Adenosine Deaminase (ADA) Rat Recombinant Protein

PRODUCT OVERVIEW

Product Name	Adenosine deaminase (Ada), Recombinant Protein
Full Product Name	Recombinant Rat Adenosine deaminase (Ada)
Product Gene Name	Ada recombinant protein
Product Synonym Gene Name	Ada
Sequence	AQTPAFNKPK VELHVHLDGA IKPETILYYG KKRGIDLPAD TVEGLRNIIG MDKPLSLPDF LAKFDYYMPA IAGCREAIKR IAYEFVEMKA KEGVVYVEVR YSPHLLANSK VDPIPWNQAE GDLTPDEVVD LVNQGLQEGE QAFGIKVRSI LCCMRHQPSW SPEVLELCKK YHQKTVVAMD LAGDETIEGS SLFPGHVEAY EGAVKDGIHR TVHAGEVGSA EVVREAVDIL KTERVGHGYH TIEDEALYNR LLKENMHFEV CPWSSYLTGA WNPKTTHAVV RFKDDQANYS LNSDDPLIFK STVDTDYQMV KKDMGFTEEE FKRLNINAAK SSFLPEDEKK ELLERLYKEY Q
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	39,899 Da
Sequence Positions	2-352, full length protein
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for Q920P6
Species	Rat
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Ada recombinant protein	This gene encodes an enzyme that catalyzes the hydrolysis of adenosine to inosine. Various mutations have been described for this gene and have been linked to human diseases. Deficiency in this enzyme causes a form of severe combined immunodeficiency disease (SCID), in which there is dysfunction of both B and T lymphocytes with impaired cellular immunity and decreased production of immunoglobulins, whereas elevated levels of this enzyme have been associated with congenital hemolytic anemia.
Other Notes	Small volumes of Ada recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for Ada purchase	MBS1336269 is a recombinant protein targeting Ada. Also known as Recombinant Rat Adenosine deaminase (Ada). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Ada. It may not necessarily be applicable to this product.

NCBI GI #	18426812

NCBI GeneID	24165
NCBI Accession #	NP_569083.1
UniProt Primary Accession #	Q920P6
UniProt Related Accession #	Q920P6
GenBank Nucleotide #	NM_130399.2
NCBI Official Full Name	adenosine deaminase
NCBI Official Synonym Full Names	adenosine deaminase
NCBI Official Symbol	Ada
UniProt Protein Name	Adenosine deaminase
UniProt Synonym Protein Names	Adenosine aminohydrolase
Protein Family	Bifunctional transcriptional activator/DNA repair enzyme
UniProt Gene Name	Ada
NCBI Protein Information	adenosine deaminase
NCBI Summary for Ada	catalyzes the conversion of adenosine to inosine in adenosine metabolism; may act as a neuormodulator in sleep-wake regulation [RGD, Feb 2006]
UniProt Comments for Ada	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. Enhances dendritic cell immunogenicity by affecting dendritic cell costimulatory molecule expression and cytokines and chemokines secretion. Enhances CD4+ T-cell differentiation and proliferation. Acts as a positive modulator of adenosine receptors ADORA1 and ADORA2A, by enhancing their ligand affinity via conformational change. Stimulates plasminogen activation. Plays a role in male fertility. Plays a protective role in early postimplantation embryonic development.
Research Articles on Ada	**1.** Quercetin decreases NTPDase, 5'-nucleotidase and adenosine deaminase activities in blood platelets of hypothyroid rats, and improves the oxidative profile to reduce platelet aggregation.
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