

Pyruvate Kinase (PKM2) Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5378

Specification

Pyruvate Kinase (PKM2) Antibody (C-term) - Product Information

Application	WB,E
Primary Accession	P14618
Other Accession	P14786
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	H=57.9 KDa
Isotype	Rabbit Ig
Antigen Source	HUMAN

Pyruvate Kinase (PKM2) Antibody (C-term) - Additional Information

Gene ID 5315

Antigen Region
476-505

Other Names

Pyruvate kinase PKM, Cytosolic thyroid hormone-binding protein, CTHBP, Opa-interacting protein 3, OIP-3, Pyruvate kinase 2/3, Pyruvate kinase muscle isozyme, Thyroid hormone-binding protein 1, THBP1, Tumor M2-PK, p58, PKM, OIP3, PK2, PK3, PKM2

Dilution

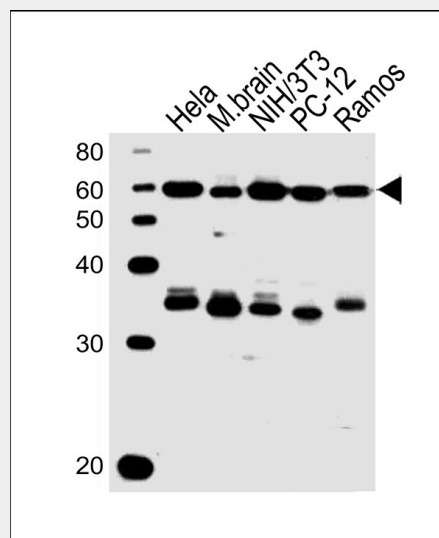
WB~~1:1000

Target/Specificity

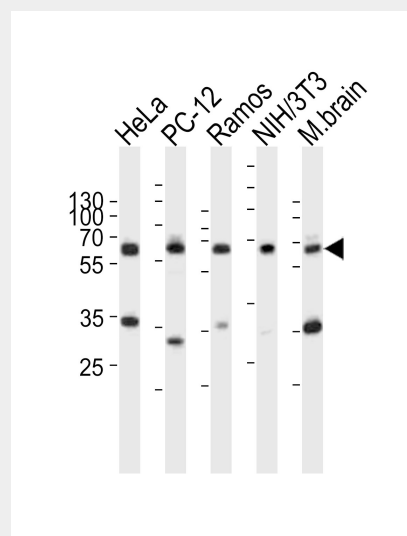
This Pyruvate Kinase (PKM2) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 476-505 amino acids from the C-terminal region of human Pyruvate Kinase (PKM2).

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.



All lanes : Anti-PKM2 Antibody N491 at 1:1000 dilution Lane 1: HeLa whole cell lysates Lane 2: mouse brain lysates Lane 3: NIH/3T3 whole cell lysates Lane 4: PC-12 whole cell lysates Lane 5: Ramos whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 57.9 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of lysates from HeLa,

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Pyruvate Kinase (PKM2) Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Pyruvate Kinase (PKM2) Antibody (C-term) - Protein Information**Name** PKM**Synonyms** OIP3, PK2, PK3, PKM2**Function**

Glycolytic enzyme that catalyzes the transfer of a phosphoryl group from phosphoenolpyruvate (PEP) to ADP, generating ATP (PubMed:15996096, PubMed: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, PubMed:1854723). The transition between the 2 forms contributes to the control of glycolysis and is important for tumor cell proliferation and survival (PubMed:15996096, PubMed:1854723). In addition to its role in glycolysis, also regulates transcription (PubMed:18191611, PubMed:21620138). Stimulates POU5F1-mediated transcriptional

rat PC-12, Ramos, mouse NIH/3T3 cell line, mouse brain tissue lysate(from left to right), using PKM2-N491(Cat. #AW5378). AW5378 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.

Pyruvate Kinase (PKM2) Antibody (C-term) - Background

There are 4 isozymes of pyruvate kinase in mammals: L, R, M1 and M2. PKM2 is a pyruvate kinase that catalyzes the production of phosphoenolpyruvate from pyruvate and ATP. This protein has been shown to interact with thyroid hormone, and thus may mediate cellular metabolic effects induced by thyroid hormones. This protein has been found to bind Opa protein, a bacterial outer membrane protein involved in gonococcal adherence to and invasion of human cells, suggesting a role of this protein in bacterial pathogenesis.

Pyruvate Kinase (PKM2) Antibody (C-term) - References

References for protein:

- 1.Williams, J.M., et al., Mol. Microbiol. 27(1):171-186 (1998).
 - 2.Gress, T.M., et al., Oncogene 13(8):1819-1830 (1996).
 - 3.Kato, H., et al., Proc. Natl. Acad. Sci. U.S.A. 86(20):7861-7865 (1989).
 - 4.Tsutsumi, H., et al., Genomics 2(1):86-89 (1988).
 - 5.Tani, K., et al., Gene 73(2):509-516 (1988).
- References for MCF7 cell line:
- 1.Soule, HD; Vazquez J; Long A; Albert S; Brennan M. (1973). "A human cell line from a pleural effusion derived from a breast carcinoma". Journal of the National Cancer Institute 51 (5): 1409-1416. [PMID 4357757].
 - 2.Levenson, AS; Jordan VC. (1997). "MCF-7: the first hormone-responsive breast cancer cell line". Cancer Research 57 (15): 3071-3078. [PMID 9242427].
 - 3.Lacroix, M; Leclercq G. (2004). "Relevance of breast cancer cell lines as models for breast tumours: an update". Breast Research and Treatment 83 (3): 249-289.[PMID 14758095].

activation (PubMed: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).

Cellular Location

Cytoplasm. Nucleus Note=Translocates to the nucleus in response to different apoptotic stimuli. Nuclear translocation is sufficient to induce cell death that is caspase independent, isoform-specific and independent of its enzymatic activity.

Tissue Location

Specifically expressed in proliferating cells, such as embryonic stem cells, embryonic carcinoma cells, as well as cancer cells.

**Pyruvate Kinase (PKM2) Antibody (C-term)
- Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)