

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human LMP7/PSMB8 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human PSMB5 is observed.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human LMP7/PSMB8 Thr73-Gln276 Accession # P28062
<b>Conjugate</b>	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
<b>Formulation</b>	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<sup>+</sup> 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) precursor. 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

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