

PSMA1 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP14589b**Specification**

PSMA1 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [P25786](#)**PSMA1 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 5682**Other Names**

Proteasome subunit alpha type-1, 30 kDa prosomal protein, PROS-30, Macropain subunit C2, Multicatalytic endopeptidase complex subunit C2, Proteasome component C2, Proteasome nu chain, PSMA1, HC2, NU, PROS30, PSC2

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.

PSMA1 Antibody (C-term) Blocking Peptide - Protein Information**Name** PSMA1**Synonyms** HC2, NU, PROS30, PSC2**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).

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

PSMA1 Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

PSMA1 Antibody (C-term) Blocking Peptide - Images

PSMA1 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 peptidase T1A family, that is a 20S core alpha subunit. Alternative splicing results in multiple transcript variants encoding distinct isoforms.

PSMA1 Antibody (C-term) Blocking Peptide - References

Zhang, Y., et al. Biochem. Biophys. Res. Commun. 355(1):245-251(2007) Apcher, G.S., et al. FEBS Lett. 569 (1-3), 211-216 (2004) ; Jayarapu, K., et al. Biochem. Biophys. Res. Commun. 314(2):523-528(2004) Apcher, G.S., et al. FEBS Lett. 553 (1-2), 200-204 (2003) ; Huang, X., et al. J. Mol. Biol. 323(4):771-782(2002)