

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LMP7/PSMB8 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human PSMB5 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human LMP7/PSMB8 Thr73-Gln276 Accession # P28062
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

PSMB8 (Proteasome Subunit beta type-8; Also β5i, RING10/Y2 and LMP7) is a 23-24 kDa member of the peptidase T1B family of molecules. It is expressed both constitutively and inducibly by IFN-γ in a wide variety of cells, including immature dendritic cells, preadipocytes, CD4⁺ T cells and monocytes. PSMB8 contributes to the 700 kDa, 20S proteasome catalytic complex, a dynamic intracellular structure that participates in ATP-dependent proteolytic activity. PSMB8 qualifies as a β-type, i (immuno)-type proteasome, meaning it both plays a chymotrypsin-like role in the turnover of proteins, and is found in cytokine-responsive cells. The peptides generated through PSMB8 activity are used as immunogens by MHC-I molecules. PSMB8 activity is dependent upon the removal of the PSMB8 precursor prosequence, an action that exposes a critical internal Thr residue. Human PSMB8 is synthesized as a 28-29 kDa, 276 amino acid (aa) proprecursor. It contains a 72 aa autocleavable propeptide plus a 204 aa mature region. The mature region shows no identifiable standard structural motifs. There is one alternative splice form that shows a 45 aa substitution for aa 1-49. This isoform does not appear to participate in formation of a proteasome. Over aa 73-276, human PSMB8 shares 92% aa sequence identity with mouse PSMB8.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.