

Nibrin (m): 293T Lysate: sc-125706

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.

REFERENCES

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4. Shen, Z., et al. 1996. Specific interactions between the human Rad51 and Rad52 proteins. *J. Biol. Chem.* 271: 148-152.
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8. Yoshida, K., et al. 1998. The mouse RecA-like gene Dmc1 is required for homologous chromosome synapsis during meiosis. *Mol. Cell* 1: 707-718.
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CHROMOSOMAL LOCATION

Genetic locus: Nbn (mouse) mapping to 4 A2.

PRODUCT

Nibrin (m): 293T Lysate represents a lysate of mouse Nibrin transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

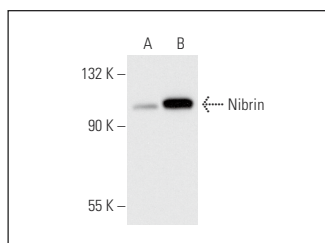
APPLICATIONS

Nibrin (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Nibrin antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Nibrin (1D7): sc-56166 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Nibrin expression in Nibrin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



Nibrin (1D7): sc-56166. 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 for detailed protocols and support products.