

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SPINK1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human SPINK1 Asp24-Cys79 Accession # P00995
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

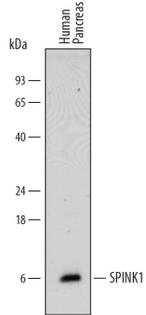
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.5 µg/mL	See Below
Simple Western	5 µg/mL	See Below

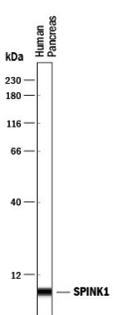
DATA

Western Blot



Detection of Human SPINK1 by Western Blot. Western blot shows lysates of human pancreas tissue. PVDF membrane was probed with 0.5 µg/mL of Sheep Anti-Human SPINK1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7496) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for SPINK1 at approximately 6 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

Simple Western



Detection of Human SPINK1 by Simple Western™. Simple Western lane view shows lysates of human pancreas tissue, loaded at 0.2 mg/mL. A specific band was detected for SPINK1 at approximately 5 kDa (as indicated) using 5 µg/mL of Sheep Anti-Human SPINK1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7496) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

SPINK1 (Serine Protease Inhibitor Kazal-type 1; also TATI and PST1) is a 6-7 kDa secreted polypeptide initially identified as a tumor-derived trypsin inhibitor. It is widely expressed, and found in cells diverse as pancreatic acinar cells, columnar cells of the stomach, renal collecting duct epithelium, and ureteric transitional plus breast epithelium. SPINK1 is known to be secreted with pancreatic zymogens, and apparently inactivates prematurely-activated trypsin, thus protecting the pancreas from trypsin-mediated enzyme activation. It also is reported to regulate cell migration and proliferation, the latter effect attributed to its structural resemblance to EGF, and its ability to bind to activate the EGFR. Mature human SPINK1 is 56 amino acids (aa) in length (aa 24-79). It contains one Kazal-like domain (aa 26-79) that possesses a potential proteolytic cleavage site between Lys41-Ile42. An 11-12 kDa form in SDS-PAGE has been reported for SPINK1, possibly reflecting dimerization. Mature human SPINK1 shares 66% aa sequence identity with mouse Spink3, the mouse equivalent to human SPINK1.