



[Go to Product page](#)

Datasheet for ABIN3077518  
**STXBP1 Protein (AA 1-594) (Strep Tag)**

### Overview

Quantity:	1 mg
Target:	STXBP1
Protein Characteristics:	AA 1-594
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This STXBP1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Sequence: MAPIGLKAVV GEKIMHDVIK KVKKKGEWKV LVVDQLSMRM LSSCCKMTDI MTEGITIVED  
INKRREPLPS LEAVYLITPS EKSVHSLISD FKDPPTAKYR AAHVFFTDSC PDALFNELVK  
SRAAKVIKTL TEINIAFLPY ESQVYSLDSA DSFQSFYSPH KAQMKNPILE RLAEQIATLC  
ATLKEYPAVR YRGEYKDNL LAQLIQDKLD AYKADDPTMG EGPDKARSQL LILDRGFDPS  
SPVLHELTFQ AMSYDLLPIE NDVYKYETSG IGEARVKEVL LDEDDDLWIA LRHKHIAEVS  
QEVTRSLKDF SSSKRMNTGE KTTMRDLSQM LKKMPQYQKE LSKYSTHLHL AEDCMKHYQG  
TVDKLCRVEQ DLAMGTDAEG EKIKDPMRAI VPILLDANVS TYDKIRIILL YIFLKNIGITE  
ENLNKLIQHA QIPPEDSEII TNMAHLGVPI VTDSTLRRRS KPERKERISE QTYQLSRWTP  
IIKDIMEDI EDKLDTKHYP YISTRSSASF STTAVSARYG HWHKKNAPGE YRSGPRLIIF  
ILGGVSLNEM RCAYEVTQAN GKWEVLIGST HILTPQKLLD TLKKNKTDE EISS

**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.

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#### 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.

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#### 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.

## Product Details

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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.

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

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Target: STXBP1

Alternative Name: STXBP1 ([STXBP1 Products](#))

Background: Syntaxin-binding protein 1 (MUNC18-1) (N-Sec1) (Protein unc-18 homolog 1) (Unc18-1) (Protein unc-18 homolog A) (Unc-18A) (p67),FUNCTION: Participates in the regulation of synaptic vesicle docking and fusion through interaction with GTP-binding proteins (By similarity). Essential for neurotransmission and binds syntaxin, a component of the synaptic vesicle fusion machinery probably in a 1:1 ratio. Can interact with syntaxins 1, 2, and 3 but not syntaxin 4. Involved in the release of neurotransmitters from neurons through interacting with SNARE complex component STX1A and mediating the assembly of the SNARE complex at synaptic membranes (By similarity). May play a role in determining the specificity of intracellular fusion reactions. {ECO:0000250|UniProtKB:O08599, ECO:0000250|UniProtKB:P61765}.

Molecular Weight: 67.6 kDa

UniProt: [P61764](#)

Pathways: [Synaptic Vesicle Exocytosis](#), [Dicarboxylic Acid Transport](#)

## Application Details

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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.

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## Application Details

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Restrictions: For Research Use only

## Handling

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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)