Datasheet for ABIN3094984

RED1 Protein (AA 1-741) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	RED1 (ADARB1)
Protein Characteristics:	AA 1-741
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RED1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MDIEDEENMS SSSTDVKENR NLDNVSPKDG STPGPGEGSQ LSNGGGGGPG RKRPLEEGSN GHSKYRLKKR RKTPGPVLPK NALMQLNEIK PGLQYTLLSQ TGPVHAPLFV MSVEVNGQVF EGSGPTKKKA KLHAAEKALR SFVQFPNASE AHLAMGRTLS VNTDFTSDQA DFPDTLFNGF ETPDKAEPPF YVGSNGDDSF SSSGDLSLSA SPVPASLAQP PLPVLPPFPP PSGKNPVMIL NELRPGLKYD FLSESGESHA KSFVMSVVVD GQFFEGSGRN KKLAKARAAQ SALAAIFNLH LDQTPSRQPI PSEGLQLHLP QVLADAVSRL VLGKFGDLTD NFSSPHARRK VLAGVVMTTG TDVKDAKVIS VSTGTKCING EYMSDRGLAL NDCHAEIISR RSLLRFLYTQ LELYLNNKDD QKRSIFQKSE RGGFRLKENV QFHLYISTSP CGDARIFSPH EPILEGSRSY TQAGVQWCNH GSLQPRPPGL LSDPSTSTFQ GAGTTEPADR HPNRKARGQL RTKIESGEGT IPVRSNASIQ TWDGVLQGER LLTMSCSDKI ARWNVVGIQG SLLSIFVEPI YFSSIILGSL YHGDHLSRAM YQRISNIEDL PPLYTLNKPL LSGISNAEAR QPGKAPNFSV NWTVGDSAIE VINATTGKDE LGRASRLCKH ALYCRWMRVH GKVPSHLLRS KITKPNVYHE SKLAAKEYQA AKARLFTAFI

Product Details

	KAGLGAWVEK PTEQDQFSLT P **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! 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

Product Details

	(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)
Grade:	Crystallography grade

Target Details

Target:	RED1 (ADARB1)
Alternative Name:	ADARB1 (ADARB1 Products)
Background:	Double-stranded RNA-specific editase 1 (EC 3.5.4.37) (RNA-editing deaminase 1) (RNA-editing enzyme 1) (dsRNA adenosine deaminase),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, 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 GRIK2) and serotonin (HTR2C), GABA receptor (GABRA3) and potassium voltage-gated channel (KCNA1). Site-specific RNA editing of transcripts encoding these proteins results in amino acid substitutions which consequently alter their functional activities. Edits GRIA2 at both the Q/R and R/G sites efficiently but converts the adenosine in hotspot1 much less efficiently. Can exert a proviral effect towards human immunodeficiency virus type 1 (HIV-1) and enhances its replication via both an editing-dependent and editing-independent mechanism. The former involves editing of adenosines in the 5'UTR while the latter occurs via suppression of EIF2AK2/PKR activation and function. Can inhibit cell proliferation and migration and can stimulate exocytosis. {ECO:0000269|PubMed:18178553, ECO:0000269|PubMed:19908260,

Target Details

	ECO:0000269|PubMed:21289159}., FUNCTION: [Isoform 1]: Has a lower catalytic activity than isoform 2. {ECO:0000269|PubMed:9149227}., FUNCTION: [Isoform 2]: Has a higher catalytic activity than isoform 1. {ECO:0000269|PubMed:9149227}.
Molecular Weight:	80.8 kDa
UniProt:	P78563

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. 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)

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