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Supplementary Materials

Physicochemical Characterization and Antioxidant Activity Evaluation of Idebenone/Hydroxypropyl-β-Cyclodextrin Inclusion Complex †

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† In memory of Professor Carmela Spatafora, friend, colleague and distinguished scientist, on the third anniversary of her premature death.

Analytical Method Validation

The calibration curve of IDE was linear in the range 0.2-50 μg/mL (R2 = 0.9997) (Figure S1). No interference was produced by different amounts of HP-β-CD on retention time of IDE (RSD, 0.52%) and peak area (RSD, 0.65%), demonstrating method to be specific for the drug. LOD and LOQ were 0.06 μg/mL (corresponding to 3:1 signal-to-noise ratio) and 0.2 μg/mL (corresponding to 10:1 signal-to-noise ratio), respectively. The method showed high intraday (RSD, 0.76%) and interday (RSE, 0.43%) precision. No degradation of IDE was observed during analysis.

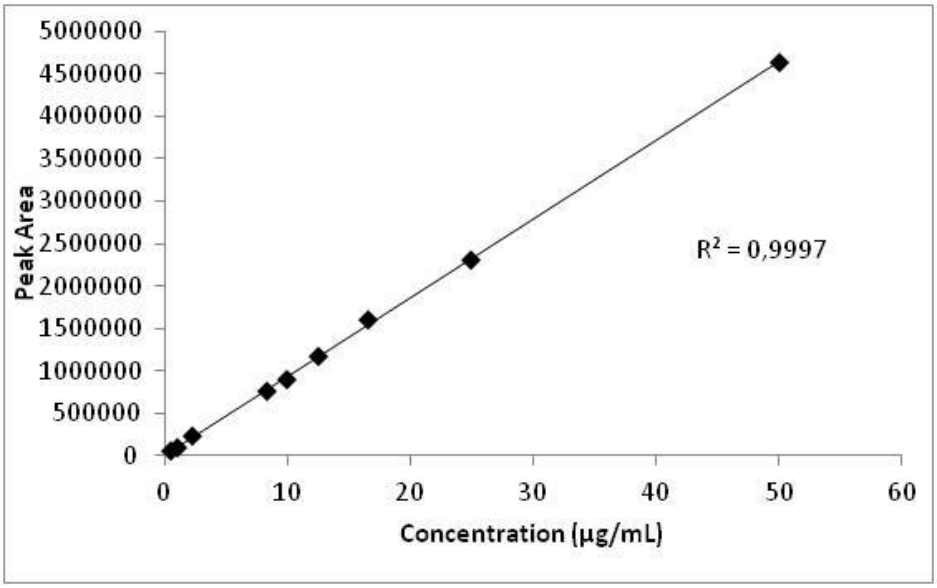

Figure 1. Plot of peak area vs. IDE concentration.

