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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	Q92698
Other Accession	P70270, Q12944, 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.

Dilution
WB~~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 occured, dissociates RAD51 from nucleoprotein filaments formed on dsDNA (By similarity).

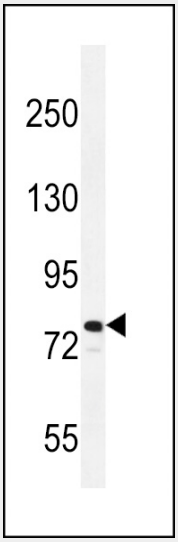
Cellular Location
Nucleus.

RAD54 Antibody (C-term) - Protocols

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

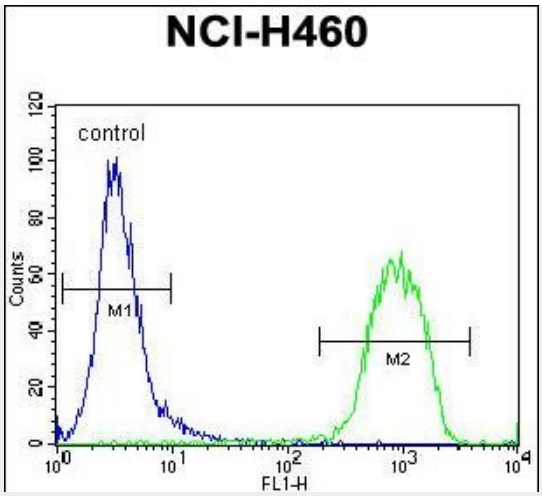
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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).

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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 paring, 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)