

Datasheet for ABIN3113665  
**SLC01A2 Protein (AA 1-670) (Strep Tag)**



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1 Image

Overview

Quantity:	1 mg
Target:	SLC01A2
Protein Characteristics:	AA 1-670
Origin:	Human
Source:	Tobacco ( <i>Nicotiana tabacum</i> )
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC01A2 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MGETEKRIET HRIRCLSKLK MFLLAITCAF VSKTLSGSYM NSMLTQIERQ FNIPTSLVGF  
 INGSFEIGNL LLIIFVSYFG TKLHRPIMIG IGCVVMGLGC FLKSLPHFLM NQYESTVS  
 VSGNLSSNSF LCMENGTQIL RPTQDPSECT KEVKSLMWVY VLVGNIVRGM GETPILPLGI  
 SYIEDFAKFE NSPLYIGLVE TGAIGPLIG LLLASF CANV YVDTGFVNTD DLIITPTDTR  
 WVGAWWFGFL ICAGVNVLTA IPFFFLPNTL PKEGLETNAD IIKNENEDKQ KEEVKKEKYG  
 ITKDFLPFMK SLSCNPIYML FILVSVIQFN AFVNMISFMP KYLEQQYGIS SSDAIFLMGI  
 YNLPPICIGY IIGGLIMKKF KITVKQAAHI GCWLSLLEYL LYFLSFLMTC ENSSVVGINT  
 SYEGIPQDLY VENDIFADCN VDCNCPSKIW DPVCGNNGLS YLSACLAGE TSIGTGINMV  
 FQNCSCIQTS GNSSAVLGLC DKGPDCLMML QYFLILSAMS SFIYSLAAIP GYMVLLRCMK  
 SEEKSLGVGL HTFCTRVFAG IPAPIYFGAL MDSTCLHWGT LKCGESGACR IYDSTTFRYI  
 YLGLPAALRG SSFVPALIL ILLRKCHLPG ENASSGTELI ETKVKGKENE CKDIYQKSTV  
 LKDDELKTKL

**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.**

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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®):

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## Product Details

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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 Western blot.

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

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

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Grade: Crystallography grade

## Target Details

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Target: SLC01A2

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Alternative Name: SLC01A2 ([SLC01A2 Products](#))

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Background: Solute carrier organic anion transporter family member 1A2 (OATP1A2) (OATP-A) (Organic anion-transporting polypeptide 1) (OATP-1) (Sodium-independent organic anion transporter) (Solute carrier family 21 member 3),FUNCTION: Na(+)-independent transporter that mediates the cellular uptake of a broad range of organic anions such as the endogenous bile salts cholate and deoxycholate, either in their unconjugated or conjugated forms (taurocholate and glycocholate), at the plasmam membrane (PubMed:7557095, PubMed:19129463). Responsible for intestinal absorption of bile acids (By similarity). Transports dehydroepiandrosterone 3-sulfate (DHEAS), a major circulating steroid secreted by the adrenal cortex, as well as estrone 3-sulfate and 17beta-estradiol 17-O-(beta-D-glucuronate) (PubMed:9539145, PubMed:23918469, PubMed:25560245, PubMed:12568656, PubMed:11159893, PubMed:19129463). Mediates apical uptake of all-trans-retinol (atROL) across human retinal pigment epithelium, which is essential to maintaining the integrity of the visual cycle and thus vision (PubMed:25560245). Involved in the uptake of clinically used drugs (PubMed:17301733, PubMed:20686826, PubMed:27777271). Capable of thyroid hormone transport (both T3 or 3,3',5'-triiodo-L-thyronine, and T4 or L-tyroxine) (PubMed:20358049, PubMed:19129463). Also transports prostaglandin E2 (PubMed:19129463). Plays roles in blood-brain and -cerebrospinal fluid barrier transport of organic anions and signal mediators, and in hormone uptake by neural cells (By similarity). May also play a role in the reuptake of neuropeptides such as substance P/TAC1 and vasoactive intestinal peptide/VIP released from retinal neurons (PubMed:25132355). May play an important role in plasma and tissue distribution of the structurally diverse chemotherapeutic drugs methotrexate and paclitaxel (PubMed:23243220). Shows a pH - sensitive substrate specificity which may be ascribed to the protonation state of the binding

## Target Details

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site and leads to a stimulation of substrate transport in an acidic microenvironment (PubMed:19129463). Hydrogencarbonate/HCO<sub>3</sub><sup>(-)</sup> acts as the probable counteranion that exchanges for organic anions (PubMed:19129463). May contribute to regulate the transport of organic compounds in testis across the blood-testis-barrier (Probable).

{ECO:0000250|UniProtKB:O88397, ECO:0000250|UniProtKB:Q91YY5, ECO:0000269|PubMed:11159893, ECO:0000269|PubMed:12568656, ECO:0000269|PubMed:17301733, ECO:0000269|PubMed:19129463, ECO:0000269|PubMed:20358049, ECO:0000269|PubMed:20686826, ECO:0000269|PubMed:23243220, ECO:0000269|PubMed:23918469, ECO:0000269|PubMed:25132355, ECO:0000269|PubMed:25560245, ECO:0000269|PubMed:27777271, ECO:0000269|PubMed:7557095, ECO:0000269|PubMed:9539145, ECO:0000305|PubMed:35307651}.

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Molecular Weight: 74.1 kDa

UniProt: [P46721](#)

## 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.

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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## Handling

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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