

Fibrinogen γ (D-6): sc-133226

BACKGROUND

The plasma glycoprotein Fibrinogen is synthesized in the liver and comprises three structurally different subunits: α , β and γ . Fibrinogen is important in platelet aggregation, the final step of the coagulation cascade (i.e. the formation of Fibrin) and determination of plasma viscosity and erythrocyte aggregation. It is both constitutively expressed and inducible during an acute phase reaction. Hemostasis following tissue injury deploys essential plasma procoagulants (Prothrombin and Factors X, IX, V and VIII), which are involved in a blood coagulation cascade leading to the formation of insoluble Fibrin clots and the promotion of platelet aggregation. Following vascular injury, Fibrinogen is cleaved by Thrombin to form Fibrin, which is the most abundant component of blood clots. The cleavage products of Fibrinogen regulate cell adhesion and spreading, display vasoconstrictor and chemotactic activities and are mitogens for several cell types.

REFERENCES

1. Davie, E.W. and Fujikawa, K. 1975. Basic mechanisms in blood coagulation. *Annu. Rev. Biochem.* 44: 799-829.
2. Davie, E.W., et al. 1991. The coagulation cascade: initiation, maintenance, and regulation. *Biochemistry* 30: 10363-10370.
3. Danesh, J., et al. 1998. Association of Fibrinogen, C-reactive protein, albumin, or leukocyte count with coronary heart disease: meta-analyses of prospective studies. *JAMA* 279: 1477-1482.
4. Lowe, G., et al. 2000. Blood rheology, cardiovascular risk factors, and cardiovascular disease: the west of Scotland coronary prevention study. *Thromb. Haemost.* 84: 553-558.
5. Reinhart, W.H. 2003. Fibrinogen—marker or mediator of vascular disease? *Vasc. Med.* 8: 211-216.

CHROMOSOMAL LOCATION

Genetic locus: FGG (human) mapping to 4q31.3; Fgg (mouse) mapping to 3 E3.

SOURCE

Fibrinogen γ (D-6) is a mouse monoclonal antibody raised against amino acids 27-220 mapping near the N-terminus of Fibrinogen γ of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Fibrinogen γ (D-6) is available conjugated to agarose (sc-133226 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133226 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-133226 PE), fluorescein (sc-133226 FITC), Alexa Fluor[®] 488 (sc-133226 AF488), Alexa Fluor[®] 546 (sc-133226 AF546), Alexa Fluor[®] 594 (sc-133226 AF594) or Alexa Fluor[®] 647 (sc-133226 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-133226 AF680) or Alexa Fluor[®] 790 (sc-133226 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

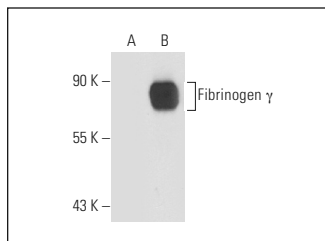
Fibrinogen γ (D-6) is recommended for detection of Fibrinogen γ -A and Fibrinogen γ -B of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Fibrinogen γ siRNA (h): sc-37098, Fibrinogen γ siRNA (m): sc-37099, Fibrinogen γ shRNA Plasmid (h): sc-37098-SH, Fibrinogen γ shRNA Plasmid (m): sc-37099-SH, Fibrinogen γ shRNA (h) Lentiviral Particles: sc-37098-V and Fibrinogen γ shRNA (m) Lentiviral Particles: sc-37099-V.

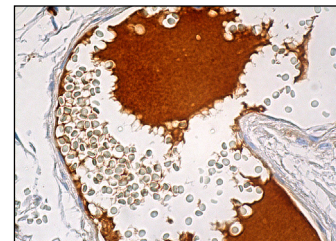
Molecular Weight of Fibrinogen γ : 57 kDa.

Positive Controls: Fibrinogen γ (h): 293T Lysate: sc-158507, HeLa nuclear extract: sc-2120 or human platelet extract: sc-363773.

DATA



Fibrinogen γ (D-6): sc-133226. Western blot analysis of Fibrinogen γ expression in non-transfected: sc-117752 (A) and human Fibrinogen γ transfected: sc-158507 (B) 293T whole cell lysates.



Fibrinogen γ (D-6): sc-133226. Immunoperoxidase staining of formalin fixed, paraffin-embedded human blood vessel showing plasma staining.

SELECT PRODUCT CITATIONS

1. Keam, S.P., et al. 2018. Exploring the oncoproteomic response of human prostate cancer to therapeutic radiation using data-independent acquisition (DIA) mass spectrometry. *Prostate* 78: 563-575.
2. Choi, J.W., et al. 2020. Proteome analysis of human natural killer cell derived extracellular vesicles for identification of anticancer effectors. *Molecules* 25: 5216.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.