

## Datasheet for ABIN3096231

# USP28 Protein (AA 1-1077) (Strep Tag)



## Overview

Quantity:	250 μg
Target:	USP28
Protein Characteristics:	AA 1-1077
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This USP28 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Brand:	AliCE®
Sequence:	MTAELQQDDA AGAADGHGSS CQMLLNQLRE ITGIQDPSFL HEALKASNGD ITQAVSLLTD
	ERVKEPSQDT VATEPSEVEG SAANKEVLAK VIDLTHDNKD DLQAAIALSL LESPKIQADG
	RDLNRMHEAT SAETKRSKRK RCEVWGENPN PNDWRRVDGW PVGLKNVGNT CWFSAVIQSL
	FQLPEFRRLV LSYSLPQNVL ENCRSHTEKR NIMFMQELQY LFALMMGSNR KFVDPSAALD
	LLKGAFRSSE EQQQDVSEFT HKLLDWLEDA FQLAVNVNSP RNKSENPMVQ LFYGTFLTEG
	VREGKPFCNN ETFGQYPLQV NGYRNLDECL EGAMVEGDVE LLPSDHSVKY GQERWFTKLP
	PVLTFELSRF EFNQSLGQPE KIHNKLEFPQ IIYMDRYMYR SKELIRNKRE CIRKLKEEIK
	ILQQKLERYV KYGSGPARFP LPDMLKYVIE FASTKPASES CPPESDTHMT LPLSSVHCSV
	SDQTSKESTS TESSSQDVES TFSSPEDSLP KSKPLTSSRS SMEMPSQPAP RTVTDEEINF
	VKTCLQRWRS EIEQDIQDLK TCIASTTQTI EQMYCDPLLR QVPYRLHAVL VHEGQANAGH
	YWAYIYNQPR QSWLKYNDIS VTESSWEEVE RDSYGGLRNV SAYCLMYIND KLPYFNAEAA

PTESDQMSEV EALSVELKHY IQEDNWRFEQ EVEEWEEQS CKIPQMESST NSSSQDYSTS QEPSVASSHG VRCLSSEHAV IVKEQTAQAI ANTARAYEKS GVEAALSEVM LSPAMQGVIL AIAKARQTFD RDGSEAGLIK AFHEEYSRLY QLAKETPTSH SDPRLQHVLV YFFQNEAPKR VVERTLLEQF ADKNLSYDER SISIMKVAQA KLKEIGPDDM NMEEYKKWHE DYSLFRKVSV YLLTGLELYQ KGKYQEALSY LVYAYQSNAA LLMKGPRRGV KESVIALYRR KCLLELNAKA ASLFETNDDH SVTEGINVMN ELIIPCIHLI INNDISKDDL DAIEVMRNHW CSYLGQDIAE NLQLCLGEFL PRLLDPSAEI IVLKEPPTIR PNSPYDLCSR FAAVMESIQG VSTVTVK

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 posttranslational 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:

USP28

Alternative Name:

USP28 (USP28 Products)

Background:

Ubiquitin carboxyl-terminal hydrolase 28 (EC 3.4.19.12) (Deubiquitinating enzyme 28) (Ubiquitin thioesterase 28) (Ubiquitin-specific-processing protease 28), FUNCTION: Deubiquitinase involved in DNA damage response checkpoint and MYC proto-oncogene stability. Involved in DNA damage induced apoptosis by specifically deubiquitinating proteins of the DNA damage pathway such as CLSPN. Also involved in G2 DNA damage checkpoint, by deubiquitinating CLSPN, and preventing its degradation by the anaphase promoting complex/cyclosome (APC/C). In contrast, it does not deubiquitinate PLK1. Specifically deubiquitinates MYC in the nucleoplasm, leading to prevent MYC degradation by the proteasome: acts by specifically interacting with isoform 1 of FBXW7 (FBW7alpha) in the nucleoplasm and counteracting ubiquitination of MYC by the SCF(FBW7) complex. In contrast, it does not interact with isoform 4 of FBXW7 (FBW7gamma) in the nucleolus, allowing MYC degradation and explaining the selective MYC degradation in the nucleolus. Deubiquitinates ZNF304, hence preventing ZNF304 degradation by the proteasome and leading to the activated KRAS-mediated promoter hypermethylation and transcriptional silencing of tumor suppressor genes (TSGs) in a subset of colorectal cancers (CRC) cells (PubMed:24623306). {ECO:0000269|PubMed:16901786, ECO:0000269|PubMed:17558397, ECO:0000269|PubMed:17873522, ECO:0000269|PubMed:18662541, ECO:0000269|PubMed:24623306}.

Molecular Weight:

122.5 kDa

UniProt:

Q96RU2

# **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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	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 <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