Fibrinogen Peak 1 (Human)
10 mg

Ref#: HFGP1
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:	Fibrinogen Peak 1 (Human)
Format:	Lyophilized in 20 mM Tris-HCl / 0.15M NaCl / pH 7.4
Host:	Human
Storage:	Store between +2 and +8°C After reconstitution aliquot and freeze at ≤-60°C
Volume:	1 vial containing 0.824 mL
Total Protein:	10 mg
Concentration:	12.13 mg/mL before lyophilisation by Absorbance; Extinction Coefficient $E^{1\%}_{280}$ = 15.1
Activity:	100% Clottable
Molecular weight:	340000 daltons

Fibrinogen is an abundant plasma protein (5-10 uM) synthesized in the liver. The intact protein has a molecular weight of 340 kDa and is composed of 3 pairs of disulphide-bound polypeptide chains named Aα, Bβ and γ. Fibrinogen is a triglobular protein consisting of a central E domain and terminal D domains. Proteolysis by thrombin results in release of Fibrinopeptide A (FPA, Aα1-16) followed by Fibrinopeptide B (FPB, Bβ1-14) and the fibrin monomers that result polymerize in a half-overlap fashion to form insoluble fibrin fibrils. The chains of fibrin are referred to as α, β and γ, due to the removal of FPA and FPB. The polymerised fibrin is subsequently stabilized by the transglutaminase activated Factor XIII that forms amide linkages between γ chains and, to a lesser extent, α chains of the fibrin molecules. Proteolysis of fibrinogen by plasmin initially liberates C-terminal residues from the Aα chain to produce fragment X (intact D-E-D, which is still clottable).

Peak 1 fibrinogen accounts for about 85% of the total plasma fibrinogen and has two gammaA chains. The protein contains mostly intact A alpha subunit chains, is free of plasminogen, factor XIII, fibronectin and other non-fibrinogen protein contaminants. Peak 1 molecules each contain two copies of the platelet-binding gamma-A chain C-terminal sequence and are ideal substrates for factor XIII assay.

We recommend hydrating the protein with warmed sterile water or buffer to the original volume. The hydration should take place in 37°C water bath to ensure all protein solubilizes. After hydration aliquot into a useful (one time use) size and freeze at ≤-60°C.

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).