

**Antithrombin III, Human Plasma recombinant protein**  
**SERPINC1**  
**Catalog # PBV10922r****Specification**

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**Antithrombin III, Human Plasma recombinant protein - Product info**

Primary Accession [P01008](#)  
Calculated MW **58 kDa KDa**

**Antithrombin III, Human Plasma recombinant protein - Additional Info**

Gene ID	<b>462</b>
Gene Symbol	<b>SERPINC1</b>
<b>Other Names</b>	
SERPINC1	
Gene Source	<b>Human</b>
Source	<b>Human Plasma</b>
Assay&Purity	<b>SDS-PAGE; ≥95%</b>
Assay2&Purity2	<b>N/A;</b>
Recombinant	<b>No</b>
<b>Target/Specificity</b>	
Antithrombin III	

**Application Notes**

In water or aqueous buffer

**Format**

Lyophilized

**Storage**

-20°C; Lyophilized from 50 mM Tris-HCl, pH 8.0, with 150 mM NaCl.

**Antithrombin III, Human Plasma recombinant protein - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Antithrombin III, Human Plasma recombinant protein - Images****Antithrombin III, Human Plasma recombinant protein - Background**

SerpinC1, also known as antithrombin III (AT III), is a member of the serpin superfamily of serine protease inhibitors, and has been found to be a marker for disseminated intravascular coagulation (DIC) and to be of prognostic significance in septic patients. SerpinC1 synthesized in the liver is the principal plasma serpin of blood coagulation proteases and inhibits thrombin and other factors such as Xa by the formation of covalently linked complexes. Thus it is one of the most important coagulation inhibitors and the fundamental enzyme for the therapeutical action of heparin. In common with SerpinA5 and D1, the inhibitory activity of SerpinC1 undergoes a dramatic increase in the presence of heparin and other glycosaminoglycans. ATIII mediates the promotion of prostaglandin release, an inhibitor of leucocyte activation and downregulator of many proinflammatory cytokines. Antithrombin III exerts anti-inflammatory properties in addition to its anti-coagulative mechanisms. In animal models of sepsis, ATIII affected cytokine plasma concentrations with a decrease of pro-inflammatory cytokines. The deficiency or functional abnormality of ATIII may result in an increased risk of thromboembolic disease, such as deep vein thrombosis and pulmonary embolism. In addition, it has been reported that SerpinC1 can alter or influence inflammatory processes via inhibition of NF- $\kappa$ B activation or actin polymerization. Antithrombin III is found in normal serum at 15 mg per 100 ml. Found at higher levels in plasma than in serum because of complexing with thrombin during coagulation. Clinically, reduced levels are indicative of hypercoagulability.

#### **Antithrombin III, Human Plasma recombinant protein - References**

- Bock S.C., et al. *Nucleic Acids Res.* 10:8113-8125(1982).  
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