

USP14 Blocking Peptide (C-term)

Synthetic peptide

Catalog # BP19898b

Specification

USP14 Blocking Peptide (C-term) - Product Information

Primary Accession

[P54578](#)

Other Accession

[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: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). 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: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

USP14 Blocking Peptide (C-term) - Protocols

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

- [Blocking Peptides](#)

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 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.

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)
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Koulich, E., et al. Mol. Biol. Cell 19(3):1072-1082(2008)