

Protein C (M-140): sc-292687

BACKGROUND

Protein C is a vitamin K-dependent plasma protein that is produced in the liver and made up of two polypeptide chains. It is an important anti-coagulant activated by thrombin bound to an endothelial surface receptor and it enzymatically cleaves activated forms of factors V and VIII, thus inhibiting blood coagulation. Protein C is similar to the prothrombin group of blood coagulation factors in its primary structure. Normal Protein C concentration in human plasma is approximately 1-3 ng/ml and the proenzyme concentration is approximately 3 µg/ml. Protein C deficiency is associated with inherited thrombophilia, a rare genetic disorder that predisposes affected individuals to venous thrombosis and habitual abortion.

REFERENCES

1. Griffin, J.H., Evatt, B., Zimmerman, T.S., Kleiss, A.J. and Wideman, C. 1982. Deficiency of protein C in congenital thrombotic disease. *J. Clin. Invest.* 68: 1370-1373.
2. Esmon, C.T. 1989. The roles of protein C and thrombomodulin in the regulation of blood coagulation. *J. Biol. Chem.* 264: 4743-4746.
3. Dahlbäck, B., Carlsson, M. and Svensson, P.J. 1993. Familial thrombophilia due to a previously unrecognized mechanism characterized by poor anticoagulant response to activated Protein C: prediction of a cofactor to activated protein C. *Proc. Nat. Acad. Sci. USA* 90: 1004-1008.
4. Bertina, R.M., Koeleman, B.P., Koster, T., Rosendaal, F.R., Dirven, R.J., de Ronde, H., van der Velden, P.A. and Reitsma, P.H. 1994. Mutation in blood coagulation factor V associated with resistance to activated protein C. *Nature* 369: 64-67.
5. Dahlbäck, B. 1995. Inherited thrombophilia: resistance to activated protein C as a pathogenic factor of venous thromboembolism. *Blood* 85: 607-614.
6. Preston, F.E., Rosendaal, F.R., Walker, I.D., Briët, E., Berntorp, E., Conard, J., Fontcuberta, J., Makris, M., Mariani, G., Noteboom, W., Pabinger, I., Legnani, C., Scharer, I., Schulman, S. and van der Meer, F.J. 1996. Increased fetal loss in women with heritable thrombophilia. *Lancet* 348: 913-916.

CHROMOSOMAL LOCATION

Genetic locus: PROC (human) mapping to 2q14.3; Proc (mouse) mapping to 18 B1.

SOURCE

Protein C (M-140) is a rabbit polyclonal antibody raised against amino acids 256-395 mapping near the C-terminus of Protein C of mouse origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

Protein C (M-140) is recommended for detection of Protein C of mouse, rat and, to a lesser extent, 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).

Suitable for use as control antibody for Protein C siRNA (h): sc-72054, Protein C siRNA (m): sc-72140, Protein C shRNA Plasmid (h): sc-72054-SH, Protein C shRNA Plasmid (m): sc-72140-SH, Protein C shRNA (h) Lentiviral Particles: sc-72054-V and Protein C shRNA (m) Lentiviral Particles: sc-72140-V.

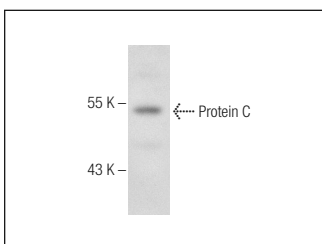
Molecular Weight of Protein C: 52 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Protein C (M-140): sc-292687. Western blot analysis of Protein C expression in RAW 264.7 whole cell lysate.

RESEARCH USE

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



Try **Protein C (C-10): sc-377175**, our highly recommended monoclonal alternative to Protein C (M-140).