

Anti-PSMA1 Picoband Antibody
Catalog # ABO11705**Specification**

Anti-PSMA1 Picoband Antibody - Product Information

Application	WB, IHC-P
Primary Accession	P25786
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Proteasome subunit alpha type-1(PSMA1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-PSMA1 Picoband Antibody - Additional Information

Gene ID 5682

Other Names

Proteasome subunit alpha type-1, 3.4.25.1, 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

Calculated MW

29556 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Cytoplasm. Nucleus.

Protein Name

Proteasome subunit alpha type-1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃N.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human PSMA1 (159-204aa MSIGARSQSARTYLERHMSEFMECNLNELVKHGLRALRETLP AEQD), different from the related mouse sequence by one amino acid, and from the related rat sequence by two amino acids

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-PSMA1 Picoband Antibody - Protein Information

Name PSMA1 ([HGNC:9530](#))

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).

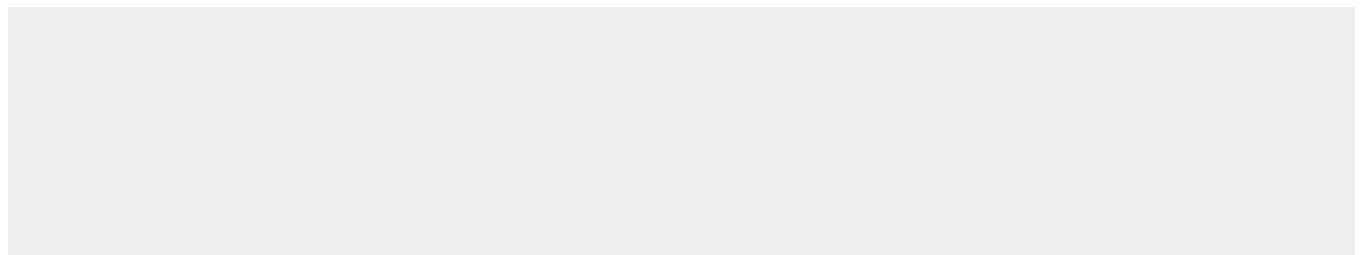
Cellular Location

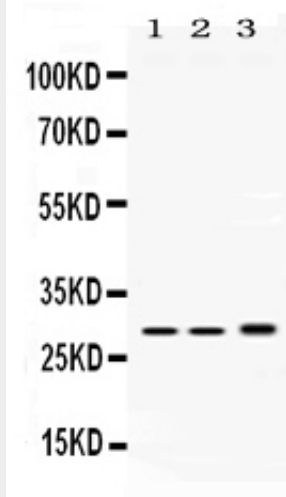
Cytoplasm. Nucleus. Note=Translocated from the cytoplasm into the nucleus following interaction with AKIRIN2, which bridges the proteasome with the nuclear import receptor IPO9

Anti-PSMA1 Picoband Antibody - Protocols

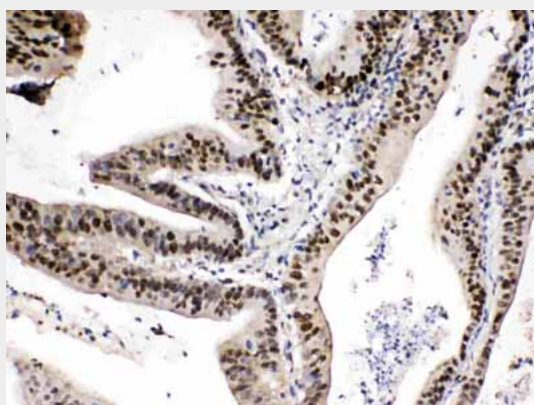
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-PSMA1 Picoband Antibody - Images



Western blot analysis of PSMA1 expression in rat testis extract (lane 1), mouse spleen extract (lane 2) and HEPG2 whole cell lysates (lane 3). PSMA1 at 29KD was detected using rabbit anti-PSMA1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11705) at 0.5 μ g/mL. The blot was developed using chemiluminescence (ECL) method.



PSMA1 was detected in paraffin-embedded sections of human intestinal cancer tissues using rabbit anti-PSMA1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11705) at 1 μ g/mL. The immunohistochemical section was developed using SABC method.

Anti-PSMA1 Picoband Antibody - Background

Proteasome subunit alpha type-1 is a protein that in humans is encoded by the PSMA1 gene. 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.