

# Monoclonal anti-human AK1 antibody (clone AT7E9)

Mouse IgG<sub>1</sub>, κ

Cat. No. IBATGA0447

Immunogen: Recombinant human AK1 (1-194aa) purified from E. coli

NCBI Accession No.: NP 000467

**Isotype:** Mouse  $IgG_1$  heavy chain and  $\kappa$  light chain

**Clone:** Anti-human AK1 mAb, clone AT7E9, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human AK1 protein.

**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.

Concentration: 1 mg/ml

Form: Liquid. In Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% Glycerol

**Storage:** Can be stored at +4C. For long term storage, aliquot and store at -20C. Avoid repeated freezing and thawing cycles.

**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.

Application: ELISA, WB, Flow cytometry, ICC/IF

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### Western blot analysis

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 2.: U87-MG cell lysate

Lane 3.: K562 cell lysate

Lane 4.: 293T cell lysate

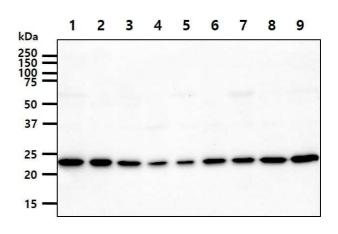
Lane 5.: HepG2 cell lysate

Lane 6.: A549 cell lysate

Lane 7.: MCF7cell lysate

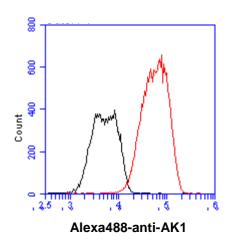
Lane 8.: SK-OV-3 cell lysate

Lane 9.: PC3 cell lysate



### Flow cytometry

Flow cytometry analysis of AK1 in Hep3B cell line, staining at 2-5ug for 1x10<sup>6</sup>cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).

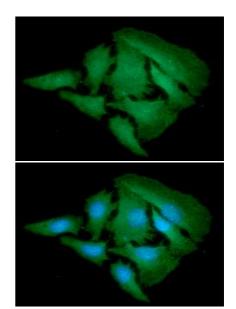


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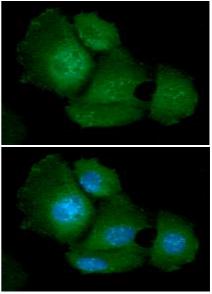
### ICC/IF analysis

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).



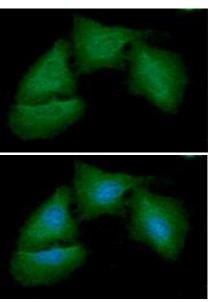
### ICC/IF analysis

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

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).



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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.

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