

Datasheet for ABIN7561925  
**SLC4A11 Protein (AA 1-862) (His tag)**



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## Overview

Quantity:	1 mg
Target:	SLC4A11
Protein Characteristics:	AA 1-862
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC4A11 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

## Product Details

Purpose:	Custom-made recombinat Slc4a11 Protein expressed in mammalien cells.
Sequence:	MSQNEHCQDS GEYFSAGTQG YFKNNMEDNL EVREDSLGDE VFDTVNSSIV SGESIRFFVN VNLEVQPSKS DLEAATGGCV LLHTRSRYLK LKNFEEVRA HRDLGFLAQ ASIILNETAT SLDDVLRTML NRFALDPNHA EPDCDLDLLM AKLFTDAGAP MESKVHLLSD TIQGVTVTR GVQYEQSWLC IICTMKTLQK RHVCISRLVR PQNWGENSCE VRFVILVLAP PKMKSTKTAM EVARTFATMF SDITFRQKLL KTRTEEFKE ALVHQRQLLT MMMPRAAGHS MSSLHTHRHP QPPKCKDFFP FGKGIWMDIM RRFVYPMPDF TDGIIGKSKS VGKYVTTTLF LYFACLLPTI AFGSLNDENT NGAIDVQKTI AGQSIGGLLY ALFSGQPLVI LLTTAPLAIY TQVIRVICDD YNLDFNAFYA WTGLWNSFFL ALYAFLNLSL LMNLFKRSTE EIALFISIT FVLDAVKGMV KIFGKYYYGH HYHTKRTSSL VSLLGIGRSP NSSLHTALNA SLLASPVEMA TTSSPGSTHS GQATAVLSLL IMLGTLWLG Y TLYQFKKSPY LHPCVRETLS DCALPIAVLS FSLIGSYGFQ EIEMSKFRYN PSESLFEVAQ IHSLSFKAIG SAMGLGFLLS LFFIEQNLV AALVNAPENR

## Product Details

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LVKGTAYHWD LLLLAIINTG LSLFGLPWIH AAYPHSPLHV RALALVEERV ENGHYETIV  
DVKETRLTAL GASVLVGLSL LLLPFPLQWI PKPVLYGLFL YIALTSLDGN QLFSRVALLL  
KEQTSYPPTH YIRRVQRKI HYFTGLQILQ LLLLCAFGMS SLPYMKMVFP LIMIAMIPR  
YNLLPRIIEA KYLDVMDAEH RP **Sequence without tag. The proposed Purification-Tag is based on experiences 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.**

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### Characteristics:

#### Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

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### Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

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### Grade:

custom-made

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## Target Details

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### Target:

SLC4A11

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### Alternative Name:

Slc4a11 ([SLC4A11 Products](#))

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### 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)<sub>4</sub><sup>(-)</sup>, acts as a voltage-dependent electrogenic Na<sup>(+)</sup>-coupled B(OH)<sub>4</sub><sup>(-)</sup> 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

## Target Details

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(PubMed:33247189). In the absence of B(OH)<sub>4</sub><sup>-</sup>, acts as a Na<sup>+</sup>-coupled OH<sup>-</sup> or H<sup>+</sup> 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 NH<sub>3</sub>/H<sup>+</sup> 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}.

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Molecular Weight: 96.8 kDa

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UniProt: [A2AJN7](#)

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Pathways: [Proton Transport](#)

## Application Details

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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.

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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Buffer: The buffer composition is at the discretion of the manufacturer.

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Handling Advice: Avoid repeated freeze-thaw cycles.

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Storage: -80 °C

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Storage Comment: Store at -80°C.

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Expiry Date: 12 months