

- Pak J Pharm Sci. 2007 Jan;20(1):32-5.

**Antibacterial activities of *Emblica officinalis* and *Coriandrum sativum* against Gram negative urinary pathogens.**

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Present investigation is focused on antibacterial potential of aqueous infusions and aqueous decoctions of *Emblica officinalis* (amla) and *Coriandrum sativum* (coriander) against 345 bacterial isolates belonging to 6 different genera of Gram negative bacterial population isolated from urine specimens by employing well diffusion technique. Aqueous infusion and decoction of *Emblica officinalis* exhibited potent antibacterial activity against *Escherichia coli* (270), *Klebsiella pneumoniae* (51), *K. ozaenae* (3), *Proteus mirabilis* (5), *Pseudomonas aeruginosa* (10), *Salmonella typhi* (1), *S. paratyphi A* (2), *S. paratyphi B* (1) and *Serratia marcescens* (2) but did not show any antibacterial activity against Gram negative urinary pathogens.

PMID: 17337425 [PubMed - indexed for MEDLINE]

- J Agric Food Chem. 2004 Dec 29;52(26):7862-6.

**Antibacterial activity of *Coriandrum sativum* L. and *Foeniculum vulgare* Miller Var. *vulgare* (Miller) essential oils.**

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Essential oils were extracted from the fruits of *Coriandrum sativum* L. and *Foeniculum vulgare* Miller var. *vulgare* (Miller) and assayed in vitro for antibacterial activity to *Escherichia coli* and *Bacillus megaterium*, bacteria routinely used for comparison in the antimicrobial assays, and 27 phytopathogenic bacterial species and two mycopathogenic ones responsible for cultivated mushroom diseases. A significant antibacterial activity, as determined with the agar diffusion method, was shown by *C. sativum* essential oil whereas a much reduced effect was observed for *F. vulgare* var. *vulgare* oil. *C. sativum* and *F. vulgare* var. *vulgare* essential oils may be useful natural bactericides for the control of bacterial diseases of plants and for seed treatment, in particular, in organic agriculture. The significant antibacterial activity of essential oils to the bacterial pathogens of mushrooms appears promising.

Publication Types: Research Support, Non-U.S. Gov't

PMID: 15612768 [PubMed - indexed for MEDLINE]

- J Agric Food Chem. 2004 Jun 2;52(11):3329-32.

**Antibacterial activity of coriander volatile compounds against *Salmonella choleraesuis*.**

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Aliphatic (2E)-alkenals and alkanals characterized from the fresh leaves of the coriander *Coriandrum sativum* L. (Umbelliferae) were found to possess bactericidal activity against *Salmonella choleraesuis* ssp. *choleraesuis* ATCC 35640. (2E)-Dodecenal (C(12)) was the most effective against this food-borne bacterium with the minimum bactericidal concentration (MBC) of 6.25 microg/mL (34 microM), followed by (2E)-undecenal (C(11)) with an MBC of 12.5 microg/mL (74 microM). The time-kill curve study showed that these alpha,beta-unsaturated aldehydes are bactericidal against *S. choleraesuis* at any growth stage and that their bactericidal action comes in part from the ability to act as nonionic surfactants.

PMID: 15161192 [PubMed - indexed for MEDLINE]

- Int J Food Microbiol. 2002 Mar 25;74(1-2):101-9.

**Antimicrobial activity of individual and mixed fractions of dill, cilantro, coriander and eucalyptus essential oils.**

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Essential oils from dill (*Anethum graveolens* L.), coriander (seeds of *Coriandrum sativum* L.), cilantro (leaves of immature *C. sativum* L.) and eucalyptus (*Eucalyptus dives*) were separated into heterogeneous mixtures of components by fractional distillation and were analyzed by gas chromatography-mass spectroscopy. Minimum inhibitory concentrations against gram-positive bacteria, gram-negative bacteria and *Saccharomyces cerevisiae* were determined for the crude oils and their fractions. Essential oil of cilantro was particularly effective against *Listeria monocytogenes*, likely due to the presence of long chain (C6-C10) alcohols and aldehydes. The strength and spectrum of inhibition for the fractions often exceeded those determined in the crude oils. Mixing of fractions resulted in additive, synergistic or antagonistic effects against individual test microorganisms.

PMID: 11929164 [PubMed - indexed for MEDLINE]