Supplemental Table S2. Three major networks from the IPA network construction.

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| **Network ID** | **Molecules in Network** | **Top Diseases and Functions** |
| 1 | 14-3-3, Actin, ADGRD2, ADGRF1, ADGRF2, ADGRF4, ADGRG3, ADGRL4, AKAP13, Akt, Alpha tubulin, ANKS1A, Ap1, APOA1, APOA5, APOB, APOC1, APOC2, APOC4, Apoc1/Apoc2/Apoc4, APOE, ARVCF, ATP synthase, ATP5G1, ATPAF2, BMP1, BMPR1A, CDKN1A, CDKN2B, CELSR2, CHADL, CKM, COL21A1, COL22A1, COL28A1, COL4A1, COL4A2, COL4A4, collagen, Collagen type IV, Collagen(s), Creb, CXCL12, CYP17A1, CYP46A1, EDNRA, EIF6, ERK1/2, estrogen receptor, FAAP20, FES, Fibrinogen, FLT1, FURIN, Gpcr, GPR4, GPR22, GPR27, GPR35, GPR62, GPR75, GPR82, GPR139, GPR149, GPR152, GPR156, GPR157, GPR162, GPR174, GPR89A/GPR89B, GPRC5D, GPRC6A, growth factor receptor, HDAC9, HDL, HIP1, Histone h3, Histone h4, HNF1A, HRC, Hsp70, IL6R, KLHDC10, LDL, LDLR, LIPA, LPA, LPL, MAP4, MARK4, MAS1L, MCL1, MEF2, N-cor, NFkB (complex), NGF, OBFC1, OSM, OXGR1, p85 (pik3r), PARP12, PCSK9, PDE3A, PDGFRA, PECAM1, PHACTR1, PKN2, PLG, PPAP2B, PSMA5, RAI1, Ras homolog, RNA polymerase II, RND3, RPH3A, Rxr, SCARB1, SERPINH1, SFXN2, SKI, SLCO1B1, Smad2/3, SMARCA4, SMG6, SNX1, SORT1, SUCNR1, SWAP70, TCF21, TERT, TNS1, TOM1L2, TRIB1, TSC22D2, UBE2Z, Ubiquitin, UFD1L, VAMP8, WDR12, ZEB2 | Lipid Metabolism, Molecular Transport, Small Molecule Biochemistry |
| 2 | ABCG5, ABCG8, ABO, ACSS2, ADGRA1, ADGRG6, ALKBH5, ANKRD46, ANXA11, AP1AR, AR, ARAP2, ARHGAP26, ATP2B1, ATXN2, BNC2, C10orf90, C12orf43, C12orf49, C9orf64, CACNA1B, CCDC82, CEP83, CEPT1, CNNM2, COG5, COQ10B, CTAGE1, CTIF, CUX2, DCAKD, DCPS, DISP2, DLG4, DNAH7, DSCR3, DYNC2LI1, DZANK1, EGFR, ELAVL1, ESR1, F2R, FAIM2, FAM117B, FAM81A, FOXO6, FOXRED1, FUT3, GGCX, GLCE, GNPDA2, GPR87, GPR137, GPR146, GPR180, GTF2IRD1, GUCY1A3, HECW2, HNF4A, HSD17B12, IQSEC2, JAZF1, KCNE2, KDM4D, KIAA0586, KIAA1462, KISS1R, LARS2, LATS2, LMOD1, LRRC2, LRRTM2, MAP9, MIA3, MPV17L, MRAS, MSL2, MSRB2, MTAP, MYC, NCCRP1, NME7, NT5C2, PANK1, PAQR7, PDGFD, PDSS2, PEMT, PLEKHG1, PODXL, PPARA, PPARG, PPP1R14D, PPP2R3A, PROCR, PSRC1, RASL11A, RB1, SAMD1, SARS, SF3A1, SLC10A3, SLC22A3, SLC22A4, SLC22A5, SLC25A32, SLC35A1, SLMO2, SMIM7, SMIM12, SNX10, TAAR2, TC2N, TERF1, TM9SF4, TMCO3, TMEM97, TMEM101, TMEM123, TMEM127, TMEM216, TMTC4, TMUB2, TP53, TP53I3, TRIP4, TRPC4AP, TSPAN9, TSPAN14, UBC, UBTF, UNC79, USMG5, VAMP5, VN1R1, YWHAQ, ZNF589, ZNF652, ZPR1, ZXDB | Cell Morphology, Digestive System Development and Function, Hepatic System Development and Function |
| 3 | A2M, ADAMTS7, ANKRD40, AP4S1, APP, ARHGAP9, ARL6IP6, ASAP3, ATAT1, ATL3, ATP5SL, B3GNT8, BOD1, C11orf73, C3orf38, CA10, CA5B, CAAP1, CAMKV, CAMSAP2, CCBL1, CIART, CLUAP1, CREB1, CUTA, DCTPP1, DDX59, DIO3, DNAJB14, DNAJC4, DNAJC12, ECEL1, EIF4E3, EVI2A, FAM104A, FAM212B, FAM213A, FAM50A, FBXL4, GAL3ST1, GLRX5, GPN2, GPR12, GPR83, GPT2, GRB2, GSPT2, GTF3C6, H2AFJ, HECTD4, HSPA8, HSPB11, IGSF10, ISOC2, KCNK5, KIAA0930, KIAA1549L, KPTN, KRTCAP2, KYNU, LDLRAD3, LETMD1, LRRC42, LY86, LY6D, MAP3K4, MAP3K7CL, MCTP1, MIEN1, MINA, MORF4L1, MPHOSPH9, MRPL10, MYBPHL, MYDGF, NARF, NDUFB1, NMNAT2, NNAT, NOA1, NOB1, NXF1, OCIAD2, ODF2L, OPA3, OSBP2, PAIP2, PDE1A, PGLYRP1, PHACTR4, PIBF1, PITPNB, PITRM1, PPM1H, RASD1, RBPMS2, REL, RELT, REM2, RHOF, RNFT1, RPUSD2, S100A16, SH2B3, SIK2, SKA3, SLAIN2, SLC41A3, SOX4, SPC24, STARD10, STAT5B, STK40, TBC1D9B, TCEAL8, TMBIM1, TMEM180, TMEM255A, TOMM40, TPH1, TRAFD1, TSKS, UBXN8, UBXN10, UBXN2A, ULK3, USP53, VCP, VHL, WARS2, WDR43, YWHAZ, ZC3HC1, ZDHHC7, ZDHHC23, ZFP36, ZNF23, ZNF35, ZNF740, ZNF839 | Cell Morphology, Organ Morphology, Reproductive System Development and Function |
| 4 | PCNXL3, SVIL | Cell Death and Survival, Cell Cycle, Cellular Movement |