

Datasheet for ABIN4886754
anti-TPSAB1 antibody (AA 65-275)



[Go to Product page](#)

2 Images

Overview

Quantity:	100 µg
Target:	TPSAB1
Binding Specificity:	AA 65-275
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This TPSAB1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA

Product Details

Purpose:	Anti-Mast Cell Tryptase/TPSAB1 Antibody Picoband®
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.
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins
Characteristics:	Anti-Mast Cell Tryptase/TPSAB1 Antibody Picoband® (ABIN4886754). Tested in ELISA, IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.

Product Details

Purification: Immunogen affinity purified.

Target Details

Target: TPSAB1

Alternative Name: TPSAB1 ([TPSAB1 Products](#))

Background: Synonyms: Tryptase alpha/beta-1, Tryptase-1, 3.4.21.59, Tryptase I, Tryptase alpha-1, TPSAB1, TPS1, TPS2, TPSB1,

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).

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.

Sequence Similarities: Belongs to the transient receptor (TC 1.A.4) family. STrpC subfamily. TRPC4 sub-subfamily.

Molecular Weight: 30 kDa

Gene ID: 7177

UniProt: [Q15661](#)

Application Details

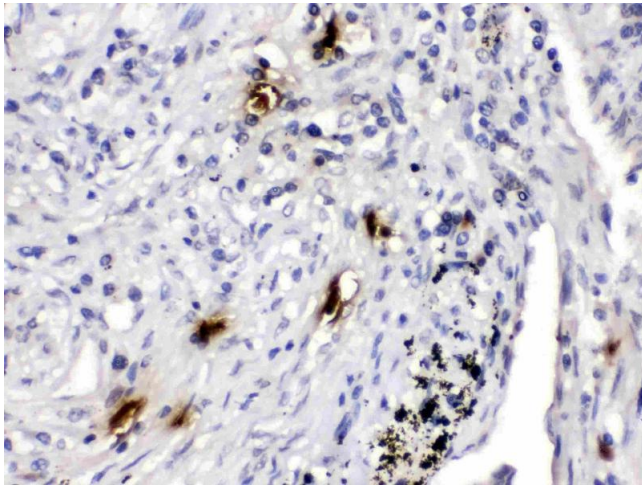
Application Notes:	Western blot, 0.1-0.5 µg/mL, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/mL, Human ELISA(Cap) , 1-5 µg/mL, Human, - 1. "Entrez Gene: TPSAB1 tryptase alpha/beta 1". 2. Miller JS, Moxley G, Schwartz LB (Oct 1990). "Cloning and characterization of a second complementary DNA for human tryptase". J Clin Invest 86 (3): 864-70. 3. Pallaoro M, Fejzo MS, Shayesteh L, Blount JL, Caughey GH (Feb 1999). "Characterization of genes encoding known and novel human mast cell tryptases on chromosome 16p13.3". J Biol Chem 274 (6): 3355-62.
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Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).
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Restrictions:	For Research Use only
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Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	4 °C,-20 °C
Storage Comment:	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.



Immunohistochemistry

Image 1. 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 #) at 1 µg/mL. The immunohistochemical section was developed using SABC method (Catalog # SA1022).



Western Blotting

Image 2. 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 #) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method (Catalog # EK1002).