

Human PGAM2 antibody

Catalog Number: ATGA0399

PRODUCT INFORMATION

Catalog number

ATGA0399

Clone No.

AT5A7

Product type

Monoclonal Antibody

UnitProt No.

P15259

NCBI Accession No.

NP_000281

Alternative Names

Phosphoglycerate mutase 2, GSD10, PGAM-M, PGAMM

PRODUCT SPECIFICATION

Antibody Host

Mouse

Reacts With

Human

Concentration

1mg/ml (determined by BCA assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen

Recombinant human PGAM2 (1-253aa) purified from E. coli

Isotype

IgG2b kappa

Purification Note

By protein-A affinity chromatography

Application

ELISA, WB, ICC/IF

Usage

The antibody has been tested by ELISA, Western blot and ICC/IF analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

Storage

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Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

Phosphoglycerate mutase (PGAM) catalyzes the reversible reaction of 3-phosphoglycerate (3-PGA) to 2-phosphoglycerate (2-PGA) in the glycolytic pathway. Since both 3-PGA and 2-PGA are allosteric regulators of the pentose phosphate pathway (PPP) and glycine and serine synthesis pathways, respectively, PGAM2 may contribute to the biosynthesis of amino acids, 5-carbon sugar, and nucleotides precursors. The PGAM is a dimeric enzyme containing, in different tissues, different proportions of a slow-migrating muscle (MM) isozyme, a fast-migrating brain (BB) isozyme, and a hybrid form (MB). Mutations in this gene cause muscle phosphoglycerate mutase deficiency, also known as glycogen storage disease X. PGAM2 is one of two PGAM subunits found in humans and is predominantly expressed in adult muscle.

General References

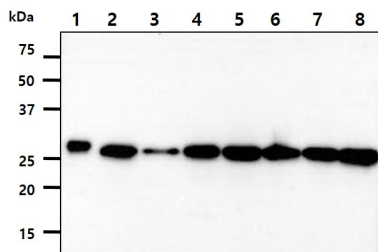
Tsujino S., et al. (1986) *The Journal of biological chemistry*. 264(26): 15334-7.

Xu Y., et al. (2014) *Cancer research*. 74(13): 3630-42.

Tsujino S., et al. (1993) *American journal of human genetics*. 52(3): 472-7.

DATA

Western blot analysis (WB)



The recombinant protein (50ng) and cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human PGAM2 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1. : Recombinant protein (50ng)

Lane 2. : HeLa cell lysate

Lane 3. : HepG2 cell lysate

Lane 4. : 293T cell lysate

Lane 5. : Jurkat cell lysate

Lane 6. : NIH3T3 cell lysate

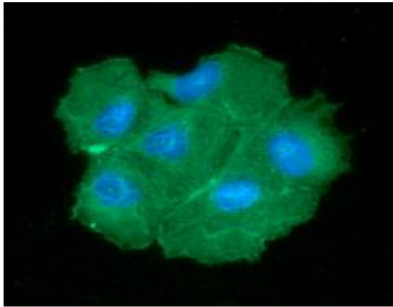
Lane 7. : A549 cell lysate

Lane 8. : MCF7 cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)

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ICC/IF analysis of PGAM2 in Hep3B cells. The cell was stained with ATGA0399 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).