

Rabbit TPSAB1 Polyclonal Antibody | anti-TPSAB1 antibody

TPSAB1 Antibody

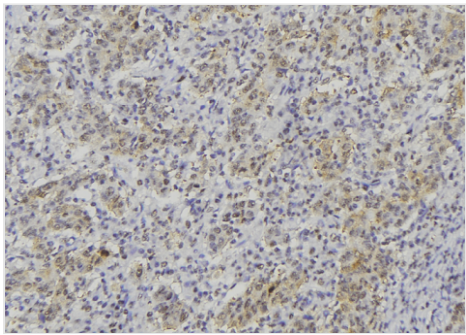
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326521	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

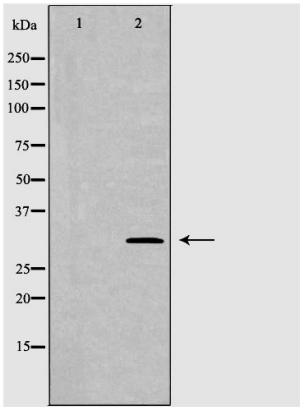
TPSAB1; Polyclonal Antibody; TPSAB1 Antibody; alpha II; Lung tryptase; Mast cell alpha II tryptase; Mast cell beta I tryptase; Mast cell protease 7; Mast cell protease II; MCP 7; Pituitary tryptase; Skin tryptase; TPS 1; TPS1; TPS2; TPSAB1 protein; TPSB1; Tryptase 1; Tryptase alpha 1; tryptase alpha I included; Tryptase alpha II; tryptase alpha II included; tryptase alpha included; tryptase alpha/beta 1; Tryptase beta 1; tryptase beta I included; Tryptase I; tryptase I included; Tryptase III; Tryptase skin; anti-TPSAB1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	TPSAB1 antibody detects endogenous levels of total TPSAB1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	275
Applicable Applications for anti-TPSAB1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human TPSAB1
Subcellular Location	Secreted. Note: 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).
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA326521 at 1/100 staining Human lung cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of Mouse lung lysate, using TPSAB1 Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-TPSAB1 antibody

Description: 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.

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).

Subunit Structure: Homotetramer. The active tetramer is converted to inactive monomers at neutral and acidic pH in the absence of heparin. Low concentrations of inactive monomers become active monomers at pH 6.0 in the presence of heparin. When the concentration of active monomers is higher, they convert to active monomers and then to active tetramers. These monomers are active and functionally distinct from the tetrameric enzyme. In contrast to the hidden active sites in the tetrameric form, the active site of the monomeric form is accessible for macromolecular proteins and inhibitors eg: fibrinogen which is a substrate for the monomeric but not for the tetrameric form. The monomeric form forms a complex with SERPINB6.

Similarity: Belongs to the peptidase S1 family. Tryptase subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	13775595
NCBI GeneID	7177
NCBI Accession #	NP_003285.2
NCBI GenBank Nucleotide #	NM_003294.3
UniProt Accession #	Q15661; P15157; Q15663; Q6B052; Q9H2Y4; Q9H2Y5; Q9UQI1; D2E6R9; D2E6S1
Molecular Weight	Observed: 31 kDa Predicted: 31 kDa
NCBI Official Full Name	tryptase alpha/beta-1
NCBI Official Synonym Full Names	tryptase alpha/beta 1

NCBI Official Symbol	TPSAB1
NCBI Official Synonym Symbols	TPS1; TPS2; TPSB1; TPSB2; Tryptase-2
NCBI Protein Information	tryptase alpha/beta-1
UniProt Protein Name	Tryptase alpha/beta-1
UniProt Gene Name	TPSAB1
UniProt Synonym Gene Names	TPS1; TPS2; TPSB1; Tryptase-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/tpsab1-antibody-immunohistochemistry-western-blot-elisa/326521>