

# NARG1 (D-7): sc-365931

## BACKGROUND

NARG1 (NMDA (N-methyl-D-aspartate) receptor-regulated gene 1), also known as NATH (N-terminal acetyltransferase), TBDN100 (tubedown-1) or Ga19 (gastric cancer antigen Ga19), is a cytoplasmic protein that contains eight TPR repeats. NARG1 is expressed at high levels in dividing tissues such as bone marrow, testis and embryonal brain and it is overexpressed in papillary thyroid carcinomas. NARG1 interacts with ARD1 or ARD2 forming a complex that exhibits N-terminal ( $\alpha$ ) acetyltransferase activity. The complex interacts with ribosomal subunits functioning in cotranslational acetylation. During apoptosis, both NARG1 and ARD1 are cleaved by caspases which results in decreased acetyltransferase activity. Knockdown of NARG1 in HeLa cells leads to apoptosis, indicating that properly functioning NARG1 is essential for cell viability. In addition, this suggests NARG1 as a potential target in cancer therapy.

## CHROMOSOMAL LOCATION

Genetic locus: NAA15 (human) mapping to 4q31.1; Naa15 (mouse) mapping to 3 C.

## SOURCE

NARG1 (D-7) is a mouse monoclonal antibody raised against amino acids 325-370 mapping within an internal region of NARG1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NARG1 (D-7) is available conjugated to agarose (sc-365931 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365931 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365931 PE), fluorescein (sc-365931 FITC), Alexa Fluor® 488 (sc-365931 AF488), Alexa Fluor® 546 (sc-365931 AF546), Alexa Fluor® 594 (sc-365931 AF594) or Alexa Fluor® 647 (sc-365931 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365931 AF680) or Alexa Fluor® 790 (sc-365931 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

NARG1 (D-7) is recommended for detection of NARG1 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), 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 NARG1 siRNA (h): sc-89163, NARG1 siRNA (m): sc-149832, NARG1 shRNA Plasmid (h): sc-89163-SH, NARG1 shRNA Plasmid (m): sc-149832-SH, NARG1 shRNA (h) Lentiviral Particles: sc-89163-V and NARG1 shRNA (m) Lentiviral Particles: sc-149832-V.

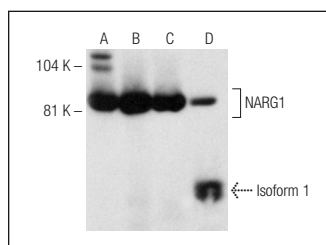
Molecular Weight of NARG1: 100 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

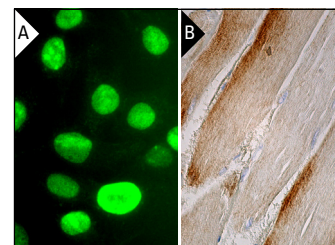
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



NARG1 (D-7): sc-365931. Western blot analysis of NARG1 expression in HeLa (A), K-562 (B), Raji (C) and HUV-EC-C (D) whole cell lysates.



NARG1 (D-7): sc-365931. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes (B).

## SELECT PRODUCT CITATIONS

- Rong, Z., et al. 2016. Opposing functions of the N-terminal acetyltransferases Naa50 and NatA in sister-chromatid cohesion. *J. Biol. Chem.* 291: 19079-19091.
- Pan, K.F., et al. 2022. Naa10p promotes cell invasiveness of esophageal cancer by coordinating the c-Myc and PAI1 regulatory axis. *Cell Death Dis.* 13: 995.

## 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](http://www.scbt.com) for detailed protocols and support products.

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