

NARG1L (G-25): sc-133805

BACKGROUND

They cytoplasmic protein NARG1 (NMDA (N-methyl-d-aspartate) receptor-regulated gene 1) interacts with ARD1 or ARD2 to form a complex, which exhibits N-terminal (α) acetyltransferase activity. This 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. 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. The NARG1-like protein (NARG1L) is an 864 amino acid protein that contains 7 TPR repeats and may also be a component of a complex that displays N-terminal acetyltransferase activity.

REFERENCES

1. Sugiura, N., et al. 2001. N-methyl-D-aspartate receptors regulate a group of transiently expressed genes in the developing brain. *J. Biol. Chem.* 276: 14257-14263.
2. Fluge, O., et al. 2002. NATH, a novel gene overexpressed in papillary thyroid carcinomas. *Oncogene* 21: 5056-5068.
3. Sugiura, N., et al. 2003. An evolutionarily conserved N-terminal acetyltransferase complex associated with neuronal development. *J. Biol. Chem.* 278: 40113-40120.
4. Asami, M., et al. 2005. Interaction of N-terminal acetyltransferase with the cytoplasmic domain of β -amyloid precursor protein and its effect on A β secretion. *J. Biochem.* 137: 147-155.
5. Arnesen, T., et al. 2005. Identification and characterization of the human ARD1-NATH protein acetyltransferase complex. *Biochem. J.* 386: 433-443.
6. Arnesen, T., et al. 2005. Expression of N-acetyl transferase human and human Arrest defective 1 proteins in thyroid neoplasms. *Thyroid* 15: 1131-1136.
7. Arnesen, T., et al. 2006. Characterization of hARD2, a processed hARD1 gene duplicate, encoding a human protein N- α -acetyltransferase. *BMC Biochem.* 7: 13.

CHROMOSOMAL LOCATION

Genetic locus: NAA16 (human) mapping to 13q14.11; Naa16 (mouse) mapping to 14 D3.

SOURCE

NARG1L (G-25) is an affinity purified rabbit polyclonal antibody raised against synthetic NARG1L peptide of human origin.

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.

PRODUCT

Each vial contains 50 μ g IgG in 500 μ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

NARG1L (G-25) is recommended for detection of NARG1L of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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 NARG1L siRNA (h): sc-75877, NARG1L siRNA (m): sc-149833, NARG1L shRNA Plasmid (h): sc-75877-SH, NARG1L shRNA Plasmid (m): sc-149833-SH, NARG1L shRNA (h) Lentiviral Particles: sc-75877-V and NARG1L shRNA (m) Lentiviral Particles: sc-149833-V.

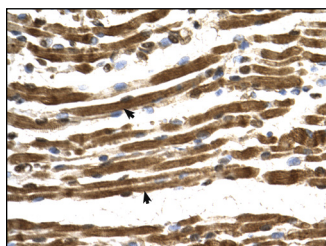
Molecular Weight of NARG1L: 101/62/61/51/37 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

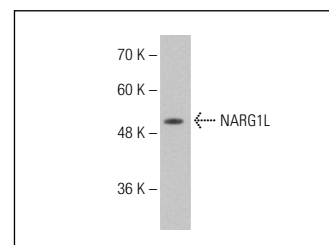
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



NARG1L (G-25): sc-133805. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human muscle tissue showing nuclear and cytoplasmic localization.



NARG1L (G-25): sc-133805. Western blot analysis of NARG1L expression in Hep G2 whole cell lysate.

PROTOCOLS

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