

# PSMA7 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP59233

## Product Information

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<b>Application</b>	WB, IHC-P, IHC-F, IF, E
<b>Primary Accession</b>	<a href="#">O14818</a>
<b>Reactivity</b>	Rat, Pig, Dog, Bovine
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	27887
<b>Physical State</b>	Liquid
<b>Immunogen</b>	KLH conjugated synthetic peptide derived from human PSMA7
<b>Epitope Specificity</b>	111-210/248
<b>Isotype</b>	IgG
<b>Purity</b>	affinity purified by Protein A
<b>Buffer</b>	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
<b>SUBCELLULAR LOCATION</b>	Cytoplasm. Nucleus.
<b>SIMILARITY</b>	Belongs to the peptidase T1A family.
<b>SUBUNIT</b>	The 26S proteasome consists of a 20S proteasome core and two 19S regulatory subunits. The 20S proteasome core is composed of 28 subunits that are arranged in four stacked rings, resulting in a barrel-shaped structure. The two end rings are each formed by seven alpha subunits, and the two central rings are each formed by seven beta subunits. The catalytic chamber with the active sites is on the inside of the barrel. PSMA7 interacts directly with the PSMG1-PSMG2 heterodimer which promotes 20S proteasome assembly. Interacts with HIV-1 TAT protein. Interacts with hepatitis B virus X protein (HBX). Interacts with HIF1A. Interacts with RAB7A. Interacts with PARK2. Interacts with ABL1 and ABL2. Interacts with EMAP2. Interacts with MAVS.
<b>Post-translational modifications</b>	Phosphorylation by ABL1 or ABL2 leads to an inhibition of proteasomal activity and cell cycle transition blocks.
<b>Important Note</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
<b>Background Descriptions</b>	The proteasome is a multicatalytic proteinase complex which is characterized by its ability to cleave peptides with Arg, Phe, Tyr, Leu, and Glu adjacent to the leaving group at neutral or slightly basic pH. The proteasome has an ATP-dependent proteolytic activity. Plays an important role in the regulation of cell proliferation or cell cycle control, transcriptional regulation, immune and stress response, cell differentiation, and apoptosis. Interacts with some important proteins involved in transcription factor regulation, cell cycle transition, viral replication and even tumor initiation and progression. Inhibits the transactivation function of HIF-1A under both normoxic and hypoxia-mimicking conditions. The interaction with EMAP2 increases the proteasome-mediated HIF-1A degradation under the hypoxic conditions. Plays a role in hepatitis C virus internal ribosome entry site-mediated translation. Mediates nuclear translocation of the androgen receptor (AR) and thereby enhances androgen-mediated transactivation. Promotes MAVS

degradation and thereby negatively regulates MAVS-mediated innate immune response.

## Additional Information

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<b>Gene ID</b>	5688
<b>Other Names</b>	Proteasome subunit alpha type-7, Proteasome subunit RC6-1, Proteasome subunit XAPC7, PSMA7, HSPC
<b>Dilution</b>	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:50-200,ELISA=1:5000-10000
<b>Format</b>	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
<b>Storage</b>	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

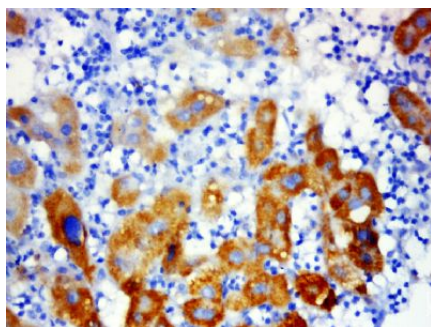
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<b>Name</b>	PSMA7 ( <a href="#">HGNC:9536</a> )
<b>Synonyms</b>	HSPC
<b>Function</b>	Component of the 20S core proteasome complex involved in the proteolytic degradation of most intracellular proteins. This complex plays numerous essential roles within 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). Inhibits the transactivation function of HIF-1A under both normoxic and hypoxia-mimicking conditions. The interaction with EMAP2 increases the proteasome-mediated HIF-1A degradation under the hypoxic conditions. Plays a role in hepatitis C virus internal ribosome entry site-mediated translation. Mediates nuclear translocation of the androgen receptor (AR) and thereby enhances androgen-mediated transactivation. Promotes MAVS degradation and thereby negatively regulates MAVS-mediated innate immune response.
<b>Cellular Location</b>	Cytoplasm. Nucleus. Note=Translocated from the cytoplasm into the nucleus following interaction with AKIRIN2, which bridges the proteasome with the nuclear import receptor IPO9

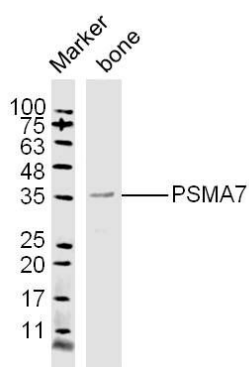
## Images

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Paraformaldehyde-fixed, paraffin embedded (human liver cancer); Antigen retrieval by boiling in sodium citrate



buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37 °C for 30min; Antibody incubation with (PSMA7) Polyclonal Antibody, Unconjugated (AP59233) at 1:500 overnight at 4 °C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Sample: Bone (Mouse) Lysate at 40 ug  
 Primary: Anti-PSMA7 (AP59233) at 1/300 dilution  
 Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution  
 Predicted band size: 28 kD  
 Observed band size: 35 kD

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