

RAD9 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP6357a**Specification****RAD9 Antibody (Center) Blocking Peptide -
Product Information**Primary Accession [Q99638](#)**RAD9 Antibody (Center) Blocking Peptide -
Additional Information****Gene ID 5883****Other Names**Cell cycle checkpoint control protein
RAD9A, hRAD9, DNA repair exonuclease
rad9 homolog A, RAD9A**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP6357a](/product/products/AP6357a) was selected from the Center region of human Rad9. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**RAD9 Antibody (Center) Blocking Peptide -
Protein Information****Name RAD9A****RAD9 Antibody (Center) Blocking Peptide -
Background**

Rad9 is highly similar to Schizosaccharomyces pombe rad9, a cell cycle checkpoint protein required for cell cycle arrest and DNA damage repair in response to DNA damage. This protein is found to possess 3' to 5' exonuclease activity, which may contribute to its role in sensing and repairing DNA damage. It forms a checkpoint protein complex with RAD1 and HUS1. This complex is recruited by checkpoint protein RAD17 to the sites of DNA damage, which is thought to be important for triggering the checkpoint-signaling cascade.

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References**

Maniwa, Y., et al., Cancer 103(1):126-132 (2005). Wang, W., et al., Proc. Natl. Acad. Sci. U.S.A. 101(48):16762-16767 (2004). Lindsey-Boltz, L.A., et al., (er) Nucleic Acids Res. 32(15):4524-4530 (2004). Toueille, M., et al., (er) Nucleic Acids Res. 32(11):3316-3324 (2004). Loegering, D., et al., J. Biol. Chem. 279(18):18641-18647 (2004).

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 RHO1 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.

Cellular Location

Nucleus.

RAD9 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)