

anti-Rad51(human) antibody, purified IgY

Immunized Animal; Chicken

Polyclonal antibodies, purified IgY fraction

70-005 200 μ g 70-006 1 mg

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 BRCA1, BRCA2, and P53 for the maintenance of genome stability (1). The product was purified (Fig.1) from the eggs laid by immunized chicken with full-size recombinant Rad51 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 2) at 40 kD position and Rad51 foci formation induced by stalled replication and DNA-damage (2) was detected by indirect immunofluorescence. 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. This antibody was successfully used for immunoprecipitation assay.

Usage

- 1) Western blotting (1000~5000 fold dilution)
- 2) Immuno-precipitation
- 3) Detection of foci formation by indirect immunofluorescence

Specification

React with: human and mouse Rad51

Form: 1 mg/ml in 100 mM NaCl, 20 mM phosphate buffer (pH 7.4),
50% Glycerol

Storage: -20°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)

Fig.1. SDS-PAGE (without Et-SH) analysis of purified IgY

Fig. 2 Western blot analysis of Rad51 in HeLa cell extract.

Fig.1

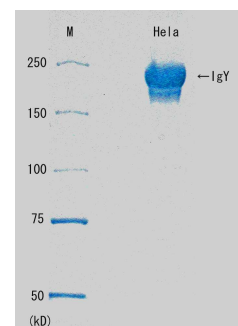
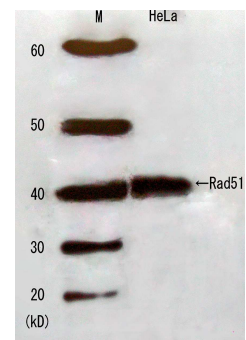


Fig.2



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Chiyoda-ku Tokyo 100-0013 JAPAN Tel: +81-3-5510-2347 Fax: +81-3-5510-0134
E-mail: exp-pet@sceti.co.jp URL: www.sceti.co.jp/export/

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