

Top biological networks harboring differentially regulated proteins in DRG

Network List

IPA Build version: 460209M

Rank	Network ID	Molecules in Network	Score	Focus Molecule	Top Diseases and Functions
1	1	↑Acot1, ↑Acot9, ↑Acot13, acyl-CoA hydrolase, ↑ANKFY1, ↑APRT, ↑ARL2, ↑BCAT1, ↑CLIC1, ↑COL12A1, Collagen type V, ↑CPNE1, ↑DYSE, ↑EEF1B2, ↑EHD2, ↑EPB41, ↑ESYT1, ↑FN1, ↑GFM1, ↑HARS, ↑IDH3A, ↑ISLR, ↑KANK2, ↑LPCAT4, ↑NDUF53, ↑PFAS, ↑PPP6R2, ↑SRM, ↑TAGLN2, ↑TARS, ↑TBCD, ↑TRIP12, ↑TXNDC17, UGT, ↑UGT1A6	48	32	Cell Morphology, Organ Morphology, Skeletal and Muscular Disorders
2	2	60S ribosomal subunit, ↑CAND1, ↑CENPV, ↑CIRBP, ↑CRM1, ↑CUL3, ↑EIF2S2, ↑ELAVL2, ↑FAM98B, ↑FTH1, hnRNP H, ↑HNRNP1, ↑HNRNP1U, ↑HP1BP3, ↑NDRG1, ↑PDXK, ↑PTBP1, ↑PTBP2, Ras homolog, ↑RBMX, Rnr, ↑RPL5, ↑RPL12, ↑RPL17, ↑RPL24, ↑RPLP0, ↑RPS8, ↑RPS11, ↑RPS16, ↑RPSA, ↑Rrbp1, ↑SDHA, ↑SND1, ↑UGGT1, ↑UPF1	45	31	RNA Post-Transcriptional Modification, Cancer, Cell Death and Survival
3	3	↑COX6A1, ↑COX6B1, ↑Cox6c, ↑CYC1, Cytochrome bc1, cytochrome-c oxidase, ERK, ↑ETFA, ↑HSP1E1, ↑ISCU, Mitochondrial complex 1, ↑MT-ND5, ↑NADH dehydrogenase, ↑NDUFA2, ↑NDUFA3, ↑NDUFA4, ↑NDUFA8, ↑NDUFA9, ↑NDUFA10, ↑NDUFA12, ↑NDUFB6, ↑NDUFB7, ↑NDUFB8, ↑NDUFB9, ↑NDUFB10, ↑NDUFS2, ↑NDUFS6, ↑NDUFV1, ↑NDUFV2, ↑OPA1, ↑UQCRCB, ↑UQCRC1, ↓UQCRC2, ↓UQCRCF51, ↓VDAC3	43	30	Developmental Disorder, Hereditary Disorder, Metabolic Disease
4	4	↑ABLIM1, ↑ACTB, ↑AP1G1, ↑AP2M1, Arp2/3, ↑ARPC5, ↑ARPC1B, ↑CLTC, ↑CORO2B, ↑CSPG4, F Actin, ↑FLNA, ↑FLNB, ↑FLOT1, ↑FLOT2, Flotillin, ↑HPCAL1, ↑IQGAP1, ↑IQGAP2, ↑MYH9, ↑MYH10, ↑MYL6, ↑MYO18A, ↑MYO1C, ↑NCKIPSD, ↑OXR1, ↑PALM, Profilin, Rac, ↑SORBS1, ↑SORBS2, ↑SPTAN1, ↑SORDL, ↑STOM, ↑VCL	43	30	Cell-To-Cell Signaling and Interaction, Cellular Assembly and Organization, Cellular Function and Maintenance
5	5	↓ANK3, ↓Ap2b1, ↑CAPG, ↓CNTN1, ↓CNTNAP1, ↓CPLX1, Cytokeratin, Cytoplasmic Dynein, ↑DCTN1, ↑DCTN2, ↓DNM3, ↓DYNCH11, ↓DYNC111, ↑Dync112, ↑FRY, ↓HSDL1, ↓KCNA1, ↓KCNA2, ↓KCNAB2, ↓KIF5C, Mapre, ↓MAPRE3, ↑MCAM, ↓NFASC, PI3K (complex), ↑RTN1, ↑RTN3, ↑RTN4, ↑SNTB1, ↑SNX1, ↑SNX2, ↑SNX5, ↑TAGLN3, tubulin (family), voltage-gated sodium channel	41	29	Cellular Assembly and Organization, Cellular Function and Maintenance, Nervous System Development and Function
