

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human LMP2/PSMB9 in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant human PSMB6 is observed.                                                                                                                 |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2B</sub> Clone # 792520                                                                                                                                                                                                                           |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human LMP2/PSMB9<br>Thr21-Glu219<br>Accession # P28065                                                                                                                                                                                  |
| <b>Conjugate</b>          | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

|                            |                                                                        |
|----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>        | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## 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.

## PRODUCT SPECIFIC NOTICES

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