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# PSMB9 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5512

## Product Information

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|---|---|
| **Application** | WB, FC, IF, IHC-P |
| **Primary Accession** | P28065 |
| **Reactivity** | Human |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 23264 |
| **Isotype** | Rabbit IgG |
| **Antigen Source** | HUMAN |

## Additional Information

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|---|---|
| **Gene ID** | 5698 |
| **Antigen Region** | 205-239 |
| **Other Names** | Proteasome subunit beta type-9, Low molecular mass protein 2, Macropain chain 7, Multicatalytic endopeptidase complex chain 7, Proteasome chain 7, Proteasome subunit beta-1i, Really interesting new gene 12 protein, PSMB9, LMP2, PSMB6i, RING12 |
| **Dilution** | WB~~1:2000 FC~~1:25 IF~~1:25 IHC-P~~1:100~500 |
| **Target/Specificity** | This PSMB9 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 205-239 amino acids from the C-terminal region of human PSMB9. |
| **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** | PSMB9 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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|---|---|
| **Name** | PSMB9 |
| **Synonyms** | LMP2, PSMB6i, RING12 |
| **Function** | The proteasome is a multicatalytic proteinase complex which is characterized by its ability to cleave peptides with Arg, Phe, Tyr, Leu, and Glu adjacent to the leaving group at neutral or slightly basic pH |

(PubMed:33727065, PubMed:34819510). The proteasome has an ATP-dependent proteolytic activity. This subunit is involved in antigen processing to generate class I binding peptides. Replacement of PSMB6 by PSMB9 increases the capacity of the immunoproteasome to cleave model peptides after hydrophobic and basic residues.

**Cellular Location** Cytoplasm {ECO:0000255|PROSITE-ProRule:PRU00809}. Nucleus

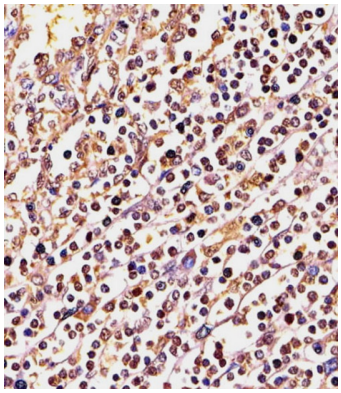
## Background

The proteasome is a multicatalytic proteinase complex which is characterized by its ability to cleave peptides with Arg, Phe, Tyr, Leu, and Glu adjacent to the leaving group at neutral or slightly basic pH. The proteasome has an ATP-dependent proteolytic activity. This subunit is involved in antigen processing to generate class I binding peptides. Replacement of PSMB6 by PSMB9 increases the capacity of the immunoproteasome to cleave model peptides after hydrophobic and basic residues.

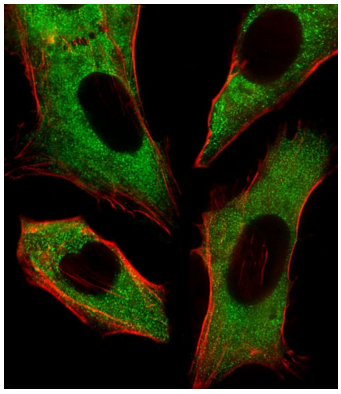
## References


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Beck S.,et al.J. Mol. Biol. 228:433-441(1992).
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## Images

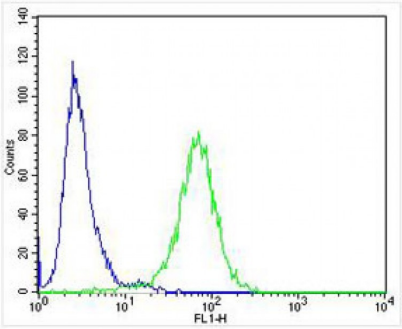


AW5512 staining PSMB9 in Human spleen tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

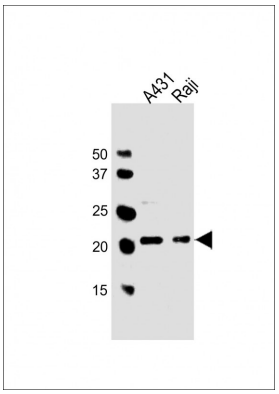


Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0. 1% Triton X-100 permeabilized U-2 OS (Human Sarcoma cell line) cells labeling Pdx1 with AW5512 at 1/25 dilution, followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (1583138) secondary antibody at 1/400 dilution (green). Immunofluorescence image showing cytoplasm staining on U-2 OS cell line. Cytoplasmic actin is detected with Alexa Fluor® 555 conjugated with Phalloidin (OB16636430) at 1/100 dilution (red).

Overlay histogram showing Raji cells stained with AW5512 (green line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in




2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) (1583138) at 1/400 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.




All lanes : Anti-PSMB9 Antibody (C-term) at 1:2000 dilution Lane 1: A431 whole cell lysates Lane 2: Raji whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 23 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.