

Datasheet for ABIN3117230  
**SLC04A1 Protein (AA 1-722) (Strep Tag)**



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1 Image

Overview

Quantity:	1 mg
Target:	SLC04A1 (OATP-E)
Protein Characteristics:	AA 1-722
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC04A1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence:	<p>MPLHQLGDKP LTFPSPNSAM ENGLDHTPPS RRASPGTPLS PGSLRSAAHS PLDTSKQPLC          QLWAEKHGAR GTHEVRYVSA GQSVACGWWA FAPPCLQVLN TPKGILFFLC AAAFLQGMTV          NGFINTVITS LERRYDLHSY QSGLIASSYD IAACLCLTFV SYFGGSGHKP RWLGWGVLLM          GTGSLVFALP HFTAGRYEVE LDAGVRTCPA NPGAVCADST SGLSRYQLVF MLGQFLHGVG          ATPLYTLGVT YLDENVKSSC SPVYIAIFYT AAILGPAAGY LIGGALLNIY TEMGRRTLT          TESPLWVGAW WVGFLGSGAA AFFTAVPILG YPRLPGSQR YAVMRAAEMH QKDSSRGEA          SNPDFGKTIR DLPLSIWLLL KNPTFILLCL AGATEATLIT GMSTFSPKFL ESQFSLSASE          AATLFGYLVV PAGGGGTFLG GFFVNKRLRLR GSAVIKFLCF CTVSLLGIL VFSLHCPSPV          MAGVTASYGG SLLPEGHLNL TAPCNAACSC QPEHYSPVCG SDGLMYFSLC HAGCPAATET          NVDGQKVYRD CSCIPQNLSS GFGHATAGKC TSTCQRKPLL LVFIFVVIFF TFLSSIPALT          ATLRVDRPQ RSFALGIQWI VVRILGGIPG PIAFGWVIDK ACLLWQDQCG QQGSCLVYQN          SAMSRYLIM GLLYKVLGVL FFAIACFLYK PLESSDGLT TCLPSQSSAP DSATDSQLQS SV</p>
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**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.

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: SLC04A1 (OATP-E)

Alternative Name: SLC04A1 ([OATP-E Products](#))

Background: Solute carrier organic anion transporter family member 4A1 (OATP4A1) (Colon organic anion transporter) (Organic anion transporter polypeptide-related protein 1) (OATP-RP1) (OATPRP1) (POAT) (Organic anion-transporting polypeptide E) (OATP-E) (Sodium-independent organic anion transporter E) (Solute carrier family 21 member 12),FUNCTION: Organic anion antiporter with apparent broad substrate specificity. Recognizes various substrates including thyroid hormones 3,3',5-triiodo-L-thyronine (T3), L-thyroxine (T4) and 3,3',5'-triiodo-L-thyronine (rT3), conjugated steroids such as estrone 3-sulfate and estradiol 17-beta glucuronide, bile acids such as taurocholate and prostanoids such as prostaglandin E2, likely operating in a tissue-specific manner (PubMed:10873595, PubMed:19129463, PubMed:30343886). May be involved in uptake of metabolites from the circulation into organs such as kidney, liver or placenta. Possibly drives the selective transport of thyroid hormones and estrogens coupled to an outward glutamate gradient across the microvillous membrane of the placenta (PubMed:30343886). The transport mechanism, its electrogenicity and potential tissue-specific counterions remain to be elucidated (Probable). {ECO:0000269|PubMed:10873595, ECO:0000269|PubMed:19129463, ECO:0000269|PubMed:30343886, ECO:0000305}.

Molecular Weight: 77.2 kDa

UniProt: [Q96BD0](#)

Pathways: [Hormone Transport](#)

## 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.

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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!

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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. If you have a special request, please contact us.

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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:** Unlimited (if stored properly)

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