

# Recombinant Human Serpin A1/Alpha-1-antitrypsin Protein

Catalog No.: RP00287 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	5265	P01009

### Tags

C-His

### Synonyms

A1A; A1AT; AAT; PI; PI1; PRO2275;  
alpha1AT;SERPINA1;A1AT;AAT;PI;PI1;PRO  
2275;alpha1AT

## Product Information

Source	Purification
HEK293 cells	> 97% by SDS- PAGE.

### Endotoxin

< 1.0 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize freeze-thaw cycles.

## Contact

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## Background

### Basic Information

#### Description

Recombinant Human Serpin A1/Alpha-1-antitrypsin Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Glu25-Lys418) of human alpha 1 Antitrypsin (Accession #NP\_000286.3) fused with a 6×His tag at the C-terminus.

#### Bio-Activity

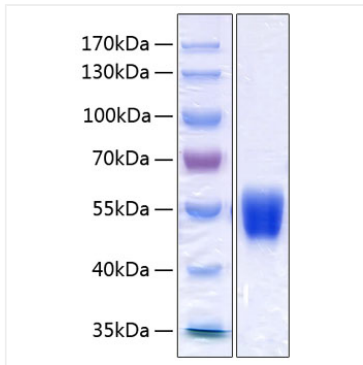
Measured by its ability to inhibit trypsin cleavage of a fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH<sub>2</sub>. The IC<sub>50</sub> value is approximately <0.4 nM.

#### Storage

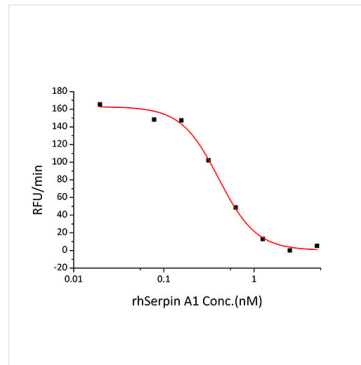
Store the lyophilized protein at -20°C to -80 °C for long term. After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week. Avoid repeated freeze/thaw cycles.

## Validation Data

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Recombinant Human Serpin A1/Alpha-1-antitrypsin Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 50-60 kDa.



Recombinant human SERPINA1 inhibits trypsin cleavage of a fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH<sub>2</sub>. The IC<sub>50</sub> value is approximately <math><0.4\text{ nM}</math>.