SYNTHESIS AND CHARACTERIZATION OF SOME N-(4-CHLORO-PHENYL)-2-HYDROXY-BENZAMIDE DERIVATIVES

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Abstract

Salicylanilides, 2-hydroxy-N-(phenyl)benzamides, represent a group with wide range of biological activities. They have been studied over time on the interest of medicinal chemistry for many interesting effects: act as uncouplers on biomembranes, affect productions of interleukins, regulate an immune response, show analgesic and anti-inflammatory properties, influence ion channels, affect some molecular targets being potentially useful in cancer therapy [1], express moderate hypoglycaemic activity [2], influence the metabotropic glutamate receptors [3]. Also, salicylanilide derivatives are known for their activity against different bacteria, fungi and protozoa, the basic structure is still modulated for antimycobacterial, antifungal and antibacterial activities [1, 4]. Starting from N-(4-chloro-phenyl)-2-hydroxy-benzamide, novel molecules, esters, hydrazides, hydrazones were synthesized under microwave irradiation. The compounds were obtained with good yields (66-97%) after the final purification and were characterized using FTIR, ^{1}H and ^{13}C-NMR. Spectral data unambiguously confirm the proposed structures.

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References

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