

Product datasheet for **AP21438SU-N**

Antithrombin III (SERPINC1) Goat Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, ID, IHC
Recommended Dilution:	The anodic mobility enables quantitative determination of Antithrombin III using the standard EID technique (Laurell). Immuno-electrophoresis and Radial Immunodiffusion are used to identify Antithrombin III and Enzyme Inhibitor complexes. Double Radial Immunodiffusion (Mancini) is also used for quantitative assays. If applied in more sensitive test procedures, in Immunohistochemistry, or Solid Phase Immunoassays, appropriate specificity controls should always be included. Plasma samples and all assay components must contain EDTA to stabilize the proteins.
Reactivity:	Human
Host:	Goat
Clonality:	Polyclonal
Immunogen:	Antithrombin III isolated and highly purified from pooled plasma. Freund's complete adjuvant is used in the first step of the immunization procedure.



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Specificity:	<p>The reactivity of the antiserum is restricted to Antithrombin III.</p> <p>In Immunoelectrophoresis and Radial Immunodiffusion (Ouchterlony), using various antiserum concentrations against fresh normal Human plasma a single precipitin line is obtained which shows a reaction of identity with the precipitin line obtained with purified Antithrombin III. No reaction is obtained with any other plasma protein including the main proteinase inhibitors known to have structural homology with antithrombin III. Protein complexes containing Antithrombin III may also react.</p> <p>Cross-Reactivity: The antiserum does not cross react with any other component of Human plasma. Inter-species cross-reactivity is a normal feature of antibodies to plasma proteins since they frequently share antigenic determinants. Cross-reactivity of this antiserum has not been tested in detail, however in Double Radial Immunodiffusion a reaction has been found with Rhesus Monkey.</p> <p>Adsorption: Immunoaffinity adsorbed using insolubilized antigens as required, to eliminate antibodies reacting with other plasma proteins. The use of insolubilized adsorption antigens prevents the presence of excess adsorbent protein or immune complexes in the antiserum.</p> <p>Precipitin titre: 1/32 when tested against in agar-block immunodiffusion titration against normal Human plasma in agar-block Immunodiffusion titration. The amount of Antithrombin III precipitated by 1 ml antiserum is about 1.75 U. One unit is the average amount of antithrombin III in normal plasma which corresponds to 0.15 mg/ml.</p>
Formulation:	<p>State: Serum</p> <p>State: Lyophilized (Delipidated, heat inactivated), stable whole antiserum without preservatives.</p>
Reconstitution Method:	Restore by adding 1.0 ml of sterile distilled water
Concentration:	Total protein and IgG concentrations in the antiserum are comparable to those of pooled normal goat serum. No foreign proteins added.
Conjugation:	Unconjugated
Storage:	<p>Store the antibody lyophilized at 2-8°C and reconstituted at 2-8°C for one week or (in aliquots) at -20°C for longer.</p> <p>Dilutions may be prepared by adding phosphate buffered saline (PBS, pH 7.2).</p> <p>If a slight precipitation occurs upon storage, this should be removed by centrifugation.</p>
Stability:	Shelf life: one year from despatch.
Gene Name:	serpin family C member 1
Database Link:	Entrez Gene 462 Human P01008

Background:

Antithrombin III is a single polypeptide chain glycoprotein (MW 61,000) with a high degree of homology with the alpha-1 antitrypsin. It is a circulating natural anticoagulant acting as a proteinase inhibitor. It is synthesized in the liver and the vascular endothelial cells. In electrophoresis of plasma it migrates in the alpha-1 region and is consumed during coagulation in vivo. Antithrombin III inhibits the action of factors IXa, Xa, XIIa, thrombin and kallikrein by forming a stable complex. Heparin acts as a cofactor which greatly increases its inhibitory activities.

Normal adult plasma contain an average of 0.15 mg antithrombin III per ml. This can vary from 75 to 128%. A partial deficiency in antithrombin III activity in the plasma (less than 50%) will result in an increased tendency to recurrent thrombo-embolism. Several types of congenital deficiency have been reported. Most common type 1 deficiency patients have reduced antithrombin III antigen and activity levels. Heterozygotes have levels of 25 to 50% of normal values.

Synonyms:

AT3, Serpin C1, ATIII

Protein Families:

Druggable Genome, Secreted Protein

Protein Pathways:

Complement and coagulation cascades