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

# RAD21 Antibody (C-Term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22155b

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | O60216 |
| **Other Accession** | Q3SWX9 |
| **Reactivity** | Human, Rat, Mouse |
| **Predicted** | Bovine |
| **Host** | Rabbit |
| **Clonality** | polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB56184 |
| **Calculated MW** | 71690 |

## Additional Information

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| **Gene ID** | 5885 |
| **Other Names** | Double-strand-break repair protein rad21 homolog, hHR21, Nuclear matrix protein 1, NXP-1, SCC1 homolog, RAD21, HR21, KIAA0078, NXP1 |
| **Target/Specificity** | This RAD21 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 501-535 amino acids from human RAD21. |
| **Dilution** | WB~~1:2000 E~~Use at an assay dependent concentration. |
| **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** | RAD21 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | RAD21 |
| **Function** | [Double-strand-break repair protein rad21 homolog]: As a member of the cohesin complex, involved in sister chromatid cohesion from the time of DNA replication in S phase to their segregation in mitosis, a function that is |

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| | essential for proper chromosome segregation, post-replicative DNA repair, and the prevention of inappropriate recombination between repetitive regions (PubMed:11509732). The cohesin complex may also play a role in spindle pole assembly during mitosis (PubMed:11590136). In interphase, cohesins may function in the control of gene expression by binding to numerous sites within the genome (By similarity). May control RUNX1 gene expression (Probable). Binds to and represses APOB gene promoter (PubMed:25575569). May play a role in embryonic gut development, possibly through the regulation of enteric neuron development (By similarity). |
| **Cellular Location** | [Double-strand-break repair protein rad21 homolog]: Nucleus. Nucleus matrix Chromosome Chromosome, centromere. Cytoplasm, cytoskeleton, spindle pole. Note=Associates with chromatin (PubMed:11073952, PubMed:11590136). Before prophase, scattered along chromosome arms (PubMed:11073952). During prophase and prometaphase, most cohesins dissociate from the arms of condensing chromosome, possibly through PLK1-mediated phosphorylation (PubMed:11931760). A small amount of cohesin remains in centromeric regions and is removed from chromosomes only at the onset of anaphase. At anaphase, cleavage by separase/ESPL1 leads to the dissociation of cohesin from chromosomes and chromosome separation (PubMed:11073952, PubMed:11509732) |
| **Tissue Location** | Expressed in the gut (at protein level). |

## Background

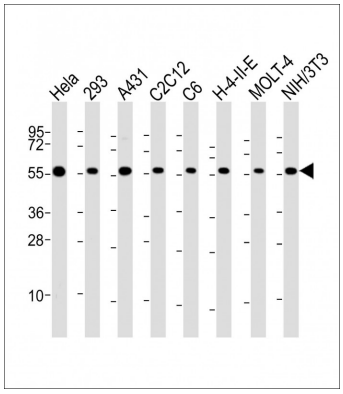
Cleavable component of the cohesin complex, involved in chromosome cohesion during cell cycle, in DNA repair, and in apoptosis. The cohesin complex is required for the cohesion of sister chromatids after DNA replication. The cohesin complex apparently forms a large proteinaceous ring within which sister chromatids can be trapped. At metaphase-anaphase transition, this protein is cleaved by separase/ESPL1 and dissociates from chromatin, allowing sister chromatids to segregate. The cohesin complex may also play a role in spindle pole assembly during mitosis. Also plays a role in apoptosis, via its cleavage by caspase-3/CASP3 or caspase-7/CASP7 during early steps of apoptosis: the C-terminal 64 kDa cleavage product may act as a nuclear signal to initiate cytoplasmic events involved in the apoptotic pathway.

## References

McKay M.J.,et al.Genomics 36:305-315(1996).
Sadano H.,et al.Biochem. Biophys. Res. Commun. 267:418-422(2000).
Nomura N.,et al.DNA Res. 1:223-229(1994).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.

## Images

All lanes : Anti-RAD21 Antibody (C-Term) at 1:2000 dilution Lane 1: Hela whole cell lysate Lane 2: 293 whole cell lysate Lane 3: A431 whole cell lysate Lane 4: C2C12 whole cell lysate Lane 5: C6 whole cell lysate Lane 6: H-4-II-E whole cell lysate Lane 7: MOLT-4 whole cell lysate Lane 8: NIH/3T3 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 : 72 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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