

Fibrinogen α (G-16): sc-33916

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., et al. 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.
6. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 34820. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. LocusLink Report (LocusID: 2243). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: FGA (human) mapping to 4q31.3; Fga (mouse) mapping to 3 E3.

SOURCE

Fibrinogen α (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Fibrinogen α of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-33916 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Fibrinogen α (G-16) is recommended for detection of Fibrinogen isoforms α and α -E of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Fibrinogen α (G-16) is also recommended for detection of Fibrinogen isoforms α and α -E in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Fibrinogen α siRNA (h): sc-40409, Fibrinogen α siRNA (m): sc-40410, Fibrinogen α shRNA Plasmid (h): sc-40409-SH, Fibrinogen α shRNA Plasmid (m): sc-40410-SH, Fibrinogen α shRNA (h) Lentiviral Particles: sc-40409-V and Fibrinogen α shRNA (m) Lentiviral Particles: sc-40410-V.

Molecular Weight of Fibrinogen α : 60 kDa.

Positive Controls: human platelet whole cell lysate: sc-363773.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Díaz-Vera, J., et al. 2012. Chromogranins A and B are key proteins in amine accumulation, but the catecholamine secretory pathway is conserved without them. *FASEB J.* 6: 430-438.

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 or our catalog for detailed protocols and support products.



Try **Fibrinogen α (C-7): sc-398806** or **Fibrinogen α (A-6): sc-166968**, our highly recommended monoclonal alternatives to Fibrinogen α (G-16).