

Biochemical Properties of Red Garlic: A Narrative Review of Laboratory Studies

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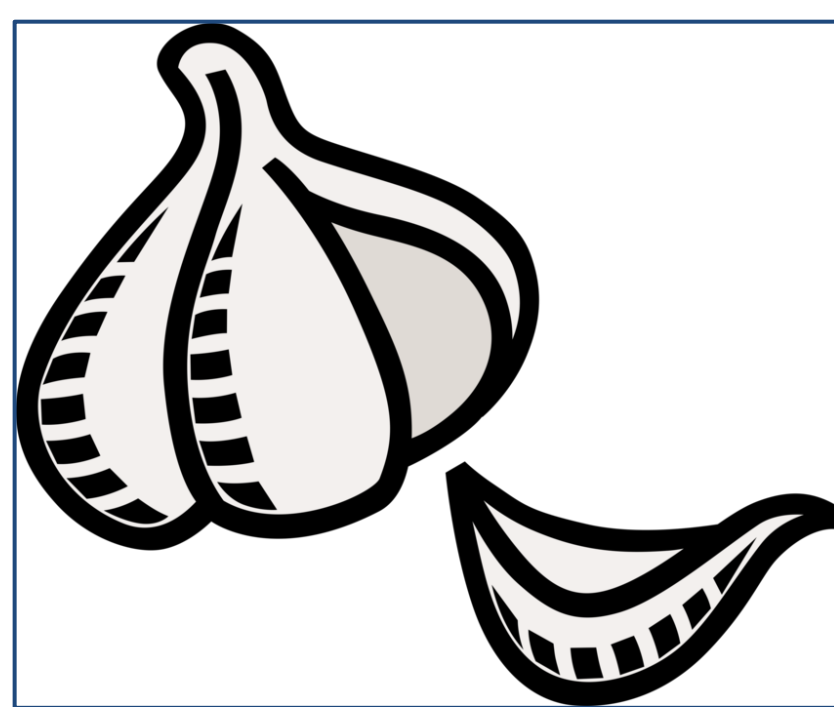
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INTRODUCTION & AIM

The aim of this literature review is to synthesize existing research on the **biochemical properties of red garlic extracts**, focusing on their effects in cell or animal models of human diseases.

METHOD

A narrative search was conducted in February 2024 on **PubMed** and **Google Scholar** to identify relevant studies examining the biochemical properties of red garlic extracts. The search strategy incorporated the keyword “*red garlic*” and inclusion criteria encompassed articles written exclusively in English.



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RESULTS & DISCUSSION

Following the search of selected databases, 789 articles were retrieved and 10 laboratory studies were included in this literature review, exploring the impact of red garlic extracts on laboratory models of lung and digestive tract phlogosis, cancer, microbial proliferation, obesity, and responses to inflammation or oxidative stress [1-10].

The studies analyzed both aged and fresh red garlic extracts, with a specific emphasis on water extracts. **The outcomes highlighted significant antioxidant and anti-inflammatory properties of red garlic extracts, also suggesting potential pro-metabolic effects that could be beneficial in addressing excessive weight and dyslipidemia.** The findings also point to the inhibitory effect on cancer cell proliferation by red garlic byproducts and the superior anti-inflammatory profile of the hydroalcoholic extract.

Comparative analyses between red and black garlic extracts indicate inconclusive evidence regarding antioxidant activity. The findings also suggested a high level of tolerability for the gut microbiota.

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