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ARG54117
anti-RAD9A antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes RAD9A
Tested Reactivity	Hu, Ms, Rat, Mk
Tested Application	IP, WB
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Target Name	RAD9A
Species	Human
Immunogen	Purified recombinant human RAD9A protein fragments expressed in E.coli
Conjugation	Un-conjugated
Alternate Names	DNA repair exonuclease rad9 homolog A; Cell cycle checkpoint control protein RAD9A; EC 3.1.11.2; RAD9; hRAD9

Application Instructions

Application table

Application	Dilution
IP	Assay-dependent
WB	1:500

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Observed Size: 55 kDa

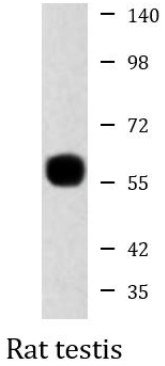
Properties

Form	Liquid
Purification	Affinity purified
Buffer	PBS (pH 7.4), 0.2% Sodium azide and 50% Glycerol
Preservative	0.2% Sodium azide
Stabilizer	50% Glycerol
Concentration	4.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 19367 Mouse GeneID: 5883 Human Swiss-port # Q99638 Human Swiss-port # Q9Z0F6 Mouse
Gene Symbol	RAD9A
Gene Full Name	RAD9 homolog A (S. pombe)
Background	Component of the 9-1-1 cell-cycle checkpoint response complex that plays a major role in DNA repair.The 9-1-1 complex is recruited to DNA lesion upon damage by the RAD17-replication factor C(RFC)clamp loader complex.Acts then as a sliding clamp platform on DNA for several proteins involved in long-patch base excision repair(LP-BER).The 9-1-1 complex stimulates DNA polymerase beta(POLB)activity by increasing its affinity for the 3'-OH end of the primer-template and stabilizes POLB to those sites where LP-BER proceeds;endonuclease FEN1 cleavage activity on substrates with double,nick,or gap flaps of distinct sequences and lengths;and DNA ligase I(LIG1)on long-patch base excision repair substrates.The 9-1-1 complex is necessary for the recruitment of C12orf32/RHINO to sites of double-stranded breaks(DSB)occurring during the S phase.RAD9A possesses 3'->5' double stranded DNA exonuclease activity.Its phosphorylation by PRKCD may be required for the formation of the 9-1-1 complex.
Function	Component of the 9-1-1 cell-cycle checkpoint response complex that plays a major role in DNA repair. The 9-1-1 complex is recruited to DNA lesion upon damage by the RAD17-replication factor C (RFC) clamp loader complex. Acts then as a sliding clamp platform on DNA for several proteins involved in long-patch base excision repair (LP-BER). The 9-1-1 complex stimulates DNA polymerase beta (POLB) activity by increasing its affinity for the 3'-OH end of the primer-template and stabilizes POLB to those sites where LP-BER proceeds; endonuclease FEN1 cleavage activity on substrates with double, nick, or gap flaps of distinct sequences and lengths; and DNA ligase I (LIG1) on long-patch base excision repair substrates. The 9-1-1 complex is necessary for the recruitment of RHNO1 to sites of double-stranded breaks (DSB) occurring during the S phase. RAD9A possesses 3'->5' double stranded DNA exonuclease activity. Its phosphorylation by PRKCD may be required for the formation of the 9-1-1 complex. [UniProt]
Research Area	Gene Regulation antibody
Calculated Mw	43 kDa
PTM	Constitutively phosphorylated on serine and threonine amino acids in absence of DNA damage. Hyperphosphorylated by PRKCD and ABL1 upon DNA damage. Its phosphorylation by PRKCD may be required for the formation of the 9-1-1 complex.
Cellular Localization	Nucleus

Images



ARG54117 anti-RAD9A antibody WB image

Western blot: Rat testis lysate stained with ARG54117 anti-RAD9A antibody at 1:500 dilution.