

SSNA1 (C-5): sc-376254

BACKGROUND

SSNA1 (sjoegren syndrome nuclear autoantigen 1), also known as N14 or NA-14 (nuclear autoantigen of 14 kDa), is a 119 amino acid nuclear and cytoplasmic protein that is widely expressed and belongs to the SSNA1 family. While most highly expressed in testis, SSNA1 is found at lower levels in peripheral blood leukocytes, spleen, colon, thymus, ovary, prostate and small intestine, and is thought to be associated with microtubule structures. SSNA1 contains an N-terminal dimeric coiled-coil domain, a C-terminal basic domain and may target spastin activity at the centrosome. The gene encoding SSNA1 maps to human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and familial dysautonomia, are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

REFERENCES

1. Ramos-Morales, F., et al. 1998. NA14 is a novel nuclear autoantigen with a coiled-coil domain. *J. Biol. Chem.* 273: 1634-1639.
2. Casenghi, M., et al. 2003. Polo-like kinase 1 regulates Nlp, a centrosome protein involved in microtubule nucleation. *Dev. Cell* 5: 113-125.
3. Pfannenschmid, F., et al. 2003. *Chlamydomonas* DIP13 and human NA14: a new class of proteins associated with microtubule structures is involved in cell division. *J. Cell Sci.* 116: 1449-1462.
4. Andersen, J.S., et al. 2003. Proteomic characterization of the human centrosome by protein correlation profiling. *Nature* 426: 570-574.
5. Errico, A., et al. 2004. Spastin interacts with the centrosomal protein NA14, and is enriched in the spindle pole, the midbody and the distal axon. *Hum. Mol. Genet.* 13: 2121-2132.

CHROMOSOMAL LOCATION

Genetic locus: SSNA1 (human) mapping to 9q34.3; Ssna1 (mouse) mapping to 2 A3.

SOURCE

SSNA1 (C-5) is a mouse monoclonal antibody raised against amino acids 1-119 representing full length SSNA1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SSNA1 (C-5) is available conjugated to agarose (sc-376254 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376254 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376254 PE), fluorescein (sc-376254 FITC), Alexa Fluor® 488 (sc-376254 AF488), Alexa Fluor® 546 (sc-376254 AF546), Alexa Fluor® 594 (sc-376254 AF594) or Alexa Fluor® 647 (sc-376254 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376254 AF680) or Alexa Fluor® 790 (sc-376254 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

SSNA1 (C-5) is recommended for detection of SSNA1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 SSNA1 siRNA (h): sc-92613, SSNA1 siRNA (m): sc-153846, SSNA1 shRNA Plasmid (h): sc-92613-SH, SSNA1 shRNA Plasmid (m): sc-153846-SH, SSNA1 shRNA (h) Lentiviral Particles: sc-92613-V and SSNA1 shRNA (m) Lentiviral Particles: sc-153846-V.

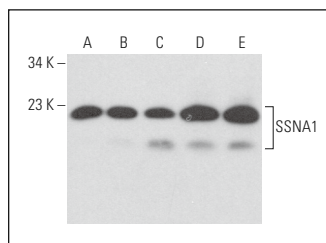
Molecular Weight of SSNA1: 14 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181, F9 cell lysate: sc-2245 or MCF7 whole cell lysate: sc-2206.

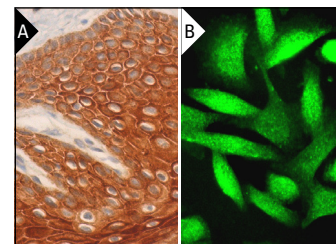
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



SSNA1 (C-5): sc-376254. Western blot analysis of SSNA1 expression in NTERA-2 cl.D1 (A), SW480 (B), MCF7 (C), F9 (D) and 3T3-L1 (E) whole cell lysates.



SSNA1 (C-5): sc-376254. Immunoperoxidase staining of formalin fixed, paraffin-embedded human uterine cervix tissue showing cytoplasmic staining of squamous epithelial cells (A). Immunofluorescence staining of formalin-fixed SW480 cells showing nuclear and cytoplasmic localization (B).

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.