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TPSAB1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5440c

Product Information

Application	FC, WB, E
Primary Accession	Q15661
Other Accession	NP_003285
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19907
Calculated MW	30515
Antigen Region	61-87

Additional Information

Gene ID	7177
Other Names	Tryptase alpha/beta-1, Tryptase-1, Tryptase I, Tryptase alpha-1, TPSAB1, TPS1, TPS2, TPSB1
Target/Specificity	This TPSAB1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 61-87 amino acids from the Central region of human TPSAB1.
Dilution	FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	TPSAB1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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)

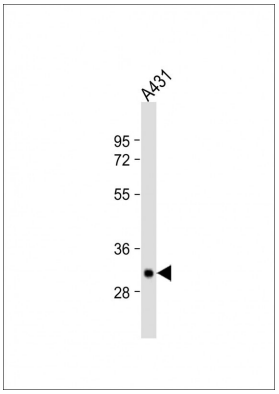
Background

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. 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.

References

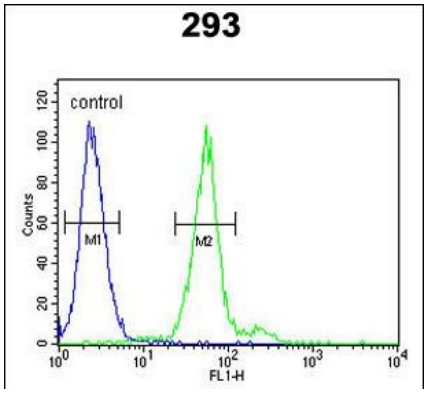
Trivedi, N.N., et al. J. Allergy Clin. Immunol. 124(5):1099-1105(2009)
Radhakrishnan, Y., et al. Biol. Reprod. 81(4):647-656(2009)
Schiemann, F., et al. J. Immunol. 183(4):2223-2231(2009)

Images



Anti-TPSAB1 Antibody (Center) at 1:1000 dilution + A431 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 31 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

TPSAB1 Antibody (Center) (Cat. #AP5440c) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



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