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POLYCLONAL ANTIBODY

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Catalog No. BAM-63-139-EX

Anti- Rad21 (*S. pombe*)

BACKGROUND

Rad21 protein (628 aa, 67.8 kDa) is a cleavable component of the cohesin complex, involved in chromosome cohesion during cell cycle. 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 Cut1 and dissociates from chromatin, allowing sister chromatids to segregate. Also involved in the DNA double-strand-break (DSB) repair system Hyperphosphorylated during S and G2 phases. Proteolytic cleavage of a fraction of hyperphosphorylated form at the onset of anaphase may be essential for the proper progression of anaphase and sister chromatid separation. Belongs to the rad21 family, conserved to mammals.

Product type	Primary antibodies
Antigen	Recombinant full-size *S. pombe* Rad21 protein (His-tagged) expressed in *E. coli*
Host	Rabbit
Clone	-
Isotype	-
Source	Serum
Form	Rabbit antiserum added with 0.05 % sodium azide
Concentration	-
Volume	50 μl
Label	-
Specificity	Reacts with *S. pombe* Rad21 protein. Not tested with other species
Cross reactivity	
Storage	Shipped at 4℃. Upon arrival aliquot and store at -20℃or below.
Other	**Data Link** : S. pombe Gene DB: rad21

Application notes

WB
Other applications have not been tested.
Recommended dilutions
Western blotting (dilution: 1/1,000 – 1/4,000)

Optimal dilutions/concentrations should be determined by the end user.

References

1) Nagao K, Adachi Y, Yanagida M. Separase-mediated cleavage required for DNA repair. Nature. (2004) 430:1044-8. **PMID**: 15329725
2) Adach Y et al. Cut1/separase-dependent roles of multiple phosphorylation of fission yeast cohesion subunit Rad21 in postreplicative damage repair and mitosis. Cell Cycle. (2008) 15:765-76. **PMID**: 18239448

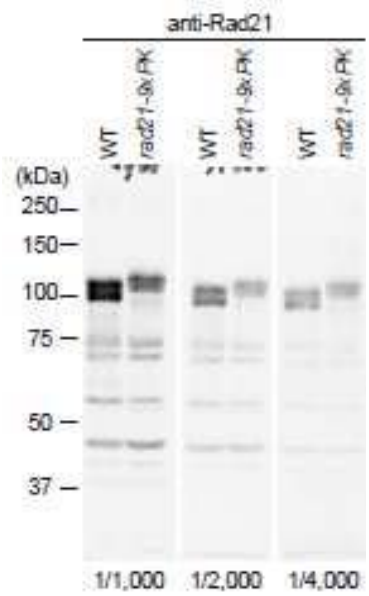

Fig.1 Identification of Rad21 protein in crude extract of S. pombe with anti-Rad21 antiserum.
WT cells and rad21-9xPK cells grown in YS5S to 1x10^7, collected, washed and broken by glass beads. Twenty ug proteins per lane were run on SDS-PAGE. First antibody at indicated dilutions in PBST plus 2.5% skim milk was incubated at 4℃ overnight. Second antibody at 1/10,000 of anti-rabbit HRP in PBST was incubated at room temperature for 1 h. Detected by ECL (X-ray film). Rad21 protein migrated at the position of ~110 kDa in SDS-PAGE although the molecular mass is 67.8 kDa (Ref. 2). Multiple bands of Rad21 reflect multiple phosphorylation states.

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