

# Top biological networks harboring differentially regulated proteins in SN

Network List

IPA Build version: 460209M

Rank	Network	Score	Focus/Molecule	Top Diseases and Functions
1	ANXA1, C1orf123, CORO7/CORO7-PAM16, DDX39B, DDX3X, ENTDP2, FLNA, GAS7, GYG1, H2AF, H2AFY, H2AFZ, HNRNPL, IQGAP1, KHDRBS1, LMNA, MFAP5, MYH9, MYH10, MYO1C, NONO, nucleoside-triphosphatase, OXR1, PLEKHB1, PPP1CA, RDM1, RUVBL1, S100A4, SEC13, SIK, SFPO, SORD, SRSF1, TGM2, TWIF1	43	32	Cellular Movement, Cellular Assembly and Organization, RNA Post-Transcriptional Modification
2	Abi1/2, Achr, ADS, ASPN, CADM1, CADPS2, CRIP1, CTNNB1, CYP51A1, DAG1, DAM, DRP2, IGATM, Lamin, LAP3, LMBN1, LMBN2, MAP4, MPP6, NDRG2, PRKAR1A, PRKCSH, PRX, RBM39, RCN1, SCARB2, SerineProtease, SGCD, SNTA1, SNTB1, STARD10, SYNM, THOP1, TMPO, UOCRB	41	31	Organ Morphology, Skeletal and Muscular System Development and Function, Cell Morphology
3	60S ribosomal subunit, CHAT, ENO2, MAP3K, MIRLE17, Ras, RPL3, RPL5, RPL7, RPL9, RPL11, RPL12, RPL14, RPL15, RPL17, RPL18, RPL19, RPL21, RPL22, RPL24, RPL26, RPL27, RPL28, RPL30, RPL31, RPL10A, RPL13A, RPL18A, RPL27A, RPL35A, RPL37A, RPL7A, RPLP2, RTCA, transglutaminase	38	30	Cancer, Cell Death and Survival, Organismal Injury and Abnormalities
4	AARS, CAND1, EEF1A1, EEF1B2, EEF1D, EEF1G, EPRS, GPX7, hnRNP H, HNRNPH1, HNRNPUL2, IKK (complex), KHSRP, LARS, MYO5A, Pglycoprotein, PDCD5, RARS, RNASE4, RNase A, RPS9, RPS14, RPS16, RPS25, RTN1, SDCBP, SUMO2, TARDBP, TOM1L2, TOP2B, UBA2, UBE2N, UBE2V1, Ubiquitin, VARS	38	30	Cellular Assembly and Organization, Molecular Transport, Nucleic Acid Metabolism
5	6-phosphofructokinase, AAMDC, ASL, ATIC, BZW2, Cytoplasmic Dynein, DMXL2, DYNC1H1, DYNC1L1, DYNLRB1, DYNLT3, EGFR, EPB41, Flotillin, FN3KRP, ITPA, IMATN2, IMATR3, NCDN, NTPCR, PAICS, PFAS, PFK, PFKL, PFKM, PFKP, phosphofructokinase, RAB18, RAB22A, RAB3GAP1, SLC25A32, SLC4A1, tubulin (family), UROD, VPS25	36	29	Carbohydrate Metabolism, Small Molecule Biochemistry, Developmental Disorder
6	7S NFG, ANXA11, AP-3, AP3B1, ATXN2L, Beta Tubulin, CAV2, CDC42EP4, CELF2, CORO1B, CRMP, CRMP1, DPYSL2, DPYSL3, EML1, EPS15L1, HEBP2, INA, Jnk, LRSAM1, MICAL1, NEFH, NEFL, Nefm, PDCD6, PRKCD, PRPH, PTRF, SDPR, SEC31A, SEPHS1, SEPT9, TEAD, TUBB3, TUBB2B	36	29	Cellular Assembly and Organization, Cellular Function and Maintenance, Nervous System Development and Function
