

# Recombinant human Trypsin 3/PRSS3 protein

Catalog Number: ATGP4130

## PRODUCT INFORMATION

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### Expression system

HEK293

### Domain

16-247aa

### UniProt No.

P35030

### NCBI Accession No.

NP\_002762.2

### Alternative Names

Trypsin-3 isoform 2, Trypsin-3, PRSS3, MTG, PRSS4, T9, TRY3, TRY4, Brain trypsinogen, Mesotrypsin, Mesotrypsinogen, Serine protease 3, Serine protease 4

## PRODUCT SPECIFICATION

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### Molecular Weight

26kDa (238aa)

### Concentration

1mg/ml (determined by Absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Specific activity is > 10,000pmol/min/ug, and is defined as the amount of enzyme that cleaves 1pmol of Mca-RPKPVE-Nval-WRK(Dnp)-NH<sub>2</sub> per minute at pH 8.0 at 37°C.

### Tag

His-Tag

### Application

SDS-PAGE, Enzyme Activity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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## BACKGROUND

### Description

PRSS3, also known as trypsin-3, is a member of the trypsin family of serine proteases. It is specialized for the degradation of trypsin inhibitors and may be involved in defensin processing, including DEFA5. This protein is expressed in the brain and pancreas and is resistant to common trypsin inhibitors. It is active on peptide linkages involving the carboxyl group of lysine or arginine. Compared to PRSS1 and 2, one intriguing feature of PRSS3 is its resistance to polypeptide trypsin inhibitors, such as the Kunitz-type soybean trypsin inhibitor or the Kazal-type pancreatic secretory trypsin inhibitor. It has been proposed to be degradation of trypsin inhibitors, which facilitates the digestion of those foods rich in these proteins. Recombinant human Trypsin 3/PRSS3, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

### Amino acid Sequence

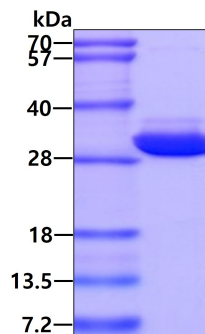
VPFDDDDKIV GGYTCEENSL PYQVSLNSGS HFCGGSLISE QWVVSAAHCY KTRIQVRLGE HNIKVLEGNE QFINAAKIIR  
HPKYNRDTLD NDIMLIKLS PAVINARVST ISLPTAPPAA GTECLISGWG NTLISFGADYP DELKCLDAPV LTQAECKASY  
PGKITNSMFC VGFLEGGKDS CQRDSGGPVV CNGQLQGVVS WGHGCAWKNR PGVYTKVYNY VDWIKDTIAA  
NS<HHHHHH>

### General References

Jiang G., et al. (2010) Gut 59:1535-1544.  
Rosendahl J., et al. (2010) Pancreatology 10:243-249.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain