

Mouse anti-Human PGM1 Monoclonal Antibody | anti-PGM1 antibody

PGM1 antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA48217	Mouse	Human	Immunofluorescence, Immunocytochemistry, Flow Cytometry, Functional Assay, Western Blot, ELISA

PRODUCT SYNONYMS

PGM1; Monoclonal Antibody; PGM1 antibody; Phosphoglucomutase-1 isoform 1; CDG1T; GSD14; anti-PGM1 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1, k
Clone Number	AT84G2
Purity/Purification	By protein-A affinity chromatography
Form/Format	Liquid. In phosphate-buffered saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol.
Concentration	1 mg/ml (varies by lot)
Sequence Length	562
Applicable Applications for anti-PGM1 antibody	IF (Immunofluorescence), ICC (Immunocytochemistry), FCM/FACS (Flow Cytometry), WB (Western Blot), ELISA
Antigen Species	Human
Immunogen	Recombinant human PGM1 (1-562aa) purified from E. coli
Clone Note	Anti-human PGM1 mAb, clone AT84G2, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human PGM1 protein.
Preparation and Storage	Can be stored at 4 degree C. For long term storage, aliquot and store at -20 degree C. Avoid repeated freezing and thawing cycles.

IMAGES



IF (Immunofluorescence)

ICC/IF analysis of PGM1 in HeLa cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human PGM1 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



WB (Western Blot)

The Cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human PGM1 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system. Lane 1. : 293T cell lysate Lane 2. : HepG2 cell lysate Lane 3. : NIH/3T3 cell lysate Lane 4. : Jurkat cell lysate Lane 5. : HeLa cell lysate Lane 6. : U87MG cell lysate

ADDITIONAL INFORMATION

Related Product Information for anti-PGM1 antibody	PGM1 is an evolutionarily conserved enzyme that regulates one of the most important metabolic carbohydrate trafficking points in prokaryotic and eukaryotic organisms, catalyzing the bi-directional interconversion of glucose 1-phosphate (G-1-P) and glucose 6-phosphate (G-6-P). In one direction, G-1-P produced from sucrose catabolism is converted to G-6-P, the first intermediate in glycolysis. In the other direction, conversion of G-6-P to G-1-P generates a substrate for synthesis of UDP-glucose, which is required for synthesis of a variety of cellular constituents, including cell wall polymers and glycoproteins. PGM1 has been used extensively as a genetic marker for isozyme polymorphism among humans. PGM is known to be post-translationally modified by cytoplasmic glycosylation that does not seem to regulate its enzymatic activity but rather is implicated in the localization of the protein. Glucose 1,6 bisphosphate (Glc-1, 6-P2), a powerful regulator of carbohydrate metabolism, has been demonstrated to be a potent activator of PGM. PGM1 is also modified by phosphorylation on Ser108 as part of its catalytic mechanism. This is shown to be performed by Pak1, a previously identified signaling kinase.
Product Categories/Family for anti-PGM1 antibody	Signal Transduction; Metabolism
References	Boros LG., et al. (2002) Pancreas. 24 (1): 26-33.; Dey NB., et al. (1994) The Journal of Biological Chemistry. 269 (43): 27143-8.; Gururaj A., et al. (2004) Oncogene. 23 (49): 8118-27.

NCBI AND UNIPROT INFORMATION

NCBI GI #	21361621
NCBI GeneID	5236
NCBI Accession #	NP_002624
NCBI GenBank Nucleotide #	NM_002633.2
UniProt Accession #	P36871; Q16105; Q16106; Q5BKZ9; Q6NW22; Q86U74; Q96J40; Q9NTY4; B2R5N9; B4DPV0
Molecular Weight	40,283 Da
NCBI Official Full Name	phosphoglucomutase-1 isoform 1
NCBI Official Synonym Full Names	phosphoglucomutase 1
NCBI Official Symbol	PGM1
NCBI Official Synonym Symbols	CDG1T; GSD14
NCBI Protein Information	phosphoglucomutase-1
UniProt Protein Name	Phosphoglucomutase-1
UniProt Gene Name	PGM1
UniProt Synonym Gene Names	PGM 1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.