10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

RAD1 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP16013c

Specification

RAD1 Antibody (Center) Blocking Peptide - Product Information

Primary Accession O60671

RAD1 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 5810

Other Names
Cell cycle checkpoint protein RAD1, hRAD1, DNA repair exonuclease rad1 homolog, Rad1-like DNA damage checkpoint protein, RAD1, REC1

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.

RAD1 Antibody (Center) Blocking Peptide - Protein Information

Name RAD1

Synonyms REC1

Function
Component of the 9-1-1 cell-cycle checkpoint response complex that plays a major role in DNA repair (PubMed:10846170, PubMed:10884395). The 9-1-1 complex is recruited to DNA lesion upon damage by the RAD17-replication factor C (RFC) clamp loader complex (PubMed:12578958). Acts then as a sliding clamp platform on DNA for several proteins involved in long-patch base excision repair (LP-BER) (PubMed:15871698). 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:15314187, PubMed:15556996, PubMed:<a href="http://www.uniprot.org/citations/15871698"

target="_blank">15871698). 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).

Cellular Location
Nucleus.

Tissue Location
Expressed in testis, uterus, bladder, spleen, ovaries, lung, brain and muscle (at protein level)

RAD1 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

RAD1 Antibody (Center) Blocking Peptide - Images

RAD1 Antibody (Center) Blocking Peptide - Background

This gene encodes a component of a heterotrimeric cellcycle checkpoint complex, known as the 9-1-1 complex, that isactivated to stop cell cycle progression in response to DNA damageor incomplete DNA replication. The 9-1-1 complex is recruited byRAD17 to affected sites where it may attract specialized DNApolymerases and other DNA repair effectors. Alternatively splicedtranscript variants of this gene have been described. [provided byRefSeq].

RAD1 Antibody (Center) Blocking Peptide - References

Shimada, M., et al. Hum. Genet. 128(4):433-441(2010)Takeishi, Y., et al. Genes Cells 15(7):761-771(2010)Bai, H., et al. DNA Repair (Amst.) 9(5):478-487(2010)Park, M.J., et al. DNA Repair (Amst.) 8(10):1190-1200(2009)Xu, M., et al. J. Biol. Chem. 284(31):20457-20461(2009)