

## Tryptase (TPS) Active Protein | TPS active protein

Active Tryptase (TPS)

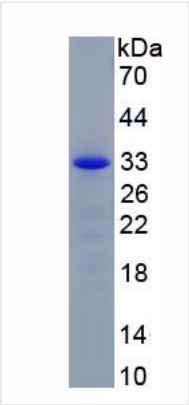
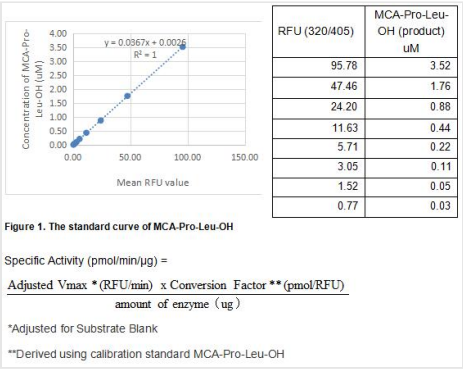
|                               |                       |                                                     |
|-------------------------------|-----------------------|-----------------------------------------------------|
| CATALOG #<br><b>AAA161828</b> | HOST<br><b>E Coli</b> | APPLICATIONS<br><b>Activity Assay, Cell Culture</b> |
|-------------------------------|-----------------------|-----------------------------------------------------|

### PRODUCT SYNONYMS

Tryptase (TPS); Active Tryptase (TPS); Tryptase; TPSAB1; Tryptase Alpha/Beta 1; Tryptase Alpha II; Tryptase Beta I; Tryptase-I; Tryptase-II; Tryptase-III4; TPS active protein

### PRODUCT SPECIFICATIONS

|                                                |                                                                                              |
|------------------------------------------------|----------------------------------------------------------------------------------------------|
| Host                                           | E Coli                                                                                       |
| Purity/Purification                            | Greater than 90% by SDS-PAGE                                                                 |
| Form/Format                                    | Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300. |
| Sequence                                       | Ile31~Pro2 75                                                                                |
| Applicable Applications for TPS active protein | Activity Assay, Cell Culture                                                                 |
| Species                                        | Human                                                                                        |
| Expression System                              | Prokaryotic expression                                                                       |
| Tag                                            | N-terminal His Tag                                                                           |
| Endotoxin Level                                | <1.0EU per 1ug (determined by the LAL method)                                                |
| Isoelectric Point                              | 6.8                                                                                          |
| Research Area                                  | Enzyme & Kinase, Infection immunity, Rheumatology                                            |
| Preparation and Storage                        | Store at 2-8 degree C for one month, -80 degree C for 12 months                              |



**SDS-PAGE**  
Figure. SDS-PAGE

**Bioactivity**

Trypsase 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 degree C 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 ug/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 uL and start the reaction by adding 50 uL of 20 uM substrate, with a substrate blank containing 50 uL assay buffer, 50 uL substrate, and no rhTPS. Then read at excitation 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/ug.

ADDITIONAL INFORMATION

|                                                  |                 |
|--------------------------------------------------|-----------------|
| Product Categories/Family for TPS active protein | Active proteins |
|--------------------------------------------------|-----------------|

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                                                                                                                                         |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 1182067                                                                                                                                                                                                                 |
| NCBI GeneID                      | 7177                                                                                                                                                                                                                    |
| UniProt Accession #              | Q15661; P15157; Q15663; Q6B052; Q9H2Y4; Q9H2Y5; Q9UQI1; D2E6R9; D2E6S1                                                                                                                                                  |
| Molecular Weight                 | 30,515 Da                                                                                                                                                                                                               |
| NCBI Official Full Name          | tryptase                                                                                                                                                                                                                |
| NCBI Official Synonym Full Names | tryptase alpha/beta 1                                                                                                                                                                                                   |
| NCBI Official Symbol             | TPSAB1                                                                                                                                                                                                                  |
| NCBI Official Synonym Symbols    | TPS1; TPS2; TPSB1                                                                                                                                                                                                       |
| NCBI Protein Information         | tryptase alpha/beta-1; tryptase I; tryptase-1; tryptase-I; tryptase-III; tryptase beta 1; tryptase beta I; tryptase beta-1; tryptase alpha-1; tryptase alpha II; mast cell beta I tryptase; mast cell alpha II tryptase |
| UniProt Protein Name             | Tryptase alpha/beta-1                                                                                                                                                                                                   |
| UniProt Gene Name                | TPSAB1                                                                                                                                                                                                                  |
| UniProt Synonym Gene Names       | TPS1; TPS2; TPSB1; Tryptase-1                                                                                                                                                                                           |
| UniProt Entry Name               | TRYB1_HUMAN                                                                                                                                                                                                             |

**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.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)  
Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/tryptase-tps/161828>