

# Rad50 Antibody

✓ 100 µl  
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #10111  
Swiss-Prot Acc. #Q92878

Applications W Endogenous	Species Cross-Reactivity* H, Mk	Molecular Wt. 153 kDa	Source Rabbit**
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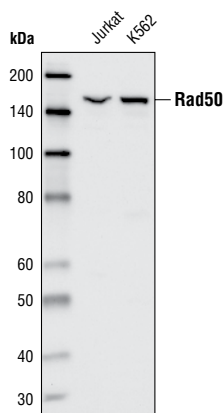
**Background:** The DNA repair protein Rad50 is a member of the structural maintenance of chromosomes family (SMC) and plays an important role in cell cycle checkpoint signaling and double-strand break repair in response to DNA damage (1–4). Rad50 forms a complex with Mre11 and Nbs1 that becomes activated in response to DNA damage (3). In normal human cells, the MRN complex acts to tether linear DNA molecules, providing a flexible link between DNA ends (1). Genomic instability and cancer have been shown to develop in cells with genetic mutations affecting the proteins in the MRN complex (2).

**Specificity/Sensitivity:** Rad50 antibody detects endogenous levels of total Rad50 protein.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the amino terminus of human Rad50. Antibodies are purified by protein A and peptide affinity chromatography.

**Background References:**

- (1) de Jager, M. et al. (2001) *Mol. Cell* 8, 1129–1135.
- (2) Elledge, S.J. (1996) *Science* 274, 1664–1672.
- (3) Lee, J.H. and Lim, D.S. (2006) *FEBS J.* 273, 1630–1636.
- (4) Teng, S.C. et al. (2006) *J. Mol. Histol.* Epub Ahead of Print



Western blot analysis of extracts from Jurkat and K562 cells, using RAD50 Antibody.

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western blotting 1:1000

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**