
Product Data Sheet

Product Name: AK1 Mouse
 Cat. No.: GP22413
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Adenylate kinase Isoenzyme 1 isoform 1; Ak-1; B430205N08Rik; ATP-AMP transphosphorylase 1; ATP:AMP phosphotransferase; Adenylate monophosphate kinase; Myokinase.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGSMGCCVSS EPQEEGGRKT GEKLLKAKII FVVGPGSGK GTQCEKIVQK YGYTHLSTGD LLRAEVSSGS ERGKLLSAIM EKGELVPLDT VLDMLRDAML AKVDSSNGFL IDGYPREVKQ GEEFEQKIGQ PTLLEYVDAG AETMTQRLK RGETSGRVDNEETIKRLE TYYNATEPVI SFYDKRGIVR KVNAEGTVDT VFSEVCTYLD SLK.		
Formulation	AK1 protein solution (0.5mg/ml) containing 20mM Tris-Hcl buffer (pH8.0), 10% glycerol and 1mM DTT.		

Introduction

AK1 is a small ubiquitous enzyme which is essential for maintenance and cell growth. It is involved in the regulation of adenine nucleotide composition within a cell by catalyzing the reversible transfer of the terminal phosphate group between ATP and AMP. The AK1 protein is found in the cytosol of skeletal muscle, brain and erythrocytes. Defects in the AK1 gene are the cause of a form of hemolytic anemia.

Biological Activity

Specific activity is > 150 units/mg. One unit will convert 2.0 umoles of ADP to ATP + AMP per minute at pH 7.5 at 37C.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1%

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

AK1 Mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 233 amino acids (1-210 a.a) and having a molecular mass of 25.5kDa. AK1 is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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