Human Adenosine Kinase/ADK antibody

Catalog Number: ATGA0206

PRODUCT INFORMATION

Catalog number
ATGA0206

Clone No.
AT4F8

Product type
Monoclonal Antibody

UnitProt No.
P55263

NCBI Accession No.
NP_006712

Alternative Names
ADK, AK, adenosine kinase, adenosine 5'-phosphotransferase

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 ADK (22-362aa) 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

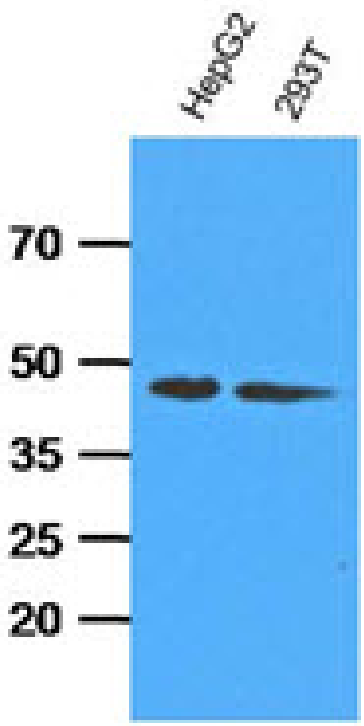
Adenosine kinase (ADK) is the key regulator of adenosine metabolism. Because of the manifold receptor-dependent actions of adenosine, tight regulation of adenosine levels is crucial. The intracellular and extracellular pools of adenosine are in dynamic exchange by equilibrative and concentrative nucleoside transporters, so extracellular concentrations of adenosine are regulated by interplay of theses transporters with intracellular and extracellular enzymes of adenosine metabolism. Thus, the extracellular concentration of adenosine is enhanced by inhibition of equilibrative nucleoside transporters such as S- (4-nitrobenzyl) -6-thioinosine and cannabidiol and, stimulation of extracellular ATP breakdown and inhibition of intracellular adenosine removal.

General References

Mathews II , et al. (1998). Biochemistry 1037(45):15607-20.
Lindberg B, Klenow H, Hansen K (1967). J. Biol. Chem. 242 (3): 350-6.
CAPUTTO R (1951). J. Biol. Chem. 189 (2): 801-14.

DATA

Western blot analysis (WB)



The cell lysates of HepG2 and 293T (35ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human ADK (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Immunocytochemistry/Immunofluorescence (ICC/IF)

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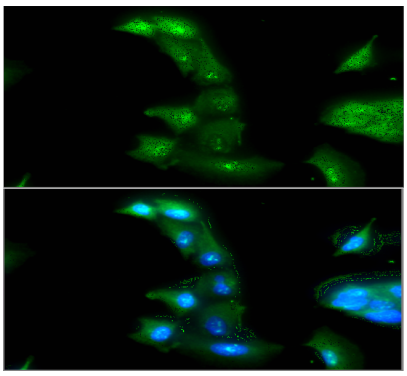
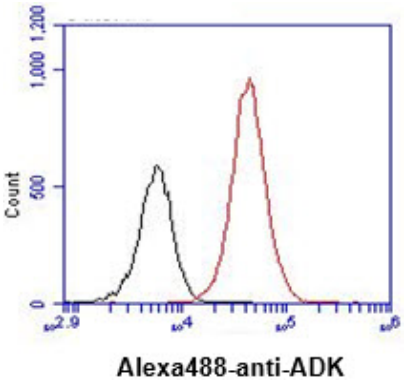


ICC/IF analysis of ADK in A549 cells. The cell was stained with ATGA0206 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

Flow cytometry (FACS)



Flow cytometry analysis of ADK in A549 cell line, staining at 2-5ug for 1x10^6cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).