

# Recombinant Mouse SPA3G Protein

**For Research Use Only**

## 1. Basic Product Information

Catalog No.: REP52055

Size: 10ug, 100ug

Protein Name: Serine protease inhibitor A3G (Serpina A3G) (Serine protease inhibitor 2A) (Serpina 2A)

Synonym: Serpina3g, Spi2A

UniProt ID: Q5I2A0

UniProt Link: [www.uniprot.org/uniprotkb/Q5I2A0/entry](http://www.uniprot.org/uniprotkb/Q5I2A0/entry)

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 440 AA

Molecular Weight: 49 KD

Protein Tag: C-terminal His6

## 2. Amino Acid Sequence

MAGVSPA VFGCPD VTLGRNTAVREVQENVTSVDSLTLVSSNTDFAFSLYRKLV LKNPDENVVFSPFS  
ICTALALLSLGAKSNTLKEILEGLKFNL TETPEPDIHQGFYLLDLLSQPGNQVQISTGSALFIEKHLQIL  
AEFKEKARALYQAEFTADFQQPLKATKLINDYVSNHTQGKIKELISGLKESTLMVLVNYIYFKGKWK  
NPFDPNDTFKSEFYLDKRSVIVSMMKTGYLTPYFRDEELSCTVVELKYTGNASAMFILPDQGRMQ  
QVEASLQPETLRKWKNSLKPRMIHELRLPKFSISTDYSLEHILPELGIREVFSTQADLSAITGTKDLRV  
SQVVHKA VLDVAETGTEAAAATGMAGVGCCAVFD FLEIFFNRPFLMIISDTKAHIALFMAKVTPERS  
MNFPNGEGASSQRLESKRLCFGDPLCLIGQ

## 3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

## 4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

## 5. Product Description

This product is recombinant Serine protease inhibitor A3G (Serpins A3G) (Serine protease inhibitor 2A) (Serpins 2A) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

**Protein Function:** Serine and cysteine protease inhibitor. Can inhibit lysosomal papain-like proteases including the cathepsins B, G, H, K, L and V. Ineffective against elastase, granzyme A, granzyme B, or caspases 3, 8 or 9. Inhibition of cytoplasmic cathepsin B following release from the lysosome may protect cells from apoptosis. This may facilitate the survival of progenitor T-cells and the subsequent development of long term memory CD8 T-cells.

**Subcellular Localization:** Cytoplasm. Nucleus.

## 6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.