



# Rabbit Anti-Human PSMC1 Polyclonal Antibody (CABT-L2268)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Product Overview</b>	Polyclonal Antibody to Proteasome 26S Subunit, ATPase 1 (Knockout Validated)
<b>Specificity</b>	The antibody is a rabbit polyclonal antibody raised against PSMC1. It has been selected for its ability to recognize PSMC1 in immunohistochemical staining and western blotting.
<b>Target</b>	PSMC1
<b>Immunogen</b>	Recombinant fragment corresponding to human PSMC1 (Met1~Leu440)
<b>Isotype</b>	IgG
<b>Source/Host</b>	Rabbit
<b>Species Reactivity</b>	Human, Mouse
<b>Purification</b>	Antigen-specific affinity chromatography followed by Protein A affinity chromatography
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	WB
<b>Format</b>	Liquid
<b>Concentration</b>	Lot specific
<b>Size</b>	200 µg
<b>Buffer</b>	Supplied as solution form in 0.01M PBS with 50% glycerol, pH7.4.
<b>Preservative</b>	0.05% Proclin-300

<b>Storage</b>	Avoid repeated freeze/thaw cycles. Store at 4°C for frequent use. Aliquot and store at -20°C for 12 months.
<b>Ship</b>	4°C with ice bags
<b>Warnings</b>	For research use only.

## BACKGROUND

<b>Introduction</b>	<p>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 and a 20S core alpha subunit interact specifically with the hepatitis B virus X protein, a protein critical to viral replication. This subunit also interacts with the adenovirus E1A protein and this interaction alters the activity of the proteasome. Finally, this subunit interacts with ataxin-7, suggesting a role for the proteasome in the development of spinocerebellar ataxia type 7, a progressive neurodegenerative disorder. [provided by RefSeq, Jul 2008]</p>
<b>Keywords</b>	P26S4;S4;p56;26S proteasome AAA-ATPase subunit RPT2;26S protease regulatory subunit 4

## GENE INFORMATION

<b>Gene Name</b>	PSMC1 proteasome (prosome, macropain) 26S subunit, ATPase, 1 [ Homo sapiens (human) ]
<b>Official Symbol</b>	PSMC1
<b>Synonyms</b>	PSMC1; proteasome (prosome, macropain) 26S subunit, ATPase, 1; S4; p56; P26S4; 26S protease regulatory subunit 4; proteasome 26S ATPase subunit 1; proteasome 26S subunit ATPase 1; proteasome 26S subunit, ATPase, 1; 26S proteasome AAA-ATPase subunit RPT2;
<b>Entrez Gene ID</b>	<a href="#">5700</a>
<b>Protein Refseq</b>	NP_002793
<b>UniProt ID</b>	<a href="#">P62191</a>
<b>Chromosome Location</b>	14q32.11

<b>Pathway</b>	AMER1 mutants destabilize the destruction complex; APC truncation mutants are not K63 polyubiquitinated; APC truncation mutants have impaired AXIN binding; APC/C-mediated degradation of cell cycle proteins; APC/C:Cdc20 mediated degradation of Securin; APC/C:Cdc20 mediated degradation of mitotic proteins; APC/C:Cdh1 mediated degradation of Cdc20 and other APC/C:Cdh1 targeted proteins in late mitosis/early G1; APC:Cdc20 mediated degradation of cell cycle proteins prior to satisfaction of the cell c
<b>Function</b>	ATP binding; ATPase activity; TBP-class protein binding; poly(A) RNA binding; protein binding;