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SLC38A3 Protein (AA 1-504) (Strep Tag)



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Overview

Quantity:	1 mg
Target:	SLC38A3
Protein Characteristics:	AA 1-504
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC38A3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:

MEAPLQTEMV ELVPNGKHSE GLLPVITPMA GNQRVEDPAR SCMEGKSFLQ KSPSKEPHFT
DFEGKTSFGM SVFNLSNAIM GSGILGLAYA MANTGIILFL FLLTAVALLS SYSIHLLLKS
SGVVGIRAYE QLGYRAFGTP GKLAAALAIT LQNIGAMSSY LYIIKSELPL VIQTFLNLEE
KTSDWYMNGN YLVILVSVTI ILPLALMRQL GYLGYSSGFS LSCMVFFLIA VIYKKFHVPC
PLPPNFNNTT GNFSHVEIVK EKVQLQVEPE ASAFCTPSYF TLNSQTAYTI PIMAFAFVCH
PEVLPIYTEL KDPSKKKMQH ISNLSIAVMY IMYFLAALFG YLTFYNGVES ELLHTYSKVD
PFDVLILCVR VAVLTAVTLT VPIVLFPVRR AIQQMLFPNQ EFSWLRHVLI AVGLLTCINL
LVIFAPNILG IFGVIGATSA PFLIFIFPAI FYFRIMPTEK EPARSTPKIL ALCFAMLGFL LMTMSLSFII
IDWASGTSRH GGNH

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 posttranslational 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)
Target Details	
Target:	SLC38A3
Alternative Name:	SLC38A3 (SLC38A3 Products)
Background:	Sodium-coupled neutral amino acid transporter 3 (N-system amino acid transporter 1) (Na(+)-
	coupled neutral amino acid transporter 3) (Solute carrier family 38 member 3) (System N amino
	acid transporter 1),FUNCTION: Symporter that cotransports specific neutral amino acids and
	sodium ions, coupled to an H(+) antiporter activity (PubMed:10823827). Mainly participates in
	the glutamate-GABA-glutamine cycle in brain where it transports L-glutamine from astrocytes in
	the intercellular space for the replenishment of both neurotransmitters glutamate and gamma-
	aminobutyric acid (GABA) in neurons and also functions as the major influx transporter in
	ganglion cells mediating the uptake of glutamine (By similarity). The transport activity is
	specific for L-glutamine, L-histidine and L-asparagine (PubMed:10823827). The transport is
	electroneutral coupled to the cotransport of 1 Na(+) and the antiport of 1 H(+) (By similarity).
	The transport is pH dependent, saturable, Li(+) tolerant and functions in both direction
	depending on the concentration gradients of its substrates and cotransported ions
	(PubMed:10823827). Also mediates an amino acid-gated H(+) conductance that is not
	stoichiometrically coupled to the amino acid transport but which influences the ionic gradients
	that drive the amino acid transport (By similarity). In addition, may play a role in nitrogen
	metabolism, amino acid homeostasis, glucose metabolism and renal ammoniagenesis (By
	similarity). {ECO:0000250 UniProtKB:Q9DCP2, ECO:0000250 UniProtKB:Q9JHZ9,
	ECO:0000269 PubMed:10823827}.
Molecular Weight:	55.8 kDa
UniProt:	Q99624
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.

Application Details

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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)