

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Trypsin 1/PRSS1 in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant human (rh) Trypsin 2 and rhTrypsin 3 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Trypsin 1/PRSS1 Ala16-Ser247 Accession # P07477
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.

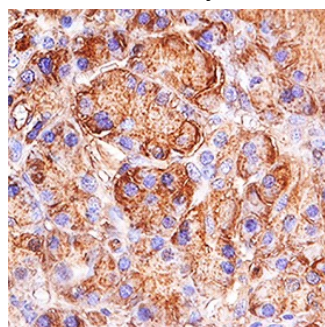
APPLICATIONS

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	0.1 µg/mL	Recombinant Human Trypsin 1/PRSS1 (Catalog # 3848-SE)
Immunohistochemistry	5-15 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Trypsin 1/PRSS1 (Catalog # 3848-SE), see our available Western blot detection antibodies

DATA

Immunohistochemistry



Trypsin 1/PRSS1 in Human Pancreas.

Trypsin 1/PRSS1 was detected in immersion fixed paraffin-embedded sections of human pancreas using Mouse Anti-Human Trypsin 1/PRSS1 Monoclonal Antibody (Catalog # MAB3848) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to exocrine cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

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. <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

Human Trypsin 1, encoded by the PRSS1 gene, is also known as Cationic Trypsinogen (1). Constituting approximately two-thirds of the total trypsin content in normal pancreatic juice, it is the most abundant trypsin isoform produced by the pancreas. It contains a signal peptide (residues 1-15), a pro region (residues 16-23), and a mature chain (residues 24-247). Trypsin 1 is synthesized in the pancreas and secreted into the duodenum lumen, where it is activated by enterokinase. Its major physiologic function is to digest food and to activate other pro-enzymes (2). Mutations in the PRSS1 gene can cause hereditary pancreatitis (3).

References:

1. Emi, M. *et al.* (1986) *Gene* **41**:305.
2. Halfon, S. *et al.* (2004) in *Handbook of Proteolytic Enzymes* (ed. Barrett, *et al.*) p. 1483, Academic Press, San Diego.
3. Teich, N. *et al.* (2006) *Hum. Mutat.* **27**:721.