

**S1 Table.** Pathways with non-zero coefficients using cross-study validation

Pathway	Non-zero coefficient	Source	Gene
1 HYPOXIA AND P53 IN THE CARDIOVASCULAR SYSTEM	2.223	BioCarta	<i>TP53   AKT1   TAF1   HSPA1A   IGFBP3   FHL2   GADD45A   HSP90AA1   BAX   MAPK8   CDKN1A   MDM2   ABCB1   NFKB1B   HIF1A   RPA1   UBE2A   DNAJB1P1   HIC1   ATM   EP300   HSPA1B</i>
2 MULTI-DRUG RESISTANCE FACTORS	1.928	BioCarta	<i>ABCB1   GSTP1   ABCB11   ABCC3   ABCB4   ABCC1</i>
3 BILE SECRETION	1.604	KEGG	<i>SLC51B   ADCY1   EPHX1   SLC01B7   ABCC3   ATP1B4   ADCY9   ABCC4   ADCY4   SLC9A1   SLC9A3   SLC10A1   ADCY5   SLC22A8   SLC22A7   PRKX   SLC10A2   SULT2A1   ADCY7   CYP3A4   ATP1A1   CYP7A1   SLC01A2   SLC22A1   SCARB1   CFTR   BAAT   SLC5A1   PRKACA   PRKACB   PRKACG   UGT2B4   KCNN2   ABCB11   SCTR   SLC01B3   ADCY6   ADCY3   NCEH1   SLC2A1   ATP1B3   HMGCR   ABCG2   AQP8   GNAS   ABCC2   ATP1A2   ATP1A3   SLC4A4   ATP1A4   ATP1B1   ATP1B2   SLC51A   AQP1   FXYP2   SLC01B1   AQP4   SLC4A5   ADCY2   LDLR   AQP9   NR0B2   RXRA   ABCG8   ADCY8   NR1H4   SLC27A5   CA2   SLC4A2   ABCB1   ABCB4   ABCG5</i>
4 ALPHAE BETA7 INTEGRIN CELL SURFACE INTERACTIONS	1.387	PID	<i>ITGB7   ITGAE   CDH1</i>
5 ABC TRANSPORTERS	1.232	KEGG	<i>ABCA7   ABCG4   ABCC3   ABCC1   ABCC4   ABCA1   ABCA2   ABCA3   ABCB7   ABCA4   ABCB10   ABCB9   ABCA6   ABCA5   ABCC8   ABCA13   ABCA12   ABCB5   CFTR   ABCB8   ABCD3   ABCD4   ABCB11   ABCC11   ABCC5   ABCB6   ABCC9   ABCC12   ABCG2   ABCD1   ABCC2   ABCD2   TAP1   TAP2   ABCA10   ABCA9   ABCA8   ABCC6   ABCG8   ABCG1   ABCC10   ABCB1   ABCB4   ABCG5</i>
6 REGULATORS OF BONE MINERALIZATION	0.814	BioCarta	<i>IBSP   ENPP1   ANKH   COL4A6   COL4A4   COL4A5   ALPL   COL4A2   COL4A3   SPP1   COL4A1</i>
7 SUMOYLATION AS A MECHANISM TO MODULATE CTBP-DEPENDENT GENE RESPONSES	0.772	BioCarta	<i>UBA1   CTBP1   SUMO1   CDH1   UBE2A   NOS1   ZEB1   UBE3A</i>
8 HIF-1-ALPHA TRANSCRIPTION FACTOR NETWORK	0.697	PID	<i>LDHA   CA9   RORA   HK1   HDAC7   FECH   CREB1   JUN   TERT   SMAD4   LEP   MCL1   COPSS   CREBBP   TFRC   EPO   ALDOA   AKT1   PGM1   NCOA2   ARNT   NPM1   ETS1   PFKL   ENG   SMAD3   CXCL12   SERPINE1   BHLHE41   TF   FOS   SP1   NDRG1   ID2   CITED2   PGK1   FURIN   GATA2   EGLN3   HMOX1   CXCR4   ABCB1   SLC2A1   BNIP3   EDN1   ENO1   HIF1A   GCK   IGFBP1   NT5E   TFF3   NCOA1   ITGB2   PKM   ABCG2   PLIN2   CP   HK2   BHLHE40   PFKFB3   HNF4A   VEGFA   ADM   NOS2   EP300   EGLN1</i>
