## Recombinant Human SPINK1 Protein (His Tag)

## Catalog Number: PKSH033046

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

| Description   |   |
|---------------|---|
| Species       | Human   |
| Source        | HEK293 Cells-derived Human SPINK1 protein Asp24-Cys79, with an C-terminal His             |
| Calculated MW | 7.3 kDa   |
| Observed MW   | 12-16 kDa   |
| Accession     | P00995  |
| Bio-activity  | Not validated for activity  |
| Properties    |   |
| Purity        | > 95 % as determined by reducing SDS-PAGE.  |
| Concentration | Subject to label value.   |
| Endotoxin     | < 1.0 EU per µg of the protein as determined by the LAL method.                           |
| Storage       | Store at $< -20^{\circ}$ C, stable for 6 months. Please minimize freeze-thaw cycles.      |
| Shipping      | This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel |
|               | packs. Upon receipt, store it immediately at $< -20^{\circ}$ C.                           |
| Formulation   | Supplied as a 0.2 µm filtered solution of 20mM Tris-HCl, 500mM NaCl, 5% Trehalose,        |
|               | 5% Mannitol, 0.02% Tween 80, pH 9.0.  |
| Data          |   |

> 95 % as determined by reducing SDS-PAGE.

## 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.