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

PSMA5 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP1449c

Specification

PSMA5 Antibody (Center) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P28066
Other Accession	P34064, Q9Z2U1, Q5E987
Reactivity	**Human**
Predicted	**Bovine, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**26411**
Antigen Region	**106-135**

PSMA5 Antibody (Center) - 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
This PSMA5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 106-135 amino acids from the Central region of human PSMA5.

Dilution
WB~~1:1000
IHC-P~~1:10~50
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
PSMA5 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

PSMA5 Antibody (Center) - Protein Information

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Name PSMA5 (HGNC:9534)

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

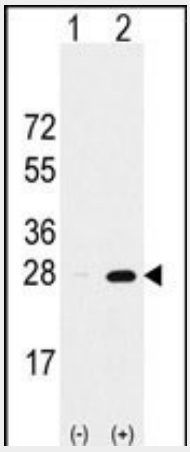
Tissue Location
Expressed in fetal brain (at protein level).

PSMA5 Antibody (Center) - 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

PSMA5 Antibody (Center) - Images



Western blot analysis of PSMA5 (arrow) using rabbit polyclonal PSMA5 Antibody (Center) (Cat.#AP1449c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the PSMA5 gene (Lane 2) (Origene Technologies).

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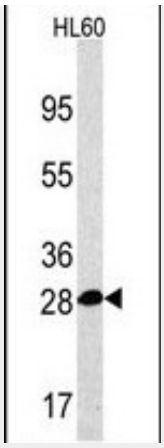
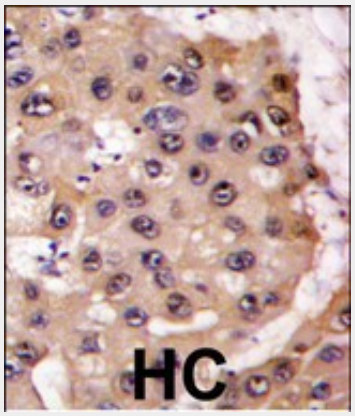


Western blot analysis of PSMA5 Antibody (Center) (Cat.#AP1449c) in HL60 cell line lysates (35ug/lane). PSMA5(arrow) was detected using the purified polyclonal antibody.



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with PSMA5 antibody (Center) (Cat.#AP1449c), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

PSMA5 Antibody (Center) - 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.