9 BACTERIAL INVASION OF EPITHELIAL CELLS	0.676	KEGG	<i>DOCK1   RHOA   PTK2   RHOG   SEPT8   MET   ELMO3   ARPC2   ARPC4   WASL   SHC3   CAV1   CLTCL1   ILK   SEPT3   WAS   SHC2   CAV3   ARHGEF26   ARHGAP10   PIK3CB   ELMO2   PIK3CD   PIK3CG   PIK3R1   PIK3R2   SEPT9   WASF2   PIK3R3   ARPC1A   ELMO1   SRC   CLTA   ACTB   CLTC   MAD2L2   CTNNA3   SHC1   VCL   SEPT1   DNM3   PXN   ACTG1   SEPT11   RAC1   SHC4   CBLC   ARPC5L   CTNNA1   CTNNA2   CD2AP   CAV2   CTNNB1   BCAR1   ITGA5   DNM1   CTTN   SEPT6   CBL   CBLB   CDC42   CDH1   WASF1   CLTB   ARPC5   PIK3R5   ARPC3   ARPC1B   FN1   ITGB1   HCLS1   SEPT12   GAB1   CRK   CRKL  </i>

10	INTRINSIC PROTHROMBIN ACTIVATION PATHWAY	0.675	BioCarta	F2   ZFHX3   SERPING1   COL4A2   F11   COL4A6   F10   PROC   COL4A5   KNG1   KLKB1   COL4A1   F9   FGG   PROS1   COL4A4   FGB   F2R   F5   FGA   F8   COL4A3   F12
11	THYROID CANCER	0.615	KEGG	MYC   TPM3   KRAS   TPR   TCF7   TCF7L2   NRAS   BRAF   RET   PAX8   NTRK1   HRAS   CCND1   CTNNB1   MAPK1   MAPK3   PPARG   CCDC6   NCOA4   MAP2K1   MAP2K2   TFG   CDH1   LEF1   TCF7L1   RXRA   RXRB   RXRG   TP53
12	VALIDATED TRANSCRIPTIONAL TARGETS OF API FAMILY MEMBERS FRA1 AND FRA2	0.500	PID	ATF4   CXCL8   JUN   MMP1   DMTF1   CCND1   NFATC2   TXLNG   ITGB4   FOSL1   LIF   DCN   MGP   BGLAP   NFATC1   LAMA3   THBD   SP1   NOS3   JUND   HMOX1   EP300   NFATC3   MMP9   PLAUR   JUNB   USF2   CCNA2   IVL   MMP2   FOSL2   COL1A2   CDKN2A   PLAU   IL6   CCL2   GJA1
13	AGRIN IN POSTSYNAPTIC DIFFERENTIATION	0.497	BioCarta	LAMC3   LAMA4   NRG2   JUN   ITGA1   CHRNA1   LAMA5   PAK6   DVL1   LAMB3   DMD   GIT2   LAMC2   PAK4   ARHGEF6   NRG1   MAPK3   CDC42   RAPS   EGFR   PTK2   LAMA3   MAPK8   UTRN   SP1   PAK2   SRC   DAG1   AGRN   MAPK1   CTTN   PXN   LAMA1   LAMA2   NRG3   LAMB1   ACTA1   CHRMI   PAK7   PAK3   RAC1   ARHGEF7   MUSK   LAMC1   LAMB2   ITGB1   PAK1
14	PROTEOGLYCAN SYNDECAN-MEDIATED SIGNALING EVENTS	0.497	PID	SDC1   SDC3   SDC2   SDC4
15	BETA1 INTEGRIN CELL SURFACE INTERACTIONS	0.467	PID	COL2A1   CD81   CD14   LAMA4   COL18A1   ITGA1   LAMA5   TGFB1   ITGA7   ITGA9   LAMB3   THBS1   ITGA4   COL1A1   COL4A6   VCAM1   LAMC2   COL11A1   COL6A2   ITGA3   LAMC1   COL4A5   ITGA11   LAMA3   LAMA2   COL6A1   SPPI   COL4A1   LAMB2   COL1A2   COL6A3   ITGA8   FGG   ITGA10   VTN   COL4A4   FBN1   F13A1   LAMA1   FGB   ITGA5   ITGAV   NPNT   COL5A2   PLAUR   TNC   LAMB1   FGA   COL7A1   MDK   COL3A1   JAM2   IGSF8   CSPG4   ITGA6   THBS2   ITGA2   TGM2   VEGFA   COL4A3   PLAU   FN1   NID1   COL11A2   ITGB1   COL5A1
