10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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 NaN3.

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 r˚Constitution, 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 Cytomety
- Cell Culture

Anti-PSMA1 Picoband Antibody - Images

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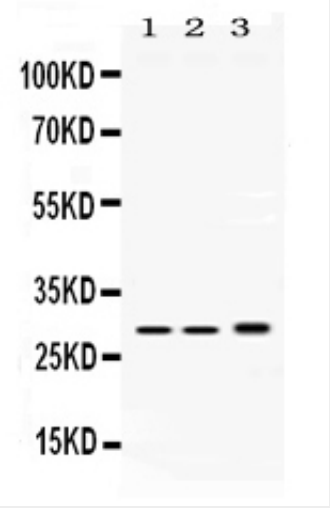
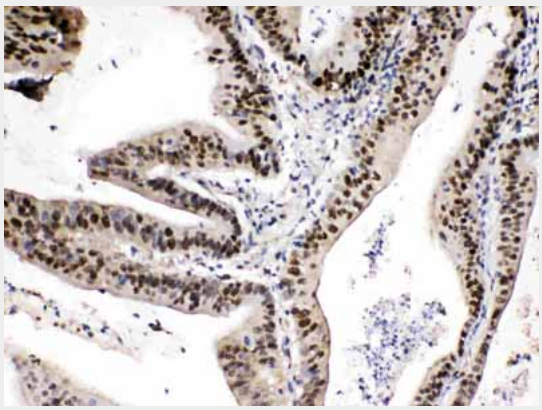


Western blot analysis of PSMA1 expression in rat testis extract (lane 1), mouse spleen extract (lane 2) and HEPG2 whole cell lysates (lane 3). PSMA1 at 29KD was detected using rabbit anti-PSMA1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11705) at 0.5 Î¼g/mL. The blot was developed using chemiluminescence (ECL) method .



PSMA1 was detected in paraffin-embedded sections of human intetsinal cancer tissues using rabbit anti- PSMA1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11705) at 1 ??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.