7	Ampa Receptor, Anp32b, COX5A, COX6A1, COX6B1, GNA11, GOLPH3, Gq, HDLBP, HEXA, HIST1H2BO, HIST2H2BF, Hnrnpa1, Hnrnpa3, HNRNPAB, HNRNPD, HP1BP3, IPO4, mGluR, Plc beta, PLCB1, PTBP1, SAFB, SF1, SRC (family), SRSF2, SRSF6, SRSF7, SYNCRIP, THRAP3, TRAP/Media, U2AF2, VPS35, VPS26A, WASHC5	36	29	RNA Post-Transcriptional Modification, Molecular Transport, RNA Trafficking
8	ABAT, ADAM10, ADAM22, ADAM23, ATP2B2, BASP1, BCAM, CACNA2D1, CALB2, Calmodulin, CD9, CD44, CD81, CNDP2, Collagen type IV, DCLK1, FAM98B, HIST1H2BB, ISLR, ITGA6, ITGB4, Ili, ITH4, ITH5, LAMA5, Laminin, Laminin1, LGI3, LMAN2, Metalloprotease, MYO1B, MYO1D, PLG, SGLP1, TSPAN15	36	29	Cell-To-Cell Signaling and Interaction, Tissue Development, Cell Morphology
9	calpain, CAPN2, Cathepsin, CTCSB, CTCS, CTSD, CTSH, DDX15, EEF2, EFTUD2, EIF1, EIF4A3, ENAC, ETF1, GLRX3, GSPT1, HBA1/HBA2, HLA-DR, HNRNPC, HYOU1, LSM2, LSM4, p85 (pik3r), PABPC1, PCBP1, PRPF19, snRNP, SNRNP, SNRNP2, SNRNP3, SNRNP, TPP1, UUG2, UUP1	36	29	RNA Post-Transcriptional Modification, Cell Cycle, DNA Replication, Recombination, and Repair
10	ALDOC, APEX1, ATG3, ATP1A1, CA3, Calcineurin B, Cbp/p300, CBR1, DBI, DHX9, DUSP15, EGLN, FASN, GABARAPL2, GANAB, HNRNP2A1, IDI1, INPP5F, MDP1, MPI, MTMR2, MTORC1, NIPSNAP1, p70S6k, PGM1, phosphatase, PPP3CA, RPN1, SCCPDH, SET, SF3A1, SORBS3, SYN11, TCEA1, TN3	36	29	Carbohydrate Metabolism, Lipid Metabolism, Small Molecule Biochemistry
11	14-3-3, alcohol dehydrogenase, Alpha tubulin, ARL2, CAP2B, CNP, DAD1, Dynein, EML2, Gamma tubulin, HPR1, MAP1B, MAPK3, TMTHFD1L, PAFAH1B1, PEX14, PFN1, RBM3, SEC61A1, SEC61B, SIRT2, somatostatin receptor, SSRI, SYNE2, TCP1, TPPP, TUBA8, TUBBA4, TUBB, TUBB1, TUBB6, TUBB2A, TUBB4A, TUBB4B, tubulin	34	28	Cancer, Hematological Disease, Immunological Disease
12	AEBP1, CNTRF, Cops2, COPS3, COPS4, Cytochrome bc1, cytochrome-c oxidase, DOST, dolichyl-diphosphooligosaccharide-protein glycotransferase E3 RING, ESYT1, ETFA, GPC1, GSP1, HIST1H2BN, ITMC2, Ktn1, MAOA, Mapk, Mitochondrial complex 1, NADH dehydrogenase, NDUFA12, NDUFB1, NDUFB8, NDUFS1, OSBP1LA, Plc delta, RPN2, SKP1, STOML2, STT3A, TME2D2, TME43, VAPB, YIF1B	32	27	Post-Translational Modification, Developmental Disorder, Hereditary Disorder
13	BANF1, CAMK2G, CBX3, CBX5, CFB, DDX5, DDX17, DEK, EMD, FBL, Fus, HDGF, HIST2H2AC, histone acetylase, Histone h4, HNRNPM, HP1, HPX, ILF3, MAGOH, NuRD, PLS3, RBBP4, RCC2, RPL10, SAMHD1, STAT1, SUB1, TFIIF, TH2 Cytokine, thymidine kinase, Top2, TRIM28, UBE4A, UFD1L	32	27	RNA Post-Transcriptional Modification, Cancer, Gastrointestinal Disease
