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

PSMB9 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21207b

Product Information

Application	WB, FC, IHC-P, E
Primary Accession	P28065
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB52176
Calculated MW	23264

Additional Information

Gene ID	5698
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
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.
Dilution	WB~~1:2000 FC~~1:25 IHC-P~~1:100~500 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	PSMB9 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

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

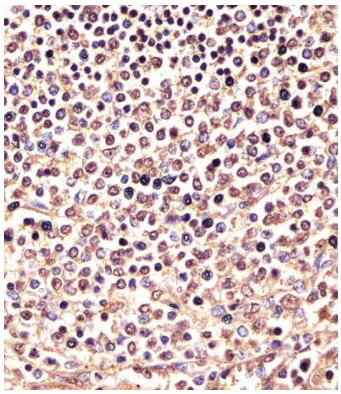
Background

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.

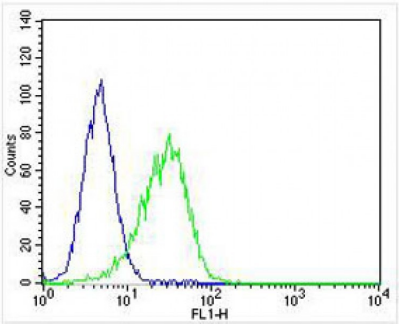
References

Glynne R.,et al.Eur. J. Immunol. 23:860-866(1993).
Beck S.,et al.J. Mol. Biol. 228:433-441(1992).
Kelly A.,et al.Nature 353:667-668(1991).
Fruh K.,et al.J. Biol. Chem. 267:22131-22140(1992).
Beck S.,et al.J. Mol. Biol. 255:1-13(1996).

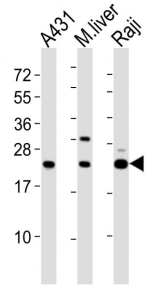
Images



AP21207b staining PSMB9 in human spleen 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.



Overlay histogram showing Hela cells stained with AP21207b (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 (AP12735b, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit lgG (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: mouse liver lysates Lane 3: 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.

Citations

- Gastric cancer cell types display distinct proteasome/immunoproteasome patterns associated with migration and resistance to proteasome inhibitors