

Datasheet for ABIN3136977

ADAR Protein (AA 1-1178) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	ADAR
Protein Characteristics:	AA 1-1178
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ADAR protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AlIcE®
Sequence:	<p>MSQGFRGPTG VFPHQTQSYL DPSHEHSKWR YPQPQGPESY PRSFQLQQIE FLKGRLPEAP</p> <p>LIGIQTQSLP PFLPGHWPRF PGPPAQDRQL EIWEFPRSVT LRNQGFHIGP PLPPPHSRGT</p> <p>PWRGADGLCS HFRELSISQS PEQKVLNRLE ELGEGKATTA HVLARELRIP KRDINRILYS</p> <p>LEKKGKLHRG RGKPPLWSLV PLSQAWTQPP GVVNPDSCIQ EFPRGEPGLD SEDGDPASDL</p> <p>EGPSEPLDMA EIKEKICDYL FNVSNSSALN LAKNIGLTKA RDVTSVLIDL ERQGDVYRQG</p> <p>ATPPIWYLTG KKRERLQMKR STHSAPAPTP TAVPEATRSP SFPACHPPPA GASSSVAASK</p> <p>RVENGQEPAL KHESRHEARP GPMRLRPHAY HNGPSRAGYV AENGQWATD DIPDNLNSIH</p> <p>TAPGEFRAIM EMPSFYSPITL PRCSPYKKLT ECQLKNPVSG LLEYAQFTSQ TCDNFNIEQS</p> <p>GPSHEPRFKF QVINGREFP PAEAGSKKVA KQDAAVKAMA ILLREAKAKD SGQPEDLSHC</p> <p>PMEEDSEKPA EAQAPSSSAT SLFSGKSPVT TLLECMHKLK NSCEFRLLSK EGPAHDPKFQ</p> <p>YCVAVGAQTF PVSAPSCKV AKQMAAEEAM KALQEEAASS ADDQSGGANT DSLDESMAPN</p>

KIRRIGELVR YLNTNPVGGGL LEYARSHGFA AEFKLIDQSG PPHEPKFVYQ AKVGGRWFPA
VCAHSSKKQ GK QDAADAALRV LIGESEKAEQ LGFAEVTPTV GASLRRTMLL LSRSPDAHPK
TLPLSGSTFH DQIAMLSHRC FNALTNSFQP SLLGRKILAA IIMKRDPEMD GVVVSLGTGN
RCVKGDSL SL KGETVNDCHA EIISRRGFIR FLYSELMKYN HHTAKNSIFE LARGGEKLQI
KKTVSFHLIYI STAPCGDGAL FDKSCSDRAV ESTESRHYPV FENPKQGKLR TKVENGEGTI
PVESSDIVPT WDGIRLGERL RTMSCSDKIL RWNVLGLQGA LLTHFLQPVY LKSVTLGYLF
SQGHLTRAIC CRVTRDGKAF EDGLRYPFIV NHPKVGRVSV YDSKRQSGKT KETSVNWCMA
DGYDLEILDG TRGTVDGP GK ELSRVSKKNI FLQFKKLCSF RARRDLLQLS YGEAKKAARD
YDLAKNYFKK SLRDMGYGNW ISKPQEEKNF YLCPVPND

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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification: One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

Target Details

Target: ADAR

Alternative Name: Adar ([ADAR Products](#))

Background: Double-stranded RNA-specific adenosine deaminase (DRADA) (EC 3.5.4.37) (RNA adenosine deaminase 1),FUNCTION: 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 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 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. Does not affect polyomavirus replication but provides protection against virus-induced cytopathic effects. Essential for embryonic development and cell survival and plays a critical role in the maintenance of hematopoietic stem cells.

{ECO:0000269|PubMed:15556947, ECO:0000269|PubMed:17079286, ECO:0000269|PubMed:17369310}.

Target Details

Molecular Weight:	130.4 kDa
UniProt:	Q99MU3
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:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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!</p>
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	<p>The buffer composition is at the discretion of the manufacturer.</p> <p>Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol Might differ depending on protein.</p>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months