

Recombinant Mouse Serpina1a protein (rFc Tag)

Catalog Number: Eg3047

Basic Information

Species:
Mouse**Purity:**
>90 %, SDS-PAGE**Tag:**
rFc Tag

Technical Specifications

Purity:

>90 %, SDS-PAGE

Endotoxin Level:

<0.1 EU/ µg protein, LAL method

Source:

HEK293-derived Mouse Serpina1a protein Glu25-Lys413 (Accession# P07758) with a rabbit IgG Fc tag at the C-terminus.

GeneID:

20700

Accession:

P07758

Predicted Molecular Mass:

69.5 kDa

SDS-PAGE:

68-85 kDa, reducing (R) conditions

Formulation:

Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Not tested

Storage and Shipping

Storage:

It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

Shipping:

The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

Serpina1a also known as Alpha-1-antitrypsin (A1AT), it is an acute phase serine proteinase inhibitor, which is synthesized and secreted as a glycoprotein by hepatocytes and alveolar macrophages in humans to protect tissue from degradation by endogenous neutrophil elastase (NE). Severe A1AT deficiency is a congenital disorder, which occurs due to certain missense point mutations in the serum protease inhibitor, member 1 (SERPINA1) gene. The most predominant of these mutations is the Z-mutation, accounting for >95% of clinical A1AT deficiency cases. This point mutation results in substitution of glutamic acid at position 342 with lysine (E342K), which destabilizes the adjacent reactive centre loop (RCL).

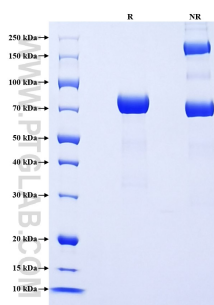
References

1. Eggenschwiler R. et al. (2019) Sci Rep. 9(1):7486.
2. Murphy MP. et al. (2024) Am J Physiol Lung Cell Mol Physiol. 327(4):L600-L606.
3. Zieger M. et al. (2022) Mol Ther Methods Clin Dev. 25:425-438.

Synonyms

AAT, Alpha-1 protease inhibitor 1, Alpha-1-antiproteinase, Alpha-1-antitrypsin 1-1, Dom1

Selected Validation Data



Purity of Recombinant Mouse Serpina1a was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.

For technical support and original validation data for this product please contact

T: 027-87531629

E: Proteintech-CN@ptglab.com

W: ptgcn.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.