Human Chymase/CMA1 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4099

DESCRIPTION

Species Reactivity	Human
Specificity	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.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
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 as a 0.2 μm filtered solution in PBS.

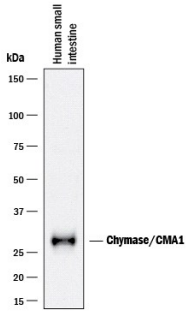
APPLICATIONS

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

DATA

Western Blot



Detection of Human Chymase/CMA1 by Western Blot. Western blot shows lysates of human small intestine tissue. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human Chymase/CMA1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4099) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Chymase/CMA1 at approximately 28 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

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

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 hypertention 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.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956