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PSMC2 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14584a

Product Information

Application	WB, E
Primary Accession	P35998
Other Accession	Q63347, Q4R4R0, Q5E9F9, NP_002794.1
Reactivity	Human
Predicted	Bovine, Monkey, Rat, Mouse, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34566
Calculated MW	48634
Antigen Region	1-30

Additional Information

Gene ID	5701
Other Names	26S protease regulatory subunit 7, 26S proteasome AAA-ATPase subunit RPT1, Proteasome 26S subunit ATPase 2, Protein MSS1, PSMC2, MSS1
Target/Specificity	This PSMC2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human PSMC2.
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	PSMC2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PSMC2
Synonyms	MSS1 {ECO:0000303|PubMed:8500623}

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. PSMC2 belongs to the heterohexameric ring of AAA (ATPases associated with diverse cellular activities) proteins that unfolds ubiquitinated target proteins that are concurrently translocated into a proteolytic chamber and degraded into peptides.
Cellular Location	Cytoplasm. Note=Colocalizes with TRIM5 in cytoplasmic bodies

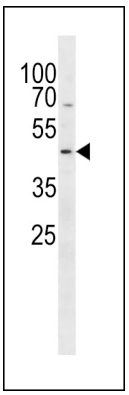
Background

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 ATPase subunits, a member of the triple-A family of ATPases which have a chaperone-like activity. This subunit has been shown to interact with several of the basal transcription factors so, in addition to participation in proteasome functions, this subunit may participate in the regulation of transcription. This subunit may also compete with PSMC3 for binding to the HIV tat protein to regulate the interaction between the viral protein and the transcription complex.

References

Kaneko, T., et al. Cell 137(5):914-925(2009)
Tu, L.C., et al. Mol. Cell Proteomics 6(4):575-588(2007)
Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :
Guo, D., et al. Biochem. Biophys. Res. Commun. 337(4):1308-1318(2005)
Bruneel, A., et al. Proteomics 5(15):3876-3884(2005)

Images



PSMC2 Antibody (N-term) (Cat. #AP14584a) western blot analysis in Jurkat cell line lysates (35ug/lane).This demonstrates the PSMC2 antibody detected the PSMC2 protein (arrow).

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