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Datasheet for ABIN3076868

## SECISBP2 Protein (AA 1-854) (Strep Tag)

### 1 Image

#### Overview

Quantity:	1 mg
Target:	SECISBP2
Protein Characteristics:	AA 1-854
Origin:	Human
Source:	Tobacco ( <i>Nicotiana tabacum</i> )
Protein Type:	Recombinant
Purification tag / Conjugate:	This SECISBP2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

#### Product Details

Sequence: MASEGPPEPE SEGIKLSADV KPFVPRFAGL NVAWLESSEA CVFPSSAATY YPFVQEPPTV  
EQKIYTEDMA FGASTFPPQY LSSEITLHPY AYSPYTLTST QNVYSVPGSQ YLYNQPSCYR  
GFQTVKHRNE NTCPLPQEMK ALFKKKTIDE KKYDQKQFD SERADGTISS EIKSARGSHH  
LSIYAENSLK SDGYHKRTDR KSRIIAKNVS TSKPEFEFTT LDFPELQGAENNMSEIQKQP  
KWGPVHSVST DISLLREVVK PAAVLSKGEI VVKNPNPESV TANAATNSPS CTRELSWTPM  
GYVVRQTLST ELSAAPKNVT SMINLKTIAS SADPKNVSIP SSEALSSDPS YNKEKHIIHP  
TQKSKASQGS DLEQNEASRK NKKKKEKSTS KYEVLTVQEP PRIEDAEEFP NLAVASERRD  
RIETPKFQSK QQPQDNFKNN VKKSQLPVQL DLGGMLTALE KKQHSQHAKQ SSKPVVSVG  
AVPVLSKECA SGERGRMSQ MKTPHNPLDS SAPLMKKGKQ REIPKAKKPT SLKKIILKER  
QERKQRLQEN AVSPAFTSDD TQDGESGGDD QFPEQAELSG PEGMDELIST PSVEDKSEEP  
PGTELQRDTE ASHLAPNHTT FPKIHSRRFR DYCSQMLSKE VDQCVTDLLK ELVRFQDRMY  
QKDPVKAKTK RRLVGLREV LKHLKLLKLV CVIISPNCCK IQSKGGLDDT LHTIIDYACE

QNIPFVFALN RKALGRSLNK AVPVSVVGIF SYDGAQDQFH KMVELTVAAR QAYKTMLENV  
QQELVGEPRP QAPPSLPTQG PSCPAEDGPP ALKEKEEPHY IEIWKKHLEA YSGCTLELEE  
SLEASTSQMM NLNL

**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.

## Product Details

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Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALICE®): <ol style="list-style-type: none"><li>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.</li><li>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.</li></ol>
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

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Target:	SECISBP2
Alternative Name:	SECISBP2 ( <a href="#">SECISBP2 Products</a> )
Background:	<p>Selenocysteine insertion sequence-binding protein 2 (SECIS-binding protein 2),FUNCTION: mRNA-binding protein that binds to the SECIS (selenocysteine insertion sequence) element present in the 3'-UTR of mRNAs encoding selenoproteins and facilitates the incorporation of the rare amino acid selenocysteine (PubMed:35709277). Insertion of selenocysteine at UGA codons is mediated by SECISBP2 and EEFSEC: SECISBP2 (1) specifically binds the SECIS sequence once the 80S ribosome encounters an in-frame UGA codon and (2) contacts the RPS27A/eS31 of the 40S ribosome before ribosome stalling (PubMed:35709277). (3) GTP-bound EEFSEC then delivers selenocysteinyl-tRNA(Sec) to the 80S ribosome and adopts a preaccommodated state conformation (PubMed:35709277). (4) After GTP hydrolysis, EEFSEC dissociates from the assembly, selenocysteinyl-tRNA(Sec) accommodates, and peptide bond synthesis and selenoprotein elongation occur (PubMed:35709277). {ECO:0000269 PubMed:35709277}.</p>
Molecular Weight:	95.5 kDa
UniProt:	<a href="#">Q96T21</a>

## 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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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. 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

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