16	GLYCOLYSIS - GLUCONEOGENESIS	0.251	KEGG	ADH5   BPGM   ADH6   ADH7   GPI   PGM2   AKR1A1   FBP2   ACSS2   LDHAL6B   ALDH3A1   HK1   FBP1   HK3   LDHAL6A   G6PC2   ADPGK   HK2   GAPDH   PDHA1   PDHA2   PDHB   ALDH3B1   ACSS1   ALDH3B2   ALDH1B1   DLAT   PGAM4   MINPP1   PKLR   PKM   G6PC   HKDC1   DLD   GALM   G6PC3   GCK   ENO1   ALDH2   GAPDHS   PFKL   ALDH1A3   PFKM   PFKP   ALDH9A1   ALDH3A2   ALDOA   LDHA   ALDOB   ALDOC   PGAM1   PGAM2   LDHB   ENO2   ENO3   LDHC   PGK1   PGK2   PCK1   PCK2   PGM1   ALDH7A1   ADH4   ADH1A   ADH1B   ADH1C   TPII
17	BCR SIGNALING PATHWAY	0.152	BioCarta	LYN   PPP3CA   JUN   FOS   PRKCA   BLNK   PLCG1   CSNK2A3   CD79B   HRAS   MAPK3   ELK1   NFATC1   GRB2   MAPK8   CSNK2A1   PPP3CC   RAC1   SHC1   RAF1   CD79A   MAPK14   BCR   CAMK2B   PPP3CB   MAP3K1   MAP2K1   SOS1   VAV1   PRKCB   BTK   SYK

18	N-CADHERIN SIGNALING EVENTS	0.150	PID	<i>FGFR1   CALM1   DCTN1   CAMK2G   CALM2   CTNND1   DAGLA   KIF5B   CNR1   RHOA   PTPN11   FER   CTNNA1   CDC42   CTTN   AXIN1   MAPRE1   MYL2   GAP43   JUP   MAPK8   CALM3   RAC1   LRP5   DAGLB   ROCK1   CTNNA1   PTPN1   GSN   PLCG1   PIK3R1   PIP5K1C   PIK3CA   GRIA2   CDH2   GJA1</i>
19	ALPHA6 BETA4 INTEGRIN-LIGAND INTERACTIONS	0.132	PID	<i>LAMC2   ITGA6   LAMA5   LAMA2   LAMA3   LAMB3   ITGB4   LAMC1   LAMA1   LAMB1   LAMB2</i>
20	WNT SIGNALING NETWORK	0.124	PID	<i>WNT3A   FZD2   WNT5A   FZD7   FZD6   RYK   WNT3   FZD4   IGFBP4   WNT7A   RSPO1   WNT7B   FZD9   LOC101929777   DKK1   CTHRC1   WNT2   WIF1   LRP6   ATP6AP2   KREMEN2   FZD5   FZD1   ROR2   WNT1   FZD8   KREMEN1   FZD10   LRP5</i>
21	EICOSANOID METABOLISM	0.103	BioCarta	<i>PTGER1   COX2   PTGIS   TBXAS1   CYP2J2   ALOX5   CYSLTR2   PTGIR   TBXA2R   PTGER4   PTGS1   PTGES   PLCB1   PTGER3   CYSLTR1   PTGFR   EPHX1   MPO   PLA2G1B   PTGER2   EPHX2   HPGDS   ALOX5AP</i>
22	PDGF SIGNALING PATHWAY	0.092	BioCarta	<i>RASA1   JUN   JAK1   PRKCA   MAP3K1   CSNK2A3   STAT1   HRAS   MAPK3   ELK1   PLCG1   PDGFRA   GRB2   MAP2K4   MAPK8   FOS   SHC1   RAF1   CSNK2A1   STAT3   PDGFA   PIK3R1   MAP2K1   SOS1   PIK3CA   PRKCB   SRF</i>
