

Table S29 - IPA upstream regulators differentially expressed from sub-groups

Upstream Regulator	Molecule Type	p-value	z-score	State	Total DEG Targets	Sub-Group
PSEN1	peptidase	2.71E-03	0.208		41	M-1
BMP6	growth factor	4.42E-03	-0.625		14	M-1
FIGLA	transcription regulator	1.42E-02	0		9	M-1
ESR2	ligand-dependent nuclear receptor	2.43E-02	-1.739		40	M-1
DLG3	kinase	2.53E-02			2	M-1
PHF21A	enzyme	2.63E-02			3	M-1
DAB2IP	other	2.63E-02			3	M-1
LDB1	transcription regulator	2.63E-02			3	M-1
JAG1	growth factor	3.30E-02	-2.186	Inhibited	6	M-1
LMO2	transcription regulator	3.43E-02			3	M-1
PSEN2	peptidase	3.61E-02	-0.295		11	M-1
SPRY4	other	4.03E-02			2	M-1
CDH5	other	4.35E-02			3	M-1
CHST4	enzyme	4.03E-03			2	M-2
NFKBIA	transcription regulator	1.28E-02	-1.499		20	M-2
PRKCE	kinase	1.43E-02	-2.219	Inhibited	6	M-2
IL2RB	transmembrane receptor	4.48E-02			2	M-2
FHL2	transcription regulator	4.54E-02			4	M-2
ATG7	enzyme	4.82E-02			4	M-2
ITGA4	transmembrane receptor	2.68E-03			2	M-3
TMPRSS2	peptidase	7.90E-03			1	M-3
GPBP1	transcription regulator	1.57E-02			1	M-3
VLDLR	transporter	3.89E-02			1	M-3
RPRD1B	other	5.16E-05			2	EGA1-1
USP36	peptidase	7.21E-03			1	EGA1-1
CXCR4	g-protein coupled receptor	8.89E-03			3	EGA1-1
NOSIP	other	1.44E-02			1	EGA1-1
SOX11	transcription regulator	2.08E-02			3	EGA1-1
EBF3	transcription regulator	2.15E-02			1	EGA1-1
LDLR	transporter	2.81E-02			3	EGA1-1
CCND1	transcription regulator	3.43E-02			6	EGA1-1
SNIP1	other	4.25E-02			1	EGA1-1
HNF4A	transcription regulator	1.72E-13	1.32		167	EGA2-1
RRP1B	transcription regulator	8.27E-05			15	EGA2-1
MCL1	transporter	1.76E-03			3	EGA2-1
CDK4/6	group	5.18E-03	-1.667		9	EGA2-1
SERTAD1	transcription regulator	6.17E-03			2	EGA2-1
SRSF1	other	1.29E-02			5	EGA2-1
SALL4	transcription regulator	1.43E-02	0.283		4	EGA2-1
SSRP1	other	1.67E-02			5	EGA2-1
LATS1	kinase	1.93E-02			2	EGA2-1
TEAD4	transcription regulator	2.12E-02			5	EGA2-1
AMER1	other	2.81E-02			2	EGA2-1
SLC16A1	transporter	2.81E-02			2	EGA2-1
HNRNPU	transporter	2.93E-02			3	EGA2-1
SET	phosphatase	3.56E-02	-2.236	Inhibited	5	EGA2-1

CGA	other	3.80E-02			4	EGA2-1
SOX2-OCT4	complex	3.82E-02			2	EGA2-1
INSR	kinase	4.40E-02	2.114	Activated	26	EGA2-1
NAA15	transcription regulator	4.61E-02			1	EGA2-1
RASSF1-AS1	other	4.61E-02			1	EGA2-1
TXNRD1	enzyme	4.94E-02			2	EGA2-1
CLDN6	other	8.51E-03			2	EGA2-2
ROCK2	kinase	1.86E-02			2	EGA2-2
HSPA5	enzyme	3.06E-02			2	EGA2-2
KITLG	growth factor	4.54E-02			4	EGA2-2
SAMM50	other	1.41E-03			2	EGA3-1
SCD	enzyme	1.51E-03	-1.285		6	EGA3-1
ERBB2	kinase	2.41E-03	2.524	Activated	29	EGA3-1
DNM1L	enzyme	4.58E-03			2	EGA3-1
EGLN1	enzyme	9.36E-03	0.343		5	EGA3-1
MTX2	transporter	2.19E-02			1	EGA3-1
ARFGEF2	other	2.19E-02			1	EGA3-1
YES1	kinase	2.19E-02			1	EGA3-1
PNPT1	enzyme	2.31E-02			2	EGA3-1
ELF3	transcription regulator	2.50E-02			3	EGA3-1
CEBPB	transcription regulator	3.55E-02	2.965	Activated	15	EGA3-1
CAMK2D	kinase	3.66E-02			2	EGA3-1
ACOX1	enzyme	3.95E-02	-0.956		7	EGA3-1
AKAP10	other	4.33E-02			1	EGA3-1
MCM3	enzyme	4.33E-02			1	EGA3-1
REL	transcription regulator	8.08E-03			2	EGA3-3
QPCT	enzyme	9.76E-03			1	EGA4-1
TIMP3	other	1.04E-02			2	EGA4-1
GRN	growth factor	1.04E-02			2	EGA4-1
BMP2	growth factor	1.43E-02	2.363	Activated	6	EGA4-1
TCF7L2	transcription regulator	1.64E-02	2.778	Activated	8	EGA4-1
IGF1	growth factor	1.78E-02	0.639		10	EGA4-1
VTN	other	3.67E-02			2	EGA4-1
FN1	enzyme	7.08E-03	0.152		5	EGA4-2
ETV4	transcription regulator	1.42E-02			2	EGA4-2
EGFR	kinase	4.92E-03	0.537		5	EGA4-3
CLCN5	ion channel	4.11E-02			1	EGA4-3