

Pyruvate Kinase (PKM2) Antibody (C-term N491) Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP7173A

# **Specification**

# Pyruvate Kinase (PKM2) Antibody (C-term N491) - Product Information

Application Primary Accession Reactivity Host Clonality Isotype Antigen Region WB <u>P14618</u> Human, Mouse Rabbit Polyclonal Rabbit IgG 476-505

### Pyruvate Kinase (PKM2) Antibody (C-term N491) - Additional Information

#### Gene ID 5315

#### **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

#### 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 purified through a protein G column, eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS.

#### 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 N491) is for research use only and not for use in diagnostic or therapeutic procedures.

# Pyruvate Kinase (PKM2) Antibody (C-term N491) - Protein Information

#### Name PKM

Synonyms OIP3 {ECO:0000303|PubMed:9466265}, PK2,

Function Catalyzes the final rate-limiting step of glycolysis by mediating the transfer of a



phosphoryl group from phosphoenolpyruvate (PEP) to ADP, generating ATP (PubMed:<u>15996096</u>, PubMed:<u>1854723</u>, PubMed:<u>20847263</u>). 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:<u>15996096</u>, PubMed:<u>1854723</u>, PubMed:<u>20847263</u>). The transition between the 2 forms contributes to the control of glycolysis and is important for tumor cell proliferation and survival (PubMed:<u>15996096</u>, PubMed:<u>1854723</u>, PubMed:<u>20847263</u>).

# **Cellular Location**

[Isoform M2]: Cytoplasm. Nucleus Note=Translocates to the nucleus in response to various signals, such as EGF receptor activation or apoptotic stimuli (PubMed:17308100, PubMed:22056988, PubMed:24120661). Nuclear translocation is promoted by acetylation by EP300 (PubMed:24120661). Deacetylation by SIRT6 promotes its nuclear export in a process dependent of XPO4, thereby suppressing its ability to activate transcription and promote tumorigenesis (PubMed:26787900).

#### Tissue Location

[Isoform M2]: Specifically expressed in proliferating cells, such as embryonic stem cells, embryonic carcinoma cells, as well as cancer cells.

# Pyruvate Kinase (PKM2) Antibody (C-term N491) - Protocols

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

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

# Pyruvate Kinase (PKM2) Antibody (C-term N491) - Images

# Pyruvate Kinase (PKM2) Antibody (C-term N491) - Background

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 N491) - References

Lehner, B., et al., Genome Res. 14(7):1315-1323 (2004). Gevaert, K., et al., Nat. Biotechnol. 21(5):566-569 (2003). Valentini, G., et al., J. Biol. Chem. 277(26):23807-23814 (2002). Lowrie, D.J. Jr., et al., J. Struct. Biol. 132(2):83-94 (2000). Williams, J.M., et al., Mol. Microbiol. 27(1):171-186 (1998).