

Rad50 (Phospho Ser635) Rabbit pAb

CatalogNo: YP1459 **Orthogonal Validated** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC

MW

- 153kD (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 1:500-2000

IHC 1:50-300

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen Synthesized phospho peptide around human Rad50 (Ser635)

Specificity This antibody detects endogenous levels of Human Rad50 (phospho-Ser635). 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 When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports.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): GsQDF

| Target Information

Gene name RAD50

Protein Name Rad50 (Ser635)

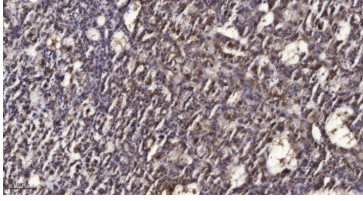
Organism	Gene ID	UniProt ID
Human	10111 ;	Q92878 ;
Mouse		P70388 ;
Rat	64012 ;	Q9JIL8 ;

Cellular Localization Nucleus . Chromosome , telomere . Chromosome . Localizes to discrete nuclear foci after treatment with genotoxic agents. .

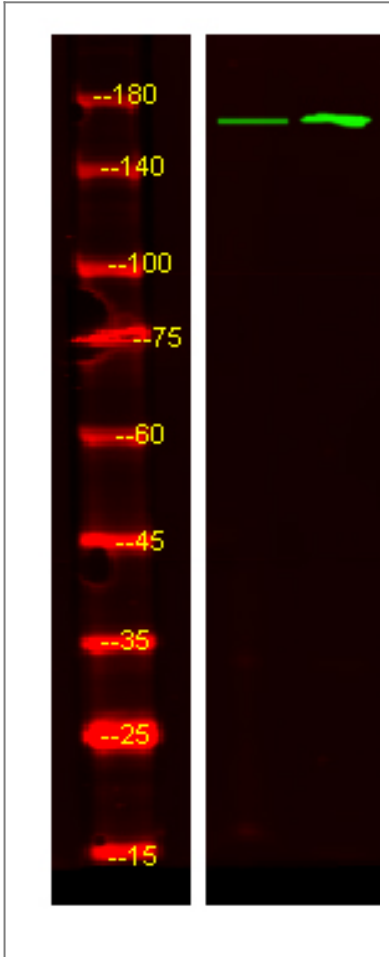
Tissue specificity Expressed at very low level in most tissues , except in testis where it is expressed at higher level. Expressed in fibroblasts.

Function cofactor: Binds 1 zinc ion per homodimer. , Domain: The zinc-hook , which separates the large intramolecular coiled coil regions , contains 2 Cys residues that coordinate one molecule of zinc with the help of the 2 Cys residues of the zinc-hook of another RAD50 molecule , thereby forming a V-shaped homodimer. The two heads of the homodimer , which constitute the ATP-binding domain , interact with the MRE11A homodimer. , Function: Component of the MRN complex , which plays a central role in double-strand break (DSB) repair , DNA recombination , maintenance of telomere integrity and meiosis. The complex possesses single-strand endonuclease activity and double-strand-specific 3'-5' exonuclease activity , which are provided by MRE11A. RAD50 may be required to bind DNA ends and hold them in close proximity. This could facilitate searches for short or long regions of sequence homology in the recombining DNA templates , and may also stimulate the activity of DNA ligases and/or restrict the nuclease activity of MRE11A to prevent nucleolytic degradation past a given point. The complex may also be required for DNA damage signaling via activation of the ATM kinase. In telomeres the MRN complex may modulate t-loop formation. , miscellaneous: In case of infection by adenovirus E4 , the MRN complex is inactivated and degraded by viral oncoproteins , thereby preventing concatenation of viral genomes in infected cells. , PTM: Phosphorylated upon DNA damage , probably by ATM or ATR. , sequence Caution: Contaminating sequence. Potential poly-A sequence. , similarity: Belongs to the SMC family. RAD50 subfamily. , similarity: Contains 1 zinc-hook domain. , subcellular location: Localizes to discrete nuclear foci after treatment with genotoxic agents. , subunit: Component of the MRN complex composed of two heterodimers RAD50/MRE11A associated with a single NBN. Component of the BASC complex , at least composed of BRCA1 , MSH2 , MSH6 , MLH1 , ATM , BLM , RAD50 , MRE11A and NBN. Found in a complex with TERF2. Interacts with RINT1. Interacts with BRCA1 via its N-terminal domain. Interacts with DCLRE1C/Artemis. , tissue specificity: Expressed at very low level in most tissues , except in testis where it is expressed at higher level. Expressed in fibroblasts. ,

| Validation Data



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200 (4°C overnight). 2, Tris-EDTA, pH9.0 was used for antigen retrieval. 3, Secondary antibody was diluted at 1:200 (room temperature, 45min).



Western Blot analysis of HeLa treated or untreated by LPS lysis, using primary antibody at 1:1000 dilution. Secondary antibody (catalog#:RS23920) was diluted at 1:10000

Contact information

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