Product datasheet for AP21466SU-N

**Factor XII (F12) Goat Polyclonal Antibody**

**Product data:**

**Product Type:** Primary Antibodies  
**Applications:** ID, IP  
**Recommended Dilution:** This antiserum is primarily intended for the measurement of Factor XII in human plasma using the EID-method (Laurell); a specially purified Agarose (Agarose Nordic Nr. 4) solution containing between 1 and 2% antiserum is poured onto a glass plate and allowed to gel. Plasma containing FXII is incorporated into a series of wells and electrophoresis is performed. Rockets due to antigen/antibody reaction are measured. The height of the rocket is directly proportional to the FXII concentration in the plasma. The concentration of FXII in normal adult plasma is about 40 µg/ml. Newborn infants have moderately lower levels. Plasma level fall moderately during pregnancy. Congenital and acquired deficiencies are known. Homozygotes have a thrombotic tendency. They usually have reduced FXII antigen and FXII coagulant activity but rare cases have normal FXII antigen levels. Acquired reduction in antigen level and clotting activity have been described in disseminated intravascular coagulopathy, in cirrhosis, but not in chronic active hepatitis and in nephrosis. A marked increase of the plasma level may occur due to oestrogen action during oral contraception. Circulating antibodies against FXII have rarely been observed but are associated with a bleeding tendency. The antiserum concentration required in the gel is normally between 1 and 2%.  
**Antibody Titre:** Precipitin titre 1/32 when tested against in agar-block immunodiffusion titration.  
**Reactivity:** Human  
**Host:** Goat  
**Clonality:** Polyclonal  
**Immunogen:** Purified Plasma FXII  
Freund's complete adjuvant is used in the first step of the immunization.
Specificity: The defined antibody reactivity is restricted to FXII, FXIIa and complexes of FXIIa with other proteins.

In Immunoelectrophoresis, bi-dimensional electrophoresis and radial immunodiffusion (Ouchterlony) against normal plasma, a single precipitin line is obtained which shows a reaction of identity with precipitated purified Factor XII. No reaction is obtained with FXII-depleted plasma.

The antiserum does not cross react with any other component of human plasma. Inter-species crossreactivity 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.

Formulation: State: Serum
State: Lyophilized, Delipidated, Heat inactivated, Stable Whole Serum without preservatives

Reconstitution Method: Restore by adding 1 ml of sterile distilled water.

Concentration: Total protein concentration in the antiserum is about 50 mg/ml
IgG concentration about 10 mg/ml.

Storage: Store lyophilized at 2-8°C and reconstituted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid Repeated thawing and freezing.

Stability: Shelf life: one year from despatch.

Gene Name: coagulation factor XII

Database Link: Entrez Gene 2161 Human

Background: Factor XII (Hageman factor) is a single chain glycoprotein (MW 80,000). It is a serine protease zymogen. FXII is converted to an active enzyme by damage to vascular endothelium. In vitro activation is caused by glass or kaolin. Surface binding promotes activation by kallikrein. FXIIa activates prekallikrein and FXI. Kallikrein activates more FXII. Fragments of FXIIa activate FVII to FVIIa, and plasminogen to plasmin. The complement system is also activated by FXIIa. A link between fibrin clot and the subendothelium is formed by FXIIa crosslinking with fibrin, alpha-2 plasmin inhibitor, fibronectin and Van Willebrand factor.

Synonyms: Hageman factor, HAF

Note: 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.