

RAD1 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16013c**Specification**

RAD1 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	O60671
Other Accession	NP_002844.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	31827
Antigen Region	118-146

RAD1 Antibody (Center) - 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

Target/Specificity

This RAD1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 118-146 amino acids from the Central region of human RAD1.

Dilution

WB~~1:1000

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

RAD1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

RAD1 Antibody (Center) - 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:[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.

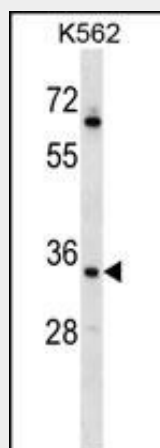
Tissue Location

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

RAD1 Antibody (Center) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

RAD1 Antibody (Center) - Images

RAD1 Antibody (Center) (Cat. #AP16013c) western blot analysis in K562 cell line lysates (35ug/lane). This demonstrates the RAD1 antibody detected the RAD1 protein (arrow).

RAD1 Antibody (Center) - Background

This gene encodes a component of a heterotrimeric cell cycle checkpoint complex, known as the 9-1-1 complex, that is

activated to stop cell cycle progression in response to DNA damage or incomplete DNA replication. The 9-1-1 complex is recruited by RAD17 to affected sites where it may attract specialized DNA polymerases and other DNA repair effectors. Alternatively spliced transcript variants of this gene have been described. [provided by RefSeq].

RAD1 Antibody (Center) - 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)