Electronic Supplementary Material (ESI) for Photochemical & Photobiological Sciences

Kinetics of Inhibition of Firefly Luciferase by Dehydroluciferyl-coenzyme A, Dehydroluciferin and L-Luciferin

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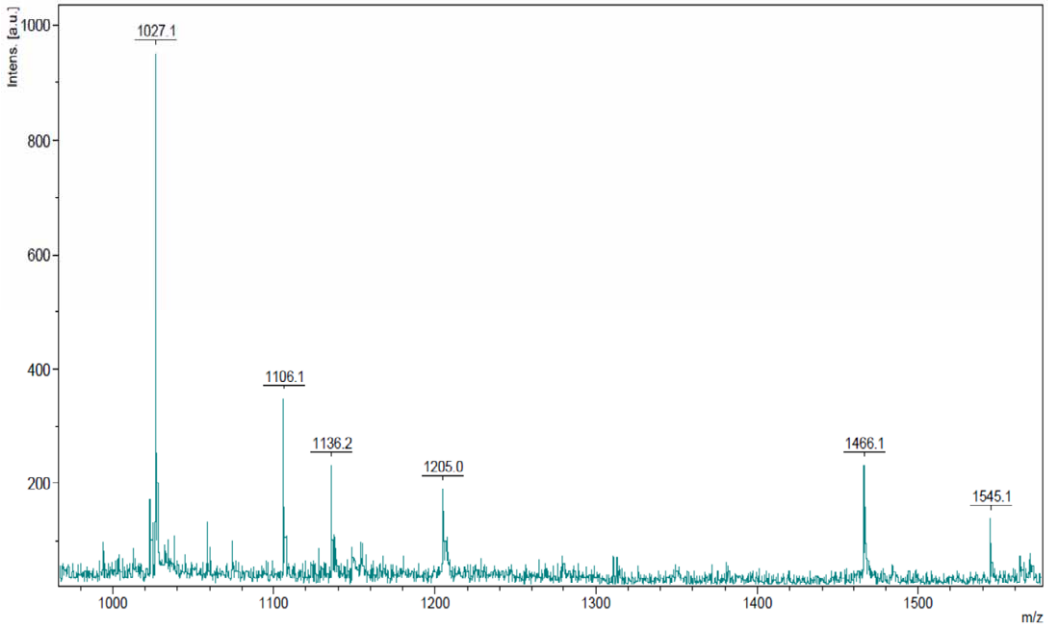
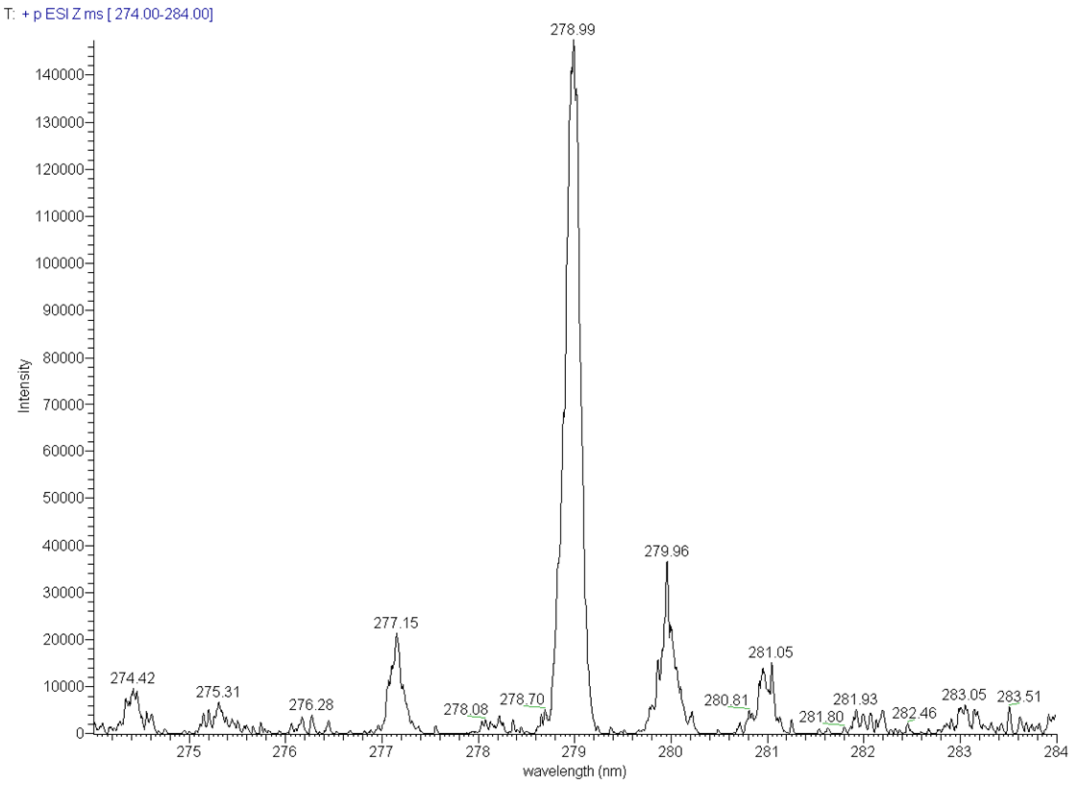
Suplementary Data

