

6-Methoxy-3-(4-Methoxyphenyl)-1*H*-Indole と 3-Phenylpiperidine のハイブリッド化合物による HCT-116 および HL-60 細胞に対する抗増殖活性

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Antiproliferative Activity of Hybrid Compounds Between 6-Methoxy-3-(4-Methoxyphenyl)-1*H*-Indole and 3-Phenylpiperidine Against HCT-116 and HL-60 Cells

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ABSTRACT: Indole derivatives have been potential anticancer drugs. Methyl 6-methoxy-3-(4-methoxyphenyl)-1*H*-indole-2-carboxylate, in particular, was reported as a potent antiproliferative agent against MCF-7, NCI-H460, and A375-C5 tumor cells. In this study, the 3-arylidole-2-carboxylate exhibited weak activity against HCT-116 colon tumor and HL-60 promyelocytic leukemia cells. To develop the potent antiproliferative indole derivatives against HCT-116 and HL-60 cells, we synthesized 6-methoxy-3-(4-methoxyphenyl)-1*H*-indoles with various 2-substituents and assessed their activity. The 4-phenylpiperidine derivatives attenuated the tumor cells viability. Furthermore, their calculated structure resembled that of the antiproliferative loperamide derivatives.

抄録 Methyl 6-methoxy-3-(4-methoxyphenyl)-1*H*-indole-2-carboxylate は、MCF-7、NCI-H460 および A375-C5 腫瘍細胞に対する強力な抗増殖剤として報告されている。そこで、HCT-116 および HL-60 細胞に対する強力な抗増殖性インドール誘導体を開発するために、2-位に種々の置換基を有する 6-methoxy-3-(4-methoxyphenyl)-1*H*-indole を合成し、それらの活性評価を行った内容である。

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