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PSMA1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14589b

Product Information

Application	WB, E
Primary Accession	P25786
Other Accession	Q4R3H2, Q3T0X5, NP_683877.1, NP_002777.1
Reactivity	Human
Predicted	Bovine, Monkey, Mouse, Rat, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34575
Calculated MW	29556
Antigen Region	234-262

Additional Information

Gene ID	5682
Other Names	Proteasome subunit alpha type-1, 30 kDa prosomal protein, PROS-30, Macropain subunit C2, Multicatalytic endopeptidase complex subunit C2, Proteasome component C2, Proteasome nu chain, PSMA1, HC2, NU, PROS30, PSC2
Target/Specificity	This PSMA1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 234-262 amino acids from the C-terminal region of human PSMA1.
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	PSMA1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PSMA1 (HGNC:9530)

Synonyms	HC2, NU, PROS30, PSC2
Function	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

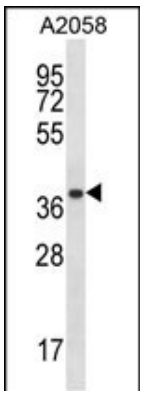
Background

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. This gene encodes a member of the peptidase T1A family, that is a 20S core alpha subunit. Alternative splicing results in multiple transcript variants encoding distinct isoforms.

References

Zhang, Y., et al. Biochem. Biophys. Res. Commun. 355(1):245-251(2007)
Apcher, G.S., et al. FEBS Lett. 569 (1-3), 211-216 (2004) :
Jayarapu, K., et al. Biochem. Biophys. Res. Commun. 314(2):523-528(2004)
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Huang, X., et al. J. Mol. Biol. 323(4):771-782(2002)

Images



PSMA1 Antibody (C-term) (Cat. #AP14589b) western blot analysis in A2058 cell line lysates (35ug/lane).This demonstrates the PSMA1 antibody detected the PSMA1 protein (arrow).

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