

## Literature Review on the Antibacterial Effects of *Salvia officinalis* L.

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**Abstract :** Introduction: The widespread production and consumption of antibiotics have raised significant concerns due to various adverse effects and the development of bacterial resistance. This increasing resistance to currently available antibiotics necessitates the search for new antibacterial agents. One alternative strategy to combat antibiotic-resistant bacteria is the use of natural antimicrobial substances such as plant extracts. This study aims to provide an overview of the antibacterial effects of *Salvia officinalis* (sage), a plant native to the Middle East and Mediterranean regions. Materials and Methods: This review was conducted by searching studies in databases such as PubMed, Scopus, JSTOR, and SpringerLink. The search terms were “*Salvia officinalis* L.” and “antibacterial effects.” Only studies that met our inclusion criteria (in English, focusing on the antibacterial effects of *Salvia officinalis* L., and primarily dated from 2012 to 2023) were considered for further review. Results and Discussion: The initial search strategy identified approximately 78 references, of which only 13 articles were included in this review. The synthesis of these articles revealed that multiple data sources confirm the antimicrobial effects of *S. officinalis*. Its essential oil and alcoholic extract exhibit strong bactericidal and bacteriostatic effects against both Gram-positive and Gram-negative bacteria. Conclusion: The significant value of the extract, oil, and leaves of *S. officinalis* demands further studies on other useful and unknown properties of this multipurpose plant.

**Keywords :** *salvia officinalis*, literature review, antibacterial., botany

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