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PSMB1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8856B

Specification

PSMB1 Antibody (C-term) - Product Information

Application	**WB, FC, IF, IHC-P,E**
Primary Accession	P20618
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**214-241**

PSMB1 Antibody (C-term) - Additional Information

Gene ID 5689

Other Names
Proteasome subunit beta type-1, Macropain subunit C5, Multicatalytic endopeptidase complex subunit C5, Proteasome component C5, Proteasome gamma chain, PSMB1, PSC5

Target/Specificity
This PSMB1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 214-241 amino acids from the C-terminal region of human PSMB1.

Dilution
WB~~1:1000
FC~~1:10~50
IF~~1:10~50
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 purified through a protein A column, followed by peptide affinity purification.

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
PSMB1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PSMB1 Antibody (C-term) - Protein Information

Name PSMB1 (HGNC:9537)

Synonyms PSC5

Function Non-catalytic 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).

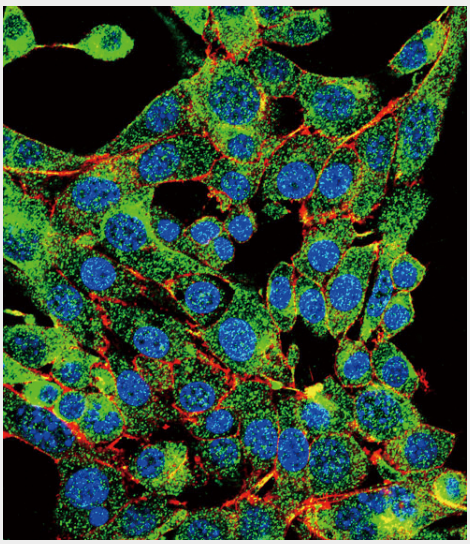
Cellular Location
Cytoplasm. Nucleus. Note=Translocated from the cytoplasm into the nucleus following interaction with AKIRIN2, which bridges the proteasome with the nuclear import receptor IPO9

PSMB1 Antibody (C-term) - 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

PSMB1 Antibody (C-term) - Images



Confocal immunofluorescent analysis of PSMB1 Antibody (C-term)(Cat#AP8856b) with HepG2 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red). DAPI was used to stain the cell nuclear (blue).

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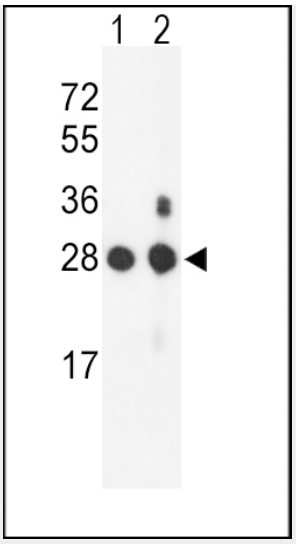
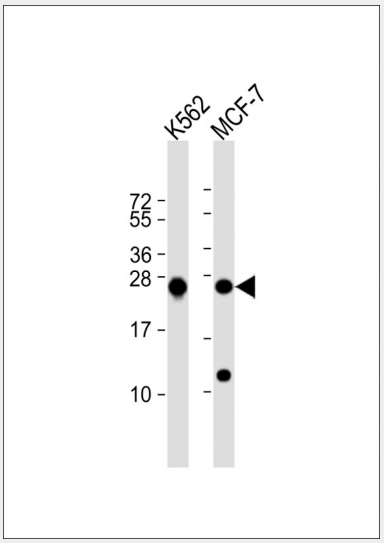


Western blot analysis of PSMB1 Antibody (C-term) (Cat. #AP8856b) in mouse NIH-3T3 cell line(lane 1) and mouse bladder tissue(lane 2) lysates (35ug/lane). PSMB1 (arrow) was detected using the purified Pab.



All lanes : Anti-PSMB1 Antibody (C-term) at 1:1000 dilution Lane 1: K562 whole cell lysate Lane 2: MCF-7 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 26 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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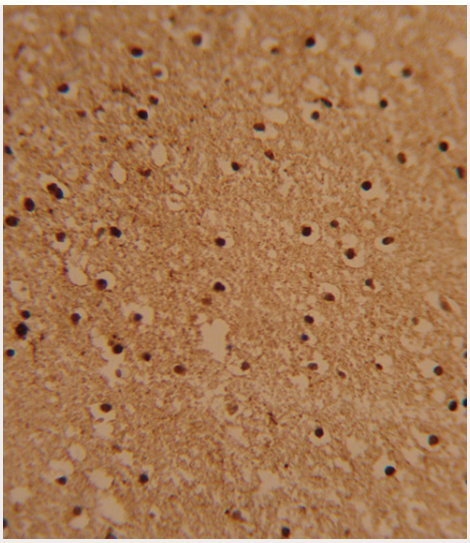
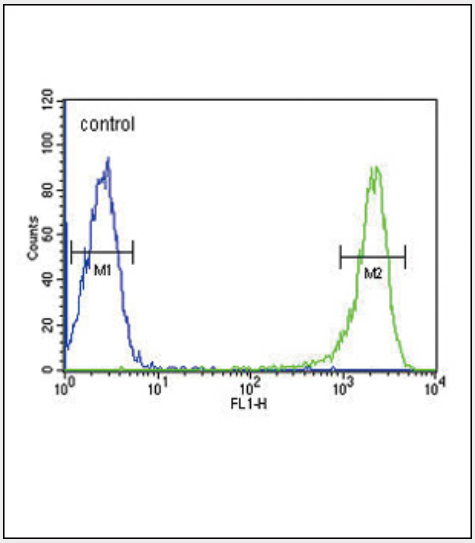


Formalin-fixed and paraffin-embedded human brain tissue reacted with PSMB1 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



PSMB1 Antibody (C-term) (Cat. #AP8856b) flow cytometric analysis of HL-60 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

PSMB1 Antibody (C-term) - Background

PSMB1 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.

PSMB1 Antibody (C-term) - References

Okumura,K.,et.al., Genomics 27 (2), 377-379 (1995)