

Datasheet for ABIN3076601

## Septin 4 Protein (SEPT4) (AA 1-478) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	Septin 4 (SEPT4)
Protein Characteristics:	AA 1-478
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Septin 4 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Brand:	AliCE®
Sequence:	<p>MDRSLGWQGN SVPEDRTEAG IKRFLEDTTD DGELSKFVKD FSGNASCHPP EAKTWASRPQ  VPEPRPQAPD LYDDDLFRP PSRPQSSDNQ QYFCAPAPLS PSARPRSPWG KLDPYDSSSED  DKEYVGFATL PNQVHRKSVK KGFDFTLMVA GESGLGKSTL VNSLFLTDLY RDRKLLGAEE  RIMQTVEITK HAVDIEEKG V RLRLTIVDTP GFGDAVNNT CWKPVAEYID QQFEQYFRDE  SGLNRKNIQD NRVHCCLYFI SPFGHGLRPL DVEFMKALHQ RVNIVPILAK ADLTPPEVD  HKKRKIREEI EHFGIKIYQF PDCDSDEDED FKLQDQALKE SIPFAVIGSN TVVEARGRRV  RGRLYPWGIV EVENPGHCDF VKLRTMLVRT HMQDLKDVTR ETHYENYRAQ CIQSMTRLVV  KERNRNKLTR ESGTDFPIPA VPPGTDPETE KLIREKDEEL RRMQEMLHKI QKQMKENY</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>

# Product Details

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Characteristics:	<div>Key Benefits:</div> <ul style="list-style-type: none"><li>• Made in Germany - from design to production - by highly experienced protein experts.</li><li>• Protein expressed with ALiCE® and purified in one-step affinity chromatography</li><li>• These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).</li><li>• State-of-the-art algorithm used for plasmid design (Gene synthesis).</li></ul> <div>This protein is a <b>made-to-order protein</b> and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.</div> <div>The big advantage of ordering our <b>made-to-order proteins</b> 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.</div> <div>Expression System:</div> <ul style="list-style-type: none"><li>• 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.</li><li>• 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!</li></ul> <div>Concentration:</div> <ul style="list-style-type: none"><li>• The concentration of our recombinant proteins is measured using the absorbance at 280nm.</li><li>• The protein's absorbance will be measured against its specific reference buffer.</li><li>• We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.</li></ul>
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:	Septin 4 (SEPT4)
Alternative Name:	SEPTIN4 ( <a href="#">SEPT4 Products</a> )
Background:	<p>Septin-4 (Bradeion beta) (Brain protein H5) (CE5B3 beta) (Cell division control-related protein 2) (hCDCREL-2) (Peanut-like protein 2),FUNCTION: Filament-forming cytoskeletal GTPase (Probable). Pro-apoptotic protein involved in LGR5-positive intestinal stem cell and Paneth cell expansion in the intestines, via its interaction with XIAP (By similarity). May also play a role in the regulation of cell fate in the intestine (By similarity). Positive regulator of apoptosis involved in hematopoietic stem cell homeostasis, via its interaction with XIAP (By similarity). Negative regulator of repair and hair follicle regeneration in response to injury, due to inhibition of hair follicle stem cell proliferation, potentially via its interaction with XIAP (By similarity). Plays an important role in male fertility and sperm motility (By similarity). During spermiogenesis, essential for the establishment of the annulus (a fibrous ring structure connecting the midpiece and the principal piece of the sperm flagellum) which is a requisite for the structural and mechanical integrity of the sperm (By similarity). Involved in the migration of cortical neurons and the formation of neuron leading processes during embryonic development (By similarity). Required for dopaminergic metabolism in presynaptic autoreceptors, potentially via activity as a presynaptic scaffold protein (By similarity). {ECO:0000250 UniProtKB:P28661, ECO:0000305}., FUNCTION: [Isoform ARTS]: Required for the induction of cell death mediated by TGF-beta and possibly by other apoptotic stimuli (PubMed:11146656, PubMed:15837787). Induces apoptosis through binding and inhibition of XIAP resulting in significant reduction in XIAP levels, leading to caspase activation and cell death (PubMed:15029247). Mediates the interaction between BCL2 and XIAP, thereby positively regulating the ubiquitination and degradation of BCL2 and promoting apoptosis (PubMed:29020630). {ECO:0000269 PubMed:11146656, ECO:0000269 PubMed:15029247, ECO:0000269 PubMed:15837787, ECO:0000269 PubMed:29020630}.</p>
Molecular Weight:	55.1 kDa
UniProt:	<a href="#">O43236</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.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from

Application Details

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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months