

## Sheep anti-human Fibrinogen (Fg)

Whole IgG from antiserum

10 mg

**Product #:** SAFG-IG

**Lot #:** XXXX

**Expiry date:** XXXX

Store at -10 to -20°C

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For Research Use Only.

Not for use in diagnostic procedures.

### Description of Fibrinogen (Fg)

Fibrinogen is an abundant plasma protein (5-10 µM) 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  $\alpha$ ,  $\beta$  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,  $\alpha$ 1-16) followed by Fibrinopeptide B (FPB,  $\beta$ 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  $\alpha$  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  $\gamma$  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<sup>1-3</sup>.

### REFERENCES and REVIEWS

- Hantgan RR, Francis CW, Marder VJ; Fibrinogen Structure and Physiology; in Hemostasis and Thrombosis, 3<sup>rd</sup> Edition, eds. RW Colman, J Hirsh, VJ Marder and EW Salzman, pp 277-300, J.B. Lippincott Co., Philadelphia PA, USA, 1994.
- Shafer JA, Higgins DL; Human Fibrinogen; CRC Critical Reviews in Clinical Laboratory Sciences 26, pp 1-41, 1988.
- Binnie CG, Lord ST; The Fibrinogen Sequences that Interact with Thrombin; Blood 81, pp 3186-3192, 1993.

### Product Specifications

**Description:**

Vial containing XXXX ml of whole IgG representing approximately 1 ml of antiserum. Total protein is 10 mg.

**Format:**

Whole IgG, clear liquid.

**Host Animal:**

Sheep

**Immunogen:**

Human fibrinogen purified from plasma.

**Concentration:**

IgG concentration is XXXX mg/ml, determined by absorbance using an extinction coefficient ( $E_{280}^{1\%}$ ) of 13.4.

**Buffer:**

10 mM HEPES, pH 7.4, 150 mM NaCl, 50% (v/v) glycerol.

**Storage:**

Store between -10 and -20°C. Product will become viscous but will not freeze. Avoid storage in frost-free freezers.

Keep vial tightly capped. Allow product to warm to room temperature and gently mix before use.

**Specificity:**

This antibody is specific for Fibrinogen as demonstrated by immunoelectrophoresis and ELISA.

**Applications:**

Suitable as a source of antibodies to human fibrinogen.

**Neutralizing activity:**

Not determined.

**Species Cross Reactivity:** (immunodiffusion vs. citrated plasma)

Human:	XXXX	Mouse:	XXXX	Rat:	XXXX
Rabbit:	XXXX	Pig:	XXXX	Dog:	XXXX

**Related Products:**

- Cat #: **SAFG-AP** Sheep anti-human Fibrinogen, affinity purified IgG
- Cat #: **SAFG-HRP** Sheep anti-human Fibrinogen, peroxidase labelled IgG
- Cat #: **SAFG-APHRP** Sheep anti-human Fibrinogen, peroxidase labelled APiGg
- Cat #: **FG-EIA** Paired antibody set for ELISA of Fibrinogen, 5 x 96 wells
- Cat #: **SARFG-IG** Sheep anti-rabbit Fibrinogen, whole IgG from antiserum
- Cat #: **SARFG-AP** Sheep anti-rabbit Fibrinogen, affinity purified IgG
- Cat #: **SARFG-HRP** Sheep anti-rabbit Fibrinogen, peroxidase labelled IgG
- Cat #: **RBFGE-EIA** Paired antibody set for ELISA of Rabbit Fg, 4 x 96 wells
- Cat #: **SAFNE-IG** Sheep anti-Fibrin Fragment E, whole IgG from antiserum
- Cat #: **SAFNE-AP** Sheep anti-Fibrin Fragment E, affinity purified IgG
- Cat #: **SAFNE-HRP** Sheep anti-Fibrin Fragment E, peroxidase labelled IgG
- Cat #: **SAFPA-IG** Sheep anti-Fibrinopeptide A, whole IgG from antiserum
- Cat #: **SAFPA-AP** Sheep anti-Fibrinopeptide A, affinity purified IgG
- Cat #: **SAFPA-HRP** Sheep anti-Fibrinopeptide A, peroxidase labelled IgG

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