

RAD54 Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11971b**Specification**

RAD54 Antibody (C-term) - Product Information

Application	WB, FC,E
Primary Accession	O92698
Other Accession	P70270 , O12944 , NP_003570
Reactivity	Human
Predicted	Chicken, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	84352
Antigen Region	634-663

RAD54 Antibody (C-term) - Additional Information**Gene ID** 8438**Other Names**

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

Target/Specificity

This RAD54 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 634-663 amino acids from the C-terminal region of human RAD54.

DilutionWB~~1:1000
FC~~1:10~50**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

RAD54 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

RAD54 Antibody (C-term) - 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](#), PubMed:[24798879](#), PubMed:[32457312](#), PubMed:[11459989](#), PubMed:[12205100](#), PubMed:[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).

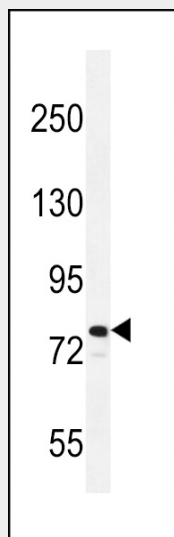
Cellular Location

Nucleus.

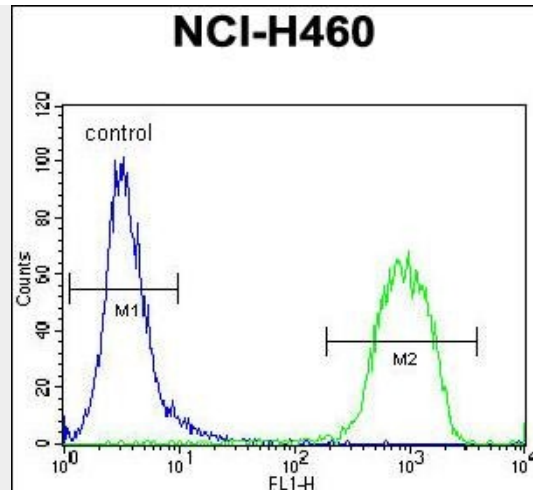
RAD54 Antibody (C-term) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

RAD54 Antibody (C-term) - Images

RAD54 Antibody (C-term) (Cat. #AP11971b) western blot analysis in NCI-H460 cell line lysates (35ug/lane). This demonstrates the RAD54 antibody detected the RAD54 protein (arrow).



RAD54 Antibody (C-term) (Cat. #AP11971b) flow cytometric analysis of NCI-H460 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

RAD54 Antibody (C-term) - 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) - 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)