

Product datasheet for **AR09002PU-S**

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

Product data:

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| Product Type: | Recombinant Proteins |
| Description: | Adenylate kinase 2 / AK2 (1-239, His-tag) human recombinant protein, 0.1 mg |
| Species: | Human |
| Expression Host: | E. coli |
| Expression cDNA Clone or AA Sequence: | <u>MGSSHHHHHH SSGLVPRGSH</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: