



Rabbit Anti-LMP7 antibody

SL2796R

Product Name:	LMP7
Chinese Name:	低分子量蛋白酶体7抗体
Alias:	Proteasome 20S LMP7; D6S216; D6S216E; Large multifunctional peptidase 7; Large multifunctional protease 7; LMP 7; LMP-7; LMP7; Low molecular mass protein 7; Low molecular weight protein 7; Macropain subunit C13; MGC1491; Multicatalytic endopeptidase complex subunit C13; Protease component C13; Proteasome (prosome macropain) subunit beta type 8; Proteasome (prosome, macropain) subunit, beta type, 8 (large multifunctional peptidase 7); Proteasome beta 8 subunit; Proteasome catalytic subunit 3i; Proteasome component C13; Proteasome related gene 7; Proteasome subunit beta 5i; Proteasome subunit beta type 8; Proteasome subunit beta type; Proteasome subunit beta type-8; Proteasome subunit beta-5i; Proteasome subunit Y2; PSB8_HUMAN; PSMB 8; PSMB5i; PSMB8; Really interesting new gene 10 protein; RING 10; RING10; Y2; ALDD; D6S216E; JMP; NKJO; PSMB5i; RING10.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-2000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1ug/testIF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	23kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Proteasome 20S LMP7:171-272/272
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized

	antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed
Product Detail:	<p>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 3 (proteasome beta 5 subunit) in the immunoproteasome. Proteolytic processing is required to generate a mature subunit. Two alternative transcripts encoding two isoforms have been identified; both isoforms are processed to yield the same mature subunit. [provided by RefSeq, Jul 2008].</p> <p>Function: 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 PSMB5 by PSMB8 increases the capacity of the immunoproteasome to cleave model peptides after hydrophobic and basic residues. Acts as a major component of interferon gamma-induced sensitivity. Plays a key role in apoptosis via the degradation of the apoptotic inhibitor MCL1. May be involved in the inflammatory response pathway. In cancer cells, substitution of isoform 1 (E2) by isoform 2 (E1) results in immunoproteasome deficiency. Required for the differentiation of preadipocytes into adipocytes.</p> <p>Subunit: 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. This subunit is part of the immunoproteasome where it displaces the equivalent housekeeping subunit PSMB5. Directly interacts with POMP. Interacts with HIV-1 TAT protein. Interacts with TAP1.</p> <p>Subcellular Location: Cytoplasm. Nucleus.</p> <p>Tissue Specificity:</p>

Highly expressed in immature dendritic cells (at protein level).

Post-translational modifications:

Autocleaved. The resulting N-terminal Thr residue of the mature subunit is responsible for the nucleophile proteolytic activity.

DISEASE:

Defects in PSMB8 are the cause of Nakajo syndrome (NKJO) [MIM:256040]; also called joint contractures muscular atrophy microcytic anemia and panniculitis-induced lipodystrophy. An autosomal recessive autoinflammatory disorder characterized by childhood onset of recurrent fever, joint stiffness and severe contractures of the hands and feet, erythematous skin lesions with subsequent development of lipodystrophy, and laboratory evidence of immune dysregulation. Accompanying features include muscle weakness and atrophy, hepatosplenomegaly, and microcytic anemia.

Note=Mutation Met-75 has been found in chronic atypical neutrophilic dermatosis with lipodystrophy and elevated temperature syndrome (CANDLE syndrome). CANDLE patients have some overlapping features with NKJO patients, including a cutaneous eruption and lipodystrophy. They show a characteristic neutrophilic dermatosis with a mononuclear interstitial infiltrate in the dermis that seems pathognomonic for CANDLE syndrome (PubMed:21953331).

Similarity:

Belongs to the peptidase T1B family.

