Title: **New method for obtaining (+)-C75 and (–)-C75**

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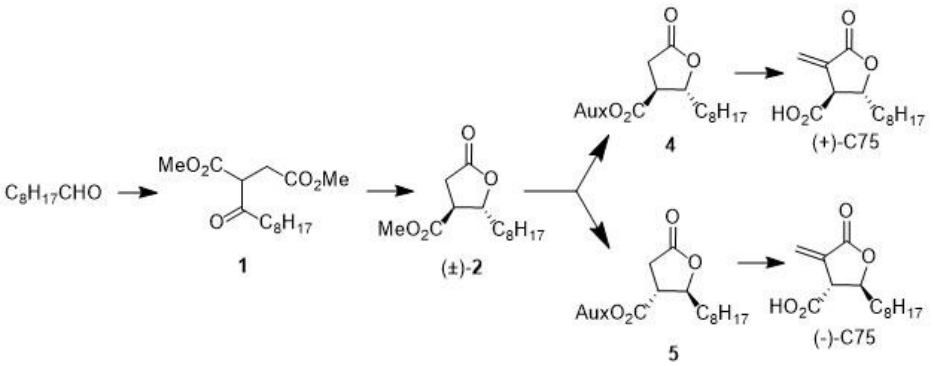
This work describes a new enantioselective synthetic route for C75 compound. C75 is a Fatty Acid Synthase (FAS) inhibitor that prevents the synthesis of fatty acids in the cells. This compound is a potentially antitumoral drug because the synthesis of fatty acids is essential for the development of some cancers. However, during the study of the *in vivo* tests, it was shown that this compound was also an anorexigenic prodrug. When C75 is converted in the cell to C75-CoA adduct, it inhibits the hypothalamic enzyme carnitine palmitoyltransferase I (CPTI), which creates a signal of satiety. During the study of the biological activity of each C75 enantiomer, it is shown that each enantiomer has a different biological activity. The (+)-C75 compound is anorexigenic and (–)-C75 compound is antitumoral. Thus, it was desirable to have a method for the obtention of both enantiomers.

Previously, the synthetic method used for the enantioselective synthesis of both enantiomers of C75 implied the repetition of the same sequence with enantiomeric chiral auxiliaries. A new method in which the two enantiomers are synthesized by a stereodivergent route is described in this work.



Keywords: C75, enantiomer, antitumor compound, FAS, anorexigenic compound, CPTI, synthetic methodology, lactones