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Secondary Metabolites from Euphorbia helioscopia and Their Vasodepressor Activity

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Abstract: From the aerial parts of Euphorbia helioscopia L. (Euphorbiaceae), a jatrophane diterpene ester, 5,11-jatrophadiene-3-benzoyloxy-7,9,14-tri-acetyloxy-15-ol and 2 lupane derivatives, lup-20(29)-ene-3-acetate and lup-20(29)-ene-3-palmitate, together with common triterpenoids of Euphorbiaceae, 24-methylene cycloartanol, 24-methylenecycloart-3-one, cycloartanol, and stigmast-4-ene-3-one were isolated. The last compounds, lup-20(29)-ene-3-acetate, 24-methylene cycloartanol, 24-methylenecycloart-3-one, cycloartanol, and stigmast-4-ene-3-one, were isolated for the first time from E. helioscopia}. The fractions and the isolates were tested for their vasodepressor effects using Wistar Albino rats, and 5,11-jatrophadiene-3-benzoyloxy-7,9,14-tri-acetyloxy- 15-ol, lup-20(29)-ene-3-acetate, and stigmast-4-ene-3-one were found to possess relevant activity. The structures of all of the compounds were identified with high field spectroscopic methods. The detailed spectroscopic data of compound 1 is given in the present study.

Key Words: Euphorbia helioscopia, Euphorbiaceae, diterpenoid, triterpenoids, steroid, vasodepressor effect

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