

# Anti-Human Fibrinogen (Sheep)

Affinity Purified, Peroxidase Conjugated IgG, 0.10 mg

Ref#: SAFG-APHRP

Lot#: xxxxxx

Exp. Date: xxxx-xx

Store at -10 to -20°C

For Research Use Only

Not for Use in Diagnostic Procedures

For *in vitro* Use Only

<b>Immunogen:</b>	Fibrinogen from human plasma
<b>Format:</b>	Affinity purified, peroxidase conjugated IgG in a buffered stabilizer solution containing 50% (v/v) glycerol
<b>Host:</b>	Sheep
<b>Storage:</b>	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
<b>Total Protein:</b>	0.10 mg
<b>Volume:</b>	1 vial containing 0.100 mL affinity purified IgG conjugated to horseradish peroxidase (HRP) through carbohydrate groups
<b>Concentration:</b>	1 mg/mL IgG-HRP by Absorbance; Extinction Coefficient $E^{1\%}_{280} = 14.0$
<b>Reinheitszahl (<math>A_{403}/A_{280}</math>):</b>	0.42
<b>Specificity:</b>	Specificity demonstrated by immunoelectrophoresis and ELISA methods
<b>Application:</b>	Suitable as a source of peroxidase-labeled antibodies

Fibrinogen is an abundant plasma protein (5-10  $\mu$ M) 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  $A\alpha$ ,  $B\beta$  and  $\gamma$ . 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  $\alpha$ ,  $\beta$  and  $\gamma$ , 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  $\gamma$  chains and, to a lesser extent,  $\alpha$  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).