

Recombinant Human USP13 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. USP13-2648H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	USP13 MS Standard C13 and N15-labeled recombinant protein (NP_003931) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	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

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polyubiquitin disassembly. Able to cleave ISG15 in vitro; however, additional experiments are required to confirm such data.

Molecular Mass 97.3 kDa

AA Sequence

MQRRGALFGMPGGSGGRKMAAGDIGELLVPHMPTIRVPRSGDRVYKNECAFSYDS
 PNSEGGLYVCMNTFLAFGREHVERHFRKTGQSVYMHKLRHVREKVRGASGGALPK
 RRNSKIFLDLTDDDLNSDDYEYEDAKLVIFPDHYEIALPNIEELPALVTIACDAVLSS
 KSPYRKQDPDTWENELPVSKYANNLTQLDNGVRIPPSGWKCARCDLRENLWLNLT
 DGSVLCGKWFFDSSGGNGHALEHYRDMGYPLAVKLGTITPDGADVYSFQEEEPVL
 DPHLAKHLAHFGIDMLMHGTENGLQDNDIKLRVSEWEVIQESGTLKPMYGPYGT
 GLKNLGNSCYLSSVMQAIFSIPEFQRAYVGNLPRIFDYSPLDPTQDFNTQMTKLGHG
 LLSGQYSKPPVKSELIEQVMKEEHKPQQNGISPRMFKA FVSKSHPEFSSNRQQDAQ
 EFFLHLVNLVERNRISENPSDVFRFLVEERIQCCQTRKVRYTERVDYLMQLPVAME
 AATNKDELIAYELTRREAEANRRPLPELVRAKIPFSACLQAFSEPENVD FFWSSALQ
 AKSAGVKTSRFASFPEYLVVQIKKFTFGLDWVPKKFDVSIDMPDLLDINH LRARGLQP
 GEEELPDISPPIVIPDDSKDRLMNQLIDPSDIDESSVMQLAEMGFPLEACRKAVYFTG
 NMGAEVAFNWIIVHMEEPDFAEPLTMPGYGGAASAGASVFGASGLDNQPPEEIVAI
 TSMGFQRNQAIQALRATNNNLERALDWIFSHPEFEEDSDFVIEMENNANANIISEAKP
 EGPRVKDGSPTYELFAFISHMGTSTMSGHYICHIKKEGRWVIYNDHKVCASERPPK
 DLGYMYFYRRIPSTRTRPLEQKLISEEDLAANDILDYKDDDDKV

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

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

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Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name [USP13 ubiquitin specific peptidase 13 \[Homo sapiens \(human\) \]](#)

Official Symbol [USP13](#)

Synonyms USP13; ubiquitin specific peptidase 13 (isopeptidase T-3); ubiquitin specific protease 13 (isopeptidase T 3); ubiquitin carboxyl-terminal hydrolase 13; IsoT 3; isopeptidase T-3; ubiquitin thioesterase 13; deubiquitinating enzyme 13; ubiquitin thiolesterase 13; ubiquitin-specific-processing protease 13; ubiquitin specific protease 13 (isopeptidase T-3); ISOT3; IsoT-3;

Gene ID [8975](#)

mRNA Refseq [NM_003940](#)

Protein Refseq [NP_003931](#)

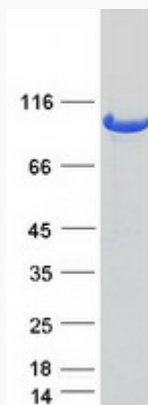
MIM [603591](#)

UniProt ID [Q92995](#)

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SDS-PAGE

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