

Fibrinogen (Porcine)

0.1 g

Ref#: PFG

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 7.776 mL
Total Protein:	0.1 g
Concentration:	12.86 mg/mL before lyophilisation by Absorbance; Extinction Coefficient $E_{280}^{1\%} = 15.1$
Activity:	96.90% Clottable
Molecular weight:	330,000 daltons

Fibrinogen is an abundant plasma protein (5-10 μ M) synthesized in the liver. The intact protein has a molecular weight of 330 kDa and is composed of 3 pairs of disulphide-bound polypeptide chains named $A\alpha$, $B\beta$ 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, $A\alpha$ 1-16) followed by Fibrinopeptide B (FPB, $B\beta$ 1-14) 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 $A\alpha$ chain to produce Fragment X (intact D-E-D, which is still clottable).

Porcine Fibrinogen was purified from fresh frozen porcine plasma using a combination of salt precipitation and column chromatography. The porcine Fibrinogen, is homogeneous on SDS-PAGE and shows greater than 75% clotability in a thrombin based assay.