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Krejci L, Van Komen S, Li Y, Villemain J, Reddy MS, Klein H, Ellenberger T, Sung P

*Nature* 2003 May 15 **423**(6937):305-9 [[abstract on PubMed](#)][[related articles](#)] [[order article](#)]**Selected by** | Antony Carr **NEW** / Dale Ramsden

First evaluation 6 Jun 2003 | Latest evaluation 18 Jun 2003

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United Kingdom  
CELL BIOLOGY

New Finding

**Dale Ramsden**0, United States  
STRUCTURAL BIOLOGY

Hypothesis

New Finding

**Comments**

**This paper elucidates the role played by Srs2 helicase in negatively regulating recombination in yeast cells.** In vitro, purified Srs2 helicase reverses the formation of Rad51 filaments. In addition, loss of Srs2 in yeast cells causes a hyper-recombination phenotype and under specific circumstances appears to prevent cells from completing repair. These data, together with those from Veaute et al. (*Nature* 2003, 423:309 [[PMID: 12748645](#)]), provide mechanistic insight into srs2 mutant phenotypes.

Evaluated 18 Jun 2003 **NEW**

**Krejci et al (and a similar work by Veaute et al {1} published in the same issue) provide a satisfying mechanistic explanation for the "anti-recombination" activity of certain DNA helicases.**

They show that the yeast DNA helicase SRS2 disrupts protein-DNA filaments containing rad51 and ssDNA, a critical intermediate in recombination. {1} Veaute et al. *Nature* 2003, 423:309-12 [[PMID:12748645](#)].

Evaluated 6 Jun 2003

**Faculty Comments**

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