

Product Name: PKM2 (1W18) Rabbit Monoclonal Antibody
Catalog #: AMRe16219



Summary

Production Name	PKM2 (1W18) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Purification	Affinity purification

Immunogen

Gene Name	PKM
Alternative Names	CTHBP; Cytosolic thyroid hormone binding protein; KPYM; OIP 3; Oip3; OIP3; OPA interacting protein 3; p58; PK Muscle type; muscle type; PK2; Pk3; PKM;
Gene ID	5315.0
SwissProt ID	P14618.

Application

Dilution Ratio	WB 1:1000-1:2000
Molecular Weight	58kDa

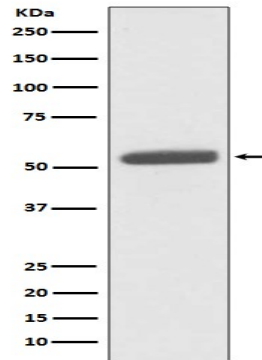
Background

Pyruvate kinase is a glycolytic enzyme that catalyses the conversion of phosphoenolpyruvate to pyruvate. PKM2 is shown to be essential for aerobic glycolysis in tumors, known as the Warburg effect. Glycolytic enzyme that catalyzes the transfer of a phosphoryl group from phosphoenolpyruvate (PEP) to ADP, generating ATP (PubMed:[15996096](http://www.uniprot.org/citations/15996096)), PubMed:[1854723](http://www.uniprot.org/citations/1854723)). The ratio between the highly active tetrameric form and nearly inactive dimeric form determines whether glucose carbons are channeled to biosynthetic processes or used for glycolytic ATP production (PubMed:[15996096](http://www.uniprot.org/citations/15996096)), PubMed:[1854723](http://www.uniprot.org/citations/1854723)). The transition between the 2 forms contributes to the control of glycolysis and is important for tumor cell proliferation and survival (PubMed:[15996096](http://www.uniprot.org/citations/15996096)), PubMed:[1854723](http://www.uniprot.org/citations/1854723)). In addition to its role in glycolysis, also regulates transcription (PubMed:[18191611](http://www.uniprot.org/citations/18191611)), PubMed:[21620138](http://www.uniprot.org/citations/21620138)). Stimulates POU5F1-mediated transcriptional activation (PubMed:[18191611](http://www.uniprot.org/citations/18191611)). Promotes in a STAT1-dependent manner, the expression of the immune checkpoint protein CD274 in ARNTL/BMAL1-deficient macrophages (By similarity). Also acts as a translation regulator for a subset of mRNAs, independently of its pyruvate kinase activity: associates with subpools of endoplasmic reticulum-associated ribosomes, binds directly to the mRNAs translated at the endoplasmic reticulum and promotes translation of these endoplasmic reticulum-destined mRNAs (By similarity). Plays a general role in caspase independent cell death of tumor cells (PubMed:[17308100](http://www.uniprot.org/citations/17308100)).

Research Area

Image Data

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Western blot analysis of PKM2 expression in HeLa cell lysate.

Note

For research use only.