

Datasheet for ABIN3115866

## SLC04C1 Protein (AA 1-724) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	SLC04C1 (OATP-H)
Protein Characteristics:	AA 1-724
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC04C1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Brand:	AliCE®
Sequence:	<p>MKSAKGIE NL AFVPSSPDIL RRLSASPSQI EVSALSSDPQ RENSQPQELQ KPQEPQKSPE</p> <p>PSLPSAPPNV SEEKLRSLSL SEFEEGSYGW RNFHPQCLQR CNTPGGFLH YCLLAVTQGI</p> <p>VVNLGVNISI STVEKRYEMK SSLTGLISS YDISFCLLSL FVSFFGERGH KPRWLAAFAAF</p> <p>MIGLGALVFS LPQFFSGEYK LGS LFEDTCV TTRNSTSCTS STSSLSNYLY VFILGQLLLG</p> <p>AGGTPLYTLG TAFLDDSVPT HKSSLYIGTG YAMSILGPAI GYVLGGQLLT IYIDVAMGES</p> <p>TDVTEDDPRW LGAWWIGFLL SWIFAWSLII PFSCFPKHLP GTAEIQAGKT SQA HQSNSNA</p> <p>DVKFGKSIKD FPAALKNL MK NAVFMCLVLS TSSEALITTG FATFLPKFIE NQFGLTSSFA</p> <p>ATLGGAVLIP GAALGQILGG FLVSKFRMTC KNTMKFALFT SGVALTLSFV FMYAKCENEP</p> <p>FAGVSESYNG TGELGNLIAP CNANCNCSRS YYPVCGDGV QYFSPCFAGC SNPVAHRKPK</p> <p>VYYNCSCIER KTEITSTAET FGFEAKAGKC ETHCAKLPIF LCIFFIVIIF TFMAGTPITV SILRCVNHRQ</p> <p>RSLALGIQFM VLRLLGTIPG PIIFGFTIDS TCILWDINDC GIKGACWIYD NIKMAHMLVA</p>

ISVTCKVITM FFNGFAIFLY KPPPSATDVS FHKENAVVTN VLAEQDLNKI VKEG

**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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 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:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

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## Product Details

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

## Target Details

Target: SLC04C1 (OATP-H)

Alternative Name: SLC04C1 ([OATP-H Products](#))

Background: Solute carrier organic anion transporter family member 4C1 (SLC04C1) (OATP-H) (Organic anion transporter M1) (OATP-M1) (Organic anion transporting polypeptide 4C1) (OATP4C1) (Solute carrier family 21 member 20),FUNCTION: Mediates the transport of organic anions such as steroids (estrone 3-sulfate, chenodeoxycholate, glycocholate) and thyroid hormones (3,3',5-triiodo-L-thyronine (T3), L-thyroxine (T4)), in the kidney (PubMed:14993604, PubMed:19129463, PubMed:20610891). Capable of transporting cAMP and pharmacological substances such as digoxin, ouabain and methotrexate (PubMed:14993604). Transport is independent of sodium, chloride ion, and ATP (PubMed:14993604). Transport activity is stimulated by an acidic extracellular environment due to increased substrate affinity to the transporter (PubMed:19129463). The driving force for this transport activity is currently not known (By similarity). The role of hydrogencarbonate ( $\text{HCO}_3^-$ , bicarbonate) as the probable counteranion that exchanges for organic anions is still not well defined (PubMed:19129463). Functions as an uptake transporter at the apical membrane, suggesting a role in renal reabsorption (By similarity). Involved in the renal secretion of the uremic toxin ADMA (N(omega),N(omega)-dimethyl-L-arginine or asymmetrical dimethylarginine), which is associated to cardiovascular events and mortality, and the structurally related amino acids L-arginine and L-homoarginine (a cardioprotective biomarker) (PubMed:30865704). Can act bidirectionally, suggesting a dual protective role of this transport protein, exporting L-homoarginine after being synthesized in proximal tubule cells, and mediating uptake of ADMA from the blood into proximal tubule cells where it is degraded by the enzyme dimethylarginine dimethylaminohydrolase 1 (DDAH1) (PubMed:30865704, PubMed:32642843). May be involved in sperm maturation by enabling directed movement of organic anions and compounds within or between cells (By similarity). This ion-transporting process is important to maintain the strict epididymal homeostasis necessary for sperm maturation (By similarity). May have a role in secretory functions since seminal vesicle epithelial cells are assumed to secrete proteins involved in decapacitation by modifying surface proteins to facilitate the acquisition of the ability to fertilize the egg (By similarity). {ECO:0000250|UniProtKB:Q71MB6, ECO:0000250|UniProtKB:Q8BGD4, ECO:0000269|PubMed:14993604, ECO:0000269|PubMed:19129463,

## Target Details

ECO:0000269|PubMed:20610891, ECO:0000269|PubMed:30865704,  
ECO:0000269|PubMed:32642843}.

Molecular Weight: 78.9 kDa

UniProt: [Q6ZQN7](#)

## 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.

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Restrictions: For Research Use only

## Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.  
Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months