Datasheet for ABIN3131351

SLC22A1 Protein (AA 1-556) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	SLC22A1
Protein Characteristics:	AA 1-556
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC22A1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Brand:	AliCE®
Sequence:	MPTVDDVLEH VGEFGWFQKQ AFLLLCLISA SLAPIYVGIV FLGFTPDHHC RSPGVAELSQ RCGWSPAEEL NYTVPGLGSA GEASFLSQCM KYEVDWNQST LDCVDPLSSL AANRSHLPLS PCEHGWVYDT PGSSIVTEFN LVCGDAWKVD LFQSCVNLGF FLGSLVVGYI ADRFGRKLCL LVTTLVTSLS GVLTAVAPDY TSMLLFRLLQ GMVSKGSWVS GYTLITEFVG SGYRRTTAIL YQVAFTVGLV GLAGVAYAIP DWRWLQLAVS LPTFLFLLYY WFVPESPRWL LSQKRTTQAV RIMEQIAQKN RKVPPADLKM MCLEEDASER RSPSFADLFR TPSLRKHTLI LMYLWFSCAV LYQGLIMHVG ATGANLYLDF FYSSLVEFPA AFIILVTIDR IGRIYPIAAS NLVAGAACLL MIFIPHELHW LNVTLACLGR MGATIVLQMV CLVNAELYPT FIRNLGMMVC SALCDLGGIF TPFMVFRLME VWQALPLILF GVLGLSAGAV TLLLPETKGV ALPETIEEAE NLGRRKSKAK ENTIYLQVQT GKSPHT **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®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	SLC22A1
Alternative Name:	Slc22a1 (SLC22A1 Products)
Background:	Solute carrier family 22 member 1 (Organic cation transporter 1) (mOCT1),FUNCTION: Electrogenic voltage-dependent transporter that mediates the transport of a variety of organic cations such as endogenous bioactive amines, cationic drugs and xenobiotics (PubMed:10216142, PubMed:12176030, PubMed:11463829, PubMed:23458604, PubMed:24961373). Functions as a pH - and Na(+)-independent, bidirectional transporter (By similarity). Cation cellular uptake or release is driven by the electrochemical potential (i.e. membrane potential and concentration gradient) and substrate selectivity (By similarity). Hydrophobicity is a major requirement for recognition in polyvalent substrates and inhibitors (PubMed:23458604). Primarily expressed in the basolateral membrane of hepatocytes and proximal tubules and involved in the uptake and disposition of cationic compounds from the blood by hepatic and renal clearance (By similarity). Most likely functions as an uptake carrier in enterocytes contributing to the intestinal elimination of organic cations from the systemic circulation (PubMed:11463829, PubMed:24961373). Transports endogenous monoamines such as N-1-methylnicotinamide (NMN), guanidine, neurotransmitters dopamine, serotonin, noradrenaline, adrenaline and histamine, and quaternary ammonium compound such as choline (PubMed:24961373, PubMed:35469921). Also transports natural polyamines such as spermidine, agmatine and putrescine at low affinity, but relatively high turnover (PubMed:23458604). Involved in the hepatic and intestinal uptake of the vitamin B1/thiamine, hence regulating hepatic lipid and energy metabolism (PubMed:24961373). Contributes to the influx and efflux of fatty acid carriers carnitines and acylcarnitines across the basolateral membrane of hepatocytes, from the liver to the systemic circulation and inversely and may be involved in regulating the systemic availability of hepatic acylcarnitines (PubMed:28942964, PubMed:34040533). Also capable of transporting non-amine endogenous compounds such as prostaglandin E2 (PGE2) and prostaglandin F2-alpha (PGF2-alpha) (By similarity). May contribute to the transport of cationic compounds in testes across the blood-testis-barrier (By similarity). Also mediates the uptake of xenobiotics tributylmethylammonium (TBuMA), quinidine, N-methyl-quinine (NMQ), N-methyl-quinidine (NMQD) N-(4,4-azo-n-pentyl)-quinuclidine (APQ), azidoprocainamide methoiodide (AMP), N-(4,4-azo-n-pentyl)-21-deoxyajmalinium (APDA) and 4-(4-(dimethylamino)styryl)-N-methylpyridinium (ASP) (PubMed:11463829). {ECO:0000250|UniProtKB:O15245, ECO:0000250|UniProtKB:Q63089, ECO:0000269|PubMed:10216142, ECO:0000269|PubMed:11463829, ECO:0000269|PubMed:12176030, ECO:0000269|PubMed:23458604, ECO:0000269|PubMed:24961373, ECO:0000269|PubMed:28942964,

Target Details

	ECO:0000269|PubMed:34040533, ECO:0000269|PubMed:35469921}.
Molecular Weight:	61.5 kDa
UniProt:	O08966
Pathways:	Hormone Transport

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 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