70	3430	0.006041	<i>Mapk11, Sox3, Rrp1, Rcc1, Foxj2, Cmip, Prcc, Tbl3, Zbtb7a, Cabin1, Stk40, Gpc1, Chaf1a, Sirt6, Pnpla2, Wipf2, Recql5, Abcf1, Mnt, Sla2, Pdk2, Sf3a2, Kazn, Pip5k1c, Abca6, Uspf1, Kdm4b, Ddx27, Tada3, Gsdmd, Pm20d2, Phf1, Pwwp2b, Fen1, Ppargc1b, Rangap1, Zfp768, Mustn1, Smarcd2, Stk11, Slc25a10, Fzd10, Tcof1, Ubn1, Prrc2a, Mta2, Pkmyt1, Rxra, Pom121, Srf, Taok2, Chmp1a, Aspscr1, Rnf40, Gli3, Ascc2, Sbf1, Spats2l, Zfp57, Nsmf, Fance, Pias4, Rexo1, Hr, Klhdc3, Sgo2a, Dapk3, Zbtb48, Rsc1a1, Cc2d1a</i>
GO:0043233	Organelle lumen	70	3430	0.006041	<i>Mapk11, Sox3, Rrp1, Rcc1, Foxj2, Cmip, Prcc, Tbl3, Zbtb7a, Cabin1, Stk40, Gpc1, Chaf1a, Sirt6, Pnpla2, Wipf2, Recql5, Abcf1, Mnt, Sla2, Pdk2, Sf3a2, Kazn, Pip5k1c, Abca6, Uspf1, Kdm4b, Ddx27, Tada3, Gsdmd, Pm20d2, Phf1, Pwwp2b, Fen1, Ppargc1b, Rangap1, Zfp768, Mustn1, Smarcd2, Stk11, Slc25a10, Fzd10, Tcof1, Ubn1, Prrc2a, Mta2, Pkmyt1, Rxra, Pom121, Srf, Taok2, Chmp1a, Aspscr1, Rnf40, Gli3, Ascc2, Sbf1, Spats2l, Zfp57, Nsmf, Fance, Pias4, Rexo1, Hr, Klhdc3, Sgo2a, Dapk3, Zbtb48, Rsc1a1, Cc2d1a</i>
GO:0070013	Intracellular organelle lumen	70	3430	0.006041	<i>Mapk11, Sox3, Rrp1, Rcc1, Foxj2, Cmip, Prcc, Tbl3, Zbtb7a, Cabin1, Stk40, Gpc1, Chaf1a, Sirt6, Pnpla2, Wipf2, Recql5, Abcf1, Mnt, Sla2, Pdk2, Sf3a2, Kazn, Pip5k1c, Abca6, Uspf1, Kdm4b, Ddx27, Tada3, Gsdmd, Pm20d2, Phf1, Pwwp2b, Fen1, Ppargc1b, Rangap1, Zfp768, Mustn1, Smarcd2, Stk11, Slc25a10, Fzd10, Tcof1, Ubn1, Prrc2a, Mta2, Pkmyt1, Rxra, Pom121, Srf, Taok2, Chmp1a, Aspscr1, Rnf40, Gli3, Ascc2, Sbf1, Spats2l, Zfp57, Nsmf, Fance, Pias4, Rexo1, Hr, Klhdc3, Sgo2a, Dapk3, Zbtb48, Rsc1a1, Cc2d1a</i>
GO:0044428	Nuclear part	74	3700	0.007651	<i>Mapk11, Sox3, Rrp1, Rcc1, Foxj2, Cmip, Prcc, Tbl3, Zbtb7a, Cabin1, Stk40, Gpc1, Chaf1a, Sirt6, Pnpla2, Wipf2, Recql5, Abcf1, Mnt, Sla2, Pdk2, Sf3a2, Kazn, Pip5k1c, Abca6, Uspf1, Kdm4b, Ddx27, Dnajb2, Tada3, Gsdmd, Pm20d2, Phf1, Pwwp2b, Tmc6, Fen1, Ppargc1b, Rangap1, Zfp768, Aqp1, Mustn1, Smarcd2, Stk11, Slc25a10, Fzd10, Tcof1, Ubn1, Prrc2a, Mta2, Pkmyt1, Rxra, Pom121, Srf, Taok2, Chmp1a, Aspscr1, Rnf40, Gli3, Ascc2, Sbf1, Spats2l, Zfp57, Nsmf, Fance, Pias4, Rexo1, Hr, Plpp7, Klhdc3, Sgo2a, Dapk3, Zbtb48, Rsc1a1, Cc2d1a</i>
GO:0005829	Cytosol	67	3310	0.008792	<i>Mapk11, Cenpm, Gfra3, Pim3, Cmip, Sstr2, Rbm38, Cabin1, Ap4m1, Stk40, Gpc1, Tulp1, Nfkbil1, Arhgdia, Pnpla2, Smurf1, Grk2, Recql5, Borec6, Abcf1, Pdk2, Tstd1, Zfp395, Naa80, Pxn, Kazn, Pip5k1c, Vars, Kdm4b, Gss, Hba-a1, Socs7, Dnajb2, Gsdmd, Mvd, Pjfl, Hpc, Pex6, Fasn, Chpf, Nfe2l1, Madd, Tmem266, Rangap1, Usp19, Frat1, Stk11, Tcof1, Mlycd, Prrc2a, Ube2c, Eef2, Plec, Tomm40, Taok2, Aspscr1, Rnf40, Gli3, Spats2l, Sufu, Pcbp4, Samd4b, Arf6, Engase, Pi4k2a, Zbtb48, Cc2d1a</i>
