Serpinc1
Native Rat Antithrombin-III

Catalog No.	CSI19911A CSI19911B	**Quantity:**	1.0 mg 10 mg

Alternate Names: AT3, SERPINC1

Description: Antithrombin III is a small protein that inactivates several enzymes of the Coagulation Cascade. AT3 is a glycoprotein produced by the liver and consists of 432aa. It contains three disulfide bonds and a total of four possible glycosylation sites. AT3 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. The physiological target proteases of AT3 are those of the contact activation pathway (formerly known as the intrinsic pathway), namely the activated forms of Factor X (Xa), Factor IX (IXa), Factor XI (XIa), Factor XII (XIIa) and Factor II (Thrombin) (IIa) and also the activated form of Factor VII (VIIa) from the tissue factor pathway (formerly known as the extrinsic pathway). AT3 also inactivates Kallikrein and Plasmin, also involved in blood coagulation. In addition, AT3 inactivates certain other serine proteases that are not involved in coagulation such as Trypsin and the C1s subunit of the enzyme C1 involved in the classical complement pathway. Recent evidence suggests AT3 can also inhibit NF-kappa B activation. More than 120 mutations have been identified in AT3, many of which are known to cause Antithrombin III Deficiency.

UniProt ID: Q5M7T5

Gene ID: 304917

Source: Rat Plasma, fresh not frozeon

Molecular Weight: 58.2 kDa

Formulation: 0.05 M Sodium Phosphate, 0.1 M NaCl, 1 mM EDTA, pH 7.4

Purity: >95% by SDS-PAGE analysis

Concentration: ≥ 1.0 mg/ml, lot specific

Extinction Coefficient: $E^{0.1\%}_{280nm} = 0.65$

Storage & Stability: Store at -80°C for up to 1 year. Upon initial thaw, prepare working aliquots and store at -80°C. **Avoid repeated freeze-thaw cycles.**

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