

Recombinant Human Serpin F2/Alpha-2-antiplasmin Protein

Catalog No.: RP00147 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	5345	P08697

Tags

C-His

Synonyms

SERPINF2;A2AP;AAP;ALPHA-2-PI;API;PLI

Product Information

Source	Purification
HEK293 cells	> 90% by SDS-PAGE.

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 freeze-thaw cycles.

Contact

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Background

SerpinF2, also known as alpha-2 antiplasmin (alpha-2 AP), is a member of the Serpin superfamily and the primary physiological inhibitor of the serine protease plasmin, which is responsible for the dissolution of fibrin clots. In addition to plasmin, Serpin F2 is also an efficient inhibitor of trypsin and chymotrypsin. This protease is produced mainly by liver and kidney, and also expressed in muscle, intestine, central nervous system, and placenta also express this protein at a moderate level. SerpinF2 is one of the inhibitors of fibrinolysis. It is a specific plasmin inhibitor, which degrades fibrin and various other proteins. Consequently, the protein plays the dominant role in regulating the blood clotting pathway. Mutations in SerpinF2 gene lead to alpha-2-plasmin inhibitor deficiency, which is characterized by severe hemorrhagic diathesis. Thus, it may be a useful target for developing more effective treatment of thrombotic diseases.

Basic Information

Description

Recombinant Human SerpinF2/SERPINF2 Protein is produced by HEK293 expression system. The target protein is expressed with sequence (Met28-Lys491) of human SerpinF2/SERPINF2 (Accession #NP_000925.2) fused with a 6×His tag at the C-terminus.

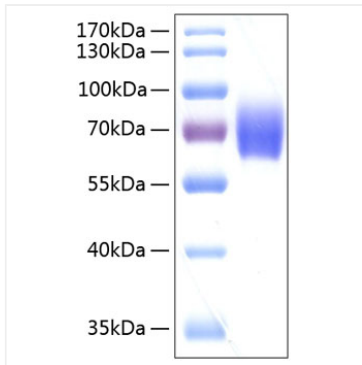
Bio-Activity

Measured by its ability to inhibit trypsin cleavage of a fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH₂. The IC₅₀ value is <0.23 nM.

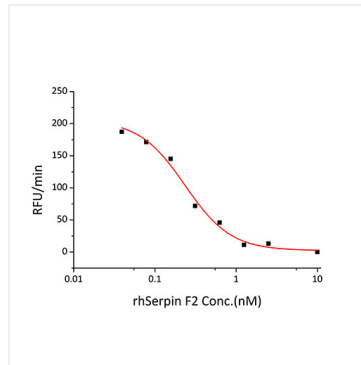
Storage

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



Recombinant Human Serpin F2/Alpha-2-antiplasmin Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 70 kDa.



Recombinant human SERPINF2 inhibits trypsin cleavage of a fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH₂. The IC₅₀ value is <math><0.23\text{ nM}</math>.