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Antibacterial and antifungal activities of thymol: A brief review of the literature

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Abstract

Thymol (2-isopropyl-5-methylphenol) is the main monoterpene phenol occurring in essential oils isolated from plants belonging to the Lamiaceae family (Thymus, Ocimum, Origanum, and Monarda genera), and other plants such as those belonging to the Verbenaceae, Scrophulariaceae, Ranunculaceae, and Apiaceae families. These essential oils are used in the food industry for their flavouring and preservative properties, in commercial mosquito repellent formulations for their natural repellent effect, in aromatherapy, and in traditional medicine for the treatment of headaches, coughs, and diarrhea. Many different activities of thymol such as antioxidant, anti-inflammatory, local anaesthetic, antinociceptive, cicatrizing, antiseptic, and especially antibacterial and antifungal properties have been shown. This review aims to critically evaluate the available literature regarding the antibacterial and antifungal effects of thymol.

Keywords: Antibacterial; Antifungal; Monoterpene; Thymol; Thymus.

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