

Product name:	Rad9 Rabbit Polyclonal Antibody
Cat number:	ABN16851
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human RAD9. AA range:257-306
Reactivity:	Human,Rat,Mouse
Applications:	IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:5000-1:10000
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

catalytic activity: Exonucleolytic cleavage in the 3'- to 5'-direction to yield nucleoside 5'-phosphates., 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. 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., 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., similarity: Belongs to the rad9 family., subunit: Component of the toroidal 9-1-1 (RAD9-RAD1-HUS1) complex, composed of RAD9A, RAD1 and HUS1. The 9-1-1 complex associates with LIG1, POLB, FEN1, RAD17, HDAC1, RPA1 and RPA2. The 9-1-1 complex associates with the RAD17-RFC complex. RAD9A interacts with BCL2L1, FEN1, PRKCD, RAD9B, HUS1, RAD1, ABL1, RPA1, ATAD5 and RPA2., catalytic activity: Exonucleolytic cleavage in the 3'- to 5'-direction to yield nucleoside 5'-phosphates., 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. 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., 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., similarity: Belongs to the rad9 family., subunit: Component of the toroidal 9-1-1 (RAD9-RAD1-HUS1) complex, composed of RAD9A, RAD1 and HUS1. The 9-1-1 complex associates with LIG1, POLB, FEN1, RAD17, HDAC1, RPA1 and RPA2. The 9-1-1 complex associates with the RAD17-RFC complex. RAD9A interacts with BCL2L1, FEN1, PRKCD, RAD9B, HUS1, RAD1, ABL1, RPA1, ATAD5 and RPA2.,