23	MALARIA	0.087	KEGG	<i>TGFB1   SELE   IL10   TGFB3   MYD88   IL12A   MET   HGF   TGFB2   KLRK1   THBS1   THBS2   THBS3   THBS4   IL18   COMP   CSF3   SELP   IFNG   GYPA   GYPB   GYPC   CD36   PECAM1   TLR2   TLR4   CD40   CD40LG   KLRC4-   KLRK1   LRP1   ICAM1   CCL2   CD81   ITGAL   TNF   TLR9   HBA1   HBA2   IL1B   CR1   HBB   ACKR1   ITGB2   KLRB1   SDC1   SDC2   IL6   VCAM1   CXCL8</i>
24	GLYCOSAMINOGLYCAN BIOSYNTHESIS - CHONDROITIN SULFATE - DERMATAN SULFATE	0.085	KEGG	<i>CHPF   XYLT1   XYLT2   CHST7   B3GALT6   UST   CHST15   CHST12   CSGALNACT1   CHPF2   CHSY1   CHST11   CHSY3   B4GALT7   DSE   CHST14   CHST13   CHST3   CSGALNACT2   B3GAT3</i>
25	CALCIUM SIGNALING BY HBX OF HEPATITIS B VIRUS	0.081	BioCarta	<i>LAMTOR5   SHC1   SRC   HRAS   MAPK3   RAF1   JUN   FOS   MAP2K1   SOS1   GRB2   CAMK2B   CSNK2A1   PTK2B   CSNK2A3   CREB1</i>
26	WNT LRP6 SIGNALLING	0.078	BioCarta	<i>KREMEN2   FZD1   DKK2   DKK1   WNT8A   LRP6   WNT8B</i>
27	SPROUTY REGULATION OF TYROSINE KINASE SIGNALS	0.077	BioCarta	<i>CBL   MAP2K2   SHC1   SRC   MAPK1   RASA1   SPRY1   PTPRB   RAF1   SPRY2   SPRY4   SOS1   EGFR   EGF   GRB2   MAPK3   SH3KBP1   HRAS   SPRY3   MAP2K1</i>
28	SYNDECAN-1-MEDIATED SIGNALING EVENTS	0.075	PID	<i>FGFR1   COL2A1   FGF23   FGF1   COL6A3   MMP1   HPSE   FGF2   MMP7   TGFB1   CASK   COL4A6   FGFR2   COL11A1   COL6A2   MAPK3   COL4A5   PRKACA   COL6A1   COL4A1   FGF4   SDC1   MAPK1   FGFR4   COL4A4   SDCBP   PPIB   MMP9   COL1A1   COL5A2   HGF   COL7A1   FGFR3   COL3A1   FGF19   LAMA5   COL1A2   COL4A3   CCL5   BSG   COL11A2   MET   COL5A1</i>
29	IL23-MEDIATED SIGNALING EVENTS	0.073	PID	<i>TNF   CXCL9   CXCL1   NOS2   NFKB1   IL19   STAT1   IL17A   ITGA3   IL2   STAT5A   RELA   IL23A   STAT4   IFNG   CD3E   IL1B   IL6   CD4   ALOX12B   IL18RAP   TYK2   IL12RB1   STAT3   SOCS3   IL18R1   PIK3R1   MPO   IL24   NFKBIA   JAK2   PIK3CA   IL23R   CCL2   IL18   IL17F   IL12B</i>

30	VISUAL SIGNAL TRANSDUCTION	0.069	BioCarta	<i>SLC25A18</i>   <i>RHO</i>   <i>GRK1</i>   <i>PDE6B</i>   <i>ARRB1</i>   <i>SLC25A22</i>   <i>PDE6A</i>   <i>GNB1</i>   <i>RCVRN</i>   <i>GNAT1</i>   <i>PDE6G</i>   <i>GUCA1A</i>   <i>GNGT2</i>
31	SIGNAL TRANSDUCTION THROUGH IL1R	0.064	BioCarta	<i>TNF</i>   <i>TGFB1</i>   <i>IRAK1</i>   <i>JUN</i>   <i>IFNB1</i>   <i>IL1R1</i>   <i>TGFB3</i>   <i>TAB2</i>   <i>TRAF6</i>   <i>IFNA1</i>   <i>TOLLIP</i>   <i>MAP2K3</i>   <i>PEBP1</i>   <i>MYD88</i>   <i>RELA</i>   <i>IKBKG</i>   <i>IKBKB</i>   <i>FOS</i>   <i>TAB1</i>   <i>IFNA13</i>   <i>TGFB2</i>   <i>MAPK8</i>   <i>IL1B</i>   <i>CHUK</i>   <i>IRAK3</i>   <i>MAPK14</i>   <i>IL1RN</i>   <i>MAP3K1</i>   <i>IRAK2</i>   <i>IL1A</i>   <i>MAP4K4</i>   <i>NFKBIA</i>   <i>IL1RAP</i>   <i>MAP3K7</i>   <i>IL6</i>   <i>ECSIT</i>   <i>MAP2K6</i>
