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## PGAM1 Recombinant Monoclonal Antibody

Product Code	CSB-RA935337A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P18669
Immunogen	A synthesized peptide derived from human PGAM1
Species Reactivity	Human, Mouse, Rat
<b>Tested Applications</b>	ELISA, WB; Recommended dilution: WB:1:500-1:5000
Relevance	Interconversion of 3- and 2-phosphoglycerate with 2,3-bisphosphoglycerate as the primer of the reaction. Can also catalyze the reaction of EC 5.4.2.4 (synthase), but with a reduced activity.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cancer; Metabolism; Signal transduction
Gene Names	PGAM1
Clone No.	9A5

Image



## Western Blot

Positive WB detected in: Hela whole cell lysate, 293 whole cell lysate, HepG2 whole cell lysate, NIH/3T3 whole cell lysate, A549 whole cell lysate, MCF-7 whole cell lysate, Mouse Brain whole cell lysate, Rat Brain whole cell lysate All lanes: PGAM1 Antibody at 1:1000 Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 28 kDa Observed band size: 29 kDa

## Description

To produce the PGAM1 recombinant antibody, four main steps are involved. First, the PGAM1 monoclonal antibody gene is sequenced, followed by the cloning of the gene into a plasmid vector. The recombinant vector is then introduced into a host cell line, and the PGAM1 recombinant monoclonal antibody is purified from the cell culture supernatant using affinity

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chromatography. Finally, the purified antibody is tested and characterized. The PGAM1 monoclonal antibody is derived from hybridomas that produce the PGAM1 antibody, with a synthesized peptide derived from human PGAM1 being used as the immunogen during generation. The resulting PGAM1 recombinant monoclonal antibody is highly recommended for ELISA and WB applications to detect PGAM1 protein from human, mouse, and rat species.

PGAM1 is an enzyme that plays a crucial role in the glycolysis pathway, which is the primary metabolic pathway that converts glucose into pyruvate to produce ATP (adenosine triphosphate) for cellular energy. Specifically, PGAM1 catalyzes the conversion of 3-phosphoglycerate (3-PG) to 2-phosphoglycerate (2-PG) in the second step of glycolysis. This reaction generates a molecule of ATP and a molecule of water, and it is reversible, allowing the enzyme to function in both the glycolysis and gluconeogenesis pathways. In addition to its role in energy metabolism, PGAM1 has also been implicated in the regulation of cell proliferation and cancer progression.