Human AK2 antibody

Catalog Number: ATGA0393

PRODUCT INFORMATION

Catalog number
ATGA0393

Clone No.
AT7E7

Product type
Monoclonal Antibody

UnitProt No.
P54819

NCBI Accession No.
NP_001616

Alternative Names
Adenylate kinase 2, Mitochondrial Adenylate kinase 2, ATP-AMP transphosphorylase 2, ATP:AMP phosphotransferase, Adenylate monophosphate kinase, ADK2

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 AK2 (1-239aa) 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 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

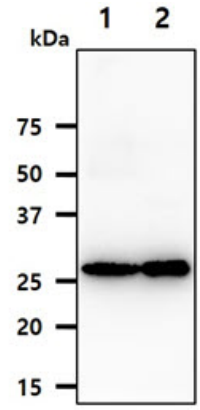
Adenylate kinases are involved in regulating the adenine nucleotide composition within a cell by catalyzing the reversible transfer of phosphate groups among adenine nucleotides. Three isozymes of adenylate kinase, namely 1, 2, and 3, have been identified in vertebrates; this gene encodes isozyme 2. Expression of these isozymes is tissue-specific and developmentally regulated. Isozyme 2 is localized in the mitochondrial intermembrane space and may play a role in apoptosis. Mutations in this gene are the cause of reticular dysgenesis. Alternate splicing results in multiple transcript variants.

General References

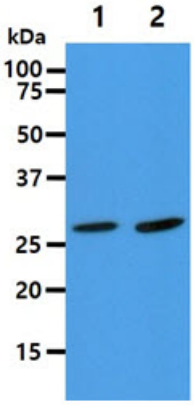
Kim D Pruitt., et al. (2012) Nucleic Acids Res. 40(Database issue): D130-D135.
Lagresle-Peyrou C., et al. (2009) Nat Genet. 41(1): 106-11.
Lee Y., et al. (1998) J. Biochem. 123 (1): 47-54.

DATA

Western blot analysis (WB)



The tissue lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human AK2 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1.: Kidney tissue lysate
Lane 2.: Liver tissue lysate



The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human AK2 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.: NIH/3T3 cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)

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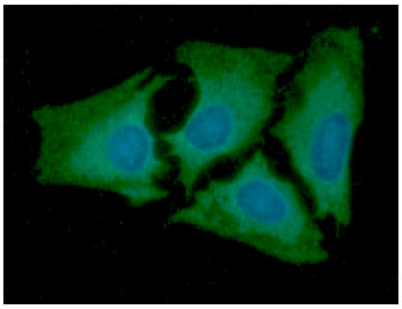

ICC/IF analysis of AK2 in HeLa cells. The cell was stained with ATGA0393 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).