



FACTOR XI DEFICIENT PLASMA

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

Intended Use

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

Summary of Factor XI

Factor XI is a plasma glycoprotein which circulates in a non-covalent complex with high molecular weight kininogen (1). Factor XI circulates as a zymogen and requires proteolytic activation to acquire serine protease activity. The conversion of factor XI to factor XIa is catalyzed by factor XIIa, and results in cleavage of the Arg369-Ile370 bond in each monomer (2). Factor XIa consists of two NH₂-terminal derived heavy chains, and two COOH-terminal derived light chains, all of which are held together by disulfide bonds. Factor XIa participates within the intrinsic pathway of coagulation by catalyzing the conversion of factor IX to factor IXa. A bleeding disorder called plasma thromboplastin antecedent deficiency results from a lack of factor XI procoagulant activity (3,4). The variable bleeding tendencies observed in factor XI deficient patients do not correlate with either factor XI activity or antigen levels. This latter observation may be related to the ability of the tissue factor/factor VIIa complex to also activate factor IX to IXa.

Reagent

Haematologic Technologies' factor XI deficient plasma is prepared from citrated "coagulation normal" human plasma that has been immunodepleted of factor XI so that the activity of factor XI 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	>50%
Factor II	>50%	Factor XI	<1%
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 XI (Cat. #HCXI-0150)
- Human Factor XIa (Cat. #HCXIA-0160)
- Goat anti-Human Factor XI (Cat. #PAHFXI-G)
- Anti-Human Factor XI (Cat. #AHXI-5061)

1. Thompson, R.E., et al., J. Clin. Invest., 60, 1376 (1977).
2. Bouma, B.N. and Griffen, J.H., J. Biol. Chem., 252, 6432 (1977).
3. Rosenthal, R.L., et al., Proc. Soc. Exp. Biol. Med., 82, 171 (1953).
4. Forbes, C.D. and Ratnoff, J., J. Lab. Clin. Med., 79, 113 (1972)

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