GO:0005694	Chromosome	25	988	0.009881	<i>Cenpm, Rcc1, Top3b, Zbtb7a, Chaf1a, Sirt6, Hist2h2aa2, Uspf1, Kdm4b, Ddx27, Phf1, Fen1, Rangap1, Smarcd2, Mta2, Rxra, Srf, Chmp1a, Rnf40, Zfp57, Nsmf, Klhdc3, Sgo2a, Dapk3, Zbtb48</i>
GO:0044444	Cytoplasmic part	130	7216	0.012114	<i>Mapk11, Cenpm, Gfra3, Pim3, Chga, Hdhd5, Plod3, Cmip, Slc8b1, Pcsk1n, Sstr2, Mgat1, Rbm38, Cabin1, Fdxr, Pex10, C1qtnf5, Ap4m1, Stk40, Gpc1, Tulp1, Nfkbil1, Arhgdia, Cant1, Pnpla2, Smurf1, Wdr24, Grk2, Recql5, Alas2, Pars2, Borec6, Spns1, Emc10, Abcf1, Sfxn5, Lars2, Rab26, Penk, Sla2, Pdk2, Tstd1, Gmppb, Zfp395, Naa80, Lss, Pxn, Kazn, Rab7b, Pip5k1c, Sil1, Gimap5, Vars, Kdm4b, Acsf3, Gss, Hba-a1, Rab1b, Socs7, Dnajb2, Gsdmd, Aars2, Mvd, Pjfl, Hpc, Acsm3, Clcn6, Pex6, Fasn, Bmp1, Tmc6, Chpf, Nfe2l1, Fim2, N4bp3, Fen1, Madd, Ppargc1b, Tmem266, Pacs1, Rangap1, Slc6a9, Aqp1, Tocol, Usp19, Frat1, Snx21, Stk11, Opa3, Slc25a10, Tcof1, Mlycd, Necab3, Pkn1, Prrc2a, Pkmyt1, Ube2c, Eef2, Polrmt, Pom121, Crhbp, Plec, Wisp3, Nagpa, Fzd8,</i>

GO:0005654	Nucleoplasm	56	2736	0.013719	<i>Tomm40, Taok2, Chmp1a, Aspscr1, Rnf40, Gli3, Xylt2, Spats2l, Zdhhc1, Sufu, Wnt5a, Pcbp4, Samd4b, Coq8a, Vps37b, Pex26, Rnf122, Arf6, Camk1g, Plpp7, Engase, Pi4k2a, Zbtb48, Rsc1a1, Ce2d1a</i> <i>Mapk11, Sox3, Rcc1, Cmip, Prcc, Zbtb7a, Cabin1, Stk40, Gpc1, Sirt6, Pnpla2, Wipf2, Recql5, Abcf1, Mnt, Sla2, Pdk2, Sf3a2, Kazn, Pip5k1c, Abca6, Usf1, Tada3, Gsdmd, Pm20d2, Phf1, Pwwp2b, Fen1, Ppargc1b, Rangap1, Zfp768, Mustn1, Smarcd2, Stk11, Slc25a10, Fzd10, Ubn1, Prrc2a, Mta2, Rxra, Pom121, Aspscr1, Rnf40, Gli3, Ascc2, Sbf1, Nsmf, Fance, Pias4, Rexo1, Hr, Klhdc3, Sgo2a, Dapk3, Zbtb48, Rsc1a1</i>
GO:0005737	Cytoplasm	171	9935	0.017441	<i>Mapk11, Stk11ip, Cenpm, Rcc1, Gfra3, Pim3, Chga, Hdhd5, Plod3, Cmip, Slc8b1, Pcsk1n, Sstr2, Mgat1, Rbm38, Zbtb7a, Iqgap2, Cabin1, Tldc1, Fdxr, Cdc42bpb, Pex10, Clqtnf5, Ap4m1, Stk40, Gpc1, Tulp1, Nfkbil1, Arhgdia, Sirt6, Cant1, Pnpla2, Smurf1, Klc3, Wipf2, Wdr24, Grk2, Tic7, Recql5, Alas2, Pars2, Borcs6, Spns1, Zfp703, Emc10, Abcf1, Sfxn5, Lars2, Rab26, Penk, Sla2, Pdk2, Tstd1, Gmppb, Zfp395, Naa80, Lss, Pxn, Kazn, Rab7b, Pip5k1c, Spef1, Sil1, Gimap5, Mier2, Vars, Kdm4b, Galk1, Acsf3, Usp20, Gss, Hba-a1, Rab1b, Gpatch3, Cluh, Socs7, Dnajb2, Gsdmd, Aars2, Mvd, Pfk1, Acyl, Phf1