6	6	aldo, aminocyclase, ↑ASPA, ↑ATP6VOA1, ↑ATP6VOD1, ↑ATP6V1A, ↑ATP6V1B2, ↑ATP6V1C1, ↑ATP6V1D, ↑ATP6V1E1, ↑ATP6V1H, ↑CYFIP2, ↑DARS, ↑DMXL2, ↑EEF1D, ↑EPRS, ↑EPS15L1, ↑GRB2, H+-exporting ATPase, H+-transporting two-sector ATPase, ↑H1F0, ↑IDH2, ↑IDH3G, isocitrate dehydrogenase, ↑KARS, ↑LARS, ↑MCCC1, ↓NCKAP1, ↑PFN1, ↑RAB6B, ↑RARS, ↓SLC33A1, Vacuolar H+ ATPase, ↑WDR1, ↓WDR7	41	29	Cellular Function and Maintenance, Cellular Compromise, Molecular Transport
7	7	↑ANPEP, ↑APOA1, ↑APOA4, ↑APOD, ↑CALB1, Ces, ↑Ces1b/Ces1c, ↑CLASP2, ↑CMA1, ↑CP, ↑CPA3, ↑DDAH2, ↑EPB41L2, ↑EPB41L3, ↑ESD, Ferritin, ↑FTL, ↑GPX3, hemoglobin, ↑HPX, ↑HSPA4L, ↑ME1, ↑MPP6, ↑NDRG2, Pdl, peroxidase (miscellaneous), ↑PRDX1, ↑PRDX5, ↑PRDX6, ↑PRUNE1, ↑RCC1, ↑STEAP3, ↑TF, Vegf, VLDL-cholesterol	39	28	Free Radical Scavenging, Small Molecule Biochemistry, Endocrine System Disorders
8	8	↑ANXA6, ↑ARCN1, Arf, ↑AVIL, ↑CALR, COP I, ↑COPA, ↑COPB1, ↑COPB2, ↑COPG1, ↑COPZ1, ↑EFEMP1, Gαq, ↑HSP90B1, ↑HYOU1, Lamin, Lamin b, ↓LMNB1, ↓LLMN2, mGluR, MHC Class I (complex), ↑PDIA3, ↑PDIA4, ↑PDIA6, ↑PITRM1, Pkc(s), ↑PLCD1, ↑PLEC, ↑PPIB, ↑PRKCSH, ↑SPTB, Tap, ↑TGFB1, ↑TXNDC5, ↑VWA1	34	26	Infectious Diseases, Cell Morphology, Cellular Development
9	9	↑ACADL, ↑AIFM1, aldehyde dehydrogenase, aldehyde dehydrogenase (NAD), ALDH, ↑ALDH1A1, ↑ALDH1L1, ↑ALDH5A1, ↑ALDH6A1, ↑ALDH9A1, ↑ATP5B, ↑CAT, ↑COX4I1, ↑DBI, ↑DPP6, ↑GLUD1, glutathione peroxidase, ↑GPX1, ↑Insulin, Ldh (complex), ↑LRRRC47, ↑MT-ND1, ↑MTC2, ↑NDUFA13, ↑NDUFS1, ↑PHB, ↑PHB2, ↑PLIN3, Secretase gamma, ↑SELENBP1, ↑SLC25A12, Sod, ↓SOD2, ↓STOML2, Tnf (family)	34	26	Post-Translational Modification, Protein Synthesis, Protein Trafficking
10	10	↑ARHGDB1, ↑CASKIN1, Dynam, Endophilin, ↓ENO2, ↑F13A1, ↑GDI1, ↑GDI2, ↑MAG, ↑MAP4, ↑MICAL1, ↑NAPB, ↑NAPG, ↑NSF, ↑PLP1, Rab5, Rab11, ↑RAB3A, ↑RAB6A, Ras, Rho gdi, ↑SEPT2, ↑SEPT5, ↑SEPT6, ↑SEPT8, ↑SEPT9, Septin, ↑SH3GL2, ↑SNAP25, Snare, ↑SNGC, ↑STXBP1, Syntxin, ↑SYT1, transglutaminase	32	25	Cellular Function and Maintenance, Molecular Transport, Cell-To-Cell Signaling and Interaction
