

# Recombinant Human Protease, Serine, 2 (Trypsin 2) , His-tagged

**Cat. No.** PRSS2-316H    **Lot. No.** (See product label)

## SPECIFICATION

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>     | Recombinant Human PRSS2 encoding the human PRSS2 (NP_002761.1) precursor (Met 1- Ser 247) with a carboxy-terminal his tag was expressed in HEK293.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Species</b>              | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Source</b>               | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Protein Length</b>       | 1-247 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Description</b>          | Trypsin 2, also known as PRSS2, belongs to the trypsin serine protease family including Trypsin, PRSS1, PRSS2 and PRSS3. It consists of a signal peptide (residues 1-15), a pro region (residues 16-23), and a proteolytically active mature chain (residues 24-247). PRSS2 is secreted into the duodenum, hydrolysing peptides into their smaller building blocks, which is necessary for the uptake of protein in the food.. It is secreted by the pancreas in the form of inactive zymogen, trypsinogen and cleaved to its active form in the small intestine when the pancreas is stimulated by cholecystokinin through the common activation mechanism. |
| <b>Molecular Mass</b>       | The secreted recombinant human PRSS2 pro form consists of 243 amino acids with the predicted molecular mass of 26.4 kDa. As a result of glycosylation, rhPRSS2 migrates as an approximately 30 kDa band in SDS-PAGE under reducing conditions.                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Predicted N Terminal</b> | Ala 16.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Endotoxin</b>      | < 1.0 EU per 1g cytokine as determined by the LAL method.                                                                                                       |
| <b>Formulation</b>    | Supplied as a 0.2m filtered solution of PBS, pH7.4.                                                                                                             |
| <b>Reconstitution</b> | Follow the instructions on the vial. Centrifuge the vial at 4°C before opening to recover the entire contents.                                                  |
| <b>Purity</b>         | > 90%, as determined by SDS-PAGE.                                                                                                                               |
| <b>Stability</b>      | Samples are stable for up to twelve months from date of receipt -70°C                                                                                           |
| <b>Storage</b>        | Store it under sterile conditions at -70°C. It is recommended that the protein be aliquoted and be used as soon as possible. Avoid repeated freeze-thaw cycles. |

## GENE INFORMATION

|                       |                                                                                                                                                                                                                                                                                 |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>      | PRSS2 protease, serine, 2 (trypsin 2) [ Homo sapiens ]                                                                                                                                                                                                                          |
| <b>Synonyms</b>       | PRSS2; protease, serine, 2 (trypsin 2); TRY2; TRY8; TRYP2; MGC111183; MGC120174; trypsin 2; trypsin II; trypsinogen 2; anionic trypsinogen; protease serine 2 preproprotein; protease, serine, 2, preproprotein; EC 3.4.21.4; Trypsin-2; Serine protease 2; protease, serine, 2 |
| <b>Gene ID</b>        | 5645                                                                                                                                                                                                                                                                            |
| <b>mRNA Refseq</b>    | NM_002770                                                                                                                                                                                                                                                                       |
| <b>Protein Refseq</b> | NP_002761                                                                                                                                                                                                                                                                       |
| <b>MIM</b>            | 601564                                                                                                                                                                                                                                                                          |

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|---------------------|----------------------------------------------------------------------------------------------|
| UniProt ID          | P07478                                                                                       |
| Chromosome Location | 7q34                                                                                         |
| Pathway             | Neuroactive ligand-receptor interaction                                                      |
| Function            | calcium ion binding; peptidase activity; protein binding; serine-type endopeptidase activity |

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