

Datasheet for ABIN3100202

## STX1A Protein (AA 1-288) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	STX1A
Protein Characteristics:	AA 1-288
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This STX1A protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

### Product Details

Brand:	AliCE®
Sequence:	<p>MKDRTQELRT AKDSDDDDDDV AVTVDRDRFM DEFFEQVEEI RGFIDKIAEN VEEVKRKHSA  ILASPNPDEK TKEELEELMS DIKKTANKVR SKLKSIEQSI EQEEGLNRSS ADLRIRKQTH  STLSRKFEV MSEYNATQSD YRERCKGRIQ RQLEITGRTT TSEELEDMLE SGNPAIFASG  IIMDSSISKQ ALSEIETRHS EIKLENSIR ELHDMFMDMA MLVESQGEMI DRIEYNVEHA  VDYVERAVSD TKKAVKYQSK ARKKIMIII CCVILGIVIA STVGGIFA</p> <p><b>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.</b></p>

Characteristics:	<p>Key Benefits:</p> <ul style="list-style-type: none"> <li>Made in Germany - from design to production - by highly experienced protein experts.</li> </ul>
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- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

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Target:	STX1A
Alternative Name:	STX1A ( <a href="#">STX1A Products</a> )

## Target Details

Background:	<p>Syntaxin-1A (Neuron-specific antigen HPC-1),FUNCTION: Plays an essential role in hormone and neurotransmitter calcium-dependent exocytosis and endocytosis (PubMed:26635000). Part of the SNARE (Soluble NSF Attachment Receptor) complex composed of SNAP25, STX1A and VAMP2 which mediates the fusion of synaptic vesicles with the presynaptic plasma membrane. STX1A and SNAP25 are localized on the plasma membrane while VAMP2 resides in synaptic vesicles. The pairing of the three SNAREs from the N-terminal SNARE motifs to the C-terminal anchors leads to the formation of the SNARE complex, which brings membranes into close proximity and results in final fusion. Participates in the calcium-dependent regulation of acrosomal exocytosis in sperm (PubMed:23091057). Also plays an important role in the exocytosis of hormones such as insulin or glucagon-like peptide 1 (GLP-1) (By similarity). {ECO:0000250 UniProtKB:O35526, ECO:0000269 PubMed:23091057, ECO:0000269 PubMed:26635000}.</p>
Molecular Weight:	33.0 kDa
UniProt:	<a href="#">Q16623</a>
Pathways:	<a href="#">Peptide Hormone Metabolism</a> , <a href="#">Synaptic Membrane</a> , <a href="#">Synaptic Vesicle Exocytosis</a> , <a href="#">Dicarboxylic Acid Transport</a>

## Application Details

Application Notes:	<p>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.</p>
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 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!</p>
Restrictions:	For Research Use only

## Handling

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Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months