

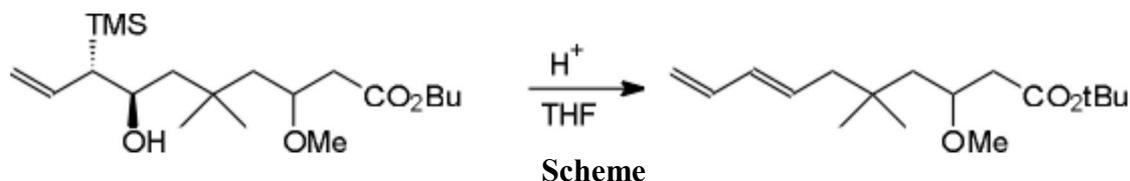
Molecules **1997**, *2*, M34

tert-Butyl-3-methoxy-5,5-dimethyl-7(E),9-decadienoate

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The diastereomeric alcohols [1], either separately or as a mixture, were converted under acidic Peterson olefination conditions to the title *E*-diene.

Typically, a mixture of alcohols in dry THF was stirred with a catalytic amount of H₂SO₄ at room temperature for 19 hours, then washed with sat aq NaHCO₃. The aq washings were combined and back extracted with ether. The combined organic layers were washed with sat aq NaCl, dried over Na₂SO₄ and concentrated to give the title *E*-diene ester as a colorless oil in 73 percent yield.

¹H NMR (CDCl₃): d: 6.29 (dt, J = 16.9, 10.3Hz, 1H), 6.01 (dd, J = 15.3, 10.7Hz, 1H), 5.71 (dt, J = 15.3, 7.5Hz, 1H), 5.12 (d, J = 16.9 Hz, 1H), 4.93 (d, J = 10.3Hz, 1H), 3.63 (m, 1H), 3.28 (s, 3H), 2.51 (dd, J = 14.6, 5.4Hz, 1H), 2.21 (dd, J = 14.6, 7.3Hz, 1H), 1.99 (bt, J = 6.2Hz, 2H), 1.6 - 1.3 (m, 1H), 1.43 (s, 9H), 1.27 (dd, J = 14.7, 2.7Hz, 1H), 0.90 (s, 3H), 0.88 (s, 3H).

IR (CDCl₃): 2965, 2930, 2830, 1715, 1640, 1600, 1450, 1365, 1295, 1260, 1150.

MS (m/e): 226, 195, 157, 127 (100), 117, 108, 103, 73, 57.

HRMS: calc. for C₁₃H₂₂O₃ (M - C₄H₈): 226.1569; found: 226.1569.

References and Notes

- Smith, D. tert-Butyl-3-methoxy-5,5-dimethyl-7-hydroxy-8-trimethylsilyloxy-9-decenoate, *Molecules* **1997**, *2*, M33.

Sample Availability: No sample available.

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