

## SPINK1 Protein, Human, Recombinant (His)

### General Information

Synonyms:	PSTI;Pancreatic Secretory Trypsin Inhibitor;TATI;Serine Protease Inhibitor Kazal-Type 1; Tumor-Associated Trypsin Inhibitor;SPINK1
Protein Construction:	Asp24-Cys79
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P00995
Molecular Weight:	12-16 KDa (reducing condition)
AA Sequence:	Asp24-Cys79

### QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. Greater than 95% as determined by SEC-HPLC.
Endotoxin:	< 0.1 ng/ $\mu$ g (1 EU/ $\mu$ g) as determined by LAL test.
Formulation:	Supplied as a 0.2 $\mu$ m filtered solution of 20 mM Tris-HCl, 500 mM NaCl, 5% Trehalose, 5% Mannitol, 0.02% Tween 80, pH 9.0.

### Preparation and Storage

#### Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

Proteins are shipped with blue ice.

### Protein Background

Serine Protease Inhibitor Kazal-Type 1 (SPINK1) is a trypsin inhibitor that prevent the trypsin-catalyzed premature activation of zymogens within the pancreas. Defects in SPINK1 are a cause of pancreatitis (PCTT). A disease characterized by the presence of calculi in pancreatic ducts. It causes severe abdominal pain attacks. Defects in SPINK1 are the cause of susceptibility to tropical calcific pancreatitis (TCP). Recombinant SPINK1 protein (rSPINK1) stimulated cell proliferation in benign RWPE as well as cancerous prostate cells. The research result indicated that the potential of SPINK1 as an extracellular therapeutic target in prostate cancer. In contrast, knockdown of SPINK1 in 22RV1 cells inhibited cell proliferation, cell invasion, and tumor growth in xenograft assays.

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