

# Recombinant mouse AK2 protein

Catalog Number: ATGP3701

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-239aa

### UniProt No.

Q9WTP6

### NCBI Accession No.

NP\_001029138

### Alternative Names

Adenylate kinase 2 mitochondrial isoform a, Ak-2, D4Ertd220e, ATP-AMP transphosphorylase 2, ATP:AMP phosphotransferase, Adenylate monophosphate kinase

## PRODUCT SPECIFICATION

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### Molecular Weight

29.0 kDa (263aa) confirmed by MALDI-TOF

### Concentration

0.5mg/ml (determined by absorbance at 280nm)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.5) containing 10% glycerol, 1mM DTT

### Purity

> 95% by SDS-PAGE

### Biological Activity

Specific activity is > 40unit/mg. One unit will convert 2.0 umoles of ADP to ATP + AMP per minute at pH 7.5 at 37C.

### 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

Ak2, also known as Adenylate kinase 2 mitochondrial isoform a, is a ubiquitous monomeric enzyme involved energy metabolism of prokaryotic and eukaryotic cells. Three isozymes (Ak1, Ak2 and Ak3) are characterized in

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vertebrates. Expression of these isozymes is tissue-specific and developmentally regulated. Ak2 is localized in the mitochondrial intermembrane space and may play a role in apoptosis. Recombinant mouse Ak2 protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

## Amino acid Sequence

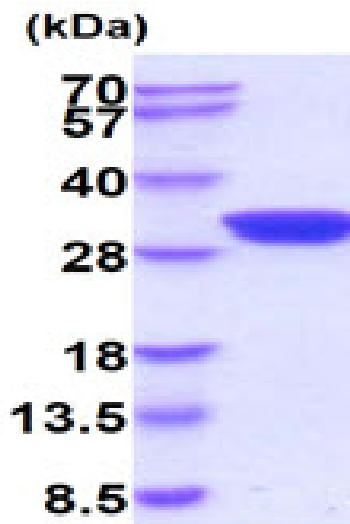
MGSSHHHHHH SSSLVPRGSH MGSHPMAPNVL ASEPEIPKGI RAVLLGPPGA GKGTOQAPKLA ENFCVCHLAT GDMLRAMVAS  
GSELGKKLKA TMDAGKLVSD EMVVELIEKN LETPCKNGF LLDGFPRTVR QAEMLDDLME KRKEKLDSEVI EFSIQDSELI  
RRITGRLIHP KSGRSYHEEF NPPKEPMKDD ITGEPLIRRS DDNEKALKTR LEAYHTQTTP LVEYYRKRGI HCAIDASQTP  
DIVFASILAA FSKATCKDLV MFI

## General References

Kohler C., et al. (1999) FEBS Lett. 447(1):10-2.  
Lee Y. et al., (1998) J Biol chem. 123(1):47-54.

## DATA

### SDS-PAGE



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

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15% SDS-PAGE (3ug)