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

Catalog Number: PKSH030980

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

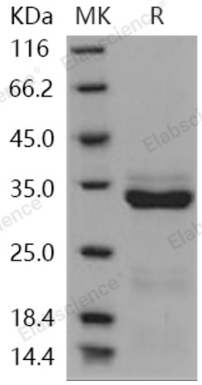
Description

Species	Human
Source	HEK293 Cells-derived Human Trypsin-3/PRSS3 protein Met 1-Ser 247, with an C-terminal His
Calculated MW	26.6 kDa
Observed MW	33 kDa
Accession	P35030-3
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)

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

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.

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