

RAD21 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP7396b**Specification**

RAD21 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [O60216](#)**RAD21 Antibody (C-term) Blocking Peptide - 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

The synthetic peptide sequence used to generate the antibody [AP7396b](/products/AP7396b) was selected from the C-term region of human RAD21. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

RAD21 Antibody (C-term) Blocking Peptide - 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](http://www.uniprot.org/citations/11509732)). The cohesin complex may also play a role in spindle pole assembly during mitosis (PubMed: [11590136](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

RAD21 Antibody (C-term) Blocking Peptide - Images**RAD21 Antibody (C-term) Blocking Peptide - Background**

RAD21 is highly similar to the gene product of *Schizosaccharomyces pombe* rad21, a protein involved in the repair of DNA double-strand breaks, as well as in chromatid cohesion during mitosis. This protein is a nuclear phospho-protein, which becomes hyperphosphorylated in cell cycle M phase. The highly regulated association of this protein with mitotic chromatin specifically at the centromere region suggests its role in sister chromatid cohesion in mitotic cells.

RAD21 Antibody (C-term) Blocking Peptide - References

Kang,H., J. Virol. 83 (12), 6199-6210 (2009)Chen,F., J. Biol. Chem. 277 (19), 16775-16781 (2002)Hoque,M.T., J. Biol. Chem. 276 (7), 5059-5067 (2001)