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Datasheet for ABIN7552595

**Band 3/AE1 Protein (AA 1-911) (His tag)**

## Overview

Quantity:	1 mg
Target:	Band 3/AE1 (SLC4A1)
Protein Characteristics:	AA 1-911
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Band 3/AE1 protein is labelled with His tag.

## Product Details

Purpose:	Custom-made recombinant SLC4A1 Protein expressed in mammalian cells.
Sequence:	MEELQDDYED MMEENLEQEE YEDPDIPESQ MEEPAAHDTE ATATDYHTTS HPGTHKVYVE LQELVMDEKN QELRWMEAR WVQLEENLGE NGAWGRPHLS HLTFWSLLEL RRVFTKGTVL LDLQETSLAG VANQLLDRFI FEDQIRPQDR EELLRALLLK HSHAGELEAL GGVKPAVLTR SGDPSQPLLP QHSSLETQLF CEQDGGTEG HSPSGILEKI PPDSEATLVL VGRADFLEQP VLGFVRLQEA AELEAVELPV PIRFLFVLLG PEAPHIDYTQ LGRAAATLMS ERVFRIDAYM AQRGELLHS LEGFLDCSLV LPPTDAPSEQ ALLSLVPVQR ELLRRRYQSS PAKPDSSFYK GLDLNGGPDD PLQQTGQLFG GLVRDIRRRY PYLSDITDA FSPQVLA AVI FIYFAALSPA ITFGLLGEK TRNQMGVSEL LISTAVQGIL FALLGAQPLL VVGFSGPLLV FEEAFFSFCE TNGLEYIVGR VWIGFWLILL VLVVAFEGS FLVRFISRYT QEIFSFLISL IFIYETFSKL IKIFQDHPLQ KTYNYNVL MV PKPQGPLPNT ALLSLVLMAG TFFFAMMLRK FKNSSYFPGK LRRVIGDFGV PISILIMVLV DFFIQDITYTQ KLSVPDGFVK SNSSARGWVI HPLGLRSEFP IWMMFASALP ALLVFILIFL ESQITTLIVS KPERKMKVGS GFHLDLLL VV GMGGVAALFG MPWLSATTVR

## Product Details

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SVTHANALTV MGKASTPGAA AQIQEVKEQR ISGLLVAVLV GLSILMEPIL SRIPLAVLFG  
IFLYMGVTSL SGIQLFDRIL LLFKPPKYHP DVPYVKRVKT WRMHLFTGIQ IICLAVLWVW  
KSTPASLALP FVLILTVPLR RVLLPLIFRN VELQCLDADD AKATFDEEEG RDEYDEVAMP V

**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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Specificity: If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.

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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, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

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Grade: custom-made

## Target Details

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Target: Band 3/AE1 (SLC4A1)

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Alternative Name: SLC4A1 ([SLC4A1 Products](#))

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Background: Band 3 anion transport protein (Anion exchange protein 1) (AE 1) (Anion exchanger 1) (Solute carrier family 4 member 1) (CD antigen CD233),FUNCTION: Functions both as a transporter that mediates electroneutral anion exchange across the cell membrane and as a structural protein (PubMed:35835865, PubMed:10926824, PubMed:14734552, PubMed:16227998, PubMed:24121512, PubMed:28387307, PubMed:1538405, PubMed:20151848). Component of

## Target Details

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the ankyrin-1 complex of the erythrocyte membrane, required for normal flexibility and stability of the erythrocyte membrane and for normal erythrocyte shape via the interactions of its cytoplasmic domain with cytoskeletal proteins, glycolytic enzymes, and hemoglobin (PubMed:35835865, PubMed:1538405, PubMed:20151848). Functions as a transporter that mediates the 1:1 exchange of inorganic anions across the erythrocyte membrane. Mediates chloride-bicarbonate exchange in the kidney, and is required for normal acidification of the urine (PubMed:10926824, PubMed:14734552, PubMed:16227998, PubMed:24121512, PubMed:28387307). {ECO:0000269|PubMed:10926824, ECO:0000269|PubMed:14734552, ECO:0000269|PubMed:1538405, ECO:0000269|PubMed:16227998, ECO:0000269|PubMed:20151848, ECO:0000269|PubMed:24121512, ECO:0000269|PubMed:28387307, ECO:0000269|PubMed:35835865}., FUNCTION: (Microbial infection) Acts as a receptor for P.falciparum (isolate 3D7) MSP9 and thus, facilitates merozoite invasion of erythrocytes (PubMed:14630931). Acts as a receptor for P.falciparum (isolate 3D7) MSP1 and thus, facilitates merozoite invasion of erythrocytes (PubMed:12692305). {ECO:0000269|PubMed:12692305, ECO:0000269|PubMed:14630931}.

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Molecular Weight:	101.8 kDa
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UniProt:	<a href="#">P02730</a>
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## Application Details

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Application Notes:	We expect the protein to work for functional studies. 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
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## 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
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