

Product datasheet for **AP20268PU-M**

RAD52 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	Western blot: 1/500-1/1000. Immunohistochemistry on paraffin sections 1/50-1/200. Immunofluorescence: 1/50-1/200.
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of Rad52 protein.
Formulation:	Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2 State: Aff - Purified State: Liquid purified Ig fraction
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen; purity is > 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 46 kDa
Gene Name:	RAD52 homolog, DNA repair protein
Database Link:	Entrez Gene 19365 Mouse Entrez Gene 5893 Human P43351



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Background:

DNA double-strand breaks are generated by ionizing radiation and endogenously produced radicals, and they often are repaired through the RAD52 homologous recombination pathway. The RAD52 family includes RAD51, RAD52, RAD54, RAD54B and MRE11 genes. Rad51 and Rad52 proteins perform the key steps in homologous recombination (HR), including the search for DNA homology and strand exchange, through similar mechanisms. Mre11 functions in both non-homologous end joining, and meiotic HR, and it is essential in mitosis for chromosome maintenance. Rad54 belongs to the SWI2/SNF2 subfamily of ATPases, which includes the DNA helicases involved in replication, recombination, and repair, as it contains seven amino acid sequence motifs that are largely conserved. Rad54 ATPase activity is dependent on double-stranded (ds) DNA, and the ATPase activity of Rad54 is not absolutely required for its DNA repair function, suggesting that these activities occur at distinct regions of the molecule. RAD54B is significantly homologous to the RAD54 recombination gene. Expression of RAD54B is highest in testis and spleen, which are active in both meiotic and mitotic recombination.

Synonyms:

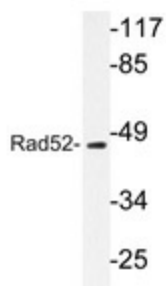
RAD52

Protein Families:

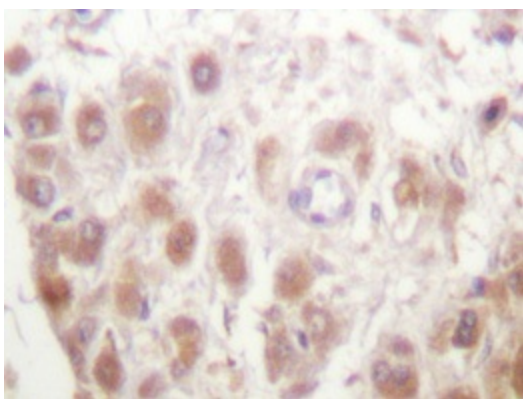
Druggable Genome

Protein Pathways:

Homologous recombination

Product images:


Western blot analysis of Rad52 antibody ([AP20268PU-N]) in extracts from 293 cells.



Immunohistochemistry analyzes of Rad52 antibody ([AP20268PU-N]) in paraffin-embedded human testis tissue.