

Datasheet for ABIN3095181

Reticulon 4 Protein (RTN4) (AA 1-1018) (His tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	Reticulon 4 (RTN4)
Protein Characteristics:	AA 1-1018
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Reticulon 4 protein is labelled with His tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS), Crystallization (Crys)

Product Details

Sequence:	MEDLDQSPLV SSSDSPRPQ PAFKYQVRE PEDEEEEEEE EEEDEDEDLE ELEVLERKPA AGLSAAPVPT APAAGAPLMD FGNDVFPPAP RGPLPAAPPV APERQPSWDP SPVSSTVPAP SPLSAAVSP SKLPEDDEPP ARPPPPPPAS VSPQAEPVWT PPAPAPAAPP STPAAPKRRG SSGSVDETFL ALPAASEPVI RSSAENMDLK EQPGNTISAG QEDFPSVLE TAASLPSLSP LSAASFKEHE YLGNLSTVLP TEGTLQENV S EASKEVSEKA KTLIDRDLT EFSELEYSEM GSSFSVSPKA ESAVIVANPR EEIIVKNKDE EEKLVSNIL HNQQELPTAL TKLVKEDEVV SSEKAKDSFN EKRVAVEAPM REEYADFKPF ERVWEVKDSK ESDMLAAGG KIESNLESKV DKKCFADSLE QTNHEKDSSES SNDDTSFPST PEGIKDRSGA YITCAPFNPA ATESIATNIF PLLGDP TSEN KTDEKKIEEK KAQIVTEKNT STKTSNPFLV AAQSETDYV TTDNLTKVTE EVVANMPEGL TPDLVQEACE SELNEVTGTK IAYETKMDLV QTSEVMQESL YPAAQLCPSF EESEATPSPV LPDIVMEAPL NSAVPSAGAS VIQPSSSPLE ASSVNYESIK HEPENPPPYE EAMSVSLKKV SGIKEEIKEP ENINAALQET EAPYISIACD LIKETKLSAE PAPDFSDYSE
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MAKVEQPVPD HSELVEDSSP DSEPVDFSD DSIPDVPQKQ DETVMLVKES LTETSFESMI
EYENKEKLSA LPPEGGKPYL ESFKLSLDNT KDTLLPDEVS TLSKKEKIPL QMEELSTAVY
SNDDLFISKE AQIRETETFS DSSPIEIDE FPTLISSKTD SFSKLAREYT DLEVSHKSEI ANAPDGAGSL
PCTELPHDLS LKNIQPKVEE KISFSDDFSK NGSATSKVLL LPPDVSALET QAEIESIVKP
KVLVKEAEKK LPSDTEKEDR SPSAIFSAEL SKTSVVDLLY WRDIKKTG

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human RTN4 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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.

Product Details

Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	Reticulon 4 (RTN4)
Alternative Name:	RTN4 (RTN4 Products)
Background:	<p>Developmental neurite growth regulatory factor with a role as a negative regulator of axon-axon adhesion and growth, and as a facilitator of neurite branching. Regulates neurite fasciculation, branching and extension in the developing nervous system. Involved in down-regulation of growth, stabilization of wiring and restriction of plasticity in the adult CNS. Regulates the radial migration of cortical neurons via an RTN4R-LINGO1 containing receptor complex (By similarity). Isoform 2 reduces the anti-apoptotic activity of Bcl-xl and Bcl-2. This is likely consecutive to their change in subcellular location, from the mitochondria to the endoplasmic reticulum, after binding and sequestration. Isoform 2 and isoform 3 inhibit BACE1 activity and amyloid precursor protein processing. Induces the formation and stabilization of endoplasmic reticulum (ER) tubules (PubMed:25612671, PubMed:24262037). Regulates membrane morphogenesis in the ER by promoting tubular ER production. Influences NE expansion, nuclear pore complex formation and proper localization of inner nuclear membrane proteins (PubMed:26906412). {ECO:0000250 UniProtKB:Q99P72, ECO:0000269 PubMed:10667797, ECO:0000269 PubMed:11201742, ECO:0000269 PubMed:16965550, ECO:0000269 PubMed:24262037, ECO:0000269 PubMed:25612671, ECO:0000269 PubMed:26906412}.</p>
Molecular Weight:	111.6 kDa Including tag.
UniProt:	Q9NQC3
Pathways:	Neurotrophin Signaling Pathway , Regulation of Cell Size , SARS-CoV-2 Protein Interactome

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.
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Application Details

Comment: In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

Images



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