32	INFLUENCE OF RAS AND RHO PROTEINS ON G1 TO S TRANSITION	0.061	BioCarta	<i>AKT1</i>   <i>PDPK1</i>   <i>CDK2</i>   <i>CCND1</i>   <i>RB1</i>   <i>CDK6</i>   <i>RHOA</i>   <i>HRAS</i>   <i>MAPK3</i>   <i>RELA</i>   <i>TFDP1</i>   <i>IKBKG</i>   <i>IKBKB</i>   <i>CDK4</i>   <i>RAC1</i>   <i>CCNE1</i>   <i>MAPK1</i>   <i>CDKN1B</i>   <i>CHUK</i>   <i>RAF1</i>   <i>E2F1</i>   <i>MAP2K2</i>   <i>PIK3R1</i>   <i>NFKBIA</i>   <i>MAP2K1</i>   <i>CDKN1A</i>   <i>PIK3CA</i>   <i>PAK1</i>
33	ERK1-ERK2 MAPK SIGNALING PATHWAY	0.061	BioCarta	<i>TERT</i>   <i>MKNK1</i>   <i>PTPRR</i>   <i>SRC</i>   <i>HRAS</i>   <i>MAPK3</i>   <i>ELK1</i>   <i>RPS6KA5</i>   <i>GRB2</i>   <i>SHC1</i>   <i>MAPK1</i>   <i>RAF1</i>   <i>PPP2R5D</i>   <i>NGFR</i>   <i>MAP2K2</i>   <i>STAT3</i>   <i>NGF</i>   <i>MYC</i>   <i>MKNK2</i>   <i>MAP2K1</i>   <i>RPS6KA1</i>   <i>SOS1</i>
34	MULTI-STEP REGULATION OF TRANSCRIPTION BY PITX2	0.044	BioCarta	<i>NKD2</i>   <i>PROC</i>   <i>TRRAP</i>   <i>HDAC1</i>   <i>DVL1</i>   <i>CREBBP</i>   <i>CSNK2A3</i>   <i>GSK3B</i>   <i>CTNNB1</i>   <i>AXIN1</i>   <i>DKK2</i>   <i>CSNK2A1</i>   <i>LDB1</i>   <i>NKD1</i>   <i>PPP2R5D</i>   <i>FRAT1</i>   <i>KAT5</i>   <i>WIF1</i>   <i>LRP6</i>   <i>KREMEN2</i>   <i>WNT1</i>   <i>FZD1</i>   <i>CCND2</i>   <i>DKK1</i>   <i>EP300</i>   <i>PITX2</i>   <i>MED1</i>   <i>LEF1</i>
35	E-CADHERIN SIGNALING IN KERATINOCYTES	0.042	PID	<i>RHOA</i>   <i>VASP</i>   <i>PIK3R1</i>   <i>SRC</i>   <i>CTNNB1</i>   <i>FYN</i>   <i>CDH1</i>   <i>CTNNA1</i>   <i>EGFR</i>   <i>RAC1</i>   <i>PIP5K1A</i>   <i>CASR</i>   <i>JUP</i>   <i>AKT1</i>   <i>PIK3CA</i>   <i>CTNND1</i>   <i>AKT2</i>   <i>FMN1</i>   <i>PLCG1</i>   <i>AJUBA</i>   <i>ZYX</i>
36	NONCANONICAL WNT SIGNALING PATHWAY	0.038	PID	<i>CHD7</i>   <i>NLK</i>   <i>SETDB1</i>   <i>FZD2</i>   <i>WNT5A</i>   <i>FZD7</i>   <i>NFATC2</i>   <i>DVL1</i>   <i>PPARG</i>   <i>MAPK10</i>   <i>FZD6</i>   <i>TAB2</i>   <i>DVL3</i>   <i>FLNA</i>   <i>CDC42</i>   <i>ARRB2</i>   <i>MAPK8</i>   <i>TAB1</i>   <i>RAC1</i>   <i>RHOA</i>   <i>DVL2</i>   <i>DAAM1</i>   <i>MAPK9</i>   <i>CSNK1A1</i>   <i>ROCK1</i>   <i>CTHRC1</i>   <i>MAP3K7</i>   <i>PRKCZ</i>   <i>CAMK2A</i>   <i>FZD5</i>   <i>ROR2</i>   <i>YES1</i>
