

Table 2. Summary of NCI60 predictor genes involved in pathway networks

Each row is one network identified by pathway analysis program. The networked genes are the element genes of the network. The predictor genes are the GA/SVM algorithm selected genes that are related to the network genes.

	Predictor Genes involved	Networked Genes
1	ADAM12, BCL3, CD9, COL1A1, DDR1, EFEMP1, FAM3C, FHL2, FN1*, HLA-DQA1, HSPA1A, IGFBP3, IL6, ITGA3, ITGA5, ITGA6*, MYH9, NFATC3, P8, PERP, PLAT, PLAU, PLAUR, PLK2, PPP3CA, PSEN2, S100A4, SERPINE2*, SPARC, TFPI2, THY1, TIMP3, TP53, TRIO, VEGF	
2	ANXA4, ANXA6, CAPG, CAV1*, CAV2, CLDN11, CTGF, CTSL, DLG3, FOS, FOSL2*, FSTL1, GJA1, GNB2L1, ITGB1, JUP, KRT14, KRT5, KRT8, LAMP2, LGALS3, LGALS3BP, MET, NUBP1, PECAM1, PPM2C, PRDX1, PRKCA, PRKCB1, PRKCD, PRKCE, PRKCM, PRNP, PTPRM, TEAD1	
3	ADRB2, ARHGEF12, BCAR3, CD4, CD68, DDEF2, EGFR, EPS8, FCGR2B, GRB10, HCLS1, IL6ST*, LEPR*, LYN, NEDD9*, PIK3R1*, PTK2, RUNX1, SH3KBP1, SNX2, TNFRSF6	BTK, CBLB, CCR5, CD2, FYN, KIT, LAT, PIK3CA, PIK3CG, PIK3R3, PLCG1, PTPRC, SLC4A1, WAS
4	APBA2, CAMKK1, CASK, CASP4, EPIM, ETS2, ETV5, FAF1*, LAMB1, NDRG2, PIM1*, PRG1 (PROTEOGLYCAN 1), SDCBP, SMO, STXBP1, TCF7L2*, TGFB1I4, TPD52, TPD52L1	AKT1, AR, BAD, CASP3, CASP8, CD3Z, CDC25A, CHUK, CTNNB1, GLI, GZMB, IKBKB, MAP3K5, PRKCQ, PRKCZ, PTCH,
5	ANK3, CLDN1, CSRP2, DHCR7, F11R, FAU, LMO7, MMP14, PSMB8, QKI*, RPS16, SERPINA1, SLC16A1, SLC1A3, TGFBR3, TIMP2, TJP1, UBL5	AGC1, CLK2, CXCL12, EEF1A1, EGR2, ITGAV, LAMC2, MBP, MLLT4, MMP2, MMP9, MYCN, NCL, PSMA7, PTPRC, TGFB1, VTN
6	ABL2, ANXA1, ARGBP2, CYP24A1, CYR61, FOXD1, GGA2, GPX1, ITGA5, JUB, LASP1, MDM2, PIK3R1*, PTRF, RHOQ, SOX9, SYNJ1	ABL1, BCR, CDC42, CLTC, DNM1, EPHB2, ETS1, FYN, GRB2, HIF1A, INSR, ITGAV, ITGB3, MAPK3, NCK1, VAV1, WASL, ZNF148
7	APOD, CDH17, CTSD, IFIT2, IGLL1, IRX3, LMO4*, NR1H3, PRKACB*, PRKAG1, PROS1, RAB32, SET7, SLC2A3, SSA2, TFPI, UGT1A10	ATF2, BRCA1, CDKN1B, CDX2, CREB1, DHX9, EP300, F10, GATA4, LAMA3, LAMC2, NCOA1, PAX6, PLG, PPARGC1A, PRKAR2A, PRKAR2B, TBP

