Datasheet for ABIN3115604

SLC9A4 Protein (AA 1-798) (rho-1D4 tag)

1 Image

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Overview

Quantity:	1 mg
Target:	SLC9A4
Protein Characteristics:	AA 1-798
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC9A4 protein is labelled with rho-1D4 tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MALQMFVTYS PWNCLLLLVA LECSEASSDL NESANSTAQY ASNAWFAAAS SEPEEGISVF ELDYDYVQIP YEVTLWILLA SLAKIGFHLY HRLPGLMPES CLLILVGALV GGIIFGTDHK SPPVMDSSIY FLYLLPPIVL EGGYFMPTRP FFENIGSILW WAVLGALINA LGIGLSLYLI CQVKAFGLGD VNLLQNLLFG SLISAVDPVA VLAVFEEARV NEQLYMMIFG EALLNDGITV VLYNMLIAFT KMHKFEDIET VDILAGCARF IVVGLGGVLF GIVFGFISAF ITRFTQNISA IEPLIVFMFS YLSYLAAETL YLSGILAITA CAVTMKKYVE ENVSQTSYTT IKYFMKMLSS VSETLIFIFM GVSTVGKNHE WNWAFICFTL AFCQIWRAIS VFALFYISNQ FRTFPFSIKD QCIIFYSGVR GAGSFSLAFL LPLSLFPRKK MFVTATLVVI YFTVFIQGIT VGPLVRYLDV KKTNKKESIN EELHIRLMDH LKAGIEDVCG HWSHYQVRDK FKKFDHRYLR KILIRKNLPK SSIVSLYKKL EMKQAIEMVE TGILSSTAFS IPHQAQRIQG IKRLSPEDVE SIRDILTSNM YQVRQRTLSY NKYNLKPQTS EKQAKEILIR RQNTLRESMR KGHSLPWGKP AGTKNIRYLS YPYGNPQSAG RDTRAAGFSD DDSSDPGSPS ITFSACSRIG SLQKQEAQEI IPMKSLHRGR KAFSFGYQRN

	TSQEEYLGGV RRVALRPKPL FHAVDEEGES GGESEGKASL VEVRSRWTAD HGHGRDHHRS HSPLLQKK **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 SLC9A4 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.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Product Details

Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin-free.
Grade:	Crystallography grade

Target Details

Target:	SLC9A4
Alternative Name:	SLC9A4 (SLC9A4 Products)
Background:	Involved in pH regulation to eliminate acids generated by active metabolism or to counter adverse environmental conditions. Major proton extruding system driven by the inward sodium ion chemical gradient. Plays an important role in signal transduction. May play a specialized role in the kidney in rectifying cell volume in response to extreme fluctuations of hyperosmolar-stimulated cell shrinkage. Is relatively amiloride and ethylisopropylamiloride (EIPA) insensitive. Can be activated under conditions of hyperosmolar-induced cell shrinkage in a sustained intracellular acidification-dependence manner. Activated by 4,4'-diisothiocyanostilbene-2,2'-disulfonic acid (DIDS) in a sustained intracellular acidification-dependence manner. Affects potassium/proton exchange as well as sodium/proton and lithium/proton exchange. In basolateral cell membrane, participates in homeostatic control of intracellular pH , and may play a role in proton extrusion in order to achieve transepithelial HCO3(-) secretion. In apical cell membrane may be involved in mediating sodium absorption. Requires for normal levels of gastric acid secretion, secretory membrane development, parietal cell maturation and/or differentiation and at least secondarily for chief cell differentiation (By similarity). {ECO:0000250}.
Molecular Weight:	91.0 kDa Including tag.
UniProt:	Q6AI14

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

Application Details

	receive your protein of interest.
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