

**DESCRIPTION**

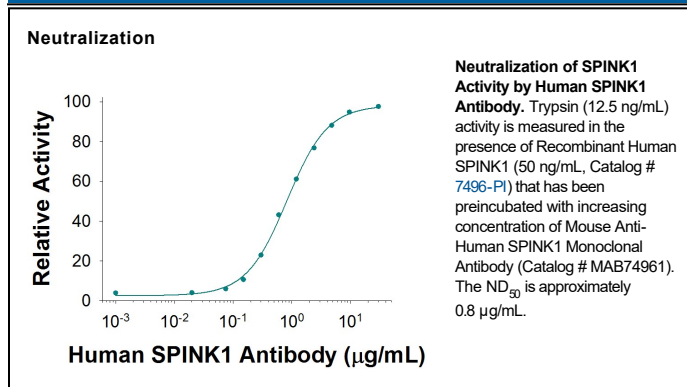
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human SPINK1 in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 839304
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human SPINK1 Asp24-Cys79 Accession # P00995
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or 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.

<b>Neutralization</b>	Measured by its ability to neutralize Recombinant Human SPINK1 (50 ng/mL, Catalog # 7496-PI) inhibition of Trypsin (12.5 ng/mL) cleavage of the fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH <sub>2</sub> (Catalog # ES002). The Neutralization Dose (ND <sub>50</sub> ) is typically 0.8 µg/mL.
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**DATA**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**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.