

DESCRIPTION

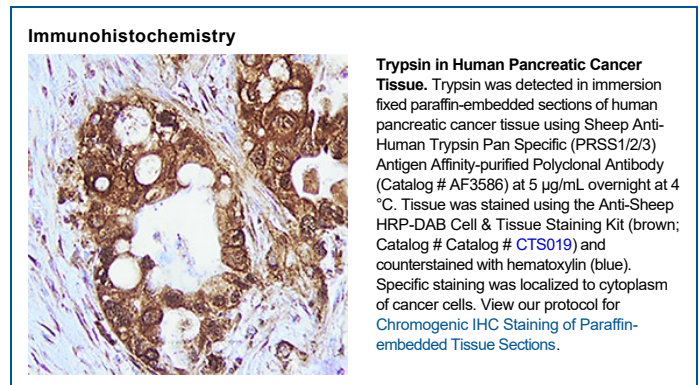
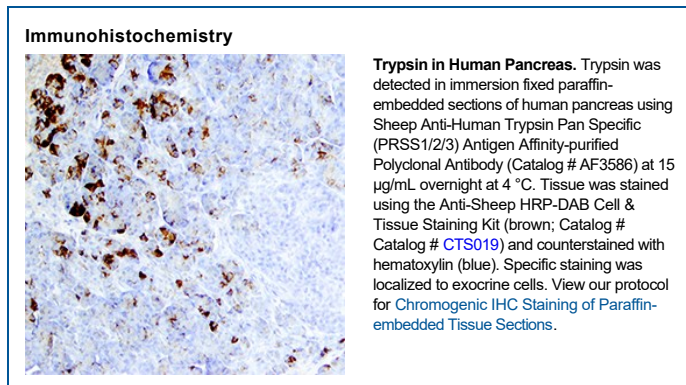
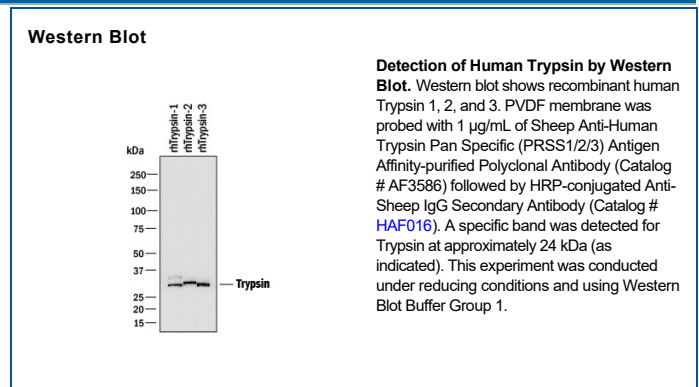
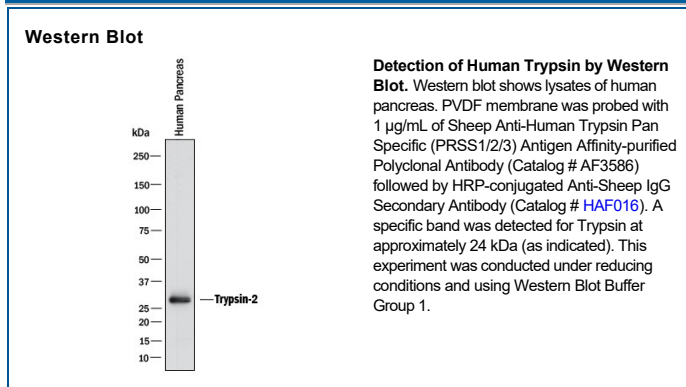
Species Reactivity	Human
Specificity	Detects human Trypsin Pan Specific (PRSS1/2/3) in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Trypsin 2 Ala16-Ser247 Accession # P07478
Formulation	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

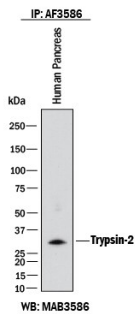
Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Human pancreas and recombinant human Trypsin 1, 2, and 3
Immunohistochemistry	5-15 µg/mL	See Below
Immunoprecipitation	12.5 µg/500 µg cell lysate	Human pancreas tissue
Neutralization	Measured by its ability to neutralize Recombinant Human Trypsin 2/PRSS2 (0.02 µg/mL, Catalog # 3586-SE) cleavage of the fluorogenic peptide substrate Mca-RPKVE-Nval-WRK(Dnp)-NH ₂ (10 µM, Catalog # ES002). The Neutralization Dose (ND ₅₀) is typically 0.3 µg/mL.	

DATA



Immunoprecipitation



Detection of Trypsin by Immunoprecipitation Human Trypsin 2/PRSS2 was immunoprecipitated from 500 µg of human pancreas lysates with 12.5 µg Mouse Anti-Human Trypsin 2/PRSS2 Monoclonal Antibody (Catalog # MAB3586). The Trypsin 2/PRSS2-antibody complexes were absorbed using Protein G Sepharose. Immunoprecipitated human Trypsin 2/PRSS2 was detected by Western blot using 2 µg/mL of Sheep Anti-Human Trypsin Pan Specific (PRSS1/2/3) Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3586) under non-reducing conditions and using Western Blot 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	<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

Trypsin is a general term for any of three 24 kDa gene products that belong to the peptidase S1 family of enzymes. Trypsin in Greek means "rubbing or friction", and it was chosen here because the first trypsins were extracted from pancreas via a glycerin-based rubbing maceration. Trypsin-1 (cationic), -2 (anionic), and -3 (mesotrypsin) are synthesized as 26 kDa trypsinogens (plus a 35 kDa trypsinogen-3 isoform) that are 247 amino acids (aa) in length. The first 15 aa constitute a signal sequence, followed by an enterokinase-cleavable eight aa propeptide, and a 224 aa mature molecule. Asp194 is linked to enzyme activity, and Tyr154 is sulfated. Over their mature regions, the three trypsins share 84% aa identity. Mouse trypsin-1 shares 74% aa identity with the human trypsin consensus sequence. Trypsin-1 and -2 cleave peptide bonds carboxylterminal to a Lys or Arg. Trypsin-3 has limited activity on trypsin inhibitors, and thus regulates general trypsin activity. Trypsin-1, -2, and -3 are expressed by multiple tissues, including pancreas (for general digestion), liver, lung and skin. In blood, trypsinogen-1 and -2 circulate at ng/mL concentrations. In pancreatic fluid, trypsin-1, -2, and -3 are found in a 58:40:2 ratio. This antibody did not neutralize the activity of rhTrypsin 1 and rhTrypsin 3 significantly.