

Anti-Rad51 (human) antibody (chicken serum)

Immunized Animal: Chicken

Polyclonal antiserum

70-003 100 ul

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 (1). Rad51 functionally and physically interacts with its paralogs Dmc1, Rad51B, Rad51C, 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 (1). The product was prepared by immunizing chicken with full-size recombinant Rap51 protein expressed in *E. coli* and purified.

Using this anti-serum, Rad51 protein (37 kD) in the crude extract was detected by Western blotting (Fig 1) at 40 kD position and Rad51 foci formation induced by stalled replication and DNA-damage (2) was detected by indirect immunofluorescence method. 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. IgY antibody in chicken serum shows significantly less backgrounds than IgG antibody of mammals

Applications

- 1) Western blotting (2,000~7,000 fold dilution)
- 2) Immunoprecipitation
- 3) Detection of foci formation by indirect immunofluorescence method

Specification

Reactivity: React with human and mouse Rad51

Form: 0.09 % sodium azide added

Storage: Shipped at 4°C or -20°C, and stored at -20°C

Data Link UniProtKB/Swiss-Prot [Q06609](http://www.uniprot.org/entry/Q06609) (RAD51_HUMAN)

References

1. Friedberg EC *et al.* *DNA Repair and Mutagenesis* 2nd ed., ASM Press (2006)
2. Tashiro S *et al.* "Rad51 accumulation at sites of DNA damage and in postreplicative chromatin" *J Cell Biol* **150**: 283-291 (2000) PMID: [10908572](https://pubmed.ncbi.nlm.nih.gov/10908572/)

Related Products :

[10-001](#) Rad51 protein (human)

[10-003](#) Rad52 protein (human)

[70-001](#) anti-Rad51 (human) antibody, rabbit 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

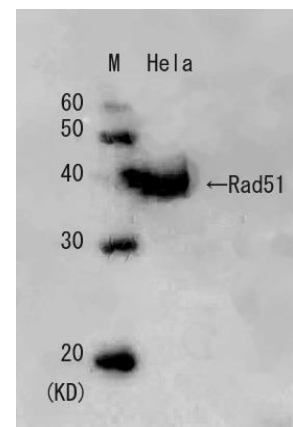


Fig.1 Western blot analysis of Rad51 in HeLa cell extract