

Datasheet for ABIN3130770

SLC4A11 Protein (AA 1-862) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	SLC4A11
Protein Characteristics:	AA 1-862
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC4A11 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	<p>MSQNEHCQDS GEYFSAGTQG YFKNMEDNL EVREDSLGDE VFDTVNSSIV SGESIRFFVN</p> <p>VNLEVQPSKS DLEAATGGCV LLHTSRKYLK LKNFEEVRA HRDLGFLAQ ASIILNETAT</p> <p>SLDDVLRTML NRFALDPNHA EPDCDLLLM AKLFTDAGAP MESKVHLLSD TIQGVATVR</p> <p>GVQYEQSWLC IICTMKTLQK RHVCISRLVR PQNWGENSCE VRFVILVLAP PKMKSTKTAM</p> <p>EVARTFATMF SDITFRQKLL KTRTEEFKE ALVHQRQLLT MMMPRAAGHS MSSLHTHRHP</p> <p>QPPKCKDFFP FGKGIWMDIM RRPVYPMDF TDGIIGKSKS VGKYVTTTLF LYFACLLPTI</p> <p>AFGSLNDENT NGAIQVQTI AGQSIGGLLY ALFSGQPLVI LLTTAPLAIY TQVIRVICDD</p> <p>YNLDFNAFYA WTGLWNSFFL ALYAFLNLSL LMNLFKRSTE EIALFISIT FVLDAVKGMV</p> <p>KIFGKYYYGH HYHTKRTSSL VSLLGIGRSP NSSLHTALNA SLLASPVEMA TTSSPGSTHS</p> <p>GQATAVLSLL IMLGTLWLG YLYQFKKSPY LHPCVRETLS DCALPIAVLS FSLIGSYGFQ</p> <p>EIEMSKFRYN PSESLFEVAQ IHSLSFKAIG SAMGLGFLLS LFFIEQNLV AALVNAPENR</p>

LVKGTAYHWD LLLLAINTG LSLFGLPWIH AAYPHSPLHV RALALVEERV ENGHYETIV
DVKETRLTAL GASVLVGLSL LLLPFPLQWI PKPVLVGLFL YIALTSLDGN QLFSRVALLL
KEQTSYPPTH YIRRVQRKI HYFTGLQILQ LLLLCAFGMS SLPYMKMVFP LIMIAMIPIR
YNLLPRIIEA KYLDVMDAEH RP

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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 try to ensure that you receive soluble 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

Purification: One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALICE®).

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

Target Details

Target: SLC4A11

Alternative Name: Slc4a11 ([SLC4A11 Products](#))

Background: Solute carrier family 4 member 11 (Sodium borate cotransporter 1) (NaBC1),FUNCTION: Multifunctional transporter with an impact in cell morphology and differentiation (PubMed:20185830). In the presence of borate B(OH)₄(-), acts as a voltage-dependent electrogenic Na(+)-coupled B(OH)₄(-) cotransporter controlling boron homeostasis (By similarity). At early stages of stem cell differentiation, participates in synergy with ITGA5-ITGB1 and ITGAV-ITGB3 integrins and BMPR1A to promote cell adhesion and contractility that drives differentiation toward osteogenic commitment while inhibiting adipogenesis (PubMed:33247189). In the absence of B(OH)₄(-), acts as a Na(+)-coupled OH(-) or H(+) permeable channel with implications in cellular redox balance. Regulates the oxidative stress response in corneal endothelium by enhancing antioxidant defenses and protecting cells from reactive oxygen species. In response to hypo-osmotic challenge, also acts as water permeable channel at the basolateral cell membrane of corneal endothelial cells and facilitates transendothelial fluid reabsorption in the aqueous humor. In the presence of ammonia, acts as an electrogenic NH₃/H(+) cotransporter and may play a role in ammonia transport and reabsorption in renal Henle's loop epithelium (By similarity). {ECO:0000250|UniProtKB:Q8NBS3, ECO:0000269|PubMed:20185830, ECO:0000269|PubMed:33247189}.

Molecular Weight: 96.8 kDa

UniProt: [A2AJN7](#)

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 guarantee though.

Application Details

Comment:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.</p> <p>During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!</p>
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Restrictions:	For Research Use only
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Handling

Format:	Liquid
Buffer:	<p>The buffer composition is at the discretion of the manufacturer.</p> <p>Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol Might differ depending on protein.</p>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months