

Pyruvate Kinase (PKM2) Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP7044a**Specification**

Pyruvate Kinase (PKM2) Antibody (N-term) Blocking peptide - Product Information

Primary Accession [P14618](#)
Other Accession [P14786](#)

Pyruvate Kinase (PKM2) Antibody (N-term) Blocking peptide - 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

The synthetic peptide sequence used to generate the antibody [AP7044a](/product/products/AP7044a) was selected from the N-term region of human PKM2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Pyruvate Kinase (PKM2) Antibody (N-term) Blocking peptide - 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: [20847263](http://www.uniprot.org/citations/20847263), 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:20847263, 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:20847263, PubMed:15996096, PubMed:1854723).

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 (N-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

Pyruvate Kinase (PKM2) Antibody (N-term) Blocking peptide - Images

Pyruvate Kinase (PKM2) Antibody (N-term) Blocking peptide - 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 (N-term) Blocking peptide - References

Williams, J.M., et al., Mol. Microbiol. 27(1):171-186 (1998).Gress, T.M., et al., Oncogene 13(8):1819-1830 (1996).Takenaka, M., et al., Eur. J. Biochem. 198(1):101-106 (1991).Kato, H., et al., Proc. Natl. Acad. Sci. U.S.A. 86(20):7861-7865 (1989).Tsutsumi, H., et al., Genomics 2(1):86-89 (1988).