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Proteasome 20S beta 3 Rabbit pAb

Catalog # AP99850

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	P49720
Other Accession	P49720
Predicted	Rat, Pig, Human, Mouse, Rabbit, Zebrafish, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	22949
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Proteasome 20S beta 3
Epitope Specificity	121-205/205
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the peptidase T1B family.
SUBUNIT	The 26S proteasome consists of a 20S proteasome core and two 19S regulatory subunits. The 20S proteasome core is composed of 28 subunits that are arranged in four stacked rings, resulting in a barrel-shaped structure. The two end rings are each formed by seven alpha subunits, and the two central rings are each formed by seven beta subunits. The catalytic chamber with the active sites is on the inside of the barrel. Interacts with HIV-1 TAT protein.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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.

Additional Information

Gene ID	5691
Other Names	HC10-II; C10-II; PSB3_BOVIN; PSMB3; Proteasome chain 13; Proteasome component C10-II; Proteasome theta chain; PSB3_HUMAN; Proteasome subunit beta-3 (beta-3); PSB3_MOUSE; PSB3_RAT; proteasome 20S subunit beta 3; proteasome (prosome, macropain) subunit, beta type, 3; proteasome subunit beta 3

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	PSMB3 (HGNC:9540)
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

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