

PKM2 Antibody

Catalog No: #32054



Package Size: #32054-1 50ul #32054-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	PKM2 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB IHC IF
Species Reactivity	Hu, Ms, Rt
Specificity	The antibody detects endogenous level of total PKM2 protein.
Immunogen Type	Recombinant Protein
Immunogen Description	Recombinant Protein of human PKM2 .
Target Name	PKM2
Other Names	PKM2; TCB; PK3; CTHBP
Accession No.	Swiss-Prot:P14618NCBI Gene ID:5315
Uniprot	P14618
GeneID	5315;
SDS-PAGE MW	58KD
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

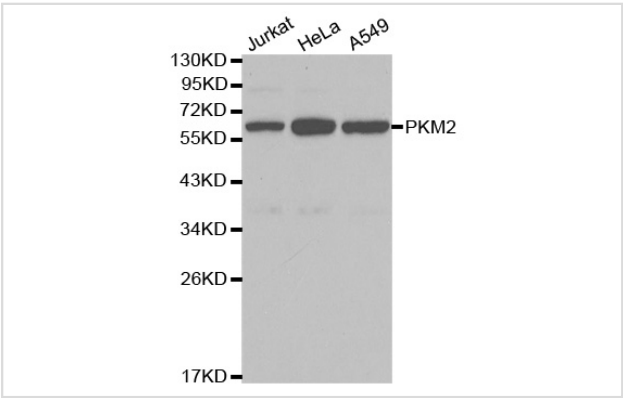
Application Details

Western blotting: 1:500 - 1:2000

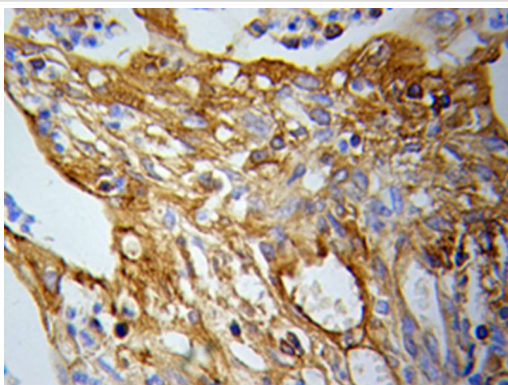
Immunohistochemistry: 1:50 - 1:200

Immunofluorescence: 1:20 - 1:100

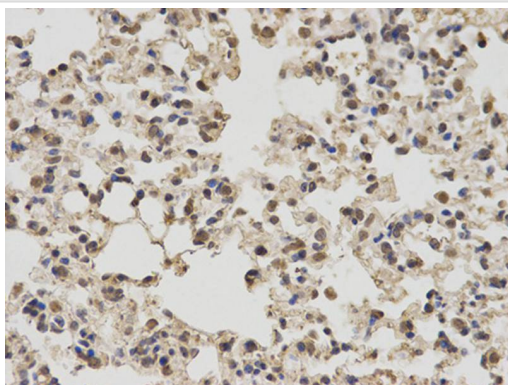
Images



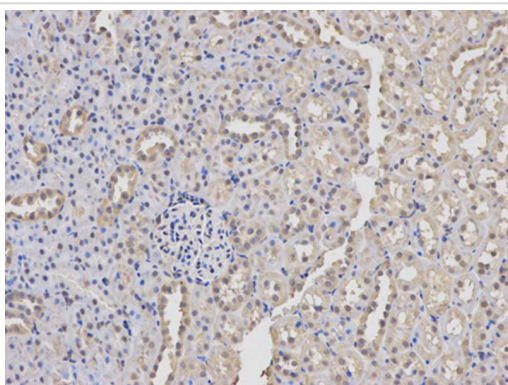
Western blot analysis of extracts of various cell lines, using PKM2 antibody.



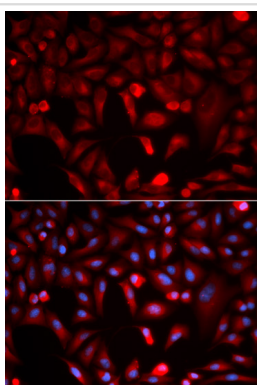
Immunohistochemical analysis of paraffin-embedded Lung cancer using PKM2 Antibody.



Immunohistochemical analysis of paraffin-embedded mouse lung using PKM2 antibody at dilution of 1:100 (400x lens).



Immunohistochemical analysis of paraffin-embedded rat kidney using PKM2 antibody at dilution of 1:100 (200x lens).



Immunofluorescence analysis of HeLa cell using PKM2 antibody. Blue: DAPI for nuclear staining.

Background

Pyruvate kinase, a glycolytic enzyme, catalyses the conversion of phosphoenolpyruvate to pyruvate. In mammals, the M1 isoform (PKM1) is expressed in most adult tissues (1). The M2 isoform (PKM2), an alternatively-spliced variant of M1, is expressed during embryonic development (1). Studies found that cancer cells exclusively express PKM2 (1-3). PKM2 is shown to be essential for aerobic glycolysis in tumors (Warburg effect) (1). When the M2 isoform is switched to the M1 isoform, aerobic glycolysis is reduced and oxidative phosphorylation is increased in cancer cells (1). These cells also show decreased tumorigenicity in mouse xenografts (1). Recent studies show that the oncogenic forms of FGFR1 directly phosphorylate Tyr105 of PKM2 and thereby inhibit the formation of active tetrameric PKM2 (4). A PKM2 mutant found in cancer cells, in which Tyr105 is replaced by phenylalanine, leads to reduced cell proliferation in hypoxia and tumor growth in xenografts in nude mice (4). These findings suggest that the

phosphorylation at Tyr105 is a critical switch for the metabolism in cancer cells that promotes tumor growth (4).

Note: This product is for in vitro research use only