

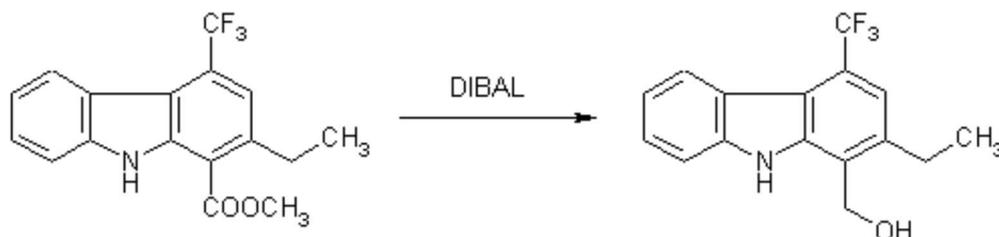
*Molecules* **1997**, *2*, M14

## 2-Ethyl-1-hydroxymethyl-4-trifluoromethyl-9H-carbazole

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Received: 11 June 1997 / Published: 16 June 1997



The general part of the experimental section [1] has been presented elsewhere. This reduction was carried out in order to confirm the position of the ethyl substituent in the starting material [1] using NOE difference spectroscopy with the alcohol obtained.

To a solution of methyl 2-ethyl-4-trifluoromethylcarbazole-1-carboxylate [1] (75 mg, 0.23 mmol) in dry THF (11 ml) was added a 1M solution of diisobutylaluminumhydride in *n*-hexane (2 ml, 2 mmol), and the mixture was stirred for 5 hr at 65 deg.C under an argon atmosphere. After cooling, HCl (2N, 10 ml) and THF (5 ml) were added, then the mixture was saturated with NaCl. The phases were separated and the organic layer was washed with brine, dried, and evaporated. Recrystallization from ethyl acetate - light petroleum gave the title compound as yellow needles (65 mg, 96%).

M.p. 150-153 deg.C.

<sup>1</sup>H NMR (CDCl<sub>3</sub>): 9.29 (bs, 1H, NH; shows NOE on irradiation at 5.20 ppm), 8.29 (d, J=8.1Hz, 1H, H-5), 7.49-7.42 (m, 2H, H-7, H-8), 7.37 (s, 1H, H-3), 7.32-7.22 (m, 1H, H-6), 5.20 (d, J=5.3Hz, 2H, CH<sub>2</sub>OH), 2.83 (q, J=7.5Hz, 2H, CH<sub>2</sub>CH<sub>3</sub>; shows NOE on irradiation at 5.20 ppm), 1.87 (t, J=5.3Hz, 1H, CH<sub>2</sub>OH), 1.29 (t, J=7.5Hz, 3H, CH<sub>2</sub>CH<sub>3</sub>; shows NOE on irradiation at 5.20 ppm).

IR (cm<sup>-1</sup>, KBr): 3482, 3288, 2964, 1353, 1149, 1105, 990, 892, 738.

MS (m/z, ED): 293 (54%), 291 (26), 275 (100), 262 (16), 248 (17), 206 (19), 204 (17), 191 (10).

Anal. calc. for C<sub>16</sub>H<sub>14</sub>F<sub>3</sub>NO (293.29): C 65.52, H 4.81, N 4.78; found: C 65.22, H 4.57, N 4.57.

### References and Notes

1. Haider, N.; Wanko, R. *Heterocycles* **1994**, *38*, 1805.

*Sample Availability*: The product is available from MDPI, 0.015g, MDPI 11845.

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