

Human Hexokinase 1/2 antibody

Catalog Number: AHK0812

PRODUCT INFORMATION

Catalog number

AHK0812

Clone No.

1A7

Product type

Monoclonal Antibody

UnitProt No.

P52789

NCBI Accession No.

NP_000180

Alternative Names

BB404130, Brain form hexokinase, dea, EC 2.7.1.1, Glycolytic enzyme, HEXOKIN, Hexokinase, Hexokinase PI, Hexokinase type I, Hexokinase type II, Hexokinase-1, Hexokinase-2, Hexokinase-A, HK I, HK II, HK1, HK1 tb, HK1-s, HK1-ta, HK1-tc, HK2, HXK1, mHk1-s, Muscle form hexokinase, Tumor isozyme

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 Hexokinase 2 (1-917aa) purified from E. coli

Isotype

IgG1 kappa

Purification Note

By protein-G affinity chromatography

Application

ELISA, WB, ICC/IF, FACS

Usage

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

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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

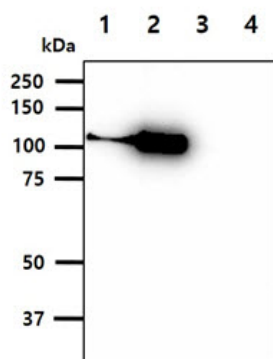
Hexokinase is the first enzyme in the glycolytic pathway, catalyzing the transfer of a phosphoryl group from ATP to glucose to form glucose-6-phosphate and ADP. In mammals, four distinct enzymes (types 1 to 4 hexokinases) have been identified. These enzymes are found in most cells, but there is tissue specificity for the particular type of hexokinase. Hexokinase 2 is found in the skeletal muscle and includes hydrophobic N-terminal sequence capable of targeting the hexokinase to mitochondria.

General References

Furuta H, et al.,(1996) Genomics 36(1):206-209.
Jon E, et al., (2003) J Exp Biology 206:2049-2057.

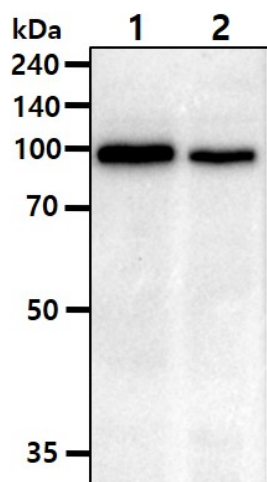
DATA

Western blot analysis (WB)



The recombinant proteins (20ng) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human Hexokinase 1/2 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: Hexokinase 1 recombinant protein
Lane 2.: Hexokinase 2 recombinant protein
Lane 3.: Hexokinase 3 recombinant protein
Lane 4.: Hexokinase 4 recombinant protein



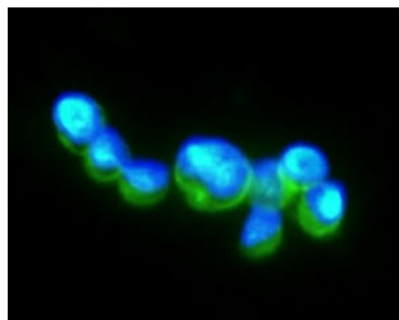
The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human Hexokinase 1/2 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: K562 cell lysate
Lane 2.: Jurkat cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)

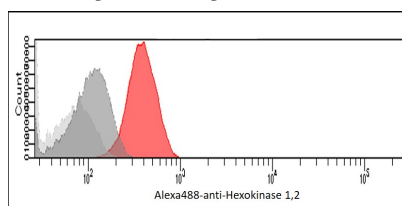
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ICC/IF analysis of Hexokinase 1/2 in Jurkat cells. The cell was stained with AHK0812 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

Flow cytometry (FACS)



Flow cytometry analysis of Hexokinase 1/2 in Jurkat cells. The cell was stained with AHK0812 at 2-5ug for 1×10^6 cells (red). A Goat anti mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (dark gray), cells without incubation with primary and secondary antibody was used as the negative control (light gray).