

# Product information

## AK1, 1-194aa

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

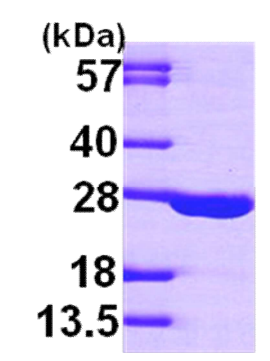
Cat. No. IBATGP0769

**Full name:** Adenylate kinase isoenzyme1

**NCBI Accession No.:** NP\_000467

**Synonyms:** ATP-AMP transphosphorylase 1, Myokinase

**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 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.

<p><b>Form:</b> Liquid. In 20 mM Tris-HCl Buffer (pH 7.5) containing 10% Glycerol</p> <p><b>Molecular Weight:</b> 23.7 kDa (214aa) confirmed by MALDI-TOF</p> <p><b>Purity:</b> &gt; 95% by SDS - PAGE</p> <p><b>Concentration:</b> 1mg/ml (determined by Bradford assay)</p> <p><b>Biological Activity:</b> Specific activity: &gt; 600 units/mg. One unit will convert 2.0 umoles of ADP to ATP + AMP per minute at pH 7.5 at 37C.</p>	
<p><b>Sequences of amino acids:</b></p> <p><u>MGSSHHHHHH</u> <u>SSGLVPRGSH</u> MEEKLKTKI IFVVGPGSG KGTQCEKIVQ KYGYTHLSTG DLLRSEVSSG SARGKKLSEI MEKQQLVPLE TVLDMLRDAM VAKVNTSKGF LIDGYPREVQ QGEEFERRIG QPTLLLYVDA GPETMTQRLI KRGETSGRVD DNEETIKKRL ETTYKATEPV IAFYEKRGIV RKNVAEGSVD SVFSQVCTHL DALK</p>	

### 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.

**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.

**For research use only. This product is not intended or approved for human, diagnostics or veterinary use.**



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