

# SSSCA1 (G-12): sc-515430

## 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

1. Grossfeld, P.D., et al. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. *Am. J. Med. Genet. A* 129A: 51-61.
2. Loussouarn, G., et al. 2006. KCNQ1 K<sup>+</sup> channel-mediated cardiac channelopathies. *Methods Mol. Biol.* 337: 167-183.
3. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. *Nature* 440: 497-500.
4. Zehelein, J., et al. 2006. Skipping of Exon 1 in the KCNQ1 gene causes Jervell and Lange-Nielsen syndrome. *J. Biol. Chem.* 281: 35397-35403.
5. Ataga, K.I., et al. 2007.  $\beta$ -thalassaemia and sickle cell anaemia as paradigms of hypercoagulability. *Br. J. Haematol.* 139: 3-13.
6. Berger, A.C., et al. 2007. The subcellular localization of the Niemann-Pick Type C proteins depends on the adaptor complex AP-3. *J. Cell Sci.* 120: 3640-3652.

## CHROMOSOMAL LOCATION

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

## SOURCE

SSSCA1 (G-12) is a mouse monoclonal antibody raised against amino acids 1-108 mapping at the N-terminus of SSSCA1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SSSCA1 (G-12) is available conjugated to agarose (sc-515430 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515430 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515430 PE), fluorescein (sc-515430 FITC), Alexa Fluor® 488 (sc-515430 AF488), Alexa Fluor® 546 (sc-515430 AF546), Alexa Fluor® 594 (sc-515430 AF594) or Alexa Fluor® 647 (sc-515430 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515430 AF680) or Alexa Fluor® 790 (sc-515430 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## RESEARCH USE

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

## APPLICATIONS

SSSCA1 (G-12) is recommended for detection of SSSCA1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

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.

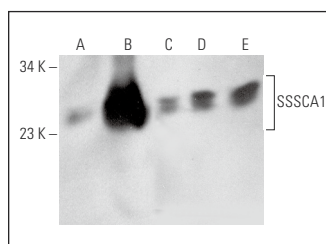
Molecular Weight of SSSCA1: 21 kDa.

Positive Controls: SSSCA1 (m): 293T Lysate: sc-123793, MCF7 whole cell lysate: sc-2206 or A549 cell lysate: sc-2413.

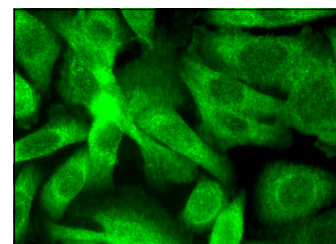
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



SSSCA1 (G-12): sc-515430. Western blot analysis of SSSCA1 expression in non-transfected 293T: sc-117752 (A), mouse SSSCA1 transfected 293T: sc-123793 (B), MCF7 (C), A549 (D) and HeLa (E) whole cell lysates.



SSSCA1 (G-12): sc-515430. Immunofluorescence staining of formalin-fixed SW480 cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Wallwork, R.S., et al. 2023. Association between anti-SSSCA1 antibodies and cancer in systemic sclerosis. *Rheumatology* 62: 2539-2543.

## STORAGE

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

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