

# Factor V (V-20): sc-16336

## BACKGROUND

Homeostasis following tissue injury involves the deployment of essential plasma procoagulants (prothrombin, and Factors X, IX, V and VIII), which are involved in a blood coagulation cascade that leads to the formation of insoluble fibrin clots and the promotion of platelet aggregation. Coagulation Factor V (Factor V, FV, proaccelerin, labile factor) is a 2,196 amino acid, single chain glycoprotein that is cleaved by thrombin to yield an active, Ca<sup>2+</sup> dependent dimer. This dimer is essential to the blood coagulation cascade. Together with catalytic Factor X A and Ca<sup>2+</sup> on the surface of platelets or endothelial cells, Factor V A coordinates in a prothrombinase complex, which mediates proteolysis of prothrombin into active thrombin. Due to both the procoagulant properties of Factor V in coordinating proteolytic activation of thrombin, and anticoagulant properties as a cofactor to activated protein C (APC), which selectively destroys Factor V A and Factor X A, alterations at the Factor V locus can contribute to hemorrhagic diathesis or thrombosis, respectively.

## CHROMOSOMAL LOCATION

Genetic locus: F5 (human) mapping to 1q24.2; F5 (mouse) mapping to 1 H2.2.

## SOURCE

Factor V (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Factor V 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-16336 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

Factor V (V-20) is recommended for detection of Factor V of mouse, rat and human 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 V (V-20) is also recommended for detection of Factor V in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Factor V siRNA (h): sc-40399, Factor V siRNA (m): sc-40400, Factor V shRNA Plasmid (h): sc-40399-SH, Factor V shRNA Plasmid (m): sc-40400-SH, Factor V shRNA (h) Lentiviral Particles: sc-40399-V and Factor V shRNA (m) Lentiviral Particles: sc-40400-V.

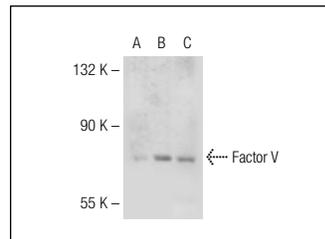
Molecular Weight of Factor V: 330 kDa.

Positive Controls: Factor V (h3): 293T Lysate: sc-128560, human platelet whole cell lysate: sc-363773 or HeLa whole cell lysate: sc-2200.

## 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 V (V-20): sc-16336. Western blot analysis of Factor V expression in non-transfected 293T: sc-117752 (A), human Factor V transfected 293T: sc-128560 (B) and HeLa (C) whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **Factor V (6A5): sc-13512** or **Factor V (A-2): sc-390181**, our highly recommended monoclonal alternatives to Factor V (V-20).