

Factor XIII A (C-20): sc-18013

BACKGROUND

Homeostasis following tissue injury involves the deployment of essential plasma procoagulants (prothrombin and factors V, VIII, IX and X), which are involved in a blood coagulation cascade leading to the formation of insoluble fibrin clots and the promotion of platelet aggregation. Coagulation factor VII (serum prothrombin conversion accelerator, proconvertin, F7, factor VII) is a 406 amino acid, vitamin K-dependent, single chain serine protease that is synthesized in the liver and circulates as an inactive precursor. Factor IX A-, factor X A-, factor XII A- or thrombin-mediated proteolytic cleavage of factor VII at Arg 152-Ile 153 generates factor VII A, an active serine protease composed of a catalytic heavy chain disulfide linked to a light chain, containing two EGF-like domains. Coagulation factor XIII is a terminal effector in the blood coagulation cascade. Plasma factor XIII is a heterotetramer composed of two A subunits and two B subunits. The A subunits have catalytic function, and the noncatalytic B subunits may serve as plasma carrier molecules.

CHROMOSOMAL LOCATION

Genetic locus: F13A1 (human) mapping to 6p25.1; F13a1 (mouse) mapping to 13 A3.3.

SOURCE

Factor XIII A (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Coagulation Factor XIII A of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-18013 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Factor XIII A (C-20) is recommended for detection of Factor XIII A of human, mouse and, to a lesser extent, rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

Factor XIII A (C-20) is also recommended for detection of Factor XIII A in additional species, including canine and bovine.

Suitable for use as control antibody for Factor XIII A siRNA (h): sc-72083, Factor XIII A siRNA (m): sc-72084, Factor XIII A shRNA Plasmid (h): sc-72083-SH, Factor XIII A shRNA Plasmid (m): sc-72084-SH, Factor XIII A shRNA (h) Lentiviral Particles: sc-72083-V and Factor XIII A shRNA (m) Lentiviral Particles: sc-72084-V.

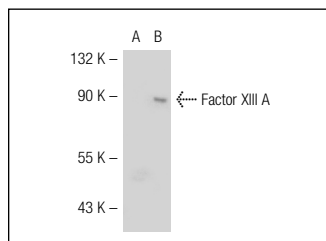
Molecular Weight of Factor XIII A: 160 kDa.

Positive Controls: Factor XIII A (h): 293T Lysate: sc-114126.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Factor XIII A (C-20): sc-18013. Western blot analysis of Factor XIII A expression in non-transfected: sc-117752 (A) and human Factor XIII A transfected: sc-114126 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Zhou, J., et al. 2010. CXCR3-dependent accumulation and activation of perivascular macrophages is necessary for homeostatic arterial remodeling to hemodynamic stresses. *J. Exp. Med.* 207: 1951-1966.

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 **Factor XIII A (A-4): sc-271122** or **Factor XIII A (B-8): sc-376312**, our highly recommended monoclonal alternatives to Factor XIII A (C-20).