

<b>Description</b>	<b>Precipitating polyclonal goat antiserum to human protein S</b>	
<b>Product code</b>	GAHu/pS	
<b>Biological origin</b>	Goat	
<b>Physical form</b>	Delipidated, heat inactivated, lyophilized, stable whole antiserum	
<b>Preservative</b>	No preservative added.	
<b>Immunogen</b>	<p>Protein S is a vitamin K dependent plasma glycoprotein (MW 69,000) which belongs to a group of coagulation inhibitors consisting itself of proteinases. It circulates in the blood in a free active form and in an inactive form bound to C4b binding protein. Protein S is also released by thrombin stimulation from platelet alpha-granules. Protein S acts as a cofactor for activated protein C (pCa) enhancing the cleavage of factors Va and VIIIa, producing anticoagulation by decreasing the conversion of prothrombin to thrombin. It also stimulates the fibrinolytic system. Protein S loses much of its coagulant cofactor activity after cleavage by thrombin, a process which is inhibited by thrombomodulin in the presence of free calcium ions.</p> <p>Plasma concentration of protein S may be significantly reduced below normal adult levels (2.5 mg/ml) in patients with hereditary deficiency of protein S or suffering a combination of deep vein thrombosis, superficial thrombophlebitis and pulmonary embolism. Substances such as bacterial endotoxins, tumour necrosis factor and immune mediator interleukin 1 also reduce the protein S level in plasma. Oral contraceptives also depress pS activity. A reduction in plasma protein S during pregnancy usually returns to normal after parturition.</p> <p>Freund's complete adjuvant is used in the first step of the immunization procedure.</p>	
<b>Adsorption</b>	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.	
<b>Identity &amp; Specificity</b>	The defined antibody specificity is restricted to protein S as tested at the level of sensitivity of immunoprecipitation techniques and ELISA techniques. A single precipitin line is obtained in immunoelectrophoresis, bidimensional electrophoresis and double radial immunodiffusion (Ouchterlony) against normal plasma, which shows a reaction of identity with the precipitated purified protein S. The antiserum also reacts with the protein S component in complexes with protein C or with C4b binding protein. No reaction is obtained with any other plasma protein.	
<b>Cross-reactivity</b>	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.	
<b>Protein concentration</b>	Total protein and IgG concentrations in the antiserum are comparable to those of pooled normal goat serum. No foreign proteins added.	
<b>Antibody titre</b>	Precipitin titre 1:32 when tested against pooled normal human plasma in agar-block immunodiffusion titration.	
<b>Intended use</b>	In precipitating techniques as immunoelectrophoresis, single or double radial immunodiffusion, electro-immunodiffusion, immunonephelometry as well as solid phase and neutralization reactions. As catching antibody in ELISA; to prepare an adsorbent for immunoaffinity purification of protein S. Plasma samples and all assay components must contain EDTA to stabilize the protein.	
<b>Directions for use</b>	In immunoelectrophoresis use 2 µl human serum against 120 µl antiserum. In double radial immunodiffusion (Ouchterlony) use a rosette arrangement with 10 µl antiserum in a 3 mm diameter center well and 10 µl of the antiserum in 3 mm diameter peripheral wells. In single radial immunodiffusion use 1% antiserum in the gel.	
<b>Handling</b>	<p>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.</p> <p>Diluted antiserum should be stored at +4°C, not refrozen, and preferably used the same day.</p>	
<b>Packing</b>	Vial with 1 ml lyophilized antiserum.	
<b>Storage / shelf life</b>	Lyophilized at +4°C	at least 10 years
	reconstituted at or below -20°C	3-5 years
	reconstituted at +4°C	7 days
<b>Caution</b>	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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