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# AK1 Human

Description: AK1 Human Recombinant fused with a 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 214 amino acids (1-194 a.a.) and having a molecular mass of 23.7kDa. The AK1 is purified by proprietary chromatographic techniques.

Catalog #:PKPS-323

For research use only.

Synonyms: Adenylate kinase isoenzyme 1, AK 1, ATP-AMP transphosphorylase 1, Myokinase, AK1.

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered colorless solution.

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.

Purity: Greater than 95.0% as determined by SDS-PAGE.

#### Formulation:

The AK1 protein solution (1mg/ml) contains 20mM Tris-HCl pH-8 and 10% glycerol.

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

# Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

## 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: > 6.0 units/ml. One unit will convert 2.0 umoles of ADP to ATP + AMP per minute at pH 7.5 at 25C.

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