

SSSCA1 (N-14): sc-161232

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* 129: 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., LaButti, K., Nicol, R., Park, H.S., 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.

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-161232 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

CHROMOSOMAL LOCATION

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

SOURCE

SSSCA1 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SSSCA1 of human origin.

APPLICATIONS

SSSCA1 (N-14) 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), 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).

SSSCA1 (N-14) is also recommended for detection of SSSCA1 in additional species, including equine, canine, bovine and porcine.

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.

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) 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.

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.