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## 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.

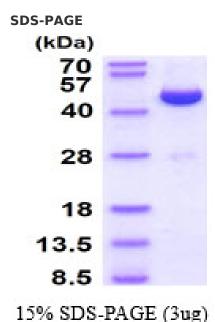
### **Amino acid Sequence**

MGSSHHHHHH SSGLVPRGSH MRENILFGMG NPLLDISAVV DKDFLDKYSL KPNDQILAED KHKELFDELV KKFKVEYHAG GSTQNSIKVA QWMIQQPHKA ATFFGCIGID KFGEILKRKA AEAHVDAHYY EQNEQPTGTC AACITGDNRS LIANLAAANC YKKEKHLDLE KNWMLVEKAR VCYIAGFFLT VSPESVLKVA HHASENNRIF TLNLSAPFIS QFYKESLMKV MPYVDILFGN ETEAATFARE QGFETKDIKE IAKKTQALPK MNSKRQRIVI FTQGRDDTIM ATESEVTAFA 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**



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

