



FACTOR VII DEFICIENT PLASMA

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

Intended Use

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

Summary of Factor VII

Human factor VII is a single chain, vitamin K-dependent, plasma glycoprotein, which is synthesized in the liver (1-3). Factor VII is proteolytically activated to the serine protease, factor VIIa, during coagulation. Factor VII can be activated by thrombin, factor IXa, factor Xa or factor XIIa. The activation results in cleavage of the single chain molecule on the COOH-terminal side of arginine-152, to produce an NH₂-terminal derived light chain (Mr=20,000) and a COOH-terminal derived heavy chain (Mr=30,000), which remain covalently associated by a single disulfide bond. Factor VIIa and the cofactor, tissue factor, may combine on negatively charged cell surfaces in a calcium dependent manner to form the extrinsic factor Xase enzyme complex.

Reagent

Haematologic Technologies' factor VII deficient plasma is prepared from citrated "coagulation normal" human plasma that has been immunodepleted of factor VII so that the activity of factor VII 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	>50%
Factor V	>50%	Factor XII	>50%
Factor VII	<1%	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 VII (Cat. #0030)
- Human Factor VIIa (Cat. #HCVIIA-0031)
- Sheep anti-Human Factor VII (Cat. #PAHFVII-S)
- Anti-Human Factor VII (Cat. #AHVII-5031)

1. Davie, E.W., et al., Adv. Enzymol., 48, 277 (1979).
2. Bajaj, S.P., et al., J. Biol. Chem., 256, 253 (1981).
3. Broze, G.J., et al., J. Biol. Chem., 255, 1242 (1980).