



Research Article

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Antibody	Vendor	Cat. no.	Dilution
CK5	Novocastra	XM26	1:50
p63	Dako	M7317	1:300
TTF-1	Dako	M3575	1:50
CD56	LSBio	LS-B5569	1:100

Table S1: Primary antibodies used in Immunohistochemistry (IHC).

Tumor	HIF-1 α PDX tumor/Patient tumor			HIF-1 α PDX tumor/human ANT			HIF-1 α Patient tumor/human ANT		
	logFC	Fold change	FDR	logFC	Fold change	FDR	logFC	Fold change	FDR
ADC early	-0.676	0.626	0.77	0.379	1.3	0.625	1.061	2.086	0.208
ADC late	-0.412	0.752	1	1.34	2.532	0.096	1.775	3.422	0.002
SQCC early	-0.632	0.645	0.603	0.453	1.369	0.641	1.096	2.138	0.193
SQCC late	-0.489	0.713	1	0.246	1.186	0.869	0.654	1.574	0.545
LCNEC early	0.337	1.263	1	0.025	1.018	0.992	-0.432	0.741	0.8
LCNEC late	-0.313	0.805	0.898	-0.238	0.848	0.86	-0.063	0.957	1

Note: "Fold change" indicates the average of the fold changes in HIF-1 α expression between Patient Derived Xenograft (PDX) tumors and patient tumors (alternatively PDX tumors and Adjacent Normal Tissue (ANT), or patient tumors and ANT) for all the models of the specified tumor cell type.

Table S2: HIF-1 α expression level in tumors of PDX models and patients.

ABCD3
ABL2
ACKR3
ACSS2
ADAMTS4
ADM
ADORA2B
AFAP1
AHCYL2
AK3
AK4
AKAP12
ALDOA
ALDOB
ALDOC

AMPD3
ANGPT2
ANGPTL4
ANKZF1
ANLN
ANXA2
APEX1
APOM
AQP7
ARL10
ASAH1
ASAP1
ASB3
ATF3
ATP11A
ATP1A1
ATP7A
B3GALT6
B4GALNT2
BASP1
BCAM
BCAN
BCKDHA
BCKDHB
BCL2
BCL2L11
BCMO1
BGN
BHLHE40
BICD1
BIK
BNC1
BNIP3
BNIP3L
BRS3
BTG1
C10orf55
C11orf1
C11orf49
C11orf54
C16orf72
C1orf210
C1QTNF6
CA12
CA9
CALU

CASD1
CASKIN1
CASP6
CAV1
CCL2
CCL20
CCNG2
CCRN4L
CD109
CD99
CDKN1A
CDKN1B
CDKN1C
CDKN3
CERCAM
CHADL
CHST15
CHST2
CHST3
CITED2
CLK3
COL12A1
COL1A1
COL4A6
COL5A1
COL6A3
CORO1C
CP
CPD
CRYM
CSRP2
CTGF
CTHRC1
CTSC
CUL4B
CXCR4
CXorf23
CYP26A1
CYR61
DCBLD1
DCN
DCXR
DDIT3
DDIT4
DHCR24
DLX4

DNAJC28
DPYSL4
DSC2
DTNA
DUSP1
DYRK2
EDN1
EDN2
EFNA1
EFNA3
EGFR
EGLN3
ELAC1
ENO1
ENO2
ENO3
ENPEP
ENTPD7
EPAS1
EPB41L5
EPO
ERO1L
ERRFI1
ETS1
EVPLL
EXOC8
EXT1
F3
FAAH
FAM162A
FAM171B
FAM3C
FAM47E-STBD1
FAM83A
FAM83B
FAP
FBP1
FBXO32
FCHO1
FGF2
FGF3
FHL2
FKBP14
FLT1
FN1
FOS

FOSL1
FOSL2
FOXO3
FRAT1
FRMD6
FRS3
FTL
FUT11
FZD5
GAA
GAL3ST1
GALK1
GAPDH
GAPDHS
GBE1
GCK
GCNT2
GJB2
GLRX
GLYR1
GNAI1
GNMT
GPC1
GPC3
GPC4
GPC6
GPI
GPR160
GPRC5C
GPRIN1
GPX8
GRAMD2
GRHPR
GRIN2D
GUCY2D
GYS1
HAS1
HAUS7
HDAC9
HDLBP
HELLS
HEMK1
HEXA
HGF
HIF1A
HILPDA

