Synthesis, inhibition of NO production and antiproliferative activities of some indole derivatives

Maria Stefania Sinicropi, Anna Caruso, Filomena Conforti, Mariangela Marrelli, Hussein El Kashef, Jean-charles Lancelot, Sylvain Rault, Giancarlo A. Statti, and Francesco Menichini.

Abstract:

The synthesis and the biological evaluation of pyrano[3,2-e]indoles and their reaction intermediates are described. The compounds prepared were evaluated for their inhibition of NO production, antioxidant activity and also for their ability to inhibit in vitro the growth of four human tumor cell lines: large lung carcinoma (COR-L23), alveolar basal epithelial carcinoma (A549), amelanotic melanoma (C32) and melanoma (A375). The two reaction intermediates, 5a and 5b, showed the highest inhibition of NO production in murine monocyctic macrophage (IC50=1.1μM and IC50=2.3 μM respectively). Compound 5a was the most active against melanotic melanoma (IC50=11.8μM) while the other compounds exhibited weak cytotoxicity with IC50 values >50μM on all cell lines.

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