Recombinant human AK4 (C22S) protein

Catalog Number: ADK0801

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-223aa

UniProt No.
P27144

NCBI Accession No.
NP_982289

Alternative Names
AK3, AKL3L, Adenylate kinase 3 alpha like 1, Adenylate kinase 3, AK3L1, AK6, AKL3L1, FIX, RP11 6J24.4.

PRODUCT SPECIFICATION

Molecular Weight
29.3 kDa (259aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.5) containing 2mM DTT, 30% glycerol, 0.1M NaCl

Purity
> 90% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE

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
Adenylate kinase (AK; adenosine triphosphate-adenosine monophosphate [ATP-AMP] phospho-transferase, EC 2. 7. 4. 3) is a ubiquitous monomeric enzyme involved energy metabolism of prokaryotic and eukaryotic cells. Five isozymes of adenylate kinase have been identified in vertebrates. AK1 is present in the cytosol of skeletal muscle, brain, and erythrocyte, while AK2 is localized in the intermembrane space of mitochondria of liver, kidney, spleen and heart. AK3, called GTP:AMP phosphotransferase, exists in the mitochondrial matrix of liver and heart. These isozymes contribute to homeostasis of the adenine nucleotide composition in the cell.

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Recombinant human AK3, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

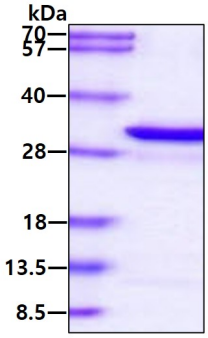
<MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGS>MASK LLRAVILGPP GSGKGTVSQR IAQNFGLQHL SSGHFLRENI KASTEVGEMA KQYIEKSLLV PDHVITRLMM SELENRRGQH WLLDGFPRTL GQAEALDKIC EVDLVISLNI PFETLKDRLS RRWIHPPSGR VYNLDFNPPH VHGIDDVTGE PLVQQEDDKP EAVAARLRQY KDVAKPVIEL YKSRGVLHQF SGTETNKIWP YVYTLFSNKI TPIQSKEAY

General References

Nobumoto M., et al.(1998) J. Biol. Chem. 123(1):128-35
Noma T., et al.(2001) J. Biol. Chem. 358(Pt 1):225-32

DATA

SDS-PAGE



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