

Factor XIIa-alpha (Human)

0.50 mg

Ref#: HF12A

Lot#: xxxxxx

Exp. Date: xxxx-xx



Store at +2 to +8°C

For Research Use Only

Not for Use in Diagnostic Procedures

For *in vitro* use only

Description:	Factor XIIa-alpha (Human)
Format:	Lyophilized in 4 mM sodium acetate-HCl / 0.15 M NaCl / pH 5.2
Host:	Human
Storage:	Store between +2 and +8°C After reconstitution aliquot and freeze at ≤-60°C
Reconstitution:	We recommend hydrating the protein with sterile water to the original volume
Volume:	1 vial containing 0.397 mL
Total Protein:	0.50 mg
Concentration:	1.26 mg/mL before lyophilisation by Absorbance; Extinction Coefficient $E^{1\%}_{280} = 14.1$
Activity:	73.90 Plasma Equivalent Units (PEU)/mg
Molecular weight:	80,000 daltons

Coagulation Factor XII (FXII) is a 76 kDa protein synthesized in the liver. Cleavage by kallikrein after residue Arg353 produces the enzyme α 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 α FXIIa by trypsin produces the 28 kDa fragment β FXIIa.

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

The human Factor XIIa was activated from homogeneous human Factor XII using Dextran Sulfate. This Dextran Sulfate was removed after activation. Complete activation with was observed on SDS-Page.

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).