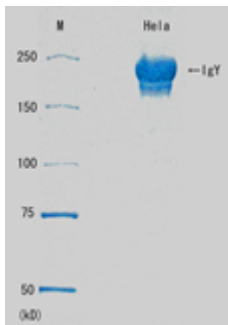


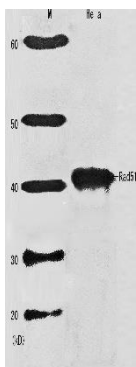
## Anti-Rad51 (Human) antibody, chicken polyclonal (IgY)

<b>Product code</b>	70-005
<b>Size</b>	100 µg
<b>Storage</b>	-20°C
<b>Concentration</b>	1.0 mg/ml
<b>Buffer</b>	PBS <sup>-</sup> with 50% glycerol
<b>Purity</b>	Purified by propriety protocol.
<b>Immunogen</b>	Full-size recombinant human Rad51 protein.(BioAcademia 10-001)
<b>Isotype</b>	Chicken IgY
<b>Reactivity</b>	Human, Rodents, Chicken, Frog
<b>Special notes</b>	N/A
<b>Application</b>	<ol style="list-style-type: none"> <li>1. Western blotting (1/1,000~1/5,000 dilution)</li> <li>2. Immunoprecipitation (1/100-1/1,000)</li> <li>3. Chromatin immunoprecipitation (assay dependent)</li> <li>4. Immunofluorescence staining (1/100-1/1,000)</li> </ol> <p>* In general, IgY antibody shows significantly less backgrounds than IgG antibody of mamammals in immuno-reactions</p>
<b>Background</b>	Human Rad51 protein is a functional and structural homolog of <i>E. coli</i> RecA protein, which plays a major role in genetic recombination and recombination repair by mediating strand exchange reaction between homologous DNA strands . 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.
<b>Data Link</b>	UniProtKB/Swiss-Prot <a href="#">Q06609</a> (RAD51_HUMAN)
Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.	

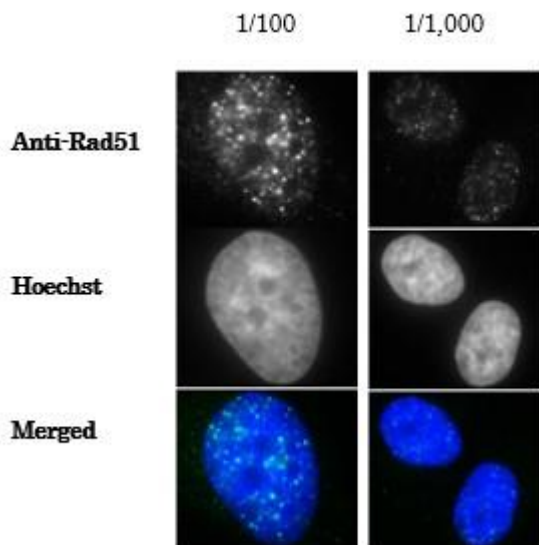
**Data Images:** 70-005 Anti-Rad51 (Human) antibody, chicken polyclonal (IgY)



**Fig.1 SDS-PAGE of anti-Rad51 IgY**  
Non-reduced.

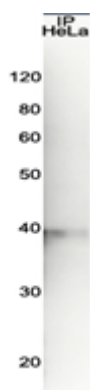


**Fig. 2 Western blot analysis of Rad51 in HeLa cell extract**  
1/2,000 dilution.



**Fig.3. Detection of Rad51 protein foci formation with the anti-Rad51 antibody in X-ray irradiated human fibroblast cells, GM0637.**

- 1) The cells were irradiated with X-ray at 2 Gy, grown for 1 hr, fixed with 4% paraformaldehyde for 10 min and washed with PBS three times.
- 2) Permeabilized by treatment with 0.5% Triton for 5 min and washed with PBS three times.
- 3) Incubated with the anti-Rad51 antibody at 1/100 dilution or 1/1,000 dilution for 30 min at 37°C and washed with PBS three times.
- 4) As the second antibody, Alexa488-conjugated anti-chicken IgY antibody was used at 1/5,000 dilution.
- 5) DNA was stained with Hoechst for 1 min and mounted.



**Fig.4 Immunoprecipitation of Rad51 from crude extract of HeLa cells**

Rad51 was immunoprecipitated from HeLa cell extract, 20  $\mu$ g, with anti-Rad51 IgY conjugated to Sepharose 4B and the eluate was immunoblotted with rabbit anti-Rad51 antibody (BioAcademia 70-012)

**References: This antibody has been used in the following publications.**

1. Nakada S. et al. RNF8 regulates assembly of RAD51 at DNA double-strand breaks in the absence of BRCA1 and 53BP1. [Cancer Res.](#) 2012 Oct 1;72(19):4974-83. IF (human)

**Related Products:**

- 01-001 E.coli RecA Protein, functional
- 10-001, 10-002 Rad51 Protein (Human), functional
- 10-003, 10-004 Rad52 protein (human)
- 61-004 Anti-E.coli RecA antibody, rabbit polyclonal
- 62-101 Anti-Rad51 (*S. cerevisiae*) antibody, rabbit polyclonal
- 63-001 Anti-Rhp51 (*S.pombe*) antibody, rabbit serum
- 70-001,70-002 Anti-Rad51 (Human) antibody, rabbit serum
- 70-012 Anti-Rad51 (Human) antibody, rabbit polyclonal
- 70-015 Anti-Rad52 (Human) antibody, rabbit polyclonal