

Recombinant Human Serpin C1/Antithrombin-III Protein

Catalog No.: **RP00140** **Recombinant** **1 Publications**

Sequence Information

Species	Gene ID	Swiss Prot
Human	462	P01008

Tags

C-His

Synonyms

AT3; AT3D; ATIII;
THPH7;SERPINC1;AT3D;ATIII;THPH7

Product Information

Source	Purification
HEK293 cells	≥ 95 % as determined by SDS-PAGE.

Calculated MW	Observed MW
49.88 kDa	50-70 kDa

Endotoxin

< 0.1 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 free-thaw cycles.

Contact

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Background

The protein is a plasma protease inhibitor and a member of the serpin superfamily. This protein inhibits thrombin as well as other activated serine proteases of the coagulation system, and it regulates the blood coagulation cascade. The protein includes two functional domains: the heparin binding-domain at the N-terminus of the mature protein, and the reactive site domain at the C-terminus. The inhibitory activity is enhanced by the presence of heparin. More than 120 mutations have been identified for this gene, many of which are known to cause antithrombin-III deficiency.

Basic Information

Description

Recombinant Human SerpinC1/AntithrombinIII/ATIII Protein is produced by HEK293 expression system. The target protein is expressed with sequence (His33-Lys464) of human SerpinC1/AntithrombinIII/ATIII (Accession #NP_000479.1) fused with a 6×His tag at the C-terminus.

Bio-Activity

Measured by its ability to inhibit Recombinant Human Coagulation Factor II/Thrombin cleavage of a fluorogenic peptide substrate Boc-VPR-AMC. The IC50 value is <0.48 nM.

Shipping

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

Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

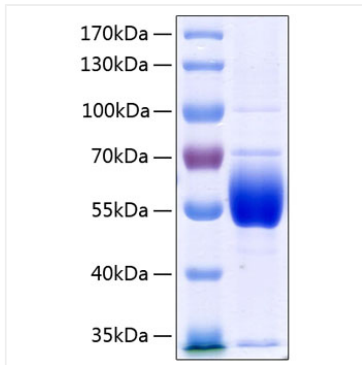
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

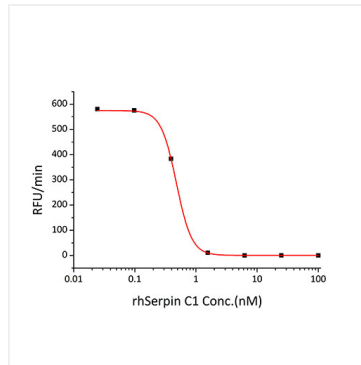
Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

Validation Data



Recombinant Human Serpin C1/Antithrombin-III Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant human SERPINC1 inhibits Recombinant Human Coagulation Factor II/Thrombin cleavage of a fluorogenic peptide substrate Boc-VPR-AMC. The IC₅₀ value is <0.48 nM.