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

PSMB7 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21570c

Product Information

Application	WB, IHC-P, E
Primary Accession	Q99436
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB53130
Calculated MW	29965

Additional Information

Gene ID	5695
Other Names	Proteasome subunit beta type-7, Macropain chain Z, Multicatalytic endopeptidase complex chain Z, Proteasome subunit Z, PSMB7, Z
Target/Specificity	This PSMB7 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 180-211 amino acids from the Central region of human PSMB7.
Dilution	WB~~1:8000 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	PSMB7 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PSMB7 (HGNC:9544)
Synonyms	Z
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, PSMB7 displays a trypsin-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
Tissue Location	Expressed at a low level in colonic mucosa. Up- regulated in colorectal cancer tissues.

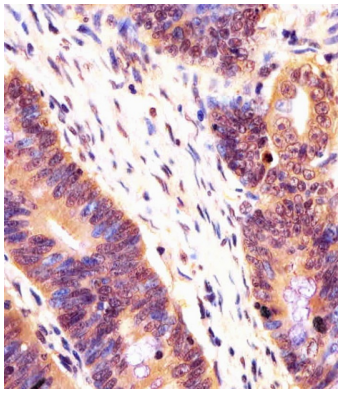
Background

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 unit is responsible of the trypsin-like activity.

References

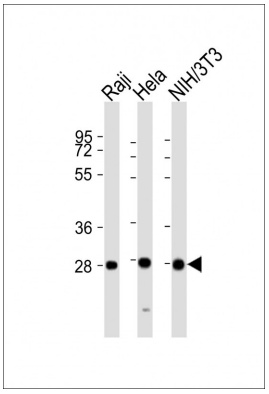
Hisamatsu H.,et al.J. Exp. Med. 183:1807-1816(1996).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Humphray S.J.,et al.Nature 429:369-374(2004).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Lubec G.,et al.Submitted (DEC-2008) to UniProtKB.

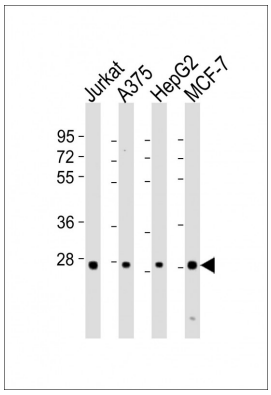
Images



AP21570c staining PSMB7 in human colorectal carcinoma 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.

All lanes : Anti-PSMB7 Antibody (Center) at 1:2000 dilution Lane 1: Raji whole cell lysates Lane 2: Hela whole cell lysates Lane 3: NIH/3T3 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 : 30 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





All lanes : Anti-PSMB7 Antibody (Center) at 1:8000 dilution Lane 1: Jurkat whole cell lysates Lane 2: A375 whole cell lysates Lane 3: HepG2 whole cell lysates Lane 4: MCF-7 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 : 30 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- Regulation of global gene expression and cell proliferation by APP.