

Anti-Rad51(human) antibody (rabbit serum)

70-001 50ul 70-002 250ul

Human Rad51 protein is a functional and structural homolog of E.coli RecA protein, which plays a major role in genetic recombination and recombination repair by mediating strand exchange reaction between homologous DNA strands(Ref.1). Rad51 functionally and physically interacts with its paralogs Dmc1, Rad51B, Rad51D, Xrcc2 and Xrcc3, and also with Rad52 in recombination processes. It also interacts with oncogenes and tumor suppressors such as BRACA1, BRACA2, and P53 for the maintenance of genome stability(Ref.1).

The product was prepared by immunizing rabbit with full-size recombinant Rad51 protein expressed in E.coli and purified.

Using this anti-serum, Rad51 protein (37kD) in the crude extract of HeLa cells was detected by Western blotting(Fig.1) and Rad51 foci formation induced by stalled replication and DNA damage was detected by indirect immunofluorescence(Fig.2 & Ref.2). GFP-tagging of Rad51 protein at either N- or C- terminus inactivates the function of Rad51, and therefore, it cannot be used for the study of foci formation instead of the antibody.

Usage

- 1) Western blotting(x 2,000~x10,000 dilution). High specific
- 2) Immunoprecipitation
- 3) Detection of foci formation by indirect immunofluorescence

Specification

Reacts with : Human, mouse Rad51 and chicken 51

Form : 0.09% sodium azide added

Storage 4°C

Reference

1. Friedberg EC, et al. DNA Repair and Mutagenesis 2nd ed., ASM Press
2. Tashiro S, et al., Rad51 accumulation at sites of DNA damage and in postreplicative chromatin. J Cell Biol 150; 283-291 (2000)

Fig1. Western blot analysis of Rad51 in HeLa cell extract.

Fig2. Detection of Rad51 foci formation induced by DNA damage.

Normal human diploid cells were irradiated by X-ray(0.5 Gy) and after incubation of 6hr, the cells were fixed and immuno-stained by using anti-Rad51 serum(x100 dilution) as the primary antibody and Aleca594 labeled anti-rabbit antibody as the secondary antibody.

(The picture was kindly provided by Prof.K.Suzuki, Medical school of Nagasaki Univ.)

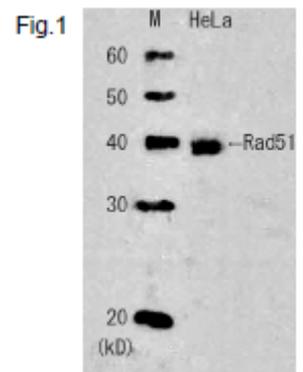
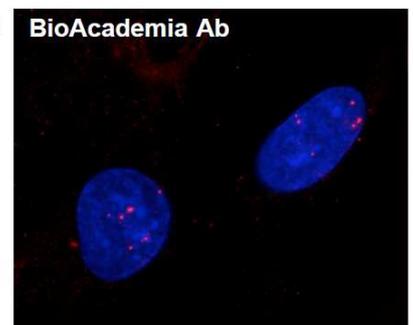


Fig.2



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Related Products :

- 10-001 Rad51 protein (human)
- 10-003 Rad52 protein (human)
- 70-003 anti-Rad51 (human) antibody, chicken antiserum
- 70-005 anti-Rad51 (human) antibody, IgY
- 70-007 anti-Rad51 (human) antibody, Sepharose-conjugated IgY
- 70-009 anti-Rad51 (human), antigen affinity-purified IgY

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