

USP12 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14945c

Specification

USP12 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	O75317
Other Accession	Q9D9M2 , A5D9H7 , Q5M981 , Q52KZ6 , NP_872294.2 , D0RB01
Reactivity	Mouse
Predicted	Xenopus, Bovine, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	42858
Antigen Region	222-251

USP12 Antibody (Center) - Additional Information

Gene ID 219333

Other Names

Ubiquitin carboxyl-terminal hydrolase 12, Deubiquitinating enzyme 12, Ubiquitin thioesterase 12, Ubiquitin-hydrolyzing enzyme 1, Ubiquitin-specific-processing protease 12, USP12, UBH1, USP12L1

Target/Specificity

This USP12 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 222-251 amino acids from the Central region of human USP12.

Dilution

WB~~1:1000
E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

USP12 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

USP12 Antibody (Center) - Protein Information

Name USP12

Synonyms UBH1, USP12L1

Function Deubiquitinating enzyme that plays various roles in the regulation of the immune response and inflammation (PubMed:[19075014](#), PubMed:[27373336](#)). During TCR engagement and activation, translocates into the cytoplasm and deubiquitinates its substrates LAT and TRAT1 and prevents their lysosome-dependent degradation to stabilize the TCR signaling complex at the plasma membrane (PubMed:[26811477](#)). Plays an essential role in the selective LPS-induced macrophage response through the activation of NF-kappa-B pathway (PubMed:[28063927](#)). In addition, promotes that antiviral immune response through targeting DNA sensor IFI16 to inhibit its proteasome-dependent degradation (PubMed:[37410794](#)). Participates in the interferon signaling pathway and antiviral response independently of its deubiquitinase activity by maintaining nuclear phosphorylated STAT1 levels via inhibition of its CREBBP-mediated acetylation and subsequent dephosphorylation (PubMed:[31899788](#)). Plays an intrinsic role in promoting the differentiation, activation and proliferation of CD4(+) T-cell by activating the NF-kappa-B signaling pathway through deubiquitinating and stabilizing B-cell lymphoma/leukemia 10/BCL10 (By similarity). In myeloid-derived suppressor cells promotes the activation of the NF- kappa-B via deubiquitination and stabilization of RELA (By similarity). Regulates the 'Lys-63'-linked polyubiquitin chains of BAX and thereby modulates the mitochondrial apoptotic process (PubMed:[36361894](#)). Negative regulator of NOTCH signaling that specifically deubiquitinates non-activated NOTCH receptors to target them for lysosomal degradation; deubiquitination of NOTCH stimulates its transport from late endosomes to lysosomes (PubMed:[22778262](#)). Protects neurons against HTT/huntingtin-induced polyglutamine expansion-dependent neurodegeneration through regulation of autophagic flux (PubMed:[30266909](#)). This function is independent of deubiquitinase activity or of other components of the USP12-WDR20-WDR48 deubiquitinating complex (By similarity). In complex with WDR48, acts as a potential tumor suppressor by positively regulating PHLPP1 stability (PubMed:[24145035](#)).

Cellular Location

Nucleus. Cytoplasm. Cell membrane. Note=Translocates from the nucleus to the cytosol on TCR stimulation, while it translocates into the nucleus in IFN signaling. USP12/WDR20/WDR48 complex is localized mainly to the plasma membrane (PubMed:30466959).

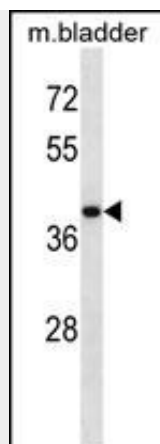
USP12 Antibody (Center) - Protocols

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

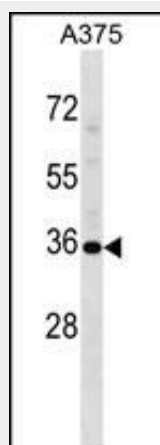
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

USP12 Antibody (Center) - Images





USP12 Antibody (Center) (Cat. #AP14945c) western blot analysis in mouse bladder tissue lysates (35ug/lane). This demonstrates the USP12 antibody detected the USP12 protein (arrow).



USP12 Antibody (Center) (Cat. #AP14945c) western blot analysis in A375 cell line lysates (35ug/lane). This demonstrates the USP12 antibody detected the USP12 protein (arrow).

USP12 Antibody (Center) - Background

USP12 is a deubiquitinating enzyme. Has almost no deubiquitinating activity by itself and requires the interaction with WDR48 to have a high activity. Not involved in deubiquitination of monoubiquitinated FANCD2.

USP12 Antibody (Center) - References

Kee, Y., et al. J. Biol. Chem. 285(15):11252-11257(2010)
Asano, K., et al. Nat. Genet. 41(12):1325-1329(2009)
Cohn, M.A., et al. J. Biol. Chem. 284(8):5343-5351(2009)
Dunham, A., et al. Nature 428(6982):522-528(2004)
Puente, X.S., et al. Nat. Rev. Genet. 4(7):544-558(2003)