

**RAD54 Antibody (C-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP11971b****Specification**

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**RAD54 Antibody (C-term) Blocking peptide - Product Information**Primary Accession [Q92698](#)**RAD54 Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 8438**Other Names**

DNA repair and recombination protein RAD54-like, 364-, RAD54 homolog, hHR54, hRAD54, RAD54L, RAD54A

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**RAD54 Antibody (C-term) Blocking peptide - Protein Information****Name** RAD54L**Synonyms** RAD54A**Function**

Plays an essential role in homologous recombination (HR) which is a major pathway for repairing DNA double-strand breaks (DSBs), single-stranded DNA (ssDNA) gaps, and stalled or collapsed replication forks (PubMed: [9774452](http://www.uniprot.org/citations/9774452), PubMed: [24798879](http://www.uniprot.org/citations/24798879), PubMed: [32457312](http://www.uniprot.org/citations/32457312), PubMed: [11459989](http://www.uniprot.org/citations/11459989), PubMed: [12205100](http://www.uniprot.org/citations/12205100), PubMed: [27264870](http://www.uniprot.org/citations/27264870)). Acts as a molecular motor during the homology search and guides RAD51 ssDNA along a donor dsDNA thereby changing the homology search from the diffusion-based mechanism to a motor-guided mechanism. Also plays an essential role in RAD51-mediated synaptic complex formation which consists of three strands encased in a protein filament formed once homology is recognized. Once DNA strand exchange occurred, dissociates RAD51 from nucleoprotein filaments formed on dsDNA (By similarity).

**Cellular Location**  
Nucleus.**RAD54 Antibody (C-term) Blocking peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

**RAD54 Antibody (C-term) Blocking peptide - Images****RAD54 Antibody (C-term) Blocking peptide - Background**

The protein encoded by this gene belongs to the DEAD-like helicase superfamily, and shares similarity with *Saccharomyces cerevisiae* Rad54, a protein known to be involved in the homologous recombination and repair of DNA. This protein has been shown to play a role in homologous recombination related repair of DNA double-strand breaks. The binding of this protein to double-strand DNA induces a DNA topological change, which is thought to facilitate homologous DNA pairing, and stimulate DNA recombination. Alternative splicing results in multiple transcript variants encoding the same protein.

**RAD54 Antibody (C-term) Blocking peptide - References**

Liu, Y., et al. Carcinogenesis 31(10):1762-1769(2010) Briggs, F.B., et al. Am. J. Epidemiol. 172(2):217-224(2010) Monsees, G.M., et al. Breast Cancer Res. Treat. (2010) In press :Guey, L.T., et al. Eur. Urol. 57(2):283-292(2010) Hosgood, H.D. III, et al. Occup Environ Med 66(12):848-853(2009)