

Datasheet for ABIN3095563

## SPAG5 Protein (AA 1-1193) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	SPAG5
Protein Characteristics:	AA 1-1193
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SPAG5 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

### Product Details

Brand:	AliCE®
Sequence:	<p>MWRVKKLSLS LSPSPQTGKP SMRTPLRELT LQPGALTNSG KRSPACSSLT PSLCKLGLQE</p> <p>GSNNSSPVDF VNNKRTDLSS EHFSHSSKWL ETCQHESDEQ PLDPIQISS TPKTSEEAVD</p> <p>PLGNMVKTI VLVPSPLGQQ QDMIFEARLD TMAETNSISL NGPLRTDDLV REEVAPCMGD</p> <p>RFSEVAAVSE KPIFQESPSH LLEESPPNPC SEQLHCSKES LSSRTEAVRE DLVPSESNAF</p> <p>LPSSVLWLSP STALAADFRV NHVDPEEEIV EHGAMEEREM RFPHPKESE TEDQALVSSV</p> <p>EDILSTCLTP NLVEMESQEA PGPAVEDVGR ILGSDTESWM SPLAWLEKGV NTSVMLENLR</p> <p>QSLSLPSMLR DAAIGTTPFS TCSVGTWFTP SAPQEKSTNT SQTGLVGTKH STSETEQLLC</p> <p>GRPPDLTALS RHDLEDNLLS SLVILEVLSR QLRDWKSQLA VPHPETQDSS TQTDTSHSGI</p> <p>TNKLQHLKES HEMGQALQQA RNMVQSWVLI SKELISLLHL SLLHLEEDKT TVSQESRRAE</p> <p>TLVCCCFDLL KKLRAKLQSL KAEREEARHR EEMALRGKDA AEIVLEAFCA HASQRISQLE</p> <p>QDLASMREFR GLLKDAQTQL VGLHAKQEEL VQQTVSLTST LQQDWRSMLQ DYTTWTALLS</p>

RSRQLTEKLT VKSQQALQER DVAIEEKQEV SRVLEQVSAQ LEECKGQTEQ LELENSRLAT  
DLRAQLQILA NMDSQLKELQ SQHTHCAQDL AMKDELLCQL TQSNEEQAAQ WQKEEMALKH  
MQAELQQQQA VLAKEVRDLK ETLEFADQEN QVAHLELGQV ECQLKTTLEV LRERSLQCEN  
LKDTVENLTA KLASTIADNQ EQDLEKTRQY SQKLGLLTEQ LQSLTLFLQT KLKEKTEQET  
LLLSTACPPT QEHLPLNDRT FLGSILTAVA DEEPESTPVP LLGSDKSFT RVASMVSLQP  
AETPGMEESL AEMSIMTTEL QSLCSLLQES KEEAIRTLQR KICELQARLQ AQEEQHQEVQ  
KAKEADIEKL NQALCLRYKN EKELQEVIQQ QNEKILEQID KSGELISLRE EVTHLTRSLR  
RAETETKVLQ EALAGQLDSN CQPMATNWIQ EKVWLSQEV D KLRVMFLEMK NEKEKLMIKF  
QSHRNILEEN LRRSDKELEK LDDIVQHIYK TLLSIPEVVR GCKELQGLLE FLS

**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

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

## Target Details

Target:	SPAG5
Alternative Name:	SPAG5 ( <a href="#">SPAG5 Products</a> )
Background:	<p>Sperm-associated antigen 5 (Astrin) (Deepest) (Mitotic spindle-associated protein p126) (MAP126),FUNCTION: Essential component of the mitotic spindle required for normal chromosome segregation and progression into anaphase (PubMed:11724960, PubMed:12356910, PubMed:27462074). Required for chromosome alignment, normal timing of sister chromatid segregation, and maintenance of spindle pole architecture (PubMed:17664331, PubMed:27462074). In complex with SKAP, promotes stable microtubule-kinetochore attachments. May contribute to the regulation of separase activity. May regulate AURKA localization to mitotic spindle, but not to centrosomes and CCNB1 localization to both mitotic spindle and centrosomes (PubMed:18361916, PubMed:21402792). Involved in centriole duplication. Required for CDK5RAP2, CEP152, WDR62 and CEP63 centrosomal localization and promotes the centrosomal localization of CDK2 (PubMed:26297806). In non-mitotic cells, upon stress induction, inhibits mammalian target of rapamycin complex 1 (mTORC1) association and recruits the mTORC1 component RPTOR to stress granules (SGs), thereby preventing mTORC1 hyperactivation-induced apoptosis (PubMed:23953116). May enhance GSK3B-mediated phosphorylation of other substrates, such as MAPT/TAU (PubMed:18055457).</p> <p>{ECO:0000269 PubMed:12356910, ECO:0000269 PubMed:17664331, ECO:0000269 PubMed:18055457, ECO:0000269 PubMed:18361916, ECO:0000269 PubMed:21402792, ECO:0000269 PubMed:23953116, ECO:0000269 PubMed:26297806, ECO:0000269 PubMed:27462074, ECO:0000305 PubMed:11724960}.</p>

## Target Details

Molecular Weight: 134.4 kDa

UniProt: [Q96R06](#)

Pathways: [M Phase](#)

## 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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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.  
Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months