

Molecules **2000**, *5*, M188

8a,9a-Epoxy Nor-31-lanosten-3,4-olactone

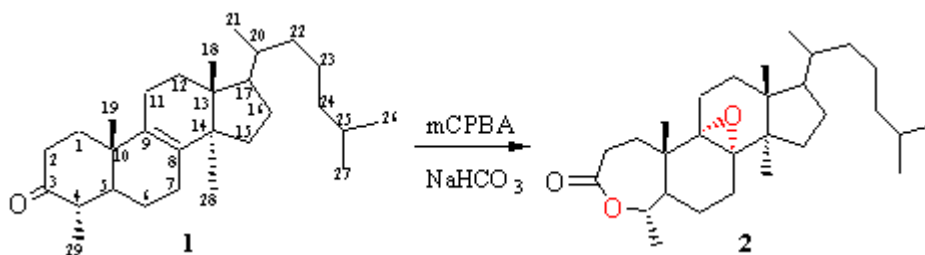
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Received: 29 October 2000 / Accepted: 30 November 2000 / Published: 25 December 2000



To a mixture of (0.85 g, 4.9 mmol) of metachloroperoxybenzoic acid (mCPBA) [1,2] and (1.63 g, 19.6 mmol) of sodium hydrogenocarbonate (NaHCO₃) in 20 ml of dichloromethane was added (1 g, 2.42 mmol) of **1** in 10 ml of CH₂Cl₂. After stirring for 48 h at ambient temperature, the mixture was washed with 20 ml of 10 % Na₂CO₃ and 20 ml of a saturated solution of NaHCO₃. The organic layer was dried over Na₂SO₄ and concentrated in *vacuum*. The yellow residue was purified by silica gel column chromatography using 8/2 hexane/EtOAc as solvent to give **2** (0.90 g, 84 %).

Mp : 204-205 °C.

IR : 1743 cm⁻¹.

MS (EI, 70eV) : 444.7 (M⁺).

¹H NMR (200 MHz, CDCl₃) : 2.6 (m, C2-H₂); 4.4 (qd, J₁=J₂=6 Hz, C4-H); 0.76 (s, C18-H₃); 0.87 (s, C19-H₃); 0.95 (d, J=6 Hz, C21-H₃); 0.83 (d, J=6 Hz, C26 and C27-H₆); 1.16 (s, C28-H₃); 1.23 (d, J=6 Hz, C29-H₃).

¹³C NMR (50 MHz, CDCl₃) : 32.46 (C1); 39.58 (C2); 175.11 (C3); 74.95 (C4); 48.7 (C5); 20.31 (C6); 27.38 (C7); 69.45 (C8); 67.55 (C9); 48.28 (C10); 20.10 (C11); 32.10 (C12); 41.42 (C13); 48.1 (C14); 30.35 (C15); 30.54 (C16); 42.86 (C17); 15.17 (C18); 18.86 (C19); 36.18 (C20); 19.40 (C21); 36.25 (C22); 23.60 (C23); 27.70 (C24); 36.02 (C25); 16.33 (C26); 16.41 (C27); 23.17 (C28); 23.63 (C29).

The structure of the compound **2** were established by X-ray crystal structure determination.

References

- [1] Kenneth, B. W.; John, R. S. *J. Org. Chem.* **1998**, *64* 1390-1401.
 [2] Yong, T. Q.; Liang, S. D.; W. Z. Ping, Z. W. *J. Org. Chem.* **1999**, *64*, 629-633.

Sample availability : Available from the authors and MDPI.

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