37	MICRORNAS IN CANCER	0.023	KEGG	<i>TPM1</i>   <i>MIR34A</i>   <i>CDKN1A</i>   <i>CDKN1B</i>   <i>MIR7-2</i>   <i>MIR7-3</i>   <i>MIR9-1</i>   <i>MYC</i>   <i>MIR92A1</i>   <i>MIR92A2</i>   <i>MIR133B</i>   <i>MIR135B</i>   <i>MIR520C</i>   <i>SPRY2</i>   <i>TP53</i>   <i>MIR99A</i>   <i>ERBB2</i>   <i>ERBB3</i>   <i>MIR324</i>   <i>MIR7-1</i>   <i>MIR326</i>   <i>MIR330</i>   <i>MIR331</i>   <i>MIR335</i>   <i>ABLI</i>   <i>MIR342</i>   <i>MIR345</i>   <i>CDKN2A</i>   <i>MIR483</i>   <i>PDGFA</i>   <i>PDGFB</i>   <i>RPS6KA5</i>   <i>RAF1</i>   <i>MIR373</i>   <i>PDGFRB</i>   <i>APC</i>   <i>MIR9-2</i>   <i>RASSF1</i>   <i>IRS1</i>   <i>CYP1B1</i>   <i>APC2</i>   <i>PAK4</i>   <i>HNRNPK</i>   <i>MAPK1</i>   <i>FOXP1</i>   <i>BAK1</i>   <i>MIR9-3</i>   <i>MIR193B</i>   <i>MCL1</i>   <i>EZH2</i>   <i>DDIT4</i>   <i>CCND1</i>   <i>BCL2</i>   <i>BCL2L2</i>   <i>HMOX1</i>   <i>ITGA5</i>   <i>PTEN</i>   <i>MDM2</i>   <i>MDM4</i>   <i>MARCKS</i>   <i>ITGB3</i>   <i>ZEB2</i>   <i>ST14</i>   <i>PDCD4</i>   <i>STAT3</i>   <i>MIR520G</i>   <i>ABCB1</i>   <i>PRKCB</i>   <i>MIR520A</i>   <i>MIR199A1</i>   <i>MIRLET71</i>   <i>BM11</i>   <i>MET</i>   <i>MIR101-1</i>   <i>MIR602</i>   <i>SERPINB5</i>   <i>IKBKB</i>   <i>PTGS2</i>   <i>BRCA1</i>   <i>UBE2I</i>   <i>HOXD10</i>   <i>PIK3CA</i>   <i>PIM1</i>   <i>MIR449A</i>   <i>MIR520H</i>   <i>PIK3R2</i>   <i>RPTOR</i>   <i>MIR34B</i>   <i>SIRT1</i>   <i>WNT3A</i>   <i>ZFPM2</i>   <i>NFKB1</i>   <i>GLS</i>   <i>PRKCE</i>   <i>HDAC4</i>   <i>GLS2</i>   <i>MIR103B2</i>   <i>HRAS</i>   <i>MIR451A</i>   <i>MIR10A</i>   <i>ROCK1</i>   <i>MIR10B</i>   <i>BCL2L1</i>   <i>E2F2</i>   <i>PLAU</i>   <i>FGFR3</i>   <i>PLCG1</i>   <i>PLCG2</i>   <i>PDGFRA</i>   <i>MMP9</i>   <i>MIR210</i>   <i>MMP16</i>   <i>COMMD3-BM11</i>   <i>RECK</i>   <i>NOTCH1</i>   <i>MIR375</i>   <i>CCND2</i>   <i>NOTCH3</i>   <i>NOTCH4</i>   <i>MIR214</i>   <i>DNMT1</i>   <i>DNMT3A</i>   <i>DNMT3B</i>   <i>VEGFA</i>   <i>MIR423</i>   <i>KRAS</i>   <i>EZR</i>   <i>VIM</i>   <i>ABCC1</i>   <i>FSCN1</i>   <i>TGFB2</i>   <i>RHOA</i>   <i>KIF23</i>   <i>TRIM71</i>   <i>ZEB1</i>   <i>MIR128-2</i>   <i>NRAS</i>   <i>PRKCA</i>   <i>FZD3</i>   <i>TNC</i>   <i>SOX4</i>   <i>WNT3</i>   <i>MAPK7</i>   <i>SLC45A3</i>   <i>BMF</i>   <i>MIR96</i>   <i>SHC1</i>   <i>CDC45</i>   <i>TNR</i>   <i>CASP3</i>   <i>GRB2</i>   <i>E2F1</i>   <i>MIR224</i>   <i>MIR34C</i>   <i>MIR23C</i>   <i>RDX</i>   <i>CYP24A1</i>   <i>MIR23A</i>   <i>SHC4</i>   <i>MIR135A1</i>