SWISS:

P28062

Gene ID:

5696

Database links:

[Entrez Gene: 5696](#)Human

[Entrez Gene: 16913](#)Mouse

[Entrez Gene: 24968](#)Rat

[Olim: 177046](#)Human

[SwissProt: P28062](#)Human

[SwissProt: P28063](#)Mouse

[SwissProt: P28064](#)Rat

[Unigene: 180062](#)Human

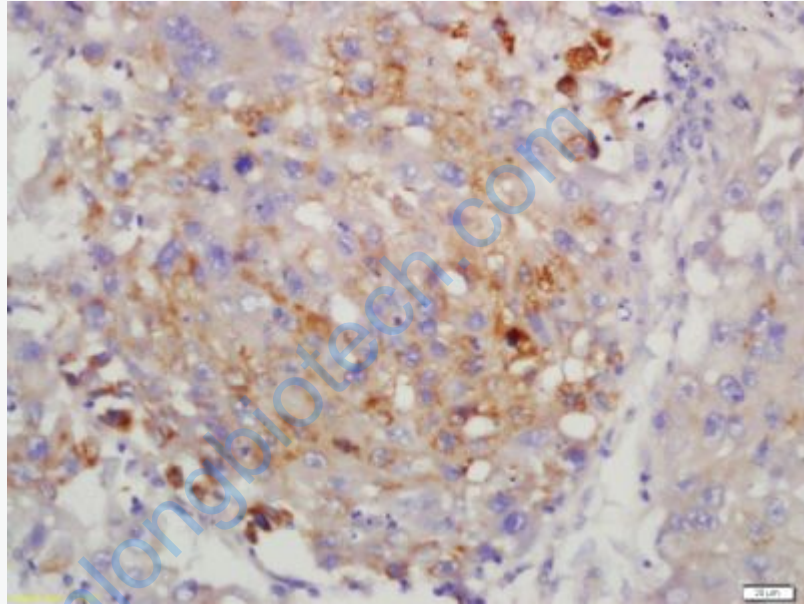
[Unigene: 180191](#)Mouse

[Unigene: 484878](#)Mouse

[Unigene: 203098](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

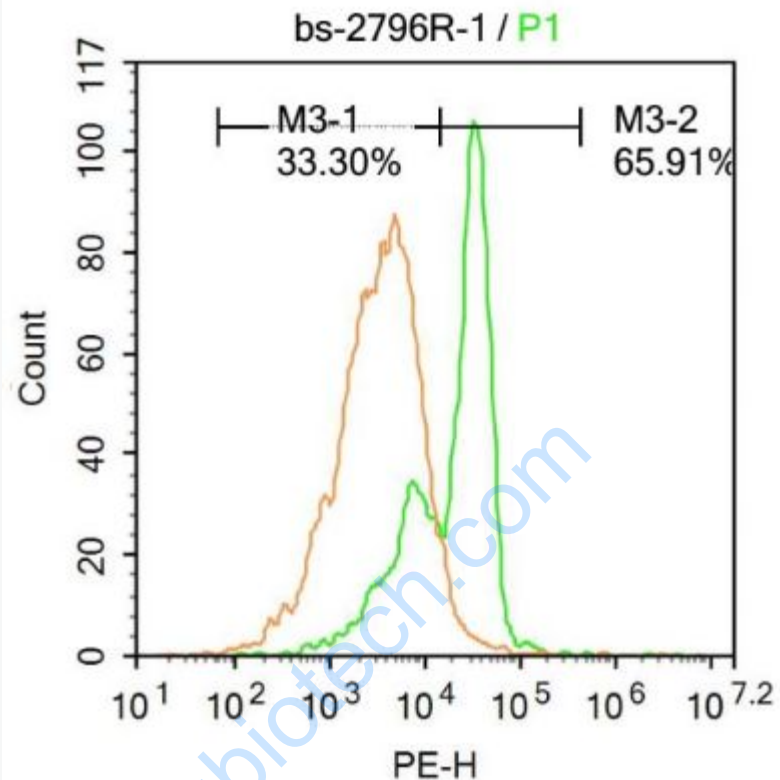


Picture:

Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-LMP7 Polyclonal Antibody, Unconjugated(SL2796R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Molt-4 cells were fixed with 4% PFA for 10min at room temperature ,permeabilized with 90% ice-cold methanol for 20 min at -20°C, and incubated in 5% BSA blocking buffer for 30 min at room temperature. Cells were then stained with LMP7 Antibody(SL2796R)at 1:500 dilution in blocking buffer and incubated for 30 min at room temperature, washed twice with 2%BSA in PBS, followed by secondary antibody incubation for 40 min at room temperature. Acquisitions of 20,000 events were performed. Cells stained with primary antibody (green), and isotype control (orange).