Datasheet for ABIN3116000

SLC29A4 Protein (AA 1-530) (Strep Tag)

1 Image

Go to Product page

Overview

Quantity:	1 mg
Target:	SLC29A4
Protein Characteristics:	AA 1-530
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC29A4 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MGSVGSQRLE EPSVAGTPDP GVVMSFTFDS HQLEEAAEAA QGQGLRARGV PAFTDTTLDE PVPDDRYHAI YFAMLLAGVG FLLPYNSFIT DVDYLHHKYP GTSIVFDMSL TYILVALAAV LLNNVLVERL TLHTRITAGY LLALGPLLFI SICDVWLQLF SRDQAYAINL AAVGTVAFGC TVQQSSFYGY TGMLPKRYTQ GVMTGESTAG VMISLSRILT KLLLPDERAS TLIFFLVSVA LELLCFLLHL LVRRSRFVLF YTTRPRDSHR GRPGLGRGYG YRVHHDVVAG DVHFEHPAPA LAPNESPKDS PAHEVTGSGG AYMRFDVPRP RVQRSWPTFR ALLLHRYVVA RVIWADMLSI AVTYFITLCL FPGLESEIRH CILGEWLPIL IMAVFNLSDF VGKILAALPV DWRGTHLLAC SCLRVVFIPL FILCVYPSGM PALRHPAWPC IFSLLMGISN GYFGSVPMIL AAGKVSPKQR ELAGNTMTVS YMSGLTLGSA VAYCTYSLTR DAHGSCLHAS TANGSILAGL **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:	SLC29A4
Alternative Name:	SLC29A4 (SLC29A4 Products)
Background:	Equilibrative nucleoside transporter 4 (hENT4) (Plasma membrane monoamine transporter) (PMAT) (Solute carrier family 29 member 4),FUNCTION: Electrogenic voltage-dependent transporter that mediates the transport of a variety of endogenous bioactive amines, cationic xenobiotics and drugs (PubMed:15448143, PubMed:16099839, PubMed:16873718, PubMed:17018840, PubMed:17121826, PubMed:20592246, PubMed:20858707, PubMed:22396231, PubMed:31537831). Utilizes the physiologic inside-negative membrane potential as a driving force to facilitate cellular uptake of organic cations (PubMed:15448143, PubMed:20592246, PubMed:22396231). Functions as a Na(+)- and Cl(-)-independent bidirectional transporter (PubMed:15448143, PubMed:16099839, PubMed:22396231, PubMed:31537831). Substrate transport is pH -dependent and enhanced under acidic condition, which is most likely the result of allosteric changes in the transporter structure (PubMed:16873718, PubMed:17018840, PubMed:20592246, PubMed:22396231, PubMed:31537831). Implicated in monoamine neurotransmitters uptake such as serotonin, dopamine, adrenaline/epinephrine, noradrenaline/norepinephrine, histamine and tyramine, thereby supporting a role in homeostatic regulation of aminergic neurotransmission in the central nervous system (PubMed:15448143, PubMed:16099839, PubMed:17018840, PubMed:17121826, PubMed:20858707, PubMed:22396231). Also responsible for the uptake of bioactive amines and drugs through the blood-cerebrospinal fluid (CSF) barrier, from the CSF into choroid plexus epithelial cells, thereby playing a significant role in the clearance of cationic neurotoxins, xenobiotics and metabolic waste in the brain (By similarity). Involved in bidirectional transport of the purine nucleoside adenosine and plays a role in the regulation of extracellular adenosine concentrations in cardiac tissues, in particular during ischemia (PubMed:16873718, PubMed:20592246, PubMed:31537831). May be involved in organic cation uptake from the tubular lumen into renal tubular cells, thereby contributing to organic cation reabsorption in the kidney (PubMed:17018840). Also transports guanidine (PubMed:16099839).

Target Details

	{ECO:0000250|UniProtKB:Q8R139, ECO:0000269|PubMed:15448143, ECO:0000269|PubMed:16099839, ECO:0000269|PubMed:16873718, ECO:0000269|PubMed:17018840, ECO:0000269|PubMed:17121826, ECO:0000269|PubMed:20592246, ECO:0000269|PubMed:20858707, ECO:0000269|PubMed:22396231, ECO:0000269|PubMed:31537831}.
Molecular Weight:	58.1 kDa
UniProt:	Q7RTT9

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. 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)

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

