

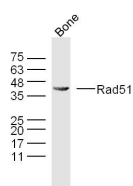
bs-20297R**[Primary Antibody]****Rad51 Rabbit pAb****Bioss**
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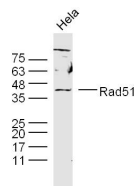
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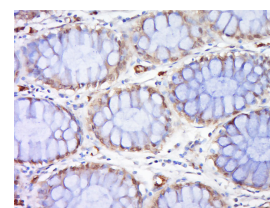
400-901-9800

— DATASHEET —**Host:** Rabbit**Isotype:** IgG**Clonality:** Polyclonal**GeneID:** 5888**SWISS:** Q06609**Target:** Rad51**Immunogen:** KLH conjugated synthetic peptide derived from human Rad51: 81-180/339.**Purification:** affinity purified by Protein A**Concentration:** 1mg/ml**Storage:** Preservative: 0.02% Proclin300, Constituents: 1% BSA, 0.01M PBS, pH7.4.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.**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.**Applications:** WB (1:500-2000)**IHC-P** (1:100-500)**IHC-F** (1:100-500)**IF** (1:100-500)**Flow-Cyt** (2ug/Test)**ICC/IF** (1:25)**Reactivity:** Human, Mouse, Rat
(predicted: Rabbit, Pig, Cow, Horse)**Predicted MW.:** 37 kDa**Subcellular Location:** Cytoplasm ,Nucleus**— VALIDATION IMAGES —**

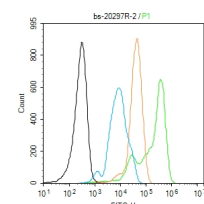
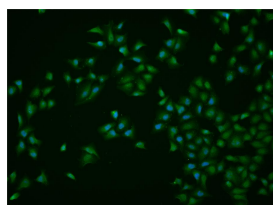
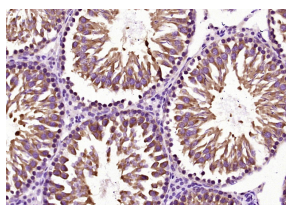
Sample:bone(mouse) Lysate at 40 ug Primary:
Anti-Rad51(bs-20297R)at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at
1/20000 dilution Predicted band size: 37kD
Observed band size: 37kD



Sample:HeLa(human)cell Lysate at 40 ug
Primary: Anti-Rad51(bs-20297R)at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at
1/20000 dilution Predicted band size: 37kD
Observed band size: 37kD



Paraformaldehyde-fixed, paraffin embedded (human colon cancer); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Rad51) Polyclonal Antibody, Unconjugated (bs-20297R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Paraformaldehyde-fixed, paraffin embedded (Rat testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Rad51) Polyclonal Antibody, Unconjugated (bs-20297R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (Rad51) polyclonal Antibody, Unconjugated (bs-20297R) 1:25, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

Blank control (black line) :Hela. Primary Antibody (green line): Rabbit Anti-Rad51 antibody (bs-20297R) Dilution:2ug/Test; Secondary Antibody (white blue line) : Goat anti-rabbit IgG-FITC Dilution: 0.5ug/Test. Isotype control (orange line) : Normal Rabbit IgG Protocol The cells were fixed with 4% PFA (10min 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. Acquisition of 20,000 events was performed.

— SELECTED CITATIONS —

- **[IF=6.656]** Leiyang Guo. et al. Morusinol extracted from Morus alba induces cell cycle arrest and apoptosis via inhibition of DNA damage response in melanoma by CHK1 degradation through the ubiquitin-proteasome pathway. PHYTOMEDICINE. 2023 Jun;114:154765 WB ;Human. 37004403
- **[IF=5.168]** Qi et al. Sensitization of tamoxifen-resistant breast cancer cells by Z-ligustilide through inhibiting autophagy and accumulating DNA damages. (2017) Oncotarget. 8:29300-29317 ICC ;Human. 28431397
- **[IF=2.74]** Niayale Robert. et al. Expression of Rad51 and the histo-morphological evaluation of testis of the sterile male cattle-yak. Theriogenology. 2021 Sep;172:239 WB,IF,IHC ;Bovine. 34298284
- **[IF=2.531]** Talibova, Gunel. et al. Increased double-strand breaks in aged mouse male germ cells may result from changed expression of the genes essential for homologous recombination or nonhomologous end joining repair. HISTOCHEM CELL BIOL. 2022 Oct;;1-21 IHC ;Mouse. 36241856
- **[IF=3.2]** Talibova Gunel. et al. The DNA double-strand break repair proteins γH2AX, RAD51, BRCA1, RPA70, KU80, and XRCC4 exhibit follicle-specific expression differences in the postnatal mouse ovaries from early to older ages. J ASSIST REPROD GEN. 2024 Jul;;1-21 IHC ;Mouse. 39023827