Supplementary materials

Physicochemical Characterization and In Vitro Biological Evaluation of TPGS-Stabilized Cationic Nanoliposomes for 8-Bromo-6-Chloroflavone Delivery

Anita Dudek[1*], Aleksandra Pawlak[2,3,4], Paulina Strugała-Danak[1], Dominika Benkowska-Biernacka[5], Martyna Perz[6,7], Agnieszka Krawczyk-Łebek[7], Edyta Kostrzewa-Susłow[7], Hanna Pruchnik[1]

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Time of storage	*D_h (nm)*	*PDI*	*ζ-potential (mV)*
48 h	125.06 ± 1.69	0.153 ± 0.009	+28.14 ± 3.32
14 days	138.24 ± 8.36	0.16 ± 0.05	+41.8 ± 4.15
30 days	202.86 ± 11.31	0.26 ± 0.04	+29.27 ± 3.72

Tab.S1 Hydrodynamic diameter, polydispersity index and zeta potential of BrCl-F-Lipo measured after 48 h, 14 days and 30 days. Mean ± standard deviation (n=5).

Time of storage	*D_h (nm)*	*PDI*	*ζ-potential (mV)*
48 h	141.04 ± 3.30	0.15 ± 0.02	+47.32 ± 3.13
14 days	128.1 ± 8.16	0.20 ± 0.01	+42.8 ± 4.99
30 days	164.72 ± 1.32	0.47 ± 0.01	+23.03 ± 6.00

Tab.S2 Hydrodynamic diameter, polydispersity index and zeta potential of Lipo measured after 48 h, 14 days and 30 days. Mean ± standard deviation (n=5).

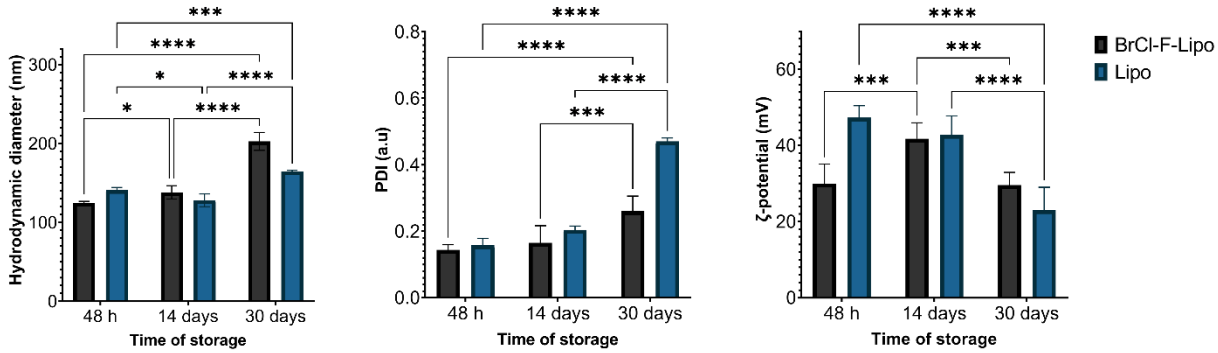

Fig.S1 Hydrodynamic diameter, polydispersity index (PDI) and zeta potential (ζ-potential) of BrCl-F-Lipo and Lipo measured after 48 h, 14 days and 30 days. Error bars represent standard deviation (n = 5). Statistical significance vs. control: *p < 0.05; **p < 0.01; ***p < 0.001; ****p < 0.0001.

