Datasheet for ABIN3137034

Neurexin 1 Protein (NRXN1) (AA 31-1514) (rho-1D4 tag)

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Overview

Quantity:	1 mg
Target:	Neurexin 1 (NRXN1)
Protein Characteristics:	AA 31-1514
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Neurexin 1 protein is labelled with rho-1D4 tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	LEFPGAEGQW TRFPKWNACC ESEMSFQLKT RSARGLVLYF DDEGFCDFLE LILTRGGRLQ LSFSIFCAEP ATLLADTPVN DGAWHSVRIR RQFRNTTLYI DRAEAKWVEV KSKRRDMTVF SGLFVGGLPP ELRAAALKLT LASVREREPF KGWIRDVRVN SSQALPVDGG EVKLDDEPPN SGGGSPCEAG EEGEGGVCLN GGVCSVVDDQ AVCDCSRTGF RGKDCSQEDN NVEGLAHLMM GDQGKSKGKE EYIATFKGSE YFCYDLSQNP IQSSSDEITL SFKTLQRNGL MLHTGKSADY VNLALKNGAV SLVINLGSGA FEALVEPVNG KFNDNAWHDV KVTRNLRQHS GIGHAMVNKL HCSVTISVDG ILTTTGYTQE DYTMLGSDDF FYVGGSPSTA DLPGSPVSNN FMGCLKEVVY KNNDVRLELS RLAKQGDPKM KIHGVVAFKC ENVATLDPIT FETPESFISL PKWNAKKTGS ISFDFRTTEP NGLILFSHGK PRHQKDAKHP QMIKVDFFAI EMLDGHLYLL LDMGSGTIKI KALQKKVNDG EWYHVDFQRD GRSGTISVNT LRTPYTAPGE SEILDLDDEL YLGGLPENKA GLVFPTEVWT ALLNYGYVGC IRDLFIDGQS KDIRQMAEIQ STAGVKPSCS KETAKPCLSN PCKNNGMCRD GWNRYVCDCS GTGYLGRSCE REATVLSYDG SMFMKIQLPV VMHTEAEDVS

LRFRSQRAYG ILMATTSRDS ADTLRLELDA GRVKLTVNLD CIRINCNSSK GPETLFAGYN LNDNEWHTVR VVRRGKSLKL TVDDQQAMTG QMAGDHTRLE FHNIETGIIT ERRYLSSVPS NFIGHLQSLT FNGMAYIDLC KNGDIDYCEL NARFGFRNII ADPVTFKTKS SYVALATLQA YTSMHLFFQF KTTSLDGLIL YNSGDGNDFI VVELVKGYLH YVFDLGNGAN LIKGSSNKPL NDNQWHNVMI SRDTSNLHTV KIDTKITTQI TAGARNLDLK SDLYIGGVAK ETYKSLPKLV HAKEGFQGCL ASVDLNGRLP DLISDALFCN GQIERGCEGP STTCQEDSCS NQGVCLQQWD GFSCDCSMTS FSGPLCNDPG TTYIFSKGGG QITYKWPPND RPSTRADRLA IGFSTVQKEA VLVRVDSSSG LGDYLELHIH QGKIGVKFNV GTDDIAIEES NAIINDGKYH VVRFTRSGGN ATLQVDSWPV IERYPAGNND NERLAIARQR IPYRLGRVVD EWLLDKGRQL TIFNSQATII IGGKEQGQPF QGQLSGLYYN GLKVLNMAAE NDANIAIVGN VRLVGEVPSS MTTESTATAM QSEMSTSIME TTTTLATSTA RRGKPPTKEP ISQTTDDILV ASAECPSDDE DIDPCEPSSG GLANPTRVGG REPYPGSAEV IRESSSTTGM VVGIVAAAAL CILILLYAMY KYRNRDEGSY HVDESRNYIS NSAQSNGAVV KEKQPSSAKS ANKNKKNKDK EYYV

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 Nrxn1 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

Product Details

	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:	Neurexin 1 (NRXN1)
Alternative Name:	Nrxn1 (NRXN1 Products)
Background:	Cell surface protein involved in cell-cell-interactions, exocytosis of secretory granules and regulation of signal transmission. Function is isoform-specific. Alpha-type isoforms have a long N-terminus with six laminin G-like domains and play an important role in synaptic signal transmission. Alpha-type isoforms play a role in the regulation of calcium channel activity and Ca(2+)-triggered neurotransmitter release at synapses and at neuromuscular junctions. They play an important role in Ca(2+)-triggered exocytosis of secretory granules in pituitary gland. They may effect their functions at synapses and in endocrine cells via their interactions with proteins from the exocytotic machinery. Likewise, alpha-type isoforms play a role in regulating the activity of postsynaptic NMDA receptors, a subtype of glutamate-gated ion channels. Both alpha-type and beta-type isoforms may play a role in the formation or maintenance of synaptic junctions via their interactions (via the extracellular domains) with neuroligin family members, CBLN1 or CBLN2. In vitro, triggers the de novo formation of presynaptic structures. May be involved in specification of excitatory synapses. Alpha-type isoforms were first identified as receptors for alpha-latrotoxin from spider venom. {ECO:0000269|PubMed:12827191, ECO:0000269|PubMed:14983056, ECO:0000269|PubMed:16406382,

Target Details

	ECO:0000269|PubMed:17035546, ECO:0000269|PubMed:21410790, ECO:0000269|PubMed:9430716}.
Molecular Weight:	164.3 kDa Including tag.
UniProt:	Q9CS84
Pathways:	Synaptic Membrane, Skeletal Muscle Fiber Development

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 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
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

