

Datasheet for ABIN3130087  
SV2A Protein (AA 1-742) (Strep Tag)



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1 Image

Overview

Quantity:	1 mg
Target:	SV2A
Protein Characteristics:	AA 1-742
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SV2A protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MEEGFRDRAA FIRGAKDIK EVKKHAAKKV VKGLDRVQDE YSRRSYSRFE EEDDDDDFFPA PADGYRRGEG AQDEEEGGAS SDATEGHDED DEIYEGEYQG IPRAESGGKG ERMADGAPLA GVRGGLSDGE GPPGGRGEAQ RRKDREELAQ QYETILRECG HGRFQWTLYF VLGLALMADG VEVFVVGFLV PSAEKDMCLS DSNKGMLGLI VYLGMMVGAF LWGGLADRLG RRQCLLISLS VNSVFAFFSS FVQGYGTFLF CRLLSGVGIG GSIPIVFSYF SEFLAQEKRG EHLSWLCMFV MIGGVYAAAM AWAIIPHYGW SFQMGSAYQF HSWRVFVLVC AFPSVFAIGA LTTQPESPRF FLENGKHDEA WMVLKQVHDT NMRAKGHPER VFSVTHIKTI HQEDELIEIQ SDTGTWYQRW GVRALSLGGQ VWGNFLSCFS PEYRRITLMM MGWVFTMSFS YYGLTVWFPD MIRHLQAVDY AARTKVFPGE RVEHVTFNFT LENQIHRGGQ YFNDKFIGLR LKSVSFEDSL FEECYFEDVT SSNTFFRNCT FINTVFYNTD LFEYKFVNSR LVNSTFLHNK EGCPDVTGT GEGAYMVYFV SFLGTLAVLP GNIVSALLMD KIGRLRMLAG SSVLSCVSCF FLSFGNSES A MIALLCFLGG VSIASWNA LD VLTVELYPSD KRTTAFGFLN ALCKLA AVLG ISIFTSFVGI TKAAPILFAS
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AALALGSSLA LKLPETRGQV LQ

**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

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## Product Details

(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.

Purity:  $\geq 80\%$  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: SV2A

Alternative Name: Sv2a ([SV2A Products](#))

Background: Synaptic vesicle glycoprotein 2A (Synaptic vesicle protein 2) (Synaptic vesicle protein 2A) (Calcium regulator SV2A), FUNCTION: Plays a role in the control of regulated secretion in neural and endocrine cells, enhancing selectively low-frequency neurotransmission. Positively regulates vesicle fusion by maintaining the readily releasable pool of secretory vesicles., FUNCTION: (Microbial infection) Receptor for C.botulinum neurotoxin type A (BoNT/A, botA), the toxin probably binds via extracellular loop 4 (PubMed:16543415). {ECO:0000269|PubMed:16543415}., FUNCTION: (Microbial infection) Possible receptor for C.botulinum neurotoxin type D (BoNT/D, botD), BoNT/D does not bind to extracellular loop 4 as do BoNT/A and BoNT/E (PubMed:21483489). {ECO:0000269|PubMed:21483489}., FUNCTION: (Microbial infection) Receptor for C.botulinum neurotoxin type E (BoNT/E), the toxin probably binds via extracellular loop 4 (PubMed:18815274). It probably requires glycosylation of Asn-573 (PubMed:18815274). {ECO:0000269|PubMed:18815274, ECO:0000305|PubMed:18815274}.

Molecular Weight: 82.6 kDa

UniProt: [Q9JIS5](#)

## 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

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

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