

## Recombinant Human Serpin A1

(C-6His)

Catalog # EPT244

**Expression Host** Human Cells

**DESCRIPTION** Recombinant Human Serine Protease Inhibitor-clade

A1 is produced by our Mammalian expression system

and the target gene encoding Glu25-Lys418 is

expressed with a 6His tag at the C-terminus.

Accession AAH11991.1

**Synonyms** Alpha-1-Antitrypsin; Alpha-1 Protease Inhibitor;

Alpha-1-Antiproteinase; Serpin A1; SERPINA1; AAT; PI

Mol Mass 45.35 KDa

**AP Mol Mass** 50-65 KDa, reducing conditions

**Purity** Greater than 95% as determined by reducing

SDS-PAGE.

**Endotoxin** Less than 0.1 ng/μg (1 EU/μg) as determined by LAL

test.

**FORMULATION** Lyophilized from a 0.2 µm filtered solution of 20mM

Tris-HCl, 150mM NaCl, 2mM CaCl<sub>2</sub>, pH



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## RECONSTITUTION

Always centrifuge tubes before opening.Do not mix by vortex or pipetting.

It is not recommended to reconstitute to a concentration less than 100µg/ml.

Dissolve the lyophilized protein in distilled water.

Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

**SHIPPING** 

The product is shipped at ambient temperature.

Upon receipt, store it immediately at the temperature listed below.

**STORAGE** 

Lyophilized protein should be stored at < -20 ° C, though stable at room temperature for 3 weeks.

Reconstituted protein solution can be stored at 4-7°C for 2-7 days.

Aliquots of reconstituted samples are stable at < -20° C for 3 months.

**BACKGROUND** 

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Serpin A1 is a prototype member of the Serpin superfamily of the serine protease inhibitors. As one of the most abundant proteinase inhibitors in the circulation, it is synthesized in hepatocytes, and to a lesser extent, in macrophages as well as intestinal

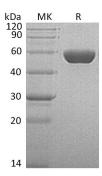


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epithelial cell lines and secreted as the abundant proteinase inhibitor in the circulation whose targets include elastase, plasmin, thrombin, trypsin, chymotrypsin, and plasminogen activator. Point mutations in the native SerpinA1 variants result in Serpin A1 deficiency, and consequently lead to several clinical complications such as pulmonary emphysema, juvenile hepatitis, cirrhosis, and hepatocellular carcinoma. For example, the Z variants (Glu342 to Lys) forms intracellular inclusion bodies, is not secreted, and leads to SerpinA1 deficiency. a severe Accordingly, Serpin A1 deficiency in circulation is associated with emphysema or liver disease.



## **SDS-PAGE**

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