

Datasheet for ABIN3136997

**Reticulon 4 Protein (RTN4) (AA 1-988) (His tag)**[Go to Product page](#)**1** Image

## Overview

|                               |  |
|-------------------------------|--|
| Quantity:                     | 1 mg   |
| Target:                       | Reticulon 4 (RTN4)   |
| Protein Characteristics:      | AA 1-988   |
| Origin:                       | Mouse  |
| 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: | MEDIDQSSLV SSSADSPPRP PPAFKYQFVT EPEDEEDEED EEEEEDEEDL EELEVLERKP<br>AAGLSAAPVP PAAAPLLDFS SDSVPPAPRG PLPAAPPTAP ERQPSWERSP AASAPSLPPA<br>AAVLPSKLPE DDEPPARPPA PAGASPLAEP AAPSTPAAP KRRGSGSVDE TLFALPAASE<br>PVIPSSAEKI MDLKEQPGNT VSSGQEDFPS VLFETAASLP SLSPLSTVSF KEHGYLGNLS<br>AVASTEGTIE ETLNEASREL PERATNPFVN RESAEFSVLE YSEMGSSFNG SPKGESAMLV<br>ENTKEEVIVR SKDKEDLVCS AALHNPQESP ATLTKVKED GVMSPEKTMD IFNEMKMSVV<br>APVREEYADF KPFEQAWEVK DTYEGSRDVL AARANMESKV DKKCFEDSLE QKGHGKDSSES<br>RNENASFPRT PELVKDGSRA YITCDSFSSA TESTAANIFP VLEDHTSENK TDEKKIEERK<br>AQIITEKTSP KTSNPFLVAI HDSEADYVTT DNLSKVTEAV VATMPEGLTP DLVQEACESE<br>LNEATGTKIA YETKVDLVQT SEAIQESIYP TAQLCPSFEE AEATPSPVLP DIVMEAPLNS<br>LLPSTGASVA QPSASPLEVP SPVSYDGIKL EPENPPPYEE AMSVALKTSD SKEEIKEPES<br>FNAAQEAEEA PYISACDLI KETKLSTEPS PEFSNYSEIA KFEKSVPDHC ELVDDSSPES |
|-----------|--|

EPVDLFSDDS IPEVPQTQEE AVMLMKESLT EVSETVTQHK HKERLSASPQ EVGKPYLESF  
QPNLHITKDA ASNEIPTLTK KETISLQMEE FNTAIYSNDD LLSSKEDKMK ESETFSDSSP  
IEIIDEFPTF VSAKDDSPKE YTDLEVSNS EIANVQSGAN SLPCSELPD LSKNTYPKD  
EAHVSDEFSK SRSSVSKVPL LLPNVSALES QIEMGNIVKP KVLTKAEK LPSDTEKEDR  
SLTAVLSAEL NKTSVVDLLY WRDIKKTG

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

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse 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.

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### 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 ( <a href="#">RTN4 Products</a> )   |
| 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. May inhibit BACE1 activity and amyloid precursor protein processing. Induces the formation and stabilization of endoplasmic reticulum (ER) tubules. 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 (By similarity).</p> <p>{ECO:0000250 UniProtKB:Q9NQC3, ECO:0000269 PubMed:20093372, ECO:0000269 PubMed:20573699}.</p> |
| Molecular Weight: | 108.3 kDa Including tag.   |
| UniProt:          | <a href="#">Q99P72</a>   |
| Pathways:         | <a href="#">Neurotrophin Signaling Pathway</a> , <a href="#">Regulation of Cell Size</a> , <a href="#">SARS-CoV-2 Protein Interactome</a>  |

## 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:           | Protein has not been tested for activity yet. 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. |

## Application Details

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