

DESCRIPTION

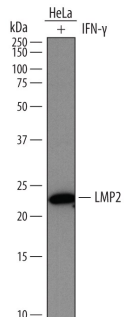
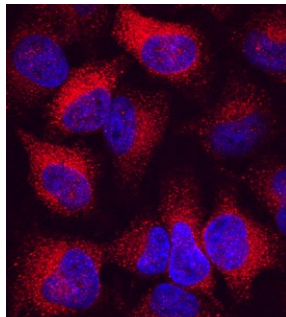
Species Reactivity	Human
Specificity	Detects human LMP2/PSMB9 in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant human PSMB6 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 792520
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human LMP2/PSMB9 Thr21-Glu219 Accession # P28065
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human LMP2/PSMB9 by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line treated (+) with 100 ng/mL Recombinant Human IFN-γ (Catalog # 285-IF) for 24 hours. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human LMP2/PSMB9 Monoclonal Antibody (Catalog # MAB7709) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for LMP2/PSMB9 at approximately 22 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunocytochemistry</p>  <p>LMP2/PSMB9 in HeLa Human Cell Line. LMP2/PSMB9 was detected in immersion fixed HeLa human cervical epithelial carcinoma cells stimulated with Recombinant Human IFN-γ (Catalog # 285-IF) for 24 hours using Mouse Anti-Human LMP2/PSMB9 Monoclonal Antibody (Catalog # MAB7709) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

LMP2 (large multifunctional peptidase 2), also called PSMB9 (proteasome subunit beta 9) or PSMB6i, is a 22 kDa broad-specificity aminopeptidase of the T1B family that is a component of the 20S immunoproteasome core (α7b7b7a7) of the 26S proteasome particle. Induction of LMP2 by IFN-γ, IRF-1, TNF-α, CD40L, or heat shock in immune-responsive cells or cancer cells promotes replacement of proteasome subunit PSMB6 by LMP2 and processing of peptides for presentation by MHC I. After auto-cleavage between amino acids (aa) 20-21, human LMP2 (aa 21-219) shares 91% aa sequence identity with mouse and rat LMP2. Alternate splicing creates a short form, LMP2.S, which lacks aa 4-13 within the propeptide.