



Datasheet for ABIN3118069
SLC38A1 Protein (AA 1-487) (Strep Tag)



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1 Image

Overview

Quantity:	1 mg
Target:	SLC38A1
Protein Characteristics:	AA 1-487
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC38A1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence: MMHFKSGLEL TELQNMTVPE DDNISNDSND FTEVENGQIN SKFISDRESR RSLTNSHLEK
 KKCDEYIPGT TSLGMSVFNL SNAIMGSGIL GLAFALANTG ILLFLVLLTS VTLLSIYSIN
 LLLICSKETG CMVYEKLGEQ VFGTTGKFVI FGATSLQNTG AMLSYLFIK NELPSAIKFL
 MGKEETFSAW YVDGRVLVVI VTFGIILPLC LLKNLGYLGY TSGFSLSCMV FFLIVVIYKK
 FQIPCIVPEL NSTISANSTN ADTCTPKYVT FNSKTVYALP TIAFAFVCHP SVLPIYSELK
 DRSQKKMQMV SNISFFAMFV MYFLTAIFGY LTFYDQVQSD LLHKYQSKDD ILILTVRLAV
 IVAVILVTPV LFFTVRSSLF ELAKKTKFNL CRHTVVTICIL LVVINLLVIF IPSMKDIFGV VGVTSANMLI
 FILPSSLYLK ITDQDGDKGT QRIWAALFLG LGVLFSLVSI PLVIYDWACS SSSDEGH

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 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 Exspasy'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 Western blot.

Product Details

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:	SLC38A1
Alternative Name:	SLC38A1 (SLC38A1 Products)
Background:	<p>Sodium-coupled neutral amino acid symporter 1 (Amino acid transporter A1) (N-system amino acid transporter 2) (Solute carrier family 38 member 1) (System A amino acid transporter 1) (System N amino acid transporter 1),FUNCTION: Symporter that cotransports short-chain neutral amino acids and sodium ions from the extracellular to the intracellular side of the cell membrane (PubMed:20599747, PubMed:10891391). The transport is electrogenic, pH dependent and driven by the Na(+) electrochemical gradient (PubMed:10891391). Participates in the astroglia-derived glutamine transport into GABAergic interneurons for neurotransmitter GABA de novo synthesis (By similarity). May also contribute to amino acid transport in placental trophoblasts (PubMed:20599747). Also regulates synaptic plasticity (PubMed:12388062). {ECO:0000250 UniProtKB:Q8K2P7, ECO:0000250 UniProtKB:Q9JM15, ECO:0000269 PubMed:10891391, ECO:0000269 PubMed:12388062, ECO:0000269 PubMed:20599747}.</p>
Molecular Weight:	54.0 kDa
UniProt:	Q9H2H9

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:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</p> <p>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</p>

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)

Images



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