Proteasome Subunit Beta Type-9 (PSMB9) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Proteasome subunit beta type-9 (PSMB9), Polyclonal Antibody
Full Product Name	HRP-Linked Polyclonal Antibody to Proteasome subunit beta type-9 (PSMB9)
Product Gene Name	anti-PSMB9 antibody
Product Synonym Names	LMP2; Proteasome(Prosome,Macropain)Subunit Beta Type 9; Macropain chain 7; Multicatalytic endopeptidase complex chain 7; Really interesting new gene 12 protein; Large Multifunctional Peptidase 2
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Liquid; PBS, pH7.4, containing 0.02% NaN3, 50% glycerol.
Purity/Purification	Antigen-specific affinity chromatography followed by Protein A affinity chromatography
Concentration	500ug/ml (lot specific)
Specificity	The antibody is a rabbit polyclonal antibody raised against PSMB9. It has been selected for its ability to recognize PSMB9 in immunohistochemical staining and western blotting.
Preparation and Storage	Store at 4 degree C for frequent use. Aliquot and store at -20 degree C for 12 months. Avoid repeated freeze/thaw cycles. The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Matching Pairs	Unconjugated Antibody: PSMB9 (MBS2111856) HRP Conjugated Antibody: PSMB9 (MBS2115489)
OMIM	177045
3D Structure	ModBase 3D Structure for P28065
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Cross Reactivity	Human
Conjugation	HRP
Product Categories/Family for anti-PSMB9 antibody	Enzyme & Kinase
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for anti-PSMB9 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Immunoprecipitation (IP)
Related Product Information for anti-PSMB9 antibody	MBS2115489 is an antibody targeting PSMB9. Also known as HRP-Linked Polyclonal Antibody to Proteasome subunit beta type-9 (PSMB9). Reactive in Human, Mouse. Host: Rabbit.
Other Notes	Small volumes of anti-PSMB9 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.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PSMB9. It may not necessarily be applicable to this product.

NCBI GI #	4506205
NCBI GeneID	5698
UniProt Primary Accession #	P28065
UniProt Related Accession #	P28065
GenBank Nucleotide #	NP_002791.1
NCBI Official Full Name	proteasome subunit beta type-9
NCBI Official Synonym Full Names	proteasome 20S subunit beta 9
NCBI Official Symbol	PSMB9
NCBI Official Synonym Symbols	LMP2; PRAAS3; PSMB6i; RING12; beta1i
UniProt Protein Name	Proteasome subunit beta type-9
UniProt Synonym Protein Names	Low molecular mass protein 2; Macropain chain 7; Multicatalytic endopeptidase complex chain 7; Proteasome chain 7; Proteasome subunit beta-1i; Really interesting new gene 12 protein
Protein Family	Proteasome
UniProt Gene Name	PSMB9
UniProt Synonym Gene Names	LMP2; PSMB6i; RING12
UniProt Entry Name	PSB9_HUMAN
NCBI Protein Information	proteasome subunit beta type-9
NCBI Summary for PSMB9	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 located in the class II region of the MHC (major histocompatibility complex). Expression of this gene is induced by gamma interferon and this gene product replaces catalytic subunit 1 (proteasome beta 6 subunit) in the immunoproteasome. Proteolytic processing is required to generate a mature subunit. [provided by RefSeq, Mar 2010]

UniProt Comments for PSMB9	PSMB9: 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. This subunit is involved in antigen processing to generate class I binding peptides. Replacement of PSMB6 by PSMB9 increases the capacity of the immunoproteasome to cleave model peptides after hydrophobic and basic residues. Belongs to the peptidase T1B family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: EC 3.4.25.1; Nuclear receptor co-regulator; Protease; Proteasome complex Chromosomal Location of Human Ortholog: 6p21.3 Cellular Component: nucleoplasm; proteasome complex; proteasome core complex; cytoplasm; cytosol 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; negative regulation of apoptosis; G1/S transition of mitotic cell cycle
Research Articles on PSMB9	**1.** The dominant model of LMP2 CfoI might be a risk factor for IDDM in Asian population. Whereas, the allelic and dominant models of LMP7 G37360T might be protective factors for IDDM in Caucasian population
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