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# PKM2 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52752

## Product Information

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| **Application** | WB |
| **Primary Accession** | P14618 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | IgG2b |
| **Calculated MW** | 57937 |

## Additional Information

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| **Gene ID** | 5315 |
| **Other Names** | CTHBP ;Cytosolic thyroid hormone binding protein ;Cytosolic thyroid hormone-binding protein ;KPYM_HUMAN ;MGC3932 ;OIP 3 ;OIP-3 ;OIP3 ;OPA interacting protein 3 ;Opa-interacting protein 3 ;p58 ;PK muscle type ;PK, muscle type ;PK2 ;PK3 ;PKM ;PKM2 ;pykm ;Pyruvate kinase 2/3 ;Pyruvate kinase 3 ;Pyruvate kinase isozymes M1/M2 ;Pyruvate kinase muscle ;Pyruvate kinase muscle isozyme ;pyruvate kinase PKM ;Pyruvate kinase, muscle 2 ;TCB ;THBP1 ;Thyroid hormone binding protein 1 ;Thyroid hormone binding protein cytosolic ;Thyroid hormone-binding protein 1 ;Tumor M2 PK ;Tumor M2-PK . |
| **Dilution** | WB~~1:1000 |
| **Format** | Liquid in PBS containing 50% glycerol, 0.02% sodium azide, pH 7.4. |
| **Storage** | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |

## Protein Information

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| **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:15996096, PubMed:1854723, PubMed:20847263). 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, PubMed:20847263). The transition between the 2 forms contributes to the |

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| | control of glycolysis and is important for tumor cell proliferation and survival (PubMed:15996096, PubMed:1854723, PubMed:20847263). |
| **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. |

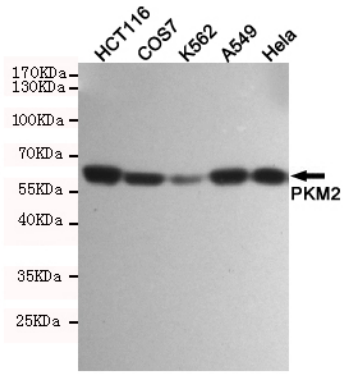
## Background

Glycolytic enzyme that catalyzes the transfer of a phosphoryl group from phosphoenolpyruvate (PEP) to ADP, generating ATP. Stimulates POU5F1-mediated transcriptional activation. Plays a general role in caspase independent cell death of tumor cells. The ratio betwween 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. The transition between the 2 forms contributes to the control of glycolysis and is important for tumor cell proliferation and survival.

## References


Tani K.,et al.Gene 73:509-516(1988).
Kato H.,et al.Proc. Natl. Acad. Sci. U.S.A. 86:7861-7865(1989).
Kato H.,et al.Proc. Natl. Acad. Sci. U.S.A. 87:1625-1625(1990).
Takenaka M.,et al.Eur. J. Biochem. 198:101-106(1991).
Ota T.,et al.Nat. Genet. 36:40-45(2004).


## Images




Western blot detection of PKM2 in HCT116,COS7,K562,A549 and Hela cell lysates using PKM2 mouse mAb (1:1000 diluted).Predicted band size:60KDa.Observed band size:60KDa.