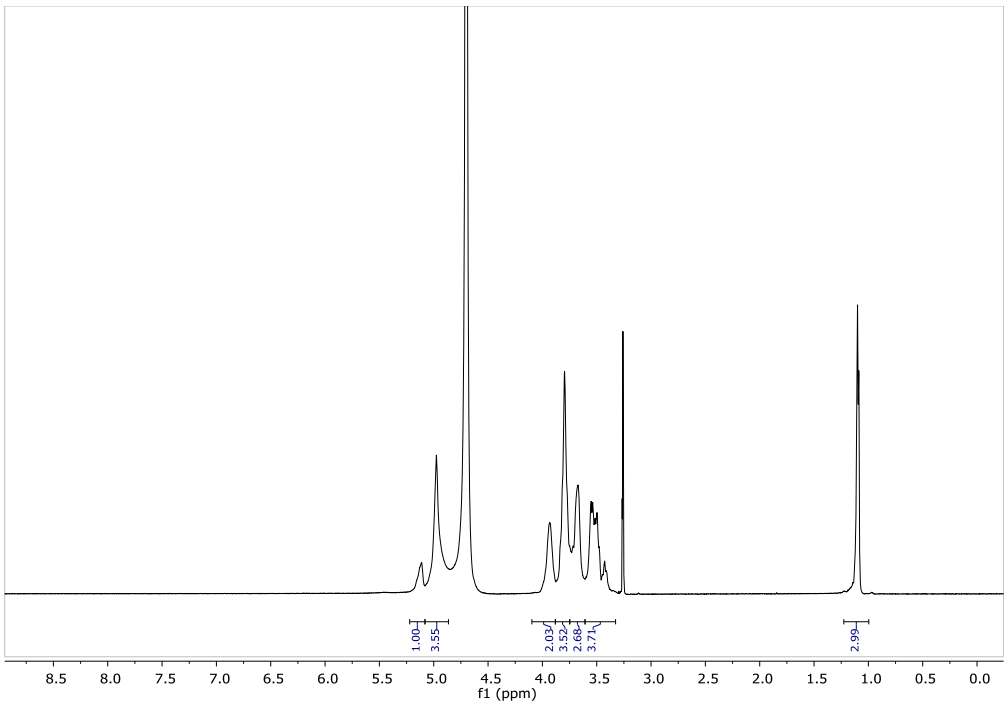

Figure 2. ^{1}H NMR spectrum of HP-*β*-CD.

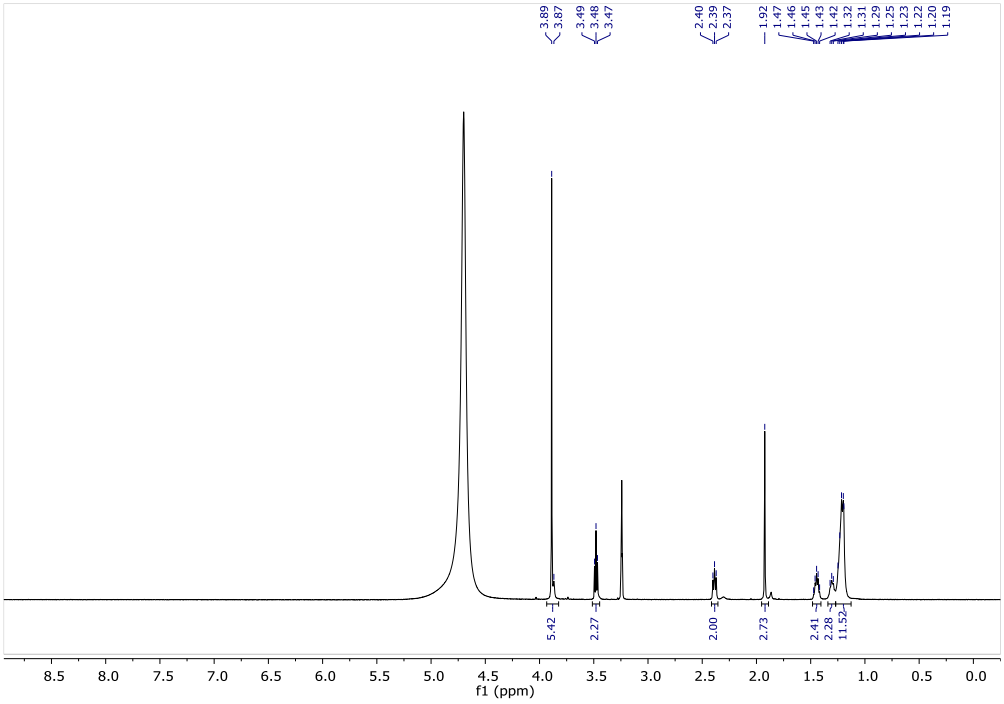

Figure 3. ^{1}H NMR spectrum of IDE.

