

Datasheet for ABIN3095201

RTEL1 Protein (AA 1-1219) (Strep Tag)



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1 Image

Overview

Quantity:	1 mg
Target:	RTEL1
Protein Characteristics:	AA 1-1219
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This RTEL1 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MPKIVLNGVT VDFPFQPYKC QQEYMTKVLE CLQQKVNIGIL ESPTGTGKTL CLLCTTLAWR
EHLRDGISAR KIAERAQGEL FPDRLSSWG NAAAAAGDPI ACYTDIPKII YASRTHSQLT
QVINELRNTS YRPKVCVLGS REQLCIHPEV KKQESNHLQI HLCRKKVASR SCHFYNNVEE
KSLEQELASP ILDIEDLVKS GSKHRVCPYY LSRNLKQQAD IIFMPYNYLL DAKSRRAHNI
DLKGTVVIFD EAHNVEKMCE ESASFDLTPH DLASGLDVID QVLEEQTCAA QQGEPHPEFS
ADSPSPGLNM ELEDIAKLKM ILLRLEGAID AVELPGDDSG VTKPGSYIFE LFAEAQITFQ
TKGCILDSLQ QIIQHLAGRA GVFTNTAGLQ KLADIIQIVF SVDPSEGSPG SPAGLGALQS
YKVHIHPDAG HRRTAQRSDA WSTTAARKRG KVLSYWCFSP GHSMHELVRQ GVRSLILTSG
TLAPVSSFAL EMQIPFPVCL ENPHIIDKHQ IWVGWVPRGP DGAQLSSAFD RRFSEECSS
LGKALGNIAR VVPYGLLIFF PSYPVMEKSL EFWRARDLAR KMEALKPLFV EPRSKGSFSE
TISAYYARVA APGSTGATFL AVCRGKASEG LDFSDTNTRG VIVTGLPYPP RMDPRVVLKM
QFLDEMKGQG GAGGQFLSGQ EWYRQQASRA VNQAIGRVIR HRQDYGAVFL CDHRFAFADA

RAQLPSWVRP HVRVYDNFGH VIRDNAQFFR VAERTMPAPA PRATAPSVRG EDAVSEAKSP
GPFSTRKAK SLDLHVPSLK QRSSGSPAAG DPESLCEVEY EQEPVPRQR PRGLLALEH
SEQRAGSPGE EQAHSCSTLS LLSEKRPAEE PRGGRKKIRL VSHPEEPVAG AQTDRAKLFM
VAVKQELSQA NFATFTQALQ DYKGSDDFAA LAACLGPLFA EDPKKHLLQ GFYQFVRPHH
KQQFEEVCIQ LTGRGCGYRP EHSIPRRQRA QPVLDPGTGRT APDPKLTVST AAAQQLDPQE
HLNQGRPHLS PRPPPTGDPG SQPQWGSQV RAGKQGQHAV SAYLADARRA LGSAGCSQLL
AALTAYKQDD DLDKVLAVLA ALTTAKPEDF PLLHRFSMFV RPHHKQRFQSQ TCTDLTGRPY
PGMEPPGPQE ERLAVPPVLT HRAPQGPSR SEKTGKTQSK ISSFLRQRPA GTVGAGGEDA
GPSQSSGPPH GPAASEWGL

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)

Grade:

Crystallography grade

Target Details

Target:

RTEL1

Alternative Name:

RTEL1 ([RTEL1 Products](#))

Background:

Regulator of telomere elongation helicase 1 (EC 3.6.4.12) (Novel helicase-like),FUNCTION: ATP-dependent DNA helicase implicated in telomere-length regulation, DNA repair and the maintenance of genomic stability. Acts as an anti-recombinase to counteract toxic recombination and limit crossover during meiosis. Regulates meiotic recombination and crossover homeostasis by physically dissociating strand invasion events and thereby promotes noncrossover repair by meiotic synthesis dependent strand annealing (SDSA) as well as disassembly of D loop recombination intermediates. Also disassembles T loops and prevents telomere fragility by counteracting telomeric G4-DNA structures, which together ensure the dynamics and stability of the telomere. {ECO:0000255|HAMAP-Rule:MF_03065, ECO:0000269|PubMed:18957201, ECO:0000269|PubMed:23453664, ECO:0000269|PubMed:24009516}.

Molecular Weight:

133.7 kDa

Target Details

UniProt: [Q9NZ71](#)

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