# Article information:

Effects of Uracil Incorporation, DNA Mismatches, and Abasic Sites on Cleavage and Religation Activities of Mammalian Topoisomerase I\* - Journal of Biological Chemistry  
<https://www.jbc.org/article/S0021-9258(19)67554-X/fulltext>

# Article summary:

1. Abasic sites and uracil are two of the most common types of endogenous DNA damage.

2. The presence of uracils and abasic sites near a top1 cleavage site can suppress normal top1 cleavage or induce new top1 cleavage sites.

3. Top1 activity is sensitive to physiological, environmental, and pharmacological DNA modifications, and can act as a specific mismatch- and abasic site-nicking enzyme.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article “Effects of Uracil Incorporation, DNA Mismatches, and Abasic Sites on Cleavage and Religation Activities of Mammalian Topoisomerase 1” is an informative piece that provides insight into the effects of uracil incorporation, DNA mismatches, and abasic sites on the activities of mammalian topoisomerase 1 (top1). The article is well written with clear explanations of the research conducted and its results. The authors provide evidence for their claims in the form of references to other studies that have been conducted on this topic.

The article does not appear to be biased or one-sided in its reporting; it presents both sides equally by providing evidence for both positive and negative effects that these lesions can have on top1 activity. It also does not appear to contain any promotional content or partiality towards any particular viewpoint. Furthermore, the article does not appear to be missing any points of consideration or evidence for its claims; all relevant information is provided in detail throughout the text.

The only potential issue with this article is that it does not explore any counterarguments or possible risks associated with these lesions on top1 activity; however, this may be due to the fact that there are no known risks associated with these lesions at this time. All in all, this article appears to be trustworthy and reliable in its reporting on the effects of uracil incorporation, DNA mismatches, and abasic sites on mammalian topoisomerase 1 activity.

# Topics for further research:

* Mammalian Topoisomerase 1 Structure
* Uracil Incorporation Mechanism
* DNA Mismatch Repair Pathways
* Abasic Site Repair Processes
* Topoisomerase 1 Inhibitors
* Topoisomerase 1 Mutations

# Report location:

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