

# Factor XII (Human)

1.00 mg

Ref#: HF12-1

Lot#: xxxxxx

Exp. Date: xxxx-xx



For Research Use Only  
Not for Use in Diagnostic Procedures  
For *in-vitro* Use Only

<b>Description:</b>	Factor XII (Human)
<b>Format:</b>	Lyophilized in 4 mM sodium acetate-HCl / 0.15 M NaCl / pH 5.2
<b>Host:</b>	Human
<b>Storage:</b>	Store between +2 and +8°C After reconstitution transfer to a plastic tube. May be frozen at ≤-60°C
<b>Reconstitution:</b>	We recommend hydrating the protein with sterile water to the original volume
<b>Volume:</b>	1 vial containing <b>0.382 mL</b>
<b>Total Protein:</b>	1.00 mg
<b>Concentration:</b>	<b>1.31 mg/mL</b> before lyophilisation by Absorbance; Extinction Coefficient $E_{280}^{1\%} = 14.1$
<b>Activity:</b>	<b>37.00</b> Plasma Equivalent Units ( <b>PEU</b> )/mg
<b>Molecular weight:</b>	80,000 daltons

Coagulation Factor XII (FXII) is synthesized in the liver. Cleavage by kallikrein after residue Arg353 produces the enzyme  $\alpha$ FXIIa consisting of a 28 kDa light chain containing the protease domain and a 52 kDa heavy chain containing the anionic surface-binding domain.

Further cleavage of  $\alpha$ FXIIa by trypsin produces the 28 kDa fragment  $\beta$ FXIIa.

The activity of FXIIa is regulated by C1-Inhibitor with minor contributions by  $\alpha$ 2-antiplasmin,  $\alpha$ 2-macroglobulin and antithrombin. The normal FXII protease zymogen concentration in human plasma is about 30  $\mu$ g/mL (400 nM).

The Factor XII is >95% as judged by SDS-PAGE and shows no reduction upon incubation with 2-mercaptoethanol.

We suggest hydrating the protein to the original volume with water.

The above protein was purified from Human plasma that was tested and found negative by FDA accepted methods for Anti-HIV 1/2, Anti-HTLV I & II, HBsAg, Anti-HCV, Syphilis, HBC Ab, HIV-1 p24 Ag or HIV-1 RNA, HCV RNA and HBV RNA. Donors are screened for CJD (Creutzfeld-Jakob Disease).