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Datasheet for ABIN3094275

Neurexin 1 Protein (NRXN1) (AA 31-1401) (His tag)

1 Image

Overview

Quantity:	1 mg
Target:	Neurexin 1 (NRXN1)
Protein Characteristics:	AA 31-1401
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Neurexin 1 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence: LEFPGAEGQW TRFPKWNACC ESEMSFQLKT RSARGLVLYF DDEGFCDFLE LILTRGGRLQ
 LSFSIFCAEP ATLLADTPVN DGAWHSVRIR RQFRNTTLFI DQVEAKWVEV KSKRRDMTVF
 SGLFVGGLPP ELRAALKLT LASVREREPF KGWIRDVRVN SSQVLPVDSG EVKLDDEPPN
 SGGGSPCEAG EEGEGGVCLN GGVCVVDQ AVCDCSRTGF RGKDCSQEDN NVEGLAHLMM
 GDQGKSKGKE EYIATFKGSE YFCYDLSQNP IQSSSDEITL SFKTLQRNGL MLHTGKSADY
 VNLALKNGAV SLVINLGSGA FEALVEPVNG KFNDNAWHDV KVTRNLRQHS GIGHAMVTIS
 VDGIITTTGY TQEDYTMLGS DDFYVGGSP STADLPGSPV SNNFMGCLKE VVYKNNDVRL
 ELSRLAKQGD PKMKIHGVA FKCENVATLD PITFETPESE ISLPKWNAKK TGSISDFDRT
 TEPNGLILFS HGKPRHQKDA KHPQMIKVDV FAIEMLDGHL YLLLDMGSGT IKIKALLKKV
 NDGEWYHVDF QRDGRSGTIS VNTLRTPYTA PGESEILDLD DELYLGGLPE NKAGLVFPTE
 VWTALLNYGY VGCIRDLFID GQSKDIRQMA EVQSTAGVKP SCSKETAKPC LSNPCKNNGM
 CRDGWNRYVC DCSGTGYLGR SCEREATVLS YDGSFMFKIQ LPVVMHTEAE DVSLRFRSQR

AYGILMATTSS RDSADTLRLE LDAGRVKLV NLDCIRINCN SSKGPETLFA GYNLNDNEWH
TVRVVRRGKS LKLTVDDQQA MTGQMAGDHT RLEFHNIETG IITERRYLSS VPSNFIGHLQ
SLTFNGMAYI DLCKNGDIDY CELNARFGFR NIIADPVTFK TKSSYVALAT LQAYTSMHLF
FQFKTTSLDG LILYNSGDGN DFIWVELVKG YLHYVFDLGN GANLIKGSSN KPLNDNQWHN
VMISRDTSNL HTVKIDTKIT TQITAGARNL DLKSDLYIGG VAKETYKSLP KLVHAKGEFQ
GCLASVDLNG RLPDLISDAL FCNGQIERGC EGPSTTCQED SCSNQGVCLQ QWDGFSCDCS
MTSFSGPLCN DPGTTYIFSK GGGQITYKWP PNDRPSTRAD RLAIGFSTVQ KEAVLVRVDS
SSGLGDYLEL HIHQGKIGVK FNVGTDDIAI EESNAIINDG KYHVVRFRTR GGNATLQVDS
WPVIERYPAG RQLTIFNSQA TIIIGGKEQG QPFQGQLSGL YYNGLKVLNM AAENDANIAI
VGNVRLVGEV PSSMTTESTA TAMQSEMSTS IMETTTTLAT STARRGKPPT KEPISQTTDD
ILVASAECPS DDEDIDPCEP SSGGLANPTR AGGREPYPGS AEVIRESST T

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 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 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:

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

Product Details

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.

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 calcium-dependent 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 (By similarity). {ECO:0000250}.

Molecular Weight: 151.3 kDa Including tag.

UniProt: [Q9ULB1](#)

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 guarantee 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