

# Anti-PGAM1 Antibody [JE40-67]

ET7109-13



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IHC-P, FC
<b>Molecular Wt:</b>	29 kDa
<b>Clone number:</b>	JE40-67

**Description:** 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.

**Immunogen:** Recombinant protein within Human PGAM1 aa 1-103 / 254.

**Positive control:** A431, A549, rat brain tissue, mouse brain tissue, human liver tissue, Jurkat.

**Subcellular location:** Cytosol. Extracellular region or secreted. Nucleus.

**Database links:** SwissProt: P18669 Human | Q9DBJ1 Mouse | P25113 Rat

**Recommended Dilutions:**

<b>WB</b>	1:500-1:2,000
<b>IHC-P</b>	1:50-1:100
<b>FC</b>	1:50-1:100

**Storage Buffer:** 1\*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

Hangzhou HuaAn Biotechnology Co.,Ltd.

Orders: 0086-571-88062880

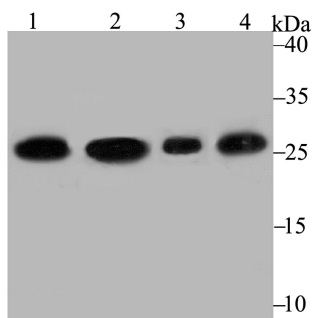
Technical:0086-571-89986345

Service mail: support@huabio.cn

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## Images



**Fig1:** Western blot analysis of PGAM1 on different lysates using anti-PGAM1 antibody at 1/2,000 dilution.

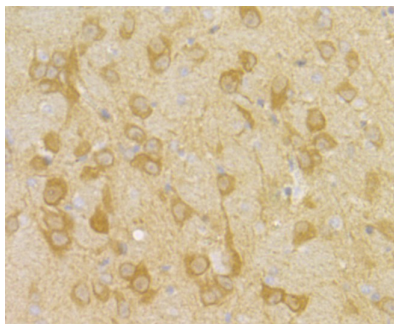
**Positive control:**

Lane 1: A431

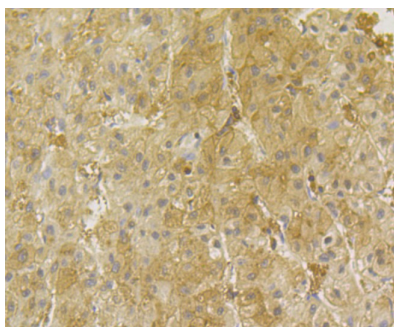
Lane 2: A549

Lane 3: Rat brain

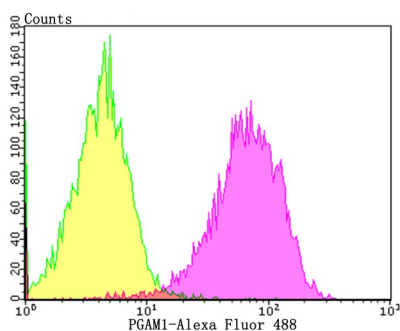
Lane 4: Mouse brain



**Fig2:** Immunohistochemical analysis of paraffin-embedded rat brain tissue using anti-PGAM1 antibody. Counter stained with hematoxylin.



**Fig3:** Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-PGAM1 antibody. Counter stained with hematoxylin.



**Fig4:** 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.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## Background 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).

