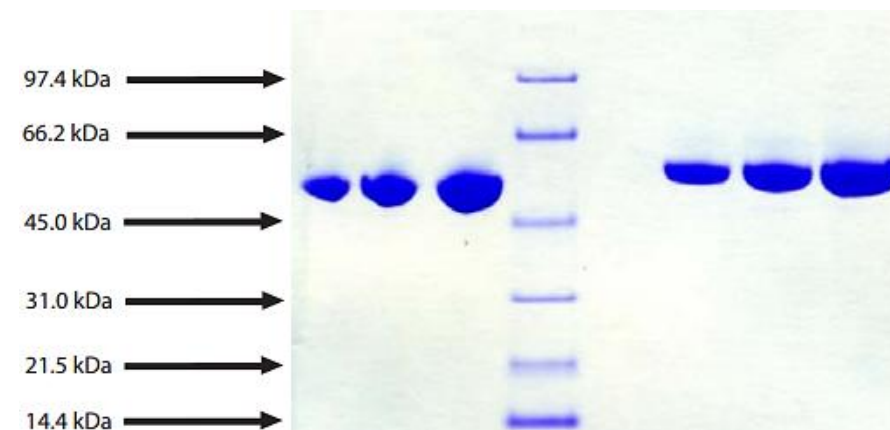


Antithrombin III, Human Plasma

| | | |
|-------------------------|--|--------|
| CATALOG #: | 7298-100 | 100 µg |
| | 7298-500 | 500 µg |
| ALTERNATE NAMES: | SERPINC1 | |
| SOURCE: | Human Plasma. Shown to be non-reactive for HBsAg, anti-HCV, anti-HBc, and negative for anti-HIV 1 & 2 by FDA approved tests. | |
| PURITY: | ≥ 95% by SDS-PAGE | |
| MOL. WEIGHT: | 58 kDa | |
| EXTINCTION COEFFICIENT: | 0.65 | |
| FORM: | Lyophilized | |
| FORMULATION: | Lyophilized from 50 mM Tris-HCl, pH 8.0, with 150 mM NaCl. | |
| STORAGE CONDITIONS: | Store at -20°C or lower. Avoid repeated freezing and thawing cycles. | |

DESCRIPTION: 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 therapeutic 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-κB 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

4-12% Bis-Tris NuPAGE gel

1. Antithrombin III - 5 µg (non-reduced / no heat)
2. Antithrombin III - 10 µg (non-reduced / no heat)
3. Antithrombin III - 20 µg (non-reduced / no heat)
4. LMW Standard
5. Antithrombin III - 5 µg (reduced / heated)
6. Antithrombin III - 10 µg (reduced / heated)
7. Antithrombin III - 20 µg (reduced / heated)

RELATED PRODUCTS:

- Trypsin Activity Colorimetric Assay Kit (**Cat. No. K771-100**)
- Trypsin, Human pancreas (**Cat. No. 7292-50**)
- Alpha 1 Antichymotrypsin, Human Plasma (**Cat. No. 7293-100**)
- Serpin E1/PAI-1, human recombinant, (**Cat. No. 4731-10, -100, -1000**)
- Human CellExp™ SERPINA1 /A1AT, human recombinant, (**Cat. No. 7235-10**)
- Serpin A6 Antibody (**Cat. No. 3906-100**)
- Serpin A6 Blocking Peptide (**Cat. No. 3906BP-100**)
- Neuroserpin, human recombinant, (**Cat. No. 7181-10, -50**)

FOR RESEARCH USE ONLY! Not to be used in humans.