

Rad50 (PT1277R) PT™ Rabbit mAb

CatalogNo: YM9119 **Recombinant** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC, IF, ELISA

MW

- 154kD (Calculated)
154kD (Observed)

Isotype

- IgG, Kappa

Recommended Dilution Ratios

IHC 1:100-1:500**WB 1:2000-1:10000****IF 1:200-1:1000****ELISA 1:5000-1:20000**

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

Basic Information

Clonality Monoclonal**Clone Number** PT1277R

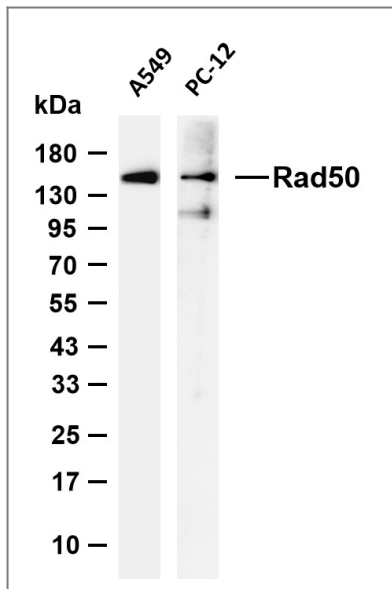
Immunogen Information

Specificity Endogenous

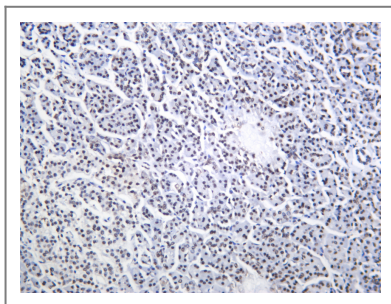
Target Information

Gene name	RAD50		
Protein Name	DNA repair protein RAD50		
	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



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Rad50 (PT1277R) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: A549 Lane 2: PC-12 Predicted band size: 154kDa Observed band size: 154kDa



Human pancreas was stained with anti-Rad50 (PT1277R) Rabbit antibody

Contact information

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Please scan the QR code to access additional product information:
Rad50 (PT1277R)
PT™ Rabbit mAb

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