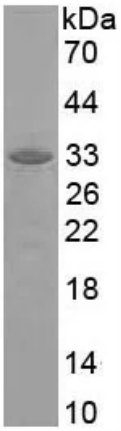
Active Tryptase (TPS)

Catalog#:PEH12595

概述（Summary）

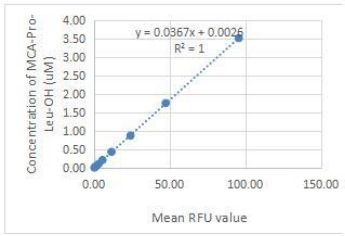
别称（Alternative Names）	TPSAB1; Tryptase Alpha/Beta 1; Tryptase Alpha II; Tryptase Beta I; Tryptase-I; Tryptase-II; Tryptase-III
纯度（Purity）	Greater than 90% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Ile31-Pro275】
Accession #	Q15661
表达宿主（Host）	E.coli
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	30.7 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	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.

电泳图（SDS-PAGE image）



Greater than 90% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）



RFU (320/405)	MCA-Pro-Leu-OH (product) uM
95.78	3.52
47.46	1.76
24.20	0.88
11.63	0.44
5.71	0.22
3.05	0.11
1.52	0.05
0.77	0.03

Figure 1. The standard curve of MCA-Pro-Leu-OH

Specific Activity (pmol/min/µg) =

$$\frac{\text{Adjusted Vmax * (RFU/min) x Conversion Factor ** (pmol/RFU)}}{\text{amount of enzyme (ug)}}$$

*Adjusted for Substrate Blank

**Derived using calibration standard MCA-Pro-Leu-OH

Tryptase is a serine protease with trypsin-like activity, which is sometimes also referred to as Mast Cell Protease 7. It is stored in the secretory granules of mouse mast cells. It exhibits anticoagulant activity due to its ability to degrade fibrinogen in the presence of the diverse array of protease inhibitors in plasma. The activity of recombinant human TPS is measured by its ability to cleave a fluorogenic peptide substrate Mca-Arg-Pro-Lys-Pro-Val-Glu-Nval-Trp-Arg-Lys(Dnp)-NH2 in the assay buffer 50 mM Tris, pH 8.5. The rhTPS is diluted to 200 ug/ml in 50 mM Tris, 150 mM NaCl, 10 mM CaCl2, 0.05% (w/v) Brij-35, pH 7.5, then activated with 0.1 ug/ml Thermolysin at 37 ℃ for 15min followed by adding 10 mM 1, 10 phenanthroline to stop activation. The activated rhTPS is diluted to 50 ug/mL in heparin incubation buffer of 100 µg/mL heparin, 50 mM MES, pH 5.5 and incubated at room temperature for 2 hours. Then the rhTPS was diluted to 12.5 ug/ml in assay buffer and load into a black well plate 50 µL and start the reaction by adding 50 µL of 20 µM substrate, with a substrate blank containing 50 µL assay buffer, 50 µL substrate, and no rhTPS. Then read at excitiation and emission wavelengths of 320 nm and 405 nm, respectively, in kinetic mode for 5 minutes. The specific activity of recombinant human TPS is > 25 pmol/min/µg.

注意事项（Note）

For Research Use Only , Not for Diagnostic Use.