Experimental results obtained for the chemical characterization of L-CoA, L and L-LH_2.

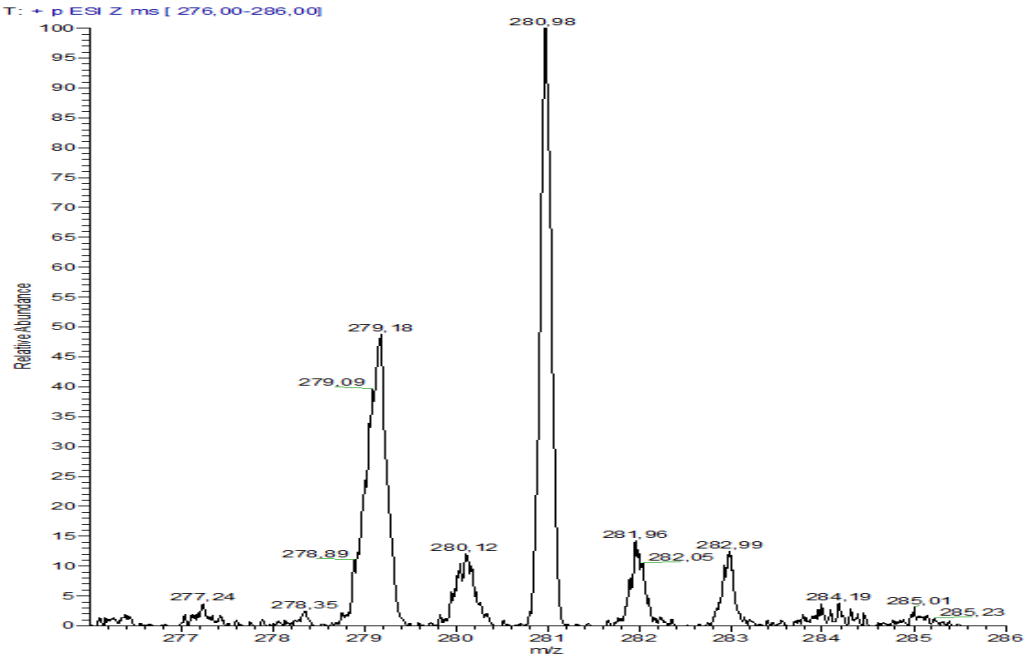
Figure S1: Positive ionization mass spectra of chemically synthesized (a) L-CoA (Mw = 1025.8), (b) L (Mw = 278.3) and L-LH_2 (Mw=280.3).



a)



