

Datasheet for ABIN3136862

## SMC1B Protein (AA 1-1248) (Strep Tag)



[Go to Product page](#)

### Overview

Quantity:	250 µg
Target:	SMC1B
Protein Characteristics:	AA 1-1248
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SMC1B protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

### Product Details

Brand:	AliCE®
Sequence:	<p>MGHLELLLVE NFKSWRGRQV IGPFKRFTCI IGPN GSGKSN VMDALSFVMG EKTTNLRVKN</p> <p>IQELIHGAHT GKPVSSASV TIYIEDSGE EKTFTRIIRG GCSEYHFGDK PVSRSVYVAQ LENIGIIVKA</p> <p>QNCLVFQGTV ESISMKKPKE RTQFFEEIST SGEFIGEYEA KKKKLQKAAE DAQFHFNVKK</p> <p>NVAAERKHAK IEKEEAHYQ NLLEELKINK IQLMLFQLYY NEEKINVLNT ELEQMDGNLS</p> <p>VVKDTLSHHE NIFKAKKKDY GMLTRQLQQT AKELKSVEAI LNQKRPQYIK AKENTSHHLK</p> <p>KLDLSKKLIT DNEKQCSKQE DGIRALVAEL ADLDRWKSF EKQMEEKILQ KGRDIELENS</p> <p>QLDRYKLLKE QVRRKVGIMT QQLEKLQWEQ KAEKERLAFE KRRHGD TQGN LKQIQEQIEE</p> <p>HKKRIELEE YTKTCMDCLE DKKQQEEALK KEIENTKSRM SEVNEELSLI RNELQNAGID</p> <p>NHEGKRQQR AEVLEHLKRL YPDSVFGRL DLCHPIHKKY QLAVTKLFGR YMVAIVVASE</p> <p>KIAKDCIRFL KAERAEPETF LALDYLDIKP INERLREIKG CKMMIDVIKT QFPQLKKVIQ</p> <p>FVCGNGLVCE TVEEARHIAF GGPERRKAVA LDGTLFLKSG VISGGSSDLK HKALCWDEKE</p>

LHNLDRKRSQ LVQELKELMK TLRKETDLKQ IQTLVQGTNT RLKYSQNELE MIKKKHLATF  
YREQSQLQSE LLNIDSQCTM LSEGINKQQQ KIEEFQDKID EVEDDIFQDF CEEIGVENIR  
EFENKHKVQQ QENDQKRLEF EKQKTRLNIQ LEYSRNQLKK KLNNDTLKT TIQKGKEDID  
NLKKTEEECL KIVEELMVQK EQIKEVLATQ SSNIEKIHQ IEEERKKVLA VDREVGKLQK  
EVVIIQGSLE QKLLEKHNL LDCKVQDIDI SLVLGSLEDI IEMELTETES TQATADIYEK EASIQIDYSP  
LREDLKALQS DKEVEAHLTL LLQQVASQEN TLLKTTAPNL RAQENLKTVR DKFQESADVF  
EASRKEARIC RQEFQVQKRR RYDAFSQCFE HISVSIDQIY KKLRCNNNAQ AFLSPENPEE  
PYLDGISYNC VAPGKRFPMP DNLSGGEKCV AALALLFAVH SFRPAPFFVL DEVDAALDNT  
NIGKVSSYIK EQSQEQFQMI IISLKEEFYS KADALIGVYP EHNECMFSHV LTLDLSKYPD  
TEDQEGSRSH RKPRVPRVSM SPKSPQSR

**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 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!

## Product Details

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### 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®).
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Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
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Grade:	custom-made
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## Target Details

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Target:	SMC1B
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Alternative Name:	Smc1b ( <a href="#">SMC1B Products</a> )
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Background:	<p>Structural maintenance of chromosomes protein 1B (SMC protein 1B) (SMC-1-beta) (SMC-1B),FUNCTION: Meiosis-specific component of cohesin complex. Required for the maintenance of meiotic cohesion, but not, or only to a minor extent, for its establishment. Contributes to axial element (AE) formation and the organization of chromatin loops along the AE. Plays a key role in synapsis, recombination and chromosome movements. The cohesin complex is required for the cohesion of sister chromatids after DNA replication. The cohesin complex apparently forms a large proteinaceous ring within which sister chromatids can be trapped. At anaphase, the complex is cleaved and dissociates from chromatin, allowing sister chromatids to segregate. The meiosis-specific cohesin complex probably replaces mitosis specific cohesin complex when it dissociates from chromatin during prophase I. {ECO:0000269 PubMed:11564881, ECO:0000269 PubMed:15146193}.</p>
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Molecular Weight:	144.5 kDa
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UniProt:	<a href="#">Q920F6</a>
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## 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>
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Restrictions:	For Research Use only
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## Handling

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