

#### Bioactive

# ADK (Human) Recombinant Protein

Catalog # P6828 Size 20 ug

# Applications



15% SDS-PAGE under reducing condition and visualized by coomassie blue stain.

Specification	
Product Description	Human Adenosine Kinase/ADK protein (NP_006712, 22 a.a362 a.a.) partial recombinant protein w ith His tag expressed in <i>Escherichia coli</i> .
Host	Escherichia coli
Theoretical MW (kDa)	40.5
Form	Liquid
Preparation Method	Escherichia coli expression system
Purity	> 95% by SDS-PAGE
Activity	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 37°C in a couple system with PK and LDH.
Quality Control Testing	15% SDS-PAGE under reducing condition and visualized by coomassie blue stain. 15% SDS-PAGE under reducing condition and visualized by coomassie blue stain.
Recommend Usage	SDS-PAGE The optimal working dilution should be determined by the end user.
Storage Buffer	In 20 mM Tris-HCI, 50 mM NaCI, pH 8.0 (20% glycerol, 1 mM DTT, 1 mM EDTA)

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**Storage Instruction** 

Store at -20°C. For long term storage store at -80°C. Aliquot to avoid repeated freezing and thawing.

### Applications

• SDS-PAGE

### Gene Info — ADK

Entrez GenelD	<u>132</u>
Protein Accession#	<u>P55263</u>
Gene Name	ADK
Gene Alias	AK
Gene Description	adenosine kinase
Omim ID	<u>102750</u>
Gene Ontology	<u>Hyperlink</u>
Gene Summary	This gene encodes adenosine kinase, an abundant enzyme in mammalian tissues. The enzyme c atalyzes the transfer of the gamma-phosphate from ATP to adenosine, thereby serving as a regul ator of concentrations of both extracellular adenosine and intracellular adenine nucleotides. Aden osine has widespread effects on the cardiovascular, nervous, respiratory, and immune systems a nd inhibitors of the enzyme could play an important pharmacological role in increasing intravascul ar adenosine concentrations and acting as anti-inflammatory agents. Alternative splicing results in two transcript variants encoding different isoforms. Both isoforms of the enzyme phosphorylate ad enosine with identical kinetics and both require Mg2+ for activity. [provided by RefSeq
Other Designations	OTTHUMP00000019864 OTTHUMP00000019865 adenosine 5'-phosphotransferase

### Pathway

- Metabolic pathways
- Purine metabolism

#### Disease

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**Product Information** 

- <u>Alzheimer Disease</u>
- Cardiovascular Diseases
- Depressive Disorder
- Diabetes Mellitus
- Edema
- Fatigue
- Genetic Predisposition to Disease
- Sleep Disorders
- Sleep Initiation and Maintenance Disorders
- Tobacco Use Disorder