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AP21475SU-N Polyclonal Antibody to Protein S / PROS1 - Serum

Alternate names: PROS, Vitamin K-dependent protein S

Quantity: 1 ml

Concentration: Total protein and IgG concentrations in the antiserum are comparable to those of normal goat serum. No foreign proteins added.

Background: 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 a s 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 looses much of its coagulant cofactor activity after cleavage by thrombin, a process which is inhibited by thrombomodulin in the presence of free calcium ions.
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.

Uniprot ID: P07225

NCBI: NP_000304

GeneID: 5627

Host: Goat

Immunogen: Freund's complete adjuvant is used in the first step of the immunization procedure.

Format: **State:** Lyophilized, Delipidated, Heat inactivated, Stable Whole Antiserum without preservatives
Reconstitution: Restore by adding 1 ml of sterile distilled water.

Applications: Can be used in precipitating techniques as Immunoelectrophoresis, Single or Double Radial Immunodiffusion, Electroimmunodiffusion, Immunonepholometry 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.
Recommended Dilutions:
Immunoelectrophoresis: Use 2 µl Human plasma or equivalent against 120 µl antiserum.
Double Radial Immunodiffusion: Use a rosette arrangement with 10 µl antiserum in 3 mm diameter center well and 2 µl plasma samples (neat and serially diluted) in 2 mm diameter peripheral wells.

Single Radial Immunodiffusion: Use 1% antiserum in the gel.
Antibody Titre: Precipitin titre 1/32 when tested against in agar-block Immunodiffusion titration.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

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.
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.
Species: Human.
Other species not tested.

Add. Information:

Adsorption: Immunoaffinity adsorbed using insolubilized antigens as required, to eliminate antibodies reacting with other dog serum proteins. The use of insolubilized adsorption antigens prevents the presence of excess adsorbent protein or immune complexes in the antiserum.

Storage:

Prior to reconstitution store at 2-8°C.
Following reconstitution store undiluted at 2-8°C for one week or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.