

Fibrinogen (Porcine)

1.0 g

Ref#: PFG-1

Lot#: xxxxxx

Exp. Date: xxxx-xx



For Research Use Only

Not for Use in Diagnostic Procedures

For *in vitro* Use Only

Description:	Fibrinogen (Porcine)
Format:	Lyophilized in 20 mM sodium citrate-HCl / pH 7.2
Host:	Porcine
Storage:	Store between +2 and +8°C After reconstitution aliquot into a useful (one time use) size and freeze at ≤-60°C
Reconstitution:	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
Volume:	1 vial containing 89.531 mL
Total Protein:	1.0 g
Concentration:	11.17 mg/mL by Absorbance; Extinction Coefficient $E^{1\%}_{280} = 15.1$
Activity:	99.10% Clottable
Molecular weight:	330.000 daltons

Fibrinogen (or Factor I) is an acute phase protein that is part of the coagulation cascade of proteins. Thrombin rapidly proteolyzes fibrinogen, releasing fibrinopeptide A. The loss of this small peptide is not sufficient to make the resulting fibrin molecule insoluble, but it tends to form complexes with adjacent fibrin and fibrinogen molecules. Thrombin then cleaves a second peptide, fibrinopeptide B, from fibrin and the fibrin monomers formed then polymerize spontaneously to form an insoluble gel. The polymerized fibrin is held together by noncovalent and electrostatic forces and stabilized by the transamidating enzyme, factor XIIIa, that is produced by the action of thrombin on factor XIII. The insoluble fibrin aggregates (clots) and aggregated platelets then block the damaged blood vessel and prevent further bleeding. The amount of fibrinogen in the plasma can serve as a nonspecific indicator of whether or not an inflammatory process is present in the body. Fibrinogen from any mammalian source will be cleaved by thrombin from any mammalian source.

The Porcine Fibrinogen was purified from fresh frozen porcine plasma using salt precipitations and column chromatography. The purified protein is homogeneous on SDS-PAGE and shows the above mentioned clottability in a thrombin based assay.

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