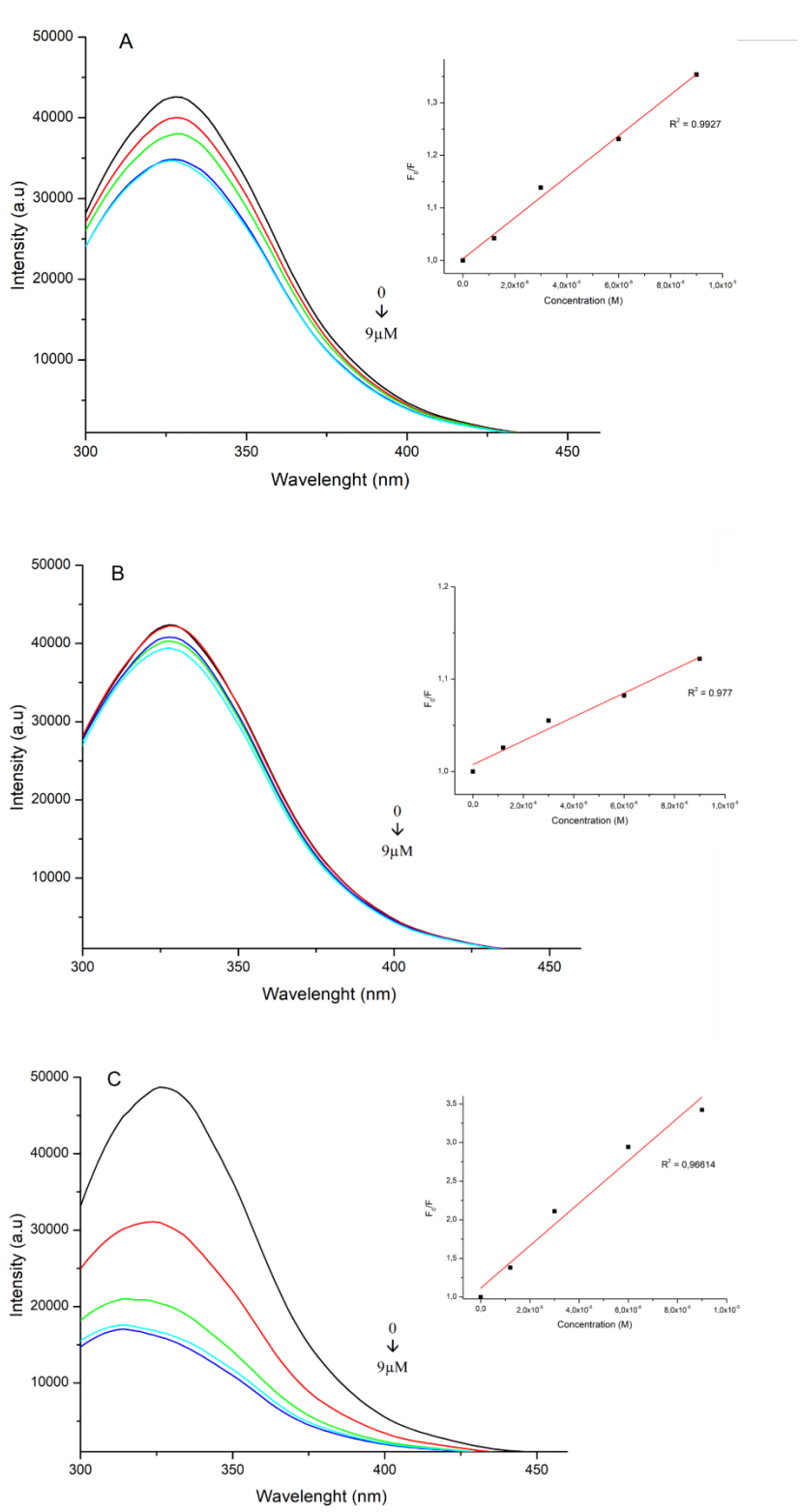

Fig. S2 Emission spectra of HSA in the presence of various concentrations and Stern-Volmer plots of F_0/F against concentration of (A) BrCl-F-Lipo (B) Lipo and (C) BrCl-F. Control is marked black and consecutive spectra of the studied compounds (marked color) are in the following concentrations 1.2, 3, 6 and 9 μM, λ_{ex} = 280 nm, T = 295 K. Spectra smoothed with SG 15 (see Method).

