

Nibrin (N-19): sc-8579

BACKGROUND

DNA repair proteins are necessary for the maintenance of chromosome integrity and are involved in the elimination of premutagenic lesions from DNA. The DNA repair proteins Rad51 and Rad52 are key components of the double-strand-break repair (DSBR) pathway. Rad51 is essential for mitotic and meiotic recombination, and its mutation in yeast and mammalian cells results in chromosome loss. Overexpression of Rad52 confers resistance to ionizing radiation and induces homologous intrachromosomal recombination. Rad52 is thought to be involved in an early stage of Rad51-mediated recombination. Additional proteins involved in the pathway include Dmc1 and nibrin. Dmc1 is specifically involved in meiotic recombination. Nibrin, which complexes with Mre11 and Rad50, is absent in Nijmegen breakage syndrome (NBS) patients.

CHROMOSOMAL LOCATION

Genetic locus: NBN (human) mapping to 8q21.3; Nbn (mouse) mapping to 4 A2.

SOURCE

Nibrin (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Nibrin 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-8579 P, (100 µg 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

Nibrin (N-19) is recommended for detection of Nibrin 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).

Nibrin (N-19) is also recommended for detection of Nibrin in additional species, including bovine.

Suitable for use as control antibody for Nibrin siRNA (h): sc-36061, Nibrin siRNA (m): sc-36062, Nibrin shRNA Plasmid (h): sc-36061-SH, Nibrin shRNA Plasmid (m): sc-36062-SH, Nibrin shRNA (h) Lentiviral Particles: sc-36061-V and Nibrin shRNA (m) Lentiviral Particles: sc-36062-V.

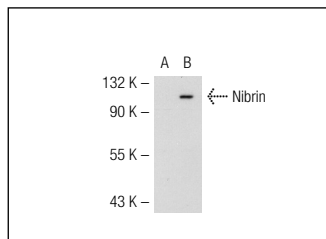
Molecular Weight of Nibrin: 95 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Nibrin (m): 293T Lysate: sc-125706 or HeLa nuclear extract: sc-2120.

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



Nibrin (N-19): sc-8579. Western blot analysis of Nibrin expression in non-transfected: sc-117752 (A) and mouse Nibrin transfected: sc-125706 (B) 293T 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.



Try **Nibrin (B-5): sc-515069** or **Nibrin (A-2): sc-374168**, our highly recommended monoclonal alternatives to Nibrin (N-19).