Human LMP7/PSMB8 Alexa Fluor® 647-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7710R
100 µg

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	*E. coli*-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 proteosome. Over aa 73-276, human PSMB8 shares 92% aa sequence identity with mouse PSMB8.

PRODUCT SPECIFIC NOTICES

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