

**PSME4 Blocking Peptide (N-Term)**

Synthetic peptide

Catalog # BP21982a

**Specification**

---

**PSME4 Blocking Peptide (N-Term) - Product Information**

Primary Accession

[O14997](#)

Other Accession

[F1MKX4](#)**PSME4 Blocking Peptide (N-Term) - Additional Information****Gene ID** 23198**Other Names**

Proteasome activator complex subunit 4, Proteasome activator PA200, PSME4, KIAA0077

**Target/Specificity**

The synthetic peptide sequence is selected from aa 523-535 of HUMAN PSME4

**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.

**PSME4 Blocking Peptide (N-Term) - Protein Information****Name** PSME4**Synonyms** KIAA0077**Function**

Associated component of the proteasome that specifically recognizes acetylated histones and promotes ATP- and ubiquitin- independent degradation of core histones during spermatogenesis and DNA damage response. Recognizes and binds acetylated histones via its bromodomain-like (BRDL) region and activates the proteasome by opening the gated channel for substrate entry. Binds to the core proteasome via its C-terminus, which occupies the same binding sites as the proteasomal ATPases, opening the closed structure of the proteasome via an active gating mechanism. Component of the spermatoproteasome, a form of the proteasome specifically found in testis: binds to acetylated histones and promotes degradation of histones, thereby participating actively to the exchange of histones during spermatogenesis. Also involved in DNA damage response in somatic cells, by promoting degradation of histones following DNA double-strand breaks.

**Cellular Location**

Cytoplasm, cytosol. Nucleus. Nucleus speckle Note=Found in nuclear foci following treatment with ionizing radiation, but not with ultraviolet irradiation or H<sub>2</sub>O<sub>2</sub>

**PSME4 Blocking Peptide (N-Term) - Protocols**

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

- [Blocking Peptides](#)

**PSME4 Blocking Peptide (N-Term) - Images****PSME4 Blocking Peptide (N-Term) - Background**

Associated component of the proteasome that specifically recognizes acetylated histones and promotes ATP- and ubiquitin- independent degradation of core histones during spermatogenesis and DNA damage response. Recognizes and binds acetylated histones via its bromodomain-like (BRDL) region and activates the proteasome by opening the gated channel for substrate entry. Binds to the core proteasome via its C-terminus, which occupies the same binding sites as the proteasomal ATPases, opening the closed structure of the proteasome via an active gating mechanism. Component of the spermatoproteasome, a form of the proteasome specifically found in testis: binds to acetylated histones and promotes degradation of histones, thereby participating actively to the exchange of histones during spermatogenesis. Also involved in DNA damage response in somatic cells, by promoting degradation of histones following DNA double-strand breaks.

**PSME4 Blocking Peptide (N-Term) - References**

Blickwedehl J.,et al.Submitted (JAN-2005) to the EMBL/GenBank/DDBJ databases.  
Nomura N.,et al.DNA Res. 1:223-229(1994).  
Ustrell V.,et al.EMBO J. 21:3516-3525(2002).  
Wang X.,et al.Biochemistry 46:3553-3565(2007).  
Dephoure N.,et al.Proc. Natl. Acad. Sci. U.S.A. 105:10762-10767(2008).