

RAD21 Antibody (aa521-570)
Rabbit Polyclonal Antibody
Catalog # ALS16541**Specification**

RAD21 Antibody (aa521-570) - Product Information

Application	IHC, WB
Primary Accession	O60216
Other Accession	5885
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	71690

RAD21 Antibody (aa521-570) - Additional Information**Gene ID** 5885**Other Names**

RAD21, CDLS4, HR21, KIAA0078, HHR21, NXP-1, NXP1, RAD21 (S. pombe) homolog, MCD1, Nuclear matrix protein 1, RAD21 homolog (S. pombe), HRAD21, SCC1, SCC1 homolog

Target/Specificity

RAD21 Antibody detects endogenous levels of total RAD21 protein.

Reconstitution & StoragePBS (without Mg²⁺, Ca²⁺), pH 7.4, 150 mM sodium chloride, 0.02% sodium azide, 50% glycerol. Store at -20°C for up to one year.**Precautions**

RAD21 Antibody (aa521-570) is for research use only and not for use in diagnostic or therapeutic procedures.

RAD21 Antibody (aa521-570) - 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: <http://www.uniprot.org/citations/11509732> target="_blank">11509732). The cohesin complex may also play a role in spindle pole assembly during mitosis (PubMed: <http://www.uniprot.org/citations/11590136> target="_blank">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).

Volume

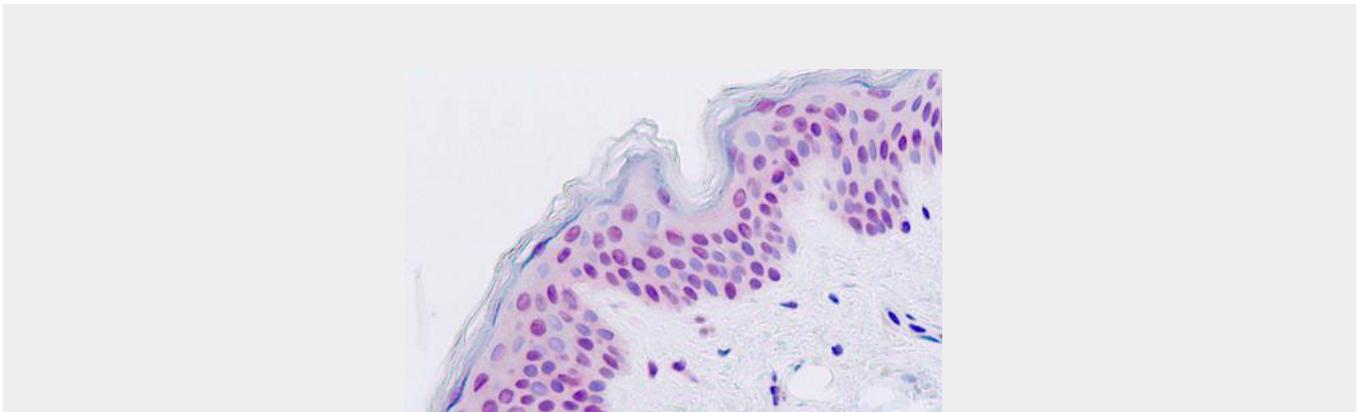
50 µl

RAD21 Antibody (aa521-570) - Protocols

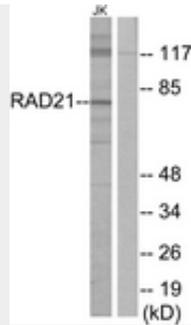
Provided below are standard protocols that you may find useful for product applications.

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

RAD21 Antibody (aa521-570) - Images



Anti-RAD21 antibody IHC staining of human skin.



Western blot of extracts from Jurkat cells, using RAD21 Antibody.

RAD21 Antibody (aa521-570) - 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 (aa521-570) - 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.