Datasheet for ABIN3116626

SLC4A11 Protein (AA 1-891) (rho-1D4 tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	SLC4A11
Protein Characteristics:	AA 1-891
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC4A11 protein is labelled with rho-1D4 tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB), Crystallization (Crys)

Product Details

Sequence:	MSQVGGRGDR CTQEVQGLVH GAGDLSASLA ENSPTMSQNG YFEDSSYYKC DTDDTFEARE EILGDEAFDT ANSSIVSGES IRFFVNVNLE MQATNTENEA TSGGCVLLHT SRKYLKLKNF KEEIRAHRDL DGFLAQASIV LNETATSLDN VLRTMLRRFA RDPDNNEPNC NLDLLMAMLF TDAGAPMRGK VHLLSDTIQG VTATVTGVRY QQSWLCIICT MKALQKRHVC ISRLVRPQNW GENSCEVRFV ILVLAPPKMK STKTAMEVAR TFATMFSDIA FRQKLLETRT EEEFKEALVH QRQLLTMVSH GPVAPRTKER STVSLPAHRH PEPPKCKDFV PFGKGIREDI ARRFPLYPLD FTDGIIGKNK AVGKYITTTL FLYFACLLPT IAFGSLNDEN TDGAIDVQKT IAGQSIGGLL YALFSGQPLV ILLTTAPLAL YIQVIRVICD DYDLDFNSFY AWTGLWNSFF LALYAFFNLS LVMSLFKRST EEIIALFISI TFVLDAVKGT VKIFWKYYYG HYLDDYHTKR TSSLVSLSGL GASLNASLHT ALNASFLASP TELPSATHSG QATAVLSLLI MLGTLWLGYT LYQFKKSPYL HPCVREILSD CALPIAVLAF SLISSHGFRE IEMSKFRYNP SESPFAMAQI QSLSLRAVSG AMGLGFLLSM LFFIEQNLVA ALVNAPENRL VKGTAYHWDL LLLAIINTGL SLFGLPWIHA

AYPHSPLHVR ALALVEERVE NGHIYDTIVN VKETRLTSLG ASVLVGLSLL LLPVPLQWIP KPVLYGLFLY IALTSLDGNQ LVQRVALLLK EQTAYPPTHY IRRVPQRKIH YFTGLQVLQL LLLCAFGMSS LPYMKMIFPL IMIAMIPIRY ILLPRIIEAK YLDVMDAEHR P

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 SLC4A11 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 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.

Product Details

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:	SLC4A11
Alternative Name:	SLC4A11 (SLC4A11 Products)
Background:	Transporter which plays an important role in sodium-mediated fluid transport in different organs. Prevents severe morphological changes of the cornea caused by increased sodium chloride concentrations in the stroma. In the inner ear, is involved in transport of potassium through the fibrocyte layer to the stria vascularis and is essential for the generation of the endocochlear potential but not for regulation of potassium concentrations in the endolymph. In the kidney, is essential for urinary concentration, mediates a sodium flux into the thin descending limb of Henle loop to allow countercurrent multiplication by osmotic equilibration (By similarity). Involved in borate homeostasis. In the absence of borate, it functions as a Na(+) and OH(-)(H(+)) channel. In the presence of borate functions as an electrogenic Na(+) coupled borate cotransporter. {ECO:0000250|UniProtKB:A2AJN7, ECO:0000269|PubMed:15525507, ECO:0000269|PubMed:25007886}.
Molecular Weight:	100.8 kDa Including tag.
UniProt:	Q8NBS3
Pathways:	Proton 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 gurantee 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)