

REACTION OF FOLIOSIDINE WITH ACETYL AND BENZOYL CHLORIDES

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Among quinoline alkaloids, particular interest is focused on compounds that can be regarded as promising scaffolds for the targeted synthesis of new derivatives with potentially valuable properties. One such compound is foliosidine, isolated from *Haplophyllum foliosum* of the Rutaceae family. The present study investigates the reactivity of foliosidine (**1**) in acylation reactions with acetyl and benzoyl chlorides with the aim of obtaining new derivatives and examining their structural features.

For this purpose, a mixture of foliosidine (**1**) 0.3 g (0.97 mmol) with 0.084 mL (1.5 mmol) of acetyl chloride (**a**) or benzoyl chloride (**b**) in 8 mL of benzene and 0.15 mL of triethylamine was refluxed for 6 h under a calcium chloride drying tube. After the appropriate work-up, a mixture of products was obtained: method **a** with R_f 0.67 and R_f 0.48; method **b** with R_f 0.78 and R_f 0.67 (system: chloroform–methanol, 8:1). Upon treatment of reaction mixture **a** with acetone, 0.19 g of 3-hydroxy-1-(4-methoxy-1-methyl-2-oxo-1,2-dihydroquinolin-8-yloxy)-3-methylbutan-2-yl acetate (**2**) was isolated (yield 43%), mp 80–81°C. Column chromatography afforded 0.01 g of a white powdered product, 1-(4-methoxy-1-methyl-2-oxo-1,2-dihydroquinolin-8-yloxy)-3-methylbutane-2,3-diyl diacetate (**3**), mp 120–122°C (R_f 0.48; yield 3.3%, TLC-MS m/z 414.5104 $[M+Na]^+$). Compound **2** was identified as foliforine, previously isolated from *Haplophyllum foliosum*.

The mixture of products obtained by method **b** was purified by column chromatography on silica gel using eluent systems (chloroform:methanol, 100:1→100:10). The products from fraction 8 were further separated by preparative chromatography. Compound **4**: TLC-MS m/z 434.4181 $[M+Na]^+$; derivative **5**: TLC-MS m/z 538.4576 $[M+Na]^+$. The structure of compound **2** was confirmed by single-crystal X-ray diffraction analysis.

