

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:32772043, PubMed:32772043)

<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 signaling by deubiquitinating STAT1 but negatively regulates antiviral response by deubiquitinating STING1 (PubMed:23940278, PubMed:28534493).

Cellular Location

Cytoplasm.

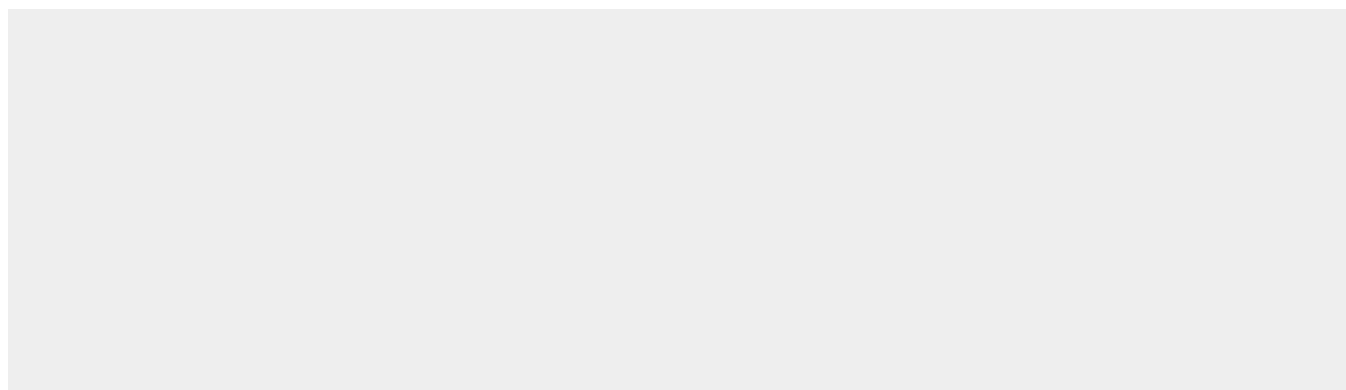
Tissue Location

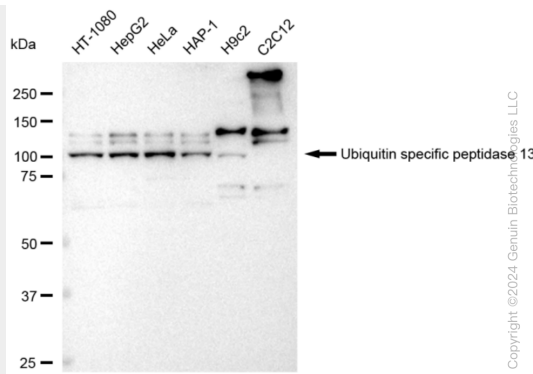
Highly expressed in ovary and testes.

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

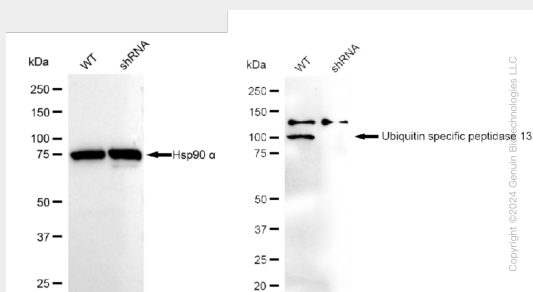
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

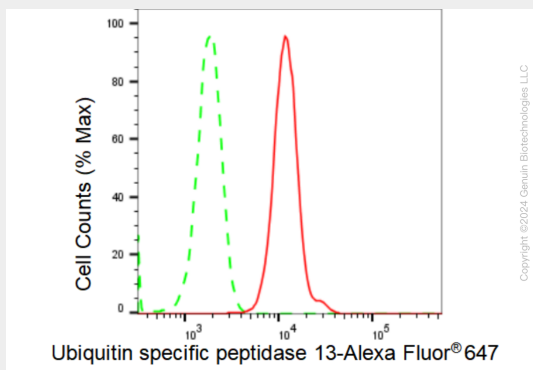
KD-Validated Anti-Ubiquitin specific peptidase 13 Rabbit Monoclonal Antibody - Images



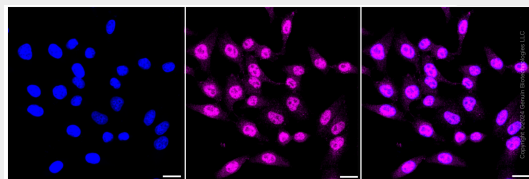
Western blotting analysis using anti-Ubiquitin specific peptidase 13 antibody (Cat#AGI1417). Total cell lysates (30 μ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Ubiquitin specific peptidase 13 antibody (Cat#AGI1417, 1:5,000) and HRP-conjugated goat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