

Datasheet for ABIN3135328

## PAPSS1 Protein (AA 1-624) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	PAPSS1
Protein Characteristics:	AA 1-624
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PAPSS1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

### Product Details

Brand:	AliCE®
Sequence:	<p>MEIPGSLCKK VKLSNNAQNW GMQRATNVTY QAHHVSRNKR GQVVGTRGGF RGCTVWLTGL</p> <p>SGAGKTTVSM ALEEYLCHG IPCYTLDDGN IRQGLNKNLG FSPEDREENV RRIAEVAKLF</p> <p>ADAGLVCITS FISPYTQDRN NARQIHEGAS LPFFEVEFVDA PLHVCEQRDV KGLYKKARAG</p> <p>EIKGFTGIDS EYEKPEAPEL VLKTDSCDVN DCVQQVVELL QERDIVPVDA SYEVKELYVP</p> <p>ENKLHLAKTD AEALPALKIN KVDMQWVQVL AEGWATPLNG FMREREYLQC LHFDCLLDGG</p> <p>VINLSVPIVL TATHEDKERL DGCTAFALVY EGRRVAILRN PEFFEHRKEE RCARQWGTTG</p> <p>KNHPYIKMVL EQGDWLIGGD LQVLDRIYWN DGLDQYRLTP TELKQKFKDM NADAVFAFQL</p> <p>RNPVHNGHAL LMQDTHKQLL ERGYRRPVLL LHPLGGWTKD DDVPLMWRMK QHAHVLEEGI</p> <p>LDPETTVAI FPSPMMYAGP TEVQWHCRAR MVAGANFYIV GRDPAGMPHP ETGKDLYEPT</p> <p>HGAKVLTMAP GLITLEIVPF RVAAYNKKKK RMDYYDSEHH EDFEFISGTR MRKLAREGQK</p> <p>PPEGFMAPKA WTVLVEYYKS LEKA</p>

**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!

#### 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.

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### 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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## Product Details

Grade: custom-made

## Target Details

Target: PAPSS1

Alternative Name: Papss1 ([PAPSS1 Products](#))

Background: Bifunctional 3'-phosphoadenosine 5'-phosphosulfate synthase 1 (PAPS synthase 1) (PAPSS 1) (Sulfurylase kinase 1) (SK 1) (SK1) [Includes: Sulfate adenylyltransferase (EC 2.7.7.4) (ATP-sulfurylase) (Sulfate adenylate transferase) (SAT), Adenylyl-sulfate kinase (EC 2.7.1.25) (3'-phosphoadenosine-5'-phosphosulfate synthase) (APS kinase) (Adenosine-5'-phosphosulfate 3'-phosphotransferase) (Adenylylsulfate 3'-phosphotransferase)],FUNCTION: Bifunctional enzyme with both ATP sulfurylase and APS kinase activity, which mediates two steps in the sulfate activation pathway. The first step is the transfer of a sulfate group to ATP to yield adenosine 5'-phosphosulfate (APS), and the second step is the transfer of a phosphate group from ATP to APS yielding 3'-phosphoadenylylsulfate (PAPS: activated sulfate donor used by sulfotransferase). In mammals, PAPS is the sole source of sulfate, APS appears to be only an intermediate in the sulfate-activation pathway (PubMed:7493984). Required for normal biosynthesis of sulfated L-selectin ligands in endothelial cells (By similarity). {ECO:0000250|UniProtKB:O43252, ECO:0000269|PubMed:7493984}.

Molecular Weight: 70.8 kDa

UniProt: [Q60967](#)

Pathways: [Glycosaminoglycan Metabolic Process](#), [Ribonucleoside Biosynthetic Process](#)

## 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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Application Details

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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