

DESCRIPTION

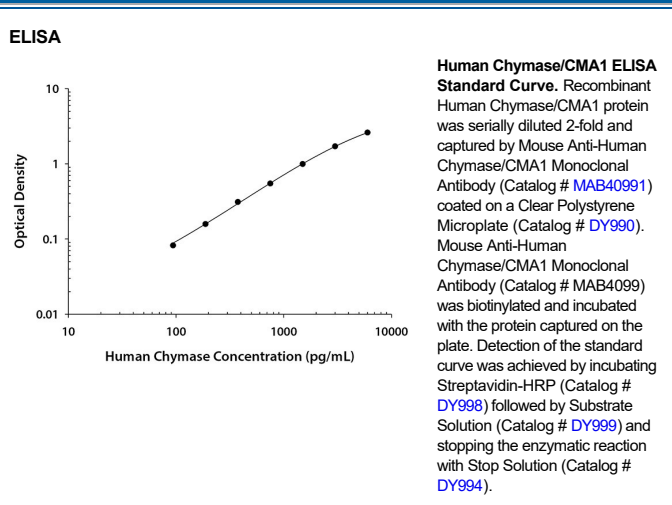
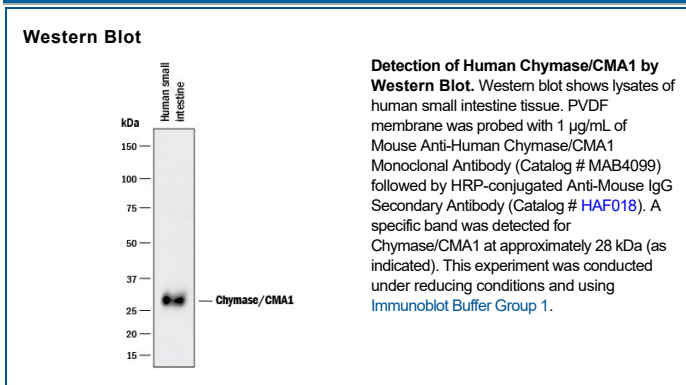
Species Reactivity	Human
Specificity	Detects human Chymase/CMA1 in direct ELISAs and Western blots. Does not cross-react with recombinant mouse (rm) MCPT-1, rmMCPT-6, rmMCPT-7, or rmMCPT-11.
Source	Monoclonal Mouse IgG _{2A} Clone # 422818
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Chymase/CMA1 Gly20-Asn247 Accession # P23946
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

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
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Chymase/CMA1 (Catalog # 4099-SE), see our available Western blot detection antibodies
ELISA	<p>This antibody functions as an ELISA detection antibody when paired with Mouse Anti-Human Chymase/CMA1 Monoclonal Antibody (Catalog # MAB40991).</p> <p>This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Human Chymase/CMA1 DuoSet ELISA Kit (Catalog # DY4099-05) for convenient development of a sandwich ELISA.</p>	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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

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.