Product Datasheet

PGAM1 Rabbit mAb

Catalog No: #49976

Package Size: #49976-1 50ul #49976-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

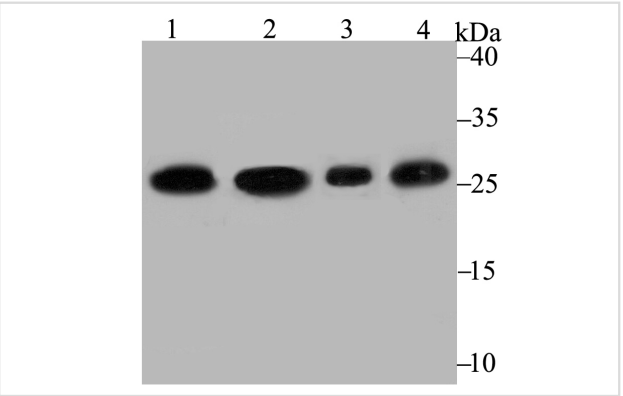
Description

Product Name	PGAM1 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	JE40-67
Purification	ProA affinity purified
Applications	WB,IHC,FC
Species Reactivity	Human;Mouse;Rat
Conjugates	Unconjugated
Other Names	BPG dependent PGAM 1 antibody BPG dependent PGAM1 antibody BPG-dependent PGAM 1 antibody OTTHUMP00000059414 antibody PGAM 1 antibody PGAM A antibody PGAM B antibody PGAM-B antibody PGAM1 antibody PGAM1_HUMAN antibody PGAMA antibody PGAMB antibody Phosphoglycerate mutase 1 antibody Phosphoglycerate mutase 1 brain antibody Phosphoglycerate mutase A antibody Phosphoglycerate mutase A nonmuscle form antibody Phosphoglycerate mutase isozyme B antibody
Accession No.	Swiss-Prot#:P18669
Calculated MW	29 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

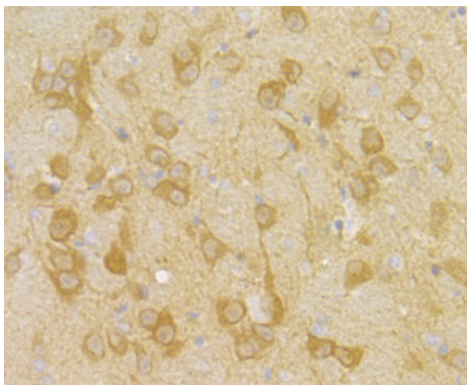
Application Details

WB: 1:500-1:2,000 IHC: 1:50-1:100FC: 1:50-1:100

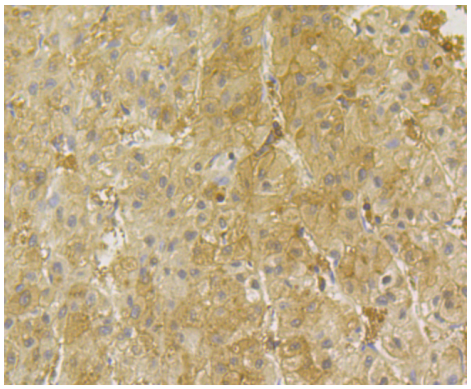
Images



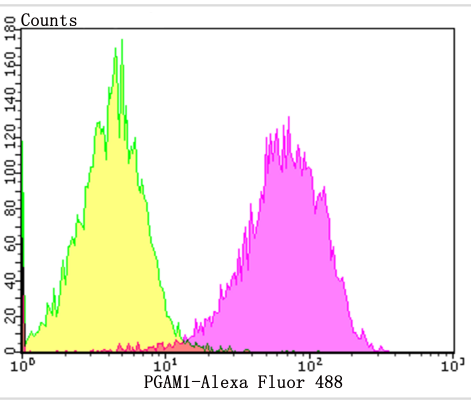
Western blot analysis of PGAM1 on different lysates using anti-PGAM1 antibody at 1/2,000 dilution. Positive control: Lane 1: A431 Lane 2: A549 Lane 3: Rat brain Lane 4: Mouse brain



Immunohistochemical analysis of paraffin-embedded rat brain tissue using anti-PGAM1 antibody. Counter stained with hematoxylin.



Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-PGAM1 antibody. Counter stained with hematoxylin.



Flow cytometric analysis of Jurkat cells with PGAM1 antibody at 1/100 dilution (purple) compared with an unlabelled control (cells without incubation with primary antibody; yellow). Alexa Fluor 488-conjugated goat anti-rabbit IgG was used as the secondary antibody.

Background

Members of the PGAM (phosphoglycerate mutase) family of proteins are important components of glucose and 2,3-BPGA (2,3-bisphosphoglycerate) metabolism. They are responsible for catalyzing the transfer of phospho groups between the carbon atoms of phosphoglycerates. In mammals there are two types of PGAM isozymes: PGAM1 (also known as PGAMB) and PGAM2 (also known as PGAMA). In the cell, PGAM1 and PGAM2 exist as either homodimers or heterodimers and are responsible for the interconversion of 3-phosphoglycerate and 2-phosphoglycerate. PGAM2 homodimers are expressed in skeletal muscle, mature sperm cells and heart; PGAM1 homodimers are found in most other tissues; and PGAM1/PGAM2 heterodimers are found exclusively in the heart. PGAM4, also known as PGAM3, is a protein formerly considered to be specific to humans. Initially the PGAM4 gene was described as a pseudogene but it is now known to encode a functional protein at least 25 million years old. The gene encoding PGAM4 is believed to have originated by retrotransposition, with the original copy being the PGAM1 gene.

References

1. Wang Y et al. Crystal structure of human B-type phosphoglycerate mutase bound with citrate. Biochem Biophys Res Commun 331:1207-1215 (2005). 2. Hitosugi T et al. Tyr26 phosphorylation of PGAM1 provides a metabolic advantage to tumours by stabilizing the active conformation. Nat Commun 4:1790-1790 (2013).

Published Papers

Ying Yi;Min-Yu Wu;Kai-Tian Chen;An-Hai Chen;Lin-Qiu Li;Qin Xiong;Xian-Ren Wang;Wen-Bin Lei;Guan-Xia Xiong;Shu-Bin Fang el at., LDHA-mediated glycolysis in stria vascularis endothelial cells regulates macrophages function through CX3CL1-CX3CR1 pathway in noise-induced oxidative stress., , (2025)

PMID:39900910

Tang XiYang, Zhang RunZe, Feng ZhiBo, Zhou YuLong, Du WeiGuang, Shu Chen, Shen Yang, Li MengChao, Cai JunChao, Yan XiaoLong, Ma Nan, Zhao JinBo el at., FGL1-mediated lymph node metastasis in stage T1 non-small cell lung cancer: therapeutic targeting, Experimental Hematology & Oncology, (2025)

PMID:41024301

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