

Anti-Human Fibrinopeptid A (Sheep) Peroxidase Conjugated IgG

Ref#: SAFPA-HRP

Lot#: xxxxxx

Exp. Date: xxx-xx

Store at -10 to -20°C

For Research Use Only

Not for Use in Diagnostic Procedures

For *in vitro* Use Only

Immunogen:	Synthetic fibrinopeptide A α 1-16 conjugated to carrier
Format:	Peroxidase conjugated IgG in a buffered stabilizer solution containing 50% (v/v) glycerol
Host:	Sheep
Storage:	Store between -10 and -20°C. Vial should be tightly capped. Do not store in frost-free freezers. Allow product to warm to room temperature and gently mix before use. Avoid exposure to sodium azide as this is an inhibitor of peroxidase activity
Total Protein:	0.20 mg
Volume:	1 vial containing 0.100 mL IgG conjugated to horseradish peroxidase (HRP) through carbohydrate groups
Concentration:	2 mg/mL affinity purified IgG by Absorbance; Extinction Coefficient $E^{1\%}_{280} = 14.0$
Reinheitszahl (A_{403}/A_{280}):	0.43
Specificity:	Specificity demonstrated by immunoelectrophoresis and ELISA methods
Application:	Suitable as a source of peroxidase-labeled antibodies.

Fibrinogen is an abundant plasma protein (5-10 μ M) produced 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 A α , B β 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 α 1-16) followed by Fibrinopeptide B (FPB, B β 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 α chain to produce fragment X (intact D-E-D, which is still clottable). Fragment X is further degraded to non-clottable fragments Y (D-E) and D. Fragment Y can be digested into its constituent D and E fragments. Digestion of non-crosslinked fibrin with plasmin is very similar to the digestion of fibrinogen, which results in production of fragments D and E. Degradation of crosslinked fibrin by plasmin results in fragment DD (D-Dimer consisting of the D domains of 2 fibrin molecules crosslinked via the γ chains), fragment E (central E domain) as well as DDE in which fragment E is non-covalently associated with DD. For human crosslinked fibrin, the relative weights of the cleavage fragments produced are: 184 kDa for fragment DD, 92 kDa for D, 50 kDa for E, 1.54 kDa for FPA and 1.57 kDa for FPB.