



FACTOR X DEFICIENT PLASMA

(Haematologic Technologies, Inc. Catalog #FX-ID)

Intended Use

Haematologic Technologies' factor deficient plasmas are for research use or for further manufacture into *in vitro* diagnostic reagents.

Summary of Factor X

Factor X is a vitamin K-dependent protein zymogen which is synthesized in the liver and circulates in plasma as a two chain molecule linked by a disulfide bond (1,2). The activation of factor X is catalyzed by either the intrinsic factor Xase complex (factor IXa, factor VIIIa, cellular surface and calcium ions) or the extrinsic factor Xase complex (factor VIIa, tissue factor, cellular surface and calcium ions). Activation of human factor X by either complex results in cleavage at Arg52-Ile53 of the COOH-terminal heavy chain and subsequent release of a 52 amino acid activation glycopeptide. Factor Xa then serves as the enzyme component of the prothrombinase complex, which is responsible for the rapid conversion of prothrombin to thrombin.

Reagent

Haematologic Technologies' factor X deficient plasma is prepared from citrated "coagulation normal" human plasma that has been immunodepleted of factor X so that the activity of factor X remaining is <1%. Other coagulation factor values along with PT, aPTT, and turbidity measurements are determined and reported on each lot's Certificate of Analysis.

Assay Ranges			
Fibrinogen	150-575 mg/dL	Factor X	<1%
Factor II	>50%	Factor XI	>50%
Factor V	>50%	Factor XII	>50%
Factor VII	>50%	Turbidity (reported)	A320, A400, A530, A650
Factor VIII	>50%	aPTT	reported
Factor IX	>50%	PT	reported

Storage and Handling

Haematologic Technologies' deficient plasmas have a five (5)-year expiration when stored continuously at -70°C.

This product is of human blood/plasma origin. Although the starting material has been tested and found negative for HIV-1 antigen(s), antibodies to HIV and HCV, and non-reactive for HbsAg, extreme caution should be used when handling this material.

Related Reagents from Haematologic Technologies

- Human Factor X (Cat. #HCX-0050)
- Bovine Factor X (Cat. #BCIX-1050)
- Murine Factor X (Cat. #MCIX-5050)
- Human Factor Xa (Cat. #HCXA-0050)
- Bovine Factor Xa (Cat. #BCXA-1060)
- Murine Factor XA (Cat. #MCXA-5060)
- Goat anti-Human Factor X (Cat. #PAHFX-G)
- Sheep anti-Murine Factor X (Cat. #PAMFX-S)
- Anti-Human Factor X (Cat. #AHX-5050)
- Anti-Bovine Factor X (Cat. #ABX-5051)

1. Davie, E.W., et al., Adv. Enzymol., 48, 277 (1979).
2. Jackson, C.M., Ann. Rev. Biochem., 49, 765 (1980).