Evaluation of Antioxidant and Antitrypanosomal Properties of a Selected Series of Synthetic 3-Carboxamidocoumarins

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 Oxidative stress is involved in several parasitic diseases such as Chagas. Agents able to selectively modulate biochemical processes involved in the disease represent promising multifunctional agents for the delay or abolishment of the progression of this pathology. In the current work, differently substituted 3-carboxamidocoumarins exerting both antioxidant and trypanocidal activities are described. Among the compounds synthesized, compound 3 (N-(4-hydroxyphenyl)coumarin-3-carboxamide) showed the most interesting antioxidant profile, presenting 53.2 % superoxide radical scavenging and the highest ORAC-FL value (ORAC-FL=1.87) of the series. In the trypanocidal study, compounds 9 (N-(quinolin-6-yl)coumarin-3-carboxamide) and 10 (N-(quinolin-3-yl)coumarin-3-carboxamide) presented high activity in epimastigote stage and low activity in trypomastigote stage, as well as low cytotoxic effects. Additionally, these compounds decreased mitochond