

## **KD-Validated Anti-PKM2 Rabbit Monoclonal Antibody**

Rabbit monoclonal antibody Catalog # AGI1139

#### **Specification**

## **KD-Validated Anti-PKM2 Rabbit Monoclonal Antibody - Product Information**

Application
Primary Accession
Reactivity
Clonality
Isotype
Calculated MW

Isotype Calculated MW Gene Name Aliases WB, FC, ICC P14618

Rat, Human, Mouse

Monoclonal Rabbit IgG

Predicted, 58 kDa; observed, 58 kDa KDa

PKM

Pyruvate Kinase M1/2; THBP1; OIP3;

PK3PKM2; Cytosolic Thyroid Hormone-Binding Protein;

ThyroidHormone-Binding Protein 1; Pyruvate Kinase Muscle Isozyme; Threonine-Protein KinasePKM2;

Tyrosine-Protein Kinase PKM2; Pyruvate Kinase, Muscle; Pyruvate Kinase PKM; Pyruvate Kinase 2/3; Tumor M2-PK; EC 2.7.1.40 48; CTHBP; P58; Thyroid Hormone-Binding Protein, Cytosolic; Epididymis Secretory Protein Li; Pyruvate Kinase Isozymes M1/M2; OPA-Interacting Protein 3; Opa-Interacting Protein 3; PK, Muscle Type; EC 2.7.11.1; EC 2.7.10.2;

HEL-S-30: OIP-3: TCB: PK2

A synthesized peptide derived from human

PKM2

#### KD-Validated Anti-PKM2 Rabbit Monoclonal Antibody - Additional Information

Gene ID 5315

**Other Names** 

Immunogen

Pyruvate kinase PKM, 2.7.1.40, Cytosolic thyroid hormone-binding protein, CTHBP, Opa-interacting protein 3, OIP-3, Pyruvate kinase 2/3, Pyruvate kinase muscle isozyme, Threonine-protein kinase PKM2, 2.7.11.1, Thyroid hormone-binding protein 1, THBP1, Tumor M2-PK, Tyrosine-protein kinase PKM2, 2.7.10.2, p58, PKM, OIP3 {ECO:0000303|PubMed:9466265}, PK2, PK3, PKM2

### KD-Validated Anti-PKM2 Rabbit Monoclonal Antibody - 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:<a

href="http://www.uniprot.org/citations/15996096" target="\_blank">15996096</a>, PubMed:<a href="http://www.uniprot.org/citations/1854723" target="\_blank">1854723</a>, PubMed:<a href="http://www.uniprot.org/citations/20847263" target="\_blank">20847263</a>). 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:<a href="http://www.uniprot.org/citations/15996096" target="\_blank">15996096</a>, PubMed:<a href="http://www.uniprot.org/citations/1854723" target="\_blank">1854723</a>, PubMed:<a href="http://www.uniprot.org/citations/20847263" target="\_blank">20847263</a>). The transition between the 2 forms contributes to the control of glycolysis and is important for tumor cell proliferation and survival (PubMed:<a

 $\label{lem:http://www.uniprot.org/citations/15996096" target="_blank">15996096</a>, PubMed: <a href="http://www.uniprot.org/citations/1854723" target="_blank">1854723</a>, PubMed: <a href="http://www.uniprot.org/citations/20847263" target="_blank">20847263</a>).$ 

#### **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.

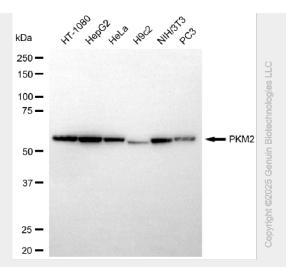
### KD-Validated Anti-PKM2 Rabbit Monoclonal Antibody - Protocols

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

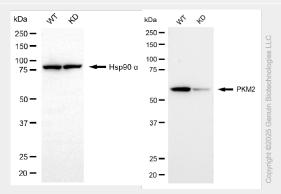
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# KD-Validated Anti-PKM2 Rabbit Monoclonal Antibody - Images

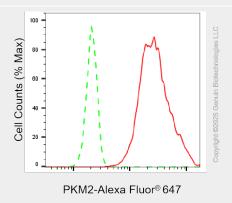




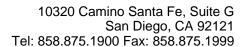
Western blotting analysis using anti-PKM2 antibody (Cat#61305). Total cell lysates (30  $\mu$ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-PKM2 antibody (Cat#61305, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using NaQ $^{\text{M}}$  ECL Substrate Kit (Cat#716).



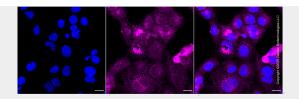
Western blotting analysis using anti-PKM2 antibody (Cat#61305). PKM2 expression in wild-type (WT) and PKM knockdown (KD) HT-1080 cells with 20  $\mu$ g of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with anti-PKM2 antibody (Cat#61305, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using NaQ $^{\text{TM}}$  ECL Substrate Kit (Cat#716).



Flow cytometric analysis of PKM2 expression in HT-1080 cells using PKM2 antibody (Cat#61305, 1:2,000). Green, isotype control; red, PKM2.







Immunocytochemical staining of C2C12 cells with anti-PKM2 antibody (Cat#61305, 1:1,000). Nuclei were stained blue with DAPI; PKM2 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar,  $20~\mu m$ .