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Datasheet for ABIN3095549
SMC3 Protein (AA 1-1217) (Strep Tag)

Overview

Quantity:	1 mg
Target:	SMC3
Protein Characteristics:	AA 1-1217
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SMC3 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence: MYIKQVIIQG FRSYRDQTIV DPFSSKHNV I VGRNGSGKSN FFYAIQFVLS DEFSHLRPEQ
RLALLHEGTG PRVISAFVEI IFDNSDNRLP IDKEEVSLRR VIGAKKDQYF LDKKMVTKND
VMNLLSAGF SRSNPYYIVK QGKINQMATA PDSQRLKLLR EVAGTRVYDE RKEESISLMK
ETEGKREKIN ELLKYIEERL HTLEEEKEEL AQYQKWDKMR RALEYTIYNQ ELNETRAKLD
ELSAKRETS G EKSQR LRDAQ QDARDKMEDI ERQVRELKTK ISAMKEEKEQ LSAERQEIQK
QRTKLELKAK DLQDELAGNS EQRKRLKER QKLEKIEEK QKELAEETPK FNSVKEKEER
GIARLAQATQ ERTDLYAKQG RGSQFTSKEE RDKWIKKELK SLDQAINDKK RQIAAIHKDL
EDTEANKEKN LEQYNKLDQD LNEVKARVEE LDRKYEVKN KKDELQSERN YLWREENAEQ
QALAAKREDL EKKQQLLRAA TGKAILNGID SINKVLDHFR RKGINQHVQN GYHGIVMNNF
ECEPAFYTCV EVTAGNRLFY HIVDSDEVST KILMEFNKMN LPGEVTFLPL NKLDVDRDTAY
PETNDAIPMI SKLRYNPRFD KAFKHVFGKT LICRSMEVST QLARAFTMDC ITLEGDQVSH
RGALTGGYYD TRKSRLLELQK DVRKAEELG ELEAKLNENL RRNIERINNE IDQLMNQMQQ

IETQQRKFKA SRDSILSEMK MLKEKRQSE KTFMPKQRSL QSLEASLHAM ESTRESLKAE
LGTDLLSQLS LEDQKRVDAL NDEIRQLQQE NRQLLNERIK LEGIITRVET YLNENLRKRL
DQVEQELNEL RETEGGTVLT ATTSELEAIN KRVKDTMARS EDLDNSIDKT EAGIKELQKS
MERWKNMEKE HMDAINHDTK ELEKMTNRQG MLLKKKEECM KKIRELGSPL QEAPEKYQTL
SLKQLFRKLE QCNTELEKYS HVNKKALDQF VNFSEQKEKL IKRQEELDRG YKSIMELMNV
LELRKYEAIQ LTFKQVSKNF SEVFQKLVPG GKATLVMKKG DVEGSQSQDE GEGSGESERG
SGSQSSVPSV DQFTGVGIRV SFTGKQGEEMR EMQQLSGGQK SLVALALIFA IQKCDPAPFY
LFDEIDQALD AQHRKAVSDM IMELAVHAQF ITTFRPELL ESADKFGYGVK FRNKVSHIDV
ITAEMAKDFV EDDTTHG

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.

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!

Product Details

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.

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 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

Target:

SMC3

Alternative Name:

SMC3 ([SMC3 Products](#))

Background:

Structural maintenance of chromosomes protein 3 (SMC protein 3) (SMC-3) (Basement membrane-associated chondroitin proteoglycan) (Bamacan) (Chondroitin sulfate proteoglycan 6) (Chromosome-associated polypeptide) (hCAP),FUNCTION: Central component of cohesin, a complex required for chromosome cohesion during the cell cycle. The cohesin complex may form 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. Cohesion is coupled to DNA replication and is involved in DNA repair. The cohesin complex also plays an important role in spindle pole assembly during mitosis and in chromosomes movement. {ECO:0000269|PubMed:11076961, ECO:0000269|PubMed:19907496}.

Molecular Weight:

141.5 kDa

UniProt:

[Q9UQE7](#)

Pathways:

[Stem Cell Maintenance](#)

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.

Comment: 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!

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)
