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Synthesis of 4-(2-Aminoethoxy)-3,4-dihydrochalcones and Their Antioxidant and Cytotoxic Effects on Human Tumor Cells

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Abstract

Recently, many reports revealed that there are close correlations between antioxidant and anticancer activities of compounds. In this study, we designed 4-hydroxy-3-methyl-2,4-dihydroxychalcone (**2**) as a ring-opened analog of luteolin, which has been known to possess both antioxidant and anticancer activities, and then introduced aminoethyl moieties to this chalcone structure to increase water solubility by transforming into HCl salts. Synthesized aminoalkyl-substituted chalcones **3a**–**3d** showed potent antioxidant activities in three different assay systems and anticancer activities against four tumor cell lines tested.

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- Marek Pietrzak, Marek Józef Zefowicz, Agnieszka Bajorek and Janina R. Heldt, Experimental and Theoretical Studies of the Spectroscopic Properties of Chalcone Derivatives, *Journal of Fluorescence*, **27**, 2, (537), (2017).
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