



PKM2 Antibody

#21578

Catalog Number: 21578

Amount: 100µg/100µl

Swiss-Prot No. : P14618

Form of Antibody: Rabbit IgG in phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.

Storage/Stability: Store at -20°C/1 year

Immunogen: The antiserum was produced against synthesized non-phosphopeptide derived from Human PKM2.

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

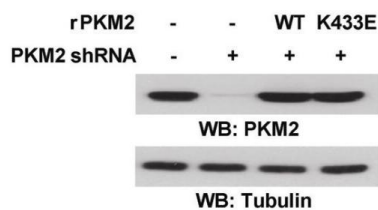
Specificity/Sensitivity: PKM2 antibody detects endogenous levels of total PKM2 protein

Reactivity: Human

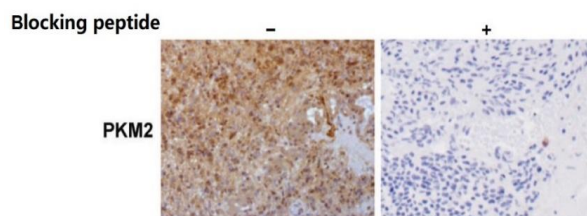
Applications:

Predicted MW: 58kd

WB: 1:500-1000 IHC: 1:50~1:200



GSC11 cells with or without RNAi depleted PKM2 that were reconstituted to express WT rPKM2 or rPKM2 K433E. Immunoblotting analyses were performed with the indicated antibodies.



IHC analyses of human GBM tissues were performed with the indicated antibodies in the presence or absence of specific blocking peptides.

Background :

Pyruvate kinase (PK) regulates the final step of glycolysis in the production of pyruvate and adenosine triphosphate (ATP). PKM1, PKM2, PKL and PKR are four pyruvate kinase isoforms that are expressed in different types of cells and tissues in mammals. PKM2 Specifically expressed in proliferating cells, such as embryonic stem cells, embryonic carcinoma cells, as well as cancer cells. The embryonic pyruvate kinase M2 (PKM2) isoform is highly expressed in human cancer. PKM2 also acts as a regulator of transcription in the nucleus by acting as a protein kinase[1] . In human cancer cells, epidermal growth factor receptor (EGFR) activation induces translocation of PKM2 into the nucleus, where K433 of PKM2 binds to c-Src-phosphorylated Y333 of b-catenin. PKM2-dependent b-catenin transactivation is instrumental in EGFR promoted tumour cell proliferation and brain tumour development[2] .

References:

- [1] Lee J, Kim HK, Han YM, Kim J. Pyruvate kinase isozyme type M2 (PKM2) interacts and cooperates with Oct-4 in regulating transcription. *Int J Biochem Cell Biol.* 2008;40(5):1043-54. doi: 10.1016/j.biocel.2007.11.009.
- [2] Yang W, Xia Y, Ji H, Zheng Y, Liang J, Huang W, Gao X, Aldape K, Lu Z. Nuclear PKM2 regulates β -catenin transactivation upon EGFR activation. *Nature.* 2011 Dec 1;480(7375):118-22. doi: 10.1038/nature10598.