

## Rad51 (PT0083R) PT™ Rabbit mAb

CatalogNo: YM8046 **Recombinant** 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, IF, IP, ELISA

#### MW

- 37kD (Calculated)
- 37kD (Observed)

#### Isotype

- IgG, Kappa

### Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

### Recommended Dilution Ratios

**WB 1:1000-1:5000**

**IF 1:200-1:1000**

**ELISA 1:5000-1:20000**

**IP 1:50-1:200**

### Basic Information

**Clonality** Monoclonal

**Clone Number** PT0083R

### Immunogen Information

**Specificity** Endogenous

## Target Information

**Gene name** RAD51

**Protein Name** DNA repair protein RAD51 homolog 1

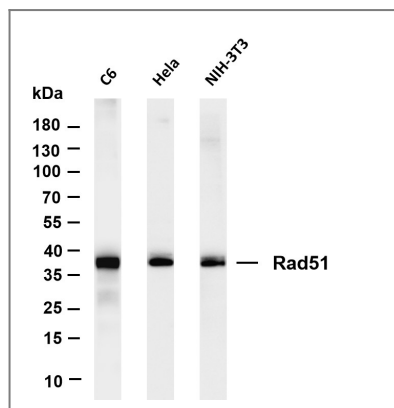
Organism	Gene ID	UniProt ID
Human	<a href="#">5888</a> ;	<a href="#">Q06609</a> ;
Mouse	<a href="#">19361</a> ;	<a href="#">Q08297</a> ;

**Cellular Localization** Cytoplasm, Nucleus

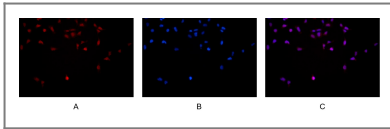
**Tissue specificity** Highly expressed in testis and thymus, followed by small intestine, placenta, colon, pancreas and ovary. Weakly expressed in breast.

**Function** Disease:Defects in RAD51 are associated with breast cancer (BC) [MIM:114480].,Function:May participate in a common DNA damage response pathway associated with the activation of homologous recombination and double-strand break repair. Binds to single and double stranded DNA and exhibits DNA-dependent ATPase activity. Underwinds duplex DNA and forms helical nucleoprotein filaments.,PTM:Phosphorylated. Phosphorylation of Thr-309 by CHEK1/CHK1 may enhance association with chromatin at sites of DNA damage and promote DNA repair by homologous recombination.,similarity:Belongs to the recA family.,similarity:Belongs to the recA family. RAD51 subfamily.,similarity:Contains 1 HhH domain.,subcellular location:Colocalizes with RAD51AP1 to multiple nuclear foci upon induction of DNA damage.,subunit:Interacts with BRCA1, BRCA2 and either directly or indirectly with p53. Interacts with XRCC3, RAD54L and RAD54B. Part of a complex with RAD51C and RAD51B. Interacts with RAD51AP1 and RAD51AP2. Interacts with CHEK1/CHK1, and this may require prior phosphorylation of CHEK1. Interacts with the MND1-PSMC3IP heterodimer (By similarity). Interacts with OBFC2B.,tissue specificity:Highly expressed in testis and thymus, followed by small intestine, placenta, colon, pancreas and ovary. Weakly expressed in breast.,

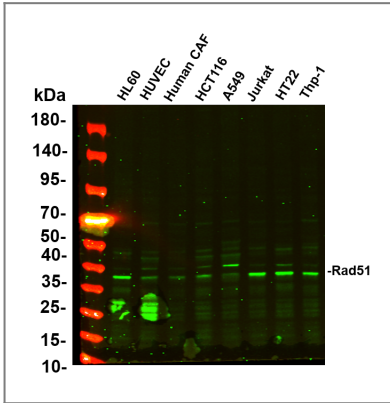
## Validation Data



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Rad51 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: C6 Lane 2: HeLa Lane 3: NIH-3T3 Predicted band size: 37kDa Observed band size: 37kDa



Immunofluorescence analysis of HEK293. Picture A: Rad51 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C, over night with a 1:2500 dilution . The Dylight 800-conjugated Goat anti-Rabbit antibody(Cat:RS23920) was used to detect the antibody. Lane1: HL60 - Human promyelocytic leukemia cell Lane2: HUVEC - Human umbilical vein endothelial cell Lane3: Human CAF - Human cancer-associated fibroblast Lane4: HCT116 - Human colorectal carcinoma Lane5: A549 - Human lung carcinoma Lane6: Jurkat - Human T lymphocyte leukemia Lane7: HT22 - Mouse hippocampal neuronal Predicted band size: 37kDa Observed band size: 37kDa

## Contact information

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**Rad51 (PT0083R)**  
**PT™ Rabbit mAb**

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