

## PKM2 Antibody

Catalog No: #21578

Package Size: #21578-1 50ul #21578-2 100ul

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## Description

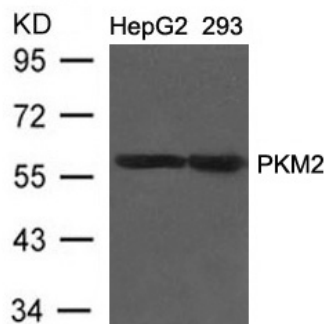
|                       |                                                                                                                                                                               |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name          | PKM2 Antibody                                                                                                                                                                 |
| Host Species          | Rabbit                                                                                                                                                                        |
| Clonality             | Polyclonal                                                                                                                                                                    |
| Purification          | Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide. |
| Applications          | WB IF                                                                                                                                                                         |
| Species Reactivity    | Hu                                                                                                                                                                            |
| Specificity           | The antibody detects endogenous levels of total PKM2 protein.                                                                                                                 |
| Immunogen Type        | Peptide-KLH                                                                                                                                                                   |
| Immunogen Description | Peptide sequence around aa.405~409(T-S-D-P-T) derived from Human PKM2.                                                                                                        |
| Conjugates            | Unconjugated                                                                                                                                                                  |
| Target Name           | PKM2                                                                                                                                                                          |
| Other Names           | PKM; PK3; OIP3; PK2;                                                                                                                                                          |
| Accession No.         | Swiss-Prot: P14618-1NCBI Protein: NP_872270.1                                                                                                                                 |
| Concentration         | 1.0mg/ml                                                                                                                                                                      |
| Formulation           | Supplied at 1.0mg/mL in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.                  |
| Storage               | Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.                                                                                     |

## Application Details

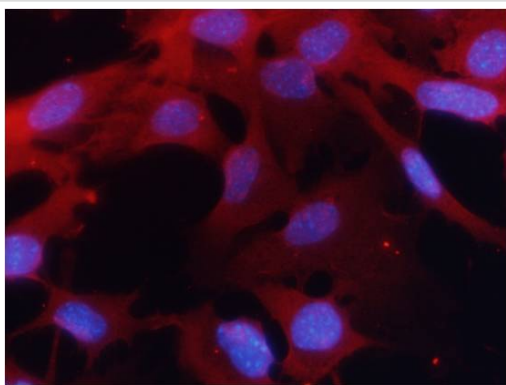
Predicted MW: 60kd

Western blotting: 1:500~1:1000

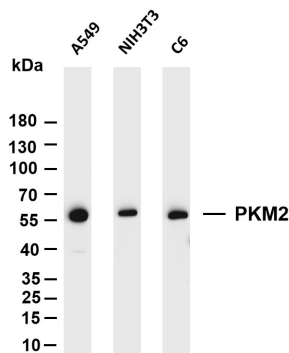
## Images



Western blot analysis of extracts from HepG2 and 293 cells using PKM2 Antibody #21578.



Immunofluorescence staining of methanol-fixed MEF cells using PKM2 Antibody #21578.



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-PKM2 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: A549 Lane 2: NIH3T3 Lane 3: C6 Predicted band size: 57kDa Observed band size: 57kDa

## 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 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. The transition between the 2 forms contributes to the control of glycolysis and is important for tumor cell proliferation and survival.

Christofk, H.R. et al. (2008) Nature 452, 230-3.

Mazurek, S. et al. (2005) Semin Cancer Biol 15, 300-8.

Dombrackas, J.D. et al. (2005) Biochemistry 44, 9417-29.

Hitosugi, T. et al. (2009) Sci Signal 2, ra73.

## Published Papers

et al., PK-M2-mediated metabolic changes In breast cancer cells Induced by ionizing radiation. In Breast Cancer Res Treat on 2019 Nov by Zhang L, Bailleul J, et al..PMID: 31372790 , , (2019)

[PMID:31372790](#)

et al., Nuclear PKM2 Regulates the Warburg Effect.In Cell Cycle on 2013 Oct 1 by Weiwei Yang, Zhimin Lu,et al..PMID:24013426, , (2013)

[PMID:24013426](#)

et al., ERK1/2-dependent phosphorylation and nuclear translocation of PKM2 promotes the Warburg effect.In Nat Cell Biol on 2012 Dec by Weiwei Yang, Yanhua Zheng,et al..PMID:23178880, , (2012)

[PMID:23178880](#)

et al., PKM2 Phosphorylates Histone H3 and Promotes Gene Transcription and Tumorigenesis. In Cell on 2012 Aug 17 by Weiwei Yang, Yan Xia, et al..PMID: 22901803, , (2012)

[PMID:22901803](#)

et al., IGF-1-mediated PKM2/ε-Y-catenin/miR-152 Regulatory Circuit in Breast Cancer.In Sci Rep on 2017 Nov 21 by Yi-Yang Wen, Wei-Tao Liu,et al..PMID: 29162853, , (2017)

[PMID:29162853](#)

el at., Nuclear PKM2 expression, an independent risk factor for ER after curative resection of hepatocellular carcinoma.In Biomed Pharmacother.On 2016 Dec by Fan F, Wu H et al..PMID: 27894667 , , (2016)

[PMID:27894667](#)

el at., EGFR phosphorylates FAM129B to promote Ras activation.In Proc Natl Acad Sci USA on 2016 Jan 19 by Haitao Ji, Jong-Ho Lee et al..PMID:26721396, , (2016)

[PMID:26721396](#)

el at., PKM2 regulates chromosome segregation and mitosis progression of tumor cells.In Mol Cell on 2014 Jan 9 by Yuhui Jiang, Xinjian Li et al..PMID: 24316223, , (2014)

[PMID:24316223](#)

el at., Relationship between 18-F-fluoro-deoxy-d-glucose uptake and expression of glucose transporter 1 and pyruvate kinase M2 in intrahepatic cholangiocarcinoma.In Dig Liver Dis on 2015 Jul by et al..PMID: 25912843, , (2015)

[PMID:25912843](#)

el at., PKM2 dephosphorylation by Cdc25A promotes the Warburg effect and tumorigenesis.In Nat Commun on 2016 Aug 3 by Ji Liang , Ruixiu Cao et al..PMID: 27485204, , (2016)

[PMID:27485204](#)

el at., PKM2 phosphorylates MLC2 and regulates cytokinesis of tumour cells.In Nat Commun on 2014 Nov 21 by Yuhui Jiang , Yugang Wang et al..PMID: 25412762, , (2014)

[PMID:25412762](#)

el at., Insulin regulates glucose consumption and lactate production through reactive oxygen species and pyruvate kinase M2. In Oxid Med Cell Longev on 2014 by Qi Li, Xue Liu, et al..PMID:24895527, , (2014)

[PMID:24895527](#)

el at., Single-Cell FISH Analysis Reveals Distinct Shifts in PKM Isoform Populations during Drug Resistance Acquisition. In Biomolecules on 2022 Aug 6 by Seong Ho Kim, Ji Hun Wi, et al..PMID:36008976, , (2022)

[PMID:36008976](#)

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Note: This product is for in vitro research use only and is not intended for use in humans or animals.