

2-(2'-Hydroxybenzoyl)pyrrole N-Benzoylhydrazone

Antigoni Kotali

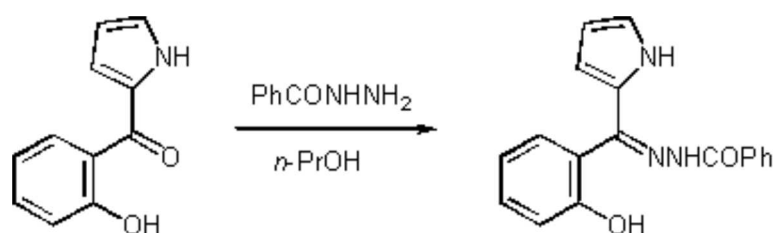
Laboratory of Organic Chemistry, Department of Chemical Engineering, College of Engineering, University of Thessaloniki, Thessaloniki 54006, Greece

E-mail: kotali@eng.auth.gr

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In continuation of our interest in using *o*-hydroxyaryl ketone hydrazones as starting materials in organic synthesis [1], we synthesised 2-(2'-hydroxybenzoyl)pyrrole *N*-benzoylhydrazone.



Benzoic hydrazide is commercially available and it was supplied by Aldrich, whereas 2-(2'-hydroxybenzoyl)pyrrole was prepared in three steps according to the literature method [2]. Benzoic hydrazide (0.68 g, 5 mmol) was added to a solution of 2-(2'-hydroxybenzoyl)pyrrole (1 g, 5 mmol) in propanol-1 (10 mL). The reaction mixture was refluxed for 24 hours. It was then allowed to cool at room temperature. Subsequently, it was stored in the refrigerator overnight. Filtration of the precipitate, which was formed, afforded (1.41 g, 92 %) of the desired 2-(2'-hydroxybenzoyl)pyrrole *N*-benzoylhydrazone as light yellow crystals. The product was identified by ¹H NMR, ¹³C NMR and MS and it was subjected to elemental analysis without further purification.

M.p. 213-215 °C.

¹H NMR (300 MHz, DMSO-d₆): 6.93-7.19 (m, 2H), 7.33-7.61 (m, 7H), 7.62-7.79 (m, 3H), 9.73 (s, 1H), 10.79 (s, 1H), 12.03 (s, 1H).

¹³C NMR (75 MHz, DMSO-d₆): 114.0, 111.8, 117.4, 119.2, 120.2, 123.5, 124.0, 127.1, 127.4, 128.5, 130.6, 131.5, 133.6, 133.7, 158.7, 166.4.

MS m/z (ES⁺): 328 [M+Na]⁺, 306 [M+1]⁺.

Anal. Calc. for C₁₈H₁₅N₃O₂: C 70.81, H 4.95, N 13.76; found: C 70.84, H 5.10, N 13.81.

References and Notes

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Sample availability: available from the authors and MDPI.

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