# Mouse SPINK4 Protein (Fc Tag)

**Catalog Number:** **50953-M02H**

## General Information

**Gene Name Synonym:**

MPGC60; RP23-28I8.2

**Protein Construction:**

A DNA sequence encoding the mouse SPINK4 (NP_035593.2) (Met 1-Cys 86) was fused with the Fc region of human IgG1 at the C-terminus.

**Source:** Mouse

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 97 % as determined by SDS-PAGE

**Endotoxin:**

< 1.0 EU per μg of the protein as determined by the LAL method

**Stability:**

Samples are stable for up to twelve months from date of receipt at -70 ℃

**Predicted N terminal:** Gly 27

**Molecular Mass:**

The secreted recombinant mouse SPINK4/Fc is a disulfide-linked homodimer. The reduced monomer comprises 301 amino acids and has a calculated molecular mass of 34.5 kDa. The apparent molecular mass of the monomer is approximately 35 kDa in SDS-PAGE under reducing conditions.

**Formulation:**

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

**Storage:**

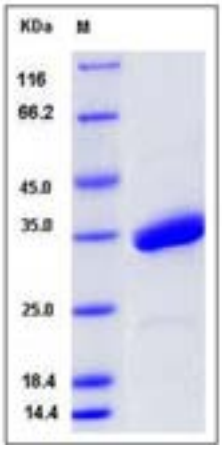
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

**Reconstitution:**

Detailed reconstitution instructions are sent along with the products.

**SDS-PAGE:**




## Protein Description

Serine protease inhibitor Kazal-type 4, also known as Peptide PEC-60 homolog and SPINK4, is a secreted protein which contains one Kazal-like domain. SPINK4 is a member of the SPINK protein family. The gene family of serine protease inhibitors of the Kazal type (SPINK) are functional and positional candidate genes for celiac disease (CD). SPINK1 plays an important role in protecting the pancreas against excessive trypsinogen activation. It is a potent natural inhibitor of pancreatic trypsin activity. SPINK1 mutations are associated with the development of acute and chronic pancreatitis and have been detected in all forms of chronic pancreatitis. SPINK2 functions as a trypsin/acrosin inhibitor and is synthesized mainly in the testis and seminal vesicle where its activity is engaged in fertility. The SPINK2 protein contains a typical Kazal domain composed by six cysteine residues forming three disulfide bridges. SPINK9 was identified in human skin. Its expression was strong in palmar epidermis, but not detectable or very low in non palmoplantar skin.

### References

1.Schneider, A. et al., 2004,Gastroenterol Clin North Am. 33 (4): 789-806.
2.Wapenaar, MC. et al., 2007, Immunogenetics. 59 (5): 349-57.
3.Brattsand, M. et al., 2009, J Invest Dermatol. 129 (7): 1656-65.