



**Polyclonal Anti- DNA repair protein RAD51 homolog 1, *RAD51A* (Sepharose Bead Conjugate)**

**Catalogue No.** PA1219-S

**Lot No.** 09C01

**Ig type:** rabbit IgG

**Size:** 100µg/vial

**Specificity**

Human, mouse, rat. No cross reactivity with other proteins.

**Recommended application**

(Immunoprecipitation(IP))

**Immunogen**

A synthetic peptide corresponding to a sequence at the N-terminal of human RAD51A, different from the related rat sequence by one amino acid.

**Purification**

Immunogen affinity purified.

**Formulation**

50% slurry in PBS pH 7.2  
with 0.01mg NaN<sub>3</sub> preservative.

**Storage**

Store at 4°C for frequent use.

**Description:**

This Antagene antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated sepharose beads. It is useful for immunoprecipitation assays

**BACKGROUND**

DNA repair protein RAD51 homolog 1, also known as RAD51A, is a human gene. The Rad51 gene, HsRAD51, is a homolog of RecA of Escherichia coli and functions in recombination and DNA repair. BRCA1 and BRCA2 proteins form a complex with Rad51, and these genes are thought to participate in a common DNA damage response pathway associated with the activation of homologous recombination and double-strand break repair.<sup>1</sup> RAD51 is also found to interact with BRCA1 and BRCA2, which may be important for the cellular response to DNA damage. BRCA2 is shown to regulate both the intracellular localization and DNA-binding ability of this protein. Loss of these controls following BRCA2 inactivation may be a key event leading to genomic instability and tumorigenesis.<sup>2</sup>

**REFERENCE**

1. Kato, M.; Yano, K.; Matsuo, F.; Saito, H.; Katagiri, T.; Kurumizaka, H.; Yoshimoto, M.; Kasumi, F.; Akiyama, F.; Sakamoto, G.; Nagawa, H.; Nakamura, Y.; Miki, Y. : Identification of Rad51 alteration in patients with bilateral breast cancer. *J. Hum. Genet.* 45: 133-137, 2000.
2. Daniel DC (2002). "Highlight: BRCA1 and BRCA2 proteins in breast cancer.". *Microsc. Res. Tech.* 59 (1): 68–83.

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