

Datasheet for ABIN3117148

SLC02A1 Protein (AA 1-643) (Strep Tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	SLC02A1
Protein Characteristics:	AA 1-643
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC02A1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MGLLPKLGAS QGSDTSTSRA GRCARSVFGN IKVFVLCQGL LQLCQLLYSA YFKSSLTTIE KRFG LSSSSS GLISSLNEIS NAILIIFVSY FGSRVHRPRL IGIGGLFLAA GAFILTLPHF LSEPYQYTLA STGNNSRLQA ELCQKHWQDL PPSKCHSTTQ NPQKETSSMW GLMVVAQLLA GIGTVPIQPF GISYVDDFSE PSNSPLYISI LFAISVFGPA FGYLLGSVML QIFVDYGRVN TAAVNLVPGD PRWIGAWWLG LLISSALLVL TSFPFFFFPR AMPIGAKRAP ATADEARKLE EAKSRGSLVD FIKRFPICIFL RLLMNSLFVL VVLAQCTFSS VIAGLSTFLN KFLEKQYGTS AAYANFLIGA VNLPAALGM LFGGILMKRF VFSLQAIPRI ATTIITISMI LCVPLFFMGC STPTVAEVYP PSTSSSIHPQ SPACRRDCSC PDSIFHPVCG DNGIEYLSPC HAGCSNINMS SATSKQLIYL NCSCVTGGSA SAKTGSCPVP CAHFLIPAIF LISFVSLIAC ISHNPLYMMV LRVVNQEEKS FAIGVQFLLM RLLAWLPSPA LYGLTIDHSC IRWNSLCLGR RGACAYYDND ALRDRYLGLQ MGYKALGMLL LCFISWRVKK NKEYNVQKAA GLI
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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.

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

Product Details

- 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

Target:	SLCO2A1
Alternative Name:	SLCO2A1 (SLCO2A1 Products)
Background:	<p>Solute carrier organic anion transporter family member 2A1 (SLCO2A1) (OATP2A1) (PHOAR2) (Prostaglandin transporter) (PGT) (Solute carrier family 21 member 2) (SLC21A2),FUNCTION: Mediates the transport of prostaglandins (PGs, mainly PGE2, PGE1, PGE3, PGF2alpha, PGD2, PGH2) and thromboxanes (thromboxane B2) across the cell membrane (PubMed:8787677, PubMed:11997326, PubMed:26692285). PGs and thromboxanes play fundamental roles in diverse functions such as intraocular pressure, gastric acid secretion, renal salt and water transport, vascular tone, and fever (PubMed:15044627). Plays a role in the clearance of PGs from the circulation through cellular uptake, which allows cytoplasmic oxidation and PG signal termination (PubMed:8787677). PG uptake is dependent upon membrane potential and involves exchange of a monovalent anionic substrate (PGs exist physiologically as an anionic monovalent form) with a stoichiometry of 1:1 for divalent anions or of 1:2 for monovalent anions (PubMed:29204966). Uses lactate, generated by glycolysis, as a counter-substrate to mediate PGE2 influx and efflux (PubMed:11997326). Under nonglycolytic conditions, metabolites other than lactate might serve as counter-substrates (PubMed:11997326). Although the mechanism is not clear, this transporter can function in bidirectional mode (PubMed:29204966). When apically expressed in epithelial cells, it facilitates transcellular transport (also called vectorial release), extracting PG from the apical medium and facilitating transport across the cell toward the basolateral side, whereupon the PG exits the cell by simple diffusion (By similarity). In the renal collecting duct, regulates renal Na⁺ balance by removing PGE2 from apical medium (PGE2 EP4 receptor is likely localized to the luminal/apical membrane and stimulates Na⁺ resorption) and transporting it toward the basolateral membrane (where PGE2 EP1 and EP3 receptors inhibit Na⁺ resorption) (By similarity). Plays a role in endometrium during decidualization, increasing uptake of PGs by decidual cells</p>

Target Details

(PubMed:16339169). Involved in critical events for ovulation (PubMed:27169804). Regulates extracellular PGE2 concentration for follicular development in the ovaries (By similarity). Expressed intracellularly, may contribute to vesicular uptake of newly synthesized intracellular PGs, thereby facilitating exocytotic secretion of PGs without being metabolized (By similarity). Essential core component of the major type of large-conductance anion channel, Maxi-Cl, which plays essential roles in inorganic anion transport, cell volume regulation and release of ATP and glutamate not only in physiological processes but also in pathological processes (By similarity). May contribute to regulate the transport of organic compounds in testis across the blood-testis-barrier (Probable). {ECO:0000250|UniProtKB:Q00910, ECO:0000250|UniProtKB:Q9EPT5, ECO:0000269|PubMed:11997326, ECO:0000269|PubMed:16339169, ECO:0000269|PubMed:26692285, ECO:0000269|PubMed:27169804, ECO:0000269|PubMed:8787677, ECO:0000303|PubMed:11997326, ECO:0000303|PubMed:15044627, ECO:0000303|PubMed:29204966, ECO:0000305|PubMed:35307651}.

Molecular Weight: 70.0 kDa

UniProt: [Q92959](#)

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.

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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)

Images



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