

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Trypsin 3/PRSS3 in direct ELISAs and Western blots. Detects both pro and mature forms of Trypsin 3 in Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) Trypsin 1, 2, recombinant mouse Trypsin
Source	Monoclonal Rat IgG _{2A} Clone # 420012
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Trypsin 3/PRSS3 Val16-Ser247 Accession # NP_002762
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Human Trypsin 3, encoded by the PRSS3 gene, is also known as mesotrypsin (1). Constituting less than 10% of the total trypsin content in normal pancreatic juice, it is one of the three trypsin isoforms produced by the pancreas (2). Compared to Trypsin 1 and 2, one intriguing feature of Trypsin 3 is its resistance to polypeptide trypsin inhibitors, such as the Kunitz-type soybean trypsin inhibitor or the Kazal-type pancreatic secretory trypsin inhibitor. As revealed by the crystal structure, this resistance is likely due to the presence of an arginine residue in place of the highly conserved Gly198 (3). Trypsin 3 is synthesized in the pancreas and secreted into the duodenum lumen, where it is activated by enterokinase. One physiologic function of Trypsin 3 has been proposed to be degradation of trypsin inhibitors, which facilitates the digestion of those foods rich in these proteins (4). The amino acid sequence of human Trypsin 3 shares 76%, 74%, 72% and 67% identity with that of rat, mouse, dog and chicken, respectively.

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