

## Anti-RAD51 Polyclonal Antibody

## Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat (predicted:Pig,Cow,Horse,Rabbit)
Molecular Weight:	Theoretical: 37 kDa. Actual: 37 kDa.
Purification:	Protein A purified

## Applications

1. Paraformaldehyde-fixed, paraffin embedded (mouse intestine tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (Rad51) Polyclonal Antibody, Unconjugated (TMAB-01603) at 1:400 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

2. Sample: Hela (human) cell Lysate at 40 µg  
 Primary: Anti-Rad51 (TMAB-01603) at 1/300 dilution  
 Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution  
 Predicted band size: 37 kDa  
 Observed band size: 37 kDa

3. Sample: Bone (mouse) Lysate at 40 µg  
 Primary: Anti-Rad51 (TMAB-01603) at 1/300 dilution  
 Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution  
 Predicted band size: 37 kDa  
 Observed band size: 37 kDa

4. Paraformaldehyde-fixed, paraffin embedded (Rat testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (Rad51) Polyclonal Antibody, Unconjugated (TMAB-01603) at 1:400 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

5. Paraformaldehyde-fixed, paraffin embedded (human colon cancer); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (Rad51) Polyclonal Antibody, Unconjugated (TMAB-01603) at 1:500 overnight at 4°C, followed by a conjugated secondary for 20 min and DAB staining.

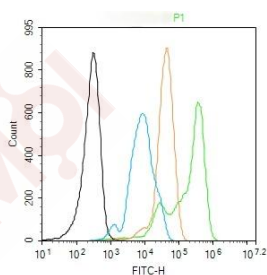
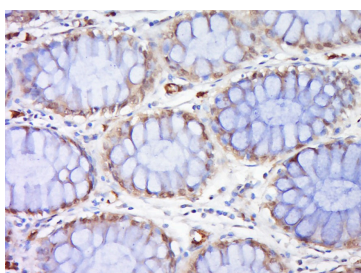
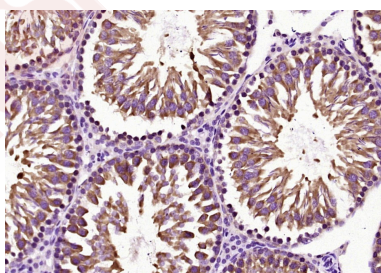
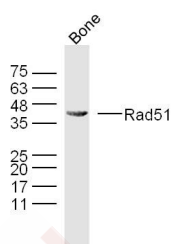
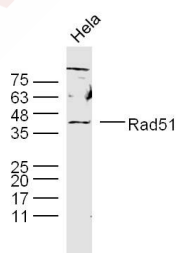
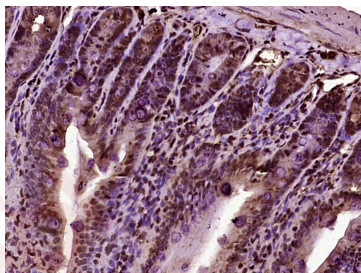
6. Blank control (black line): Hela.  
 Primary Antibody (green line): Rabbit Anti-Rad51 antibody (TMAB-01603)  
 Dilution: 2 µg/Test;  
 Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC  
 Dilution: 0.5 µg/Test.

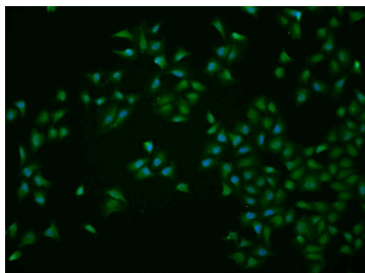
Isotype control (orange line): Normal Rabbit IgG  
 Protocol

The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C, The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature.

Verified Activity:

7. HeLa cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Antibody incubation with (Rad51) polyclonal Antibody, Unconjugated (TMAB-01603) 1:25, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue) was used to stain the cell nucleus.





Application: FCM,IF,IHC-Fr,IHC-P,WB

Recommended FCM=2 µg/Test; IF=1:100-500; IHC-Fr=1:100-500; IHC-P=1:100-500; WB=1:500-2000

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: KLH conjugated synthetic peptide: human Rad51

Antigen Species: Human

Gene ID: 5888

Uniprot ID: Q06609

Synonyms: DNA repair protein RAD51 homolog 1;RAD51A;BRCC5;HGNC:9817;DNA repair protein rhp51; Homolog of E coli RecA;BRCA1/BRCA2 containing complex, subunit 5;HsT16930;HsRad51;RecA like protein;RecA, E. coli, homolog of;RAD51 homolog S. cerevisiae;RAD51 S cerevisiae homolog;RAD51 homolog;RAD51 homolog(RecA homolog, E. coli)(S. cerevisiae);Rad 51; recombination protein A;BRCC 5;HRAD51;RecA homolog E. coli;homolog of S cerevisiae RAD51; E coli RecA homolog;RECA

Biology Area: Homologous Recomb.

### Research Background

The protein encoded by this gene is a member of the RAD51 protein family. RAD51 family members are highly similar to bacterial RecA and *Saccharomyces cerevisiae* Rad51, and are known to be involved in the homologous recombination and repair of DNA. This protein can interact with the ssDNA-binding protein RPA and RAD52, and it is thought to play roles in homologous pairing and strand transfer of DNA. This protein 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. Two alternatively spliced transcript variants of this gene, which encode distinct proteins, have been reported. Transcript variants utilizing alternative polyA signals exist.

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