

Datasheet for ABIN3096250
USP10 Protein (AA 2-798) (His tag)[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	USP10
Protein Characteristics:	AA 2-798
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This USP10 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	ALHSPQYIFG DFSPDEFNQF FVTPRSSVEL PPYSGTVLCG TQAVDKLPDG QEYQRIEFGV DEIEPSDTL PRTPSYSISS TLNPQAPEFI LGCTASKITP DGITKEASYG SIDCQYPGSA LALDGSSNVE AEVLENDGVS GGLGQRRERKK KKKRPPGYYS YLKDGGDDSI STEALVNGHA NSAVPNSVSA EDAEFMGDMP PSVTPRTCNS PQNSTDSVSD IVPDSPFPGA LGSDTRTAGQ PEGGPGADFG QSCFPAEAGR DTLRTAGAQ PCVGTDTTEN LGVANGQILE SSGEGTATNG VELHTTESID LDPTKPESAS PPADGTGSAS GTLPVSQPKS WASLFHDSKP SSSSPVAYVE TKYSPPAISP LVSEKQVEVK EGLVPVSEDP VAIKIAELLE NVTLIHKPVS LQPRGLINKG NWCYINATLQ ALVACPPMYH LMKFIPLYSK VQRPCTSTPM IDSFVRLMNE FTNMPVPPKP RQALGDKIVR DIRPGAAFEP TYIYRLLTVN KSSLSEKGRQ EDAEEYLGFI LNLHEEMLN LKKLLSPSNE KLTISNGPKN HSVNEEEQEE QGEGSEDEWE QVGPRNKTSV TRQADFEVQTP ITGIFGGHIR SVVYQQSSKE SATLQPFFTL QLDIQSDKIR TVQDAESLV ARESVQGYTT KTKQEVEISR RVTLEKLPPV LVLHLKRFVY EKTGGCQKLI KNIEYPVDLE ISKELLSPGV
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KNKNFKCHRT YRLFAVVYHH GNSATGGHYT TDVFQIGLNG WLRIDDQTVK VINQYQVVKP
TAERTAYLLY YRRVDLL

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human USP10 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility:

0.22 µm filtered

Endotoxin Level:

Protein is endotoxin free.

Product Details

Grade: Crystallography grade

Target Details

Target: USP10

Alternative Name: USP10 ([USP10 Products](#))

Background: Hydrolase that can remove conjugated ubiquitin from target proteins such as p53/TP53, BECN1, SNX3 and CFTR. Acts as an essential regulator of p53/TP53 stability: in unstressed cells, specifically deubiquitinates p53/TP53 in the cytoplasm, leading to counteract MDM2 action and stabilize p53/TP53. Following DNA damage, translocates to the nucleus and deubiquitinates p53/TP53, leading to regulate the p53/TP53-dependent DNA damage response. Component of a regulatory loop that controls autophagy and p53/TP53 levels: mediates deubiquitination of BECN1, a key regulator of autophagy, leading to stabilize the PIK3C3/VPS34-containing complexes. In turn, PIK3C3/VPS34-containing complexes regulate USP10 stability, suggesting the existence of a regulatory system by which PIK3C3/VPS34-containing complexes regulate p53/TP53 protein levels via USP10 and USP13. Does not deubiquitinate MDM2. Deubiquitinates CFTR in early endosomes, enhancing its endocytic recycling. {ECO:0000269|PubMed:11439350, ECO:0000269|PubMed:18632802, ECO:0000269|PubMed:19398555, ECO:0000269|PubMed:20096447, ECO:0000269|PubMed:21962518}.

Molecular Weight: 88.0 kDa Including tag.

UniProt: [Q14694](#)

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: In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images



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