

Analysis of key pathways in HCC

Table S1. Significant differentially expressed genes and their involved pathways

Gene	pathway
E2F1	hsa04110: Cell cycle,
E2F1	hsa05200: Pathways in cancer,
E2F1	hsa05212: Pancreatic cancer,
E2F1	hsa05214: Glioma,
E2F1	hsa05215: Prostate cancer,
E2F1	hsa05218: Melanoma,
E2F1	hsa05219: Bladder cancer,
E2F1	hsa05220: Chronic myeloid leukemia,
E2F1	hsa05222: Small cell lung cancer,
E2F1	hsa05223: Non-small cell lung cancer,
FAS	hsa04010: MAPK signaling pathway,
FAS	hsa04060: Cytokine-cytokine receptor interaction,
FAS	hsa04115: p53 signaling pathway,
FAS	hsa04210: Apoptosis,
FAS	hsa04650: Natural killer cell mediated cytotoxicity,
FAS	hsa04940: Type I diabetes mellitus,
FAS	hsa05010: Alzheimer's disease,
FAS	hsa05200: Pathways in cancer,
FAS	hsa05320: Autoimmune thyroid disease,
FAS	hsa05330: Allograft rejection,
FAS	hsa05332: Graft-versus-host disease,
B2M	hsa04612: Antigen processing and presentation,
ITGB1	hsa04360: Axon guidance,
ITGB1	hsa04510: Focal adhesion,
ITGB1	hsa04512: ECM-receptor interaction,
ITGB1	hsa04514: Cell adhesion molecules (CAMs),
ITGB1	hsa04670: Leukocyte transendothelial migration,
ITGB1	hsa04810: Regulation of actin cytoskeleton,
ITGB1	hsa05130: Pathogenic Escherichia coli infection,
ITGB1	hsa05200: Pathways in cancer,
ITGB1	hsa05222: Small cell lung cancer,
ITGB1	hsa05410: Hypertrophic cardiomyopathy (HCM),
ITGB1	hsa05412: Arrhythmogenic right ventricular cardiomyopathy (ARVC),
ITGB1	hsa05414: Dilated cardiomyopathy,
MMP1	hsa03320: PPAR signaling pathway,
MMP1	hsa05200: Pathways in cancer,
MMP1	hsa05219: Bladder cancer,
MMP2	hsa04670: Leukocyte transendothelial migration,
MMP2	hsa04912: GnRH signaling pathway,
MMP2	hsa05200: Pathways in cancer,
MMP2	hsa05219: Bladder cancer,
PIK3R1	hsa04012: ErbB signaling pathway,
PIK3R1	hsa04062: Chemokine signaling pathway,
PIK3R1	hsa04070: Phosphatidylinositol signaling system,
PIK3R1	hsa04150: mTOR signaling pathway,
PIK3R1	hsa04210: Apoptosis,

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PIK3R1	hsa04370: VEGF signaling pathway,
PIK3R1	hsa04510: Focal adhesion,
PIK3R1	hsa04620: Toll-like receptor signaling pathway,
PIK3R1	hsa04630: Jak-STAT signaling pathway,
PIK3R1	hsa04650: Natural killer cell mediated cytotoxicity,
PIK3R1	hsa04660: T cell receptor signaling pathway,
PIK3R1	hsa04662: B cell receptor signaling pathway,
PIK3R1	hsa04664: Fc epsilon RI signaling pathway,
PIK3R1	hsa04666: Fc gamma R-mediated phagocytosis,
PIK3R1	hsa04670: Leukocyte transendothelial migration,
PIK3R1	hsa04722: Neurotrophin signaling pathway,
PIK3R1	hsa04810: Regulation of actin cytoskeleton,
PIK3R1	hsa04910: Insulin signaling pathway,
PIK3R1	hsa04914: Progesterone-mediated oocyte maturation,
PIK3R1	hsa04930: Type II diabetes mellitus,
PIK3R1	hsa04960: Aldosterone-regulated sodium reabsorption,
PIK3R1	hsa05200: Pathways in cancer,
PIK3R1	hsa05210: Colorectal cancer,
PIK3R1	hsa05211: Renal cell carcinoma,
PIK3R1	hsa05212: Pancreatic cancer,
PIK3R1	hsa05213: Endometrial cancer,
PIK3R1	hsa05214: Glioma,
PIK3R1	hsa05215: Prostate cancer,
PIK3R1	hsa05218: Melanoma,
PIK3R1	hsa05220: Chronic myeloid leukemia,
PIK3R1	hsa05221: Acute myeloid leukemia,
PIK3R1	hsa05222: Small cell lung cancer,
PIK3R1	hsa05223: Non-small cell lung cancer,
PLAU	hsa04610: Complement and coagulation cascades,
PLAUR	hsa04610: Complement and coagulation cascades,
PDGFA	hsa04010: MAPK signaling pathway,
PDGFA	hsa04060: Cytokine-cytokine receptor interaction,
PDGFA	hsa04510: Focal adhesion,
PDGFA	hsa04540: Gap junction,
PDGFA	hsa04810: Regulation of actin cytoskeleton,
PDGFA	hsa05200: Pathways in cancer,
PDGFA	hsa05214: Glioma,
PDGFA	hsa05215: Prostate cancer,
PDGFA	hsa05218: Melanoma,
RB1	hsa04110: Cell cycle,
RB1	hsa05200: Pathways in cancer,
RB1	hsa05212: Pancreatic cancer,
RB1	hsa05214: Glioma,
RB1	hsa05215: Prostate cancer,
RB1	hsa05218: Melanoma,
RB1	hsa05219: Bladder cancer,
RB1	hsa05220: Chronic myeloid leukemia,
RB1	hsa05222: Small cell lung cancer,
RB1	hsa05223: Non-small cell lung cancer,

