

Abstract

One new and eight previously described lupane-type metabolites were isolated for the first time from *Acacia mellifera* (Leguminosae). Based on spectral analyses, the structure of the new compound was elucidated as 28-hydroxy-3-oxo-lup-20-(29)-en-30-al (1), while the known compounds were identified as 3-oxo-lup-20-(29)-en-30-al (2), 3-hydroxy-lup-20-(29)-en-30-al (3), 28-hydroxy-lup-20-(29)-en-3-one (4), lupenone (5), lupeol (6), betulin (7), betulinic acid (8), and betulonic acid (9). Metabolites 2, 3, and 4 are reported for the first time in the Leguminosae family. The cytotoxicity of the isolated metabolites was evaluated on the NSCLC-N6 cell line, derived from a human non-small-cell bronchopulmonary carcinoma. Compounds 1 and 3 exhibited significant levels of activity.