

Datasheet for ABIN3136992 SLC26A5 Protein (AA 1-744) (rho-1D4 tag)

[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	SLC26A5
Protein Characteristics:	AA 1-744
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC26A5 protein is labelled with rho-1D4 tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

Product Details

Sequence:	MDHAEENEIP AETQRYYVER PIFSHPLQE RLHVKDKVTE SIGDKLKQAF TCTPKKIRNI IYMFLPITKW LPAYKFKEYV LGDLVSGIST GVLQLPQGLA FAMLAAVPPV FGLYSSFYPV IMYCFFGTSR HISIGPFAVI SLMIGGVAVR LVPDDIVIPG GVNATNGTEA RDALRVKVM SVTLLSGIIQ FCLGVCRFGF VAIYLTEPLV RGFTTAAAVH VFTSMLKYLF GVKTKRYSGI FSVYSTVAV LQNVKNLNV C SLGVGLMVFG LLLGGKEFNE RFKEKLPAPI PLEFFAVVMG TGISAGFNLH ESYSDVVG T LPLGLLPPAN PDTSLFHLVY VDAIAIAIVG FSVTISMAKT LANKHGYQVD GNQELIALGI CNSIGSLFQT FSISCSLSRS LVQEGTGGKT QLAGCLASLM ILLVILATGF LFESLPQAVL SAIVIVNLKG MFMQFSDLPF FWRTSKIET IWLTTFVSSL FLGLDYGLIT AVIIALLTVI YRTQSPSYKV LGQLPDTDVY IDIDAYEEVK EIPGIKIFIQI NAPIYYANS LYSSALKRKT GVNPAIMGA RRKAMRKYAK EVGNANVANA TVVKVDAEVD GENATKPEEE DDEVKFPPIV IKTTFPPEELQ RFLPQGENVH TVILDFTQVN FVDSVGVKTL AGIVKEYGDV GIYVYLAGCS PQVVNDLTRN NFFENPALKE LLFHSIHDAV LGSQVREAMA EQEATASLPQ
-----------	--

EDMEPNATPT TPEA

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 Slc26a5 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:

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

1. Membrane proteins are fractionated 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 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

Product Details

Endotoxin Level: Protein is endotoxin-free.

Grade: Crystallography grade

Target Details

Target: SLC26A5

Alternative Name: Slc26a5 ([SLC26A5 Products](#))

Background: Motor protein that converts auditory stimuli to length changes in outer hair cells and mediates sound amplification in the mammalian hearing organ. Prestin is a bidirectional voltage-to-force converter, it can operate at microsecond rates. It uses cytoplasmic anions as extrinsic voltage sensors, probably chloride and bicarbonate. After binding to a site with millimolar affinity, these anions are translocated across the membrane in response to changes in the transmembrane voltage. They move towards the extracellular surface following hyperpolarization, and towards the cytoplasmic side in response to depolarization. As a consequence, this translocation triggers conformational changes in the protein that ultimately alter its surface area in the plane of the plasma membrane. The area decreases when the anion is near the cytoplasmic face of the membrane (short state), and increases when the ion has crossed the membrane to the outer surface (long state). So, it acts as an incomplete transporter. It swings anions across the membrane, but does not allow these anions to dissociate and escape to the extracellular space. Salicylate, an inhibitor of outer hair cell motility, acts as competitive antagonist at the prestin anion-binding site (By similarity). {ECO:0000250}.

Molecular Weight: 82.5 kDa Including tag.

UniProt: [Q99NH7](#)

Pathways: [Sensory Perception of Sound](#), [Dicarboxylic Acid Transport](#)

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: 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.

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