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PSMB5 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14528b

Product Information

Application	WB, IHC-P, E
Primary Accession	P28074
Other Accession	NP_001124197.1, NP_002788.1
Reactivity	Human
Predicted	Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34413
Calculated MW	28480
Antigen Region	235-263

Additional Information

Gene ID	5693
Other Names	Proteasome subunit beta type-5, Macropain epsilon chain, Multicatalytic endopeptidase complex epsilon chain, Proteasome chain 6, Proteasome epsilon chain, Proteasome subunit MB1, Proteasome subunit X, PSMB5, LMPX, MB1, X
Target/Specificity	This PSMB5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 235-263 amino acids from the C-terminal region of human PSMB5.
Dilution	WB~~1:1000 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	PSMB5 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PSMB5 (HGNC:9542)

Synonyms	LMPX, MB1, X
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). Within the 20S core complex, PSMB5 displays a chymotrypsin-like activity.
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

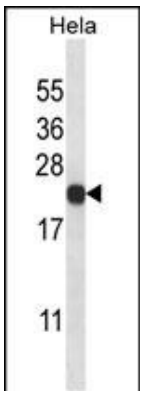
Background

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. This gene encodes a member of the proteasome B-type family, also known as the T1B family, that is a 20S core beta subunit in the proteasome. This catalytic subunit is not present in the immunoproteasome and is replaced by catalytic subunit 3i (proteasome beta 8 subunit). Multiple transcript variants encoding different isoforms have been found for this gene.

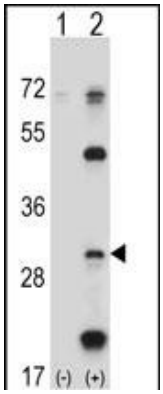
References

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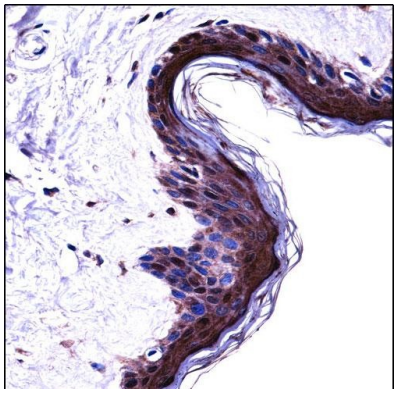
Images



PSMB5 Antibody (C-term) (Cat. #AP14528b) western blot analysis in Hela cell line lysates (35ug/lane).This demonstrates the PSMB5 antibody detected the PSMB5 protein (arrow).



Western blot analysis of PSMB5 (arrow) using rabbit polyclonal PSMB5 Antibody (C-term) (Cat. #AP14528b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the PSMB5 gene.



PSMB5 Antibody (C-term) (AP14528b)immunohistochemistry analysis in formalin fixed and paraffin embedded human skin tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of PSMB5 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

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