



Datasheet for ABIN3113925  
**SLC18A1 Protein (AA 1-525) (Strep Tag)**



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1 Image

Overview

Quantity:	1 mg
Target:	SLC18A1
Protein Characteristics:	AA 1-525
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC18A1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MLRTILDAPQ RLLKEGRASR QLVLVVVFA LLLDNMLFTV VVPIVPTFLY DMEFKEVNSS  
LHLGHAGSSP HALASPAFST IFSFFNNNTV AVEESVPSGI AWMNDTASTI PPPATEAISA  
HKNNCLQGTG FLEEEITRVG VLFASKAVMQ LLVNPFGVPL TNRIGYHIPM FAGFVIMFLS  
TVMFAFSGTY TLLFVARTLQ GIGSSFSSVA GLGMLASVYT DDHERGRAMG TALGGLALGL  
LVGAPFGSVM YEFVKGSAF LILAFLLLD GALQLCILQP SKVSPESAKG TPLFMLLKDP  
YILVAAGSIC FANMGVAILE PTLPIWMMQT MCSPKWQLGL AFLPASVSYL IGTNLFVLA  
NKMGRWLCSL IGMLVVGTS LCVPLAHNIF GLIGNAGLG LAIGMVDSSM MPIMGHLVDL  
RHTSVYGSVY AIADVAFCMG FAIGPSTGGA IVKAIGFPWL MVITGVINIV YAPLCYYLRS  
PPAKEEKLA L SQDCPMETR MYATQKPTKE FPLGEDSDEE PDHEE

**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.

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### 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.
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

## Product Details

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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

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Target: SLC18A1

Alternative Name: SLC18A1 ([SLC18A1 Products](#))

Background: Chromaffin granule amine transporter (Solute carrier family 18 member 1) (Vesicular amine transporter 1) (VAT1),FUNCTION: [Isoform 1]: Electrogenic antiporter that exchanges one cationic monoamine with two intravesicular protons across the membrane of secretory and synaptic vesicles. Uses the electrochemical proton gradient established by the V-type proton-pump ATPase to accumulate high concentrations of monoamines inside the vesicles prior to their release via exocytosis. Transports catecholamines and indolamines with higher affinity for serotonin (PubMed:23337945, PubMed:8643547, PubMed:16326835). Regulates the transvesicular monoaminergic gradient that determines the quantal size. Mediates presynaptic monoaminergic vesicle transport in the amygdala and prefrontal brain regions related with emotion processing in response to environmental stimuli (PubMed:23337945). {ECO:0000269|PubMed:16326835, ECO:0000269|PubMed:23337945, ECO:0000269|PubMed:8643547}, FUNCTION: [Isoform 2]: Unable to uptake serotonin. {ECO:0000269|PubMed:16326835}.

Molecular Weight: 56.3 kDa

UniProt: [P54219](#)

## 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.

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.

## Application Details

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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

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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)

## Images

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