

Recombinant human Adenosine Kinase/ADK protein

Catalog Number: ATGP3713

PRODUCT INFORMATION

Expression system

E.coli

Domain

22-362aa

UniProt No.

P55263

NCBI Accession No.

NP_006712

Alternative Names

ADK, AK, Adenosine kinase, Adenosine 5'-phosphotransferase

PRODUCT SPECIFICATION

Molecular Weight

40.5 kDa (362aa) confirmed by MALDI-TOF

Concentration

0.5mg/ml (determined by Bradford assay)

Formulation

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

Purity

> 95% by SDS-PAGE

Biological Activity

Specific activity is > 30pmol/min/ug 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

Description

Adenosine kinase, also known as ADK 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

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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 human Adenosine kinase, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

MGSSHHHHHH SSGLVPRGSH MRENILFGMG NPLLDISAVV DKDFLDKYSL KPNDQILAED KHKELFDELV KKFKVEYHAG
GSTQNSIKVA QWMIQPHKA ATFFGCIGID KFGEILKRKA AEAHVDAHYY EQNEQPTGTC AACITGDNRS LIANLAAANC
YKKEKHLDE KNWMLVEKAR VCYIAGFFLT VSPESVLKVA HHAENNRIF TLNLSAPFIS QFYKESLMKV MPYVDILFGN
ETEATFARE QGFETKDIKE IAKKTQALPK MNSKRQRIVI FTQGRDDTIM ATESEVTAFV VLDQDQKEII DTNGAGDAFV
GGFLSQLVSD KPLTECIRAG HYAASIIIRR TGCTFPEKPD FH

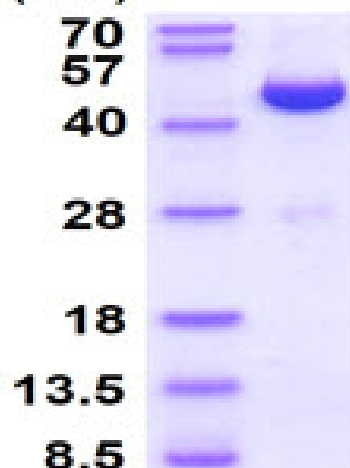
General References

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

DATA

SDS-PAGE

(kDa)



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

15% SDS-PAGE (3ug)