

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
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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

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.

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