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Antibacterial activity of a novel alkaloid julifloravizole isolated from leaves of *Prosopis juliflora* (Sw.) DC.

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A novel antibacterial alkaloid was isolated from the methanol extract of leaves of *Prosopis juliflora* (Sw.) DC. by antibacterial activity-guided fractionation. Mass spectrometry, elemental analysis, ¹H NMR, ¹³C NMR, ¹H - ¹³C HSQC, COSY and TOCSY analysis suggested that the inhibitory compound is an alkaloid and has a structure of 1H-Imidazole-4-carboxylic acid 2-ethyl-hexyl ester (julifloravizole). Neither the Beilstein nor the Scifinder scholar databases contained this compound, indicating that the current work is the first to describe it. *In vitro* evaluation for antibacterial activity by cup diffusion assay was conducted against hospital isolated and characterized *Staphylococcus aureus*. Comparative evaluation of the MIC of the julifloravizole with that of recommended dosage of antibiotics indicated that the julifloravizole is effective against antibiotics resistant bacterial strains.

Biography

Maddur P Raghavendra has completed his PhD at the age of 28 years from University of Mysore. He is the Coordinator of the Postgraduate Department of Microbiology, Maharani's Science College for Women, Mysore, Karnataka. He has published more than 25 papers in reputed journals and serving as an Editorial Board Member of repute. He was the recipient of Indian Science Congress (ISCA) Young Scientist Award during 2010. He is also serving as Fellow of several societies and has served as a Secretary of Association of Microbiologists of India, Mysore unit.

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