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PSMA5 Blocking Peptide (N-term)
Synthetic peptide
Catalog # BP1449a

Specification

PSMA5 Blocking Peptide (N-term) - Product Information

Primary Accession	P28066
Other Accession	P34064, Q9Z2U1, O95083, O95008, O5E987

PSMA5 Blocking Peptide (N-term) - Additional Information

Gene ID 5686

Other Names
Proteasome subunit alpha type-5, Macropain zeta chain, Multicatalytic endopeptidase complex zeta chain, Proteasome zeta chain, PSMA5

Target/Specificity
The synthetic peptide sequence is selected from aa 1-15 of HUMAN PSMA5

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.

PSMA5 Blocking Peptide (N-term) - Protein Information

Name PSMA5

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

Tissue Location
Expressed in fetal brain (at protein level).

PSMA5 Blocking Peptide (N-term) - Protocols

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

- Blocking Peptides

PSMA5 Blocking Peptide (N-term) - Images

PSMA5 Blocking Peptide (N-term) - 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. PMA5 is a member of the peptidase T1A family, that is a 20S core alpha subunit.

PSMA5 Blocking Peptide (N-term) - References

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Gregory,S.G., Nature 441 (7091), 315-321 (2006)
Beausoleil,S.A., Proc. Natl. Acad. Sci. U.S.A. 101 (33), 12130-12135 (2004)
Conticello,S.G., Curr. Biol. 13 (22), 2009-2013 (2003)
Yu,X., Science 302 (5647), 1056-1060 (2003)