11	11	↑ACAD9, ↑ACLY, amylase, ATP synthase, ↓ATPSA1, ↓ATPSH, ↑CMMPK2, ↑CNDP2, Collagen Alpha1, Eif2, Eotaxin, F1 ATPase, ↑FAM129A, ↑GPD1, ↓GPD2, JAK1/2, MIR124, ↑Mug1/Mug2, NDPK, ↑TNME2, ↑PISP1, Ribosomal 40s subunit, ↑RNH1, ↑SERPINB1, ↑SLC25A3, ↑SLC25A4, ↑SLC25A5, ↑SLC25A11, ↑STAT3, ↑SUCLA2, ↑SUCLG1, ↑TPD52, ↑TPD52L2, ↑TUFM, ↑VDAC2	32	25	Nucleic Acid Metabolism, Developmental Disorder, Hereditary Disorder
12	12	↑ACAT2, acetyl-CoA: acetyltransferase, adenosine-tetraphosphatase, ↑AK1, Ant, ↑ANXA11, ↑ATP5F1, ↑AUH, ↑DLAT, ↓DL, enoyl-CoA hydratase, ↑GAA, ↑GANAB, ↑GBAS, ↑GNG3, ↑HADHA, ↑HADHB, hexokinase, ↑HK1, HMG CoA synthase, ↑HMGCS2, Inflammasome (Nalp3, Asc, Casp1), Mapk, mediator, ↑OGDH, ↑PDHAT1, ↑PDHX, ↑PEX5L, ↑PGD, ↑SAMM50, ↑SIRT2, ↑SORL1, Strept, Vdac, ↓VDAC1	30	24	Developmental Disorder, Hereditary Disorder, Metabolic Disease
13	13	BetaArrestin, ↑CKB, ↓CKMT1A/CKMT1B, Clathrin, ↑CLIC4, ↑Cox5b, ↑CRYAB, ↑CRYM, ↑DES, ↓DNAJ4, ↓DNAJ6, ↓DNAJC11, Enac, ↑FKBP4, Gpcr, ↑GPHN, Hdac, ↑Hist1h1a, ↑Hnrrp3, ↓HNRRPDL, ↑HPCA, HSP, Hsp70, Hsp90, Hsp22/Hsp40/Hsp90, ↑HSPA4, ↑HSPA9, ↑HSPH1, ↑MAPT, MHC Class II (complex), ↑NDRG4, ↑PRX, ↓STIP1, Tir, ↑TUBA2A	30	24	Hereditary Disorder, Organismal Injury and Abnormalities, Skeletal and Muscular Disorders
14	14	↓AAK1, ↓ABAT, adenosylhomocysteinase, ↑AGK, ↑AHCY, ↓AHCYL1, ↓AHCYL2, ↑ANXA5, Ap2alpha, ↓ATP1A1, ↓ATP1A2, ↓ATP1A3, ↓ATP1A4, ↓ATP1B1, ↓ATP1B2, ↓ATP2B1, ↓ATP2B2, Ca2 ATPase, ERK1/2, G-Actin, ↑GOT1, ↑GPT2, Hepatic Transaminase, ITPR, ↑ITPR1, ↑ITPR3, ↑Ktn1, ↑MYO5A, Na+K+-ATPase, Ncx, Pkg, Pmca, ↑SH3BGR1, ↓SLC4A4	28	23	Molecular Transport, Cellular Function and Maintenance, Small Molecule Biochemistry
15	15	↑ANXA2, ↑ANXA3, ↑ANXA7, ↑ARF6, Cdc2, CDK4/6, ↑COLGALT1, Cyclin A, Cyclin B, Cyclin D, Cyclin E, ↑DDOST, E2f, ↓ENO1, ↑FAM129B, ↑FHL1, ↑ITGB4, ↑LMNA, Mek, ↑NCDN, ↑NPEPPS, ↑OAT, p85 (pik3r), PDGF BB, ↑PRDX4, Rbp, ↑RBP1, ↑RPN1, ↑S100A4, ↑SCGPDH, Sos, ↑TALDO1, ↑VCP, ↑VIM, ↑YARS	28	23	Post-Translational Modification, Hereditary Disorder, Neurological Disease
