

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

Mouse Monoclonal Antibody

Catalog # ABV12047

Product Information

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

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

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

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'.