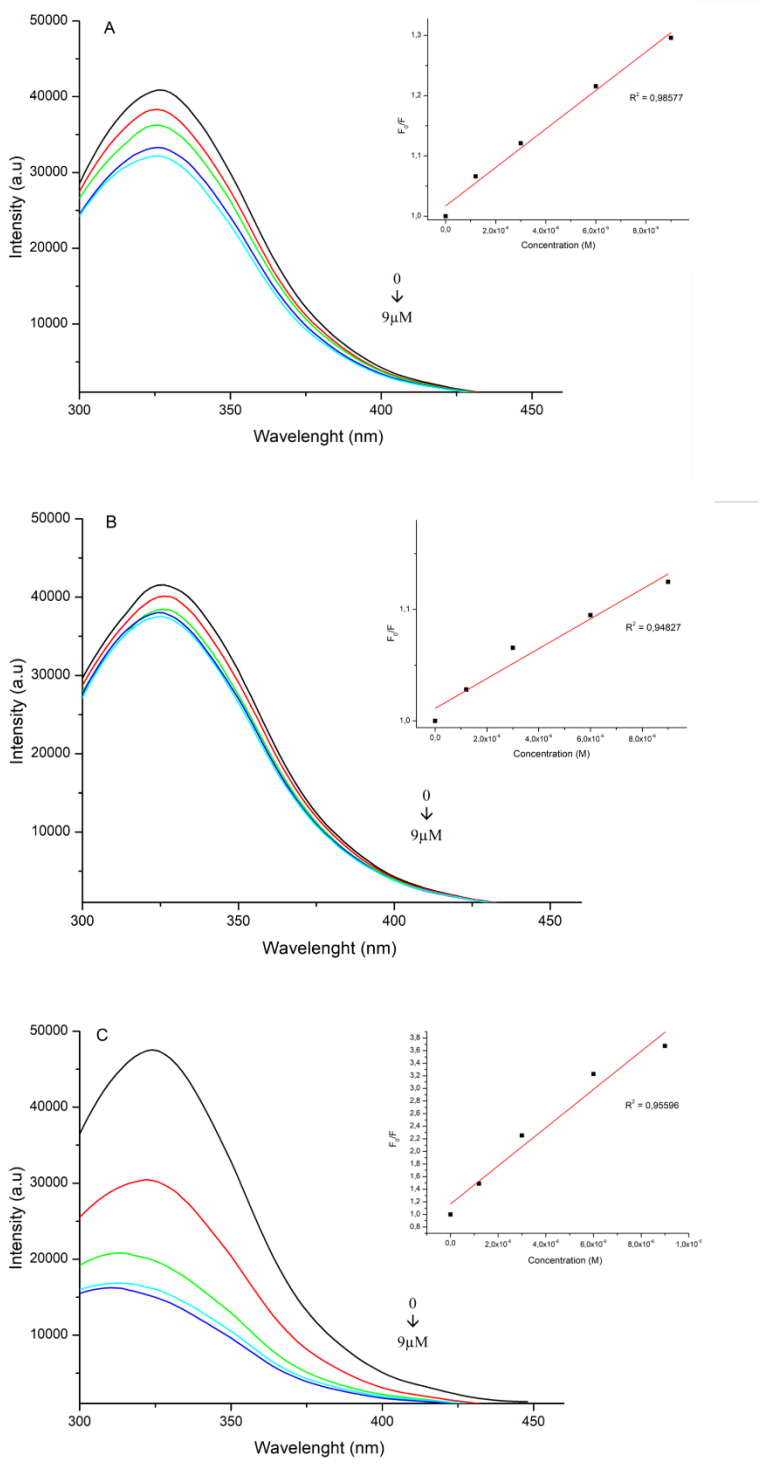

Fig. S3 Emission spectra of HSA in the presence of various concentrations and Stern-Volmer plots of F_0/F against concentration of (A) BrCl-F-Lipo (B) Lipo and (C) BrCl-F Control is marked black and consecutive spectra of the studied compounds (marked color) are in the following concentrations 1.2, 3, 6 and 9 µM, $\lambda_{ex} = 280$ nm, T = 300 K. Spectra smoothed with SG 15 (see Method).

