

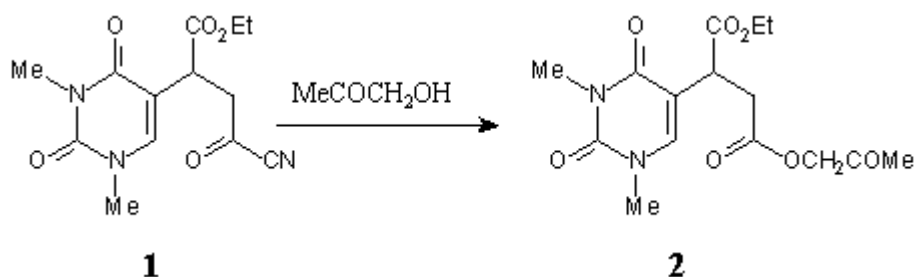
Molecules **1997**, *2*, M9

1-Ethyl 4-(2-oxopropyl) 2-(1,2,3,4-Tetrahydro-1,3-dimethyl-2,4-dioxypyrimidin-5-yl)butanedioate

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Scheme

The diester **2** was prepared by the addition of 2-hydroxyacetone to **1** according to the reported procedure [1].

2-Hydroxyacetone (0.2 ml, 2.9 mmol) was added to a solution of **1** (293 mg, 1 mmol) in CH_2Cl_2 (5 ml). The mixture was left at r.t. for 2 h and filtered through a pad of silica gel (EtOAc) afforded the title compound **2**, a colourless oil: 320 mg (94 %).

IR (neat): 3070m, 1725vs, 1700vs, 1660vs, 1640vs, 1483s, 1460s, 1435s, 1375s, 1350s, 1275s, 1250s, 1190s, 1155s, 1090s, 1020s, 780s, 755s.

$^1\text{H-NMR}$ (CDCl_3): 7.30 (s, 1H, H-6'); 5.66 (s, 2H, $\text{CO}_2\text{CH}_2\text{COCH}_3$); 4.16 (q, $J = 7.1$, 2H, $\text{CO}_2\text{CH}_2\text{Me}$), 3.88 (dd, $J = 8.2, 5.7$, H-2); 3.41 (s, Me-1'); 3.32 (s, Me-3'); 3.18 (dd, $J = 16.8, 5.7$, 1H, H-3); 2.92 (dd, $J = 16.8, 8.2$, 1H, H-3); 2.13 (s, 3H, $\text{CO}_2\text{CH}_2\text{COCH}_3$); 1.23 (t, $J = 7.1$, $\text{CO}_2\text{CH}_2\text{CH}_3$).

$^{13}\text{C-NMR}$ (CDCl_3): 207.5 ($\text{CO}_2\text{CH}_2\text{COCH}_3$), 173.4 ($\text{CO}_2\text{CH}_2\text{COCH}_3$), 171.3 ($\text{CO}_2\text{CH}_2\text{Me}$), 162.0 (C-4'), 151.0 (C-2'), 141.7 (C-6'), 109.7 (C-5'), 67.9 ($\text{CO}_2\text{CH}_2\text{COCH}_3$), 60.8 ($\text{CO}_2\text{CH}_2\text{Me}$), 39.5 (C-2), 36.5 (Me-3'), 34.2 (C-3), 27.3 (Me-1'), 24.7 ($\text{CO}_2\text{CH}_2\text{COCH}_3$), ($\text{CO}_2\text{C}(\text{CH}_3)_3$), 13.4 ($\text{CO}_2\text{CH}_2\text{CH}_3$).

EI-MS: 340 (M^+ , 4), 295 (4), 294 (10), 267 (5), 266 (13), 239 (2), 238 (8), 237 (6), 194 (12), 193 (100), 169 (2), 167 (5), 166 (13), 165 (11), 110 (2), 81 (15), 80 (8), 69 (2), 68 (4), 56 (2).

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References

1. Zhuo, J.-C.; Wyler, H. *Helv. Chim. Acta* **1993**, *76*, 1916.

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