



# Recombinant Protein Technical Manual

## Recombinant Human TPSAB1 Protein (His Tag)

RPES1447

### Product Data:

**Product SKU:** RPES1447

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** Q15661

### Protein Information:

**Molecular Mass:** 28.8 kDa

**AP Molecular Mass:** 32-35 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 90 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** tryptase alpha/beta 1;Tryptase 1;TPS1; TPS2; TPSAB1; TPSB1

## Immunogen Information:

**Sequence:** Ile31-Pro275

## Background:

Tryptases are serine proteases with trypsin-like specificity. Together with chymases and Cathepsin G, tryptases are important players in mast cell mediation of inflammatory and allergic responses. Tryptase alpha/beta (TPSAB1), also known as mast cell protease 7 (MCPT7), it exhibits anticoagulant activity due to its ability to degrade fibrinogen in the presence of a diverse array of protease inhibitors in plasma. The two 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. Isoform 2 cleaves large substrates, such as fibronectin, more efficiently than isoform 1, but seems less efficient toward small substrates. It may play a role in innate immunity.