

32-6953: AK1 Mouse

Application : Functional Assay

Alternative Name : Adenylate kinase Isoenzyme 1 isoform 1, Ak-1, B430205N08Rik, ATP-AMP transphosphorylase 1, ATP:AMP phosphotransferase, Adenylate monophosphate kinase, Myokinase.

Description

Source: Escherichia Coli.

Sterile Filtered colorless solution.

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.

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.

Product Info

Amount : 1 µg / 5 µg

Purification : Greater than 90.0% as determined by SDS-PAGE.

Content : AK1 protein solution (0.5mg/ml) containing 20mM Tris-Hcl buffer (pH8.0), 10% glycerol and 1mM DTT.

Storage condition : 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.

Amino Acid : MGSSHHHHHH SSGLVPRGSH MGSMGCCVSS EPQEEGGRKT GEKLLKAKII FVVGPGSGK
GTQCEKIVQK YGYTHLSTGD LLRAEVSSGS ERGKLSAIM EKDELVPLDT VLDMLRDAML AKVDSSNGFL
IDGYPREVKQ GEEFEQKIGQ PTLLEYVDAG AETMTQRLLK RGETSGRVDNEETIKKRLE TYYNATEPVI
SFYDKRGIVR KVNAEGTVDT VFSEVCTYLD SLK.

Application Note

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.