

Assessment of DNA-binding affinity of cholinesterase reactivators and electrophoretic determination of their effect on topoisomerase I and II activity

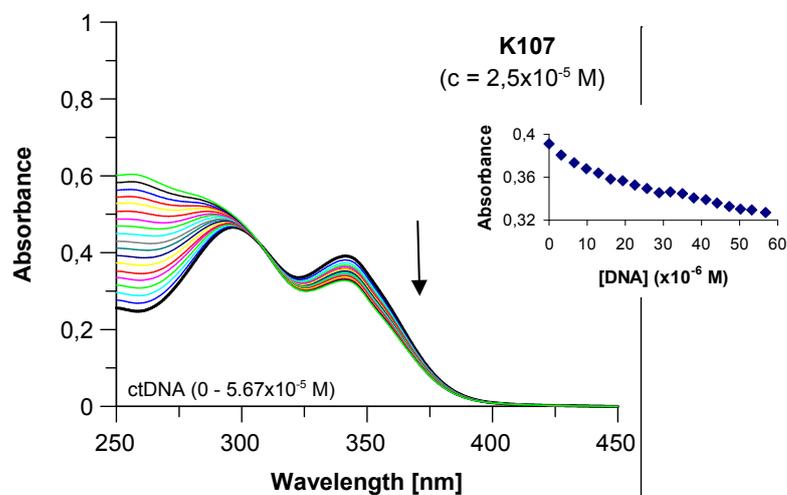
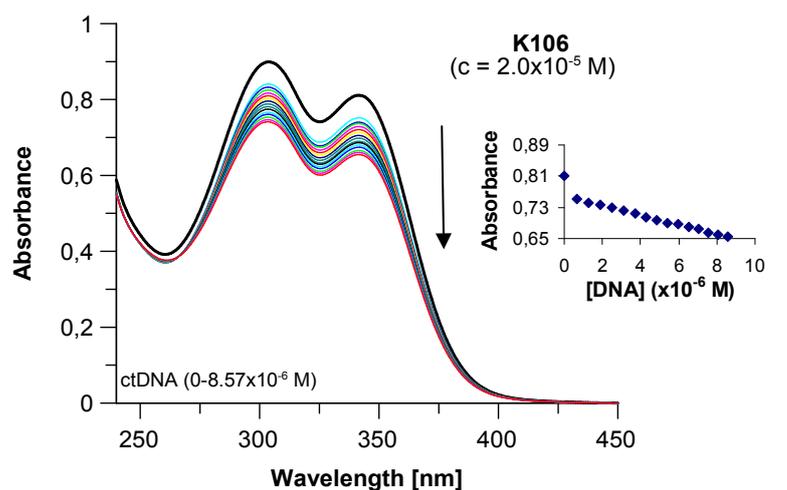
