

Datasheet for ABIN3096155

USP37 Protein (AA 1-979) (Strep Tag)



[Go to Product page](#)

Overview

Quantity:	250 µg
Target:	USP37
Protein Characteristics:	AA 1-979
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This USP37 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	<p>MSPLKIHGPI RIRSMQTGIT KWKEGSFEIV EKENKVSLVV HYNTGGIPRI FQLSHNIKNV</p> <p>VLRPSGAKQS RLMLTLQDNS FLSIDKVPSK DAEEMRLFLD AVHQNRLPAA MKPSQGSGSF</p> <p>GAILGSRSTS KETSRQLSYS DNQASAKRGS LETKDDIPFR KVLGNPGRGS IKTVAGSGIA</p> <p>RTIPSLTSTS TPLRSGLLEN RTEKRKRMS TGSELNEDYP KENDSSSNK AMTDPSRKYL</p> <p>TSSREKQLSL KQSEENRTSG LLPLQSSSFY GSRAGSKEHS SGGTNLDRTN VSSQTPSAKR</p> <p>SLGFLPQPVP LSVKKLRCNQ DYTGWNKPRV PLSSHQQQQL QGFSNLGNTC YMNAILQSLF</p> <p>SLQSFANDLL KQGIPWKKIP LNALIRRFH LLVKKDICNS ETKDLLKKV KNAISATAER</p> <p>FSGYMQNDAH EFLSQCLDQL KEDMEKLNKT WKTEPVSGEE NSPDISATRA YTCPVITNLE</p> <p>FEVQHSIICK ACGEIIPKRE QFNDLSIDLP RRRKKPLPPRS IQDSLDFFR AEELEYSCEK</p> <p>CGGKCALVRH KFNRLPRVLI LHLKRYSFNV ALSLNNKIGQ QVIIPRYLTL SSHCTENTKP</p> <p>PFTLGWSAHM AISRPLKASQ MVNSCITSPS TPSKKFTFKS KSSLALCLDS DSEDELKRSV</p>

ALSQRLCEML GNEQQQEDLE KDSKLCPIEP DKSELENSGF DRMSEEELLA AVLEISKRDA
SPSLSHEDDD KPTSSPDTGF AEDDIQEMPE NPDTMETEKP KTITELDPAS FTEITKDCDE
NKENKTPEGS QGEVDWLQQY DMEREREEQE LQQALASLQ EQEAWQKED DDLKRATELS
LQEFNNSFVD ALGSDSDSGN EDVFDMEYTE AEAEELKRNA ETGNLPHSYR LISVSHIGS
TSSSGHYISD VYDIKKQAWF TYNDLEVSKI QEAAVQSDRD RSGYIFFYMH KEIFDELLET
EKNSQSLSTE VGKTTRQAL

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.

Product Details

- 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: USP37

Alternative Name: USP37 ([USP37 Products](#))

Background: Ubiquitin carboxyl-terminal hydrolase 37 (EC 3.4.19.12) (Deubiquitinating enzyme 37) (Ubiquitin thioesterase 37) (Ubiquitin-specific-processing protease 37), FUNCTION: Deubiquitinase that plays a role in different processes including cell cycle regulation, DNA replication or DNA damage response (PubMed:26299517, PubMed:27296872, PubMed:31911859, PubMed:34509474). Antagonizes the anaphase-promoting complex (APC/C) during G1/S transition by mediating deubiquitination of cyclin-A (CCNA1 and CCNA2), thereby promoting S phase entry. Specifically mediates deubiquitination of 'Lys-11'-linked polyubiquitin chains, a specific ubiquitin-linkage type mediated by the APC/C complex. Phosphorylation at Ser-628 during G1/S phase maximizes the deubiquitinase activity, leading to prevent degradation of cyclin-A (CCNA1 and CCNA2) (PubMed:21596315). Plays an important role in the regulation of DNA replication by stabilizing the licensing factor CDT1 (PubMed:27296872). Plays also an essential role beyond S-phase entry to promote the efficiency and fidelity of replication by deubiquitinating checkpoint kinase 1/CHK1, promoting its stability (PubMed:34509474). Sustains the DNA damage response (DDR) by deubiquitinating and stabilizing the ATP-dependent DNA helicase BLM (PubMed:34606619). Mechanistically, DNA double-strand breaks (DSB) promotes ATM-mediated phosphorylation of USP37 and enhances the binding between USP37 and BLM (PubMed:34606619). Promotes cell migration by deubiquitinating and stabilizing the epithelial-mesenchymal transition (EMT)-inducing transcription factor SNAI (PubMed:31911859). Plays a role in the regulation of mitotic spindle assembly and mitotic progression by associating with chromatin-associated WAPL and stabilizing it through deubiquitination (PubMed:26299517). {ECO:0000269|PubMed:21596315, ECO:0000269|PubMed:26299517, ECO:0000269|PubMed:27296872, ECO:0000269|PubMed:31911859, ECO:0000269|PubMed:34509474,

Target Details

	ECO:0000269 PubMed:34606619}.
Molecular Weight:	110.2 kDa
UniProt:	Q86T82

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:	<p>The buffer composition is at the discretion of the manufacturer.</p> <p>Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol Might differ depending on protein.</p>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months