

Datasheet for ABIN3116562

## SLC15A4 Protein (AA 1-577) (Strep Tag)



[Go to Product page](#)

### 1 Image

#### Overview

Quantity:	1 mg
Target:	SLC15A4
Protein Characteristics:	AA 1-577
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC15A4 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

#### Product Details

Sequence: MEGSGGGAGE RAPLLGARRA AAAAAAAGAF AGRRAACGAV LLELLERAA FYGITSNLVL  
FLNGAPFCWE GAQASEALLL FMGLTYLGSP FGGWLADARL GRARAILLSL ALYLLGMLAF  
PLLAAPATRA ALCGSARLLN CTAPGPDAAA RCCSPATFAG LVLVGLGVAT VKANITPFGA  
DQVKDRGPEA TRRFFNWFYW SINLGAILSL GGIAYIQQNV SFVTGYAIPT VCVGLAFVVF  
LCGQSVFITK PPDGSAFTDM FKILTYSCCS QKRSGERQSN GEGIGVFQQS SKQSLFDSCK  
MSHGGPFTEE KVEDVKALVK IVPVFLALIP YWTVYFQMOT TYVLQSLHLR IPEISNITTT  
PHTLPAAWLT MFDVAVLILL IPLKDKLVDP ILRRHGLLPS SLKRIAVGMF FVMCSAFAAG  
ILESRLNLV KEKTINQIG NVVYHAADLS LWWQVPQYLL IGISEIFASI AGLEFAYSAA  
PKSMQSAIMG LFFFFSGVGS FVGSGLLALV SIKAIQWMSS HTDFGNINGC YLNYYFFLLA  
AIQGATLLLF LIISVKYDHH RDHQRSRANG VPTSRRRA

**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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 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.

#### 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 in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

---

#### Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.

## Product Details

---

2. 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: >80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Endotoxin Level: Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Grade: Crystallography grade

## Target Details

---

Target: SLC15A4

Alternative Name: SLC15A4 ([SLC15A4 Products](#))

Background: Solute carrier family 15 member 4 (Peptide transporter 4) (Peptide/histidine transporter 1) (hPHT1),FUNCTION: Proton-coupled amino-acid transporter that mediates the transmembrane transport of L-histidine and some di- and tripeptides from inside the lysosome to the cytosol, and plays a key role in innate immune response (PubMed:16289537, PubMed:25238095, PubMed:29224352). Able to transport a variety of di- and tripeptides, including carnosine and some peptidoglycans (PubMed:29224352, PubMed:31073693). Transporter activity is pH - dependent and maximized in the acidic lysosomal environment (By similarity). Involved in the detection of microbial pathogens by toll-like receptors (TLRs) and NOD-like receptors (NLRs), probably by mediating transport of bacterial peptidoglycans across the endolysosomal membrane: catalyzes the transport of certain bacterial peptidoglycans, such as muramyl dipeptide (MDP), the NOD2 ligand, and L-alanyl-gamma-D-glutamyl-meso-2,6-diaminoheptanedioate (tri-DAP), the NOD1 ligand (PubMed:25238095, PubMed:29224352). Required for TLR7, TLR8 and TLR9-mediated type I interferon (IFN-I) productions in plasmacytoid dendritic cells (pDCs) (PubMed:25238095). Independently of its transporter activity, also promotes the recruitment of innate immune adapter TASL to endolysosome downstream of TLR7, TLR8 and TLR9: TASL recruitment leads to the specific recruitment and activation of IRF5 (PubMed:32433612). Required for isotype class switch recombination to IgG2c isotype in response to TLR9 stimulation (By similarity). Required for mast cell secretory-granule homeostasis by limiting mast cell functions and inflammatory responses (By similarity). {ECO:0000250|UniProtKB:O09014, ECO:0000250|UniProtKB:Q91W98, ECO:0000269|PubMed:16289537, ECO:0000269|PubMed:25238095, ECO:0000269|PubMed:29224352, ECO:0000269|PubMed:31073693, ECO:0000269|PubMed:32433612}.

## Target Details

---

Molecular Weight: 62.0 kDa

UniProt: [Q8N697](#)

## 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: 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!

Restrictions: For Research Use only

## Handling

---

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process