

## DESCRIPTION

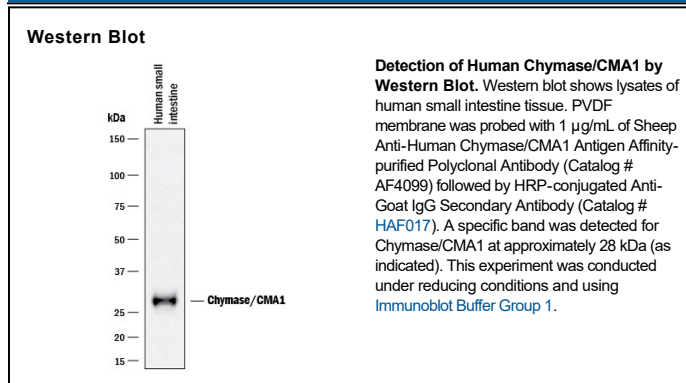
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Chymase in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant mouse (rm) MCPT1 is observed and less than 1% cross-reactivity with recombinant human (rh) Granzyme-B, rhGranzyme-H, rmMCPT6 and rmMCPT7 is observed.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human Chymase/CMA1 Gly20-Asn247 Accession # P23946
<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 either lyophilized or 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>	1 µg/mL	See Below
<b>Immunoprecipitation</b>	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Chymase/CMA1 (Catalog # 4099-SE), see our available <a href="#">Western blot detection antibodies</a>

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<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

Chymases are a group of chymotrypsin-like serine proteases secreted by mast cells (1). They are synthesized as inactive precursors containing a 2-residue propeptide, which needs to be removed by dipeptidyl peptidase I/cathepsin C for the enzymatic activity (2). Human Chymase encoded by the CMA1 gene is known to be involved in hypertension and heart failure through its ability to convert angiotensin I (Ang I) to angiotensin II (Ang II), which plays a key role in the regulation of arterial pressure (3). In addition, it is also important in physiological and pathological conditions including inflammation, fibrosis and processing of cytokines (4). Therefore, designing a specific inhibitor for Chymase activity has been a pharmacologic strategy to develop therapeutic agents.

## References:

1. Caughey, G.H. (2004) in *Handbook of Proteolytic Enzymes*. Barrett, A.J. *et al.* ed. p. 1531, Academic Press, San Diego.
2. Murakami, M. *et al.* (1995) *J. Biol. Chem.* **270**:2218.
3. Miyazaki, M. and S. Takai (2006) *J. Pharmacol. Sci.* **100**:391.
4. Nakajima, M. and N. Naya (2002) *Jpn. J. Pharmacol.* **90**:206.