

**USP12 Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP2140b****Specification**

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**USP12 Antibody (C-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">O75317</a>
Other Accession	<a href="#">P62069</a> , <a href="#">P62068</a> , <a href="#">A5WWB0</a> , <a href="#">Q9D9M2</a> , <a href="#">A4FUN7</a> , <a href="#">A5D9H7</a> , <a href="#">Q5M981</a> , <a href="#">Q52KZ6</a> , <a href="#">NP_872294</a> , <a href="#">F1M625</a>
Reactivity	Human
Predicted	Xenopus, Bovine, Zebrafish, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	315-345

**USP12 Antibody (C-term) - 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/USP46 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 315-345 amino acids from the C-terminal region of human USP12/USP46.

**Dilution**

WB~~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**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 (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**USP12 Antibody (C-term) - 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](#)). In complex with WDR48, acts as a potential tumor suppressor by positively regulating PHLPP1 stability (PubMed:[24145035](#)). During TCR engagement and activation, translocates into the cytoplasm and deubiquitinates its substrates LAT and TRAF1 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](#)).

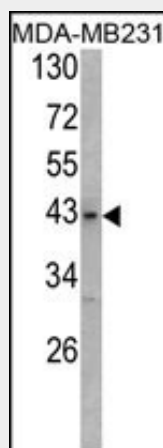
**Cellular Location**

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).

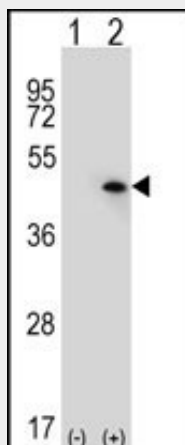
**USP12 Antibody (C-term) - Protocols**

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 (C-term) - Images**

Western blot analysis of USP12/USP46 Antibody (C-term) (Cat. #AP2140b) in MDA-MB231 cell line lysates (35ug/lane). USP12/USP46 (arrow) was detected using the purified Pab.



Western blot analysis of USP12 (arrow) using rabbit polyclonal USP12 Antibody (L315) (Cat. #AP2140b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the USP12 gene.

#### USP12 Antibody (C-term) - Background

Modification of target proteins by ubiquitin participates in a wide array of biological functions. Proteins destined for degradation or processing via the 26 S proteasome are coupled to multiple copies of ubiquitin. However, attachment of ubiquitin or ubiquitin-related molecules may also result in changes in subcellular distribution or modification of protein activity. An additional level of ubiquitin regulation, deubiquitination, is catalyzed by proteases called deubiquitinating enzymes, which fall into four distinct families. Ubiquitin C-terminal hydrolases, ubiquitin-specific processing proteases (USPs),<sup>1</sup> OTU-domain ubiquitin-aldehyde-binding proteins, and Jab1/Pad1/MPN-domain-containing metallo-enzymes. Among these four families, USPs represent the most widespread and represented deubiquitinating enzymes across evolution. USPs tend to release ubiquitin from a conjugated protein. They display similar catalytic domains containing conserved Cys and His boxes but divergent N-terminal and occasionally C-terminal extensions, which are thought to function in substrate recognition, subcellular localization, and protein-protein interactions.

#### USP12 Antibody (C-term) - References

Hansen-Hagge, T.E., et al., Genomics 49(3):411-418 (1998).