Table S4. Summary of upstream regulator molecules of differentially expressed genes.

Predicted Upstream Regulator molecule	Expression Fold Change	Type of Molecule	Activation z-score	Number of target molecules in the dataset
lipopolysaccharide	N/A	chemical drug	9.518	185
phorbol myristate acetate	N/A	chemical drug	8.5	108
Interferon gamma (IFNG)	-1.14	cytokine	7.918	131
Interleukin 1 beta (IL1B)	4.84	cytokine	7.48	101
poly rI:rC-RNA	N/A	biologic drug	6.852	56
Tumor necrosis factor (TNF)	1.15	cytokine	6.619	170
Interleukin 6 (IL6)	-1.12	cytokine	6.559	76
Interleukin 5 (IL5)	-1.11	cytokine	6.362	49
Coagulation factor 2 (F2)	-1.08	peptidase	5.967	42
Epidermal growth factor (EGF)	-1.09	growth factor	5.947	57
hydrogen peroxide	N/A	chemical - endogenous mammalian	5.87	61
E. coli B5 lipopolysaccharide	N/A	chemical - endogenous non-mammalian	5.796	43
tretinoin	N/A	chemical - endogenous mammalian	5.756	143
Oncostatin M (OSM)	1.23	cytokine	5.554	68
Platelet derived growth factor subunit BB (PDGF BB)	N/A	complex	5.494	46
Signal transducer and activator of transcription 3 (STAT3)	3.54	transcription regulator	5.2	60
Transforming growth factor beta 1 (TGFB1)	3.2	growth factor	5.193	153
CCAAT/enhancer binding protein alpha (CEBPA)	1.21	transcription regulator	5.14	54
Cluster of differentiation 3 (CD3)	N/A	complex	5.085	99
forskolin	N/A	chemical toxicant	4.953	72

Angiotensinogen (AGT)	-1.27	growth factor	4.894	55
Synoviolin 1 (SYVN1)	1.02	transporter	4.82	33
Cluster of differentiation 40 ligand (CD40LG)	-1.07	cytokine	4.714	56
Endothelin 1 (EDN1)	1.18	cytokine	4.585	35
Interferon alpha (IFNA)	N/A	group	4.405	51
resiquimod	N/A	chemical drug	4.355	32
beta-estradiol	N/A	chemical - endogenous mammalian	4.319	185
Interleukin 4 (IL4)	-1.34	cytokine	4.172	89
D-glucose	N/A	chemical - endogenous mammalian	4.07	71
Interleukin 15 (IL15)	-1.19	cytokine	3.719	71
arsenic trioxide	N/A	chemical drug	3.592	31
Interleukin 3 (IL3)	-1.3	cytokine	3.453	53
Epidermal growth factor receptor (EGFR)	1.03	kinase	3.447	55
Estrogen receptor 1 (ESR1)	-1.14	ligand-dependent nuclear receptor	3.446	132
Cluster of differentiation 28 (CD28)	-1.22	transmembrane receptor	3.314	54
Amyloid beta precursor protein (APP)	2.05	other	3.3	99
Jun proto-oncogene (JUN)	1.57	transcription regulator	2.896	56
Fos proto-oncogene (FOS)	2.11	transcription regulator	2.352	79
Nuclear factor kappa B inhibitor alpha (NFKBIA)	3.28	transcription regulator	2.247	54
dexamethasone	N/A	chemical drug	2.125	171
Spi-1 proto-oncogene (SPI1)	1.45	transcription regulator	2.087	44
SB203580	N/A	chemical - kinase inhibitor	-6.425	48
PD98059	N/A	chemical - kinase inhibitor	-6.405	75
Cluster of differentiation 437 (CD 437)	N/A	chemical drug	-6.405	45
LY294002	N/A	chemical - kinase inhibitor	-6.335	63
ST1926	N/A	chemical drug	-5.907	35
sirolimus	N/A	chemical drug	-4.673	64
Immunoglobulin	N/A	complex	-4.023	52

curcumin	N/A	chemical drug	-3.311	46