Human Tryptase ε/BSSP-4 Antibody

Monoclonal Mouse IgG_{2A} Clone # 725445

Catalog Number: MAB5047

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Tryptase ε/BSSP-4 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant mouse Tryptase ε/BSSP-4 is observed.
Source	Monoclonal Mouse IgG_{2A} Clone # 725445
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Tryptase ε/BSSP-4 Ala33-Ser317 Accession # Q9GZN4
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.

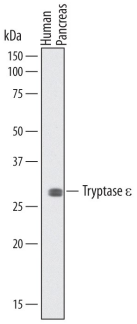
APPLICATIONS

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	2 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below

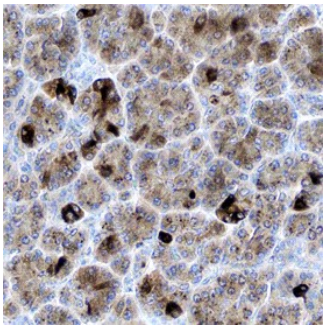
DATA

Western Blot



Detection of Human Tryptase ε/BSSP-4 by Western Blot. Western blot shows lysates of human pancreas tissue. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human Tryptase ε/BSSP-4 Monoclonal Antibody (Catalog # MAB5047) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Tryptase ε/BSSP-4 at approximately 34 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunohistochemistry



Tryptase ε/BSSP-4 in Human Pancreas. Tryptase ε/BSSP-4 was detected in immersion fixed paraffin-embedded sections of human pancreas using Mouse Anti-Human Tryptase ε/BSSP-4 Monoclonal Antibody (Catalog # MAB5047) at 15 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in exocrine cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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

Tryptase ε, also known as brain-specific protease-4 (BSSP-4) and prosemin, is expressed in the brain and epithelium-rich tissues such as the lung and eye (1, 2). BSSP-4 is a serine protease related to trypsin, preferentially hydrolyzing substrates after arginine and lysine residues. However, Tryptase ε is less susceptible to inhibition by common trypsin inhibitors such as aprotinin, α1-antitrypsin and secretory leukocyte protease inhibitor (3). Tryptase ε efficiently converts pro-urokinase-type plasminogen activator to its mature, active form (3).

References:

1. Wong, G.W. *et al.* (2004) J. Biol. Chem. **279**:2438.
2. Wong, G.W. *et al.* (2001) J. Biol. Chem. **276**:49169.
3. Yasuda, S. *et al.* (2005) Blood **105**:3893.

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