

# Human AK1 antibody

Catalog Number: ATGA0447

## PRODUCT INFORMATION

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**Catalog number**

ATGA0447

**Clone No.**

AT7E9

**Product type**

Monoclonal Antibody

**UnitProt No.**

P00568

**NCBI Accession No.**

NP\_000467

**Alternative Names**

Adenylate kinase isoenzyme1, ATP-AMP transphosphorylase 1, Myokinase, Adenylate kinase 1, ATP:AMP phosphotransferase, Adenylate monophosphate kinase

## 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 AK1 (1-194aa) 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, Flow cytometry and ICC/IF 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

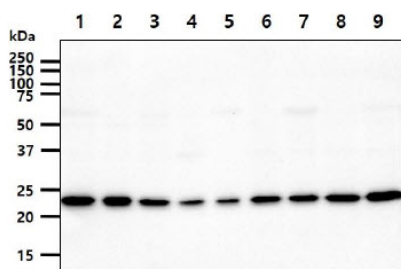
AK1 is an enzyme involved in regulating the adenine nucleotide composition within a cell by catalyzing the reversible transfer of the terminal phosphate group between ATP and AMP. This protein is found in the cytosol of skeletal muscle, brain and erythrocytes. It is a small ubiquitous enzyme which is essential for maintenance and cell growth. Defects in AK1 are the cause of a form of hemolytic anemia.

### General References

Terzic A., et al. (2007) J Biol Chem. 282(43): 31366-72.  
Morelli A., et al. (2007) Curr Eye Res. 32(3): 249-57.

## DATA

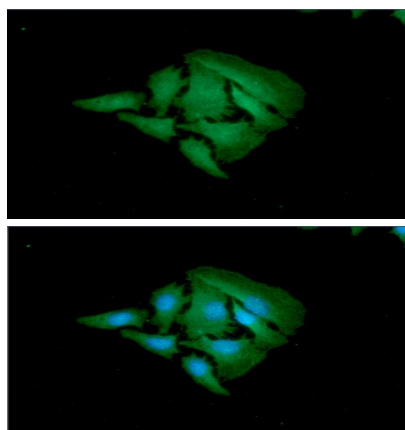
### Western blot analysis (WB)



The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human AK1 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.: U87-MG cell lysate  
Lane 3.: K562 cell lysate  
Lane 4.: 293T cell lysate  
Lane 5.: HepG2 cell lysate  
Lane 6.: A549 cell lysate  
Lane 7.: MCF7 cell lysate  
Lane 8.: SK-OV-3 cell lysate  
Lane 9.: PC3 cell lysate

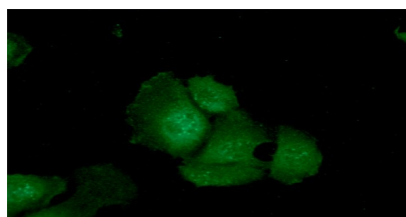
### Immunocytochemistry/Immunofluorescence (ICC/IF)



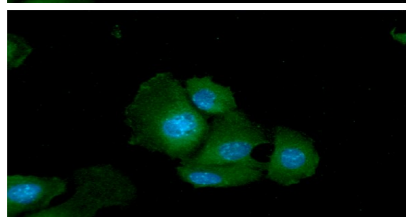
ICC/IF analysis of AK1 in HeLa cell line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human AK1 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).

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ICC/IF analysis of AK1 in Hep3B cell line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human AK1 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



ICC/IF analysis of AK1 in A549 cell line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human AK1 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).

