

Anti-Mast Cell Tryptase Picoband Antibody

Catalog # ABO11634

Product Information

Application	WB, IHC-P, E
Primary Accession	Q15661
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Tryptase alpha/beta-1(TPSAB1) detection. Tested with WB, IHC-P, ELISA in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	7177
Other Names	Tryptase alpha/beta-1, Tryptase-1, 3.4.21.59, Tryptase I, Tryptase alpha-1, TPSAB1, TPS1, TPS2, TPSB1
Calculated MW	30515
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Human, By Heat ELISA , 0.1-0.5 μ g/ml, Human, - Western blot, 0.1-0.5 μ g/ml, Human
Subcellular Localization	Secreted. Released from the secretory granules upon mast cell activation. .
Tissue Specificity	Isoform 1 and isoform 2 are expressed in lung, stomach, spleen, heart and skin; in these tissues, isoform 1 is predominant. Isoform 2 is expressed in aorta, spleen, and breast tumor, with highest levels in the endothelial cells of some blood vessels surrounding the aorta, as well as those surrounding the tumor and low levels, if any, in mast cells (at protein level). .
Source	Eukaryota
Protein Name	Tryptase alpha/beta-1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	E. coli-derived human Mast Cell Tryptase recombinant protein (Position: H65-P275). Human Mast Cell Tryptase shares 77% and 76.1% amino acid (aa) sequence identity with mouse and rat Mast Cell Tryptase, respectively.

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Protein Information

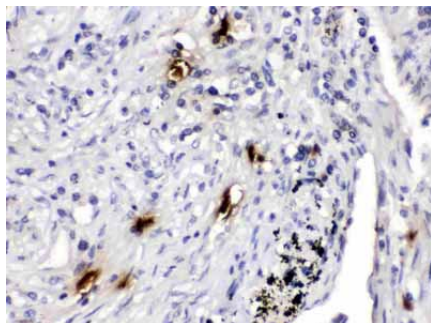
Name	TPSAB1
Synonyms	TPS1, TPS2, TPSB1
Function	Tryptase is the major neutral protease present in mast cells and is secreted upon the coupled activation-degranulation response of this cell type. May play a role in innate immunity. Isoform 2 cleaves large substrates, such as fibronectin, more efficiently than isoform 1, but seems less efficient toward small substrates (PubMed: 18854315).
Cellular Location	Secreted. Note=Released from the secretory granules upon mast cell activation.
Tissue Location	Isoform 1 and isoform 2 are expressed in lung, stomach, spleen, heart and skin; in these tissues, isoform 1 is predominant. Isoform 2 is expressed in aorta, spleen, and breast tumor, with highest levels in the endothelial cells of some blood vessels surrounding the aorta, as well as those surrounding the tumor and low levels, if any, in mast cells (at protein level)

Background

Tryptase alpha-1 and tryptase beta-1 are enzymes that in humans are encoded by the same TPSAB1 gene. Tryptases comprise a family of trypsin-like serine proteases, the peptidase family S1. Tryptases are enzymatically active only as heparin-stabilized tetramers, and they are resistant to all known endogenous proteinase inhibitors. Several tryptase genes are clustered on chromosome 16p13.3. These genes are characterized by several distinct features. They have a highly conserved 3' UTR and contain tandem repeat sequences at the 5' flank and 3' UTR which are thought to play a role in regulation of the mRNA stability. In addition, these genes have an intron immediately upstream of the initiator Met codon, which separates the site of transcription initiation from protein coding sequence. This feature is characteristic of tryptases but is unusual in other genes. The alleles of this gene exhibit an unusual amount of sequence variation, such that the alleles were once thought to represent two separate genes, alpha and beta 1. Beta tryptases appear to be the main isoenzymes expressed in mast cells; whereas in basophils, alpha tryptases predominate. Tryptases have been implicated as mediators in the pathogenesis of asthma and other allergic and inflammatory disorders.

Images

Western blot analysis of Mast Cell Tryptase expression in 293T whole cell lysates (lane 1). Mast Cell Tryptase at 30KD was detected using rabbit anti- Mast Cell Tryptase Antigen Affinity purified polyclonal antibody (Catalog # ABO11634) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method .



Mast Cell Tryptase was detected in paraffin-embedded sections of human lung cancer tissues using rabbit anti-Mast Cell Tryptase Antigen Affinity purified polyclonal antibody (Catalog # ABO11634) at 1 μ g/mL. The immunohistochemical section was developed using SABC method .

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.