

Datasheet for ABIN3096193 USP13 Protein (AA 1-863) (His tag)



[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	USP13
Protein Characteristics:	AA 1-863
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This USP13 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	<p> MQRRGALFGM PGGSGGRKMA AGDIGELLVP HMPTIRVPRS GDRVYKNECA FSYDSPNSEG GLYVCMNTFL AFGREHVERH FRKTGQSVYM HLKRHVREKV RGASGGALPK RRNSKIFLDL DTDDDLNSDD YEYEDEAKLV IFPDHYEIAL PNIEELPALV TIACDAVLSS KSPYRKQDPD TWENELPVSK YANNLTQLDN GVRIPPSGWK CARCDLRENL WLNLTGGSVL CGKWFFDSSG GNGHALEHYR DMGYPLAVKL GTITPDGADV YSFQEEEPVL DPHLAKHLAH FGIDMLMHMG TENGLQDNDI KLRVSEWEVI QESGTLKPM YGPGYTGLKN LGNSCYLSSV MQAIFSIPEF QRAYVGNLPR IFDYSPLDPT QDFNTQMTKL GHLLSGQYS KPPVKSELIE QVMKEEHKPK QNGISPRMFK AFVSKSHPEF SSNRQQDAQE FFLHLVNLVE RNRIGSENPS DVFRFLVEER IQCCQTRKVR YTERVDYLMQ LPVAMEAATN KDELIAVELT RREAENRRP LPFLVRAKIP FSACLQAFSE PENVDDFWSS ALQAKSAGVK TSRFASFPEY LVVQIKKFTF GLDWVPKKFD VSIDMPDLLD INHLRARGLQ PGEELPDIS PPIVIPDDSK DRLMNQLIDP SDIDESSVMQ LAEMGFPLEA CRKAVYFTGN MGAEVAFNWI IVHMEEPDFA EPLTMPGYGG AASAGASVFG </p>
-----------	---

ASGLDNQPPE EIVAIITSMG FQRNQAIQAL RATNNNLERA LDWIFSHPEF EEDSDFVIEM
ENNANANIIS EAKPEGPRVK DSGSGTYELFA FISHMGTSTM SGHYICHIKK EGRWVIYNDH
KVCASERPPK DLGYMYFYRR IPS

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 USP13 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

Product Details

Endotoxin Level: Protein is endotoxin free.

Grade: Crystallography grade

Target Details

Target: USP13

Alternative Name: USP13 ([USP13 Products](#))

Background: Deubiquitinase that mediates deubiquitination of target proteins such as BECN1, MITF, SKP2 and USP10 and is involved in various processes such as autophagy and endoplasmic reticulum-associated degradation (ERAD). 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. Also deubiquitinates USP10, an essential regulator of p53/TP53 stability. In turn, PIK3C3/VPS34-containing complexes regulate USP13 stability, suggesting the existence of a regulatory system by which PIK3C3/VPS34-containing complexes regulate p53/TP53 protein levels via USP10 and USP13. Recruited by nuclear UFD1 and mediates deubiquitination of SKP2, thereby regulating endoplasmic reticulum-associated degradation (ERAD). Mediates stabilization of SIAH2 independently of deubiquitinase activity: binds ubiquitinated SIAH2 and acts by impairing SIAH2 autoubiquitination. Has a weak deubiquitinase activity in vitro and preferentially cleaves 'Lys-63'-linked polyubiquitin chains. In contrast to USP5, it is not able to mediate unanchored polyubiquitin disassembly. Able to cleave ISG15 in vitro, however, additional experiments are required to confirm such data. {ECO:0000269|PubMed:17653289, ECO:0000269|PubMed:21571647, ECO:0000269|PubMed:21659512, ECO:0000269|PubMed:21811243, ECO:0000269|PubMed:21962518, ECO:0000269|PubMed:22216260}.

Molecular Weight: 98.3 kDa Including tag.

UniProt: [Q92995](#)

Pathways: [SARS-CoV-2 Protein Interactome](#)

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.

Application Details

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