

Synthesis of cyclic norspermidine derivative of protohemin IX

Sergey V. Blagodarov, Galina A. Zheltukhina, Anatoly S. Urban, Ekaterina E. Shishkina and Vladimir E. Nebolsin

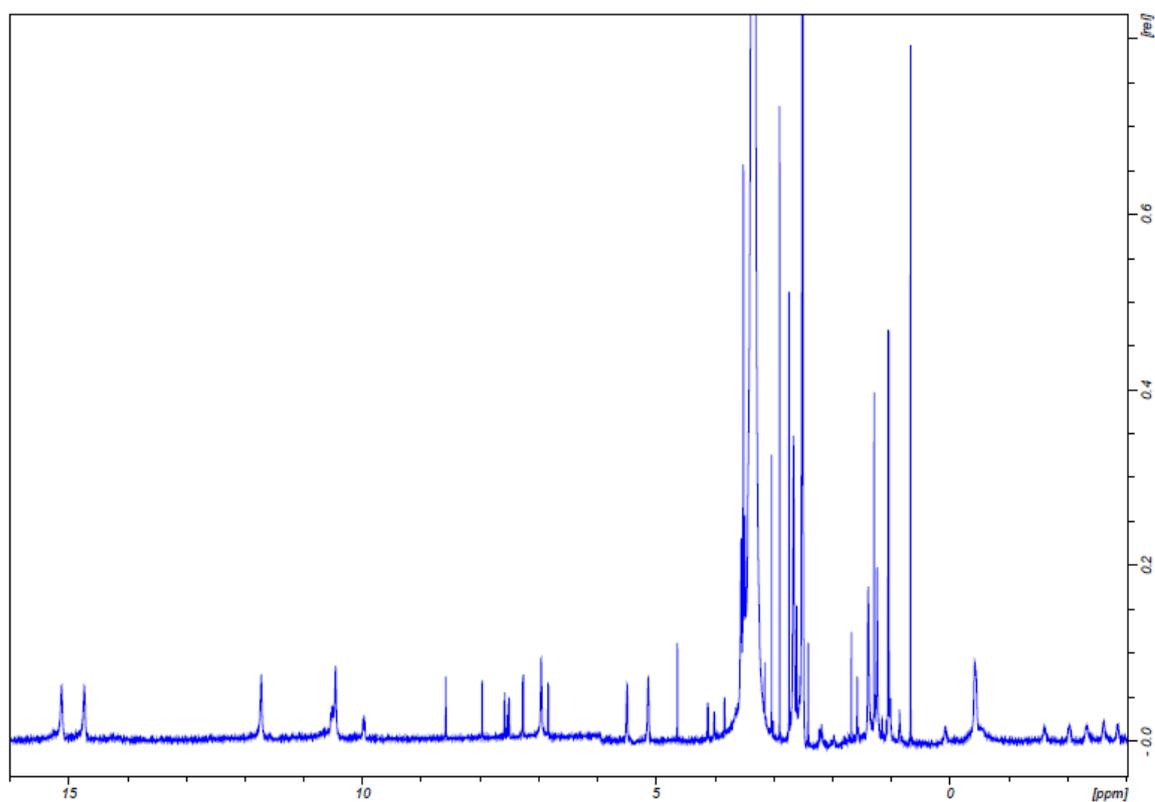


Figure S1 ¹H NMR (700 MHz, DMSO-*d*₆) of compound **1** in the presence of 100 mM KCN.

