Datasheet for ABIN3092239

ADAR Protein (AA 1-1226) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	ADAR
Protein Characteristics:	AA 1-1226
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ADAR protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

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. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Product Details

	Concentration: • 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. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate 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:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Target Details

Target:	ADAR
Alternative Name:	ADAR (ADAR Products)
Background:	Double-stranded RNA-specific adenosine deaminase (DRADA) (EC 3.5.4.37) (136 kDa double-stranded RNA-binding protein) (p136) (Interferon-inducible protein 4) (IFI-4) (K88DSRBP),FUNCTION: Catalyzes the hydrolytic deamination of adenosine to inosine in double-stranded RNA (dsRNA) referred to as A-to-I RNA editing (PubMed:7972084, PubMed:7565688, PubMed:12618436). 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 since the translational machinery read the inosine as a guanosine, 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

Target Details

	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 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:12618436, ECO:0000269|PubMed:15556947, ECO:0000269|PubMed:15858013, ECO:0000269|PubMed:16120648, 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, ECO:0000269|PubMed:7565688, ECO:0000269|PubMed:7972084}.
Molecular Weight:	136.1 kDa
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 guarantee though.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

Application Details

	During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)