Product Data Sheet

Product number **A076**
Revision number RN2.0

Product Name	DD-XLink-mab
Background info	After proteolytic activation by thrombin, FXIIIa modifies the soft fibrin clot and thereby introducing covalent bonds. First, cross-linking between abutting γ-chains of fibrin is catalyzed and subsequently α_2-antiplasmin is incorporated to further increase the resistance against fibrinolysis. Plasmin catalyses the retarded clot dissolution and the release of crosslinked fibrin degradation products (xFDPs / D-dimer) (figure 1). Monoclonal "D-dimer" antibodies (e.g. DD-3B6/22) are commercially available and are used in In Vitro Diagnostics (IVD) to exclude thromboembolic events. However, these monoclonals do not detect the crosslink itself but address a portion of polypeptides within the D-domain after plasmin degradation that are conformationally reactive. Zedira scientists developed a monoclonal antibody which directly recognizes the crosslinked fibrin neoepitope (DD-XLink-mab) (figure 2).

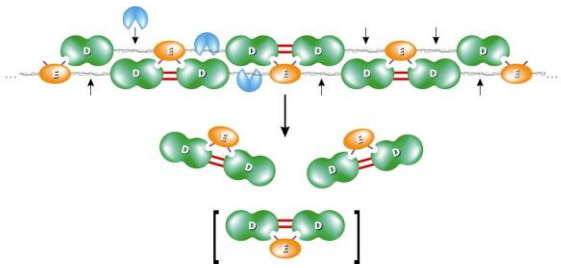

Figure 1: Schematic view of a FXIII-cross-linked fibrin-clot and release of D-Dimers.
E (orange): E-domain
D (green): D-domain
red: FXIII-cross-links
blue: plasmin
in [ ]: D-Dimer/xFDPs

Host	Mouse
Subclass	IgG2b κ
Immunogen	Human fibrin peptides cross-linked with plasma factor XIIIa.
Specificity	Specific for clot derived xFDPs (crosslinked Fibrin Degradation Products) Minor reactivity with fibrinogen degradation products (FDPs) cannot be excluded (compare to ELISA data in figure 3).
Amount	100 µg purified IgG by Protein A chromatography. IgG content >95% of total protein.
Appearance	liquid
Formulation	The antibody is stored in PBS, 150 mM NaCl (pH 7.4), 0.02% sodium azide
Working dilutions	Optimal dilutions should be determined by the end user. E. g. for Western-Blotting: 1 / 3,000 to 1 / 10,000 should be suitable
Storage	Store at 2 – 8 °C
Related products	A046 Monoclonal antibody to D-Dimer, clone 3B6 A047 Monoclonal antibody to D-Dimer, clone 1D2
Release date	25 November 2021
NOTE	INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.

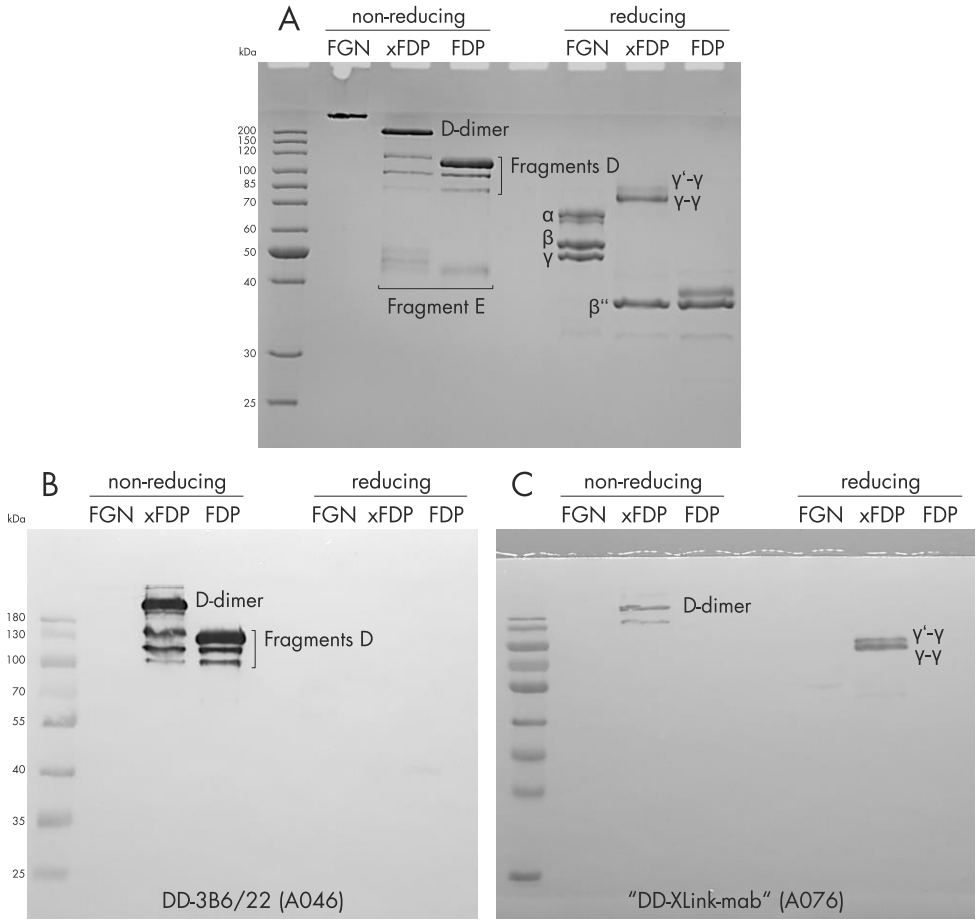

Figure 2: Coomassie stained SDS-PAGE **A)** of fibrinogen, crosslinked fibrin degradation products (xFDPs) and non-crosslinked fibrin degradation products (FDPs) under non-reducing and reducing conditions. The most characteristic bands are referenced. Western blotting using **B)** "D-dimer" (DD-3B6, Zedira A046) and **C)** "DD-XLink-mab" (A076). Fibrinogen, xFDPs and FDPs under non-reduced and reduced conditions have been used according to **A)**.

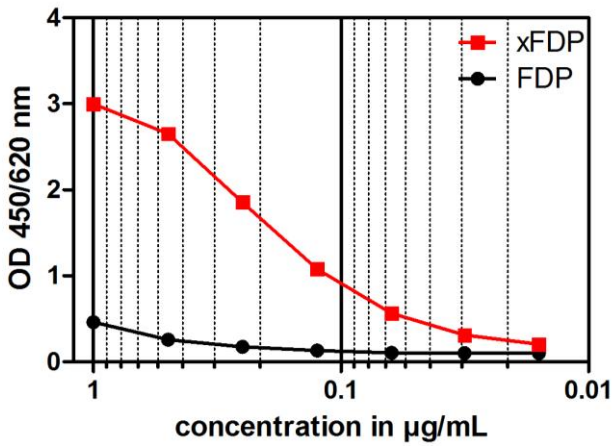

Figure 3: Solid-phase ELISA with insolubilized FDPs and xFDPs to show reactivity. Titration of DD-XLink-mab showed very strong reactivity towards xFDPs and minor reactivity towards FDPs.