

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	WB, FC, ICC <u>P14618</u>
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 58 kDa; observed, 58 kDa KDa
Gene Name	РКМ
Aliases	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
Immunogen	A synthesized peptide derived from human PKM2

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

Gene ID

Other Names 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

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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: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 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.

KD-Validated Anti-PKM2 Rabbit Monoclonal Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

KD-Validated Anti-PKM2 Rabbit Monoclonal Antibody - Images





Western blotting analysis using anti-PKM2 antibody (Cat#AGI1139). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-PKM2 antibody (Cat#AGI1139, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-PKM2 antibody (Cat#AGI1139). PKM2 expression in wild-type (WT) and PKM knockdown (KD) HT-1080 cells with 20 μ g of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-PKM2 antibody (Cat#AGI1139, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



PKM2-Alexa Fluor® 647

Flow cytometric analysis of PKM2 expression in HT-1080 cells using PKM2 antibody (Cat#AGI1139, 1:2,000). Green, isotype control; red, PKM2.





Immunocytochemical staining of C2C12 cells with anti-PKM2 antibody (Cat#AGI1139, 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 μ m.