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Product datasheet for AR39056PU-L

Adenosine deaminase (1-363, His-tag) Human Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Adenosine deaminase (1-363, His-tag) human recombinant protein, 0.25 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MGSSHHHHHH SSGLVPRGSH MAQTPAFDKP KVELHVHLDG SIKPETILYY GRRRGIALPA NTAEGLLNVI GMDKPLTLPD FLAKFDYYMP AIAGCREAIK RIAYEFVEMK AKEGVVYVEV RYSPHLLANS KVEPIPWNQA EGDLTPDEVV ALVGQGLQEG ERDFGVKARS ILCCMRHQPN WSPKVVELCK KYQQQTVVAI DLAGDETIPG SSLLPGHVQA YQEAVKSGIH RTVHAGEVGS AEVVKEAVDI LKTERLGHGY HTLEDQALYN RLRQENMHFE ICPWSSYLTG AWKPDTEHAV IRLKNDQANY SLNTDDPLIF KSTLDTDYQM TKRDMGFTEE EFKRLNINAA KSSFLPEDEK RELLDLLYKA YGMPPSASAG QNL
Tag:	His-tag
Predicted MW:	42.9 kDa
Concentration:	lot specific
Purity:	>90%
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 1 mM DTT
Bioactivity:	Specific: Specific activity is >40 units/mg, and is defined as the amount of enzyme that convert 1.0 umol of adenosine to inosine per minute at pH 7.5 at 25°C.
Preparation:	Liquid purified protein
Applications:	Protocol: **Activity Assay** 1. Prepare a 1.5 ml reaction mix: the final concentrations are 53.3mM potassium phosphate, 0.045mM adenosine, 0.003% (w/v) bovine serum. 2. Add recombinant ADA protein with various concentrations (0.1ug, 0.2) in assay buffer. 3. Mix by inversion and record A260nm for approximately 5 minutes.
Protein Description:	Recombinant human ADA protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.

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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_000013

Locus ID: 100

UniProt ID: P00813

Cytogenetics: 20q13.12

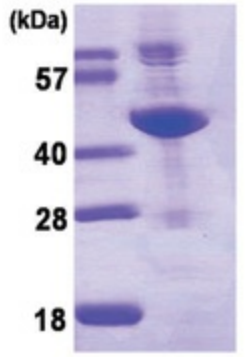
Synonyms: Adenosine aminohydrolase, ADA

Summary: This gene encodes an enzyme that catalyzes the hydrolysis of adenosine to inosine in the purine catabolic pathway. Various mutations have been described for this gene and have been linked to human diseases related to impaired immune function such as severe combined immunodeficiency disease (SCID) which is the result of a deficiency in the ADA enzyme. In ADA-deficient individuals there is a marked depletion of T, B, and NK lymphocytes, and consequently, a lack of both humoral and cellular immunity. Conversely, elevated levels of this enzyme are associated with congenital hemolytic anemia. [provided by RefSeq, Sep 2019]

Protein Families: Protocol: **Activity Assay**
1. Prepare a 1.5 ml reaction mix: the final concentrations are 53.3mM potassium phosphate, 0.045mM adenosine, 0.003% (w/v) bovine serum.
2. Add recombinant ADA protein with various concentrations (0.1ug, 0.2) in assay buffer.
3. Mix by inversion and record A260nm for approximately 5 minutes.

Protein Pathways: Metabolic pathways, Primary immunodeficiency, Purine metabolism

Product images:



15% SDS-PAGE (3ug)