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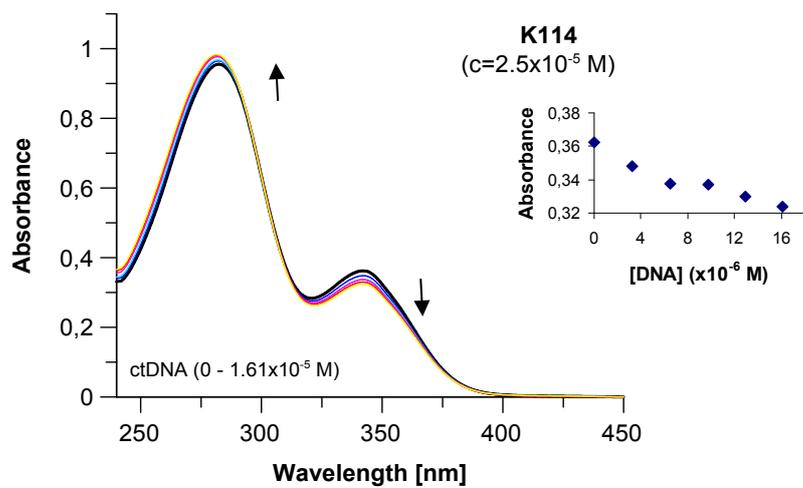
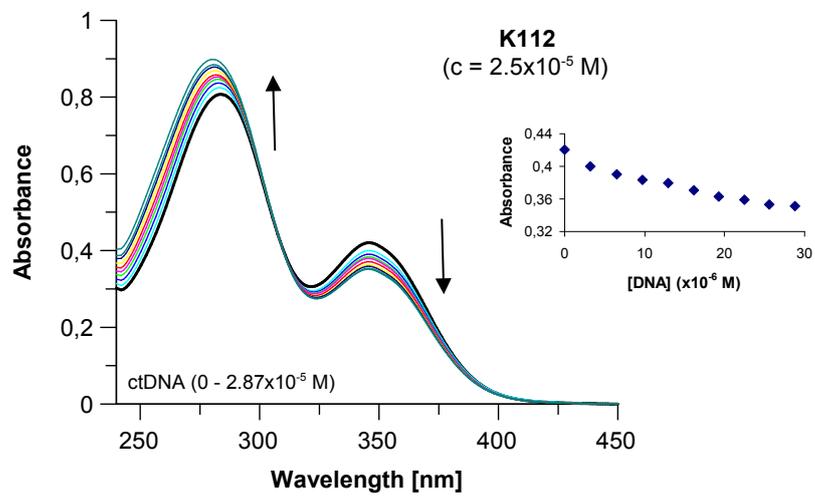
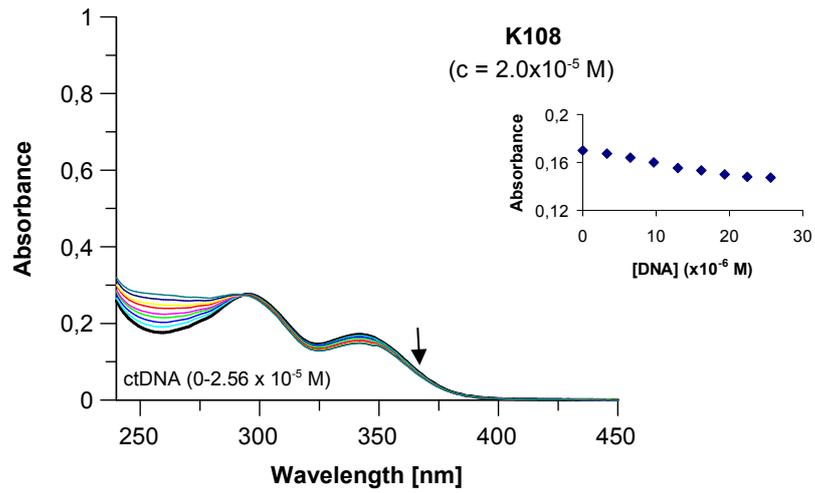
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