

Datasheet for ABIN3136102
NrCAM Protein (AA 30-1256) (rho-1D4 tag)[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	NrCAM (NRCAM)
Protein Characteristics:	AA 30-1256
Origin:	Mouse
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:	LDVPLDLVQP PTITQQSPKD YIIDPRENIV IQCEAKGKPP PSFSWTRNGT HFDIDKDPLV TMKPGSGTLV INIMSEGKAE TYEGVYQCTA RNERGA AVSN NIVVRPSRSP LWTKERLEPI VLQNGQSLVL PCRPPIGLPP AIFWMDNSF QRLPQSERSV QGLNGDLYFS NVLPEDTRED YICYARFNHT QTIQQKQPIS LKVISVDELN DTIAANLSDT EFYGAKSSKE RPPTFLTPEG NESHKEELRG NVLSLECIAE GLPTPIIWI KEDGMLPANR TFYRNFKKTL QITHVSEADS GNYQCIAKNA LGAVHHTISV TVKAAPYWIV APQNLVLSPG ENGLICRAN GNPKPRISWL TNGVPIEIAL DDPSRKIDGD TIIFSNVQES SSAVYQCNAS NKYGYLLANA FVNVLAEP ILTSANTLYQ VIANRPALD CAFFGSPMPT IEWFKGTKGS ALHEDIYVLH DNGTLEIPVA QKDSTGTYTC VARNKLGMAK NEVHLEIKDP TRIIKQPEYA VVQRGSKVSF ECRVKHDHTL IPTIMWLKDN GELPNDERFS TDKDHLVSD VKDDGGTYT CTANTTLD SA SASAVLRVVA PTPTPAPIYD VPNPPFDLEL TNQLDKSVQL TWTPGDDNNS PITKFIIEYE DAMHDAGLWR HQA EVSGTQT TAQLKLSPYV NYSFRVMAEN SIGR SMPSEA SEQYLTKAAE PDQNPMAVEG
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LGTEPDNLVI TWKPLNGFQS NGPGLQYKVS WRQKDGDEW TSVVVANVSK YIVSGTPTFV
PYLIKVQALN DVGFAPEPAA VMGHSGEDLP MVAPGNVRVS VVNSTLAEVH WDPVPPKSVR
GHLQGYRIYY WKTQSSSKRN RRHIEKKILT FQGTKTHGML PGLQPYSHYA LNVRVVGKG
EGPASTDRGF HTPEGVPSAP SSLKIVNPTL DSLTLEWDPP SHPNGILTEY ILQYQPINST
HELGPLVDLK IPANKTRWTL KNLNFSTRYK FYFYAQTSVG PGSQITEEI TTVDEAGIPP
PDVGAGKGKE EWRKEIVNGS RSFFGLKGLM PGTAYKVRVG AEGDSGFVSS EDVFETGPAM
ASRQVDIATQ GWFIGLMCAV ALLILILLIV CFIRRNKGGK YPVKEKEDAH ADPEIQPMKE
DDGTFGEYS AEDHKPLKKG SRTPSDRTVK KEDSDDSLVD YGEGVNGQFN EDGSFIGQYS
GKKEKEPAEG NESSEAPSPV NAMNSFV

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.
- Mouse 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:

1. Membrane proteins are fractionated by ultracentrifugation and subsequently solubilized with

Product Details

- different detergents (detergent screen). Samples are analyzed by Western blot.
- 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.
 - 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 (PubMed:11564762). Plays a role in mediating cell-cell contacts between Schwann cells and axons (PubMed:20188654). 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 (PubMed:14602817, PubMed:20188654). Required, together with GLDN, for maintaining NFASC and sodium channel clusters at mature nodes of Ranvier (PubMed:24719088). {ECO:0000269|PubMed:11564762, ECO:0000269|PubMed:14602817, ECO:0000269|PubMed:16039564, ECO:0000269|PubMed:20188654, ECO:0000269|PubMed:24719088}.

Molecular Weight: 136.5 kDa Including tag.

UniProt: [Q810U4](#)

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 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.
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