

Datasheet for ABIN3086707

## SHP1 Protein (AA 1-595) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	SHP1 (PTPN6)
Protein Characteristics:	AA 1-595
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SHP1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

### Product Details

Brand:	AliCE®
Sequence:	<p>MVRWFHRDLS GLDAETLLKG RGVHGSFLAR PSRKNQGDFS LSVRVGDQVT HIRIQNSGDF  YDLYGGEKFA TLTELVEYYT QQQGVQLQDRD GTIIHLKYPL NCSDPTSERW YHGHMSGGQA  ETLLQAKGEP WTLFLVRESLS QPGDFVLSVL SDQPKAGPGS PLRVTHIKVM CEGGRYTVGG  LETFDSLTDL VEHFKKTGIE EASGAFVYLR QPYATRVNA ADIENRVLEL NKKQES EDTA  KAGFWE EFES LQKQEVKNLH QRLEGQRPEN KGKNRYKNIL PFDHSRVILQ GRDSNIPGSD  YINANYIKNQ LLGPDENAKT YIASQGCLEA TVNDFWQMAW QENSRVIVMT TREVEKGRNK  CVPYWPEVGM QRAYGPYSVT NCGEHD TTEY KLRTLQVSPL DNGDLIREIW HYQYLSWPDH  GVPSEPGGVL SFLDQINQRQ ESLPHAGPII VHCSAGIGRT GTIIVIDMLM ENISTKGLDC  DIDIQKTIQM VRAQRSGMVQ TEAQYKFIYV AIAQFIETTK KKLEVLQSQK GQSEYGNIT  YPPAMKNAHA KASRTSSKHK EDVYENLHTK NKREEKVKKQ RSADKEKSKG SLKRK</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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### Grade:

custom-made

## Target Details

Target:	SHP1 (PTPN6)
Alternative Name:	PTPN6 ( <a href="#">PTPN6 Products</a> )
Background:	<p>Tyrosine-protein phosphatase non-receptor type 6 (EC 3.1.3.48) (Hematopoietic cell protein-tyrosine phosphatase) (Protein-tyrosine phosphatase 1C) (PTP-1C) (Protein-tyrosine phosphatase SHP-1) (SH-PTP1),FUNCTION: Modulates signaling by tyrosine phosphorylated cell surface receptors such as KIT and the EGF receptor/EGFR. The SH2 regions may interact with other cellular components to modulate its own phosphatase activity against interacting substrates. Together with MTUS1, induces UBE2V2 expression upon angiotensin II stimulation. Plays a key role in hematopoiesis. {ECO:0000269 PubMed:11266449}.</p>
Molecular Weight:	67.6 kDa
UniProt:	<a href="#">P29350</a>
Pathways:	<a href="#">JAK-STAT Signaling</a> , <a href="#">TCR Signaling</a> , <a href="#">TLR Signaling</a> , <a href="#">Nuclear Receptor Transcription Pathway</a> , <a href="#">Positive Regulation of Peptide Hormone Secretion</a> , <a href="#">Steroid Hormone Mediated Signaling Pathway</a> , <a href="#">Response to Growth Hormone Stimulus</a> , <a href="#">Regulation of Leukocyte Mediated Immunity</a> , <a href="#">CXCR4-mediated Signaling Events</a> , <a href="#">Signaling Events mediated by VEGFR1 and VEGFR2</a> , <a href="#">BCR Signaling</a>

## Application Details

Application Notes:	<p>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.</p>
Comment:	<p>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.</p> <p>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!</p>
Restrictions:	For Research Use only

## Handling

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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