

ELECTRONIC SUPPLEMENTARY INFORMATIONS

Exploring the comparative binding aspects of benzophenanthridine plant alkaloid chelerythrine with RNA triple and double helices: Spectroscopic and calorimetric approach

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Table S1

Optical properties of free, triplex and duplex bound CHL.

Absorbance	Triplex	Duplex
$\lambda_{\max, \text{free}}$ (nm)	316	316
$\lambda_{\max, \text{bound}}$ (nm)	322	324
λ_{iso} (nm)	346,355,468	346,360,458
ϵ_{free} (at λ_{\max} , $\text{M}^{-1}\text{cm}^{-1}$)	37037(316)	37037(316)
ϵ_{bound} (at λ_{\max} , $\text{M}^{-1}\text{cm}^{-1}$)	21091(316)	19445(316)
* ϵ (at λ_{iso} , $\text{M}^{-1}\text{cm}^{-1}$)	16251(346),7219(355),2898(468)	18482(346),5782(360),4543(458)

Fluorescence	Triplex	Duplex
$\lambda_{\text{excitation}}$ (nm)	400	400
$\lambda_{\max, \text{emission}}$ (nm)	554	564
$\#F_b/F_o$	23	16.72

$\#F_o$ is the initial fluorescence intensity; F_b is the fluorescence intensity of completely bound form at the respective emission wavelength.

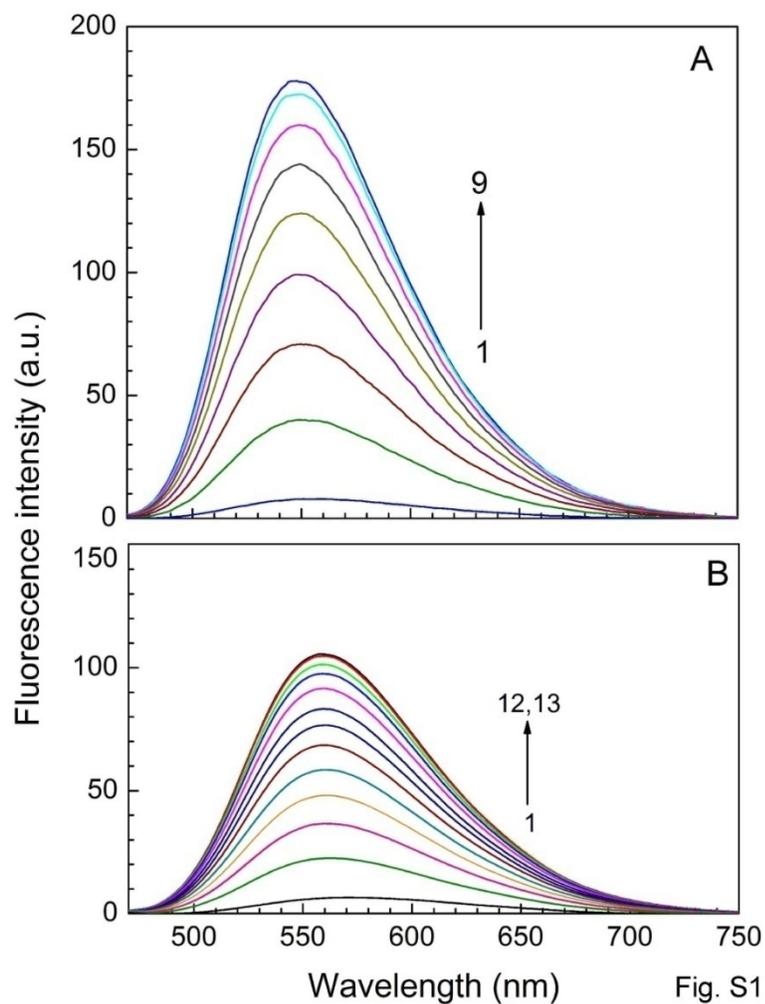


Fig. S1. Representative fluorescence emission spectral changes of CHL in presence of triplex and duplex in SCH buffer at 20 °C. (A) curves 1-9 denote the emission spectrum of CHL (3.0 μM) treated with 0, 3.0, 6.0, 9.3, 12.9, 16.2, 19.5, 24.0 and 25.5 μM of triplex respectively. (B) curves 1-13 denote the emission spectrum of CHL (3.0 μM) treated with 0, 1.05, 2.10, 3.15, 4.20, 5.35, 6.50, 8.30, 11.00, 15.50, 21.05, 28.00 and 31.00 μM of duplex respectively. The excitation wavelength was 400 nm at a spectral excitation and emission bandwidth of 3 and 5 nm, respectively.

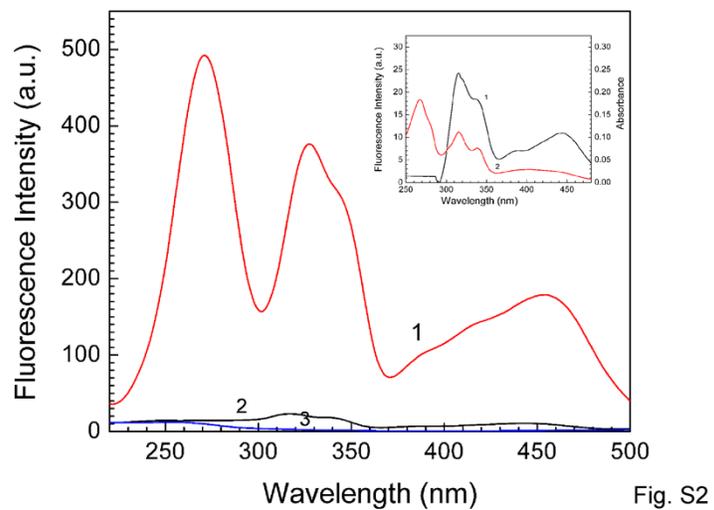


Fig. S2 Fluorescence excitation spectrum of Triplex (curve 3), CHL (curve 2) and Triplex-CHL (curve 1) recorded at emission of wavelength at 564 nm. **Inset:** Fluorescence excitation spectra of CHL (curve 1) and absorption spectra of CHL (curve 2).