

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Fibrinogen in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Human serum-derived Fibrinogen
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

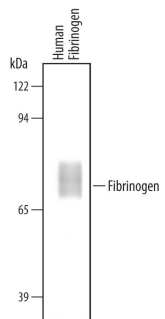
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	See Below
Simple Western	5 µg/mL	See Below

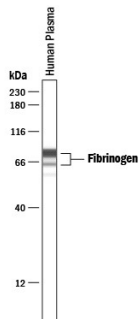
DATA

Western Blot




Detection of Human Fibrinogen by Western Blot. Western blot shows purified human fibrinogen. PVDF membrane was probed with 0.1 µg/mL of Sheep Anti-Human Fibrinogen Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4786) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). Specific bands were detected for Fibrinogen at approximately 70-80 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Simple Western



Detection of Human Fibrinogen by Simple Western™. Simple Western lane view shows human plasma, loaded at 1:25000. Specific bands were detected for Fibrinogen at approximately 64 kDa and 80 kDa (as indicated) using 5 µg/mL of Sheep Anti-Human Fibrinogen Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4786) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Fibrinogen is a 340 kDa, secreted glycoprotein complex that is found in blood at concentrations of 150-400 mg/dL. It is secreted primarily by hepatocytes, but is also reported to be expressed by fibroblasts, type I alveolar epithelium, intestinal epithelium and some tumor cells. Fibrinogen is a homodimer that is composed of two, three-polypeptide chain subunits. In human, each subunit contains one 847 amino acid (aa) alpha chain, one 461 aa beta chain, and one 427 aa gamma chain. Multiple interchain disulfide bonds link all three polypeptides. Fibrinogen plays a central role in clot formation. Conversion of fibrinogen to fibrin is triggered by thrombin, which cleaves fibrinopeptides A and B from alpha and beta chains, and thus exposes the N-terminal polymerization sites responsible for the formation of the soft clot. The soft clot is converted into the hard clot by factor XIIIa which catalyzes the epsilon-(gamma-glutamyl)lysine cross-linking between gamma chains (stronger) and between alpha chains (weaker) of different monomers. Fibrinogen is also a component of the ECM and binds to cell surface molecules on inflammatory cells. Mature human alpha, beta and gamma -chains share 67%, 85% and 83% aa identity with mouse alpha, beta and gamma -chains, respectively.