
anti-Rad51

Cat #: HM1302
Mouse monoclonal IgG
0.2 µg/µl, store at 4 °C

For research use only

BACKGROUND

Rad 51 is a member of the protein family which also includes Rad 52, Rad 54, Rad 54B and Mre11. They are similar to bacterial RecA and *Saccharomyces cerevisiae* Rad51. Rad51 and Rad52 perform the key steps in homologous recombination, including the search for DNA homology and strand exchange, through similar mechanisms. Rad51 interacts with BRCA1 and BRCA2, which may be important for the cellular response to DNA damage. Recent studies also suggested that Rad51 is involved in cell proliferation regulation.

SPECIFICITY

This antibody specifically recognizes Rad51 of human, mouse and rat origin.

The antibody can be used in Western blotting, immunoprecipitation and immunostaining.

IMMUNOGEN

A synthetic peptide derived from C-terminal region of human Rad51

STORAGE

This antibody is stable for 24 months when stored at 2-8°C.

REFERENCE

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2. Shen, Z., Cloud, K.G., Chen, D.J., and Park, M.S. 1996. Specific interactions between the human RAD51 and RAD52 proteins. *J. Biol. Chem.* 271: 148-152.
3. Scully,R., Chen,J., Plug,A., Xiao,Y., Weaver,D., Feunteun,J., Ashley,T. and Livingston,D.M. 1997. Association of BRCA1 with Rad51 in mitotic and meiotic cells. *Cell* 88 (2), 265-275.
4. Benson, F.E., Baumann, P., West, S.C. 1998. Synergistic actions of Rad51 and Rad52 in recombination and DNA repair. *Nature* 391: 401-404.
5. Sigurdsson,S., Van Komen,S., Petukhova,G. and Sung,P. 2002. Homologous DNA pairing by human recombination factors Rad51 and Rad54 *J. Biol. Chem.* 277, 42790-42794.
6. Pellegrini,L., Yu,D.S., Lo,T., Anand,S., Lee,M., Blundell,T.L. and Venkitaraman,A.R. 2002. Insights into DNA recombination from the structure of a RAD51-BRCA2 complex. *Nature* 420, 287-293.

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