SANTA CRUZ BIOTECHNOLOGY, INC.

NARFL (E-7): sc-514078

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-1α 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

1. Daniels, R.J., et al. 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., et al. 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/
4. Song, D. and Lee, F.S. 2008. A role for IOP1 in mammalian cytosolic iron-sulfur protein biogenesis. J. Biol. Chem. 283: 9231-9238.

CHROMOSOMAL LOCATION

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

SOURCE

NARFL (E-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 246-271 within an internal region of NARFL 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.

NARFL (E-7) is available conjugated to agarose (sc-514078 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514078 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514078 PE), fluorescein (sc-514078 FITC), Alexa Fluor® 488 (sc-514078 AF488), Alexa Fluor® 546 (sc-514078 AF546), Alexa Fluor® 594 (sc-514078 AF594) or Alexa Fluor® 647 (sc-514078 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514078 AF680) or Alexa Fluor® 790 (sc-514078 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514078 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

NARFL (E-7) is recommended for detection of NARFL 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

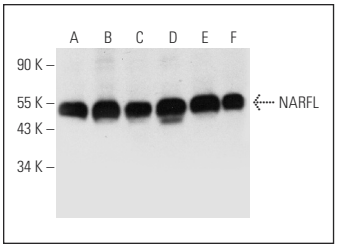
Molecular Weight of NARFL: 53 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, K-562 whole cell lysate: sc-2203 or MDA-MB-435S whole cell lysate: sc-364184.

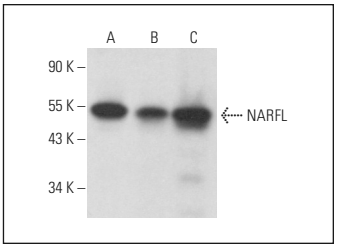
RECOMMENDED SUPPORT REAGENTS

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.

DATA



NARFL (E-7): sc-514078. Western blot analysis of NARFL expression in HeLa (**A**), K-562 (**B**), Hep G2 (**C**), MDA-MB-435S (**D**), MCF7 (**E**) and RT-4 (**F**) whole cell lysates.



NARFL (E-7): sc-514078. Western blot analysis of NARFL expression in MCF7 (**A**), SK-BR-3 (**B**) and MDA-MB-231 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Fan, X., et al. 2022. Iron-regulated assembly of the cytosolic iron-sulfur cluster biogenesis machinery. J. Biol. Chem. 298: 102094.

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.