

Datasheet for ABIN3096251

USP44 Protein (AA 1-712) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	USP44
Protein Characteristics:	AA 1-712
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This USP44 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	<p>MLAMDTCKHV GQLQLAQDHS SLNPQKWHCV DCNTTESIWA CLSCSHVACG RYIEEHALKH</p> <p>FQESSHPVAL EVNEMYVFCY LCDDYVLNDN TTGDLKLLRR TLSAISKQNY HCTTRSGRFL</p> <p>RSMGTGDDSY FLHDGAQSLL QSEDQLYTAL WHRRRILMGK IFRTWFEQSP IGRKKQEEPF</p> <p>QEKIVVKREV KKRRQELEYQ VKAELESMPP RKSRLRLQGLA QSTIIEIVSV QVPAQTPASP</p> <p>AKDKVLSTSE NEISQKVSDS SVKRRPIVTP GVTGLRNLGN TCYMNSVLQV LSHLLIFRQC</p> <p>FLKLDLNQWL AMTASEKTRS CKHPPVTDTV VYQMNECQEK DTGFVCSRQS SLSSGLSGGA</p> <p>SKGRKMELIQ PKEPTSQYIS LCHELHTLFQ VMWSGKWALV SPFAMLHSVW RLIPAFRGYA</p> <p>QQDAQEFLCE LLDKIQRELE TTGTSLPALI PTSQRKLIKQ VLNVVNNIFH GQLLSQVTCL</p> <p>ACDNKSNTIE PFWDLSEFP ERYQCSGKDI ASQPCLVTEM LAKFTETEAL EGKIYVCDQC</p> <p>NSKRRRFSSK PVVLTEAQKQ LMICHLQPVL RLHLKRFRWS GRNNREKIGV HVGFEELNM</p> <p>EPYCCRETLK SLRPECFIYD LSAVVMHHGK GFGSGHYTAY CYNSEGGFWV HCNDKLSMC</p>

TMDEVCKAQA YILFYTQRVT ENGHSKLLPP ELLLSQHPN EDADTSSNEI LS

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 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®).

Product Details

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

Target Details

Target: USP44

Alternative Name: USP44 ([USP44 Products](#))

Background: Ubiquitin carboxyl-terminal hydrolase 44 (EC 3.4.19.12) (Deubiquitinating enzyme 44) (Ubiquitin thioesterase 44) (Ubiquitin-specific-processing protease 44),FUNCTION: Deubiquitinase that plays a key regulatory role in the spindle assembly checkpoint or mitotic checkpoint by preventing premature anaphase onset. Acts by specifically mediating deubiquitination of CDC20, a negative regulator of the anaphase promoting complex/cyclosome (APC/C) (PubMed:17443180). Deubiquitination of CDC20 leads to stabilize the MAD2L1-CDC20-APC/C ternary complex (also named mitotic checkpoint complex), thereby preventing premature activation of the APC/C (PubMed:17443180). Promotes association of MAD2L1 with CDC20 and reinforces the spindle assembly checkpoint (PubMed:17443180). Promotes also the deubiquitination of histone H2A and H2B (PubMed:23615962, PubMed:27880911). Recruited to RNF8/RNF168-ubiquitinated chromatin surrounding double stranded breaks (DSBs), promotes hydrolysis of such ubiquitin conjugates, thus negatively regulating protein recruitment to damaged chromatin (PubMed:23615962). Participates in nucleotide excision repair (NER) pathway by deubiquitinating DDB2 to prevent its premature degradation so it can remain on damaged chromatin (By similarity). Promotes FOXP3 stabilization through 'Lys-48'-linked deubiquitination leading to increased stability and increased regulatory T-cell lineage stability (PubMed:32644293). Plays also a positive role in innate immune response to DNA viruses by deubiquitinating STING1, selectively removing its 'Lys-48'-linked polyubiquitin chains and stabilizing it (PubMed:31968013). {ECO:0000250|UniProtKB:Q8C2S0, ECO:0000269|PubMed:17443180, ECO:0000269|PubMed:22681888, ECO:0000269|PubMed:23615962, ECO:0000269|PubMed:27880911, ECO:0000269|PubMed:31968013, ECO:0000269|PubMed:32644293}.

Molecular Weight: 81.2 kDa

UniProt: [Q9H0E7](#)

Pathways: [M Phase](#)

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.
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