

Datasheet for ABIN3096195

**USP33 Protein (AA 1-942) (Strep Tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	USP33
Protein Characteristics:	AA 1-942
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This USP33 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Sequence:	MTGSNSHITI LTLKVLPHFE SLGKQEKIPN KMSAFRNHCP HLDSVGEITK EDLIQKSLGT CQDCKVQGPN LWACLENRCS YVGCGESQVD HSTIHSQETK HYLTVNLTTL RVWCYACSKE VFLDRKLGTTQ PSLPHVRQPH QIQENSVDQF KIPSNTTLKT PLVAVFDDLD IEADEEDEL ARGLTGLKNI GNTCYMNAAL QALSNCPLT QFFLDCGGLA RTDKKPAICK SYLKLMTLW HKSRPGSVVP TTLFQGIKT V NPTFRGYSQQ DAQEFLRCLM DLLHEELKEQ VMEVEEDPQT ITTEETMEED KSQSDVDFQS CESCNSNDRA ENENGSRCS EDNNETTMLI QDDENNSEMS KDWQKEKMCN KINKVNSEGE FDKDRDSISE TVDLNNQETV KVQIHSRASE YITDVHSNDL STPQILPSNE GVNPRLSASP PKSGNLWPGL APPHKKAQSA SPKRKKQHKK YRSVISDIFD GTIISVQCL TCDRVSVTLE TFQDLSPIP GKEDLAKLHS SSHPTSIVKA GSCGEAYAPQ GWIAFFMEYV KRFVWSCVPS WFWGPVVT LQ DCLAAFFARD ELKGDNMYSC EKCKKL RNV KFCKVQNFPE ILCIHLKRFR HELMFSTKIS THVSFPLEGL DLQPFLAKDS PAQIVTYDLL SVICHHTAS SGHYIAYCRN NLNNLWYEFD DQSVTEVSSES TVQNAEAYVL FYRKSSEEAQ
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KERRRISNLL NIMEPSLLQF YISRQWLNKF KTFAEPGPIS NNDFLCIHGG VPPRKAGYIE  
DLVLMLPQNI WDNLYSRYGG GPAVNHLIYC HTCQIEAEKI EKRRKTELEI FIRLNRAFQK  
EDSPATFYCI SMQWFREWES FVKGKGDGDP GPIDNTKIAV TKCGNVMLRQ GADSGQISEE  
TWNFLQSIYG GGPEVILRPP VHVDPDILQ AEEKIEVETR SL

**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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 will ensure that you receive a correctly folded 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 in several dilutions and is measured against its specific reference buffer.

## Product Details

- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):  1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

## Target Details

Target:	USP33
Alternative Name:	USP33 ( <a href="#">USP33 Products</a> )
Background:	Ubiquitin carboxyl-terminal hydrolase 33 (EC 3.4.19.12) (Deubiquitinating enzyme 33) (Ubiquitin thioesterase 33) (Ubiquitin-specific-processing protease 33) (VHL-interacting deubiquitinating enzyme 1) (hVDU1),FUNCTION: Deubiquitinating enzyme involved in various processes such as centrosome duplication, cellular migration and beta-2 adrenergic receptor/ADRB2 recycling. Involved in regulation of centrosome duplication by mediating deubiquitination of CCP110 in S and G2/M phase, leading to stabilize CCP110 during the period which centrioles duplicate and elongate. Involved in cell migration via its interaction with intracellular domain of ROBO1, leading to regulate the Slit signaling. Plays a role in commissural axon guidance cross the ventral midline of the neural tube in a Slit-dependent manner, possibly by mediating the deubiquitination of ROBO1. Acts as a regulator of G-protein coupled receptor (GPCR) signaling by mediating the deubiquitination of beta-arrestins (ARRB1 and ARRB2) and beta-2 adrenergic receptor (ADRB2). Plays a central role in ADRB2 recycling and resensitization after prolonged agonist stimulation by constitutively binding ADRB2, mediating deubiquitination of ADRB2 and inhibiting lysosomal trafficking of ADRB2. Upon dissociation, it is probably transferred to the translocated beta-arrestins, leading to beta-arrestins deubiquitination and disengagement from ADRB2. This suggests the existence of a dynamic exchange between the ADRB2 and beta-arrestins. Deubiquitinates DIO2, thereby regulating thyroid hormone regulation. Mediates

## Target Details

	deubiquitination of both 'Lys-48'- and 'Lys-63'-linked polyubiquitin chains. {ECO:0000269 PubMed:12865408, ECO:0000269 PubMed:19363159, ECO:0000269 PubMed:19424180, ECO:0000269 PubMed:23486064}.
Molecular Weight:	106.7 kDa
UniProt:	<a href="#">Q8TEY7</a>
Pathways:	<a href="#">Regulation of G-Protein Coupled Receptor Protein Signaling</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:	<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

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process