

## KD-Validated Anti-Ubiquitin Specific Peptidase 14 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody Catalog # AGI1710

### **Specification**

# KD-Validated Anti-Ubiquitin Specific Peptidase 14 Rabbit Monoclonal Antibody - Product Information

Application WB, FC, ICC

Primary Accession <u>P54578</u>

Reactivity Rat, Human, Mouse Clonality Monoclonal

Isotype Rabbit IgG

Calculated MW Predicted, 56 kDa , observed , 56 kDa KDa

Gene Name USP

Aliases USP14; Ubiquitin Specific Peptidase 14;

TGT; Ubp6; Ubiquitin Specific Peptidase 14

(TRNA-Guanine Transglycosylase); Ubiquitin Specific Protease 14 (TRNA-Guanine Transglycosylase);

Ubiquitin Carboxyl-Terminal Hydrolase 14; Deubiquitinating Enzyme 14; Ubiquitin

Thioesterase 14; TRNA-Guanine Transglycosylase, 60-KD Subunit;

Ubiquitin-Specific Processing Protease 14; Ubiquitin-Specific-Processing Protease 14; Ubiquitin Thiolesterase 14; EC 3.4.19.12;

EC 3.1.2.15

Immunogen A synthesized peptide derived from human

**USP14** 

# KD-Validated Anti-Ubiquitin Specific Peptidase 14 Rabbit Monoclonal Antibody - Additional Information

Gene ID **9097** 

**Other Names** 

Ubiquitin carboxyl-terminal hydrolase 14, 3.4.19.12, Deubiquitinating enzyme 14, Ubiquitin thioesterase 14, Ubiquitin-specific-processing protease 14, USP14, TGT

# **KD-Validated Anti-Ubiquitin Specific Peptidase 14 Rabbit Monoclonal Antibody - Protein Information**

Name USP14

**Synonyms TGT** 

### **Function**

Proteasome-associated deubiquitinase which releases ubiquitin from the proteasome targeted ubiquitinated proteins (PubMed:<a href="http://www.uniprot.org/citations/35145029"



target="\_blank">35145029</a>). Ensures the regeneration of ubiquitin at the proteasome (PubMed:<a href="http://www.uniprot.org/citations/18162577" target="\_blank">18162577</a>, PubMed:<a href="http://www.uniprot.org/citations/28396413" target="\_blank">28396413</a>). Is a reversibly associated subunit of the proteasome and a large fraction of proteasome-free protein exists within the cell (PubMed:<a href="http://www.uniprot.org/citations/18162577" target="\_blank">18162577</a>). Required for the degradation of the chemokine receptor CXCR4 which is critical for CXCL12-induced cell chemotaxis (PubMed:<a

href="http://www.uniprot.org/citations/19106094" target="\_blank">19106094</a>). 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:<a href="http://www.uniprot.org/citations/19135427" target="\_blank">19135427</a>). 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:<a href="http://www.uniprot.org/citations/27666593" target="\_blank">27666593</a>). Inhibits OPTN-mediated selective autophagic degradation of KDM4D and thereby negatively regulates H3K9me2 and H3K9me3 (PubMed:<a href="http://www.uniprot.org/citations/35145029" target="\_blank">35145029</a>).

### **Cellular Location**

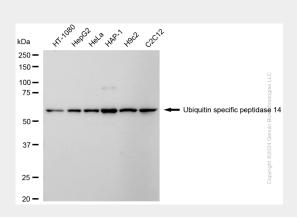
Cytoplasm. Cell membrane; Peripheral membrane protein

### KD-Validated Anti-Ubiquitin Specific Peptidase 14 Rabbit Monoclonal Antibody - Protocols

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

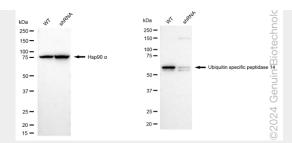
- Western Blot
- **Blocking Peptides**
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

#### KD-Validated Anti-Ubiquitin Specific Peptidase 14 Rabbit Monoclonal Antibody - Images

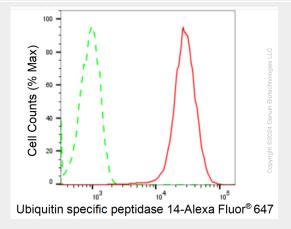


Western blotting analysis using anti-ubiquitin specific peptidase 14 antibody (Cat#AGI1710). Total cell lysates (30  $\mu$ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-ubiquitin specific peptidase 14 antibody (Cat#AGI1710, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

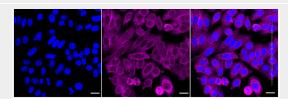




Western blotting analysis using anti-Ubiquitin specific peptidase 14 antibody (Cat#AGI1710). Ubiquitin specific peptidase 14 expression in wild type (WT) and Ubiquitin specific peptidase 14 shRNA knockdown (KD) HeLa cells with 20  $\mu$ g of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with anti-Ubiquitin specific peptidase 14 antibody (Cat#AGI1710, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of Ubiquitin specific peptidase 14 expression in HepG2 cells using anti-Ubiquitin specific peptidase 14 antibody (Cat#AGI1710, 1:2,000). Green, isotype control; red, Ubiquitin specific peptidase 14.



Immunocytochemical staining of HepG2 cells with anti-Ubiquitin specific peptidase 14 antibody (Cat#AGI1710, 1:1,000). Nuclei were stained blue with DAPI; Ubiquitin specific peptidase 14 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  $\mu$ m.