Human PKM antibody

Catalog Number: ATGA0325

PRODUCT INFORMATION

Catalog number
ATGA0325

Clone No.
AT1B10

Product type
Monoclonal Antibody

UnitProt No.
P14618

NCBI Accession No.
NP_002645

Alternative Names
Pyruvate kinase muscle isoform M2, Pyruvate kinase M1/2, Pyruvate kinase muscle, Cytosolic thyroid hormone-binding protein, CTHBP, Pyruvate kinase 2/3, Threonine-protein kinase PKM2, Thyroid hormone-binding protein 1, THBP1, Opa-interacting protein 3, OIP3, Tumor M2-PK, Tyrosine-protein kinase PKM2, PK2, PK3, PKM2, p58

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 PKM2 (1-531aa) purified from E.coli

Isotype
IgG1 kappa

Purification Note
By protein-A affinity chromatography

Application
ELISA, WB, ICC/IF

Usage
The antibody has been tested by ELISA, Western blot analysis and Immunofluorescence analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results. Recommended starting dilution for Western blot analysis is 1:1000 and

Immunofluorescence is 1:250.

Storage
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
PKM2 (pyruvate kinase M2), its association with phospho-tyrosine (pTyr) motifs, enables cells to use predominantly aerobic glycolysis instead of oxidative phosphorylation. Also PKM2 suggest that this change benefits cancer cells by enabling them to redirect glycolytic metabolites away from oxidation and energy production and, instead, toward anabolic processes and biosynthesis. PKM2-mediated generation of the aerobic glycolytic phenotype, although wasteful in terms of glucose consumption and waste generation, could provide a variety of advantages for cancerous cells. In addition nuclear translocation of the tumor marker pyruvate kinase M2 induces programmed cell death.

General References
Ferguson E.C., et al. (2008) Trends Biochem Sci 33(8): 359-362.
Christofk H.R., et al. (2008) Nature 452(7184):181-186.
Shimada N., et al. (2008) Genes Cells 13(3): 245-254.

DATA

Western blot analysis (WB)

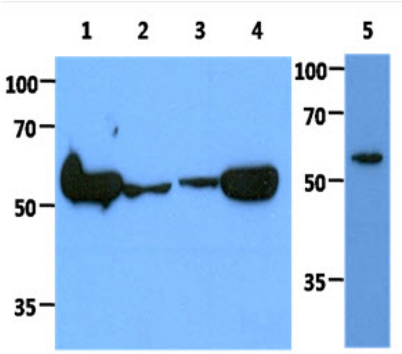

Fig.1: The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human PKM2 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1 : HeLa cell lysate
Lane 2 : Jurkat cell lysate
Lane 3 : MCF7 cell lysate
Lane 4 : A549 cell lysate
Lane 5 : 293T cell lysate

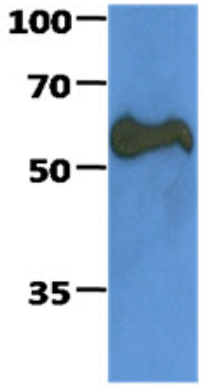

Fig 2: The Recombinant human PKM2 (50ng) protein was resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human PKM2 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

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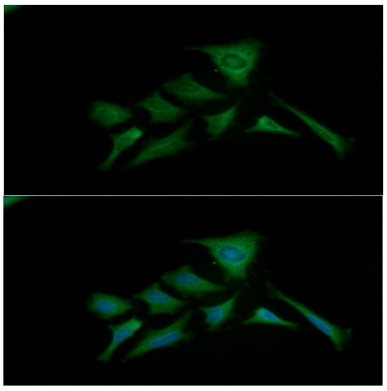
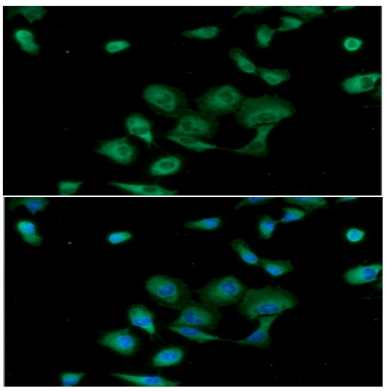
Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of PKM2 in HeLa cells. The cell was stained with ATGA0325 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).



ICC/IF analysis of PKM2 in A549 cells. The cell was stained with ATGA0325 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).