

## Product datasheet for TP302190M

#### OriGene Technologies, Inc.

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### USP13 (NM\_003940) Human Recombinant Protein

**Product data:** 

**Product Type:** Recombinant Proteins

**Description:** Recombinant protein of human ubiquitin specific peptidase 13 (isopeptidase T-3) (USP13),

100 µg

Species: Human
Expression Host: HEK293T

**Expression cDNA Clone** >RC202190 protein sequence or AA Sequence: Red=Cloning site Green=Tags(s)

MQRRGALFGMPGGSGGRKMAAGDIGELLVPHMPTIRVPRSGDRVYKNECAFSYDSPNSEGGLYVCMNT

FL

AFGREHVERHFRKTGQSVYMHLKRHVREKVRGASGGALPKRRNSKIFLDLDTDDDLNSDDYEYEDEAKLV IFPDHYEIALPNIEELPALVTIACDAVLSSKSPYRKQDPDTWENELPVSKYANNLTQLDNGVRIPPSGWK CARCDLRENLWLNLTDGSVLCGKWFFDSSGGNGHALEHYRDMGYPLAVKLGTITPDGADVYSFQEEEPV

L

DPHLAKHLAHFGIDMLHMHGTENGLQDNDIKLRVSEWEVIQESGTKLKPMYGPGYTGLKNLGNSCYLSS

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MQAIFSIPEFQRAYVGNLPRIFDYSPLDPTQDFNTQMTKLGHGLLSGQYSKPPVKSELIEQVMKEEHKPQ QNGISPRMFKAFVSKSHPEFSSNRQQDAQEFFLHLVNLVERNRIGSENPSDVFRFLVEERIQCCQTRKVR YTERVDYLMQLPVAMEAATNKDELIAYELTRREAEANRRPLPELVRAKIPFSACLQAFSEPENVDDFWSS ALQAKSAGVKTSRFASFPEYLVVQIKKFTFGLDWVPKKFDVSIDMPDLLDINHLRARGLQPGEEELPDIS PPIVIPDDSKDRLMNQLIDPSDIDESSVMQLAEMGFPLEACRKAVYFTGNMGAEVAFNWIIVHMEEPDFA EPLTMPGYGGAASAGASVFGASGLDNQPPEEIVAIITSMGFQRNQAIQALRATNNNLERALDWIFSHPEF EEDSDFVIEMENNANANIISEAKPEGPRVKDGSGTYELFAFISHMGTSTMSGHYICHIKKEGRWVIYNDH

**KVCASERPPKDLGYMYFYRRIPS** 

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV** 

Tag: C-Myc/DDK
Predicted MW: 97.1 kDa

**Concentration:**  $>0.05 \mu g/\mu L$  as determined by microplate BCA method

**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol





#### USP13 (NM\_003940) Human Recombinant Protein - TP302190M

**Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by

conventional chromatography steps.

**Note:** For testing in cell culture applications, please filter before use. Note that you may experience

some loss of protein during the filtration process.

Storage: Store at -80°C.

Stability: Stable for 12 months from the date of receipt of the product under proper storage and

handling conditions. Avoid repeated freeze-thaw cycles.

**RefSeq:** NP 003931

 Locus ID:
 8975

 UniProt ID:
 Q92995

 RefSeq Size:
 7933

 Cytogenetics:
 3q26.33

RefSeq ORF: 2589

**Synonyms:** IsoT-3; ISOT3

Summary: 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). Also regulates ERAD through the

deubiquitination of UBL4A a component of the BAG6/BAT3 complex. Mediates stabilization of

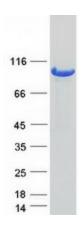
SIAH2 independently of deubiquitinase activity: binds ubiquitinated SIAH2 and acts by impairing SIAH2 autoubiquitination. Has a weak deubiquitinase activity in vitro and

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.[UniProtKB/Swiss-Prot Function]

**Protein Families:** Druggable Genome, Protease



# **Product images:**



Coomassie blue staining of purified USP13 protein (Cat# [TP302190]). The protein was produced from HEK293T cells transfected with USP13 cDNA clone (Cat# [RC202190]) using MegaTran 2.0 (Cat# [TT210002]).