ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Human Plasma Fibrinogen Antibodies

□ Cat. # FIBN11-A	Rabbit Anti-Human Plasma Fibrinogen IgG	**SIZE**: 100 ul
□ Cat. # FIBN11-HRP	Rabbit Anti-Human Plasma Fibrinogen IgG-HRP Conjugate	**SIZE**: 100 ul

Fibrinogen (factor I) is a soluble plasma glycoprotein, synthesised by the liver, that is converted by thrombin into fibrin during blood coagulation. Processes in the coagulation cascade activate the zymogen prothrombin to the serine protease thrombin, which is responsible for converting fibrinogen into fibrin. Fibrin is then cross linked by factor XIII to form a clot. FXIIIa stabilizes fibrin further by incorporation of the fibrinolysis inhibitors alpha-2-antiplasmin and TAFI (thrombin activatable fibrinolysis inhibitor, procarboxypeptidase B), and binding to several adhesive proteins of various cells. Both the activation of Factor XIII by thrombin and plasminogen activator (t-PA) are catalyzed by fibrin.

Human fibrinogen is a dimer consisting of two identical halves, each containing three different polypeptides: alpha-chain (63.5 kDa), beta-chain (56 kDa), and gamma-chain (47 kDa). The three polypeptides are joined together by disulfide bonds. At the N-terminus, the three chains are linked together by a dimeric disulfide knot (DSK), which results in a configuration of α, b, g). Fibrinogen is a glycoprotein containing approximately 4% carbohydrate. The concentration in blood plasma is 1.5-4.0 g/L or about 7 μM. In its natural form, fibrinogen can form bridges between platelets, by binding to their GpIIb/IIIa surface membrane proteins; however its major function is as the precursor to fibrin. Fibrinogen is a hexamer containing two sets of three different chains (α, β, and γ), linked to each other by disulfide bonds. On the fibrinogen α and β chains, there is a small peptide sequence (called a fibrinopeptide). These small peptides are what prevent fibrinogen from spontaneously forming polymers with itself.

Source of Antigen and Antibodies

Antigen	Purified human fibrinogen protein
Antibody host/type	Rabbit, polyclonal affinity purified IgG, **Cat # FIBN11-A, unlabeled**
Secondary Ab	Goat Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)
Negative Control Ab	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control
	Store frozen in suitable aliquots. Do not freeze, thaw, or hear repeatedly

Cat# FIBN11-HRP, HRP-conjugate

Purified antibody was coupled to HRP (RZ>3.0) using periodate method. The molar enzyme to protein (E/P) ratio = 4.0. The antibody is supplied in stabilizing buffer, 0.1% prolcin-300 as preservative in either **lyophilized** or **liquid** form (0.1 ml). Reconstitute powder in PBS in 0.1 ml. Store at 4oC in suitable aliquots. Stability is ~6-12 months. Do not freeze and thaw.

Suggested conjugate dilutions are 1:1,000-1:10,000 ELISA, 1:1K-1:5K for western, and 1:200-1:1000 (IHC).

Form & Storage

Aff Pure (purified)

□ 100 ul/vial
□ solution, PBS pH 7.5 □ lyophilized powder
Reconstitute powder in the original vol. of water

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.
Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

Western Blotting (1-2 ug/ml using ECL.
ELISA (0.1-1 ug/ml as detecting antibody.
Histochemistry: not tested**.** We recommend the use of 2-10 ug/ml of antibody in paraformaldehyde-fixed, paraffin embedded sections.

Specificity & Cross-reactivity

Anti-human fibrinogen has been tested with human protein. Antibody crossreactivity in various species is not established. ADI has anti-rat fibrinogen antibody as well (#FIBN12-A). Purified human fibrinogen protein (#FIBN15-N-10) can be used to block the antibody activity or test antibodies using ELISA or Western. (see detailed protocol at the web site).

General References: **M**uszbek L (2008) Cardiovascular & Hematological Agents in Medicinal Chemistry 6 (3): 190–205; Fries D (2009) Current Opinion in Anaesthesiology 22 (2): 267–74; Hermans J (1982) Semin. Thromb. Hemost. 8, 11-24

*This product is for In vitro research use only.

Related material available from ADI

FIBN11-A	Anti-Human Plasma Fibrinogen IgG
FIBN11-BT	Anti-Human Plasma Fibrinogen IgG, Biotin conjugate
FIBN11-HRP	Anti-Human Plasma Fibrinogen IgG, HRP conjugate
FIBN12-A	Anti-Rat Fibrinogen, IgG, aff pure
FIBN15-N-10	Human Plasma Fibrinogen purified, >90%
FIBN16-N-50	Human plasma Fibrinogen fragment D,purified, >90%
FIBN17-N-50	Human plasma Fibrinogen fragment E,purified, >90%
FIBN18-N-100	Mouse plasma Fibrinogen,purified, >90% clottable
FIBN19-N-100	Mouse plasma Fibrinogen,purified, >90% clottable
SP-52245-1	Fibrinogen γ-chain dodecapeptide
SP-52246-5	Fibrinogen-binding Peptide
SP-88462-1	Fibrinogen β-Chain (24-42)
SP-88463-1	Fibrinogen Related Peptide
SP-88975-1	Fibrinogen γ - Chain (117 - 133)
FIBN11-A-HRP	100817A

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