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Indole alkaloids from *Evodia rutaecarpa* (Juss) Benth (Rutaceae)

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Evodia rutaecarpa is an original plant of several crude drugs. The *Evodia* fruits (Wu Zhu Yu) have been used in traditional Chinese prescriptions for the treatment of headache, abdominal pain, migraine, chill limbs, postpartum hemorrhage, diarrhea, hyperbaropathy, dysmenorrhea, nausea, antinociception, antiinflammatory and anticancer. Investigation of characteristic constituents of *Evodia rutaecarpa* led to isolation of two novel indole alkaloids, evodiagenine (1) and dievodiamine (2), together with ten known indole quinoline alkaloids (1-12), eight limonins (13-20), seven flavonoids (21-27), seven triterpenoids (28-34) and eleven other compounds (35-45). The structures of new compounds were identified on the basis of MS and NMR spectroscopic analysis and compound 2 was confirmed by X-ray crystallographic analysis. Based on the previous studies, this chemical composition for Sub family Rutoideae is in accordance with the chemical profile of other species of Rutaceae. This structural feature complies with the rule that indole alkaloids were the characteristic constituents of this Zanthoxylum and *Evodia* genus plants to provide reliable evidence for its chemotaxonomy. Compound 1 has significant antifungal activity of inhibition enzyme activity on the Lanosterol 14 α Demethylase (CYP51).

Biography

Qizhi Wang is an Associate Professor of the Research Center for Natural Products Chemistry, Institute of Botany, Jiangsu Province and Chinese Academy of Sciences. She has obtained her PhD degree from China Pharmaceutical University in 2006 and worked as a Post-doctoral Researcher in School of Life Sciences, Nanjing University (2006-2009). Her research interests mainly focus on the isolation, structure and analysis of the chemical constituents in medicinal plants. She has published over 50 academic papers and she is the holder of 10 national patents of invention.

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