Product Datasheet

PKM2 Antibody

Catalog No: #32054

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

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

Description

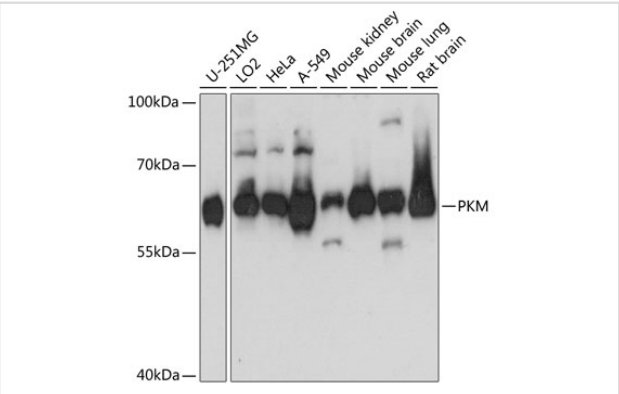
Product Name	PKM2 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB,IF
Species Reactivity	Human,Mouse,Rat
Specificity	The antibody detects endogenous level of total PKM2 protein.
Immunogen Type	Recombinant 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
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

WB□1:500 - 1:2000

IF□1:50 - 1:200

Images



Western blot analysis of extracts of various cell lines, using PKM antibody at 1:1000 dilution.

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).

Published Papers

el at., Pyruvate Dehydrogenase A1 Phosphorylated by Insulin Associates with Pyruvate Kinase M2 and Induces LINC00273 through Histone Acetylation. In Biomedicines on 2022 May 27 by Abu Jubayer Hossain, Rokibul Islam, et al..PMID:35740278, , (2022)

PMID:35740278

Note: This product is for in vitro research use only and is not intended for use in humans or animals.