, Asb6, Hpc, Acsm3, Clcn6, Pex6, Fasn, Inf2, Bmp1, Isynal, Tmc6, Chpf, Nfe2l1, Fitm2, Iqcd, N4bp3, Fen1, Madd, Ppargc1b, Tmem266, Pacs1, Rangap1, Slc6a9, Aqp1, Isg15, Ighmbp2, Taco1, Usp19, Frat1, Snx21, Acvr2b, Stk11, Opa3, Slc25a10, Scarb1, Fzd10, Tcof1, Mlycd, Necab3, Pkn1, Prrc2a, Tnfai8l2, Pkmyt1, Ube2c, Eef2, Polrmt, Pom121, Crhbp, Plec, Wisp3, Nagpa, Fzd8, Tomm40, Espl1, Srf, Taok2, Chmp1a, Aspscr1, Rnf40, Gli3, Xylt2, Sbf1, Spats2l, Zdhhc1, Sufu, Wnt5a, Pcbp4, Samd4b, Gas6, Nsmf, Zfyve19, Coq8a, Cotl1, Vps37b, Pex26, Rnf122, Arf6, Camk1g, Plpp7, Klhdc3, Engase, Pi4k2a, Mapk4, Dapk3, Zbtb48, Rsc1a1, Ce2d1a, Wnt11</i>
GO:0044422	Organelle part	78	4145	0.025393	<i>Mapk11, Sox3, Rrp1, Rcc1, Foxj2, Cmip, Prcc, Tbl3, Zbtb7a, Cabin1, Stk40, Gpc1, Chaf1a, Sirt6, Pnpla2, Wipf2, Recql5, Abcf1, Mnt, Sla2, Pdk2, Sf3a2, Kazn, Pip5k1c, Abca6, Usf1, Kdm4b, Usp20, Ddx27, Dnajb2, Tada3, Gsdmd, Pm20d2, Phf1, Pwwp2b, Tmc6, Fen1, Ppargc1b, Rangap1, Zfp768, Aqp1, Mustn1, Smarcd2, Stk11, Slc25a10, Fzd10, Tcof1, Ubn1, Prrc2a, Mta2, BC037034, Pkmyt1, Rxra, Pom121, Espl1, Srf, Taok2, Chmp1a, Aspscr1, Rnf40, Gli3, Ascc2, Sbf1, Spats2l, Zfp57, Nsmf, Zfyve19, Fance, Pias4, Rexo1, Hr, Plpp7, Klhdc3, Sgo2a, Dapk3, Zbtb48, Rsc1a1, Ce2d1a</i>
GO:0044446	Intracellular organelle part	78	4145	0.025393	<i>Mapk11, Sox3, Rrp1, Rcc1, Foxj2, Cmip, Prcc, Tbl3, Zbtb7a, Cabin1, Stk40, Gpc1, Chaf1a, Sirt6, Pnpla2, Wipf2, Recql5, Abcf1, Mnt, Sla2, Pdk2, Sf3a2, Kazn, Pip5k1c, Abca6, Usf1, Kdm4b, Usp20, Ddx27, Dnajb2, Tada3, Gsdmd, Pm20d2, Phf1, Pwwp2b, Tmc6, Fen1, Ppargc1b, Rangap1, Zfp768, Aqp1, Mustn1, Smarcd2, Stk11, Slc25a10, Fzd10, Tcof1, Ubn1, Prrc2a, Mta2, BC037034, Pkmyt1, Rxra, Pom121, Espl1, Srf, Taok2, Chmp1a, Aspscr1, Rnf40, Gli3, Ascc2, Sbf1, Spats2l, Zfp57, Nsmf, Zfyve19, Fance, Pias4, Rexo1, Hr, Plpp7, Klhdc3, Sgo2a, Dapk3, Zbtb48, Rsc1a1, Ce2d1a</i>
GO:0005623	Cell	255	15824	0.040563	<i>Mapk11, Sox3, Stk11ip, Cenpm, Rrp1, Rcc1, Gfra3, Zbtb40, Top3b, Pim3, Chga, Hdhd5, Plod3, Zfp523, Foxj2, Cmip, Slc8b1, Pcsk1n, Sstr2, Prcc, Zfp219, Mgat1, Hpx, Rbm38, Tbl3, Zbtb7a, Iqgap2, Cabin1, Tldc1, Fdxr, Cdc42bpb, Pex10, Clqtnf5, Ap4m1, Stk40, Gpc1, Tulp1, Nfkbil1, Arhgdia, Chaf1a, Sirt6, Cant1, Pnpla2, Smurf1, Klc3, Wipf2, Fam53a, Wdr24, Grk2, Hist2h2aa2, Vipr1, Tic7, Recql5, Alas2, Pars2, Borcs6, Ralb, Spns1, Zfp703, Emc10, Abcf1, Sfxn5, Lars2, Mnt, Hmgxb3, Rab26, Penk, Sla2, Pdk2, Tstd1, Gmppb, Zfp395, Sf3a2, Naa80, Lss, Pxn, Kazn, Rab7b, Pip5k1c, Spef1, Ucn, Pcdhgb2, Myop, Abca6, Sil1