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PSME4 Antibody (N-Term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21982a

Product Information

Application	WB, E
Primary Accession	Q14997
Other Accession	F1MKX4
Reactivity	Human, Mouse
Predicted	Bovine
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB55279
Calculated MW	211334

Additional Information

Gene ID	23198
Other Names	Proteasome activator complex subunit 4, Proteasome activator PA200, PSME4, KIAA0077
Target/Specificity	This PSME4 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 503-535 amino acids from human PSME4.
Dilution	WB~~1:2000 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	PSME4 Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

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)

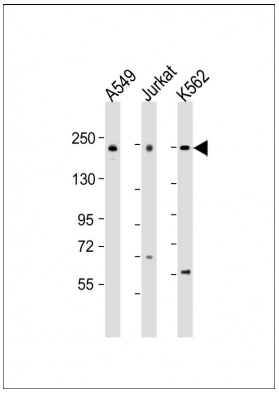
Background

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.

References

Blickwedehl J.,et al.Submitted (JAN-2005) to the EMBL/GenBank/DDBJ databases.
Nomura N.,et al.DNA Res. 1:223-229(1994).
Ustrell V.,et al.EMBO J. 21:3516-3525(2002).
Wang X.,et al.Biochemistry 46:3553-3565(2007).
Dephoure N.,et al.Proc. Natl. Acad. Sci. U.S.A. 105:10762-10767(2008).

Images



All lanes : Anti-PSME4 Antibody (N-Term) at 1:2000 dilution Lane 1: A549 whole cell lysate Lane 2: Jurkat whole cell lysate Lane 3: K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 211 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- Bortezomib-inducible long non-coding RNA myocardial infarction associated transcript is an oncogene in multiple myeloma that suppresses miR-29b.