

## DESCRIPTION

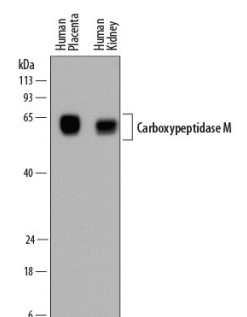
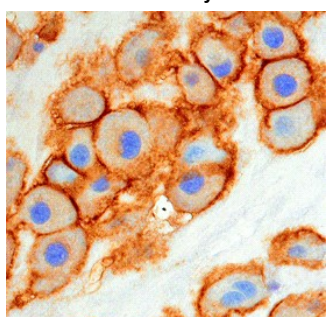
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Carboxypeptidase M in direct ELISAs and Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 848543
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant human Carboxypeptidase M Leu18-Ser423 Accession # P14384
<b>Formulation</b>	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
<b>Western Blot</b>	0.5 µg/mL	See Below
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below

## DATA

<p><b>Western Blot</b></p> 	<p><b>Detection of Human Carboxypeptidase M by Western Blot.</b> Western blot shows lysates of human placenta tissue and human kidney tissue. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-Human Carboxypeptidase M Monoclonal Antibody (Catalog # MAB7457) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Carboxypeptidase M at approximately 58-65 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>Carboxypeptidase M in Human Placenta.</b> Carboxypeptidase M was detected in immersion fixed paraffin-embedded sections of human placenta using Mouse Anti-Human Carboxypeptidase M Monoclonal Antibody (Catalog # MAB7457) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS002) and counter-stained with hematoxylin (blue). Specific staining was localized to plasma membranes of decidual cells. View our protocol for <a href="#">Chromogenic IHC Staining of Paraffin-embedded Tissue Sections</a>.</p>
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## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Carboxypeptidase M (CPM) is a 50-65 kDa monomer that belongs to the regulatory CPN/E subfamily, peptidase M14 family of enzymes. It is widely expressed, being found on macrophages, fibroblasts, endothelial cells, oligodendrocytes and Schwann cells, dendritic cells, osteoblasts and bronchial epithelium. Carboxypeptidase M is a GPI-linked glycoprotein that is best known as a peptidase that cleaves basic amino acids (aa) from the carboxyterminal of a number of peptides, including EGF and bradykinin. It is also known to bind to apparent substrates and undergo a conformational change that links it with the kinin B1 GPCR, initiating signal transduction. Mature human Carboxypeptidase M is 406 aa in length (aa 18-423). It contains one large enzymatic region (aa 19-310) and two critical glutamic acid residues at Glu260 and Glu264. Like many GPI-linked proteins, Carboxypeptidase M undergoes solubilization and is reportedly found in urine and amniotic fluid. Over aa 18-423 (mature Carboxypeptidase M), human Carboxypeptidase M shares 86% aa sequence identity with mouse Carboxypeptidase M.