SANTA CRUZ BIOTECHNOLOGY, INC.

NARFL (E-18): sc-160560



BACKGROUND

Prenylation and methylation are two forms of protein modification, both of which are important for a variety of functions, including membrane attachment, protein-protein interactions and signaling events. NARFL (nuclear prelamin A recognition factor-like), also known as cytosolic Fe-S cluster assembly factor NARFL, HPRN, PRN (protein related to Narf), LET1L or IOP1 (iron-only hydrogenase-like protein 1), is a 476 amino acid protein belonging to the NARF family. Widely expressed, NARFL is required for extramitochondrial sulfur and iron protein maturation and may indirectly negatively regulate HIF-1 α expression. Existing as three alternatively spliced isoforms, NARFL is encoded by a gene that maps to human chromosome 16p13.3 and murine chromosome 17 A3.3.

REFERENCES

- Daniels, R.J., Peden, J.F., Lloyd, C., Horsley, S.W., Clark, K., Tufarelli, C., Kearney, L., Buckle, V.J., Doggett, N.A., Flint, J. and Higgs, D.R. 2001. Sequence, structure and pathology of the fully annotated terminal 2 Mb of the short arm of human chromosome 16. Hum. Mol. Genet. 10: 339-352.
- 2. Huang, J., Song, D., Flores, A., Zhao, Q., Mooney, S.M., Shaw, L.M. and Lee, F.S. 2007. IOP1, a novel hydrogenase-like protein that modulates hypoxia-inducible factor- 1α activity. Biochem. J. 401: 341-352.
- 3. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611118. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Song, D. and Lee, F.S. 2008. A role for IOP1 in mammalian cytosolic ironsulfur protein biogenesis. J. Biol. Chem. 283: 9231-9238.
- Song, D., Tu, Z. and Lee, F.S. 2009. Human ISCA1 interacts with IOP1/ NARFL and functions in both cytosolic and mitochondrial iron-sulfur protein biogenesis. J. Biol. Chem. 284: 35297-35307.

CHROMOSOMAL LOCATION

Genetic locus: NARFL (human) mapping to 16p13.3; Narfl (mouse) mapping to 17 A3.3.

SOURCE

NARFL (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NARFL 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-160560 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

NARFL (E-18) is recommended for detection of NARFL 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 NARF.

NARFL (E-18) is also recommended for detection of NARFL in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for NARFL siRNA (h): sc-93253, NARFL siRNA (m): sc-149831, NARFL shRNA Plasmid (h): sc-93253-SH, NARFL shRNA Plasmid (m): sc-149831-SH, NARFL shRNA (h) Lentiviral Particles: sc-93253-V and NARFL shRNA (m) Lentiviral Particles: sc-149831-V.

Molecular Weight of NARFL: 53 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or A-10 cell lysate: sc-3806.

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-24941.

DATA



NARFL (E-18): sc-160560. Western blot analysis of NARFL expression in HeLa (A), K-562 (B) and A-10 (C) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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