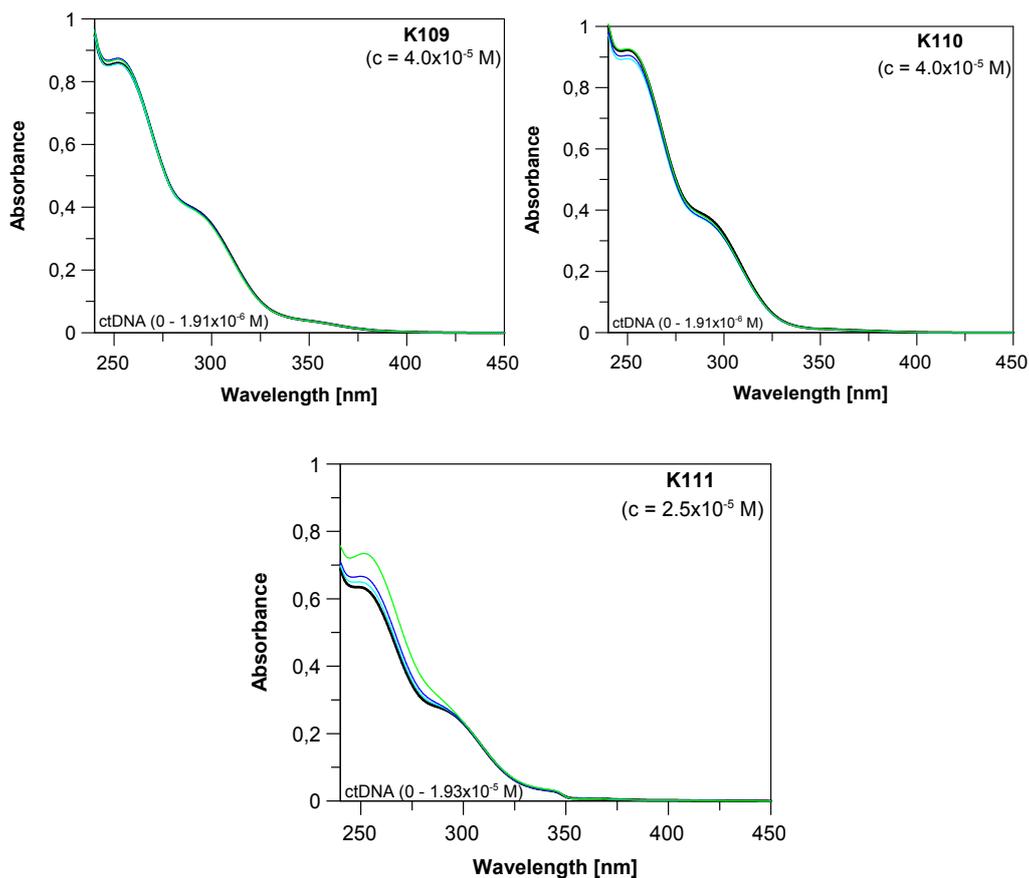
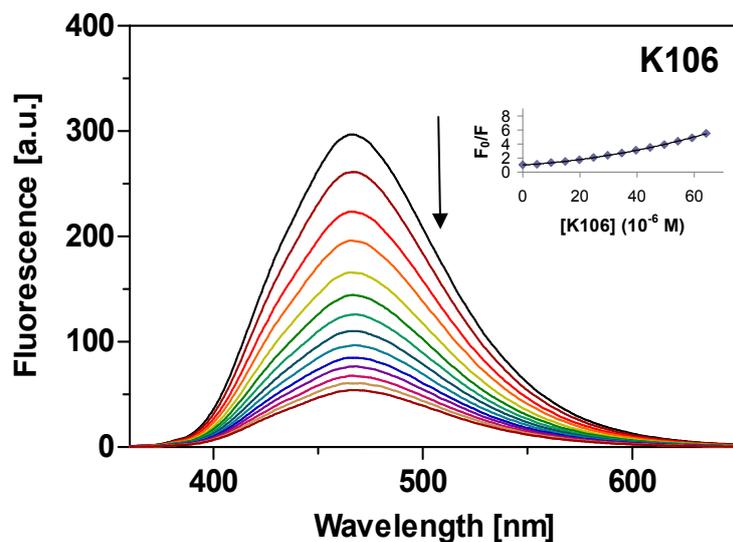
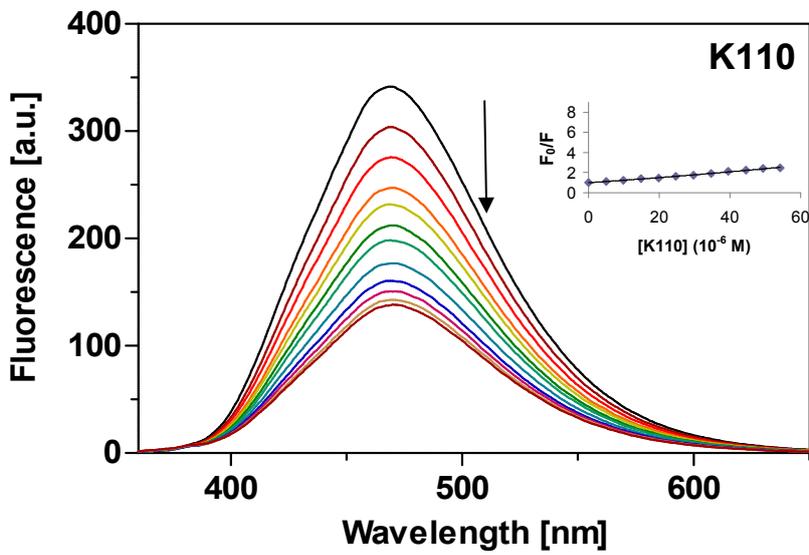
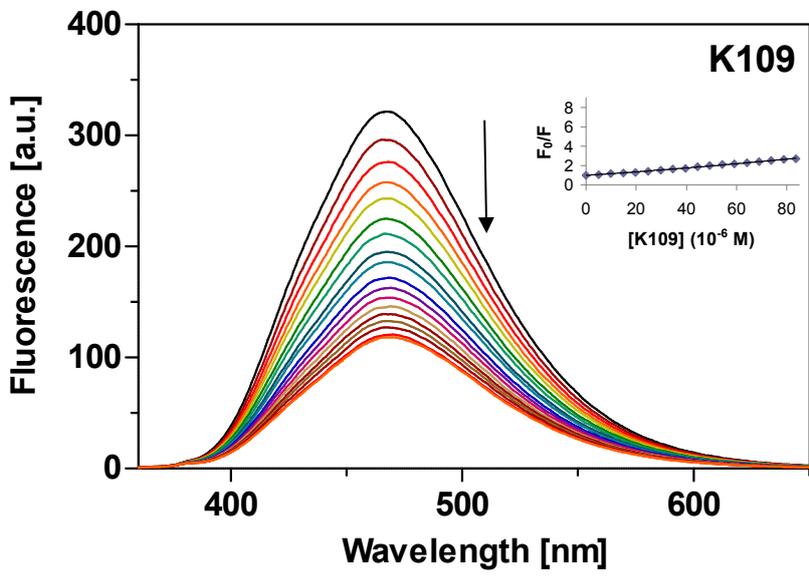
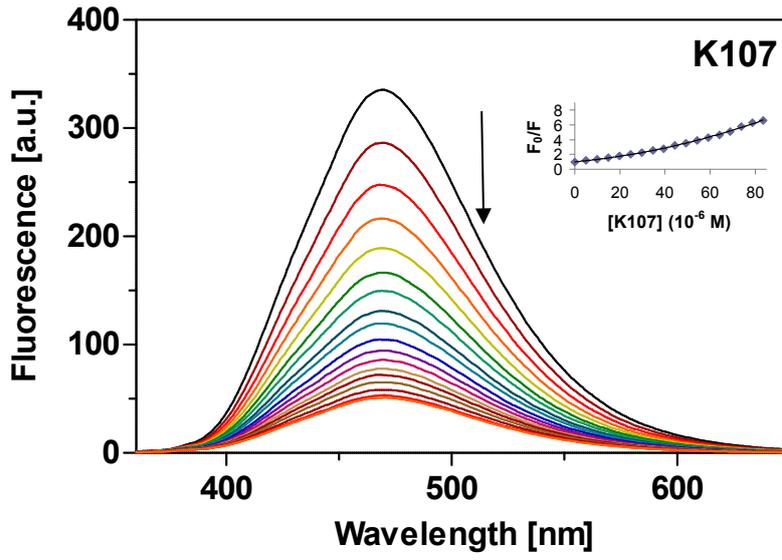


