



Rad57 (yN-20): sc-27183

BACKGROUND

The process of homologous recombination is a major DNA repair pathway that operates on DNA double-strand breaks to promote error-free repair. Central to the process of homologous recombination are the RAD52 group genes (RAD50, RAD51, RAD52, RAD54, RDH54/TID1, RAD55, RAD57, RAD59, MRE11, and XRS2), most of which were identified by their requirement for the repair of ionizing-radiation-induced DNA damage in *Saccharomyces cerevisiae*. The *Saccharomyces cerevisiae* RAD51, RAD55, and RAD57 genes, required for genetic recombination and DNA double-strand-break repair, encode proteins homologous to one another and to the *Escherichia coli* RecA protein (sung97). The RAD55 and RAD57 encoded products exist as a stable heterodimer.

REFERENCES

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3. Glasunov, A.V., et al. 1999. The influence of mutation rad57-1 on the fidelity of DNA double-strand gap repair in *Saccharomyces cerevisiae*. *Curr. Genet.* 34: 430-437.
4. Tsutsui, Y., et al. 2000. A recombination repair gene of *Schizosaccharomyces pombe*, rhp57, is a functional homolog of the *Saccharomyces cerevisiae* RAD57 gene and is phylogenetically related to the human XRCC3 gene. *Genetics.* 154: 1451-1461.
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6. SWISS-PROT/TrEMBL (P38953). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>
7. Rattray, A.J., et al. 2002. The roles of REV3 and RAD57 in double-strand-break-repair-induced mutagenesis of *Saccharomyces cerevisiae*. *Genetics.* 162: 1063-1077.
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SOURCE

Rad57 (yN-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Rad57 of *Saccharomyces cerevisiae* origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27183 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rad57 (yN-20) is recommended for detection of Rad57 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.