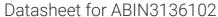
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NrCAM Protein (AA 30-1256) (rho-1D4 tag)





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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 RNERGAAVSN NIVVRPSRSP LWTKERLEPI
VLQNGQSLVL PCRPPIGLPP AIIFWMDNSF QRLPQSERVS QGLNGDLYFS NVLPEDTRED
YICYARFNHT QTIQQKQPIS LKVISVDELN DTIAANLSDT EFYGAKSSKE RPPTFLTPEG
NESHKEELRG NVLSLECIAE GLPTPIIYWI KEDGMLPANR TFYRNFKKTL QITHVSEADS
GNYQCIAKNA LGAVHHTISV TVKAAPYWIV APQNLVLSPG ENGTLICRAN GNPKPRISWL
TNGVPIEIAL DDPSRKIDGD TIIFSNVQES SSAVYQCNAS NKYGYLLANA FVNVLAEPPR
ILTSANTLYQ VIANRPALLD CAFFGSPMPT IEWFKGTKGS ALHEDIYVLH DNGTLEIPVA
QKDSTGTYTC VARNKLGMAK NEVHLEIKDP TRIIKQPEYA VVQRGSKVSF ECRVKHDHTL
IPTIMWLKDN GELPNDERFS TDKDHLVVSD VKDDDGGTYT CTANTTLDSA SASAVLRVVA
PTPTPAPIYD VPNPPFDLEL TNQLDKSVQL TWTPGDDNNS PITKFIIEYE DAMHDAGLWR
HQAEVSGTQT TAQLKLSPYV NYSFRVMAEN SIGRSMPSEA SEQYLTKAAE PDQNPMAVEG

LGTEPDNLVI TWKPLNGFQS NGPGLQYKVS WRQKDGDDEW TSVVVANVSK YIVSGTPTFV
PYLIKVQALN DVGFAPEPAA VMGHSGEDLP MVAPGNVRVS VVNSTLAEVH WDPVPPKSVR
GHLQGYRIYY WKTQSSSKRN RRHIEKKILT FQGTKTHGML PGLQPYSHYA LNVRVVNGKG
EGPASTDRGF HTPEGVPSAP SSLKIVNPTL DSLTLEWDPP SHPNGILTEY ILQYQPINST
HELGPLVDLK IPANKTRWTL KNLNFSTRYK FYFYAQTSVG PGSQITEEAI TTVDEAGIPP
PDVGAGKGKE EWRKEIVNGS RSFFGLKGLM PGTAYKVRVG AEGDSGFVSS EDVFETGPAM
ASRQVDIATQ GWFIGLMCAV ALLILILLIV CFIRRNKGGK YPVKEKEDAH ADPEIQPMKE
DDGTFGEYSD 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 receival 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 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 (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

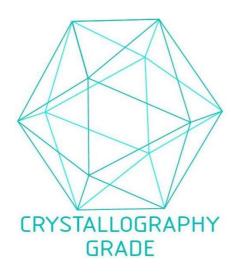
Application Details

Application Betalls	
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 gurantee 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

Images

Expiry Date:

Storage Comment:



Store at -80°C.

Unlimited (if stored properly)

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