14	ANO6, ATXN10, BSG, CDK5, DPP8, EIF3E, ELAVL1, FAM114A2, GIT1, GLOD4, HIBADH, Histone h3, HNRNPU, HSPB1, Interferon alpha, ISOC1, KRAS, LRP1, LTA4H, MCTS1, NEDD4L, NFkB (family), Notch, PIGN, Pro-inflammatory Cytokine, RNA polymerase II, RPL13, SERPIN1A1, SF3B1, TBCB, TCR, Tir, UBL3, VTN, ZC2HC1	32	27	Neurological Disease, Skeletal and Muscular Disorders, Endocrine System Disorders
15	ACO2, Aconitase, Alfacatenin, ANK1, ANK3, Ap2alpha, ATP1A2, ATP1A3, ATP1B1, ATP1B3, AURK, CADM4, CORO1C, EPB41L2, EPB41L3, FLOT2, FSTL1, IGFBP6, ITPR, KIF5C, Mapre, Mapre2, MAPRE3, MYEF2, MYO18A, Na-k-ATPase, NEXN, P38 MAPK, PIP4K2A, SORBS2, Spectrin, SPTA1, SPTAN1, SPTB, SPTBN1	30	26	Cellular Function and Maintenance, Small Molecule Biochemistry, Molecular Transport
16	Alyref, Angiotensin II receptor type 1, APOO, ARCN1, Arf, C19orf70, CALR, COL15A1, COL1A2, COL4A2, COL6A1, Collagen Alpha1, COP1, COPA, COPB1, DBNL, EFEMP1, ENDOD1, Focal adhesion kinase, GORASP2, KIF21A, KRT73, Lpar receptor, MHC Class I (complex), PDGF (family), PDI3A, PDI4A, PURB, SARS, SEC23B, SERPINH1, Tap, THBS4, TMED10, USO1	30	26	Cancer, Connective Tissue Disorders, Organismal Injury and Abnormalities
17	AAK1, AHS1, AVIL, BAG3, Beta Arrestin, CHORDC1, Clathrin, DNAJB4, DNAJC6, DNAJC7, ECHDC1, FKBP4, Gpcr, Hdac, HSP, Hsp70, Hsp90, Hsp22/Hsp40/Hsp90, HSP90A1, HSP90B1, HSPA8, HSPA9, HSPA12A, HSPA4L, HSPB8, HSPH1, LIMCH1, MHC Class II (complex), NACA, NAP1L1, PPP5C, SAE1, ST13, STIP1, SUGT1	30	26	Post-Translational Modification, Protein Folding, Drug Metabolism
18	19S proteasome, 20S proteasome, adenosylhomocysteinase, ADRM1, AHCY, AHY1, AHY2, ATPase, CAPG, CROCC, Cytokeratin, Foxo, KIAA0368, MCAM, OLA1, OSTF1, PI3K (complex), PSMA, PSMC, PSMC2, PSMC3, PSMC5, PSMC6, PSMD, PSMD3, PSMD5, PSMD6, PSMD7, PSMD9, PSMD11, PSMD13, PSME2, UBE2O, UBLQNL1, USP14	28	25	Cancer, Cell Death and Survival, Organismal Injury and Abnormalities
19	amylase, Anp32a, AP1B1, AP2A1, Betaadaplin, C4BP, CADPS, Collagen type ix, Collagen type V, CPLX1, ESD, FARSB, FN1, GABA-Areceptor, H2AFV, HIST1H2BK, KRT81, MIR200, MTAP, Mug1/Mug2, NAPB, NAPG, NSF, phosphorylase, PYGB, PYGM, Rab5, RAB3A, SLC5A3, SNAP25, Snare, STXB1, SYN2, TPD52L2, YKT6	28	25	Cellular Assembly and Organization, Cellular Function and Maintenance, Molecular Transport
