

# USP14 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)  
Catalog # AP19898b

## Product Information

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<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">P54578</a>
<b>Other Accession</b>	<a href="#">Q9JMA1</a> , <a href="#">Q0IIF7</a> , <a href="#">NP_005142.1</a>
<b>Reactivity</b>	Human, Rat, Mouse
<b>Predicted</b>	Bovine, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB41691
<b>Calculated MW</b>	56069
<b>Antigen Region</b>	355-383

## Additional Information

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<b>Gene ID</b>	9097
<b>Other Names</b>	Ubiquitin carboxyl-terminal hydrolase 14, Deubiquitinating enzyme 14, Ubiquitin thioesterase 14, Ubiquitin-specific-processing protease 14, USP14, TGT
<b>Target/Specificity</b>	This USP14 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 355-383 amino acids from the C-terminal region of human USP14.
<b>Dilution</b>	WB~~1:1000 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	USP14 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	USP14
<b>Synonyms</b>	TGT

## Function

Proteasome-associated deubiquitinase which releases ubiquitin from the proteasome targeted ubiquitinated proteins (PubMed:[35145029](#)). Ensures the regeneration of ubiquitin at the proteasome (PubMed:[18162577](#), PubMed:[28396413](#)). Is a reversibly associated subunit of the proteasome and a large fraction of proteasome-free protein exists within the cell (PubMed:[18162577](#)). Required for the degradation of the chemokine receptor CXCR4 which is critical for CXCL12-induced cell chemotaxis (PubMed:[19106094](#)). Also serves as a physiological inhibitor of endoplasmic reticulum-associated degradation (ERAD) under the non-stressed condition by inhibiting the degradation of unfolded endoplasmic reticulum proteins via interaction with ERN1 (PubMed:[19135427](#)). Indispensable for synaptic development and function at neuromuscular junctions (NMJs) (By similarity). Plays a role in the innate immune defense against viruses by stabilizing the viral DNA sensor CGAS and thus inhibiting its autophagic degradation (PubMed:[27666593](#)). Inhibits OPTN-mediated selective autophagic degradation of KDM4D and thereby negatively regulates H3K9me2 and H3K9me3 (PubMed:[35145029](#)).

## Cellular Location

Cytoplasm. Cell membrane; Peripheral membrane protein

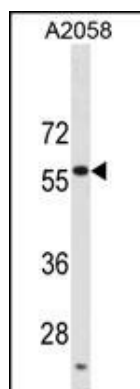
## Background

This gene encodes a member of the ubiquitin-specific processing (UBP) family of proteases that is a deubiquitinating enzyme (DUB) with His and Cys domains. This protein is located in the cytoplasm and cleaves the ubiquitin moiety from ubiquitin-fused precursors and ubiquitylated proteins. Mice with a mutation that results in reduced expression of the ortholog of this protein are retarded for growth, develop severe tremors by 2 to 3 weeks of age followed by hindlimb paralysis and death by 6 to 10 weeks of age. Alternate transcriptional splice variants, encoding different isoforms, have been characterized.

## References

- Davila, S., et al. *Genes Immun.* 11(3):232-238(2010)  
Chen, P.C., et al. *J. Neurosci.* 29(35):10909-10919(2009)  
Mines, M.A., et al. *J. Biol. Chem.* 284(9):5742-5752(2009)  
Nagai, A., et al. *Biochem. Biophys. Res. Commun.* 379(4):995-1000(2009)  
Koulich, E., et al. *Mol. Biol. Cell* 19(3):1072-1082(2008)

## Images



USP14 Antibody (C-term) (Cat. #AP19898b) western blot analysis in A2058 cell line lysates (35ug/lane). This demonstrates the USP14 antibody detected the USP14 protein (arrow).

## Citations

- [Ubiquitin-specific protease-14 reduces cellular aggregates and protects against mutant huntingtin-induced cell](#)

[degeneration: involvement of the proteasome and ER stress-activated kinase IRE1 \$\alpha\$ .](#)

- [A new gold\(I\) complex-Au\(PPh\)<sub>3</sub>PT is a deubiquitinase inhibitor and inhibits tumor growth.](#)

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