



Human SPINK1 Polyclonal Antibody

Antigen Affinity-Purified Anti-Human SPINK1 Rabbit Antibody
Catalog Number: GR126173

Background

Pancreatic secretory trypsin inhibitor (PSTI) also known as serine protease inhibitor Kazal-type 1 (SPINK1) or tumor-associated trypsin inhibitor (TATI) is a protein that is encoded by the SPINK1 gene.^[1] Mutations in SPINK1 has been associated with hereditary pancreatitis and tropical pancreatitis. Trypsinogen is normally created and stored an inactive zymogen of trypsin in the pancreas, but occasionally will autoactivate itself. PSTI serves to cleave prematurely activated trypsin to prevent the enzyme from causing cellular damage to the organ. Without the function of PSTI, the pancreas is subject to repeated episodes of damage.^[2] It has also been associated with prostate cancer.^[3] SPINK1 is secreted from pancreatic acinar cells into pancreatic juice. It is thought to function in the prevention of trypsin-catalyzed premature activation of zymogens within the pancreas and the pancreatic duct. Mutations in SPINK1 gene are associated with hereditary pancreatitis and tropical calcific pancreatitis.^[4] SPINK1 contributes to proliferation and clonal formation of HT29 cells through Beclin1 associated enhanced autophagy.^[5] High expression of serine protease inhibitor kazal type 1 predicts poor prognosis and promotes the progression and invasion of oral tongue squamous cell carcinoma.^[6]

References

1. Yamamoto T, et al. (1985). *Biochemical and Biophysical Research Communications*. 132 (2): 605–12.
2. Marchbank T, et al. (1998). *Digestion*. 59 (3): 167–74.
3. Pfützner RH, Whitcomb DC (2002). *Pancreatology*. 1 (5): 457–60.
4. Witt H, et al. (2000). *Nature Genetics*. 25 (2): 213–6.
5. Hu, N.A., et al. (2023) *Oncol Res* 30 (2), 89-97.
6. Wang, S., et al. (2024) *Arch Oral Biol* 164, 106003.

Related products

1. GR238016 50 ml Reagent Reservoir, 100/case, 5 packs/case (pack of 20)
2. GR238004 Tissue Culture 96-well Microplate, individually packed, Case of 50
3. GR238019 1.5 ml Microcentrifuge tube with screw cap and free-standing, pack of 500
4. GR238007 125 ml leak-resistant HDPE bottle, colorless, pack of 24
5. GR238002 Microplate 12x8-Well Strip High Binding, Case of 50
6. GR238003 Microplate 12x8-Well Strip Medium Binding, Case of 50
7. GR238032 42592 Costar Stripwell Microplate 1 x 8 Flat Bottom, High Binding, Case of 100
8. GR238001 468667 Thermo Microplate 12x8-Well Strip Nunc Maxisorp F8, Case of 60
9. GR238031 96-well microplate sealer plastic, pack of 100



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Description

Species reactivity: Human

Specificity: Human SPINK1.

Source: Polyclonal rabbit IgG

Purification: Antigen Affinity purified

Immunogen: *E. coli* derived recombinant human SPINK1, Met1-Cys79,

Accession # P00995

Endotoxin Level: <0.10 EU per 1 µg of the antibody by the LAL method.

Formulation: lyophilized from a solution containing PBS and trehalose (100 µg/ml).

Application

Reconstitution: reconstitute at 0.2 mg/ml in sterile PBS

Recommended concentration:

Western blot: >0.1 µg/ml

Immunocytochemistry: 5-15 µg/ml

ELISA: 0.2-0.6 µg/ml

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months at -20°C as supplied.
- 1 month after reconstitution at 4 °C, from date of receipt.
- 6 months after reconstitution at -20°C to -70°C from date of receipt.

DECLARATION

THIS REAGENT IS FOR IN VITRO LABORATORY TESTING AND RESEARCH USE ONLY. DO NOT USE IT FOR CLINICAL DIAGNOSTICS. DO NOT USE OR INJECT IT IN HUMANS AND ANIMALS.

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