Datasheet for ABIN3132817

SLC3A2 Protein (AA 1-526) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	SLC3A2
Protein Characteristics:	AA 1-526
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SLC3A2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence: MSQDTEVDMK DVELNELEPE KQPMNAADGA AAGEKNGLVK IKVAEDETEA GVKFTGLSKE ELLKVAGSPG WVRTRWALLL LFWLGWLGML AGAVVIIVRA PRCRELPVQR WWHKGALYRI GDLQAFVGRD AGGIAGLKSH LEYLSTLKVK GLVLGPIHKN QKDEINETDL KQINPTLGSQ EDFKDLLQSA KKKSIHIILD LTPNYQGQNA WFLPAQADIV ATKMKEALSS WLQDGVDGFQ FRDVGKLMNA PLYLAEWQNI TKNLSEDRLL IAGTESSDLQ QIVNILESTS DLLLTSSYLS NSTFTGERTE SLVTRFLNAT GSQWCSWSVS QAGLLADFIP DHLLRLYQLL LFTLPGTPVF SYGDELGLQG ALPGQPAKAP LMPWNESSIF HIPRPVSLNM TVKGQNEDPG SLLTQFRRLS DLRGKERSLL HGDFHALSSS PDLFSYIRHW DQNERYLVVL NFRDSGRSAR LGASNLPAGI SLPASAKLLL STDSARQSRE EDTSLKLENL SLNPYEGLLL QFPFVA

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:	SLC3A2
Alternative Name:	Slc3a2 (SLC3A2 Products)
Background:	Amino acid transporter heavy chain SLC3A2 (4F2 cell-surface antigen heavy chain) (4F2hc) (Solute carrier family 3 member 2) (CD antigen CD98),FUNCTION: Acts as a chaperone that facilitates biogenesis and trafficking of functional transporters heterodimers to the plasma membrane. Forms heterodimer with SLC7 family transporters (SLC7A5, SLC7A6, SLC7A7, SLC7A8, SLC7A10 and SLC7A11), a group of amino-acid antiporters (PubMed:9915839, PubMed:10574970, PubMed:11011012, PubMed:10734121). Heterodimers function as amino acids exchangers, the specificity of the substrate depending on the SLC7A subunit. Heterodimers SLC3A2/SLC7A6 or SLC3A2/SLC7A7 mediate the uptake of dibasic amino acids. Heterodimer SLC3A2/SLC7A11 functions as an antiporter by mediating the exchange of extracellular anionic L-cystine and intracellular L-glutamate across the cellular plasma membrane (By similarity). SLC3A2/SLC7A10 translocates small neutral L- and D-amino acids across the plasma membrane (By similarity). SLC3A2/SLC75 or SLC3A2/SLC7A8 translocates neutral amino acids with broad specificity, thyroid hormones and L-DOPA. SLC3A2 is essential for plasma membrane localization, stability, and the transport activity of SLC7A5 and SLC7A8. When associated with LAPTM4B, the heterodimer SLC7A5 is recruited to lysosomes to promote leucine uptake into these organelles, and thereby mediates mTORC1 activation. Modulates integrin-related signaling and is essential for integrin-dependent cell spreading, migration and tumor progression (By similarity). {ECO:0000250|UniProtKB:P08195, ECO:0000250|UniProtKB:P63115, ECO:0000269|PubMed:10574970, ECO:0000269|PubMed:10734121, ECO:0000269|PubMed:11011012, ECO:0000269|PubMed:9915839}.
Molecular Weight:	58.3 kDa
UniProt:	P10852

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)