

Datasheet for ABIN3115570

STEAP4 Protein (AA 1-459) (Strep Tag)[Go to Product page](#)

Overview

Quantity:	250 µg
Target:	STEAP4
Protein Characteristics:	AA 1-459
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This STEAP4 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	<p>MEKTCIDALP LTMNSSEKQE TVCIFGTGDF GRSLGLKMLQ CGYSVVFGRS NPQKTTLLPS GAEVLSYSEA AKKSGIIIA IHREHYDFLT ELTEVLNGKI LVDISNNLKI NQYPESNAEY LAHLVPGAHV VKAFNTISAW ALQSGALDAS RQVFVCGNDS KAKQRVMDIV RNLGLTPMDQ GSLMAAKEIE KYPLQLFPMW RFPFYLSAVL CVFLFFYCVI RDVIYPYVYE KKDNTFRMAI SIPNRIFPIT ALTLLALVYL PGVIAAILQL YRGTKYRRFP DWLDHWMLCR KQLGLVALGF AFLHVLYTLV IPIRYVVRWR LGNLTVTQAI LKKENPFSTS SAWLSDSYVA LGILGFFLFV LLGITSLPSV SNAVNWREFR FVQSKLGYLT LILCTAHTLV YGGKRFLSPS NLRWYLPAAAY VLGLIIPCTV LVIKFLIMP CVDNTLTRIR QGWERNCHK</p> <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.</p>

Product Details

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.

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: STEAP4

Alternative Name: STEAP4 ([STEAP4 Products](#))

Background: Metalloreductase STEAP4 (EC 1.16.1.-) (Six-transmembrane epithelial antigen of prostate 4) (SixTransMembrane protein of prostate 2) (Tumor necrosis factor, alpha-induced protein 9),FUNCTION: Integral membrane protein that functions as a NADPH-dependent ferric-chelate reductase, using NADPH from one side of the membrane to reduce a Fe(3+) chelate that is bound on the other side of the membrane. Mediates sequential transmembrane electron transfer from NADPH to FAD and onto heme, and finally to the Fe(3+) chelate (PubMed:30337524). Can also reduce Cu(2+) to Cu(1+) (By similarity). Plays a role in systemic metabolic homeostasis, integrating inflammatory and metabolic responses (By similarity). Associated with obesity and insulin-resistance (PubMed:18430367, PubMed:18381574). Involved in inflammatory arthritis, through the regulation of inflammatory cytokines (PubMed:19660107). Inhibits anchorage-independent cell proliferation (PubMed:19787193). {ECO:0000250|UniProtKB:Q923B6, ECO:0000269|PubMed:18381574, ECO:0000269|PubMed:18430367, ECO:0000269|PubMed:19660107, ECO:0000269|PubMed:19787193, ECO:0000269|PubMed:30337524}.

Molecular Weight: 52.0 kDa

UniProt: [Q687X5](#)

Pathways: [Transition Metal Ion Homeostasis](#)

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 **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