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SERPINB5 hsa04115: p53 signaling pathway,
SYK hsa04650: Natural killer cell mediated cytotoxicity,
SYK hsa04662: B cell receptor signaling pathway,
SYK hsa04664: Fc epsilon RI signaling pathway,
SYK hsa04666: Fc gamma R-mediated phagocytosis,
TNF hsa04010: MAPK signaling pathway,
TNF hsa04060: Cytokine-cytokine receptor interaction,
TNF hsa04210: Apoptosis,
TNF hsa04350: TGF-beta signaling pathway,
TNF hsa04620: Toll-like receptor signaling pathway,
TNF hsa04621: NOD-like receptor signaling pathway,
TNF hsa04622: RIG-I-like receptor signaling pathway,
TNF hsa04640: Hematopoietic cell lineage,
TNF hsa04650: Natural killer cell mediated cytotoxicity,
TNF hsa04660: T cell receptor signaling pathway,
TNF hsa04664: Fc epsilon RI signaling pathway,
TNF hsa04920: Adipocytokine signaling pathway,
TNF hsa04930: Type II diabetes mellitus,
TNF hsa04940: Type I diabetes mellitus,
TNF hsa05010: Alzheimer's disease,
TNF hsa05014: Amyotrophic lateral sclerosis (ALS),
TNF hsa05310: Asthma,
TNF hsa05322: Systemic lupus erythematosus,
TNF hsa05330: Allograft rejection,
TNF hsa05332: Graft-versus-host disease,
TNF hsa05410: Hypertrophic cardiomyopathy (HCM),
TNF hsa05414: Dilated cardiomyopathy,
TP53 hsa04010: MAPK signaling pathway,
TP53 hsa04110: Cell cycle,
TP53 hsa04115: p53 signaling pathway,
TP53 hsa04210: Apoptosis,
TP53 hsa04310: Wnt signaling pathway,
TP53 hsa04722: Neurotrophin signaling pathway,
TP53 hsa05014: Amyotrophic lateral sclerosis (ALS),
TP53 hsa05016: Huntington's disease,
TP53 hsa05200: Pathways in cancer,
TP53 hsa05210: Colorectal cancer,
TP53 hsa05212: Pancreatic cancer,
TP53 hsa05213: Endometrial cancer,
TP53 hsa05214: Glioma,
TP53 hsa05215: Prostate cancer,
TP53 hsa05216: Thyroid cancer,
TP53 hsa05217: Basal cell carcinoma,
TP53 hsa05218: Melanoma,
TP53 hsa05219: Bladder cancer,
TP53 hsa05220: Chronic myeloid leukemia,
TP53 hsa05222: Small cell lung cancer,
TP53 hsa05223: Non-small cell lung cancer,
AKT1 hsa04010: MAPK signaling pathway,

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AKT1	hsa04012: ErbB signaling pathway,
AKT1	hsa04062: Chemokine signaling pathway,
AKT1	hsa04150: mTOR signaling pathway,
AKT1	hsa04210: Apoptosis,
AKT1	hsa04370: VEGF signaling pathway,
AKT1	hsa04510: Focal adhesion,
AKT1	hsa04530: Tight junction,
AKT1	hsa04620: Toll-like receptor signaling pathway,
AKT1	hsa04630: Jak-STAT signaling pathway,
AKT1	hsa04660: T cell receptor signaling pathway,
AKT1	hsa04662: B cell receptor signaling pathway,
AKT1	hsa04664: Fc epsilon RI signaling pathway,
AKT1	hsa04666: Fc gamma R-mediated phagocytosis,
AKT1	hsa04722: Neurotrophin signaling pathway,
AKT1	hsa04910: Insulin signaling pathway,
AKT1	hsa04914: Progesterone-mediated oocyte maturation,
AKT1	hsa04920: Adipocytokine signaling pathway,
AKT1	hsa05200: Pathways in cancer,
AKT1	hsa05210: Colorectal cancer,
AKT1	hsa05211: Renal cell carcinoma,
AKT1	hsa05212: Pancreatic cancer,
AKT1	hsa05213: Endometrial cancer,
AKT1	hsa05214: Glioma,
AKT1	hsa05215: Prostate cancer,
AKT1	hsa05218: Melanoma,
AKT1	hsa05220: Chronic myeloid leukemia,
AKT1	hsa05221: Acute myeloid leukemia,
AKT1	hsa05222: Small cell lung cancer,
AKT1	hsa05223: Non-small cell lung cancer,
ERBB2	hsa04012: ErbB signaling pathway,
ERBB2	hsa04020: Calcium signaling pathway,
ERBB2	hsa04510: Focal adhesion,
ERBB2	hsa04520: Adherens junction,
ERBB2	hsa05200: Pathways in cancer,
ERBB2	hsa05212: Pancreatic cancer,
ERBB2	hsa05213: Endometrial cancer,
ERBB2	hsa05215: Prostate cancer,
ERBB2	hsa05219: Bladder cancer,
ERBB2	hsa05223: Non-small cell lung cancer,
