

## Recombinant Human TPSAB1 Protein (His Tag)

**Catalog Number:** PKSH033152

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

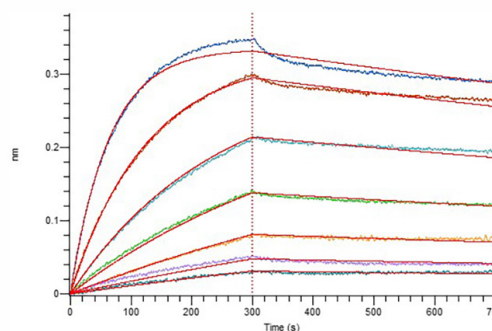
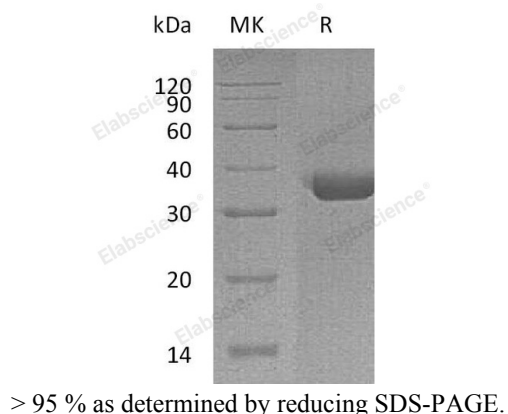
### Description

<b>Species</b>	Human
<b>Source</b>	HEK293 Cells-derived Human TPSAB1 protein Ile31-Pro275, with an C-terminal His
<b>Calculated MW</b>	28.8 kDa
<b>Observed MW</b>	32-38 kDa
<b>Accession</b>	Q86TM8
<b>Bio-activity</b>	Loaded Anti-Human Trypsin mAb-Fc on Protein A Biosensor, can bind Human TPSAB1-His with an affinity constant of 0.92 nM as determined in BLI assay.

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, 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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 1M NaCl, 0.05mM Heparin, 50mM sodium acetate, 0.01% sodium azide, pH 5.0. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



Loaded Anti-Human Trypsin mAb-Fc on Protein A Biosensor, can bind Human TPSAB1-His with an affinity constant of 0.92 nM as determined in BLI assay.

### Background

### For Research Use Only

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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-1 (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.