Figure S1 UV-Vis titration spectra of studied reactivators **K106-K114** (upper black line, except for **K113**) with increasing concentration of ctDNA (color lines). Spectra were measured in 0.01 M Tris-HCl (pH=7.4) at room temperature. Concentrations for reactivators and ctDNA are mentioned in graphs. Arrows indicate the changes after addition of increasing concentration of ctDNA. Inserted graphs (by compounds **K106-K108** and **K112-K114**) represent the non-linear fitting of absorption titrations, the plot of [DNA] versus absorbance.





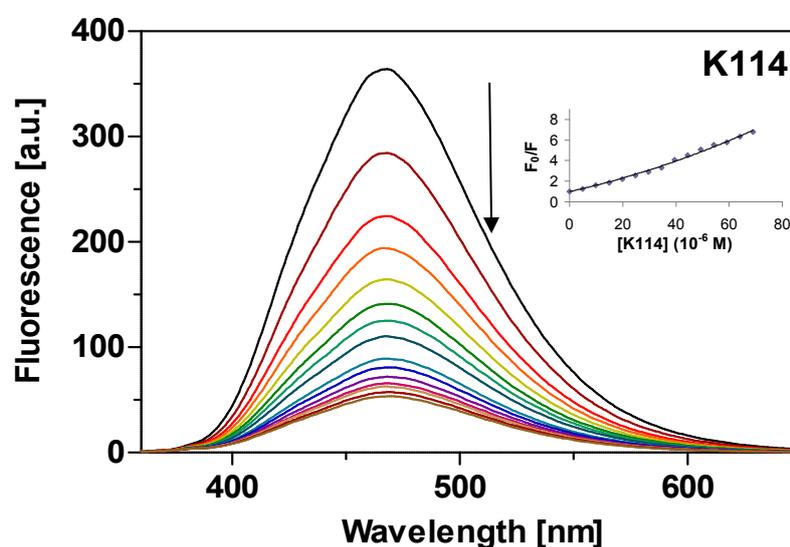
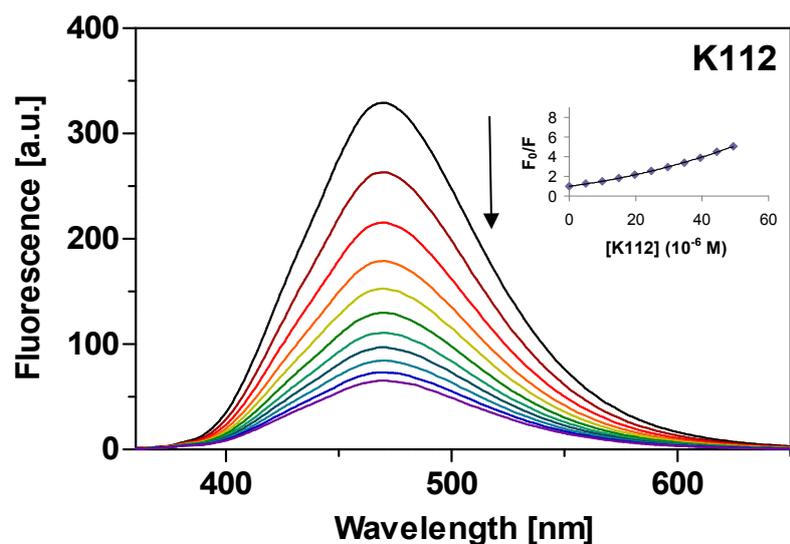
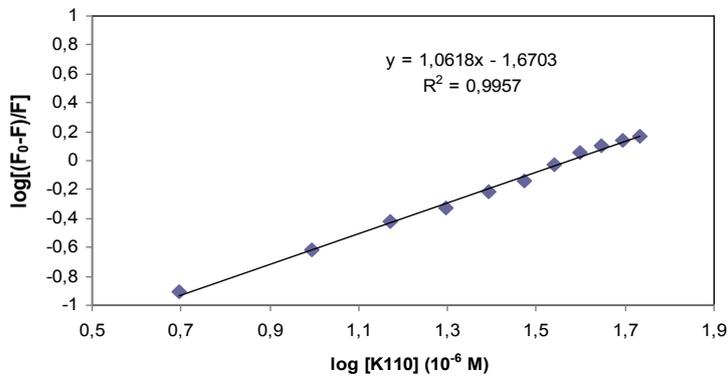
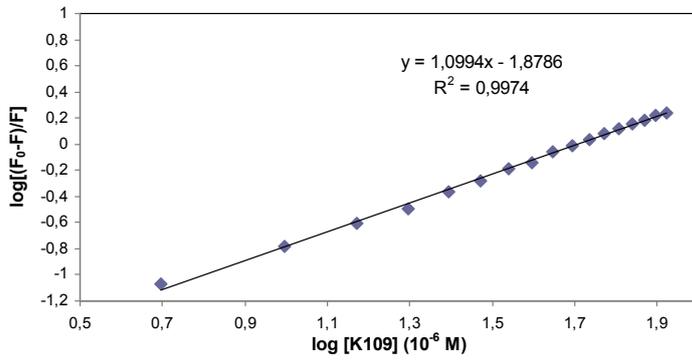
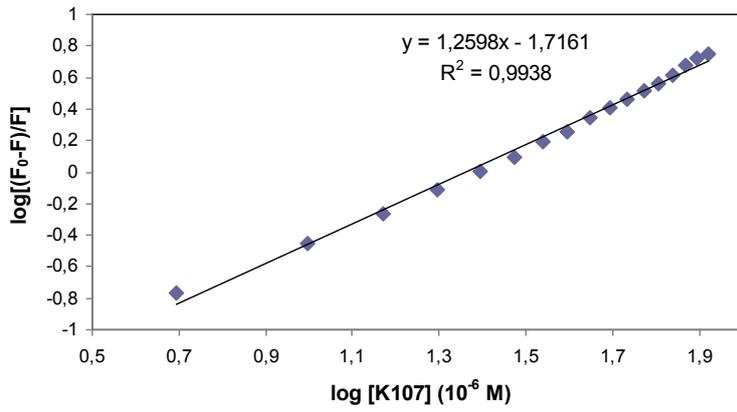
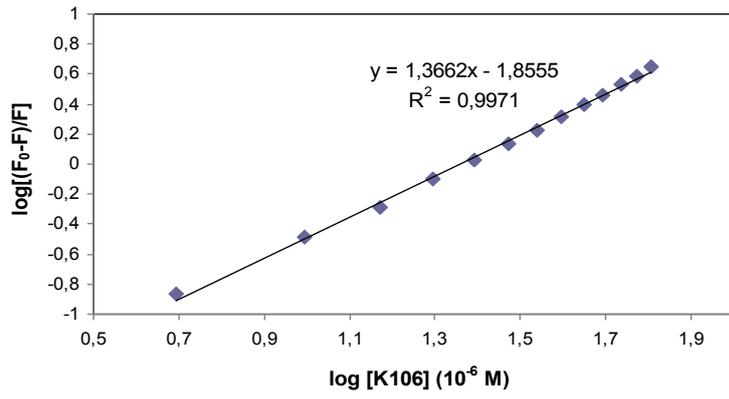