, Gimap5, Mier2, Zfp408, Usf1, Vars, Kdm4b, Galk1, Acsf3, Usp20, Mfge8, Gss, Hba-a1, Ddx27, Jund, Rab1b, Gtf2ird2, Gpatch3, Cluh, Socs7, Dnajb2, Tada3, Kenh6, Mras, Gm20503, Gsdmd, Lrfn2, Aars2, Pm20d2, Scafl, Dyrk1b, Mvd, Pfk1, Acyl, Phf1, Rasd2, Asb6, Hpc, Slc26a8, Acsm3, Meis3, Clcn6, Pex6, Slc6a20a, Fasn, Inf2, Bmp1, Pwwp2b, Ncoa5, Isynal, Tmc6, Chpf, Nfe2l1, Fxyd4, Fitm2, Spint1, Iqcd, N4bp3, Fen1, Madd, Ppargc1b, Tmem266, Pacs1, Rangap1, Crb2, Zfp768, Slc6a9, Aqp1, Isg15, Ighmbp2, Ngfr, Rxrb, Taco1, Mustn1, Usp19, Frat1, Smarcd2, Snx21, Acvr1, Olfr209, Acvr2b, Pcna-ps2, Stk11, Opa3, Slc25a10, Scarb1, Rell2, Fzd10, Tcof1, Ubn1, Prxl1, Mlycd, Necab3, Pkn1, Prrc2a, Slc16a2, Mta2, Tnfai8l2, Pik3r2, BC037034, Frem2, Pkmyt1, Ube2c, Tbc1d22a, Zbtb3, Eef2, Polrmt, Rxra, Pom121, Crhbp, Plec, Wisp3, Nagpa, Igsf9, Cnn2, Fzd8, Tomm40, Espl1, Srf, Taok2, Chmp1a, Nectin1, Aspscr1, Pcdhgc4, Rnf40, Egr3, Gli3, Ascc2, Xntrpc, Xylt2, Sbf1, Spats2l, Zfp57, Zdhhc1, Sufu, Wnt5a, Olfr1366, Pcbp4, Samd4b, Gas6, Nsmf, Zfyve19, Pcdhga3, Fance, Coq8a, Pias4, Rexo1, Hcrtr1, Cotl1, Hr, Supt6, Vps37b, Pex26, Rnf122, Mcam, Arf6, Camk1g, Plpp7, Klhdc3, Engase, Pi4k2a, Sgo2a, Mapk4, Dapk3, Zbtb48, Slc41a1, Otop3, Rsc1a1, Ce2d1a, Htr2c,</i>



GO:0044464	Cell part	252	15637	0.045115	<p><i>Wnt11</i></p> <p><i>Mapk11, Sox3, Stk11ip, Cenpm, Rrp1, Rcc1, Gfra3, Zbtb40, Top3b, Pim3, Chga, Hdhd5, Plod3, Zfp523, Foxj2, Cmp1, Slc8b1, Pcsk1n, Sstr2, Prcc, Zfp219, Mgat1, Rbm38, Tbl3, Zbtb7a, Iqgap2, Cabin1, Tldc1, Fdxr, Cdc42bpb, Pex10, C1qtnf5, Ap4m1, Stk40, Gpc1, Tulp1, Nfkbil1, Arhgdia, Chaf1a, Sirt6, Cant1, Pnpla2, Smurf1, Klc3, Wipf2, Fam53a, Wdr24, Grk2, Hist2h2aa2, Vipr1, Ttc7, Recql5, Alas2, Pars2, Borcs6, Ralb, Spns1, Zfp703, Emc10, Abef1, Sfxn5, Lars2, Mnt, Hmgxb3, Rab26, Penk, Sla2, Pdk2, Tstd1, Gmppb, Zfp395, Sf3a2, Naa80, Lss, Pxn, Kazn, Rab7b, Pip5k1c, Spef1, Pcdhgb2, Mypop, Abca6, Sil1, Gimap5, Mier2, Zfp408, Usf1, Vars, Kdm4b, Galk1, Acsf3, Usp20, Mfge8, Gss, Hba-a1, Ddx27, Jund, Rab1b, Gtf2ird2, Gpatch3, Cluh, Socs7, Dnajb2, Tada3, Kcnh6, Mras, Gm20503, Gsdmd, Lrfn2, Aars2, Pm20d2, Scaf1, Dyrk1b, Mvd, Pflk, Acyl1, Phf1, Rasd2, Asb6, Hpca, Slc26a8, Acsm3, Meis3, Clcn6, Pex6, Slc6a20a, Fasn, Inf2, Bmp1, Pwwp2b, Ncoa5, Isyna1, Tmc6, Chpf, Nfe2l1, Fxyd4, Fitm2, Spint1, Iqcd, N4bp3, Fen1, Madd, Ppargc1b, Tmem266, Pacs1, Rangap1, Crb2, Zfp768, Slc6a9, Aqp1, Isg15, Ighmbp2, Ngfr, Rxrb, Taco1, Mustn1, Usp19, Frat1, Smarcd2, Snx21, Acvrl1, Olfr209, Acvr2b, Pena-ps2, Stk11, Opa3, Slc25a