

USP14 Blocking Peptide (C-term) Synthetic peptide Catalog # BP19898b

## Specification

## **USP14 Blocking Peptide (C-term) - Product Information**

Primary Accession Other Accession <u>P54578</u> Q9JMA1, Q0IIF7, NP\_005142.1

## **USP14 Blocking Peptide (C-term) - Additional Information**

Gene ID 9097

**Other Names** Ubiquitin carboxyl-terminal hydrolase 14, Deubiquitinating enzyme 14, Ubiquitin thioesterase 14, Ubiquitin-specific-processing protease 14, USP14, TGT

**Target/Specificity** The synthetic peptide sequence is selected from aa 370-383 of HUMAN USP14

### Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

# **USP14 Blocking Peptide (C-term) - 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/28396413" target="\_blank">18162577" 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" 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>). Serves also 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

## **USP14 Blocking Peptide (C-term) - Protocols**

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

• <u>Blocking Peptides</u> USP14 Blocking Peptide (C-term) - Images

## USP14 Blocking Peptide (C-term) - 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 ubiquitinylated 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.

### **USP14 Blocking Peptide (C-term) - 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)