**Product Name: KD-Validated RAD21 Cohesin Complex Component Recombinant Rabbit Monoclonal Antibody**
**Catalog #: KVAb00922**
For research use only.

## Summary

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|---|---|
| **Description** | KO&KD-Validated antibody |
| **Host** | Rabbit |
| **Application** | WB,FCM,ICC,IHC-P |
| **Reactivity** | Human,Mouse,Rat |
| **Conjugation** | Unconjugated |
| **Modification** | Unmodified |
| **Isotype** | Rabbit IgG |
| **Clonality** | Rabbit mAb |
| **Form** | Liquid |
| **Storage** | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| **Shipping** | Ice bags |
| **Buffer** | Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide. |
| **Purification** | Affinity purification |

## Application

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|---|---|
| **Dilution Ratio** | WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200 |
| **Molecular Weight** | Calculated MW: 71.7kDa |

## Antigen Information

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|---|---|
| **Gene Name** | RAD21 |
| **Alternative Names** | RAD21; RAD21 Cohesin Complex Component; HHR21; SCC1; KIAA0078; Double-Strand-Break Repair Protein Rad21 Homolog; Sister Chromatid Cohesion 1; Nuclear Matrix Protein 1; SCC1 Homolog; Kleisin; NXP-1; HR21; NXP1; Protein Involved In DNA Double-Strand Break Repair; RAD21 (S. Pombe) Homolog; RAD21 Homolog (S. Pombe); RAD21 Homolog; HRAD21; CDLS4; MCD1; MGS |
| **Gene ID** | 5885.0 |
| **SwissProt ID** | O60216 |
| **Immunogen** | A synthesized peptide derived from human RAD21 |

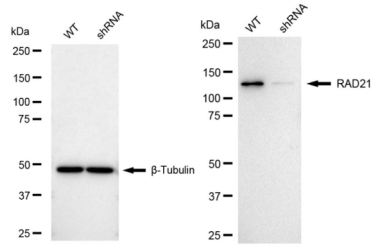
## Background

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]

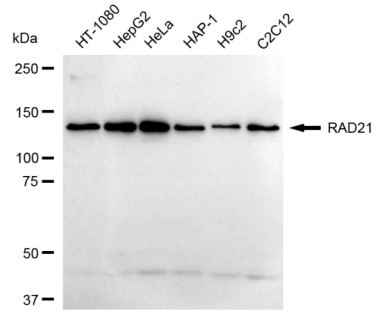
## Research Area

Cell Biology,Epigenetics and Nuclear Signaling,Cancer

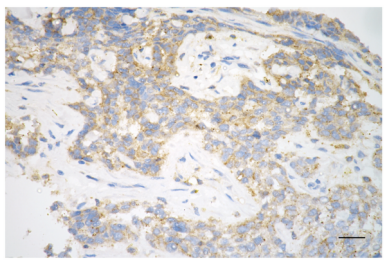
## Image Data



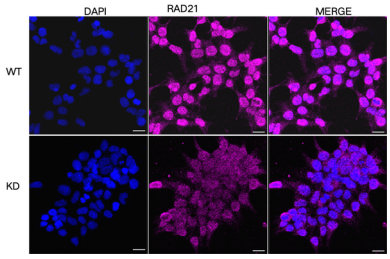

Western blotting analysis using RAD21 antibody (KVAb00922). RAD21 expression in wild type (WT) and RAD21 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with RAD21 antibody (KVAb00922, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



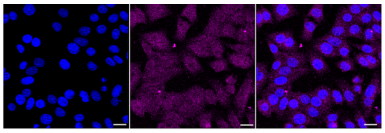

Western blotting analysis using RAD21 antibody (KVAb00922). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with RAD21 antibody (KVAb00922, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



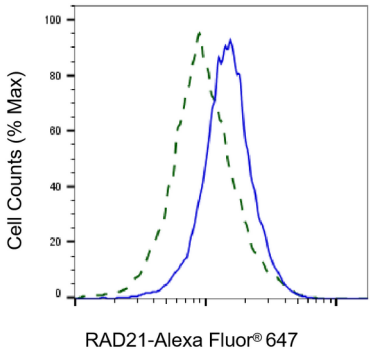
Immunohistochemistry was performed on paraffin-embedded human breast carcinoma using RAD21 antibody (KVAb00922, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



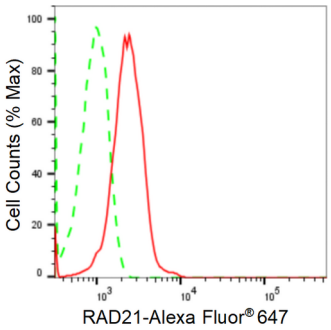

Immunocytochemical staining of HeLa cells using RAD21 antibody (KVAb00922, 1:1,000), Top panel: wild-type (WT); Bottom panal: RAD21 shRNA knockdown (KD). Nuclei were stained blue with DAPI; RAD21 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Immunocytochemical staining of HepG2 cells with RAD21 antibody (KVAb00922, 1:1,000). Nuclei were stained blue with DAPI; RAD21 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.




Validation of RAD21 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with RAD21 antibody (KVAb00922, 1:2,000) and analyzed using BD flow cytometer.




Flow cytometric analysis of RAD21 expression in HepG2 cells using RAD21 antibody (KVAb00922, 1:2,000). Green, isotype control; red, RAD21.