

SSSCA1 (NB-C27): sc-135570

BACKGROUND

SSSCA1 (sjogren syndrome/scleroderma autoantigen 1), also known as p27, is a 199 amino acid protein that may play a role in mitosis. Considered a centromere-associated protein, SSSCA1 may induce anti-centromere antibodies. SSSCA1 is phosphorylated upon DNA damage by ATM or ATR. The gene encoding SSSCA1 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

- Grossfeld, P.D., Mattina, T., Lai, Z., Favier, R., Jones, K.L., Cotter, F. and Jones, C. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. *Am. J. Med. Genet. A* 129A: 51-61.
- Loussouarn, G., Baró, I. and Escande, D. 2006. KCNQ1 K⁺ channel-mediated cardiac channelopathies. *Methods Mol. Biol.* 337: 167-183.
- Taylor, T.D., Noguchi, H., Totoki, Y., Toyoda, A., Kuroki, Y., Dewar, K., Lloyd, C., Itoh, T., Takeda, T., Kim, D.W., She, X., Barlow, K.F., Bloom, T., Bruford, E., Chang, J.L., Cuomo, C.A., Eichler, E., Fitzgerald, M.G., Jaffe, D.B., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. *Nature* 440: 497-500.
- Zehelein, J., Kathoefer, S., Khalil, M., Alter, M., Thomas, D., Brockmeier, K., Ulmer, H.E., Katus, H.A. and Koenen, M. 2006. Skipping of exon 1 in the KCNQ1 gene causes Jervell and Lange-Nielsen syndrome. *J. Biol. Chem.* 281: 35397-35403.
- Ataga, K.I., Cappellini, M.D. and Rachmilewitz, E.A. 2007. β -thalassaemia and sickle cell anaemia as paradigms of hypercoagulability. *Br. J. Haematol.* 139: 3-13.
- Berger, A.C., Salazar, G., Styers, M.L., Newell-Litwa, K.A., Werner, E., Maue, R.A., Corbett, A.H. and Faundez, V. 2007. The subcellular localization of the Niemann-Pick type C proteins depends on the adaptor complex AP-3. *J. Cell Sci.* 120: 3640-3652.
- Lee, J.H. and Paull, T.T. 2007. Activation and regulation of ATM kinase activity in response to DNA double-strand breaks. *Oncogene* 26: 7741-7748.
- O'Connor, M.J., Martin, N.M. and Smith, G.C. 2007. Targeted cancer therapies based on the inhibition of DNA strand break repair. *Oncogene* 26: 7816-7824.
- Kaste, S.C., Dome, J.S., Babyn, P.S., Graf, N.M., Grundy, P., Godzinski, J., Levitt, G.A. and Jenkinson, H. 2008. Wilms' tumour: prognostic factors, staging, therapy and late effects. *Pediatr. Radiol.* 38: 2-17.

CHROMOSOMAL LOCATION

Genetic locus: SSSCA1 (human) mapping to 11q13.1; Ssca1 (mouse) mapping to 19 A.

STORAGE

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

SOURCE

SSSCA1 (NB-C27) is a mouse monoclonal antibody raised against recombinant SSSCA1 protein of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SSSCA1 (NB-C27) is recommended for detection of SSSCA1 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SSSCA1 siRNA (h): sc-96537, SSSCA1 siRNA (m): sc-153847, SSSCA1 shRNA Plasmid (h): sc-96537-SH, SSSCA1 shRNA Plasmid (m): sc-153847-SH, SSSCA1 shRNA (h) Lentiviral Particles: sc-96537-V and SSSCA1 shRNA (m) Lentiviral Particles: sc-153847-V.

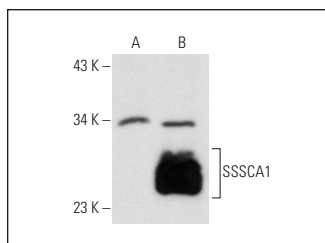
Molecular Weight of SSSCA1: 21 kDa.

Positive Controls: SSSCA1 (m): 293T Lysate: sc-123793 or human SSSCA1 transfected 293T whole cell lysate.

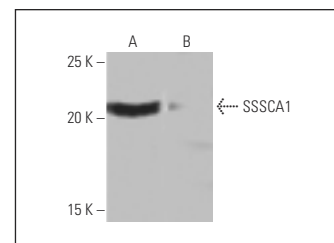
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



SSSCA1 (NB-C27): sc-135570. Western blot analysis of SSSCA1 expression in non-transfected: sc-117752 (A) and mouse SSSCA1 transfected: sc-123793 (B) 293T whole cell lysates.



SSSCA1 (NB-C27): sc-135570. Western blot analysis of SSSCA1 expression in human SSSCA1 transfected (A) and non-transfected (B) 293T whole cell lysates.

RESEARCH USE

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