Human Trypsin-3 / PRSS3 Protein (His Tag)

Catalog Number: **11866-H08H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

MTG; PRSS4; RP11-176F3.3; T9; TRY3; TRY4

Protein Construction:

A DNA sequence encoding the human PRSS3 isoform c (P35030-3) (Met 1-Ser 247) was expressed, with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

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)

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Val 16

Molecular Mass:

The secreted recombinant pro form of the human PRSS3 consists of 243 amino acids and predictes a molecular mass of 26.6 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rhPRSS3 is approximately 33 kDa due to glycosylation.

Formulation:

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

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

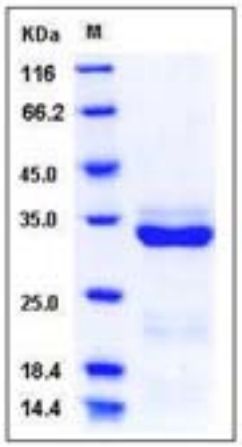
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Trypsin-3, also known as Trypsin III, brain trypsinogen, Serine protease 3 and PRSS3, is a secreted protein which belongs to thepeptidase S1 family. Trypsin-3 / PRSS3 is expressed is in pancreas and brain. It contains onepeptidase 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.

References

1.Venter JC. et al., 2001, Science 291:1304-51. 2.Marsit,CJ. et al., 2005, Mol Carcinog 44 (2):146-50. 3.Rowen, L. et al., 2005, Mol Biol Evol. 22 (8):1712-20.