

Datasheet for ABIN3090352  
**CAMSAP1 Protein (AA 1-1602) (Strep Tag)**

1 Image



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Overview

Quantity:	1 mg
Target:	CAMSAP1
Protein Characteristics:	AA 1-1602
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CAMSAP1 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence:	MVDASGRAAA EGWRKMEAPP DGAADLVPLD RYDAARAKIA ANLQWICAKA YGRDNIPEDL RDPFYVDQYE QEHIKPPVIK LLLSSELYCR VCSLILKGDQ VAALQGHQSV IQALSRKGIY VMESDDTPVT ESDLRAPIK MSAHMAMVDA LMMAYTVEMI SIEKVVASVK RFSTFSASKE LPYDLEDAMV FWINKVNLKM REITEKEVKL KQQLLESPAH QKVRYRREHL SARQSPYFPL LEDLMRDGSD GAALLAVIHY YCPEQMKLDD ICLKEVTSMA DSLYNIRLLR EFSNEYLNKC FYLTLEDMLY APLVLKPNVM VFIAELFWWF ENVKPDFVQP RDVQELKDAK TVLHQKSSRP PVPISNATKR SFLGSPAAGT LAELQPPVQL PAEGCHRHYL HP EEPEYL GK GTA AFSP SHP LLPLRQKQKQ SIQGEDIPDQ RHRSNSLTRV DGQPRGAAIA WPEKKTRPAS QPTPFALHHA ASCEVDPSSG DSISLARSIS KDSLASNIVN LTPQNQPHPT ATKSHGKSLL SNVSIEDEEE ELVAIVRADV VPQQADPEFP RASPRALGLT ANARSPQGQL DTSESKPDSF FLEPLMPAVL KPAKEKQVIT KEDERGEGRP RSIVSRRPSE GPQPLVRRKM TGSRD LNRTF TPICSEFPM GIDPTETGPL SVETAGEVCG GPLALGGFDP FPQGPSTDGF FLHVGRADED TEGRLYVSCS
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KSPNSHDSEP WTLLRQSDSDS DVVDIEEAH DFMGEAHPVV FSRYGEEES AKLQEDMKVK  
EHEDKDDASG RSSPCLSTAS QMSSVSMASG SVKMTSFAER KLQRLNSCET KSSTSSSQKT  
TPDASESCPA PLTTWRQKRE QSPSQHGKDP ASLLASELVQ LHMQLLEEKRR AIEAQKKKME  
ALSARQLKL GKAAFLHVVK KGKAEAAPPL RPEHFAKEYS QHNGEDCGDA VSKTEDFLVK  
EEQREELLHE PQDVKESLA FAQQHKAKDP VALHELERNK VISAALLEDT VGEVVDVNEC  
DLSIEKLNIT ISTLQQAILK ISQQEQLLM KSPTVPVPGS KNNSQDHVKV APVHFVEPLS  
PTGVAGHRKA PRLGQGRNSR SGRPAELKVP KDRPQGSSRS KTPTPSVETL PHLRPFPASS  
HPRTPTDPGL DSALEPSGDP HGKCLFDSYR LHDESNQRTL TLSSSKDANI LSEQMSLKEV  
LDASVKEVGS SSSDVSGKES VPVEEPLRSR ASLIEVDLSD LKAPDEDGEL VSLDGSADLV  
SEGDQKPGVG FFFKDEQKAE DELAKKRAAF LLKQQRKAAE ARVRKQGLEA EVELKRDEAR  
RKAEDRVRK EEEKARRELI KQEYLRRKQQ QILEEQGLGK PKSKPKKPRP KSVHREESCS  
DSGTKCSSTP DNLSRTQSGS SLSLASAATT EPESVHSGGT PSQRVESMEA LPILSRNPSR  
STDRDWETAS AASSLASVAE YTGPKLFKEP SSKSNKPIIH NAISHCCLAG KVNPHKNSI  
LEELEKCDAN HYILFRDAG CQFRALYCY YPDTEEIYKLT GTGPKNITKK MIDKLYKYSS  
DRKQFNLIPA KTMSVSVDAL TIHNHLWQPK RPAVPKKAQT RK

**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-

Product Details

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.

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)
Grade:	Crystallography grade

Target Details

Target:	CAMSAP1
Alternative Name:	CAMSAP1 ( <a href="#">CAMSAP1 Products</a> )
Background:	Calmodulin-regulated spectrin-associated protein 1,FUNCTION: Key microtubule-organizing protein that specifically binds the minus-end of non-centrosomal microtubules and regulates their dynamics and organization (PubMed:19508979, PubMed:21834987, PubMed:24486153, PubMed:24706919, PubMed:24117850). Specifically recognizes growing microtubule minus-ends and stabilizes microtubules (PubMed:24486153, PubMed:24706919). Acts on free microtubule minus-ends that are not capped by microtubule-nucleating proteins or other factors and protects microtubule minus-ends from depolymerization (PubMed:24486153,

## Target Details

PubMed:24706919). In contrast to CAMSAP2 and CAMSAP3, tracks along the growing tips of minus-end microtubules without significantly affecting the polymerization rate: binds at the very tip of the microtubules minus-end and acts as a minus-end tracking protein (-TIP) that dissociates from microtubules after allowing tubulin incorporation (PubMed:24486153, PubMed:24706919). Through interaction with spectrin may regulate neurite outgrowth (PubMed:24117850). {ECO:0000269|PubMed:19508979, ECO:0000269|PubMed:21834987, ECO:0000269|PubMed:24117850, ECO:0000269|PubMed:24486153, ECO:0000269|PubMed:24706919}.

Molecular Weight: 178.0 kDa

UniProt: [Q5T5Y3](#)

## 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.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images



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