

## Datasheet for ABIN3117104

### NrCAM Protein (AA 25-1304) (rho-1D4 tag)

[Go to Product page](#)

#### 1 Image

#### Overview

Quantity:	1 mg
Target:	NrCAM (NRCAM)
Protein Characteristics:	AA 25-1304
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NrCAM protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

#### Product Details

Sequence:	QMISALEVPL DPKLLEDLVQ PPTITQQSPK DYIDPRENI VIQCEAKGKP PPSFSWTRNG THFDIDKDPL VTMKPGTGTL IINIMSEGKA ETYEGVYQCT ARNERGAAVS NNIVVRPSRS PLWTKEKLEP ITLQSGQSLV LPCRPPIGLP PPIIFWMDNS FQRLPQSERV SQGLNGDLYF SNVLPEDTRE DYICYARFNH TQTIQQKQPI SVKVISVDEL NDTIAANLSD TEFYGAKSSR ERPPTFLTPE GNASNKEELR GNVLSLECIA EGLPTPIYW AKEDGMLPKN RTVYKNFEKT LQIIHVSEAD SGNYQCIASN ALGAIHHTIS VRVKAAPYWI TAPQNLVLSP GEDGTLICRA NGNPKPRISW LTNGVPIEIA PDDPSRKIDG DTIIFSNVQE RSSAVYQCNA SNEYGYLLAN AFVNVLAEPP RILTPANTLY QVIANRPALL DCAFFGSPLP TIEWFKGAKG SALHEDIYVL HENGTLIPV AQKDSTGTYT CVARNKLGMA KNEVHLEIKD PTWIVKQPEY AVVQRGSMVS FECKVKHDHT LSLTVLWLKD NRELPSDERF TVDKDHLVVA DVSDDDSGTY TCVANTTLDS VSASAVLSVV APTPTPAPVY DVPNPPFDLE LTDQLDKSVQ LSWTPGDDNN SPITKFIIIEY EDAMHKPGLW HHQTEVSGTQ TTAQLKLSPY VNYSFRVMAV NSIGKSLPSE ASEQYLTKAS
-----------	--

EPDKNPTAVE GLGSEPDNLV ITWKPLNGFE SNGPGLQYKV SWRQKDGDD E WTSVWVANVS  
KYIVSGTPTF VPYLIKVQAL NDMGFAPEPA VVMGHSGEDL PMVAPGNVRV NVVNSTLAEV  
HWDVPVPLKSI RGHLLQGYRIY YWKTQSSSKR NRRHIEKKIL TFQGSKTHGM LPGLEPFESHY  
TLNVRVVGK GEGPASPDRV FNTPEGVPSA PSSLKIVNPT LDSLTLEWDP PSHPNGILTE  
YTLKYQPINS THELGPLVDL KIPANKTRWT LKNLNFSTRY KFYFYAQTSA GSGSQITEEA  
VTTVDEAGIL PPDVGAGKVQ AVNPRISNLT AAAAETYANI SWEYEGPEHV NFYVEYGVAG  
SKEEWRKEIV NGSRSFFGLK GLMPGTAYKV RVGAVGDSGF VSSDEVFETG PAMASRQVDI  
ATQGWFIGLM CAVALLILIL LIVCFIRRNK GGKYPVKEKE DAHADPEIQP MKEDDGTGFE  
YSDAEDHKPL KKGSRTPSDR TVKKEDSDDS LVDYGEVNG QFNEDGSFIG QYSGKKEKEP  
AEGNESSEAP SPVAMNSFV

**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 NRCAM 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:

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

## Product Details

1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.
2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.
3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. Eluate fractions are analyzed by SDS-PAGE and Western blot.

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: NrCAM (NRCAM)

Alternative Name: NRCAM ([NRCAM Products](#))

Background: Cell adhesion protein that is required for normal responses to cell-cell contacts in brain and in the peripheral nervous system. Plays a role in neurite outgrowth in response to contactin binding. Plays a role in mediating cell-cell contacts between Schwann cells and axons. Plays a role in the formation and maintenance of the nodes of Ranvier on myelinated axons. Nodes of Ranvier contain clustered sodium channels that are crucial for the saltatory propagation of action potentials along myelinated axons. During development, nodes of Ranvier are formed by the fusion of two heminodes. Required for normal clustering of sodium channels at heminodes, not required for the formation of mature nodes with normal sodium channel clusters. Required, together with GLDN, for maintaining NFASC and sodium channel clusters at mature nodes of Ranvier. {ECO:0000250|UniProtKB:Q810U4}.

Molecular Weight: 142.3 kDa Including tag.

UniProt: [Q92823](#)

Pathways: [Regulation of Cell Size](#)

## 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

## Application Details

though.

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