Product information

Adenylate kinase 3(C22S), 1- 223 aa

Human, His-tagged, Recombinant, *E.coli*

Cat. No. IBADK0801

Synonyms: AK3, AKL3L, Adenylate kinase 3 alpha like 1 **NCBI Accession No.:** NP_982289

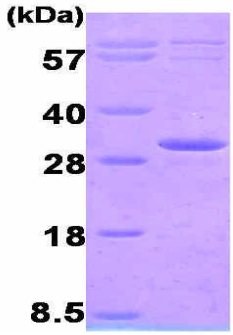
Description: Adenylate kinase (AK; adenosine triphosphate-adenosine monophosphate [ATP-AMP] phospho-transferase, EC 2.7.4.3) is a ubiquitous monomeric enzyme involved energy metabolism of prokaryotic and eukaryotic cells. Five isozymes of adenylate kinase have been identified in vertebrates. AK1 is present 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. Recombinant human AK3, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography techniques.

Form: Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 2 mM DTT, 20% glycerol

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

Purity: > 90% by SDS - PAGE

Concentration: 1 mg/ml (determined by Bradford assay)



15% SDS-PAGE (3ug)

Sequences of amino acids:

MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMASK 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

Storage: Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

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