Figure S2 Fluorescence titration spectra of Hoechst-ctDNA complex (black upper line) with increasing concentration of studied compounds K106-K114 (except for K113, color lines). Spectra were measured in 0.01 M Tris-HCl (pH=7.4) at room temperature. Arrows show the emission intensity changes upon increasing sample concentration. The inserted graphs represent the Stern-Volmer plot. Plot of F_0/F versus [quencher] at room temperature. F_0 is fluorescence of Hoechst - ctDNA complex; F is fluorescence of complex after proportional addition of ligands.



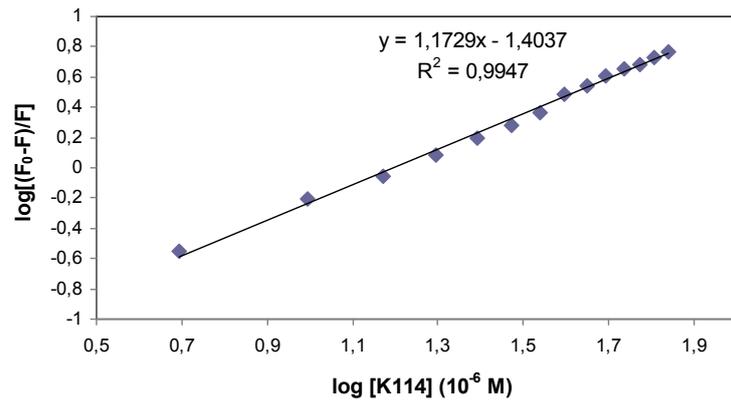
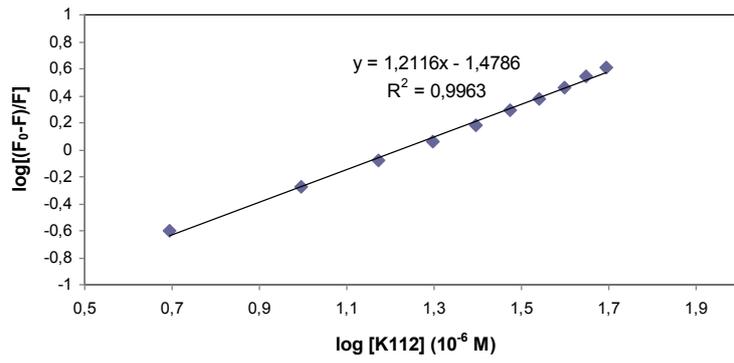
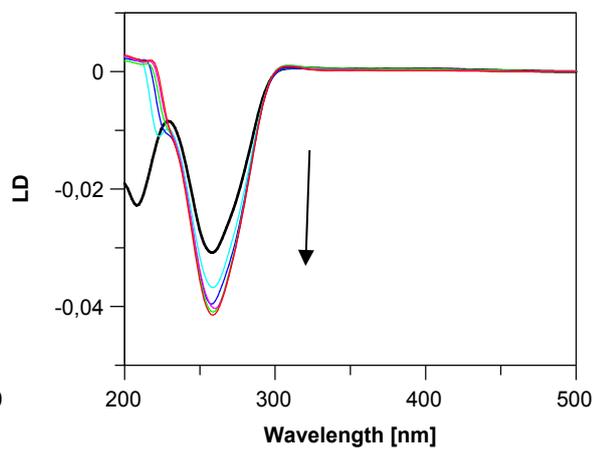
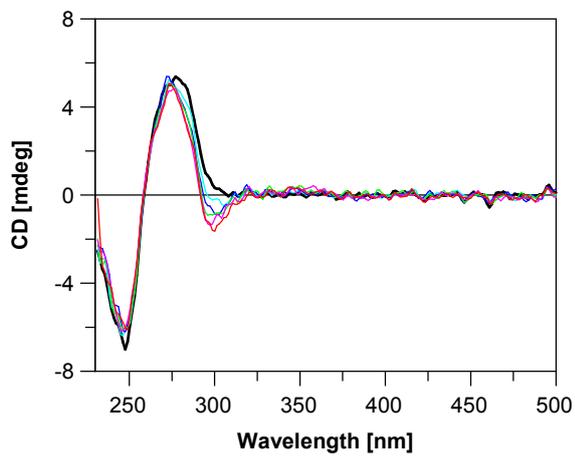
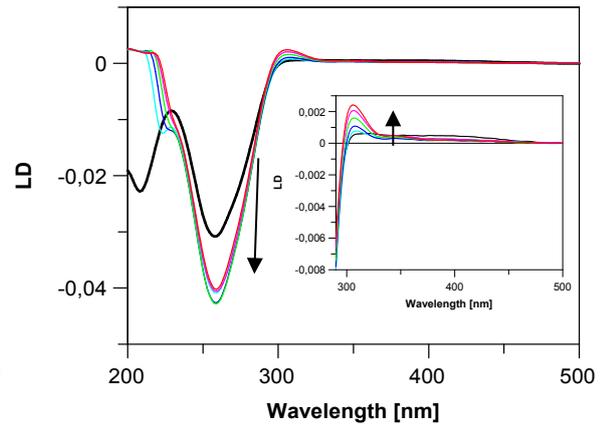
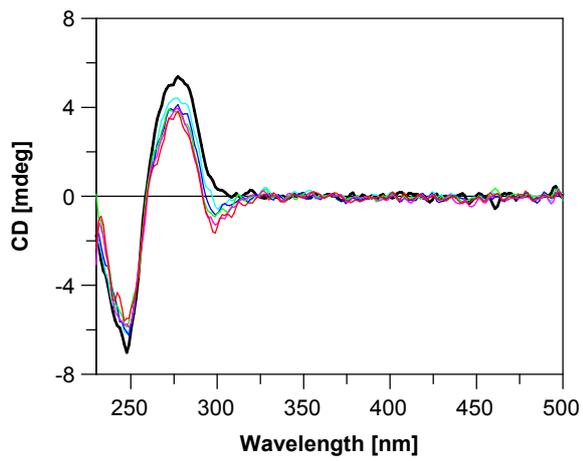


Figure S3 Modified Stern-Volmer plot of $\log[(F_0-F)/F]$ versus $\log[Q] \times 10^{-6} \text{ M}$.