10, Scarb1, Rell2, Fzd10, Tcof1, Ubn1, Prrxl1, Mlycd, Necab3, Pkn1, Prcc2a, Slc16a2, Mta2, Tnfaip8l2, Pik3r2, BC037034, Frem2, Pkmyt1, Ube2c, Zbtb3, Eef2, Polrmt, Rxra, Pom12l1, Crhbp, Plec, Wisp3, Nagpa, Igsf9, Cnn2, Fzd8, Tomm40, Esp11, Srf, Taok2, Chmp1a, Nectin1, Aspscr1, Pcdhgc4, Rnf40, Egr3, Gli3, Ascc2, Xntrpc, Xylt2, Sbf1, Spats2l, Zfp57, Zdhhc1, Sufu, Wnt5a, Olfr1366, Pcbp4, Samd4b, Gas6, Nsmf, Zfyve19, Pcdhga3, Fance, Coq8a, Pias4, Rexo1, Hcrt1, Coil1, Hr, Supt6, Vps37b, Pex26, Rnf122, Mcam, Arf6, Camk1g, Plpp7, Klhdc3, Engase, Pi4k2a, Sgo2a, Mapk4, Dapk3, Zbtb48, Slc41a1, Otop3, Rsc1a1, Cc2d1a, Htr2c, Wnt11</i></p>
<b>Molecular function</b>					
GO:0043167	Ion binding	121	5936	8.95E-05	<p><i>Mapk11, Rcc1, Cpxm1, Pim3, Plod3, Zfp523, Zfp219, Mgat1, Hpx, Zbtb7a, Iqgap2, Fdxr, Cdc42bpb, Pex10, Stk40, Gpc1, Tulp1, Arhgdia, Sirt6, Cant1, Zc2hc1c, Grk2, Recql5, Alas2, Pars2, Ralb, Asphd2, Zfp703, Abef1, Till12, Lars2, Rab26, Pdk2, Gmppb, Sf3a2, Naa80, Pxn, Irgq, Rab7b, Ogdhl, Vat1l, Pip5k1c, Pcdhgb2, Abca6, Gimap5, Vars, Kdm4b, Galk1, Acsf3, Usp20, Mfge8, Gss, Hba-a1, Ddx27, Rab1b, Pla2g12b, Mras, Rnf215, Gsdmd, Aars2, Dyrk1b, Mvd, Pflk, Phf1, Nudt18, Rasd2, Hpca, Acsm3, Mmp11, Clcn6, Pex6, Fasn, Bmp1, Chpf, Fen1, Crb2, Zfp768, Zfp108, Ighmbp2, Rxrb, Usp19, Snx21, Acvrl1, Kif21b, Acvr2b, Stk11, Scarb1, Necab3, Pkn1, Thop1, Mta2, Frem2, Pkmyt1, Ube2c, Zbtb3, Eef2, Rxra, Ltbp2, Zfp956, Taok2, Pcdhgc4, Rnf40, Egr3, Gli3, Xylt2, Zfp57, Gas6, Zfyve19, Pcdhga3, Coq8a, Pias4, Gm45753, Hr, Rnf122, Arf6, Camk1g, Pi4k2a, Mapk4, Dapk3, Zbtb48, Htr2c</i></p>
GO:0005488	Binding	176	9469	0.00012	<p><i>Mapk11, Sox3, Maz, Stk11ip, Rcc1, Cpxm1, Top3b, Pim3, Plod3, Zfp523, Foxj2, Zfp219, Mgat1, Hpx, Rbm38, Zbtb7a, Iqgap2, Cabin1, Fdxr, Cdc42bpb, Pex10, Stk40, Gpc1, Tulp1, Arhgdia, Sirt6, Cant1, Eepd1, Zc2hc1c, Klc3, Wipf2, Grk2, Hist2h2aa2, Recql5, Alas2, Pars2, Ralb, Asphd2, Zfp703, Abef1, Till12, Lars2, Mnt, Hmgxb3, Rab26, Sla2, Pdk2, Gmppb, Zfp395, Sf3a2, Naa80, Pxn, Irgq, Rab7b, Ogdhl, Vat1l, Pip5k1c, Spef1, Pcdhgb2, Mypop, Abca6, Gimap5, Mier2, Usf1, Vars, Kdm4b, Galk1, Acsf3, Usp20, Mfge8, Gss, Hba-a1, Ddx27, Jund, Rab1b, Gtf2ird2, Cluh, Dnajb2, Tada3, Pla2g12b, Mras, Rnf215, Gsdmd, Aars2, Scaf1, Dyrk1b, Mvd, Pflk, Phf1, Nudt18, Rasd2, Hpca, Acsm3, Mmp11, Meis3, Clcn6, Pex6, Fasn, Inf2, Bmp1, Chpf, Nfe2l1, Fxyd4, Fen1, Madd, Ppargc1b, Hspbp1, Rangap1, Crb2, Zfp768, Zfp108, Ighmbp2, Ngfr, Rxrb, Usp19, Snx21, Acvrl1, Kif21b, Acvr2b, Pna-ps2, Stk11, Scarb1, Tcof1, Ubn1, Prrxl1, Necab3, Pkn1, Thop1, Mta2, Pik3r2, Frem2, Pkmyt1, Ube2c, Zbtb3, Eef2, Polrmt, Rxra, Ltbp2, Plec, Zfp956, Cnn2, Fzd8, Srf, Taok2, Pcdhgc4, Rnf40, Egr3, Gli3, Xntrpc, Xylt2, Sbf1, Zfp57, Sufu, Wnt5a, Pcbp4, Samd4b, Gas6, Zfyve19, Pcdhga3, Coq8a, Pias4, Gm45753, Cotl1, Hr, Supt6, Pex26, Rnf122, Arf6, Camk1g, Pi4k2a, Mapk4, Dapk3, Zbtb48, Cc2d1a, Htr2c, Wnt11</i></p>
GO:0019899	Enzyme binding	49	2104	0.001611	<p><i>Stk11ip, Rcc1, Zbtb7a, Iqgap2, Cabin1, Cdc42bpb, Arhgdia, Grk2, Recql5, Ralb, Pxn, Mier2, Usf1, Jund, Dnajb2, Scaf1, Pflk, Rasd2, Hpca, Inf2, Fxyd4, Madd, Hspbp1, Rangap1, Ngfr, Usp19, Acvrl1, Tcof1, Pkn1, Mta2, Pik3r2, Ube2c, Eef2, Rxra, Fzd8, Srf, Taok2, Rnf40, Gli3, Sbf1, Sufu, Gas6, Pias4, Cotl1, Hr, Pex26, Arf6, Mapk4, Dapk3</i></p>
GO:0016301	Kinase activity	22	812	0.006563	<p><i>Mapk11, Pim3, Cdc42bpb, Stk40, Grk2, Pdk2, Pip5k1c, Galk1, Fn3krp, Dyrk1b, Pflk, Acvrl1, Acvr2b, Stk11, Pkn1, Pkmyt1, Taok2, Coq8a, Camk1g, Pi4k2a, Mapk4, Dapk3</i></p>
GO:0016772	Transferase activity,	24	930	0.008242	<p><i>Mapk11, Pim3, Cdc42bpb, Stk40, Grk2, Pdk2, Gmppb, Pip5k1c, Galk1, Fn3krp, Dyrk1b, Pflk, Acvrl1, Acvr2b, Stk11, Pkn1, Pkmyt1,</i></p>



	transferring phosphorus-containing groups				<i>Polrmt, Taok2, Coq8a, Camk1g, Pi4k2a, Mapk4, Dapk3</i>
GO:0016874	Ligase activity	7	154	0.009308	<i>Pars2, Lars2, Vars, Acsf3, Gss, Aars2, Acsm3</i>
GO:0003824	Catalytic activity	89	4685	0.010218	<i>Mapk11, Top3b, Pim3, Plod3, Adamts14, Mgat1, Fdxr, Cdc42bpb, Stk40, Sirt6, Grk2, Recq15, Alas2, Pars2, Ralb, Asphd2, Aldh16a1, Abcf1, Lars2, Rab26, Pdk2, Gmppb, Naa80, Lss, Rab7b, Ogdhl, Vat11, Pip5k1c, Abca6, Mier2, Scrn2, Vars, Kdm4b, Galk1, Acsf3, Usp20, Gss, Hba-a1, Gm49342, Ddx27, Rab1b, Fn3krp, Tada3, Mras, Gm20503, Aars2, Pm20d2, Dyrk1b, Mvd, Pjkl, Acyl, Rasd2, Acsm3, Mmp11, Pex6, Fasn, Bmp1, Gpx3, Isynal, Chpf, Fen1, Ighmbp2, Usp19, Acvr11, Acvr2b, Stk11, Mlycd, Pkn1, Thop1, Mta2, Pkmyt1, Eef2, Polrmt, Nagpa, Espl1, Taok2, Xylt2, Zdhhc1, Coq8a, Rexo1, Gm45753, Hr, Arf6, Camk1g, Engase, Pi4k2a, Mapk4, Dhrl1, Dapk3</i>
GO:0003677	DNA binding	43	2014	0.013971	<i>Sox3, Maz, Rcc1, Top3b, Zfp523, Foxj2, Zfp219, Zbtb7a, Eepd1, Hist2h2aa2, Mnt, Hmgxb3, Zfp395, Mypop, Mier2, Usf1, Jun, Gtf2ird2, Meis3, Nfe2l1, Fen1, Zfp768, Ighmbp2, Rxb, Pcnaps2, Ubn1, Prxl1, Mta2, Zbtb3, Polrmt, Rxra, Srf, Egr3, Gli3, Xntrpc, Zfp57, Wnt5a, Pias4, Hr, Supt6, Zbtb48, Cc2d1a, Wnt11</i>
