Datasheet for ABIN3095047

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

1 Image

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Overview

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

Product Details

Sequence:	MESRDHNNPQ EGPTSSSGRR AAVEDNHLLI KAVQNEDVDL VQQLLEGGAN VNFQEEEGGW TPLHNAVQMS REDIVELLLR HGADPVLRKK NGATPFILAA IAGSVKLLKL FLSKGADVNE CDFYGFTAFM EAAVYGKVKA LKFLYKRGAN VNLRRKTKED QERLRKGGAT ALMDAAEKGH VEVLKILLDE MGADVNACDN MGRNALIHAL LSSDDSDVEA ITHLLLDHGA DVNVRGERGK TPLILAVEKK HLGLVQRLLE QEHIEINDTD SDGKTALLLA VELKLKKIAE LLCKRGASTD CGDLVMTARR NYDHSLVKVL LSHGAKEDFH PPAEDWKPQS SHWGAALKDL HRIYRPMIGK LKFFIDEKYK IADTSEGGIY LGFYEKQEVA VKTFCEGSPR AQREVSCLQS SRENSHLVTF YGSESHRGHL FVCVTLCEQT LEACLDVHRG EDVENEEDEF ARNVLSSIFK AVQELHLSCG YTHQDLQPQN ILIDSKKAAH LADFDKSIKW AGDPQEVKRD LEDLGRLVLY VVKKGSISFE DLKAQSNEEV VQLSPDEETK DLIHRLFHPG EHVRDCLSDL LGHPFFWTWE SRYRTLRNVG NESDIKTRKS ESEILRLLQP GPSEHSKSFD KWTTKINECV MKKMNKFYEK RGNFYQNTVG DLLKFIRNLG EHIDEEKHKK MKLKIGDPSL YFQKTFPDLV IYVYTKLQNT EYRKHFPQTH

	SPNKPQCDGA GGASGLASPG C **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:	RNASEL
Alternative Name:	RNASEL (RNASEL Products)
Background:	2-5A-dependent ribonuclease (2-5A-dependent RNase) (EC 3.1.26.-) (Ribonuclease 4) (Ribonuclease L) (RNase L),FUNCTION: Endoribonuclease that functions in the interferon (IFN) antiviral response. In INF treated and virus infected cells, RNASEL probably mediates its antiviral effects through a combination of direct cleavage of single-stranded viral RNAs, inhibition of protein synthesis through the degradation of rRNA, induction of apoptosis, and induction of other antiviral genes. RNASEL mediated apoptosis is the result of a JNK-dependent stress-response pathway leading to cytochrome c release from mitochondria and caspase-dependent apoptosis. Therefore, activation of RNASEL could lead to elimination of virus infected cells under some circumstances. In the crosstalk between autophagy and apoptosis proposed to induce autophagy as an early stress response to small double-stranded RNA and at later stages of prolonged stress to activate caspase-dependent proteolytic cleavage of BECN1 to terminate autophagy and promote apoptosis (PubMed:26263979). Might play a central role in the regulation of mRNA turnover (PubMed:11585831). Cleaves 3' of UpNp dimers, with preference for UU and UA sequences, to sets of discrete products ranging from between 4 and 22 nucleotides in length. {ECO:0000269|PubMed:11585831, ECO:0000269|PubMed:26263979}.
Molecular Weight:	83.5 kDa
UniProt:	Q05823
Pathways:	Hepatitis C

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

