

**PSMB5 Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP14528b****Specification**

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**PSMB5 Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [P28074](#)**PSMB5 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 5693**Other Names**

Proteasome subunit beta type-5, Macropain epsilon chain, Multicatalytic endopeptidase complex epsilon chain, Proteasome chain 6, Proteasome epsilon chain, Proteasome subunit MB1, Proteasome subunit X, PSMB5, LMPX, MB1, X

**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.

**PSMB5 Antibody (C-term) Blocking Peptide - Protein Information****Name** PSMB5**Synonyms** LMPX, MB1, X**Function**

Component of the 20S core proteasome complex involved in the proteolytic degradation of most intracellular proteins. This complex plays numerous essential roles within the cell by associating with different regulatory particles. Associated with two 19S regulatory particles, forms the 26S proteasome and thus participates in the ATP- dependent degradation of ubiquitinated proteins. The 26S proteasome plays a key role in the maintenance of protein homeostasis by removing misfolded or damaged proteins that could impair cellular functions, and by removing proteins whose functions are no longer required. Associated with the PA200 or PA28, the 20S proteasome mediates ubiquitin- independent protein degradation. This type of proteolysis is required in several pathways including spermatogenesis (20S-PA200 complex) or generation of a subset of MHC class I-presented antigenic peptides (20S-PA28 complex). Within the 20S core complex, PSMB5 displays a chymotrypsin-like activity.

**Cellular Location**

Cytoplasm. Nucleus. Note=Translocated from the cytoplasm into the nucleus following interaction

with AKIRIN2, which bridges the proteasome with the nuclear import receptor IPO9

### **PSMB5 Antibody (C-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

### **PSMB5 Antibody (C-term) Blocking Peptide - Images**

### **PSMB5 Antibody (C-term) Blocking Peptide - Background**

The proteasome is a multicatalytic proteinase complex with a highly ordered ring-shaped 20S core structure. The core structure is composed of 4 rings of 28 non-identical subunits; 2 rings are composed of 7 alpha subunits and 2 rings are composed of 7 beta subunits. Proteasomes are distributed throughout eukaryotic cells at a high concentration and cleave peptides in an ATP/ubiquitin-dependent process in a non-lysosomal pathway. An essential function of a modified proteasome, the immunoproteasome, is the processing of class I MHC peptides. This gene encodes a member of the proteasome B-type family, also known as the T1B family, that is a 20S core beta subunit in the proteasome. This catalytic subunit is not present in the immunoproteasome and is replaced by catalytic subunit 3i (proteasome beta 8 subunit). Multiple transcript variants encoding different isoforms have been found for this gene.

### **PSMB5 Antibody (C-term) Blocking Peptide - References**

Ri, M., et al. Leukemia 24(8):1506-1512(2010) Lu, S., et al. Exp. Hematol. 37(7):831-837(2009) Lu, S., et al. Exp. Hematol. 36(10):1278-1284(2008) Oerlemans, R., et al. Blood 112(6):2489-2499(2008) Wang, L., et al. Clin. Cancer Res. 14(11):3503-3513(2008)