

Anti-Mast Cell Tryptase Picoband Antibody Catalog # ABO11634

Specification

Anti-Mast Cell Tryptase Picoband Antibody - Product Information

Application	WB, IHC
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.

Anti-Mast Cell Tryptase Picoband Antibody - 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 MW KDa

Application Details

Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat

 ELISA
, 0.1-0.5 µg/ml, Human,
 Western blot, 0.1-0.5 µg/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). .

Protein Name

Tryptase alpha/beta-1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

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.

Anti-Mast Cell Tryptase Picoband Antibody - 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](http://www.uniprot.org/citations/18854315)).

Cellular Location

Secreted. Note=Released from the secretory granules upon mast cell activation.

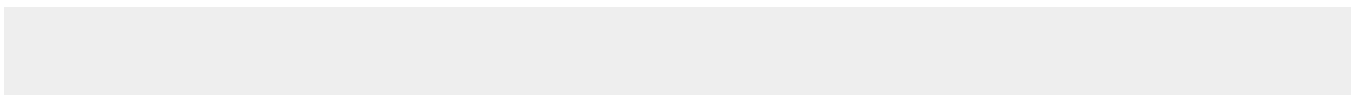
Tissue Location

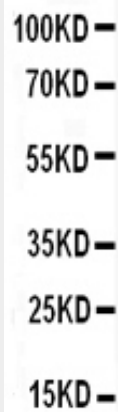
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Anti-Mast Cell Tryptase Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

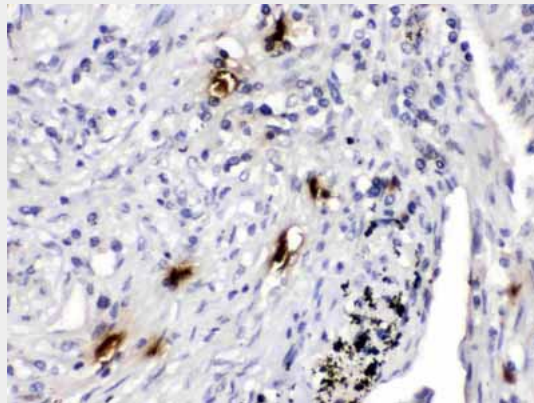
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Mast Cell Tryptase Picoband Antibody - Images



100KD -
70KD -
55KD -
35KD -
25KD -
15KD -

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 µg/mL. The immunohistochemical section was developed using SABC method .

Anti-Mast Cell Tryptase Picoband Antibody - 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.