



PKM2 Monoclonal Antibody

Catalog No	YP-mAb-10851
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	PKM OIP3 PK2 PK3 PKM2
Immunogen	Synthesized peptide derived from human PKM2 AA range: 301-350
Specificity	This antibody detects endogenous levels of human PKM2
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	PK3;TCB;p58;OIP3;PKM2;CTHBP;THBP1;HEL-S-30;PKM2-specific;PKM OIP3 PK2 PK3 PKM2;Pyruvate kinase isozymes M1/M2 (EC 2.7.1.40;Cytosolic thyroid hormone-binding protein;Opa-interacting protein 3;OIP-3;Pyruvate kinase 2/3;Pyruvate kinase muscle isozyme;Thyroid hormone-binding protein 1; Tumor M2-PK;p58)
Observed Band	58kD
Calculated Molecular Weight	58kD
Cell Pathway	[Isoform M2]: Cytoplasm . Nucleus . 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). .; [Isoform M1]: Cytoplasm .
Tissue Specificity	[Isoform M2]: Specifically expressed in proliferating cells, such as embryonic stem cells, embryonic carcinoma cells, as well as cancer cells. .; [Isoform M1]: Expressed in adult tissues (PubMed:18337823). Not expressed in tumor cells (PubMed:18337823).



Function

catalytic activity:ATP + pyruvate = ADP + phosphoenolpyruvate.,
cofactor:Divalent metal cations.,cofactor:Magnesium.,cofactor:Potassium.,
enzyme regulation:Isoform M2 is allosterically activated by D-fructose 1,6-
biphosphate (FBP). Inhibited by oxalate and 3,3',5-triiodo-L-thyronine (T3).,
function:Glycolytic enzyme that catalyzes the transfer of a phosphoryl group
from phosphoenolpyruvate (PEP) to ADP, generating ATP.,miscellaneous:There
are 4 isozymes of pyruvate kinase in mammals: L, R, M1 and M2. L type is
major isozyme in the liver, R is found in red cells, M1 is the main form in muscle,
heart and brain, and M2 is found in early fetal tissues as well as in most cancer
cells.,online information:Pyruvate kinase entry,pathway:Carbohydrate
degradation; glycolysis; pyruvate from D-glyceraldehyde 3-phosphate: step 5/5.,
PTM:Phosphorylated upon DNA damage, probably by ATM or ATR.,similarity:Be

Background

This gene encodes a protein involved in glycolysis. The encoded protein is a
pyruvate kinase that catalyzes the transfer of a phosphoryl group from
phosphoenolpyruvate to ADP, generating ATP and pyruvate. This protein has
been shown to interact with thyroid hormone and 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. Several alternatively spliced transcript variants encoding a few
distinct isoforms have been reported. [provided by RefSeq, May 2011],

matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For
more information, please consult technical personnel.

Products Images