

Description	Precipitating polyclonal goat antiserum to human antithrombin III						
Product code	GAHu/ATh III						
Biological origin	Goat						
Physical form	Delipidated, heat inactivated, lyophilized, stable whole antiserum						
Preservative	No preservative added.						
Immunogen	<p>Antithrombin II 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.</p> <p>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.</p> <p>For use as an immunogen antithrombin III is isolated and highly purified from pooled plasma. Freund's complete adjuvant is used in the first step of the immunization procedure.</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.						
Identity & Specificity	The reactivity of the antiserum is restricted to antithrombin III. 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.						
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.						
Protein concentration	Total protein and IgG concentrations in the antiserum are comparable to those of pooled normal goat serum. No foreign proteins added.						
Antibody titre	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.						
Intended use	The anodic mobility enables quantitative determination of antithrombin III using the standard EID technique (Laurell). Immunoelectrophoresis 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.						
Directions for use	The lyophilized antiserum is shipped at ambient temperature and may be stored at +4°C; prolonged storage at or below -20°C. Reconstitute the lyophilized antiserum by adding 1 ml sterile distilled water. Dilutions may be prepared by adding phosphate buffered saline (PBS, pH 7.2). Repeated thawing and freezing should be avoided. If a slight precipitation occurs upon storage, this should be removed by centrifugation. It will not affect the performance of the antiserum. Diluted antiserum should be stored at +4°C, not refrozen, and preferably used the same day.						
Packing	Vial with 1 ml lyophilized antiserum.						
Storage / shelf life	<table border="0"> <tr> <td>Lyophilized at +4°C</td> <td>at least 10 years</td> </tr> <tr> <td>reconstituted at or below -20°C</td> <td>3-5 years</td> </tr> <tr> <td>reconstituted at +4°C</td> <td>7 days</td> </tr> </table>	Lyophilized at +4°C	at least 10 years	reconstituted at or below -20°C	3-5 years	reconstituted at +4°C	7 days
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Caution	This antiserum should be handled by qualified persons only and appropriate precautions should be taken in its handling and disposal, and of all associated materials. For <i>in vitro</i> research purposes only.						

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