

RAD21 Antibody (C-Term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22155b

Specification

RAD21 Antibody (C-Term) - Product Information

Application	WB,E
Primary Accession	O60216
Other Accession	O3SWX9
Reactivity	Human, Mouse, Rat
Predicted	Bovine
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Calculated MW	71690

RAD21 Antibody (C-Term) - Additional Information

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

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.

RAD21 Antibody (C-Term) - Protein Information

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 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:11590136, PubMed:11073952). 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

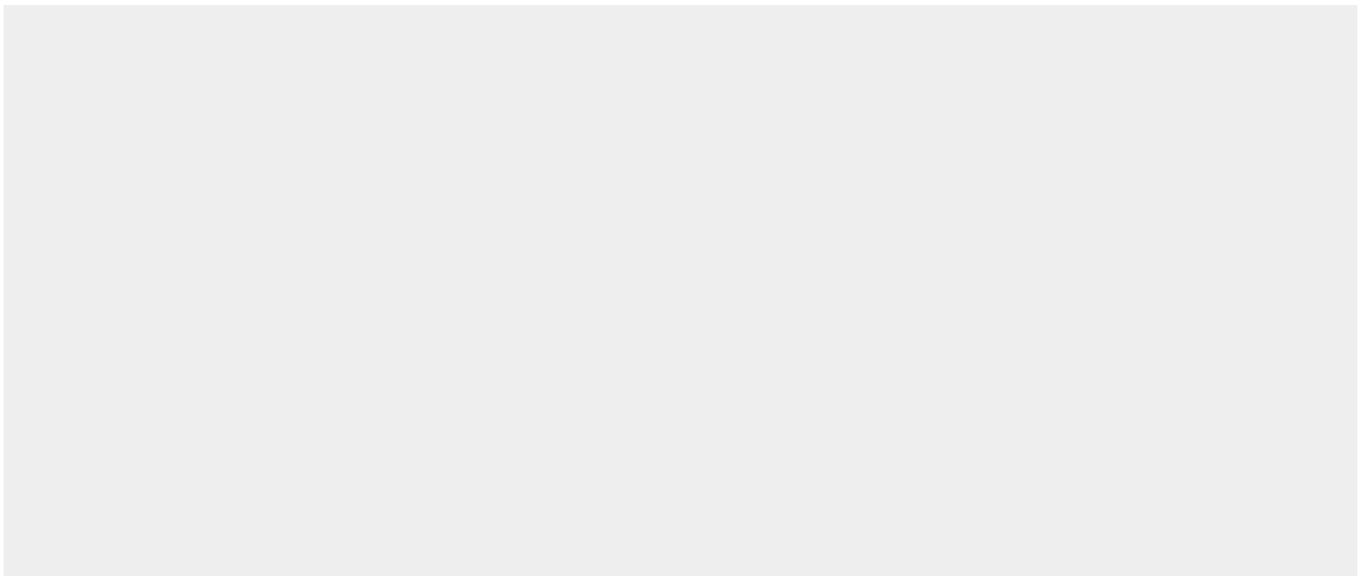
Expressed in the gut (at protein level).

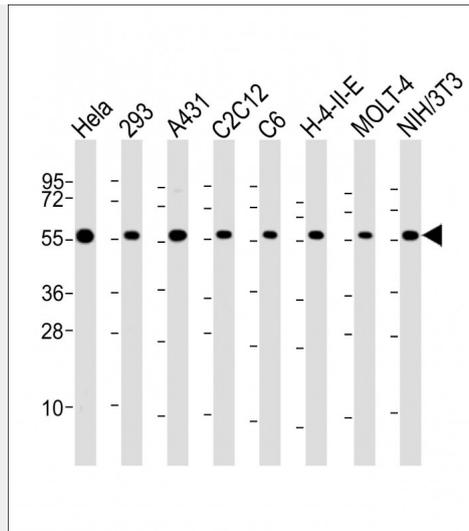
RAD21 Antibody (C-Term) - Protocols

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](#)

RAD21 Antibody (C-Term) - 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 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 72 kDa Blocking/Dilution buffer: 5% NFD/MTBST.

RAD21 Antibody (C-Term) - 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.

RAD21 Antibody (C-Term) - 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.