Datasheet for ABIN3116808

SLC22A8 Protein (AA 1-542) (Strep Tag)

1 Image

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Overview

Quantity:	1 mg
Target:	SLC22A8
Protein Characteristics:	AA 1-542
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC22A8 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MTFSEILDRV GSMGHFQFLH VAILGLPILN MANHNLLQIF TAATPVHHCR PPHNASTGPW VLPMGPNGKP ERCLRFVHPP NASLPNDTQR AMEPCLDGWV YNSTKDSIVT EWDLVCNSNK LKEMAQSIFM AGILIGGLVL GDLSDRFGRR PILTCSYLLL AASGSGAAFS PTFPIYMVFR FLCGFGISGI TLSTVILNVE WVPTRMRAIM STALGYCYTF GQFILPGLAY AIPQWRWLQL TVSIPFFVFF LSSWWTPESI RWLVLSGKSS KALKILRRVA VFNGKKEEGE RLSLEELKLN LQKEISLAKA KYTASDLFRI PMLRRMTFCL SLAWFATGFA YYSLAMGVEE FGVNLYILQI IFGGVDVPAK FITILSLSYL GRHTTQAAAL LLAGGAILAL TFVPLDLQTV RTVLAVFGKG CLSSSFSCLF LYTSELYPTV IRQTGMGVSN LWTRVGSMVS PLVKITGEVQ PFIPNIIYGI TALLGGSAAL FLPETLNQPL PETIEDLENW SLRAKKPKQE PEVEKASQRI PLQPHGPGLG SS **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.**

Product Details

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 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

Product Details

	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:	SLC22A8
Alternative Name:	SLC22A8 (SLC22A8 Products)
Background:	Organic anion transporter 3 (hOAT3) (Organic anion/dicarboxylate exchanger) (Solute carrier family 22 member 8),FUNCTION: Functions as an organic anion/dicarboxylate exchanger that couples organic anion uptake indirectly to the sodium gradient (PubMed:14586168, PubMed:15644426, PubMed:15846473, PubMed:16455804, PubMed:31553721). Transports organic anions such as estrone 3-sulfate (E1S) and urate in exchange for dicarboxylates such as glutarate or ketoglutarate (2-oxoglutarate) (PubMed:14586168, PubMed:15846473, PubMed:15864504, PubMed:22108572, PubMed:23832370). Plays an important role in the excretion of endogenous and exogenous organic anions, especially from the kidney and the brain (PubMed:14586168, PubMed:15846473, PubMed:11306713). E1S transport is pH - and chloride-dependent and may also involve E1S/cGMP exchange (PubMed:26377792). Responsible for the transport of prostaglandin E2 (PGE2) and prostaglandin F2(alpha) (PGF2(alpha)) in the basolateral side of the renal tubule (PubMed:11907186). Involved in the transport of neuroactive tryptophan metabolites kynurenate and xanthurenate (PubMed:22108572, PubMed:23832370). Functions as a biopterin transporters involved in the uptake and the secretion of coenzymes tetrahydrobiopterin (BH4), dihydrobiopterin (BH2) and sepiapterin to urine, thereby determining baseline levels of blood biopterins (PubMed:28534121). May be involved in the basolateral transport of steviol, a metabolite of the popular sugar substitute stevioside (PubMed:15644426). May participate in the detoxification/ renal excretion of drugs and xenobiotics, such as the histamine H(2)-receptor antagonists fexofenadine and cimetidine, the antibiotic benzylpenicillin (PCG), the anionic herbicide 2,4-dichloro-phenoxyacetate (2,4-D), the diagnostic agent p-aminohippurate (PAH), the antiviral acyclovir (ACV), and the mycotoxin ochratoxin (OTA), by transporting these exogenous organic anions across the cell membrane in exchange for dicarboxylates such as 2-oxoglutarate (PubMed:15846473, PubMed:16455804, PubMed:11669456). Contributes to the renal uptake of potent uremic toxins (indoxyl sulfate (IS), indole acetate (IA), hippurate/N-benzoylglycine (HA)

Target Details

	and 3-carboxy-4-methyl-5-propyl-2-furanpropionate (CMPF)), pravastatin, PCG, E1S and dehydroepiandrosterone sulfate (DHEAS), and is partly involved in the renal uptake of temocaprilat (an angiotensin-converting enzyme (ACE) inhibitor) (PubMed:14675047). May contribute to the release of cortisol in the adrenals (PubMed:15864504). Involved in one of the detoxification systems on the choroid plexus (CP), removes substrates such as E1S or taurocholate (TC), PCG, 2,4-D and PAH, from the cerebrospinal fluid (CSF) to the blood for eventual excretion in urine and bile (By similarity). Also contributes to the uptake of several other organic compounds such as the prostanoids prostaglandin E(2) and prostaglandin F(2-alpha), L-carnitine, and the therapeutic drugs allopurinol, 6-mercaptopurine (6-MP) and 5-fluorouracil (5-FU) (By similarity). Mediates the transport of PAH, PCG, and the statins pravastatin and pitavastatin, from the cerebrum into the blood circulation across the blood-brain barrier (BBB). In summary, plays a role in the efflux of drugs and xenobiotics, helping reduce their undesired toxicological effects on the body (By similarity). {ECO:0000250|UniProtKB:O88909, ECO:0000250|UniProtKB:Q9R1U7, ECO:0000269|PubMed:11306713, ECO:0000269|PubMed:11669456, ECO:0000269|PubMed:11907186, ECO:0000269|PubMed:14586168, ECO:0000269|PubMed:14675047, ECO:0000269|PubMed:15644426, ECO:0000269|PubMed:15846473, ECO:0000269|PubMed:15864504, ECO:0000269|PubMed:16455804, ECO:0000269|PubMed:22108572, ECO:0000269|PubMed:23832370, ECO:0000269|PubMed:26377792, ECO:0000269|PubMed:28534121, ECO:0000269|PubMed:31553721, ECO:0000303|PubMed:15864504}.
Molecular Weight:	59.9 kDa
UniProt:	Q8TCC7

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

Application Details

	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. 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