GO:0005515	Protein binding	65	3313	0.015905	<i>Stk11ip, Rcc1, Zbtb7a, Iqgap2, Cabin1, Cdc42bpb, Tulp1, Arhgdia, Klc3, Wipf2, Grk2, Recq15, Ralb, Zfp703, Sla2, Pxn, Spefl, Mier2, Usf1, Jun, Dnajb2, Tada3, Scaf1, Pjkl, Phf1, Rasd2, Hpc, Inf2, Fxyd4, Madd, Ppargc1b, Hspbp1, Rangap1, Ighmbp2, Ngfr, Rxb, Usp19, Acvr11, Kif21b, Tcof1, Ubn1, Pkn1, Mta2, Pik3r2, Ube2c, Eef2, Rxra, Plec, Cnn2, Fz8, Srf, Taok2, Rnf40, Gli3, Sbf1, Sufu, Gas6, Pias4, Cotl1, Hr, Supt6, Pex26, Arf6, Mapk4, Dapk3</i>
GO:0008134	Transcription factor binding	16	607	0.023783	<i>Zbtb7a, Zfp703, Usf1, Jun, Tada3, Ppargc1b, Ighmbp2, Rxb, Ubn1, Pkn1, Mta2, Pik3r2, Rxra, Srf, Sufu, Hr</i>
GO:0022857	Transmembrane transporter activity	23	973	0.024396	<i>Slc8b1, Hpx, Slc45a3, Sfxn5, Abca6, Kcnk13, Kcnh6, Slc26a8, Clcn6, Slc6a20a, Fxyd4, Slc10a3, Tmem266, Slc6a9, Aqp1, Slc25a10, Slc16a2, Tomm40, Xntrpc, Gas6, Slc15a4, Slc41a1, Otop3</i>
GO:0003924	Gtpase activity	9	275	0.025224	<i>Ralb, Rab26, Rab7b, Rab1b, Mras, Gm20503, Rasd2, Eef2, Arf6</i>
GO:0005215	Transporter activity	23	1019	0.038302	<i>Slc8b1, Hpx, Slc45a3, Sfxn5, Abca6, Kcnk13, Kcnh6, Slc26a8, Clcn6, Slc6a20a, Fxyd4, Slc10a3, Tmem266, Slc6a9, Aqp1, Slc25a10, Slc16a2, Tomm40, Xntrpc, Gas6, Slc15a4, Slc41a1, Otop3</i>
GO:0016740	Transferase activity	35	1694	0.038794	<i>Mapk11, Pim3, Plod3, Mgat1, Cdc42bpb, Stk40, Sirt6, Grk2, Alas2, Pdk2, Gmppb, Naa80, Pip5k1c, Galk1, Gm49342, Fn3krp, Tada3, Dyrk1b, Pjkl, Fasn, Chpf, Acvr11, Acvr2b, Stk11, Pkn1, Pkmyt1, Polrmt, Taok2, Xylt2, Zdhhc1, Coq8a, Camk1g, Pi4k2a, Mapk4, Dapk3</i>
<b>Biological process</b>					
GO:0007155	Cell adhesion	32	1234	8.88E-05	<i>Alcam, Pcdhb18, Vwc2, Acvr1, Pcdhb5, Fblim1, Pcdhb16, Adamts12, Utrn, Bmp5, Pcdhb9, Plcb1, Pcdhb19, Pcdhb11, Pcdha8, Pcdhb8, Astn1, Pcdh20, Pcdhgc3, Hapln4, Ptprk, Clstn2, Pcdhgb1, Aoc3, Pcdhb4, Tek, Dsg2, H2-M3, Lama2, Lat, Pcdhal1, Pcdhga5</i>
GO:0022610	Biological adhesion	32	1234	8.88E-05	<i>Alcam, Pcdhb18, Vwc2, Acvr1, Pcdhb5, Fblim1, Pcdhb16, Adamts12, Utrn, Bmp5, Pcdhb9, Plcb1, Pcdhb19, Pcdhb11, Pcdha8, Pcdhb8, Astn1, Pcdh20, Pcdhgc3, Hapln4, Ptprk, Clstn2, Pcdhgb1, Aoc3, Pcdhb4, Tek, Dsg2, H2-M3, Lama2, Lat, Pcdhal1, Pcdhga5</i>
GO:0032502	Developmental process	93	5644	0.001767	<i>Alcam, Csrnp1, Cnmd, Shebp11, Hnmt, Dmbx1, Vwc2, Syt17, Acvr1, Unc5c, Peg10, Sct, Armc4, Fblim1, Rai14, Pcdhb16, Evc, Id4, Bend6, Dnaic1, Clgalt1c1, Zbtb7c, Evi2, Pnpt1, Ttc9, Fstl4, Adamts12, Ehf, Cdkn2b, Ace, Gm38394, Nr1h4, Tshr, Utrn, Cd79a, Gpr161, Csm3, Bmp5, Clec5a, Bche, Pleb1, Col5a2, Frk, Tmem65, Mycl, Efhc1, Gab2, Fmnl3, Clec2g, Amhr2, Pla2g4a, Pcsk9, Mex3c, Pax5, Klf1, Mospd1, Otor, Dusp6, Astn1, Tgfbr3, Eil4, Trpm4, Plcz1, Sema3a, Npr3, Maf, Ptprk, Clstn2, Tbx6, Kbtbd8, Ptf1a, Neurog2, Dazl, Pgf, Arhgap15, Tek, Nat1, Dsg2, Klhl10, H2-M3, Hey1, Pik3cg, Dnajb9, Hspbp1, Lama2, Hesc1, Scn9a, Tal2, Il1rap11, Tyrobp, Trappc2, Tdrd5, Dact1</i>