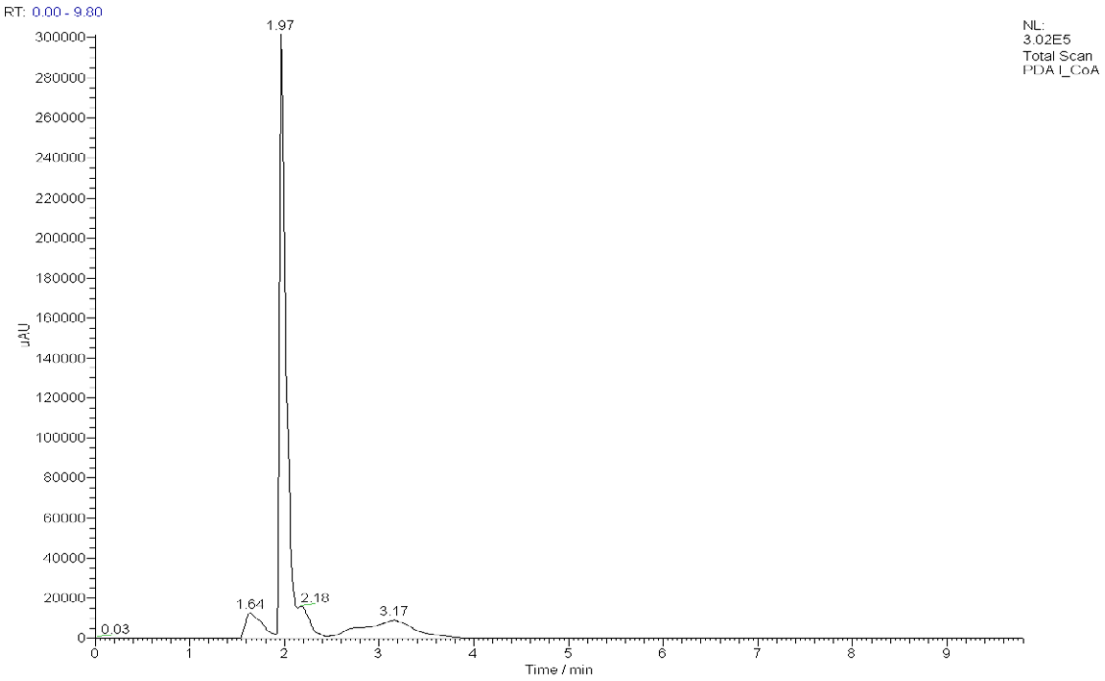
b)



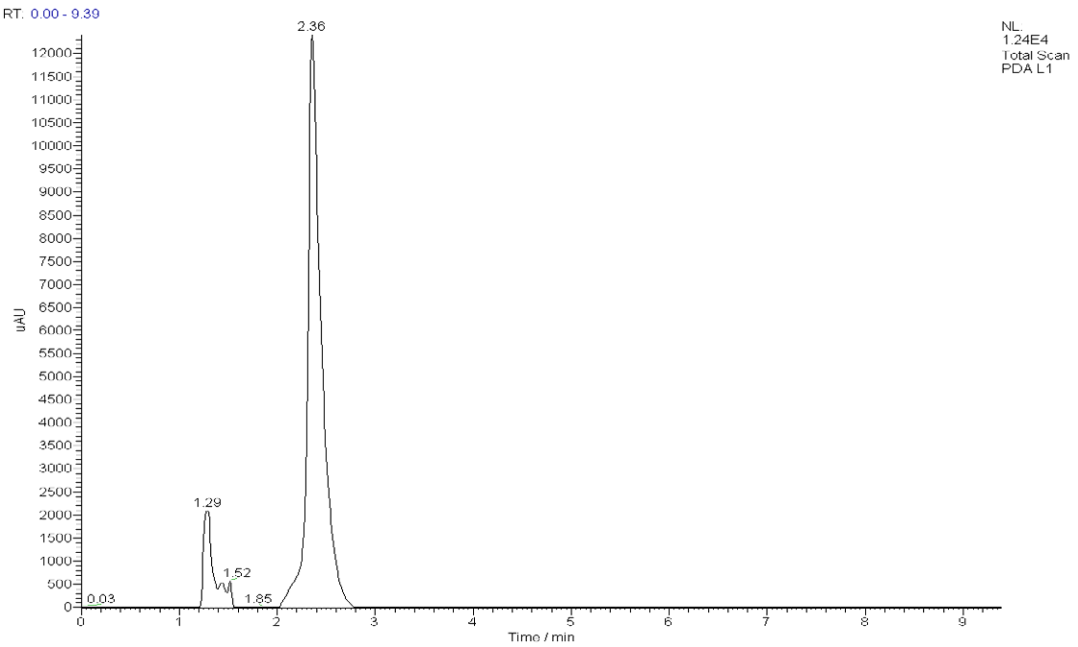
c)

