PSMB1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	PSMB1, Polyclonal Antibody
Full Product Name	PSMB1 (Proteasome Subunit beta Type-1, Macropain Subunit C5, Multicatalytic Endopeptidase Complex Subunit C5, Proteasome Component C5, Proteasome gamma chain, PSC5) (HRP)
Product Gene Name	anti-PSMB1 antibody
Product Synonym Names	Anti -PSMB1 (Proteasome Subunit beta Type-1, Macropain Subunit C5, Multicatalytic Endopeptidase Complex Subunit C5, Proteasome Component C5, Proteasome gamma chain, PSC5) (HRP)
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in 0.01M PBS, PH 7.4, 0.03% Proclin 300, 50% glycerol. Labeled with horseradish peroxidase (HRP).
Purity/Purification	Purified Purified by ammonium sulfate precipitation.
Specificity	Recognizes human PSMB1.
Preparation and Storage	May be stored at 4 degree C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20 degree C. Aliquots are stable for 12 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Labeled with horseradish peroxidase (HRP). Sodium azide is a potent inhibitor of peroxidase and should not be added to HRP conjugates. HRP conjugates are sensitive to light.
Molecular Weight	26,489 Da
Chromosome Location	Chromosome: 6; NC_000006.11 (170844204..170862417, complement). Location: 6q27
OMIM	602017
3D Structure	ModBase 3D Structure for P20618
Immunogen	Recombinant corresponding to human PSMB1.
Product Categories/Family for anti-PSMB1 antibody	Antibodies; Abs to Proteasomes
Applications Tested/Suitable for anti-PSMB1 antibody	ELISA (EL/EIA), Western Blot (WB)
Application Notes for anti-PSMB1 antibody	Suitable for use in ELISA and Western Blot.
Related Product Information for anti-PSMB1 antibody	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.Cleavage of peptide bonds with very broad specificity.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. Interacts with SERPINB2. Interacts with HIV-1 TAT protein.

Other Notes	Small volumes of anti-PSMB1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PSMB1 purchase	MBS6009803 is an antibody targeting PSMB1. Also known as PSMB1 (Proteasome Subunit beta Type-1, Macropain Subunit C5, Multicatalytic Endopeptidase Complex Subunit C5, Proteasome Component C5, Proteasome gamma chain, PSC5) (HRP). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PSMB1. It may not necessarily be applicable to this product.

NCBI GI #	4506193
NCBI GeneID	5689
NCBI Accession #	NP_002784.1
UniProt Primary Accession #	P20618
UniProt Secondary Accession #	Q9BWA8; B5BU76
UniProt Related Accession #	P20618
GenBank Nucleotide #	NM_002793.3
NCBI Official Full Name	proteasome subunit beta type-1
NCBI Official Synonym Full Names	proteasome (prosome, macropain) subunit, beta type, 1
NCBI Official Symbol	PSMB1
NCBI Official Synonym Symbols	HC5; PSC5; PMSB1
UniProt Protein Name	Proteasome subunit beta type-1
UniProt Synonym Protein Names	Macropain subunit C5; Multicatalytic endopeptidase complex subunit C5; Proteasome component C5; Proteasome gamma chain
Protein Family	Proteasome
UniProt Gene Name	PSMB1
UniProt Synonym Gene Names	PSC5
UniProt Entry Name	PSB1_HUMAN
NCBI Protein Information	proteasome subunit beta type-1; macropain subunit C5; proteasome gamma chain; proteasome subunit HC5; proteasome component C5; proteasome beta 1 subunit; multicatalytic endopeptidase complex subunit C5
NCBI Summary for PSMB1	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 proteasome B-type family, also known as the T1B family, that is a 20S core beta subunit. This gene is tightly linked to the TBP (TATA-binding protein) gene in human and in mouse, and is transcribed in the opposite orientation in both species. [provided by RefSeq, Jul 2008]

UniProt Comments for PSMB1	PSMB1: a proteasomal protein of the T1B peptidase family. 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. Proteasomes are distributed throughout eukaryotic cells at a high concentration and cleave peptides in an ATP/ubiquitin-dependent process in a non-lysosomal pathway. Protein type: Cell cycle regulation; Protease; Proteasome complex; EC 3.4.25.1 Chromosomal Location of Human Ortholog: 6q27 Cellular Component: nucleoplasm; proteasome complex; proteasome core complex; cytosol; nucleus Molecular Function: threonine endopeptidase activity; protein binding Biological Process: positive regulation of ubiquitin-protein ligase activity during mitotic cell cycle; negative regulation of ubiquitin-protein ligase activity during mitotic cell cycle; protein polyubiquitination; viral reproduction; apoptosis; antigen processing and presentation of exogenous peptide antigen via MHC class I, TAP-dependent; DNA damage response, signal transduction by p53 class mediator resulting in cell cycle arrest; regulation of apoptosis; antigen processing and presentation of peptide antigen via MHC class I; regulation of ubiquitin-protein ligase activity during mitotic cell cycle; anaphase-promoting complex-dependent proteasomal ubiquitin-dependent protein catabolic process; antigen processing and presentation of exogenous peptide antigen via MHC class I; gene expression; mitotic cell cycle; regulation of amino acid metabolic process; G1/S transition of mitotic cell cycle; negative regulation of apoptosis
Research Articles on PSMB1	**1.** PSMB1 is part of the transcriptional machinery required for gastrin stimulated expression of PAI-2 and Reg1.
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