Recombinant Protein Technical Manual

Recombinant Human Trypsin-3/PRSS3 Protein (His Tag)(Active)

RPES4916

Product Data:

Product SKU: RPES4916

Size: 10µg

Species: Human

Expression host: HEK293 Cells

Uniprot: P35030-3

Protein Information:

Molecular Mass: 26.6 kDa

AP Molecular Mass: 33 kDa

Tag: C-His

Bio-activity: Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH2 (AnaSpec, Catalog#27114). The specific activity is >4,000 pmoles/min/µg. (Activation description: The proenzyme needs to be activated by enteropeptidase for an activated form)

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: 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.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile 50mM MES, 0.6M NaCl, pH 5.0

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: MTG;PRSS4;RP1176F3.3;T9;TRY3;TRY4

Immunogen Information:

Sequence: Met 1-Ser 247

Background:

Trypsin-3, also known as Trypsin III, brain trypsinogen, Serine protease 3 and PRSS3, is a secreted protein which belongs to the peptidase S1 family. Trypsin-3 / PRSS3 is expressed is in pancreas and brain. It contains one peptidase S1 domain. Trypsin-3 / PRSS3 can degrade intrapancreatic trypsin inhibitors that protect against CP. Genetic variants that cause higher mesotrypsin activity might increase the risk for chronic pancreatitis (CP). A sustained imbalance of pancreatic proteases and their inhibitors seems to be important for the development of CP. The trypsin inhibitor-degrading activity qualified PRSS3 as a candidate for a novel CP susceptibility gene. Trypsin-3 / PRSS3 has been implicated as a putative tumor suppressor gene due to its loss of expression, which is correlated with promoter hypermethylation, in esophageal squamous cell carcinoma and gastric adenocarcinoma.