



Rad21 Polyclonal Antibody

Catalog No	YP-Ab-00506
Isotype	IgG
Reactivity	Human;Mouse
Applications	WB;IHC;IF;ELISA
Gene Name	RAD21
Protein Name	Double-strand-break repair protein rad21 homolog
Immunogen	The antiserum was produced against synthesized peptide derived from human RAD21. AA range:521-570
Specificity	Rad21 Polyclonal Antibody detects endogenous levels of Rad21 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/5000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	RAD21; HR21; KIAA0078; NXP1; Double-strand-break repair protein rad21 homolog; hHR21; Nuclear matrix protein 1; NXP-1; SCC1 homolog
Observed Band	120-130kD
Cell Pathway	[Double-strand-break repair protein rad21 homolog]: Nucleus . Nucleus matrix . Chromosome . Chromosome, centromere . Cytoplasm, cytoskeleton, spindle pole . 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). .; [64-kDa C-terminal product]: Cytoplasm, cytosol . Nucleus .
Tissue Specificity	Expressed in the gut (at protein level).
Function	domain:The C-terminal part associates with the head of SMC1A, while the N-terminal part binds to the head of SMC3.,function: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 ev

Background

The protein encoded by this gene is highly similar to the gene product of *Schizosaccharomyces pombe rad21*, a gene 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. [provided by RefSeq, Jul 2008],

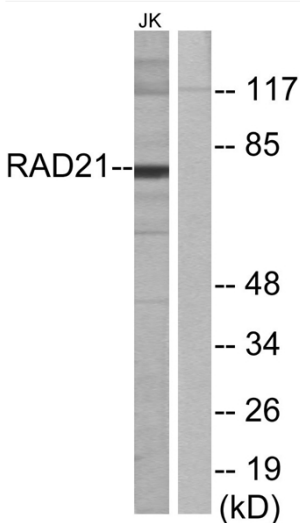
matters needing attention

Avoid repeated freezing and thawing!

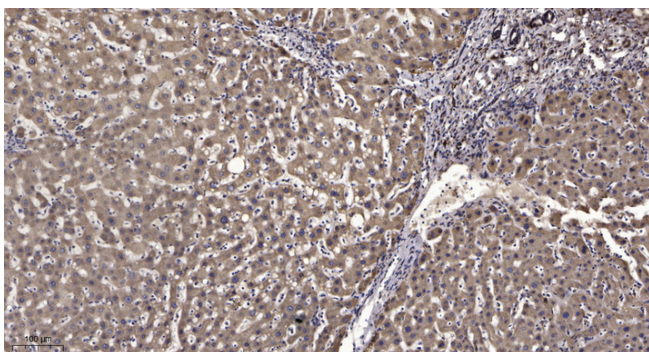
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images



Western blot analysis of lysates from Jurkat cells, using RAD21 Antibody. The lane on the right is blocked with the synthesized peptide.



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).