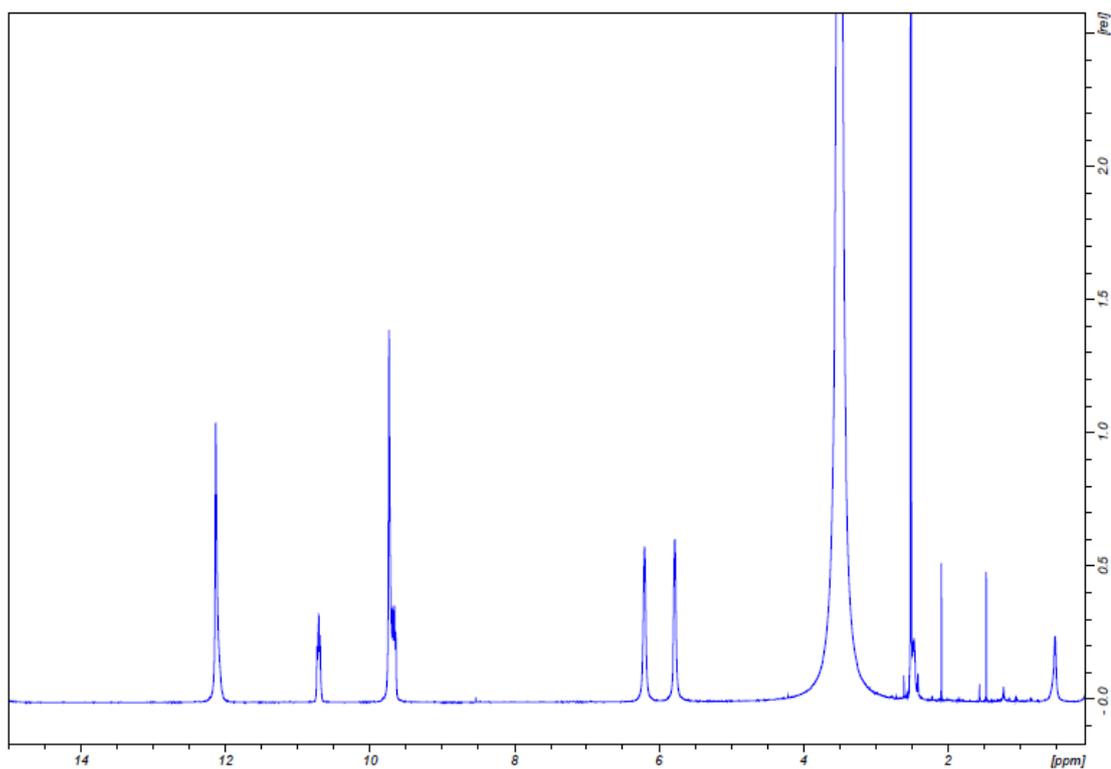


Figure S2 ¹H NMR (700 MHz, DMSO-*d*₆) of protohemin IX in the presence of 100 mM KCN.

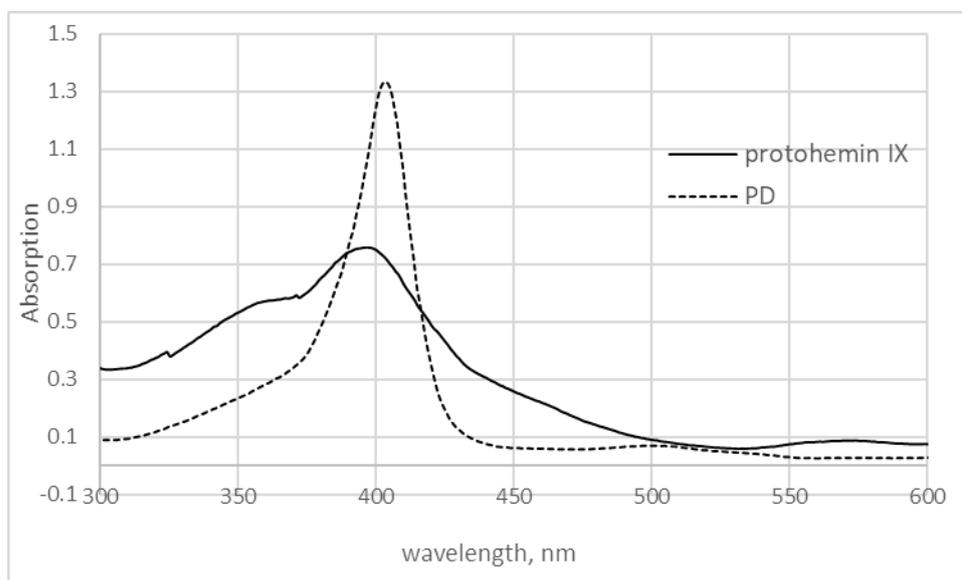


Figure S3 UV spectrum of **1** and protohemin IX (DMSO, 10⁻⁵ M).

