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Datasheet for ABIN3118886

## CHRNA9 Protein (AA 26-479) (rho-1D4 tag)

### 1 Image

#### Overview

Quantity:	1 mg
Target:	CHRNA9
Protein Characteristics:	AA 26-479
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This CHRNA9 protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

#### Product Details

Sequence: ADGKYAQLKF NDLFEDYSNA LRPVEDTDKV LNVTLQITLS QIKDMDERNQ ILTAYLWIRQ  
IWHDAYLTWD RDQYDGLDSI RIPS DLVWRP DIVLYNKADD ESSEPVNTNV VLRYDGLITW  
DAPAITKSSC VVDVTFPPFD NQQCNLTFGS WTYNGNQVDI FNALDSGDLS DFIEDVEWEV  
HGMPAVKNVI SYGCCSEPYP DVTFTLLLKR RSSFYIVNLL IPCVLISFLA PLSFYLPAAAS  
GEKVS LGVTI LLAMTVFQLM VAEIMPASEN VPLIGKYIA TMALITASTA LTIMVMNIHF  
CGAEARPVPH WARVVILKYM SRVLFVYDVG ESCLSPHHSR ERDHLTKVYS KLPESNLKAA  
RNKDL SRKKD MNKRLKNDLG CQGKNPQAE SYCAQYKVL T RNIEYIAKCL KDHKATNSKG  
SEWKKVAKVI DRFFMWIFFI MVFVMTILII ARAD

**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 CHRNA9 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.

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Purification:	Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none"><li>1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.</li><li>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.</li><li>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.</li></ol>
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

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## Target Details

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Target:	CHRNA9
Alternative Name:	CHRNA9 ( <a href="#">CHRNA9 Products</a> )
Background:	<p>Ionotropic receptor with a probable role in the modulation of auditory stimuli. Agonist binding induces a conformation change that leads to the opening of an ion-conducting channel across the plasma membrane (PubMed:11752216, PubMed:25282151). The channel is permeable to a range of divalent cations including calcium, the influx of which may activate a potassium current which hyperpolarizes the cell membrane (PubMed:11752216, PubMed:25282151). In the ear, this may lead to a reduction in basilar membrane motion, altering the activity of auditory nerve fibers and reducing the range of dynamic hearing. This may protect against acoustic trauma. May also regulate keratinocyte adhesion (PubMed:11021840).</p> <p>{ECO:0000269 PubMed:11021840, ECO:0000269 PubMed:11752216, ECO:0000269 PubMed:25282151, ECO:0000305}.</p>
Molecular Weight:	53.0 kDa Including tag.
UniProt:	<a href="#">Q9UGM1</a>
Pathways:	<a href="#">Sensory Perception of Sound</a>

## Application Details

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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

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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

## Handling

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Storage Comment: Store at -80°C.

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Expiry Date: Unlimited (if stored properly)

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## Images

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**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process