

Recombinant Human ADA, His-tagged

Cat. No. ADA-1007H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human ADA protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography (1-363aa).
Species	Human
Source	E.coli
Description	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.
Form	Liquid. 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 1mM DTT
Molecular Weight	42.9 kDa (383aa), confirmed by MALDI-TOF
Purity	> 85% by SDS - PAGE
Concentration	0.5 mg/ml (determined by Bradford assay)
Biological Activity	Specific activity: approximately >25 units/mg. Enzymatic activity was confirmed by measuring the amount of enzyme that deaminates 1.0 umol of adenosine to inosine per minute at pH 7.5 at 25°C.

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Activity Assay

1. Prerapre 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.

Sequences Of Amino Acids

MGSSHHHHHH SSGLVPRGSH MAQTPAFDKP KVELHVHLDG SIKPETILYY
 GRRRGIALPA NTAEGLLNVI GMDKPLTLPD FLAKFDYYMP AIAGCREAIK
 RIAYEFVEMK AKEGVVYVEV RYSPHLLANS KVEPIPWNQA EGDLPDEVV
 ALVGQGLQEG ERDFGVKARS ILCCMRHQPN WSPKVVELCK KYQQQTVVAI
 DLAGDETIPG SLLLPGHVQA YQEAVKSGIH RTVHAGEVGS AEVVKEAVDI
 LKTERLGHGY HTLEDQALYN RLRQENMHFE ICPWSSYLTG AWKPDTEHAV
 IRLKNDQANY SLNTDDPLIF KSTLTDYQM TKRDMGFTEE EFKRLNINAA
 KSSFLPEDEK RELLDLLYKA YGMPPSASAG QNL.

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name

ADA adenosine deaminase [Homo sapiens]

Official Symbol

ADA

Synonyms

ADA; adenosine deaminase; OTTHUMP00000031785; OTTHUMP00000240459; OTTHUMP00000240461; adenosine aminohydrolase; Adenosine aminohydrolase; EC 3.5.4.4

Gene ID

100

mRNA Refseq

NM_000022

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Protein Refseq	NP_000013
MIM	608958
UniProt ID	P00813
Chromosome Location	20q13.12
Function	adenosine deaminase activity; hydrolase activity; metal ion binding; protein binding; purine nucleoside binding; zinc ion binding

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