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# Anti-RAD9A Antibody (3A3-A7-F8)

Mouse Monoclonal Antibody
Catalog # ABV12047

## Product Information

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| **Application** | WB, IP |
| **Primary Accession** | Q99638 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | Mouse IgG2b |
| **Clone Names** | 3A3-A7-F8 |
| **Calculated MW** | 42547 |

## Additional Information

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| **Gene ID** | 5883 |
| **Application & Usage** | WB: HeLa, MCF7, 3T3, COS7 and Rat testis cell lysates; IP: HeLa and 3T3 cells |
| **Other Names** | hRAD9, DNA repair exonuclease rad9 homolog A, RAD9A, Cell cycle checkpoint control protein RAD9A |
| **Target/Specificity** | RAD9A |
| **Antibody Form** | Liquid |
| **Appearance** | Colorless liquid |
| **Formulation** | In PBS (pH 7.4) containing with 0.2% sodium azide, 50% glycerol |
| **Handling** | The antibody solution should be gently mixed before use. |
| **Reconstitution & Storage** | -20 °C |
| **Background Descriptions** | |
| **Precautions** | Anti-RAD9A Antibody (3A3-A7-F8) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | RAD9A |
| **Function** | Component of the 9-1-1 cell-cycle checkpoint response complex that plays a major role in DNA repair (PubMed:10713044, PubMed:17575048, PubMed:20545769, PubMed:21659603, PubMed:31135337). The 9-1-1 complex is recruited to DNA lesion upon damage by the RAD17- replication |

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| | factor C (RFC) clamp loader complex (PubMed:21659603). Acts then as a sliding clamp platform on DNA for several proteins involved in long-patch base excision repair (LP-BER) (PubMed:21659603). 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 (PubMed:21659603). The 9-1-1 complex is necessary for the recruitment of RHNO1 to sites of double-stranded breaks (DSB) occurring during the S phase (PubMed:21659603). RAD9A possesses 3'->5' double stranded DNA exonuclease activity (PubMed:10713044). |
| **Cellular Location** | Nucleus. |

## 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.