Recombinant Mouse Usp13 Protein, Myc/DDK-tagged

Cat. No. Usp13-6864M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length ubiquitin specific peptidase 13 (isopeptidase T-3) (Usp13), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
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	96.7 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 μg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Usp13 ubiquitin specific peptidase 13 (isopeptidase T-3) [Mus musculus (house mouse)]
Official Symbol	Usp13
Synonyms	USP13; ubiquitin specific peptidase 13 (isopeptidase T-3); ubiquitin carboxyl-terminal hydrolase 13; ubiquitin specific protease 13 (isopeptidase T-3); ISOT3; IsoT-3; AI848077; 2700071E21Rik; MGC107670
Gene ID	72607
mRNA Refseq	NM_001013024

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Protein Refseq	NP_001013042
UniProt ID	Q5BKP2

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