SANTA CRUZ BIOTECHNOLOGY, INC.

NAT-13 (C-15): sc-103064

BACKGROUND

Acetyltransferases and deacetylases are protein groups most often associated with oncogenesis and cell cycle regulation. NAT-13 (N-acetyltransferase 13), also known as NAA50 (N(α)-acetyltransferase 50, NatE catalytic subunit), MAK3, NAT5 (N-acetyltransferase 5) or SAN, is a 169 amino acid cytoplasmic protein belonging to the acetyltransferase family and GNAT subfamily. Existing as two alternatively spliced isoforms, NAT-13 interacts with NARG1 and ARD1 as a possible catalytic component of the ARD1-NARG1 complex. NAT-13 is also known to interact with MAK10 and is encoded by a gene that maps to human chromosome 3q13.2.

REFERENCES

1. Polevoda, B. and Sherman, F. 2003. N-terminal acetyltransferases and sequence requirements for N-terminal acetylation of eukaryotic proteins. J. Mol. Biol. 325: 595-622.
2. Arnesen, T., Anderson, D., Torsvik, J., Halseth, H.B., Varhaug, J.E. and Lillehaug, J.R. 2006. Cloning and characterization of hNAT5/hSAN: an evolutionarily conserved component of the NatA protein N-α-acetyltransferase complex. Gene 371: 291-295.
3. Hou, F., Chu, C.W., Kong, X., Yokomori, K. and Zou, H. 2007. The acetyltransferase activity of San stabilizes the mitotic cohesin at the centromeres in a shugoshin-independent manner. J. Cell Biol. 177: 587-597.
4. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610834. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Polevoda, B., Arnesen, T. and Sherman, F. 2009. A synopsis of eukaryotic Nα-terminal acetyltransferases: nomenclature, subunits and substrates. BMC Proc. 3: S2.
6. Starheim, K.K., Gromyko, D., Evjenth, R., Ryningen, A., Varhaug, J.E., Lillehaug, J.R. and Arnesen, T. 2009. Knockdown of human N α-terminal acetyltransferase complex C leads to p53-dependent apoptosis and aberrant human ARL8B localization. Mol. Cell. Biol. 29: 3569-3581.

CHROMOSOMAL LOCATION

Genetic locus: NAA50 (human) mapping to 3q13.2; Naa50 (mouse) mapping to 16 B4.

SOURCE

NAT-13 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of NAT-13 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-103064 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

NAT-13 (C-15) is recommended for detection of NAT-13 of mouse, rat and 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); non cross-reactive with other NAT family members.

NAT-13 (C-15) is also recommended for detection of NAT-13 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for NAT-13 siRNA (h): sc-78481, NAT-13 siRNA (m): sc-149840, NAT-13 shRNA Plasmid (h): sc-78481-SH, NAT-13 shRNA Plasmid (m): sc-149840-SH, NAT-13 shRNA (h) Lentiviral Particles: sc-78481-V and NAT-13 shRNA (m) Lentiviral Particles: sc-149840-V.

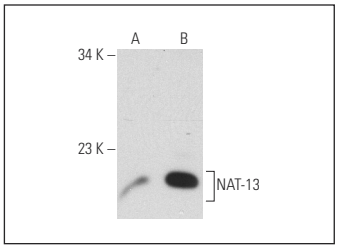
Molecular Weight of NAT-13: 19 kDa.

Positive Controls: NAT-13 (m): 293T Lysate: sc-121943, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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-2494.

DATA



NAT-13 (C-15): sc-103064. Western blot analysis of NAT-13 expression in non-transfected: sc-117752 (**A**) and mouse NAT-13 transfected: sc-121943 (**B**) 293T whole cell lysates.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.