			<p>MIR23B   STMN1   MAP2K2   MIRLET7A1   MIRLET7A2   MIRLET7A3   MIRLET7B   MIRLET7C   MIRLET7D   MIRLET7E   MIRLET7F1   MIRLET7F2   MIRLET7G   CREBBP   MIR100   DICER1   MIR101-2   MIR103A1   MIR103A2   BMPR2   MIR106B   MIR107   CRK   CRKL   MIR1-1   MIR1-2   MIR122   MIR124-1   MIR124-2   MIR124-3   MIR125A   MIR125B1   MIR125B2   MIR126   CCNE1   MIR128-1   CCNG1   MIR129-1   MIR129-2   TNXB   MIR133A1   MIR133A2   E2F3   SLC7A1   MIR135A2   MIR203B   MIR137   THBS1   IGF2BP1   HDAC1   MIR141   MIR143   EFNA3   MIR145   MIR146A   HMGA2   MIR150   MIR152   MIR155   MIR15A   MIR15B   TIMP3   MIR16-2   MIR17   MIR18A   MIR181A2   MTOR   MIR181B2   MIR181C   CCNE2   MIR183   TP63   TNN   MIR103B1   MIR192   MIR194-1   MIR194-2   MIR195   MIR181B1   NOTCH2   CD44   MIR199A2   MIR199B   MIR19A   MIR19B1   MIR19B2   MIR20A   MIR200A   MIR200B   MIR200C   MIR203A   SOCS1   MIR205   MIR206   PRKCG   MIR21   MIR615   MIR181A1   IRS2   MIR215   MIR181D   ATM   EGFR   MIR625   MIR363   MIR221   MIR222   MIR223   CDC25A   CDC25B   CDC25C   MAP2K1   MIR16-1   MIR25   MIR26A1   MIR26A2   MIR26B   MIR27A   MIR27B   MIR28   MIR29A   MIR29B1   EP300   MIR29C   MIR29B2   MIR494   MIR30A   MIR30B   MIR30C1   MIR30C2   MIR30D   MIR30E   MIR31   MIR32   CDK6   SOS1   SOS2</p>	
38	CENTRAL CARBON METABOLISM IN CANCER	0.022	KEGG	<p>MYC   PIK3CB   PIK3R1   KRAS   RAF1   MET   SCO2   TIGAR   ERBB2   FLT3   HIF1A   IDH1   HK1   HK2   NRAS   SLC16A3   EGFR   MTOR   PDGFRB   PDHA1   PDHA2   PDHB   PDK1   SLC2A2   PIK3CG   GLS2   PIK3R2   NTRK1   NTRK3   PFKP   PIK3R3   GLS   PGAM1   HRAS   PKM   PIK3CD   HKDC1   HK3   AKT1   AKT2   PFKL   LDHA   FGFR1   GCK   FGFR2   PDGFRA   MAPK1   RET   SIRT6   PFKM   MAPK3   PTEN   AKT3   PGAM4   MAP2K1   MAP2K2   KIT   PGAM2   G6PD   SLC7A5   PIK3R5   SLC1A5   SLC2A1   SIRT3   TP53   PIK3CA   FGFR3</p>
39	LINKS BETWEEN PYK2 AND MAP KINASES	0.009	BioCarta	<p>JUN   GNAQ   PRKCA   BCAR1   PLCG1   SRC   HRAS   MAPK3   MAP2K3   GRB2   MAP2K4   MAPK8   RAC1   SHC1   MAPK1   RAF1   MAPK14   MAP2K2   CAMK2B   MAP3K1   CRKL   MAP2K1   SOS1   PRKCB   PAK1   PTK2B</p>

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KEGG, Kyoto Encyclopedia of Genes and Genomes; PID, Pathway Interaction Database.