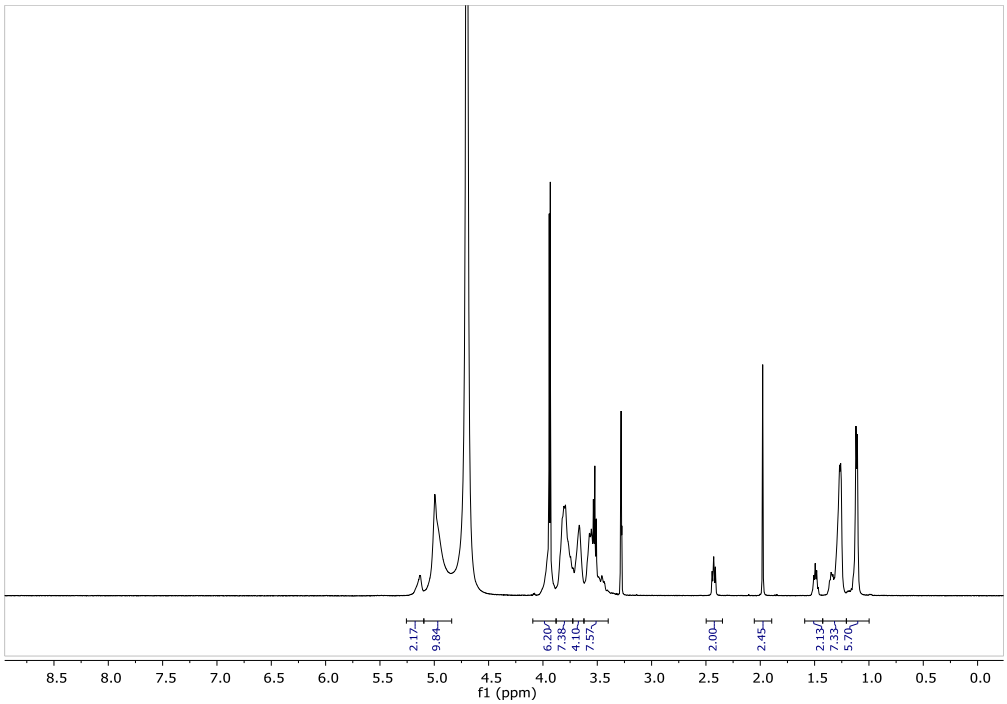

Figure 4. ^{1}H NMR spectrum of IDE/HP-β-CD inclusion complex.

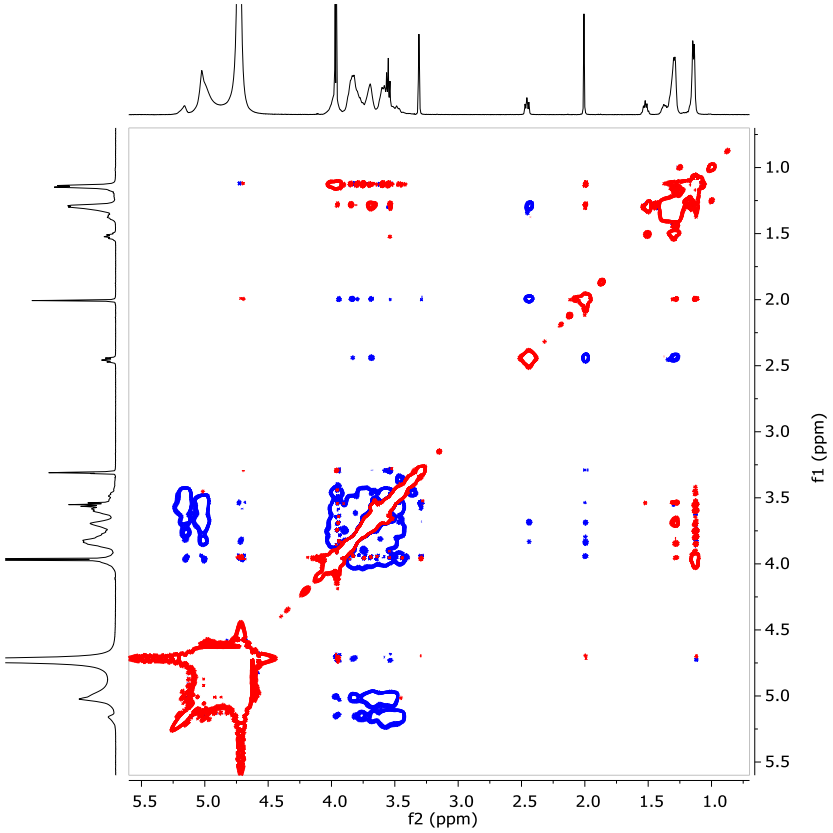

Figure 5. 2D ROESY plot of IDE/HP-β-CD complex in D_2O/MeOD.

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