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Cycloartan-2b-2-methyl Butanoate Isolated from Genus *Espeletia* (Asteraceae)

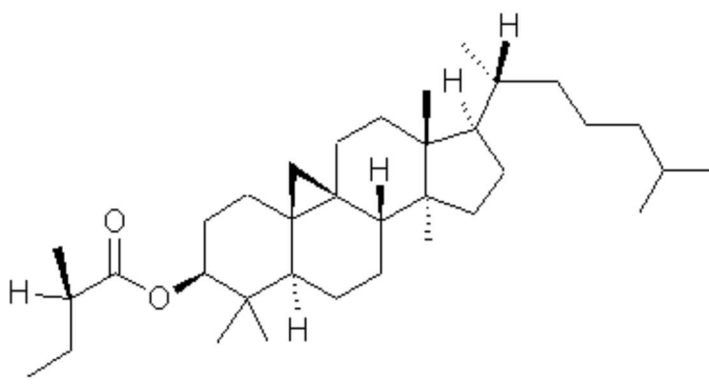
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We describe the isolation and characterization of a new cycloartane-type triterpenes, cycloartan-2b-2-methyl butanoate. It is noteworthy that this type of compound has not been found in a species of this genus and is a new natural compound. Its structure, **1**, was established by using NMR (1D ¹H, ¹³C-JMOD and 2D COSY, NOESY, and HMBC).

Dried and pulverised leaves (1 kg) of *Espeletia argentea* and *E. barclayana* were extracted with petrol and then 20 g of this extract was subjected to column chromatography on silica gel using petrol and AcOEt. From the petrol fraction and after recrystallization from CHCl₃ and MeOH we obtained the white crystals of **1**.

M.p. 123-124 °C.

[α]_D²⁰ = + 67°(CHCl₃).

MS (m/z): [M⁺], 512, C₃₅H₆₀O₂; [M - C₅H₁₀O₂], 410, C₃₀H₅₀.

¹H-NMR (d, ppm, CDCl₃): 0.97 (H3-18), 0.87 (9H H3-21, H3-26 and H3-27), 0.91 (H3-28), 0.86 (H3-29), 0.90 (H3-30), 0.92 (H3-H-1'), 1.15 (H3-H-2''), 0.35 (d, J=4.16 Hz, H-19) and 0.58 (d, J=4.16 Hz, H-19b), 2.36 (H-2'), 4.57 (CH-O H-3).

¹³C-NMR (d, ppm, CDCl₃): 31.8 (C-1), 27.0 (C-2), 80.4 (C-3), 39.8 (C-4), 47.4 (C-5), 26.2 (C-6), 21.2 (C-7), 48.1 (C-8), 20.4 (C-9), 26.2 (C-10), 26.8 (C-11), 33.1 (C-12), 49.0 (C-13), 45.5 (C-14), 35.8 (C-15), 28.4 (C-16), 52.6 (C-17), 18.2 (C-18), 30.0 (C-19), 28.2 (C-20), 18.6 (C-21), 39.8 (C-22), 24.3 (C-23), 36.7 (C-24), 36.3 (C-25), 22.8 (C-26), 23.0 (C-27), 15.5 (C-28), 25.7 (C-29), 19.5 (C-30), 176.6 (C-1'), 42.0 (C-2'), 27.0 (C-3'), 11.9 (C-4'), 17.0 (C-2'').

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