

Protein S (C-17): sc-27027

BACKGROUND

Protein S (PROS) is a vitamin K-dependent plasma protein that inhibits blood clotting by serving as a cofactor for activated protein C (APC), and facilitates clearance of early apoptotic cells. In the plasma, circulating Protein S becomes inactive upon complexing with C4b-binding protein (C4BP); 60-70% of Protein S circulates in complex with C4BP. Calcium-dependent association of C4BP-Protein S with apoptotic cells influences the regulation of complement activation. Protein S has APC-independent anticoagulant activity through direct inhibition of prothrombin activation via interactions with Factor X A, Factor V A and phospholipids. Autosomal dominant Protein S deficiency (levels 15 to 37% of normal) correlates with severe recurrent venous thrombosis.

REFERENCES

1. Stenflo, J. and Jonsson, M. 1979. Protein S, a new vitamin K-dependent protein from bovine plasma. *FEBS Lett.* 101: 377-381.
2. DiScipio, R.G. and Davie, E.W. 1979. Characterization of Protein S, a γ -carboxyglutamic acid containing protein from bovine and human plasma. *Biochemistry* 18: 899-904.

CHROMOSOMAL LOCATION

Genetic locus: PROS1 (human) mapping to 3q11.1; Pros1 (mouse) mapping to 16 C1.3.

SOURCE

Protein S (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Protein S 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-27027 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Protein S (C-17) is recommended for detection of precursor and mature Protein S of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Protein S (C-17) is also recommended for detection of precursor and mature Protein S in additional species, including canine and bovine.

Suitable for use as control antibody for Protein S siRNA (h): sc-63328, Protein S siRNA (m): sc-63329, Protein S shRNA Plasmid (h): sc-63328-SH, Protein S shRNA Plasmid (m): sc-63329-SH, Protein S shRNA (h) Lentiviral Particles: sc-63328-V and Protein S shRNA (m) Lentiviral Particles: sc-63329-V.

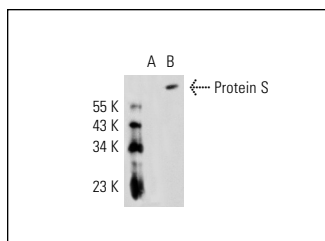
Molecular Weight of Protein S: 70 kDa.

Positive Controls: Protein S (h): 293 Lysate: sc-111877 or Hep G2 cell lysate: sc-2227.

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



Protein S (C-17): sc-27027. Western blot analysis of Protein S expression in non-transfected: sc-110760 (A) and human Protein S transfected: sc-111877 (B) 293 whole cell lysates.

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.

MONOS
Satisfaction
Guaranteed

Try **Protein S (F-10): sc-271326** or **Protein S (C-5): sc-271400**, our highly recommended monoclonal alternatives to Protein S (C-17).