Enzyme Research Laboratories
Global Coag

Sheep Anti-Human Fibrinogen (Fg) Affinity-Purified IgG (0.5 mg)

Catalogue: SAFG-AP
Lot No: SAMPLE
Expiry date: **/****
Store at -20°C.

For Research Use Only ~ Not for use in diagnostic procedures.

Description of Fibrinogen (Fg)

Fibrinogen is an abundant plasma protein (5-10 um) 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 Aα, Bβ and y. 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, Aα1-16) followed by Fibrinopeptide B (FPB, Bβ1-14) and the fibrin monomers that result polymerize in half-overlap fashion to form insoluble fibrin fibrils. The chains of fibrin are referred to as α, β, and y, 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 y chains and, to a lesser extent, α chains of the fibrin molecules. Proteolysis of fibrinogen by plasmin initially liberates C-terminal residues form the Aα 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 y 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 [1-3].

References and Reviews

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

Product Specifications

Description:
Vial containing 0.250 ml of IgG purified by affinity-chromatograph on immobilized Fg. Total protein is 0.5 mg.

Format:
Affinity-purified IgG (APIgG), clear liquid.

Host Animal:
Sheep

Immunogen:
Human Fibrinogen purified from plasma.

Concentration:
IgG concentration is 2.00 mg/ml, determined by absorbance using an extinction coefficient ($E^{1\%}_{280}$) of 13.4.

Buffer:
10mM 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 was specific for fibrinogen as demonstrated by immunoelectrophoresis and ELISA.

Applications:
Suitable as a source of enriched antibodies to Human Fibrinogen.

Related Products

SAFG-IG	Sheep anti-human Fg, Whole IgG from antiserum
SAFG-HRP	Sheep anti-human Fg, peroxidase labelled IgG
SAFG-APHRP	Sheep anti-human Fg, peroxidase labelled APIgG
FG-EIA	Paired antibody set for Fibrinogen, 5 x 96 wells
SARFG-IG	Sheep anti-rabbit Fg, whole IgG from antiserum
SARFG-AP	Sheep anti-rabbit Fg, affinity purified IgG
SARFG-HRP	Sheep anti-rabbit Fg, peroxidase labelled IgG
RBFG-EIA	Paired antibody set for Rabbit Fg, 4 x 96 wells
SAFNE-IG	Sheep anti-Fibrin Fragment E, whole IgG from antiserum
SAFNE-HRP	Sheep anti-Fibrin Fragment E, per labelled IgG
SAFPA-IG	Sheep anti-Fibrinopeptide A, whole IgG from antiserum
SAFPA-AP	Sheep anti-Fibrinopeptide A, affinity pur IgG
SAFPA-HRP	Sheep anti-Fibrinopeptide A, per labelled IgG

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Enzyme Research Laboratories Ltd
Glamorgan House . Charter Court . Enterprise Park .
Swansea . SA7 9DD . UK
Tel: +44 (0)1792 686070

Email: info@enzymeresearch.co.uk
Website: www.enzymeresearch.co.uk