

## Rad51 (Phospho Tyr315) Rabbit pAb

CatalogNo: YP0376

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 37kD (Observed)

#### Isotype

- IgG

### Storage

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

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### Recommended Dilution Ratios

**WB 1:500-1:2000**

**IHC 1:100-1:300**

**ELISA 1:10000**

**IF 1:50-200**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**Immunogen** The antiserum was produced against synthesized peptide derived from human RAD51 around the phosphorylation site of Tyr315. AA range: 281-330

## Specificity

Phospho-Rad51 (Y315) Polyclonal Antibody detects endogenous levels of Rad51 protein only when phosphorylated at Y315. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):KlyDS

## 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

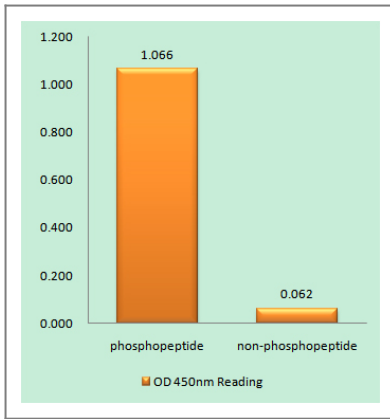
Nucleus . Cytoplasm . Cytoplasm, perinuclear region. Mitochondrion matrix . Chromosome . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome . Colocalizes with RAD51AP1 and RPA2 to multiple nuclear foci upon induction of DNA damage (PubMed:20154705). DNA damage induces an increase in nuclear levels (PubMed:20154705). Together with FIGNL1, redistributed in discrete nuclear DNA damage-induced foci after ionizing radiation (IR) or camptothecin (CPT) treatment (PubMed:23754376). Accumulated at sites of DNA damage in a SPIDR-dependent manner (PubMed:23509288). Recruited at sites of DNA damage in a MCM9-MCM8-dependent manner (PubMed:23401855). Colocalizes with ERCC5/XPG to nuclear foci in S phase (PubMed:26833090). .

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

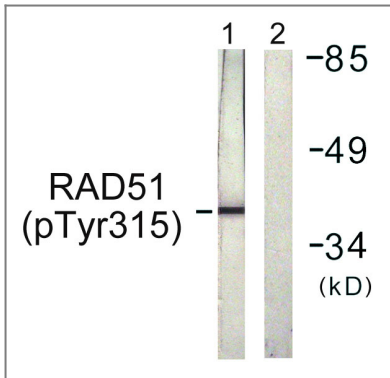
## Function

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.,

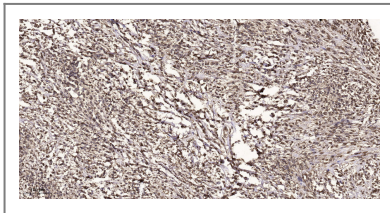
## Validation Data



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using RAD51 (Phospho-Tyr315) Antibody



Western blot analysis of lysates from Jurkat cells, using RAD51 (Phospho-Tyr315) Antibody. The lane on the right is blocked with the phospho peptide.



Immunohistochemical analysis of paraffin-embedded human small intestinal carcinoma tissue. 1,primary Antibody was diluted at 1:200(4° overnight). 2, Sodium citrate pH 6.0 was used for antigen retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200

## Contact information

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Please scan the QR code to access additional product information:  
**Rad51 (Phospho Tyr315) Rabbit pAb**

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