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Datasheet for ABIN3134883

**SPATA18 Protein (AA 1-537) (Strep Tag)**

## Overview

Quantity:	1 mg
Target:	SPATA18
Protein Characteristics:	AA 1-537
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SPATA18 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Sequence:	<p>MAESLKKLAK SESLQALQDK VTYWVNDYNS NSCDQNLNYC IELIEQVAKV QAQLFGILTV TAQEGGNNEG VETIKCRLLP LLQTSFSSVN MGKTAESEMC ATQDFQLRSK NRDNSPDQDQ HQSDNESFSE TQPTQVQDDL AESGKSLEGA KNGSTISLLA AEEEINQLKK QLKSLQAQED ARHKTSENRR SEALKSDHRS TKRTQDQRPQ DVVSNEYEHL QNLKEEIAVL SAEKSGLQGR SARSPSPSTG TRSHRRGRSR SHSRSRSHSR SNSPCTTVAK IRSPSPNRAK MSSVARKAAL LSRFSDAYSQ ARLDAQCLLR RCIDRAETVQ RIIYIATVEA FHVAKMAFRH FKIRVRKMLT PSNVGSNTDF ETAVSEYIVC HLDLYDSQSS VNDVIRAMNV NPKISFPPEV DFCLLTDFIQ EICCIAFAMQ SLEPPLDIAF GADGEIFNDC KYRRSYDSDF TAPLVFYHVV PALMENDCVI MKGEAVTKRG AFWSSVRPVM RCRSRSLSPI CPRNHFGIST VSRSRSPSPI RCTFARY</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>
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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.
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:	SPATA18
Alternative Name:	Spat18 ( <a href="#">SPATA18 Products</a> )
Background:	Mitochondria-eating protein (Spermatogenesis-associated protein 18),FUNCTION: Key regulator of mitochondrial quality that mediates the repairing or degradation of unhealthy mitochondria in response to mitochondrial damage. Mediator of mitochondrial protein catabolic process (also named MALM) by mediating the degradation of damaged proteins inside mitochondria by promoting the accumulation in the mitochondrial matrix of hydrolases that are characteristic of the lysosomal lumen. Also involved in mitochondrion degradation of damaged mitochondria by promoting the formation of vacuole-like structures (named MIV), which engulf and degrade unhealthy mitochondria by accumulating lysosomes. May have a role in spermatogenesis, especially in cell differentiation from late elongate spermatids to mature spermatozoa (By similarity). The physical interaction of SPATA18/MIEAP, BNIP3 and BNIP3L/NIX at the mitochondrial outer membrane regulates the opening of a pore in the mitochondrial double membrane in order to mediate the translocation of lysosomal proteins from the cytoplasm to the mitochondrial matrix (By similarity). {ECO:0000250}.
Molecular Weight:	60.4 kDa
UniProt:	<a href="#">Q0P557</a>

## 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.
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Application Details

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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)