

Datasheet for ABIN3136638 SLC29A4 Protein (AA 1-528) (rho-1D4 tag)



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1 Image

Overview

Quantity:	1 mg
Target:	SLC29A4
Protein Characteristics:	AA 1-528
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC29A4 protein is labelled with rho-1D4 tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence: MGSIGSQRLLK EPCVAATSDQ SVVTSFSFDN FQLETTAEGA QDPGIRVRGV PTFTDSAVEE
PVPDDRYHAI YFAMLLAGVG FLLPYNSFIT DVDYLHHKYP GTSIVFDMSL TYILVALAAV
LLNNVVVERL NLHTRITTGY LLALGPLLFI SICDVWLQLF SHDQAYAINL AAVGTVAFGC
TVQQSSFYGY TGLLPKRYTQ GVMTGESTAG VMISLSRILT KLLLPDERAS TIIFFLVSAG
LELLCFLHL LVRRSRFLY YTTRPRDSRP VQAGYRVHHD VASGDIHFEH QTPALSSSR
PKESPAHEVT HSNSGVYMR F DVPRPRVKRS WPTFRALLH RYVVARVIWA DMLSIAYTYF
ITLCLFPGLE SEIRHCVLGE WLPILVMAVF NLSDFVGKIL AALPVEWRGT HLLACSLRV
VFIPFILCV YPSGMPALRH PAWPCVFSLL MGISNGYFGS VPMILAAGKV SPKQRELGN
TMTVSYSMSGL TLGSAVAYCT YSLTRDAHGS CFQTATAAAA NDSIPVGP

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

Product Details

- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
 - Mouse Slc29a4 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

Endotoxin Level: Protein is endotoxin-free.

Grade: Crystallography grade

Target Details

Target:	SLC29A4
Alternative Name:	Slc29a4 (SLC29A4 Products)
Background:	Functions as a polyspecific organic cation transporter, efficiently transporting many organic cations such as monoamine neurotransmitters 1-methyl-4-phenylpyridinium and biogenic amines including serotonin, dopamine, norepinephrine and epinephrine. May play a role in regulating central nervous system homeostasis of monoamine neurotransmitters. May be involved in luminal transport of organic cations in the kidney and seems to use luminal proton gradient to drive organic cation reabsorption. Does not seem to transport nucleoside and nucleoside analogs such as uridine, cytidine, thymidine, adenosine, inosine, guanosine, and azidothymidine. In (PubMed:16873718) adenosine is efficiently transported but in a fashion highly sensitive to extracellular pH, with maximal activity in the pH range 5.5 to 6.5. Glu-206 is essential for the cation selectivity and may function as the charge sensor for cationic substrates. Transport is chloride and sodium-independent but appears to be sensitive to changes in membrane potential. Weakly inhibited by the classical inhibitors of equilibrative nucleoside transport, dipyridamole, dilazep, and nitrobenzylthioinosine. May play a role in the regulation of extracellular adenosine concentrations in cardiac tissues, in particular during ischemia (By similarity). {ECO:0000250, ECO:0000269 PubMed:16873718}.
Molecular Weight:	59.3 kDa Including tag.
UniProt:	Q8R139

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.
Restrictions:	For Research Use only

Handling

Format:	Liquid
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Handling

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