

## Rad21 Polyclonal Antibody

<b>Catalog No :</b>	YT3960
<b>Reactivity :</b>	Human;Mouse
<b>Applications :</b>	WB;IHC;IF;ELISA
<b>Target :</b>	Rad21
<b>Fields :</b>	>>Cell cycle
<b>Gene Name :</b>	RAD21
<b>Protein Name :</b>	Double-strand-break repair protein rad21 homolog
<b>Human Gene Id :</b>	5885
<b>Human Swiss Prot No :</b>	O60216
<b>Mouse Gene Id :</b>	19357
<b>Mouse Swiss Prot No :</b>	Q61550
<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human RAD21. AA range:521-570
<b>Specificity :</b>	Rad21 Polyclonal Antibody detects endogenous levels of Rad21 protein.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:5000. Not yet tested in other applications.
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Concentration :</b>	1 mg/ml

<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Molecularweight :</b>	75kD
<b>Observed Band :</b>	120-130kD
<b>Cell Pathway :</b>	Cell_Cycle_G1S;Cell_Cycle_G2M_DNA;
<b>Background :</b>	<p>The protein encoded by this gene is highly similar to the gene product of <i>Schizosaccharomyces pombe rad21</i>, 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],</p>
<b>Function :</b>	<p>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</p>
<b>Subcellular Location :</b>	<p>[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 .</p>
<b>Expression :</b>	Expressed in the gut (at protein level).

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