OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-888-267-4436
Fax: +1-301-340-8606
techsupport@origene.com

OriGene Technologies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info-de@origene.com

AR39056PU-N Human Adenosine deaminase (1-363, His-tag) - Purified

Alternate names: ADA, Adenosine aminohydrolase

Quantity: 50 µg

Concentration: 0.5 mg/ml (determined by Bradford assay)

Background: ADA, also known as adenosine deaminase, catalyzes the hydrolytic deamination of adenosine and 2-deoxyadenosine. This protein plays an important role in purine metabolism and in adenosine homeostasis. ADA acts as a positive regulator of T-cell coactivation, by binding DPP4. Its interaction with DPP4 regulates lymphocyte-epithelial cell adhesion.

Uniprot ID: P00813

NCBI: NP_000013

GeneID: 100

Species: Human

Source: E. coli

Format:
State: Liquid purified protein
Purity: >85%
Buffer System: 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 1mM DTT

Description: Recombinant human ADA protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.
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
Specific Activity: 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.
Molecular weight: 42.9 kDa (383aa), confirmed by MALDI-TOF

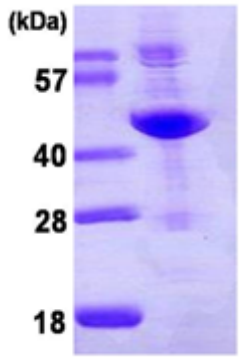
Storage: Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings: Gines S., et al. (2002) Biochem. 361:203-209.

Protocols: **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.

Pictures:

Recombinant human ADA, 1-363aa, His-tagged



15% SDS-PAGE (3ug)