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KD-Validated Anti-Ubiquitin specific peptidase 13 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1417

Specification

KD-Validated Anti-Ubiquitin specific peptidase 13 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	Q92995
Reactivity	**Rat, Human**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 97 kDa , observed, 97 kDa KDa**
Gene Name	**USP13**
Aliases	**USP13; Ubiquitin Specific Peptidase 13; Ubiquitin Specific Protease 13 (Isopeptidase T-3); Ubiquitin-Specific-Processing Protease 13; Ubiquitin Carboxyl-Terminal Hydrolase 13; Deubiquitinating Enzyme 13; Ubiquitin Thioesterase 13; Isopeptidase T-3; IsoT-3; ISOT-3; ISOT3; Ubiquitin Specific Peptidase 13 (Isopeptidase T-3); Ubiquitin Thiolesterase 13; EC 3.4.19.12; EC 3.1.2.15**
Immunogen	**A synthesized peptide derived from human USP13**

KD-Validated Anti-Ubiquitin specific peptidase 13 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**8975**

Other Names
Ubiquitin carboxyl-terminal hydrolase 13, 3.4.19.12, Deubiquitinating enzyme 13, Isopeptidase T-3, ISOT-3, Ubiquitin thioesterase 13, Ubiquitin-specific-processing protease 13, USP13, ISOT3

KD-Validated Anti-Ubiquitin specific peptidase 13 Rabbit Monoclonal Antibody - Protein Information

Name USP13

Synonyms ISOT3

Function
Deubiquitinase that mediates deubiquitination of target proteins such as BECN1, MITF, SKP2 and USP10 and is involved in various processes such as autophagy, endoplasmic reticulum-associated degradation (ERAD), cell cycle progression or DNA damage response (PubMed:21571647, PubMed:32772043, PubMed:<a

href="http://www.uniprot.org/citations/33592542" target="_blank">33592542). 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. Alternatively, forms with NEDD4 a deubiquitination complex, which subsequently stabilizes VPS34 to promote autophagy (PubMed:32101753). 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. Regulates the cell cycle progression by stabilizing cell cycle proteins such as SKP2 and AURKB (PubMed:32772043). In addition, plays an important role in maintaining genomic stability and in DNA replication checkpoint activation via regulation of RAP80 and TOPBP1 (PubMed:33592542). Deubiquitinates the multifunctional protein HMGB1 and subsequently drives its nucleocytoplasmic localization and its secretion (PubMed:36585612). Positively regulates type I and type II interferon signalings by deubiquitinating STAT1 but negatively regulates antiviral response by deubiquitinating STING1 (PubMed:23940278, PubMed:28534493).

Cellular Location
Cytoplasm.

Tissue Location
Highly expressed in ovary and testes.

KD-Validated Anti-Ubiquitin specific peptidase 13 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-Ubiquitin specific peptidase 13 Rabbit Monoclonal Antibody - Images

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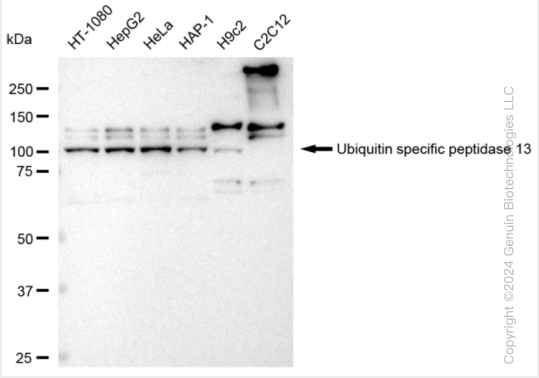
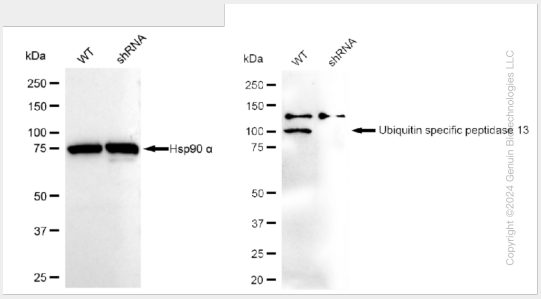
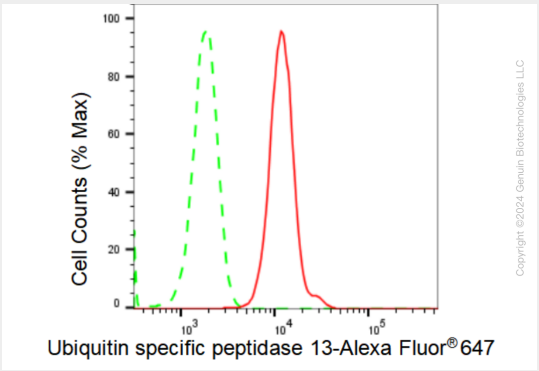


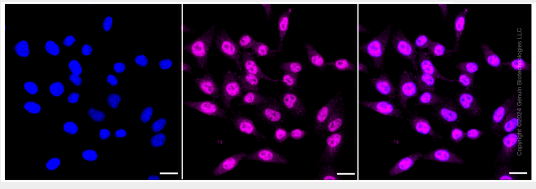
Western blotting analysis using anti-Ubiquitin specific peptidase 13 antibody (Cat#AGI1417). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Ubiquitin specific peptidase 13 antibody (Cat#AGI1417, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-Ubiquitin specific peptidase 13 antibody (Cat#AGI1417). Ubiquitin specific peptidase 13 expression in wild type (WT) and Ubiquitin specific peptidase 13 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-Ubiquitin specific peptidase 13 antibody (Cat#AGI1417, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Ubiquitin specific peptidase 13 expression in HepG2 cells using Ubiquitin specific peptidase 13 antibody (Cat#AGI1417, 1:2,000). Green, isotype control; red, Ubiquitin specific peptidase 13.



Immunocytochemical staining of HepG2 cells with Ubiquitin specific peptidase 13 antibody

(Cat#AGI1417, 1:1,000). Nuclei were stained blue with DAPI; Ubiquitin specific peptidase 13 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.