

## MATERIAL DATA SHEET

### Anti-Proteasome 20S LMP2

#### Cat. # AP-118 (100 µg)

The proteasome is a large, multimeric protease that catalyzes the final step of the UPP intracellular protein degradation. The proteasome exists in multiple forms within the eukaryotic cell, and contained in all isoforms is the catalytic core known as the 20S proteasome. The 700kDa 20S proteasome is arranged as four axially stacked heptameric rings with multicatalytic centers located within the internal cavity of the  $\beta$ -subunits. The proteasome's endogenous substrates are polyubiquitinated proteins. The form of the proteasome that recognizes and degrades these proteins is the 26S proteasome. This 1500 kDa species is formed in an ATP dependent manner with the addition of two copies of the 19S regulator on the 20S catalytic core. The 19S regulator complex is composed of 16 different subunits ranging in size from 30 kDa to 120 kDa and contains an ubiquitin chain receptor, ATPase activity and deubiquitinating activity.

LMP2 is a catalytic subunit of the 20S proteasome and upon interferon  $\gamma$ -induction, replaces the  $\delta$  subunit. LMP2 alters the specificity of the 20S proteasome and is critical for the production of MHC class I ligands, production of T-lymphocytes and is suggested to increase the efficiency of antigen presentation of the immune response.

#### Product Information

<b>Immunogen:</b>	Synthetic Peptides: CR <sup>207</sup> VILGN/DELPKFYDE <sup>220</sup> corresponding to amino acid residues 207-220 from human and mouse proteasome 20S LMP2.
<b>Host/Isotype:</b>	Rabbit polyclonal
<b>Reactivity:</b>	Antibody detects proteasome 20S LMP2 subunit (23 kDa) and LMP2 precursor protein (23 kDa) from mouse.
<b>Stock:</b>	100 µg of IgG (1 mg/ml) in PBS with 1 mg/ml BSA + 0.05% NaN <sub>3</sub> . Epitope affinity purified.

#### Use & Storage

<b>Specificity:</b>	Recommended dilution for Western blot is 1 µg/ml.
<b>Storage:</b>	Store vial at -80°C. Avoid repeated freeze-thaw cycles.

#### Literature

<b>References:</b>	Bajorek M and Glickman M.H. (2004) <i>Cell. Mol. Life. Sci.</i> <b>61</b> :1579-1588 Coux O. (1999) <i>Ann. Rev. Biochem.</i> <b>65</b> :801-847 Voges D., <i>et al.</i> (1999) <i>Ann. Rev. Biochem.</i> <b>68</b> :1015-1068
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