Datasheet for ABIN3111049

SLCO2B1 Protein (AA 1-709) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	SLCO2B1
Protein Characteristics:	AA 1-709
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLCO2B1 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MGPRIGPAGE VPQVPDKETK ATMGTENTPG GKASPDPQDV RPSVFHNIKL FVLCHSLLQL AQLMISGYLK SSISTVEKRF GLSSQTSGLL ASFNEVGNTA LIVFVSYFGS RVHRPRMIGY GAILVALAGL LMTLPHFISE PYRYDNTSPE DMPQDFKASL CLPTTSAPAS APSNGNCSSY TETQHLSVVG IMFVAQTLLG VGGVPIQPFG ISYIDDFAHN SNSPLYLGIL FAVTMMGPGL AFGLGSLMLR LYVDINQMPE GGISLTIKDP RWVGAWWLGF LIAAGAVALA AIPYFFFPKE MPKEKRELQF RRKVLAVTDS PARKGKDSPS KQSPGESTKK QDGLVQIAPN LTVIQFIKVF PRVLLQTLRH PIFLLVVLSQ VCLSSMAAGM ATFLPKFLER QFSITASYAN LLIGCLSFPS VIVGIVVGGV LVKRLHLGPV GCGALCLLGM LLCLFFSLPL FFIGCSSHQI AGITHQTSAH PGLELSPSCM EACSCPLDGF NPVCDPSTRV EYITPCHAGC SSWVVQDALD NSQVFYTNCS CVVEGNPVLA GSCDSTCSHL VVPFLLLVSL GSALACLTHT PSFMLILRGV KKEDKTLAVG IQFMFLRILA WMPSPVIHGS AIDTTCVHWA LSCGRRAVCR YYNNDLLRNR FIGLQFFFKT

	GSVICFALVL AVLRQQDKEA RTKESRSSPA VEQQLLVSGP GKKPEDSRV **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 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.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).

Product Details

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

Target Details

Target:	SLCO2B1
Alternative Name:	SLCO2B1 (SLCO2B1 Products)
Background:	Solute carrier organic anion transporter family member 2B1 (Organic anion transporter B) (OATP-B) (Organic anion transporter polypeptide-related protein 2) (OATP-RP2) (OATPRP2) (Organic anion transporting polypeptide 2B1) (OATP2B1) (Solute carrier family 21 member 9),FUNCTION: Mediates the Na(+)-independent transport of steroid sulfate conjugates and other specific organic anions (PubMed:10873595, PubMed:11159893, PubMed:11932330, PubMed:12724351, PubMed:14610227, PubMed:16908597, PubMed:18501590, PubMed:20507927, PubMed:22201122, PubMed:23531488, PubMed:25132355, PubMed:27576593, PubMed:26383540, PubMed:28408210, PubMed:29871943, PubMed:34628357). Responsible for the transport of estrone 3-sulfate (E1S) through the basal membrane of syncytiotrophoblast, highlighting a potential role in the placental absorption of fetal-derived sulfated steroids including the steroid hormone precursor dehydroepiandrosterone sulfate (DHEA-S) (PubMed:11932330, PubMed:12409283). Also facilitates the uptake of sulfated steroids at the basal/sinusoidal membrane of hepatocytes, therefore accounting for the major part of organic anions clearance of liver (PubMed:11159893). Mediates the intestinal uptake of sulfated steroids (PubMed:12724351, PubMed:28408210). Mediates the uptake of the neurosteroids DHEA-S and pregnenolone sulfate (PregS) into the endothelial cells of the blood-brain barrier as the first step to enter the brain (PubMed:16908597, PubMed:25132355). Also plays a role in the reuptake of neuropeptides such as substance P/TAC1 and vasoactive intestinal peptide/VIP released from retinal neurons (PubMed:25132355). May act as a heme transporter that promotes cellular iron availability via heme oxygenase/HMOX2 and independently of TFRC (PubMed:35714613). Also transports heme by-product coproporphyrin III (CPIII), and may be involved in their hepatic disposition (PubMed:26383540). Mediates the uptake of other substrates such as prostaglandins D2 (PGD2), E1 (PGE1) and E2 (PGE2), taurocholate, L-thyroxine, leukotriene C4 and thromboxane B2 (PubMed:10873595, PubMed:14610227, PubMed:19129463, Ref.25, PubMed:29871943). May contribute to regulate the transport of organic compounds in testis across the blood-testis-barrier (Probable). Shows a pH -sensitive substrate specificity which may be ascribed to the protonation state of the binding site and leads to a stimulation of substrate transport in an acidic microenvironment

Target Details

	(PubMed:14610227, PubMed:19129463, PubMed:22201122). The exact transport mechanism has not been yet deciphered but most likely involves an anion exchange, coupling the cellular uptake of organic substrate with the efflux of an anionic compound (PubMed:19129463, PubMed:20507927, PubMed:26277985). Hydrogencarbonate/HCO3(-) acts as a probable counteranion that exchanges for organic anions (PubMed:19129463). Cytoplasmic glutamate may also act as counteranion in the placenta (PubMed:26277985). An inwardly directed proton gradient has also been proposed as the driving force of E1S uptake with a (H(+):E1S) stoichiometry of (1:1) (PubMed:20507927). {ECO:0000269|PubMed:10873595, ECO:0000269|PubMed:11159893, ECO:0000269|PubMed:11932330, ECO:0000269|PubMed:12409283, ECO:0000269|PubMed:12724351, ECO:0000269|PubMed:14610227, ECO:0000269|PubMed:16908597, ECO:0000269|PubMed:18501590, ECO:0000269|PubMed:19129463, ECO:0000269|PubMed:20507927, ECO:0000269|PubMed:22201122, ECO:0000269|PubMed:23531488, ECO:0000269|PubMed:25132355, ECO:0000269|PubMed:26277985, ECO:0000269|PubMed:26383540, ECO:0000269|PubMed:27576593, ECO:0000269|PubMed:29871943, ECO:0000269|PubMed:34628357, ECO:0000269|PubMed:35714613, ECO:0000269|Ref.25, ECO:0000305|PubMed:35307651}., FUNCTION: [Isoform 3]: Has estrone 3-sulfate (E1S) transport activity comparable with the full-length isoform 1. {ECO:0000269|PubMed:23531488}.
Molecular Weight:	76.7 kDa
UniProt:	O94956

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. 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

Application Details

	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

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