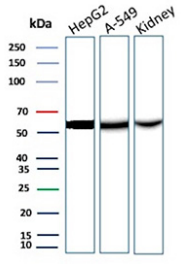
D-dimer Antibody / Cross-linked fibrin fragment [clone FGG/13043R] (V5890)

Catalog No.	Formulation	Size
V5890-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5890-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V5890SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

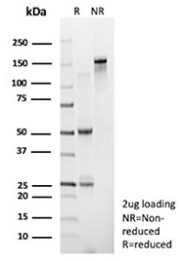
Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	FGG/13043R
UniProt	P02679
Localization	Secreted
Applications	Western Blot : 2-4ug/ml
Limitations	This D-dimer antibody is available for research use only.



Western blot analysis of human HepG2 and A549 cell lysates and human kidney tissue lysate using recombinant D-dimer antibody (FGG/13043R). An immunoreactive band is observed at approximately 50â€“55 kDa, consistent with the predicted molecular weight of the fibrinogen gamma chain from which D-dimer neoepitopes are derived.



SDS-PAGE Analysis of purified recombinant D-dimer antibody (clone FGG/13043R). Confirmation of Purity and Integrity of Antibody.

Description

D-dimer antibody targets a neoantigenic epitope present on the cross-linked fibrin fragment known as D-dimer, a specific fibrin degradation product generated during active coagulation and fibrinolysis. D-dimer is formed only after fibrinogen is converted to fibrin by thrombin, fibrin strands are covalently cross-linked by factor XIIIa, and the stabilized clot is subsequently cleaved by plasmin. This multistep requirement makes D-dimer a highly specific molecular marker of clot formation and breakdown rather than a marker of native fibrinogen or unprocessed fibrin.

D-dimer is derived primarily from the gamma chain region of fibrinogen (FGG) following cross-linking and proteolytic cleavage, creating a unique conformational epitope that is absent in intact fibrinogen, non-cross-linked fibrin, or individual fibrinogen chains. Antibodies directed against this neoepitope selectively recognize cross-linked fibrin degradation products, providing high specificity for biologically relevant clot turnover. As a result, D-dimer antibody reagents are fundamentally different from antibodies raised against fibrinogen alpha, beta, or gamma chains, which detect native circulating proteins rather than processed clot fragments.

The biological significance of D-dimer lies in its role as a direct indicator of ongoing or recent coagulation activity. Elevated D-dimer levels reflect activation of both the coagulation cascade and the fibrinolytic system, making D-dimer a widely used biomarker in thrombosis research and clinical diagnostics. D-dimer antibody tools are extensively applied in studies of venous thromboembolism, disseminated intravascular coagulation, cardiovascular disease, inflammation-associated coagulopathy, cancer-associated thrombosis, and sepsis-related clotting abnormalities.

In tissue-based and biochemical research, D-dimer antibody reagents are used to detect fibrin deposition and degradation within vascular and extravascular compartments. Localization of D-dimer-positive material provides insight into sites of active clot formation, fibrinolytic remodeling, and vascular injury. In cancer and inflammatory disease models, detection of cross-linked fibrin fragments can reveal interactions between coagulation pathways, immune cell infiltration, and tissue remodeling processes within the disease microenvironment.

The D-dimer antibody clone FGG/13043R is designed to recognize a neoantigenic determinant specific to the D-dimer fragment of cross-linked fibrin. Clone FGG/13043R does not detect native fibrinogen or uncleaved fibrin, supporting its use in research applications that require selective identification of fibrin degradation products. This monoclonal antibody enables precise investigation of coagulation dynamics, clot resolution, and fibrinolytic activity in physiological and pathological experimental systems.

Application Notes

1. Optimal dilution of the D-dimer antibody should be determined by the researcher.

2. This D-dimer antibody is recombinantly produced by expression in CHO cells.

Immunogen

Recombinant human FGA protein (exact sequence is proprietary) was used as the immuongen for the D-dimer antibody.

Storage

D-dimer antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.