



monoclonal antibodies against human fibrinogen & fibrin Nos. 311, 313, and 350

Properties

Product No., Murine Subclass and functional activity	Properties per Western Blot	Properties per ELISA test
ADI No. 311, IgG₁ Interferes with clot retraction	reacts weakly with human fibrinogen fragments D & DD, not at all with E; reacts with the α , β & γ chains, reacts with small, early plasmin digestion fragments of fibrinogen α -chain	has a higher specificity for human fibrin than fibrinogen
ADI No. 313, IgG₁ does not inhibit clot retraction	does not react well with denatured human fibrinogen or its degradation products; does react with D & DD, but not with E	reacts equally with human fibrinogen and fibrin
ADI No. 350, IgG₁ Inhibits clot retraction	reacts with the human fibrinogen β -chain only, reacting with fragments X & Y, but not D & E, (therefore with fibrin monomer)	reacts weakly with native human fibrinogen but well with fibrin

Comment

Many of the antigen-antibody interactions listed in the table above are conformationally dependent. Use caution in relying on these visualized interactions. For example, the same antibody coupled to latex or immunoabsorbed can exhibit both qualitative and quantitative differences in specificity against identical antigen preparations, and qualitative difference in the case of fluid phase reaction.

Applications

Immunohistochemistry - **Product No. 350** stains fibrin (β -chain of fibrinogen) in snap frozen human cardiac allografts. Suggested working dilutions start at 1:20 (Faulk, W., *et al. Arch Pathol Lab Med* 1992; **116**: 1337-1344). Product No. 350 has been shown to cross-react with canine fibrin in paraffin sections at a 1:50 dilution (Golombiewski, A., *et al. J Comp Path* 1997; **117**: 177-183).

Preparation and Storage

The above monoclonal antibodies have been purified via affinity chromatography (as appropriate for the subclass). Screw-capped clear glass vials (2 mL volume) contain 0.5 mg of immunoglobulin lyophilized from 0.15M PBS buffer, pH 7.2 with 0.1M mannitol added. Store unopened vials at +2 - +8°C. See vial label for reconstitution volume. If no volume is listed, reconstitute with 0.5 mL filtered deionized water.

Related Products

Product No. 313R, Rabbit anti-human fibrinogen IgG, 1 mg/vial, lyophilized.
 Product No. 3462, Goat anti-bovine fibrinogen IgG, 1 mg/vial, lyophilized.

Fibrinogen Reactivity per Western Blot Technique

		Monoclonal Antibodies		
		No. 313	No. 311	No. 350
ANTIGENS				
Fibrinogen (non-reduced)				
Mr = 340,000 kD		+/-	++ ¹⁾	+?
Fibrinogen (reduced)				
alpha-chain (64,000 kD)		-	+++	+/-
beta-chain (57,000 kD)		-	+++	+++
gamma-chain (48,000 kD)		-	+++	-
Fibrinogen degradation products (non-reduced)				
Fragment	X	-	+	+
	Y	-	-	+
	D (80,000 kD)	+	+	-
	E (50,000 kD)	?	?	?
Peptides		-	+++	-
Fibrinogen degradation products (reduced)				
α	66 000	-	+	-
β	52 000	-	+	+
β 1	49 000	-	+	-
α p	47 000	-	-	-
γ	46 000	-	?+	-
β 2	40 000	-	+	-
γ 1	39 300	-	-	-
α p	26 000	-	++	-
α 1	20 000	-	++	-
α 2	17 000	-	-	-
α 2	15 000	-	++	-
γ E	11 000	-	-	-
α E	7 000	-	-	-
β E	7 000	-	-	-

1) + = reaction present, ++ strong reaction, +++ stronger reaction, - no reaction

(Analysis of reactivity against cross-linked fibrin fragments is underway)