

Datasheet for ABIN3113412  
**SLC8A1 Protein (AA 36-973) (rho-1D4 tag)**[Go to Product page](#)

## 1 Image

## Overview

Quantity:	1 mg
Target:	SLC8A1
Protein Characteristics:	AA 36-973
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC8A1 protein is labelled with rho-1D4 tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

## Product Details

Sequence:	ETEMEGEGNE TGECTGSYYC KKGVLPIWE PQDPSFGDKI ARATVYFVAM VYMFLGVSII ADRFMSSIEV ITSQEKEITI KKPNGETTKT TVRIWNETVS NLTLMALGSS APELLSVIE VCGHNFTAGD LGPSTIVGSA AFNMFIIIAL CVYVVPDGET RKIKHLRVFF VTAAWSIFAY TWLYIILSVI SPGVVEVWEG LLTFFFFPIC VFAWVADRR LLFYKYVYKR YRAGKQRGMI IEHEGDRPSS KTEIEMDGKV VNSHVENFLD GALVLEVDER DQDDEEARRE MARILKELKQ KHPDKEIEQL IELANYQVLS QQQKSRAFYR IQATRLMTGA GNILKRHAAD QARKAVSMHE VNTEVTENDP VSKIFFEQGT YQCLENCGTV ALTIIRRGD LTNTVFVDFR TEDGTANAGS DYEFTEGTVV FKPGDTQKEI RVGIIDDDIF EEDENFLVHL SNVKVSSEAS EDGILEANHV STLACLGSPS TATVTIFDDD HAGFTFEFP VTHVSESIGI MEVKVLRVTS ARGNVIVPYK TIEGTARGGG EDFEDTCGEL EFQNDEIVKT ISVKVIDDEE YEKNKTFEFL IGEPRLVEMS EKKALLLNEL GGFTITGKYL FGQPVFRKVH AREHPILSTV ITIADEYDDK QPLTSKEEEE RRIAEMGRPI LGEHTKLEVI IIESYEFKST VDKLIKKTNL ALVVGNTNSWR EQFIEAITVS
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AGEDDDDDDEC GEEKLPSCFD YVMHFLTVFW KVLFAFVPPT EYWNGWACFI VSILMIGLLT  
AFIGDLASHF GCTIGLKDSV TAVVFVALGT SVPDTFASKV AATQDQYADA SIGNVTGSNA  
VNVFLGIGVA WSIAAIYHAA NGEQFKVSPG TLAFSVTLFT IFAFINVGVL LYRRRPEIGG  
ELGGPRTAKL LTSCLFVLLW LLYIFFSSLE AYCHIKGF

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human SLC8A1 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:

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

## Product Details

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:	SLC8A1
Alternative Name:	SLC8A1 ( <a href="#">SLC8A1 Products</a> )
Background:	<p>Mediates the exchange of one Ca(2+) ion against three to four Na(+) ions across the cell membrane, and thereby contributes to the regulation of cytoplasmic Ca(2+) levels and Ca(2+)-dependent cellular processes (PubMed:1374913, PubMed:11241183, PubMed:1476165).</p> <p>Contributes to Ca(2+) transport during excitation-contraction coupling in muscle. In a first phase, voltage-gated channels mediate the rapid increase of cytoplasmic Ca(2+) levels due to release of Ca(2+) stores from the endoplasmic reticulum. SLC8A1 mediates the export of Ca(2+) from the cell during the next phase, so that cytoplasmic Ca(2+) levels rapidly return to baseline. Required for normal embryonic heart development and the onset of heart contractions. {ECO:0000250 UniProtKB:P70414, ECO:0000269 PubMed:11241183, ECO:0000269 PubMed:1374913, ECO:0000269 PubMed:1476165}.</p>
Molecular Weight:	105.7 kDa Including tag.
UniProt:	<a href="#">P32418</a>
Pathways:	<a href="#">Myometrial Relaxation and Contraction</a>

## 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.

## Application Details

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