16	16	↑ACO2, ↑AKR1B1, ↑APP, ↑ATP5O, ↑BDH1, ↓CALB1, CCL2, ↓CEND1, ↑Cox6c, ↑CRYM, ↓DCLK1, ↑DPP3, ↑EGFR, ↑FAM213A, ↑Hrg, IL1B, ↑MAP6, methylamine, N-acetyl-L-aspartic acid, N-type Calcium Channel, ↑Nduf55, NME6, peptidase, ↑PRRC1, PTGFR, ↑RAB18, ↑SERPINB1, ↑SLC1A3, ↑SLC25A25, ↑SNCA, ↑STX1B, ↑TMEM35A, ↑TPPP3, ↑VSNL1, ZxDC	28	23	Amino Acid Metabolism, Cell-To-Cell Signaling and Interaction, Molecular Transport
17	17	Adaptor protein 1, ↑ANK1, AURK, ↑BCAM, ↑CAB39, Complement component 1, ↑CTNNA1, ↑DAG1, elastase, ↑ILK, Integrin alpha V beta 3, Jnk, ↑LAMA2, ↑LAMB1, ↑LAMB2, ↑LAMC1, Laminin, Laminin1, Laminin2, LIMS, ↑LIMS1, ↑MYO1D, ↑NID1, ↑NID2, ↑PARVA, ↑RHOC, ↑RHOT1, ↑RSU1, ↑SERPINF2, ↑SERPING1, ↑SLC4A1, Smad2/3, Stat3-Stat3, TMSB4, ↑TWf2	27	22	Cell Morphology, Organismal Injury and Abnormalities, Tissue Morphology
18	18	↑ACAA1, acetyl-CoA: acyltransferase, ↑AIMP1, Alpha actin, AP-3, ↑AP3B2, chymotrypsin, CNR3, ↑COL18A1, Collagen type XVIII, ↑CS, ↑Cyb5r3, ↑ERAP1, Fascin, ↑FH, Gpd, ↑GSN, HLA-B27, ↑IARS, ↑INA, malate dehydrogenase, ↑MDH1, ↑MDH2, Myosin, NCOR-LXR-Oxysterol-RXR-9 cis RA, NFkB (complex), ↑PC, ↑PDLIM5, PPARα-RXRα, ↑PRRH, ↑Tpm1, ↑Tpm2, ↑TPM3, ↑Tpm4, Tropomyosin	25	21	Small Molecule Biochemistry, Cellular Function and Maintenance, Energy Production
19	19	19S proteasome, 20S proteasome, 26S proteasome, ↑ATOX1, ATPase, ↑DDX3X, Dishevelled, ↓ECI1, EIF4A, ↑EIF4A1, ↑EIF4A2, ↑EIF4E, EIF4F, EIF4g, ↑EIF4G1, ↑ENTPD2, ↑FSCN1, Gsk3, ↓LONP1, ↓Macf1, MAP1LC3, MHC CLASS I (family), nucleoside-triphosphatase, Pglycoprotein, ↑PABPC1, ↑PSMC3, PSMD, ↑PSMD2, ↑PSMD6, ↑PSMD7, ↑PSME1, ↑PSME2, ↓SPQ, ↑TOM1L2, Ubiquitin	23	20	Protein Synthesis, RNA Post-Transcriptional Modification, Gene Expression
20	20	Alpha 1 antitrypsin, Alpha Actinin, Alpha catenin, Caderhin, calpain, ↑CAST, Cathepsin, ↑COL15A1, ↑COL1A1, ↑COL1A2, ↑COL4A1, ↑COL4A2, ↑COL6A1, ↑COL6A2, Collagen type I, Collagen type IV, ↑CTSB, ↑DCN, Fibrinogen, Focal adhesion kinase, Growth hormone, ↑ITGAV, ↑ITGB1, ↑MATN2, ↑MMP14, Pdgf (complex), Pdgf Ab, ↑PLG, ↑PSP, ↑SERPINB6, ↑SERPINH1, Smad, ↑SPARC, ↑STEAP4, Tgf beta	23	20	Dermatological Diseases and Conditions, Inflammatory Disease, Organismal Injury and Abnormalities
