Species Reactivity: Mouse

Specificity: Detects Mast Cell Protease-6/Mcpt6 in direct ELISAs and Western blots. In direct ELISAs, approximately 35% cross-reactivity with recombinant human (rh) TPS-1 and rhTPS-B2 is observed and less than 10% cross-reactivity with recombinant mouse MCP-7 is observed.

Source: Polyclonal Goat IgG

Purification: Antigen Affinity-purified

Immunogen: Mouse myeloma cell line NS0-derived recombinant mouse Mast Cell Protease-6/Mcpt6 Ala22-Ser276

Accession #: P21845

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 either lyophilized or as a 0.2 μm filtered solution in PBS.

APPLICATIONS

Recommended Concentration

<table>
<thead>
<tr>
<th>Sample</th>
<th>Western Blot</th>
<th>0.1 μg/mL</th>
<th>Recombinant Mouse Mast Cell Protease-6/Mcpt6 (Catalog # 3736-SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Immunoprecipitation</td>
<td>25 μg/mL</td>
<td>Conditioned cell culture medium spiked with Recombinant Mouse Mast Cell Protease-6/Mcpt6 (Catalog # 3736-SE), see our available Western blot detection antibodies</td>
</tr>
<tr>
<td>Neutralization</td>
<td>Measured by its ability to neutralize Recombinant Mouse Mast Cell Protease-6/Mcpt6 (0.5 μg/mL, Catalog # 3736-SE) cleavage of the fluorogenic peptide substrate Mca-RPKPVE-Nval-WRK(Dnp)-NH2 (10 μM, Catalog # ES002). The Neutralization Dose (ND50) is typically 3 μg/mL.</td>
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</tr>
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</table>

PREPARATION AND STORAGE

Reconstitution: Reconstitute at 0.2 mg/mL in sterile PBS.

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.

- 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

Tryptases are trypsin-like serine proteases, and β tryptases appear to be the main isoenzymes expressed in mast cells (1). Mast cell protease-6 (MCP-6, Mcpt6, or Tpsb2) is one of β tryptases produced from mouse mast cells. It is stored in secretory granules of mast cells, where it forms active tetramers with heparin proteoglycan. Because of the unique arrangement of the active sites in the tetramer, which are facing a narrow central pore, MCP-6 is resistant to macromolecular protease inhibitors (2). When mast cells are activated, MCP-6 is released along with other proteins in secretory granules, participating in provoking inflammatory conditions (3). MCP-6 has been implicated as a mediator in the pathogenesis of asthma and other allergic disorders in mouse models.

References: