

Product datasheet for **AR09002PU-N**

Adenylate kinase 2 / AK2 (1-239, His-tag) Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Adenylate kinase 2 / AK2 (1-239, His-tag) human recombinant protein, 0.5 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	<u>MGSSHHHHHH SSSLVPRGSH</u> MAPSVAAEP EYPKGIRAVL LGPPGAGKGT QAPRLAENFC VCHLATGDML RAMVASGSEL GKCLKATMDA GKLVSDEMVV ELIEKNLETP LCKNGFLLDG FPRTVRQAEM LDDLMEKRKE KLDSVIEFSI PDSLLIRRIT GRLIHPKSGR SYHEEFNPPK EPMKDDITGE PLIRRSDDNE KALKIRLQAY HTQTTPLEIY YRKRGIHSAI DASQTPDVVF ASILAAFSKA TCKDLVMFI
Tag:	His-tag
Predicted MW:	28.6 kDa
Concentration:	lot specific
Purity:	>95% by SDS-PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris pH 7.5, 5 mM DTT, 20% glycerol
Bioactivity:	Specific: > 1.5 units/ml One unit will convert 2.0 umoles of ADP to ATP + AMP per minute at pH 7.5 at 25°C.
Endotoxin:	< 1.0 EU per 1 µg of protein (determined by LAL method)
Preparation:	Liquid purified protein
Applications:	Protocol: Activity Assay 1. Prepare a 1.4 ml assay buffer (Assay buffer: 58 mM glycylglycine, 2.0 mM adenosine 5'-diphosphate, 2.3 mM beta-nicotinamide adenine dinucleotide phosphate, 10 mM magnesium chloride, 10 mM glucose, 2 unit hexokinase, 1 unit glucose-6-phosphate dehydrogenase, 0.003% (w/v) BSA, pH 7.5.) - G-6-PDH/Hex (sigma,Cat.No. H-8629) 2. Add 50 ul of recombinant Adenylate kinase isoenzyme 2 protein with various concentrations (0.5 ug, 1 ug) and read the increase in A340nm for 5 minutes.
Protein Description:	Recombinant human AK2 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.



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Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	NP_001186128
Locus ID:	204
UniProt ID:	P54819 , P54819-5
Cytogenetics:	1p35.1
Synonyms:	ADK2
Summary:	Adenylate kinases are involved in regulating the adenine nucleotide composition within a cell by catalyzing the reversible transfer of phosphate groups among adenine nucleotides. Three isozymes of adenylate kinase, namely 1, 2, and 3, have been identified in vertebrates; this gene encodes isozyme 2. Expression of these isozymes is tissue-specific and developmentally regulated. Isozyme 2 is localized in the mitochondrial intermembrane space and may play a role in apoptosis. Mutations in this gene are the cause of reticular dysgenesis. Alternate splicing results in multiple transcript variants. Pseudogenes of this gene are found on chromosomes 1 and 2.[provided by RefSeq, Nov 2010]
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Purine metabolism

Product images: