



## **Anti-Rhp51 (*S. pombe*) antibody, Chlp grade**

Rhp51 protein of *Schizosaccharomyces pombe* (fission yeast) is a functional and structural homolog of *E. coli* RecA protein and Rad51 proteins of eukaryotes, which play a major role in genetic recombination and recombination repair by mediating strand exchange reaction between homologous DNA strands.

The product was prepared by immunizing rabbit with full-size recombinant Rhp51 protein which was expressed in *E. coli* and then purified.

Using this anti-serum, Rhp51 protein (40 kD) in the crude extract was detected by Western blotting (Fig 1) and Rhp51 foci formation induced by stalled replication (2) and DNA-damage (2) was detected by indirect immunofluorescence. GFP-tagging of Rhp51 protein at either N- or C- terminus inactivates the function of Rhp51, and therefore, the GFP-tagged antibody cannot be used for the study of foci formation. This antibody was successfully used for immunoprecipitation assay (3).

### **Applications**

- 1) Western blotting (1/ 2,000~1/5,000 dilution) Fig.1
- 2) Immunoprecipitation (Ref 3) and Chromatin-Immunoprecipitation
- 3) Immunofluorescence staining (1/500 dilution). Fig. 2

**Form:** Rabbit antiserum added with 0.09 % sodium azide

**Size:** 250 ul

**Storage:** Shipped at 4°C or -20°C, and upon arrival, aliquot and store at -20°C or below.

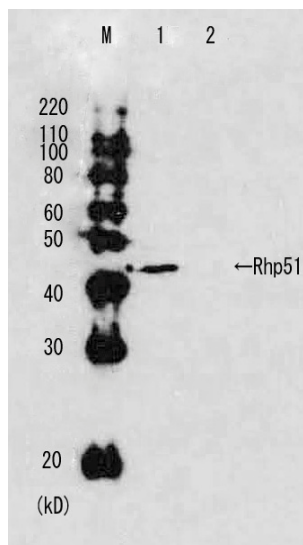
**Data Link** UniProtKB/Swiss-Prot [P36601](#) (RAD51\_SCHPO)

**References** :This product was used in the following references.

1. Lambert S *et al* "Gross chromosomal rearrangements and elevated recombination at an inducible site-specific replication fork barrier" *Cell* **121**: 689-702 (2005) PMID: [15935756](#)
2. Morishita T *et al* "Role of the *Schizosaccharomyces pombe* F-Box DNA helicase in processing recombination intermediates" *Mol Cell Biol* **25**: 8074-8083 (2005) PMID: [16135799](#)
3. Haruta N *et al* "The Swi5-Sfr1 complex stimulates Rhp51/Rad51-and Dmc1-mediated DNA strand exchange in vitro" *Nat Struct Mol Biol* **13**: 823-830 (2006) PMID: [16921379](#)



**COSMO BIO CO., LTD.**  
Inspiration for Life Science

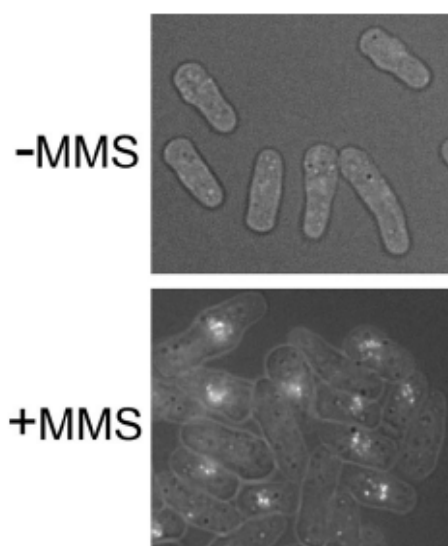


**Fig.1 Western blot analysis of Rhp51 in the whole cell extracts.**

M: Molecular size markers (kD)

Lane 1: Wild-type strain

Lane 2: Rhp51 deletion mutant strain



**Fig. 2 Rhp51 foci formation observed after DNA damage:** S. pombe cells without or with MMS (0.025%) treatment for 1 h were processed for indirect immunofluorescence staining with anti-Rhp51 antibody (1/500 dilution).

*For research use only. Not for clinical diagnosis.*

Manufactured by BioAcademia Inc.



**COSMO BIO CO., LTD.**

Inspiration for Life Science

TOYO 2CHOME, KOTO-KU, TOKYO, 135-0016, JAPAN

URL: <http://www.cosmobio.co.jp>

e-mail: [export@cosmobio.co.jp](mailto:export@cosmobio.co.jp)

[Outside Japan] Phone : +81-3-5632-9617

[国内連絡先] Phone : +81-3-5632-9610

FAX : +81-3-5632-9618

FAX : +81-3-5632-9619