Supplementary Material

Host–Guest Inclusion System of Scutellarin with Polyamine-β-Cyclodextrin: Preparation, Characterisation, and Anti-cancer Activity

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Fig.S1. Job plot for the SCU/NH2-βCD system at λem: 474nm ([SCU]+[NH2-βCD]=3.0×10^{-5}M) in pH 10.5 buffer.
Fig.S2. Job plot for the SCU/DETA-βCD system at λem: 474nm
([SCU]+[DETA-βCD]=3.0×10^{-5}M) in pH 10.5 buffer.

Fig.S3. Job plot for the SCU/TETA-βCD system at λem: 474nm
([SCU]+[TETA-βCD]=3.0×10^{-5}M) in pH 10.5 buffer.
Fig. S4. (A) Fluorescence emission spectra of SCU (3.0×10⁻⁵ mol/L) containing various concentrations of NH₂-βCD (from a to j: 0.0×10⁻³, 0.5×10⁻³, 1.0×10⁻³, 1.2×10⁻³, 1.4×10⁻³, 1.6×10⁻³, 1.8×10⁻³, 2.0×10⁻³, 2.50×10⁻³ and 3.0×10⁻³ mol/L of NH₂-βCD); emission at 474 nm.

(B) Nonlinear least-squares curve-fitting analyses for the inclusion complexation.
Fig. S5. (A) Fluorescence emission spectra of SCU (3.0×10⁻⁵ mol/L) containing various concentrations of βCD (from a to i: 0.0×10⁻⁴, 1.0×10⁻³, 1.2×10⁻³, 1.4×10⁻³, 1.6×10⁻³, 1.8×10⁻³, 2.0×10⁻³, 2.5×10⁻³, 3.0×10⁻³ mol/L of βCD); emission at 474 nm. (B) Nonlinear least-squares curve-fitting analyses for the inclusion complexation
Fig. S6. (A) Fluorescence emission spectra of SCU (3.0×10⁻⁵ mol/L) containing various concentrations of EN-βCD (from a to h: 0.0×10⁻⁴, 0.25×10⁻³, 0.5×10⁻³, 0.6×10⁻³, 0.8×10⁻³, 1.0×10⁻³, 2.0×10⁻³, 1.25×10⁻³, 1.5×10⁻³ mol/L of EN-βCD); emission at 474 nm. (B) Nonlinear least-squares curve-fitting analyses for the inclusion complexation.
Fig. S7. $^1$H NMR spectra of SCU in the absence and presence of NH$_2$-βCD and DETA-βCD in D$_2$O at 25 °C, respectively. a: NH$_2$-βCD, b: SCU/NH$_2$-βCD complex, c: DETA-βCD, d: SCU/DETA-βCD complex (it shows the enlarged NMR spectrum from approximately 5.5–8 ppm in the left box.).