

Antibacterial activity of essential oils of Iranian plants (Mazandaran Province)

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Abstract

The essential oils of 44 plants from north of Iran (Mazandaran province) were obtained by hydrodistillation. Antibacterial activity of oils was evaluated by macro-titer plate dilution method, using *Escherichia coli*, *Pseudomonas aeruginosa*, *Staphylococcus aureus* and *Bacillus cereus*. Among the tested essential oils, four of them, *Juniperus sabina* L. (Cupressaceae), *Carum copticum* L. (Apiaceae), *Ferula gumosa* Boiss. (Apiaceae) and *Allium akaka* Gmel. (Liliaceae), showed considerable antibacterial activity against at least three test bacteria. Both Gram-positive bacteria tested were the most susceptible to the effects of oils. *P. aeruginosa* was the least susceptible bacterium whereas the other bacteria were partially inhibited by some of the essential oils tested. Detailed results of antibacterial activities of essential oils are presented in this paper.

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Author keywords

Antibacterial activity; Essential oil; Macro-titer plate method

Indexed Keywords

Species Index: *Allium*; *Allium sativum*; Apiaceae; Apiales; *Bacillus cereus*; Bacteria (microorganisms); *Carum carvi*; Cupressaceae; *Escherichia coli*; *Ferula*; *Foeniculum vulgare*; *Juniperus*; *Juniperus sabina*; Liliaceae; Magnoliophyta; Posibacteria; *Pseudomonas aeruginosa*; *Staphylococcus aureus*; *Trachyspermum copticum*

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