

DESCRIPTION

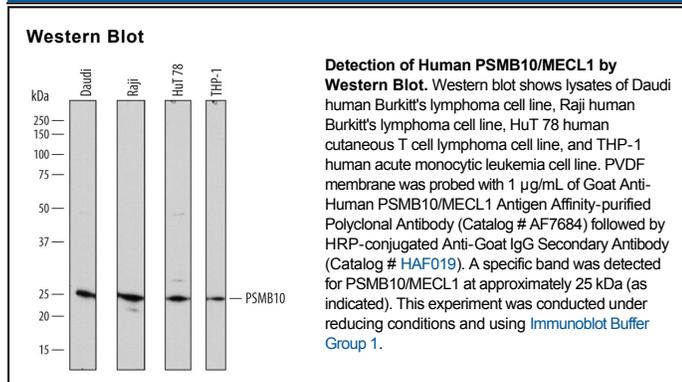
Species Reactivity	Human
Specificity	Detects human PSMB10/MECL1 in direct ELISAs and Western blots. In direct ELISAs, less than 6% cross-reactivity with recombinant human PSMB7 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human PSMB10/MECL1 Thr40-Glu273 Accession # P40306
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

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 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

PSMB10 (Proteasome Subunit beta type-10; Also MECL1 and LMP10) is a 25-26 kDa member of the peptidase T1B family of molecules. It is expressed a wide variety of cells, particularly those responsive to proinflammatory cytokines. PSMB10 is expressed both constitutively and via IFN-γ induction in a cell-specific manner. It contributes to the 700 kDa, 20S proteasome catalytic complex, a dynamic intracellular structure that participates in the ATP-dependent ubiquitin-proteasome-system used for protein degradation. PSMB10 qualifies as a β-type, i (immuno)-type proteasome, meaning it both plays a catalytic role in the turnover of proteins, and is found in cytokine-responsive cells. The i-type of proteasome is believed to protect cells against the accumulation of oxidant-damaged proteins. This activity is absolutely dependent upon the removal of the precursor's prosequence, an action that exposes a critical internal Thr residue. Human PSMB10 is synthesized as a 29 kDa, 273 amino acid (aa) proprecursor. It contains a 39 aa autocleavable propeptide plus a 234 aa mature region. The mature region shows no identifiable standard structural motifs. Over aa 40-273, human PSMB10 shares 89% aa sequence identity with mouse PSMB10.