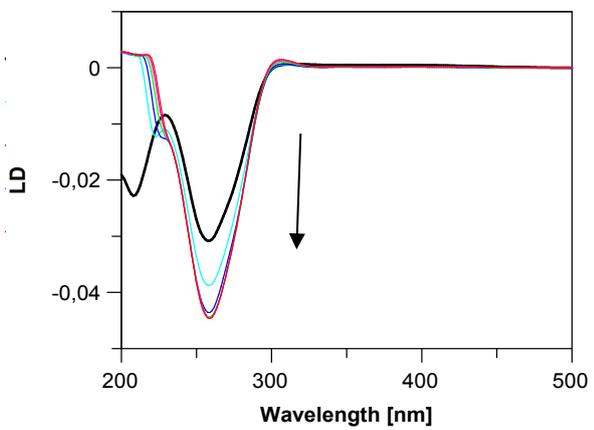
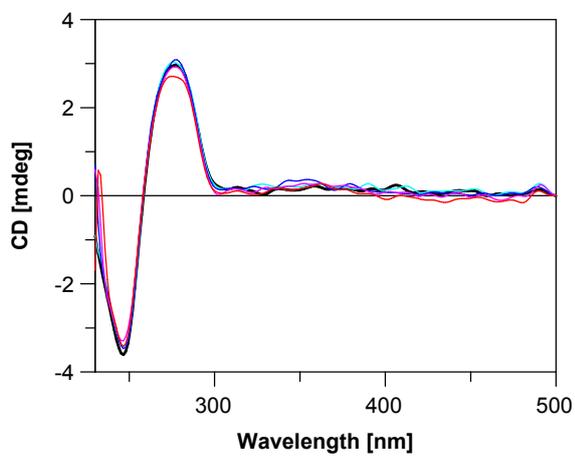
K106



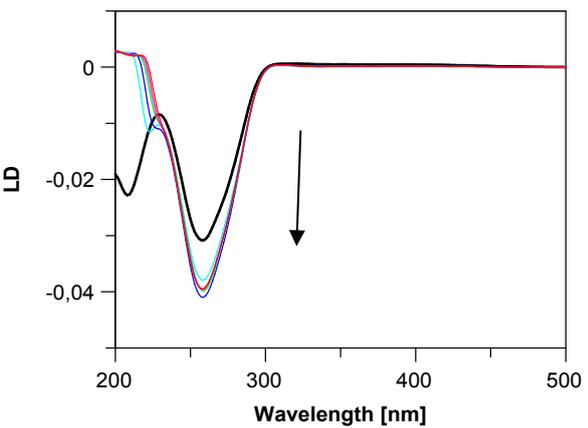
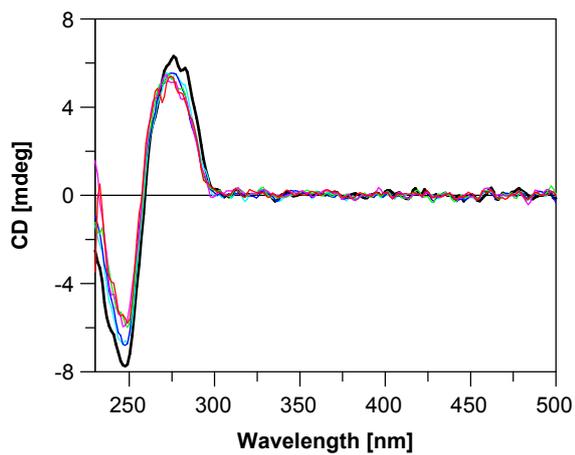
K107



