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PA200 Rabbit pAb

Catalog # AP99983

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q14997
Other Accession	Q14997
Predicted	Rat, Pig, Human, Mouse, Rabbit, Chicken, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	211334
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PA200
Epitope Specificity	1561-1660/1843
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 6 HEAT repeats.
SUBUNIT	Homodimer. Interacts with the 20S and 26S proteasomes. Component of the spermatoproteasome, a form of the proteasome specifically found in testis.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	PA200 is a 1,843 amino acid nuclear protein that contains six HEAT (Huntington, Elongation Factor 3, PR65/A, TOR) repeats, which are conserved residues that form the hydrophobic domain core and are usually found in proteins that are involved in intracellular transport. Existing as a homodimer, PA200 interacts with the 20S and 26S proteasomes and activates proteasomal cleavage of peptides in an energy-independent manner. PA200 and proteasomes function together within cells and respond to specific radiation-induced damage independent of the stage of cell cycle arrest. Broadly expressed, PA200 may also be involved in spermatogenesis and in DNA repair double-strand breaks (DSBs). Four isoforms of PA200 exists due to alternative splicing events.

Additional Information

Gene ID	23198
Other Names	Blm10; PA200; hBlm10; TEMO; mBlm10; mKIAA0077; PSME4_BOVIN; PSME4; Proteasome activator PA200; PSME4_HUMAN; Protein BLM10 homolog (Blm10 | hBlm10); KIAA0077; PSME4_MOUSE; Protein BLM10 homolog (Blm10 | mBlm10); Protein TEMO; proteasome activator subunit 4; proteasome (prosome, macropain) activator subunit 4
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500
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	PSME4 (HGNC:20635)
Function	Associated component of the proteasome that specifically recognizes acetylated histones and promotes ATP- and ubiquitin- independent degradation of core histones during spermatogenesis and DNA damage response. Recognizes and binds acetylated histones via its bromodomain-like (BRDL) region and activates the proteasome by opening the gated channel for substrate entry. Binds to the core proteasome via its C-terminus, which occupies the same binding sites as the proteasomal ATPases, opening the closed structure of the proteasome via an active gating mechanism. Component of the spermatoproteasome, a form of the proteasome specifically found in testis: binds to acetylated histones and promotes degradation of histones, thereby participating actively to the exchange of histones during spermatogenesis. Also involved in DNA damage response in somatic cells, by promoting degradation of histones following DNA double-strand breaks.
Cellular Location	Cytoplasm, cytosol. Nucleus. Nucleus speckle Note=Found in nuclear foci following treatment with ionizing radiation, but not with ultraviolet irradiation or H(2)O(2)

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