

## 32-6951: ADK Human, Active

**Application :** Functional Assay

**Alternative Name :** Adenosine 5'-phosphotransferase, EC 2.7.1.20, AK, ADK, Adenosine Kinase, Adenosine 5-Phosphotransferase, Testicular Tissue Protein Li 14, EC 2.7.1.

### Description

Source: Escherichia Coli.

Sterile Filtered clear solution.

Adenosine Kinase is an abundant enzyme in mammalian tissues which catalyzes the transfer of the gamma-phosphate from ATP to adenosine, thus is as a regulator of concentrations of both extracellular adenosine and intracellular adenine nucleotides. Adenosine has extensive effects on the cardiovascular, nervous, respiratory, and immune systems and inhibitors of the enzyme take a crucial pharmacological part in growing intravascular adenosine concentrations and acting as anti-inflammatory agents.

ADK produced in E.Coli is a single, non-glycosylated polypeptide chain containing 362 amino acids (22-362a.a.) and having a molecular mass of 40.5kDa. ADK is fused to a 21 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

### Product Info

**Amount :** 2 µg / 10 µg

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

**Content :** The ADK protein solution (0.5mg/ml) contains 20% glycerol, 20mM Tris-HCl buffer (pH8.0), 1mM DTT, 1mM EDTA & 50mM NaCl.

**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 MRENILFGMG NPLLDISAVV DKDFLDKYSL KPNDQILAED KHKELFDELV KFKFVEYHAG GSTQNSIKVA QWMIQPHKA ATFFGCIGID KFGEILKRKA AEAHVDAHYY EQNEQPTGTC AACITGDNRS LIANLAAANC YKKEKHLDE KNWMLVEKARVCYIAGFFLT VSPESVLKVA HHAENNRIF TLNLSAPFIS QFYKESLMKV MPYVDILFGN ETEAATFARE QGFETKDIKE IAKKTQALPK MNSKRQRIVI FTQGRDDTIM ATESEVTAFV VLDQDQKEII DTNGAGDAFV GGFLSQLVSD KPLTECIRAG HYAASIIIRR TGCTFPEKPDFH.

### Application Note

Specific activity is > 30 pmol/min/ug and is defined as the amount of enzyme that convert 1.0 pmole of adenosine to AMP per minute at pH 7.5 at 37C in a couple system with PK and LDH.