GO:0048856	Anatomical structure	88	5284	0.001824	<i>Alcam, Csrnp1, Cnmd, Hnmt, Dmbx1, Vwc2, Syt17, Acvr1, Unc5c, Peg10, Sct, Armc4, Fblim1, Pcdhb16, Evc, Id4, Bend6, Dnaic1,</i>

	development				<i>C1galt1c1, Evi2, Pnpt1, Ttc9, Fstl4, Adamts12, Ehf, Cdkn2b, Ace, Gm38394, Nr1h4, Tshr, Utrn, Cd79a, Gpr161, Csm3, Bmp5, Clec5a, Bche, Plcb1, Col5a2, Tmem65, Mycl, Efhc1, Gab2, Fmnl3, Clec2g, Amhr2, Pla2g4a, Pcsk9, Mex3c, Pax5, Klfl, Otor, Dusp6, Astn1, Tgfr3, Etl4, Trpm4, Plcz1, Sema3a, Npr3, Maf, Ptpkr, Clstn2, Tbx6, Kbtbd8, Ptf1a, Neurog2, Dazl, Pgf, Arhgap15, Tek, Nat1, Dsg2, Klhl10, H2-M3, Hey1, Pik3cg, Dnajb9, Hspb1, Lama2, Hsx1, Scn9a, Tal2, Il1rap1, Tyrobp, Trappc2, Tdrd5, Dact1</i>
GO:0048869	Cellular developmental process	62	3861	0.022863	<i>Alcam, Cnmd, Shc3p1, Vwc2, Syt17, Acvr1, Unc5c, Peg10, Fblim1, Rai14, Id4, Bend6, C1galt1c1, Zbtb7c, Evi2, Fstl4, Adamts12, Ehf, Cdkn2b, Ace, Tshr, Cd79a, Csm3, Bmp5, Clec5a, Bche, Plcb1, Col5a2, Frk, Mycl, Gab2, Fmnl3, Clec2g, Pcsk9, Mex3c, Pax5, Klfl, Mospd1, Dusp6, Astn1, Tgfr3, Trpm4, Sema3a, Maf, Ptpkr, Tbx6, Kbtbd8, Ptf1a, Neurog2, Dazl, Pgf, Arhgap15, Tek, Klhl10, H2-M3, Hey1, Dnajb9, Hspb1, Lama2, Tyrobp, Tdrd5, Dact1</i>
GO:0044767	Single-organism developmental process	69	4385	0.024452	<i>Alcam, Cnmd, Shc3p1, Vwc2, Syt17, Acvr1, Unc5c, Peg10, Sct, Fblim1, Rai14, Id4, Bend6, C1galt1c1, Zbtb7c, Evi2, Pnpt1, Fstl4, Adamts12, Ehf, Cdkn2b, Ace, Gm38394, Tshr, Cd79a, Gpr161, Csm3, Bmp5, Clec5a, Bche, Plcb1, Col5a2, Frk, Mycl, Gab2, Fmnl3, Clec2g, Pcsk9, Mex3c, Pax5, Klfl, Mospd1, Dusp6, Astn1, Tgfr3, Etl4, Trpm4, Sema3a, Maf, Ptpkr, Tbx6, Kbtbd8, Ptf1a, Neurog2, Dazl, Pgf, Arhgap15, Tek, Nat1, Klhl10, H2-M3, Hey1, Dnajb9, Hspb1, Lama2, Hsx1, Tyrobp, Tdrd5, Dact1</i>
GO:0030154	Cell differentiation	59	3757	0.039332	<i>Alcam, Cnmd, Shc3p1, Vwc2, Syt17, Acvr1, Unc5c, Peg10, Rai14, Id4, Bend6, C1galt1c1, Zbtb7c, Evi2, Fstl4, Adamts12, Ehf, Cdkn2b, Ace, Tshr, Cd79a, Csm3, Bmp5, Clec5a, Bche, Plcb1, Col5a2, Frk, Mycl, Gab2, Clec2g, Pcsk9, Mex3c, Pax5, Klfl, Mospd1, Dusp6, Astn1, Tgfr3, Trpm4, Sema3a, Maf, Ptpkr, Tbx6, Kbtbd8, Ptf1a, Neurog2, Dazl, Pgf, Tek, Klhl10, H2-M3, Hey1, Dnajb9, Hspb1, Lama2, Tyrobp, Tdrd5, Dact1</i>