Figure S2: Reversed phase chromatograms of the chemically synthesized (a) L-CoA, (b) L and (c) L-LH_2 (injection volume = 20 µL). The eluent solutions used were mixtures containing methanol in water (32% v/v) and phosphate buffer (4 mM, pH 7.5) and the flow rate was set to 1 mL/min. The chromatographic system consisted of a HP-1100 isocratic pump, a Rheodyne manual injection valve, a Chromolith C18 column (Merck), and a Thermo Finnigan UV6000 LP diode array detector with a 50 mm LightPipe flowcell.

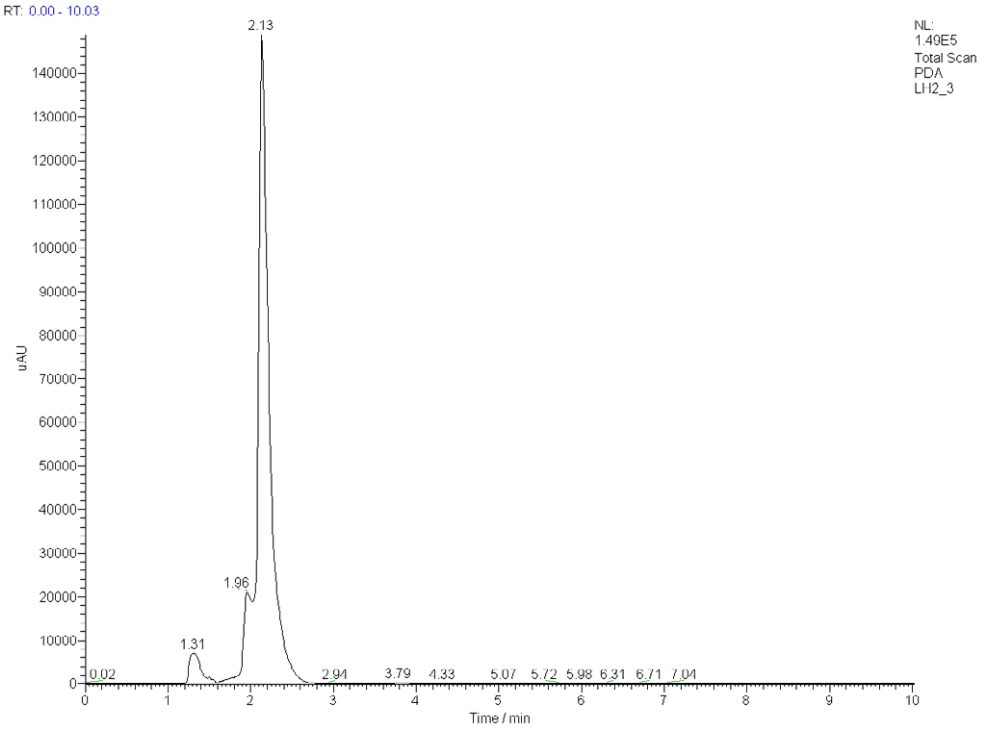
Purity calculations were base on at least three independent experiments, and were made by measuring the areas of the peaks presents in a total wavelength scan. The percentage of purity of the inhibitors was then obtained by calculating the percentage of the area of their peaks, with respect to the sum of the areas. Only peaks that do not appear on chromatograms of samples, containing only eluent, were considered.



a)



b)



c)