Recombinant human AK1 protein

Catalog Number: ATGP0769

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-194aa

UniProt No.
P00568

NCBI Accession No.
NP_000467

Alternative Names
Adenylate kinase isoenzyme1, ATP-AMP transphosphorylase 1, Myokinase, Adenylate kinase 1, ATP:AMP phosphotransferase, Adenylate monophosphate kinase

PRODUCT SPECIFICATION

Molecular Weight
23.7 kDa (214aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 7.5) containing 10% glycerol

Purity
> 95% by SDS-PAGE

Biological Activity
Specific activity: > 600unit/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

Description
AK1 is an enzyme involved in regulating the adenine nucleotide composition within a cell by catalyzing the reversible transfer of the terminal phosphate group between ATP and AMP. This protein is found in the cytosol of

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skeletal muscle, brain and erythrocytes. It is a small ubiquitous enzyme which is essential for maintenance and cell growth. Defects in AK1 are the cause of a form of hemolytic anemia. Recombinant human AK1 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography.

Amino acid Sequence

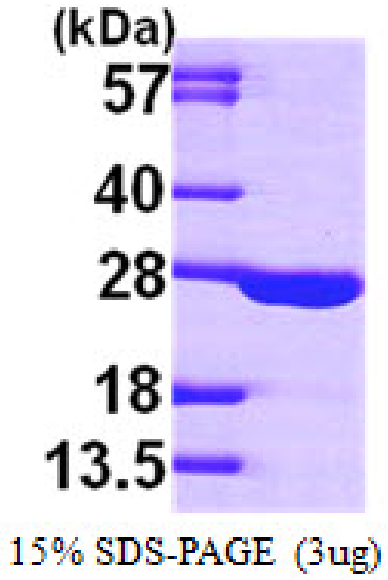
MGSSHHHHHH SSGLVPRGSH MEEKLKKTKI IFVVGGPGSG KGTQCEKIVQ KYGYTHLSTG DLLRSEVSSG SARGKKLSEI MEKGQLVPLE TVLDMLRDAM VAKVNTSKGF LIDGYPREVQ QGEEFERRIG QPTLLLYVDA GPETMTQRLL KRGETSGRVD DNEETIKKRL ETYYKATEPV IAFYEKRGIV RKVNAEGSVD SVFSQVCTHL DALK

General References

Terzic A., et al. (2007) J Biol Chem. 282(43):31366-72.
Morelli A., et al (2007) Curr Eye Res. 32(3):249-57.

DATA

SDS-PAGE



15% SDS-PAGE (3ug)

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