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PSMD4 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19888b

Product Information

Application	WB, E
Primary Accession	P55036
Other Accession	A2A3N6, NP_002801.1
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB41678
Calculated MW	40737
Antigen Region	300-328

Additional Information

Gene ID	5710
Other Names	26S proteasome non-ATPase regulatory subunit 4, 26S proteasome regulatory subunit RPN10, 26S proteasome regulatory subunit S5A, Antisecretory factor 1, AF, ASF, Multiubiquitin chain-binding protein, PSMD4, MCB1
Target/Specificity	This PSMD4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 300-328 amino acids from the C-terminal region of human PSMD4.
Dilution	WB~~1:1000 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	PSMD4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PSMD4
Synonyms	MCB1

Function

Component of the 26S proteasome, a multiprotein complex involved in the ATP-dependent degradation of ubiquitinated proteins. This complex plays a key role in the maintenance of protein homeostasis by removing misfolded or damaged proteins, which could impair cellular functions, and by removing proteins whose functions are no longer required. Therefore, the proteasome participates in numerous cellular processes, including cell cycle progression, apoptosis, or DNA damage repair. PSMD4 acts as an ubiquitin receptor subunit through ubiquitin- interacting motifs and selects ubiquitin-conjugates for destruction. Displays a preferred selectivity for longer polyubiquitin chains.

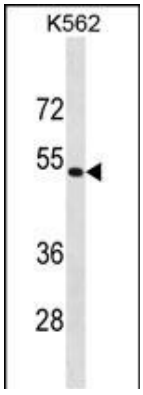
Background

The 26S proteasome is a multicatalytic proteinase complex with a highly ordered structure composed of 2 complexes, a 20S core and a 19S regulator. The 20S core 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. The 19S regulator is composed of a base, which contains 6 ATPase subunits and 2 non-ATPase subunits, and a lid, which contains up to 10 non-ATPase 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 one of the non-ATPase subunits of the 19S regulator lid. Pseudogenes have been identified on chromosomes 10 and 21.

References

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Safadi, S.S., et al. J. Biol. Chem. 285(2):1424-1434(2010)
Zhang, N., et al. Mol. Cell 35(3):280-290(2009)
Kim, H.T., et al. EMBO J. 28(13):1867-1877(2009)
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Images



PSMD4 Antibody (C-term) (Cat. #AP19888b) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the PSMD4 antibody detected the PSMD4 protein (arrow).

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