Recombinant mouse Adenosine Kinase/ADK protein

Catalog Number: ATGP3692

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-361aa

UniProt No.
P55264

NCBI Accession No.
NP_598840

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

PRODUCT SPECIFICATION

Molecular Weight
42.5 kDa (384aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by absorbance at 280nm)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 50mM NaCl, 1mM EDTA

Purity
> 95% by SDS-PAGE

Endotoxin level
< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity
Specific activity is > 100pmol/min/ and is defined as the amount of enzyme that convert 1.0pmole of adenosine to AMP per minute at pH 7.5 at 37C in a couple system with PK and LDH.

Tag
His-Tag

Application
SDS-PAGE, Enzyme Activity

Storage Condition
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

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Description

Adk, also known as Adenosine kinase, is an abundant enzyme in mammalian tissues that catalyzes the transfer of the gamma-phosphate from ATP to adenosine, thereby serving as a regulator of concentrations of both extracellular adenosine and intracellular adenine nucleotides. Adenosine kinase has widespread effects on the cardiovascular, nervous, respiratory, and immune systems and inhibitors of the enzyme could play an important pharmacological role in increasing intravascular adenosine concentrations and acting as anti-inflammatory agents. Recombinant mouse Adk, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

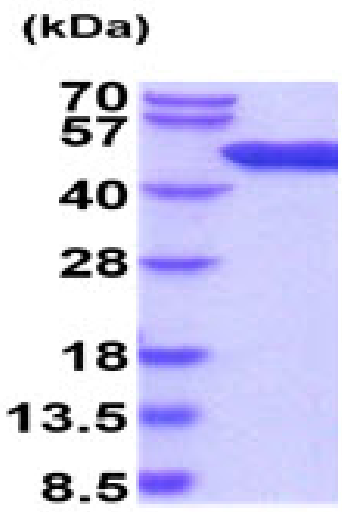
MGSSHHHHHH SSGLVPRGSH MGSMAAADEP KPKKLKVEAP QALSENVLFG MGNPLLDISA VVDKDFLDKY SLKPNDQILA EDKHKELFDE LVKKFKVEYH AGGSTQNSMK VAQWLIQEPH KAATFFGCIG IDKFGEILKR KAADAHVDAH YYEQNEQPTG TCAACITGGN RSLVANLAAA NCYKKEKHLD LERNWVLVEK ARVYYIAGFF LTVSPESVLK VARYAAENNR VFTLNLSAPF ISQFFKEALM DVMPYVDILF GNETEAATFA REQGFETKDI KEIAKKAQAL PKVNSKRQRT VIFTQGRDDT IVAAENDVTA FPVLDQNQEE IIDTNGAGDA FVGGFLSQLV SDKPLTECIR AGHYAASVII RRTGCTFPEK PDFH

General References

Chakraborty A., et al. (2002) J Biol Chem. 277(49: 47451-60.
Sakowicz M., et al. (2001) Acta Biochim Pol. 48(3):745-54.

DATA

SDS-PAGE



15% SDS-PAGE (3ug)

3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.