

USP13 Antibody (aa500-550)
Rabbit Polyclonal Antibody
Catalog # ALS15266**Specification**

USP13 Antibody (aa500-550) - Product Information

Application	WB, IHC-P
Primary Accession	Q92995
Reactivity	Human, Mouse, Monkey, Horse, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	97kDa KDa
Dilution	WB~~1:1000 IHC-P~~N/A

USP13 Antibody (aa500-550) - 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

Target/Specificity

Human USP13

Reconstitution & Storage

Store at 4°C for short term applications. For long term storage, aliquot and store at -20°C.

Precautions

USP13 Antibody (aa500-550) is for research use only and not for use in diagnostic or therapeutic procedures.

USP13 Antibody (aa500-550) - 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: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.

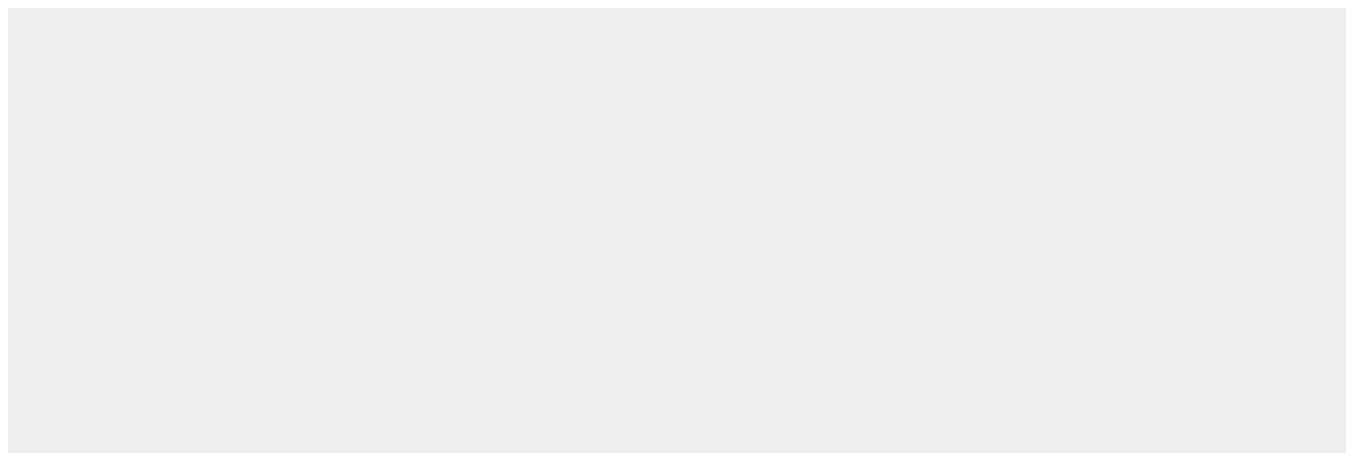
Tissue Location

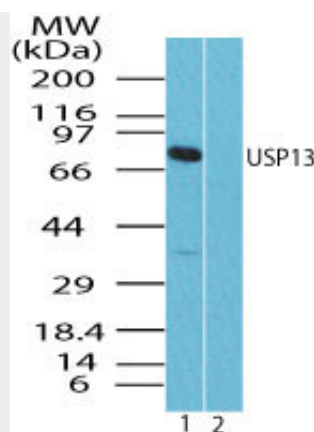
Highly expressed in ovary and testes.

USP13 Antibody (aa500-550) - Protocols

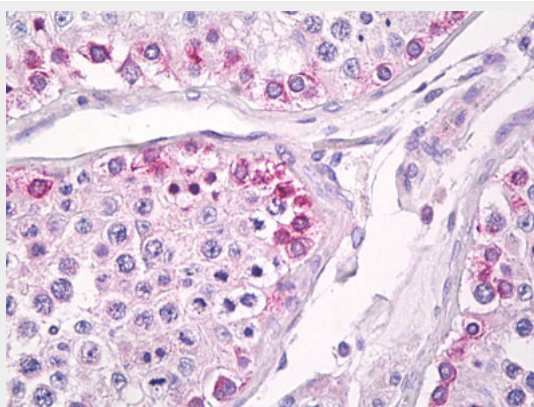
Provided below are standard protocols that you may find useful for product applications.

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

USP13 Antibody (aa500-550) - Images



Western blot of USP13 in human spleen lysate in the 1) absence and 2) presence of immunizing...



Anti-USP13 antibody IHC of human testis.

USP13 Antibody (aa500-550) - Background

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). 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.

USP13 Antibody (aa500-550) - References

- Timms K.M.,et al.Gene 217:101-106(1998).
- Ota T.,et al.Nat. Genet. 36:40-45(2004).
- Muzny D.M.,et al.Nature 440:1194-1198(2006).
- Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
- Catic A.,et al.PLoS ONE 2:E679-E679(2007).