Human LMP7/PSMB8 Alexa Fluor® 405-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 832913

Catalog Number: FAB7710V

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LMP7/PSMB8 in ELISAs. In direct ELISAs, no cross-reactivity with recombinant human LMPX/PSMB5 is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 832913
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human LMP7/PSMB8 Thr73-Gln276 Accession # P28062
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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. LMP7 is a subunit of the 700 kDa, 20S proteasome catalytic complex, a dynamic intracellular structure that participates in ATP-dependent proteolytic activity. LMP7 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 LMP7 activity are presented as antigens by MHC-I molecules. LMP7 activity is dependent upon the removal of the LMP7 precursor prosequence, an action that exposes a critical internal Thr residue. Human LMP7 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. 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 LMP7 shares 92% aa sequence identity with mouse LMP7.

PRODUCT SPECIFIC NOTICES

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