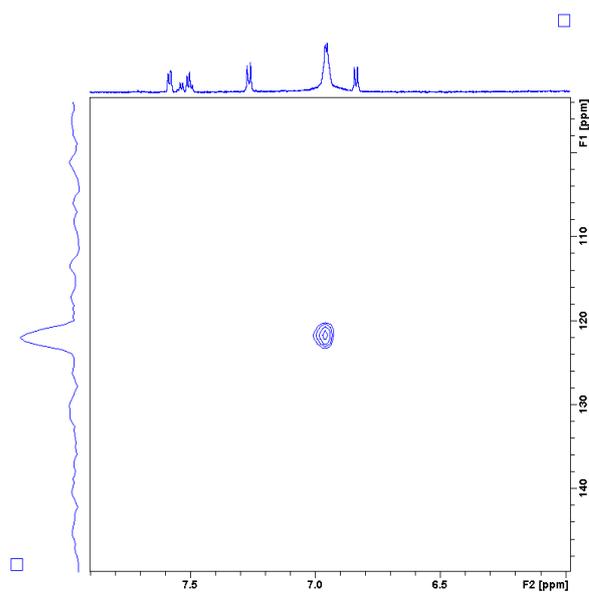


Figure S4 Two-dimensional $^1\text{H}/^{15}\text{N}$ -HSQC NMR spectrum of **1** in the presence of 100 mM KCN.

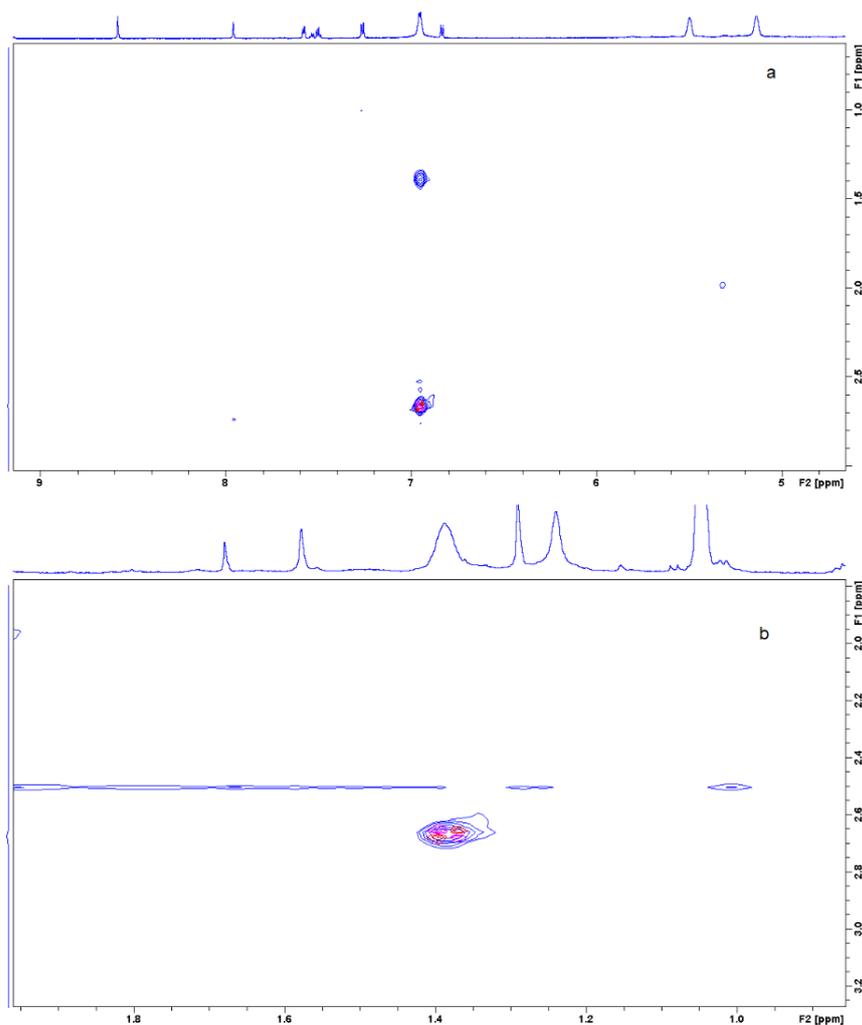


Figure S5 Selected fragments of NMR spectra of **1** in the presence of 100 mM KCN: *a*) TOCSY; *b*) DQF-COSY.