

# Human Hexokinase antibody

Catalog Number: AHK0715

## PRODUCT INFORMATION

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**Catalog number**

AHK0715

**Clone No.**

4D7

**Product type**

Monoclonal Antibody

**UnitProt No.**

P19367

**NCBI Accession No.**

NP\_000179

**Alternative Names**

BB404130, Brain form hexokinase, dea, EC 2.7.1.1, Glycolytic enzyme, HEXOKIN, Hexokinase, Hexokinase PI, Hexokinase type I, Hexokinase-A, HK I, HK1 tb, Hk1-s, HK1-ta, HK1-tc, HXK1, mHk1-s, tumor isozyme, Hexokinase 1, Hexokinase 2, Hexokinase 3, Hexokinase 4, HK1, HK2, HK3, HK4

## PRODUCT SPECIFICATION

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**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 Hexokinase1 (1-917aa) purified from E. coli

**Isotype**

IgG2a kappa

**Purification Note**

By protein-G 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.

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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. The enzyme is found in most cells, but there is tissue specificity for the particular type of hexokinase. Hexokinase1 is found in the adipose tissue and liver and encodes a ubiquitous form of hexokinase which localizes to the outer membrane of mitochondria. Mutations in this hexokinase1 have been associated with hemolytic anemia due to hexokinase deficiency.

### General References

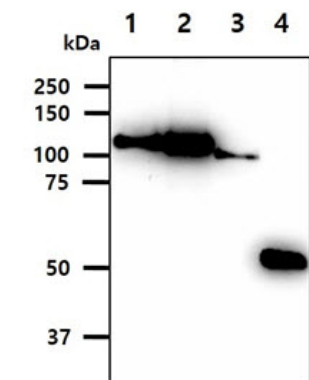
Ellison W R. et al., (1975) J Biol Chem 250:1864-1871.

Furuta H. et al., (1996) Genomics 36(1):206-9.

Jon E. et al., (2003) J.Exp Biology 206:2049-2057.

## DATA

### Western blot analysis (WB)



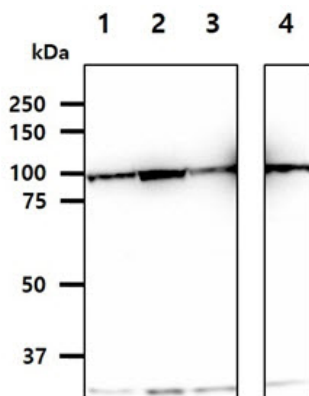
The recombinant proteins (20ng) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human Hexokinase antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

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 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: HepG2 cell lysate

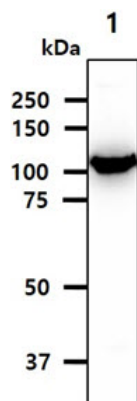
Lane 2.: HeLa cell lysate

Lane 3.: Jurkat cell lysate

Lane 4.: K562 cell lysate

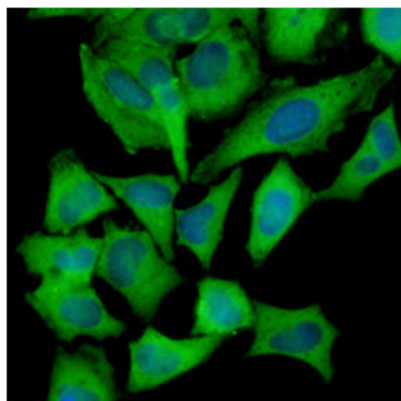
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The tissue lysate (40ug) was resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human Hexokinase antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.  
Lane 1.: Mouse Brain Tissue lysate

### Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of Hexokinase in HeLa cells. The cell was stained with AHK0715 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).