HK1
HK2
HMOX1
HOXB9
HPN
HS2ST1
HS3ST1
HSPA5
IDS
IER3
IGF2
IGFBP1
IGFBP2
IGFBP3
IGFL2
IKBIP
IL6
IL8
ILVBL
INHA
INPP5J
IRS2
ISG20
ITGB3
ITPR3
JMJD6
JUN
KCTD11
KDELC1
KDELR3
KDM3A
KDM6A
KIAA0232
KIF3C
KIF5A
KLF6
KLF7
KLHDC9
KLHL24
KLK6
KPNA4
KRT17
L1CAM
LALBA
LARGE
LCN12

LDHA
LDHC
LIPH
LMO7
LOX
LOXL2
LRP1
LRP8
LRRRC31
LXN
MAFF
MAP3K1
MAPK6
MEGF9
MF12
MIF
MMAB
MMD
MMP13
MMP14
MRGBP
MRPS17
MT1E
MT2A
MTMR11
MVK
MXI1
MYH9
MYO1E
MYO6
NAGK
NAMPT
NAV1
NBEAL1
NCAN
NDRG1
NDST1
NDST2
NEDD4L
NEK8
NFIL3
NFKB1
NR0B2
NR3C1
NRIP1
NUBP1

OLFML2B
OSBPL9
P4HA1
P4HA2
PACS1
PAM
PCK1
PCP2
PDGFB
PDIK1L
PDK1
PDK3
PFKFB3
PFKFB4
PFKL
PFKP
PGAM1
PGAM2
PGAP2
PGF
PGK1
PGM1
PGM2
PGM2L1
PHKG1
PI15
PIGA
PIM1
PIN4
PKLR
PKM
PKP1
PLA2G6
PLAC8
PLAU
PLAUR
PLEKHB1
PLIN2
PLIN3
PLOD2
PMM1
PNKD
PNRC1
POLR3H
PPARD
PPARGC1A

PPFIA4
PPL
PPP1R15A
PPP1R3C
PRDX5
PRKCA
PRKCDBP
PRPS1
PRR15L
PSD
PTGFRN
PTGS2
PTP4A3
PTRF
PTS
PXDN
PXMP4
PYGM
RAB17
RAB40B
RASAL2
RASSF7
RBBP9
RBPJ
REV1
RNF24
RORA
RP1
RPL37
RPRD2
RRAGD
S100A2
S100A4
S1PR4
SAP30
SAT1
SCAI
SCARB1
SCARB2
SDC1
SDC2
SDC3
SDC4
SEC23A
SELENBP1
SEMA4B

SEPW1
SERPINE1
SFT2D3
SGSM1
SH3PXD2B
SH3RF1
SIAH2
SIRT3
SLC16A1
SLC25A1
SLC25A38
SLC2A1
SLC2A3
SLC2A5
SLC37A4
SLC39A14
SLC6A6
SNRNP200
SOX6
SPAG4
SPHK1
SPP1
SRPX
ST3GAL4
ST7
STC1
STC2
STK38L
STOX2
STX19
STX6
STXBP5
SUCLG2
SULF2
SULT2B1
SUOX
SYNJ2
TAB3
TAGLN
TCEA3
TEK
TES
TF
TFF3
TFRC
TGFA

TGFB1
TGFB3
TGFBI
TGM2
TH
TIPARP
TJP2
TKTL1
TMCC1
TMEM185B
TMEM205
TMEM45A
TMEM63B
TNFAIP3
TNFRSF21
TNFSF15
TNFSF4
TPBG
TPD52
TPI1
TPST2
TRDMT1
TRIP12
TRNAU1AP
TRPV3
TSTD1
TTYH3
TUBA1B
TUBB3
TXLNG
TXN
TXNRD2
UGP2
UNC13B
UQCR10
VAMP8
VANGL1
VCAN
VEGFA
VHL
VIM
VLDLR
WDSUB1
WISP1
WISP2
WSB1

XIRP1
XPNPEP1
XRCC5
XRCC6
YPEL1
ZFP36
ZNF292
ZNF33B
ZNF397
ZNF76
ZSWIM5
ZSWIM7

https://www.gsea-msigdb.org/gsea/msigdb/geneset_page.jsp?geneSetName=ANGIOGENESIS

https://www.gsea-msigdb.org/gsea/msigdb/cards/HU_ANGIOGENESIS_UP

https://www.gsea-msigdb.org/gsea/msigdb/cards/HALLMARK_ANGIOGENESIS

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Table S4: Angiogenesis markers of 243 genes.