21	21	Alpha tubulin, Beta Tubulin, ↑CALU, ↑CCT2, ↑CCT3, ↑CCT4, ↑CCT7, ↑CCT8, ↑CCT6A, ↓DNM2, Dynein, ↑EHD4, Erm, ↑Hist1h1e, Histone H1, Importin alpha, Importin beta, ↑IPO5, JAK, Karyopherin beta, ↑KPNB1, ↑MAP6, myosin-light-chain kinase, NCK, ↑NIPSNAP1, ↑NIPSNAP11, Pak, PI3K p85, ↑PPP2R2A, SRC (family), ↑STMN1, ↑TCP1, TEC/BTK/TK/TKK/BMX, ↑TNMEM43, ↑TNPO1	23	20	Cellular Assembly and Organization, Cell-To-Cell Signaling and Interaction, Reproductive System Development and Function
22	22	alkylglycerophosphoethanolamine phosphodiesterase, Angiotensin II receptor type 1, ↑BPHL, ↑CARM1, ↑EEF2, ↑FABP7, ↑FARSA, ↑FASN, ↑Gk, ↑GNA11, ↑GNAO1, ↑IDH1, Lporeceptor, ↑MAPK3, N-cor, Nr1h, ↑NUCB1, Nuclear factor 1, PEPCk, ↓PFKM, PLA2, Plc beta, ↑PPSPC, Rar, ↑RPL7A, Rxr, SERCA, SWI-SNF, T3-T3-RXR, thymidine kinase, thyroid hormone receptor, ↑TKT, ↑VAT1	20	18	Cell Signaling, Molecular Transport, Nucleic Acid Metabolism
23	23	AChr, Actin, ↑ALDOC, atypical protein kinase C, ↑CACNA2D1, Calmodulin, caspase, ↓CASO1, ↓CNP, Cofilin, ↓DMD, ↓DNM1L, ↓DPYSL2, EGLN, ↓GDAP1, ↓GLUL, ↑LGI3, ↓MAP2, ↓Mff, Mic, Mlcp, ↓MPI, ↓NCAM1, ↓Nefm, Nos, Pka catalytic subunit, PP1 protein complex group, PP2A, Ppp2c, ↑PTRF, Rb, Rck, ↑SERPINA3, Spectrin, ↓VSNL1	20	18	Cell Morphology, Nervous System Development and Function, Tissue Morphology
24	24	Adaptor protein 2, ↑AKR1A1, ↑ANK1, ↑ATP2B2, BCL2, BOK, BRCA1, C22orf29, CACNA1A, ↑CACNB4, ↑CACNB4, ↑CARHSP1, ↑CISD1, ↑CTSF, ↓DHDH, ↑DHR59, ↑ENSA, FYXD3, ↑HHATL, ↑HIBADH, ↑IAH1, ↑ITH5, ↑LRPPRC, MATN4, MCM2, ↑PMM1, ↑POU4F2, ↑SCEP1, ↑SERPINH1, ↑SNAP91, ↑SYT1, SYT6, TP53, ↑TRIM46, TSC22D1	20	18	Cell Morphology, Cellular Function and Maintenance, Auditory and Vestibular System Development and Function
25	25	↑ACO2, Aconitase, ↑APOH, ↑BGN, ↑C3, ↑C4A/C4B, C4BP, ↑COL14A1, Collagen type II, Collagen type III, Collagen type IX, Collagen(s), Cpl2a, creatine kinase, EF-1alpha, Fc gamma receptor, ↑GC, ↑GPIIB-IIIa, HDL-cholesterol, ↑HDLBP, ↑HSPG2, Kallikrein, ↑LUM, ↑Mcp4, ↑MYEF2, ↑OGN, P38MAPK, ↑PRELP, ↑PSAT1, SAA, Serine Protease, ↑SERPINC1, SYK/ZAP, Tcf 1/3/4, ↑TTR	18	17	Hair and Skin Development and Function, Connective Tissue Disorders, Organ Morphology