8	ALCAM, BAIAP1, C6ORF108, CALD1*, IER3, LDHB, LGMN, MUTYH, MXI1*, PRDX1, RBMS1*, TM4SF2, TP53, TPM1, TXNIP	ABCC9, ACTN4, APEX1, KCNJ11, LDHA, MAX, MSH2, MYC, NFKB1, NR3C1, PCNA,RELA, TDG, TXN
9	BCL7A, CXCL2, CXCL5, FOS, GYPA, IL8, IQGAP2, MDM2, NK4, PLAU, PPP4C, SAA1, SERPIND1, TFCP2, TNFAIP2, TNFRSF5	CEBPB, DSIPI, F2, IL2, IL2RA, IL4, IL8RB, JUN, MMP9, MYC, NFKB1, PIGR, PPARG, PPP2R1A, REL, RELA, RELB, SP1, TRAF1
10	APEG1, APOC1, APOC3, APOM, ASAH1*, B2M, BLVRB, C4A, CRAT, GABRE, GPX2, GRP58, HLA-A, HLA-B, LIPA, PEG10	APOE, BAT9, CANX, H2-LD, HLA-C, HLA-G, HNF4A, LILRB1, LILRB2, LY6A, MHC2TA, RARA, SMAD3, SP1, TAP1, TAP2, TAPBP, USF1, USF2
11	ADAM9, ADCY7, ASS, C1R, C1S, COPEB, DAG1, FDPS, GCH1, NGFRAP1, SCHIP1, SLC12A2, SLC26A2, SNTB2, TCF8	BHLHB3, CCND1, CDKN1A, DMD, E2F1, FMR1, FYN, ID2, IGFBP5, MEF2C, MMP2, MYOD1, MYOG, NCOA2,RARA, SP1, TCF3, TGFB1, THRB, YWHAE
12	ANXA5, CAMK2D*, CITED2, CREG, CYB5, DNMT3B, ENC1, MDM2, MEIS1, MOAP1, MYO5B*, NEFL, PBX1*, TRIM3, ZNF238	BAD, BCL2, BRCA1, CDK6, CDKN1A, CDKN2A, CYCS, DNMT1, DNMT3A,E2F1, EP300, GATA1, HDAC1, HDAC2, JUN, MYBL2, MYO5A, MYOD1, PPP1CA, RB1
13	BACE1, DDR2, IL13RA1, IL1B, IL4R, MYLK, NEDD9*, PCSK5, PHKA2, PIK3R1*, PTK2, S100A6, SORL1, TEF, TRIP6	BCAR1, CDKN2A, CSK, DOK4, EBAF, FURIN, FYN, IGF1R, IRS1, IRS2, JAK1, JAK2, MUSK, PAK1, PDPK1, PMCH, PTPRA, SOCS1, SRC, TYK2
14	ABCC2, DAPK1, DNCH2, DST, FOS, GTL3, HIST1H2AC*, KIF1B, KRT6B*, MSN, PLS1, RDX, SAT, TCTEL1	CCND1, CD44, CDKN1B, CEBPB, DNCI1, E2F1, E2F4, EIF3K, FOXO1A, HDAC1, INSR, MAD2L1, MME, MYC, PLEC1, RB1, RP3, SMAD3, UPP1, VIL2, VIM
15	AHR, APBB1, CYP1B1, FBLN1, HBA2*, HBE1, NEDD4L*, NID2, NR2F1, SATB1, SGK*, TBL1X, TP53	APOA1, APP, CDKN1B, COL18A1, ESR1, FOXO3A,HBB, HBB-B2, HBG1, HBG2, HDAC1, HDAC3, JUN, MAPK1, MMP2, NCOA2, NRIP1, RARB, RELA, SHC1, SMAD3, SP1

Network Index

16	ARF4L,CS, FTL, HLA-DRB3*, IFITM2, LYZ, MGLL, MUC13, NFIA, NOTCH2, PSMD4, S100A11, SMARCB1	ACTB, CCND1, CD44, CDKN1A, EGR1, FOXC2,GATA1, HDAC1, HLA-DRA, HLA-DRB1, HLA-DRB5, ING1, JUN, MHC2TA, MYOG,PCK1, PPARG, PPARGC1A, SMARCA4, RBPSUH, SP1, SREBF1
17	AP1G2, AP1S2*,ARHGDIB, BIRC3*, FGF2, FGFR3, FLNA, GNG12, IGFBP7, LAMR1, MAP1B*, PFN2	AP1B1, AP1G1, AP1M1, AP1M2, AP1S1, AP1S3, AP2A1, AP2A2, BCL10,CDC42, E2F1,FGFR2, FMR1, GNAI2, GNAI3, GNB1, GNB3, GNG11,GNG2, SMN1, STAT1, TRAF1, TRAF2
18	CD9, IGSF8	CD81, KAI1
19	KIF3C	KIF3A
20	WWP1	KLF2
21	KCNQ4	KCNE1
22	ANXA3	ULK1
23	PTPRK	NFATC2
24	EMP2*	P2RX7
25	SP140	ARID3A
26	PLEKHC1	FBLP-1
27	DLC1	PLCD1
28	CBR1	ELF3
29	RPH3AL	RAB3A
30	C19ORF10	LY6E
31	CKAP4	SSRP1
32	MYO10	CALML3
33	AKR1B1	ZHX1
34	ELL2	EAF1
35	KLF3	CTBP2
36	SEMA4B	RGS19IP1
37	NMBR	NMB
38	UBE1L	G1P2
39	CHL1	ADAM8
40	AQP3	AQP2
41	ARHE	SOC
42	SYNE1	DISC1
43	SGNE1	PCSK2
44	SEC15L2	RALA
45	LRRC1	ERBB2IP
46	BF	C2, PFC
47	GCA	LCP1, SRI
48	CRYZ	ESR2, XPMC2H
49	FGF12	MAPK13, MAPK8IP2
50	DBN1	GSN, MYO1C
51	GAD1	DLX2, GAD2
52	COL6A1	COL6A2, COL6A3
53	BBAP	BAL, DTX1
54	SFRP1	WNT1, WNT2, WNT4

	55	PEX5	PEX12, PEX14, PEX7, SCP2
	56	M6PR	DNASE1, GGA1, M6PRBP1, RAB9A