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Goat Anti-LMP7 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1632a

Specification

Goat Anti-LMP7 Antibody - Product Information

Application	**WB, E**
Primary Accession	P28062
Other Accession	NP_683720, 5696, 16913 (mouse), 24968 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat, Pig, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**30354**

Goat Anti-LMP7 Antibody - Additional Information

Gene ID 5696

Other Names
Proteasome subunit beta type-8, 3.4.25.1, Low molecular mass protein 7, Macropain subunit C13, Multicatalytic endopeptidase complex subunit C13, Proteasome component C13, Proteasome subunit beta-5i, Really interesting new gene 10 protein, PSMB8, LMP7, PSMB5i, RING10, Y2

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-LMP7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-LMP7 Antibody - Protein Information

Name PSMB8

Synonyms LMP7, PSMB5i, RING10, Y2

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. Involved in the generation of spliced peptides resulting from the ligation of two separate proteasomal cleavage products that are not contiguous in the parental protein (PubMed:27049119). 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.

Cellular Location
Cytoplasm {ECO:0000255|PROSITE-ProRule:PRU00809}. Nucleus

Goat Anti-LMP7 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-LMP7 Antibody - Images

AF1632a (0.01 µg/ml) staining of Human Liver lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-LMP7 Antibody - Background

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.

Goat Anti-LMP7 Antibody - References

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.
Genetic variation in the LMP/TAP gene and outcomes of hepatitis B virus infection in the Chinese population. Shi C, et al. Epidemiol Infect, 2010 Jun 7. PMID 20525414.
Interleukin-9 polymorphism in infants with respiratory syncytial virus infection: an opposite effect in boys and girls. Schuurhof A, et al. Pediatr Pulmonol, 2010 Jun. PMID 20503287.
No association of TAP and LMP genetic polymorphism in human brucellosis and its complications. Bravo MJ, et al. Hum Immunol, 2010 Jul. PMID 20470844.
Large-scale candidate gene analysis of spontaneous clearance of hepatitis C virus. Mosbruger TL, et al. J Infect Dis, 2010 May 1. PMID 20331378.