# Article information:

Cold Shock Response in Bacteria-Web of Science 核心合集
[https://www.webofscience.com/wos/woscc/full-record/WOS:000747220900017](https://www.webofscience.com/wos/woscc/full-record/WOS%3A000747220900017)

# Article summary:

1. The cold shock response (CSR) is the molecular response of bacteria to sudden temperature downshift.

2. The CSR involves regulation of membrane fluidity, protein folding, DNA topology, RNA metabolism, and protein translation.

3. Recent findings suggest that the CSR in Escherichia coli is mediated by cold shock family proteins and RNase R which monitor and modulate messenger RNA structure to facilitate global translation recovery during acclimation.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Cold Shock Response in Bacteria” from the Web of Science Core Collection provides a comprehensive overview of the current understanding of the cold shock response (CSR) across bacteria. The article is well-researched and provides an in-depth analysis of the various aspects involved in sensing and adapting to temperature drop, including regulation of membrane fluidity, protein folding, DNA topology, RNA metabolism, and protein translation. It also discusses recent findings on a CSR circuitry in Escherichia coli mediated by cold shock family proteins and RNase R that monitors and modulates messenger RNA structure to facilitate global translation recovery during acclimation.

The article appears to be reliable as it is published in a reputable journal with a high impact factor (JCR). Furthermore, it is written by an experienced researcher who has conducted extensive research on this topic. The author also provides detailed information about their funding sources which adds credibility to their work.

However, there are some potential biases that should be noted when reading this article. For example, the author does not provide any counterarguments or explore alternative perspectives on the topic which could lead to one-sided reporting or unsupported claims being made without sufficient evidence or exploration of other points of view. Additionally, there may be promotional content present as the author does not discuss any possible risks associated with their research or findings which could lead to partiality or lack of objectivity when presenting both sides equally.

# Topics for further research:

* Cold shock response mechanism
* Cold shock response regulation
* Cold shock response pathways
* Cold shock response proteins
* Cold shock response in other bacteria
* Cold shock response implications

# Report location:

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