Human Tryptase alpha/beta-1 Antibody

Monoclonal Mouse IgG_1 Clone # 349406

Catalog Number: MAB3796

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Tryptase alpha/beta-1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, 50-100% cross-reactivity with recombinant human (rh) TPSAB1 and recombinant mouse (rm) Mcpt6 is observed, 20-100% cross-reactivity with rmMcpt7 is observed, and no cross-reactivity with rhTPSG1, rmTPS5, rmMcpt1, or rmMcpt11 is observed.
Source	Monoclonal Mouse IgG_1 Clone # 349406
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Tryptase alpha/beta-1 Ile31-Pro275 Accession # AAD13876
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose.

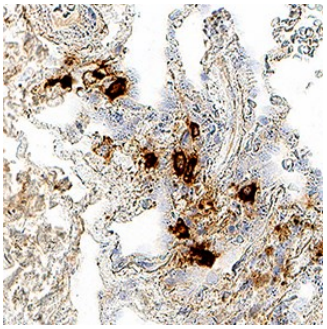
APPLICATIONS

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	Recombinant Human Tryptase alpha/beta-1 (Catalog # 3796-SE)
Immunohistochemistry	0.1-15 µg/mL	Immersion fixed paraffin-embedded sections of Human Lung
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Tryptase alpha/beta-1 (Catalog # 3796-SE), see our available Western blot detection antibodies

DATA

Immunohistochemistry



Detection of Tryptase alpha/beta-1 in Human Lung. Tryptase alpha/beta-1 was detected in immersion fixed paraffin-embedded sections of Human Lung using Mouse Anti-Human Tryptase alpha/beta-1 Monoclonal Antibody (Catalog # MAB3796) at 0.1 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to mast cells. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

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.
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.

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BACKGROUND

Tryptases are trypsin-like serine proteases, and β tryptases appear to be the main isoenzymes expressed in mast cells (1). They are stored in secretory granules of mast cells, where they form active tetramers with heparin proteoglycan. Because of the unique arrangement of the active sites in the tetramer, which are facing a narrow central pore, β tryptases are resistant to macromolecule protease inhibitors (2). When mast cells are activated, β tryptases are released along with other proteins in secretory granules, participating in provoking inflammatory conditions (3). β tryptases have been implicated as mediators in the pathogenesis of asthma and other allergic disorders.

References:

1. Caughey, G. H. 2004, in *Handbook of Proteolytic Enzymes*, Barrett, A.J. *et al*. eds. pp. 1535.
2. Sommerhoff, C.P. *et al*. (1999) Proc. Natl. Acad. Sci. USA. **96**:10984.
3. Hallgren, J. and G. Pejler (2006) FEBS J. **273**:1871.

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