

Recombinant human ADA protein ab109839

3 References 1 Image

Description	
Product name	Recombinant human ADA protein
Biological 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.
Purity	> 90 % SDS-PAGE. No detergents such as urea, Triton or Tween were used to purify the proteins. Purified by using anion exchange chromatography (DEAE sepharose resin) and gel filtration chromatography (Sephacryl S 200) with 20mM Tris pH 7.5, 2mM EDTA.
Endotoxin level	< 1.000 Eu/mg
Expression system	Escherichia coli
Accession	P00813
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MGSSHHHHHH SSGLVPRGSH MAQTPAFDKP KVELHVHLDG SIKPETILYY GRRRGIALPA NTAEGLLNVI GMDKPLTLPD FLAKFDYYMP AIAGCREAIK RIAYEFVEMK AKEGVVYVEV RYSPHLLANS KVEPIPWNQA EGDLTPDEVV ALVGQGLQEG ERDFGVKARS ILCCMRHQPN WSPKVVELCK KYQQQTVVAI DLAGDETIPG SSLLPGHVQA YQEA VKSGIH RTVHAGEVGS AEVVKEAVDI LKTERLGHGY HTLEDQALYN RLRQENMHFE ICPWSSYLTG AWKPDTEHAV IRLKNDQANY SLNTDDPLIF KSTLDTDYQM TKRDMGFTEE EFKRLNINAA KSSFLPEDEK RELDLLYKA YGMPPSASAG QNL
Predicted molecular weight	43 kDa
Amino acids	1 to 363
Tags	His tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab109839** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Functional Studies
	SDS-PAGE
	Mass Spectrometry
Mass spectrometry	MALDI-TOF
Form	Liquid

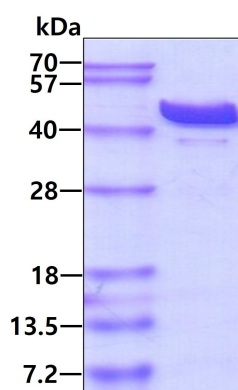
Preparation and Storage

Stability and Storage	<p>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.</p> <p>pH: 8.00</p> <p>Constituents: 0.02% DTT, 0.32% Tris HCl, 20% Glycerol (glycerin, glycerine)</p> <p>This product is an active protein and may elicit a biological response in vivo, handle with caution.</p>
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General Info

Function	Catalyzes the hydrolytic deamination of adenosine and 2-deoxyadenosine. Plays an important role in purine metabolism and in adenosine homeostasis. Modulates signaling by extracellular adenosine, and so contributes indirectly to cellular signaling events. Acts as a positive regulator of T-cell coactivation, by binding DPP4. Its interaction with DPP4 regulates lymphocyte-epithelial cell adhesion.
Tissue specificity	Found in all tissues, occurs in large amounts in T-lymphocytes and, at the time of weaning, in gastrointestinal tissues.
Involvement in disease	Defects in ADA are the cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-negative/NK-cell-negative due to adenosine deaminase deficiency (ADASCIID) [MIM:102700]. SCID refers to a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. Patients with SCID present in infancy with recurrent, persistent infections by opportunistic organisms. The common characteristic of all types of SCID is absence of T-cell-mediated cellular immunity due to a defect in T-cell development. ADA-SCID is an autosomal recessive form accounting for about 50% of non-X-linked SCIDs. ADA deficiency has been diagnosed in chronically ill teenagers and adults (late or adult onset). Population and newborn screening programs have also identified several healthy individuals with normal immunity who have partial ADA deficiency.
Sequence similarities	Belongs to the adenosine and AMP deaminases family.
Cellular localization	Cell membrane. Cell junction. Cytoplasmic vesicle lumen. Cytoplasm. Colocalized with DPP4 at the cell junction in lymphocyte-epithelial cell adhesion.

Images



SDS-PAGE analysis of ab109839 at 3µg. Gel concentration: 15%.

SDS-PAGE - Recombinant human ADA protein
(ab109839)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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