20	Caveolin, CD2AP, C3, DLST, DNM1, DNM2, DNM3, Dynammin, EHD1, EHD2, EHD3, EHD4, Endophilin, ERK1/2, GLIPR2, growth factor receptor, JAM3, LRRCS9, MICAL3, MYO1E, NCO2, PACSIN1, PACSIN2, PACSIN3, PKC alpha/beta, Pki, PRPSAP1, PRPSAP2, SH3GL2, SH3GL2B, SUMO, Syntaxin, Vta-4	27	24	Cellular Function and Maintenance, Cellular Assembly and Organization, Nervous System Development and Function
21	AACS, ACSL1, ACSL4, adenosine-tetraphosphatase, APOA4, APOD, ATP synthase, ATP5H, ATP5J, ATP5O, C10BP, C21orf33/LOC102724023, CP, DLAT, EPHX1, ERH, F1 ATPase, FABP3, Ferritin, IDH1, Insulin, MIR124, N-corr, NCOX-LXR-Oxysterol-RXR-9 cis RA, Nr1h, Orm1 (includes others), PDHB, Pdi, PGD, PGK1, PHYHIP, SCAMP2, Sreb, STRAP, VSNL1	27	24	Lipid Metabolism, Small Molecule Biochemistry, Molecular Transport
22	AKR1B1, ANXA5, BCAT1, Caspase 3/7, CBWD1, CLIP2, CSNK1A1, CYP2J2, EIF2S1, Feer1, FGF1, GCLC, GCLM, Gm-csf, GPC6, HNRNPK, Ikb, LDL, MAP2K2, MAP2K4, MAP2K12, Mek, MRC1, MVP, NCL, PI3K (family), PREP, PRKCD, Proinsulin, RPL23, RPS3, RPS6, Rsk, Shc, TTC9	27	24	Protein Synthesis, Cardiovascular Disease, Organismal Injury and Abnormalities
23	aldehyde dehydrogenase, aldehyde dehydrogenase (NAD), ALDH, ALDH2, ALDH1A1, ALDH1L1, ALDH6A1, ALDH7A1, ALDH9A1, AP15, C3-Cfb, CFH, CLIC1, ERK, ETFB, JFH, glutathiontransferase, GOT, GOT1, GOT2, Gsta4, GSTM3, INPP1, IQGAP2, malate dehydrogenase, MDH1, MDM2, PC, PCP4, PITPNA, PLXNB1, RhoGap, S100, TMSB4	25	23	Small Molecule Biochemistry, Cellular Function and Maintenance, Energy Production
24	ABLIM2, ACTR2, ACTR3, Alpha1 antitrypsin, Alpha actin, Arp2/3, ARPC2, ARPC3, ARPC4, ARPC1B, ARPC1B, ARPC1B, COTL1, Ctnna, CTNNA2, CTNNA3, DBN1, F2, F Actin, G-Actin, GST, Myosin2, NCKIPSD, NWASP, PDLIM1, PGM2L1, phosphoinositide phospholipase C, PLCB3, PLCD1, Pmca, Profilin, RHN1, SERPING1, SRM, TAGLN2, TAGLN3	25	23	Cellular Assembly and Organization, Cellular Function and Maintenance, Tissue Development
25	ABC6, ACADS, APOA1, APOE, C3, CALCB, chemokine, Crip2, DPEP1, EC1, FAM129A, FTL, GPX4, HDL, HDL-cholesterol, hemoglobin, HTP, IL-2R, IL2 (complex), LGMN, IMAP7D1, mediator, IMVK, Nos, PHGDH, PRDX1, PRDX5, RIDA, SAA, SKIV2L2, STEAP3, T3-TR-RXR, Tnf receptor, TXN, VLDL	25	23	Free Radical Scavenging, Small Molecule Biochemistry, Connective Tissue Development and Function