

Recombinant Human ADA Protein, 1-363aa, N-His tagged

Cat. No. ADA-40H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human ADA protein (1-363aa), fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography.
Species	Human
Source	E.coli
ProteinLength	1-363aa
Description	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.
Form	Liquid
Bio-activity	> 40 unit/mg, and is defined as the amount of enzyme that convert 1.0 μ mol of adenosine to inosine per minute at pH 7.5 at 25 centigrade.
Molecular Mass	42.9 kDa (383aa) confirmed by MALDI-TOF

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AA Sequence	MAQTPAFDKPKVELHVHLDGSIKPETILYYGRRRGIALPANTAEGLLNVIGMDKPLTL PDFLAKFDYYMPAAGCREAIKRIAYEFVEMKAKEGVVYVEVRYSPHLLANSKVEPIP WNQAEGDLTPDEVVALVGQGLQEGERDFGVKARSILCCMRHQPNWSPKVVELCKK YQQQTVAIDLAGEDETIPGSSLLPGHVQAYQEAVKSGIHRTVHAGEVGSAEVVKEAV DILKTERLGHHGYHTLEDQALYNRLRQENMHFEICPWSSYLTGAWKPDTEHAVIRLKN DQANYSLNTDDPLIFKSTLTDYQMTKRDMGFTEEEFKRLNINAAKSSFLPEDEKRE LLDLLYKAYGMPPSASAGQNL
Endotoxin	< 1 EU/μg of protein (determined by LAL method)
Purity	> 90% by SDS-PAGE
Applications	SDS-PAGE, Enzyme Activity
Storage	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	0.5 mg/mL (determined by Bradford assay)
Storage Buffer	20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 1mM DTT
References	1. Gines S., et al. (2002) Biochem. 361:203-209 2. Daddona P.E., et al. (1984) J. Biol. Chem. 259:12101-12106

GENE INFORMATION

Gene Name	ADA adenosine deaminase [Homo sapiens (human)]
Official Symbol	ADA
Synonyms	ADA; adenosine deaminase; ADA1; adenosine deaminase; adenosine

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aminohydrolase; EC 3.5.4.4

Gene ID 100

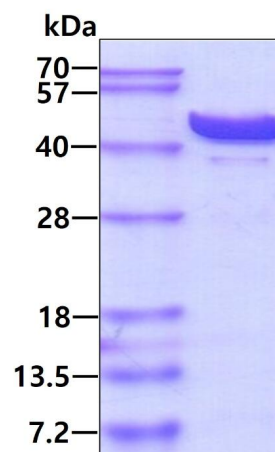
mRNA Refseq NM_000022

Protein Refseq NP_000013

MIM 608958

UniProt ID P00813

SDS-PAGE



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