Datasheet for ABIN3092239

ADAR Protein (AA 1-1226) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	ADAR
Protein Characteristics:	AA 1-1226
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ADAR protein is labelled with His tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB), Crystallization (Crys)

Product Details

Sequence:	MNPRQGYSLS GYYTHPFQGY EHRQLRYQQP GPGSSPSSFL LKQIEFLKGQ LPEAPVIGKQ TPSLPPSLPG LRPRFPVLLA SSTRGRQVDI RGVPRGVHLR SQGLQRGFQH PSPRGRSLPQ RGVDCLSSHF QELSIYQDQE QRILKFLEEL GEGKATTAHD LSGKLGTPKK EINRVLYSLA KKGKLQKEAG TPPLWKIAVS TQAWNQHSGV VRPDGHSQGA PNSDPSLEPE DRNSTSVSED LLEPFIAVSA QAWNQHSGVV RPDSHSQGSP NSDPGLEPED SNSTSALEDP LEFLDMAEIK EKICDYLFNV SDSSALNLAK NIGLTKARDI NAVLIDMERQ GDVYRQGTTP PIWHLTDKKR ERMQIKRNTN SVPETAPAAI PETKRNAEFL TCNIPTSNAS NNMVTTEKVE NGQEPVIKLE NRQEARPEPA RLKPPVHYNG PSKAGYVDFE NGQWATDDIP DDLNSIRAAP GEFRAIMEMP SFYSHGLPRC SPYKKLTECQ LKNPISGLLE YAQFASQTCE FNMIEQSGPP HEPRFKFQVV INGREFPPAE AGSKKVAKQD AAMKAMTILL EEAKAKDSGK SEESSHYSTE KESEKTAESQ TPTPSATSFF SGKSPVTTLL ECMHKLGNSC EFRLLSKEGP AHEPKFQYCV AVGAQTFPSV SAPSKKVAKQ MAAEEAMKAL HGEATNSMAS DNQPEGMISE SLDNLESMMP NKVRKIGELV

	RYLNTNPVGG LLEYARSHGF AAEFKLVDQS GPPHEPKFVY QAKVGGRWFP AVCAHSKKQG KQEAADAALR VLIGENEKAE RMGFTEVTPV TGASLRRTML LLSRSPEAQP KTLPLTGSTF HDQIAMLSHR CFNTLTNSFQ PSLLGRKILA AIIMKKDSED MGVVVSLGTG NRCVKGDSLS LKGETVNDCH AEIISRRGFI RFLYSELMKY NSQTAKDSIF EPAKGGEKLQ IKKTVSFHLY ISTAPCGDGA LFDKSCSDRA MESTESRHYP VFENPKQGKL RTKVENGEGT IPVESSDIVP TWDGIRLGER LRTMSCSDKI LRWNVLGLQG ALLTHFLQPI YLKSVTLGYL FSQGHLTRAI CCRVTRDGSA FEDGLRHPFI VNHPKVGRVS IYDSKRQSGK TKETSVNWCL ADGYDLEILD GTRGTVDGPR NELSRVSKKN IFLLFKKLCS FRYRRDLLRL SYGEAKKAAR DYETAKNYFK KGLKDMGYGN WISKPQEEKN FYLCPV **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Human ADAR Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate

Product Details

	fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	ADAR
Alternative Name:	ADAR (ADAR Products)
Background:	Catalyzes the hydrolytic deamination of adenosine to inosine in double-stranded RNA (dsRNA) referred to as A-to-I RNA editing. This may affect gene expression and function in a number of ways that include mRNA translation by changing codons and hence the amino acid sequence of proteins, pre-mRNA splicing by altering splice site recognition sequences, RNA stability by changing sequences involved in nuclease recognition, genetic stability in the case of RNA virus genomes by changing sequences during viral RNA replication, and RNA structure-dependent activities such as microRNA production or targeting or protein-RNA interactions. Can edit both viral and cellular RNAs and can edit RNAs at multiple sites (hyper-editing) or at specific sites (site-specific editing). Its cellular RNA substrates include: bladder cancer-associated protein (BLCAP), neurotransmitter receptors for glutamate (GRIA2) and serotonin (HTR2C) and GABA receptor (GABRA3). Site-specific RNA editing of transcripts encoding these proteins results in amino acid substitutions which consequently alters their functional activities. Exhibits low-level editing at the GRIA2 Q/R site, but edits efficiently at the R/G site and HOTSPOT1. Its viral RNA substrates include: hepatitis C virus (HCV), vesicular stomatitis virus (VSV), measles virus (MV), hepatitis delta virus (HDV), and human immunodeficiency virus type 1 (HIV-1). Exhibits either a proviral (HDV, MV, VSV and HIV-1) or an antiviral effect (HCV) and this can be editing-dependent (HDV and HCV), editing-independent (VSV and MV) or both (HIV-1). Impairs HCV replication via RNA editing at multiple sites. Enhances the replication of MV, VSV and HIV-1 through an editing-independent mechanism via suppression of EIF2AK2/PKR activation and function. Stimulates both the release and infectivity of HIV-1 viral particles by an editing-dependent mechanism where it associates with viral RNAs and edits adenosines in the 5'UTR and the Rev

Target Details

	and Tat coding sequence. Can enhance viral replication of HDV via A-to-I editing at a site designated as amber/W, thereby changing an UAG amber stop codon to an UIG tryptophan (W) codon that permits synthesis of the large delta antigen (L-HDAg) which has a key role in the assembly of viral particles. However, high levels of ADAR1 inhibit HDV replication. {ECO:0000269|PubMed:15556947, ECO:0000269|PubMed:15858013, ECO:0000269|PubMed:16475990, ECO:0000269|PubMed:17079286, ECO:0000269|PubMed:19605474, ECO:0000269|PubMed:19651874, ECO:0000269|PubMed:19710021, ECO:0000269|PubMed:19908260, ECO:0000269|PubMed:21289159, ECO:0000269|PubMed:22278222}.
Molecular Weight:	137.0 kDa Including tag.
UniProt:	P55265
Pathways:	Protein targeting to Nucleus

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process