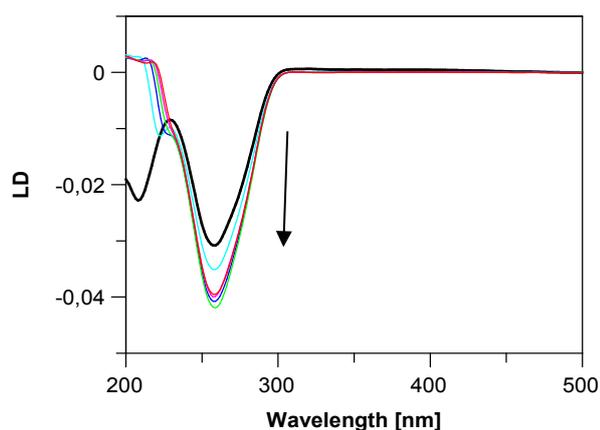
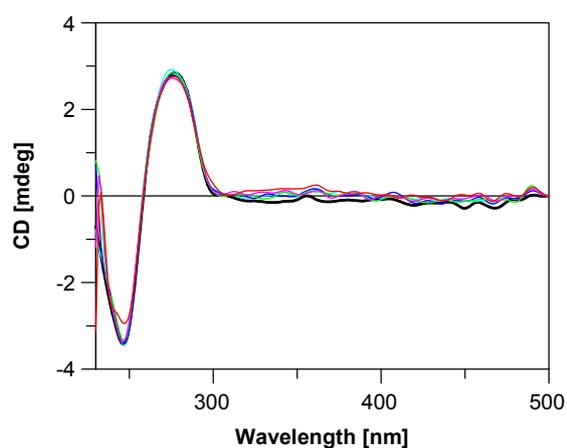
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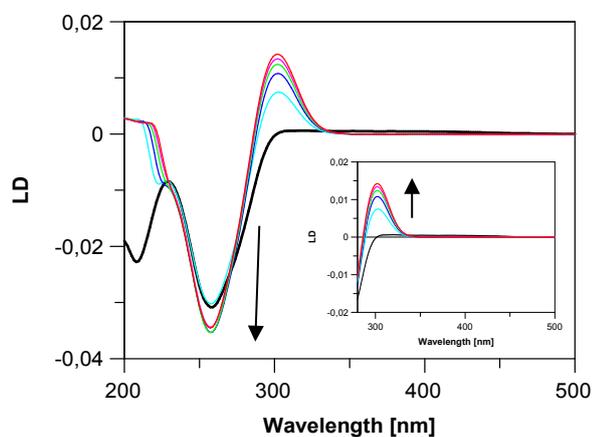
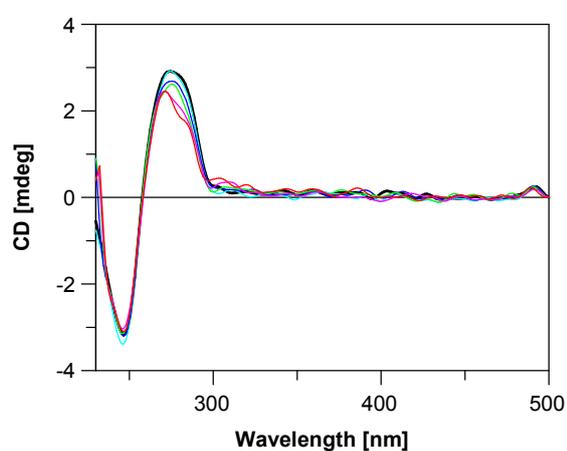
K109



K110



K112



K114

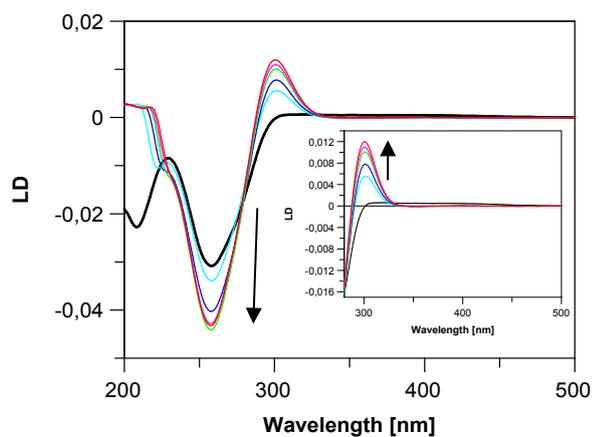
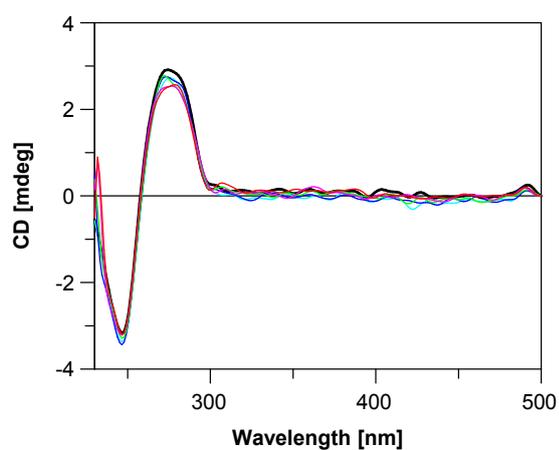


Figure S4 Effect of studied reactivators **K106-K114** (except for K113, color lines, CD: $0 - 0.5 \times 10^{-3}$ M, LD: $0 - 2 \times 10^{-4}$ M) on ctDNA (black line, CD: 7.46×10^{-4} M, LD: 3×10^{-4} M). CD (left) and LD spectra (right) in 0.01 M Tris-HCl buffer (pH = 7.4).