

RAD9 Antibody (Center L265)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6357d**Specification**

RAD9 Antibody (Center L265) - Product Information

Application	WB,E
Primary Accession	Q99638
Other Accession	Q4R5X9
Reactivity	Human
Predicted	Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	42547
Antigen Region	250-279

RAD9 Antibody (Center L265) - Additional Information**Gene ID** 5883**Other Names**

Cell cycle checkpoint control protein RAD9A, hRAD9, DNA repair exonuclease rad9 homolog A, RAD9A

Target/Specificity

This RAD9 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 250-279 amino acids from the Central region of human RAD9.

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

RAD9 Antibody (Center L265) is for research use only and not for use in diagnostic or therapeutic procedures.

RAD9 Antibody (Center L265) - 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

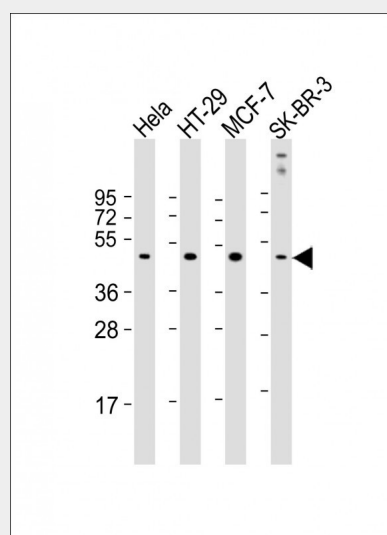
Nucleus.

RAD9 Antibody (Center L265) - Protocols

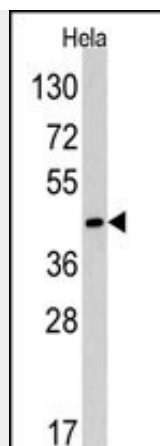
Provided below are standard protocols that you may find useful for product applications.

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

RAD9 Antibody (Center L265) - Images



All lanes : Anti-RAD9 Antibody (Center L265) at 1:2000 dilution Lane 1: HeLa whole cell lysate Lane 2: HT-29 whole cell lysate Lane 3: MCF-7 whole cell lysate Lane 4: SK-BR-3 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 43 kDa Blocking/Dilution buffer: 5% NFD/MTBST.



Western blot analysis of anti-Rad9 Antibody (Center L265) (Cat.#AP6357d) in HeLa cell line lysates (35ug/lane). Rad9 (arrow) was detected using the purified Pab.

RAD9 Antibody (Center L265) - 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.

RAD9 Antibody (Center L265) - 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).
Loefering, D., et al., *J. Biol. Chem.* 279(18):18641-18647 (2004).