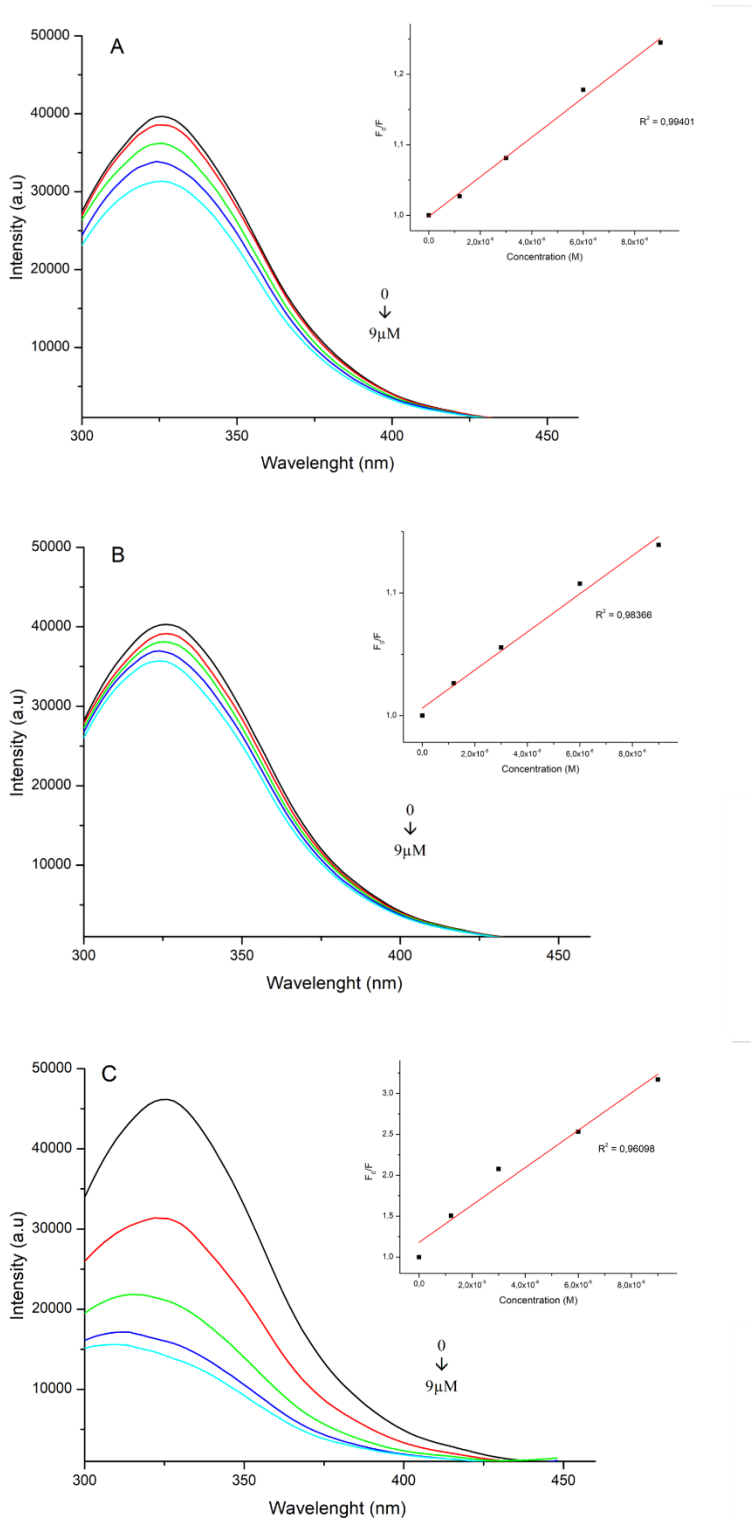

Fig. S4 Emission spectra of HSA in the presence of various concentrations and Stern-Volmer plots of F_0/F against concentration of (A) BrCl-F-Lipo (B) Lipo and (C) BrCl-F Control is marked black and consecutive spectra of the studied compounds (marked color) are in the following concentrations 1.2, 3, 6 and 9 μM, $\lambda_{ex} = 280$ nm, T = 305 K. Spectra smoothed with SG 15 (see Method).

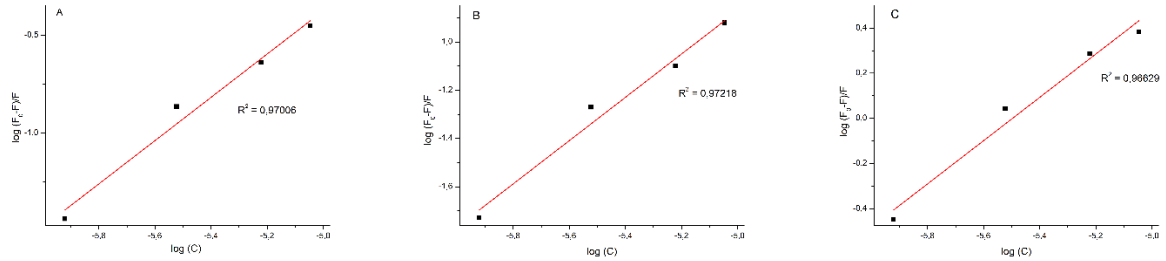

Fig.S5 The plots of log(F_0− F)/F versus log[c] of (A) BrCl-F-Lipo (B) Lipo and (C) BrCl-F at 295 K obtained from HSA fluorescence quenching.

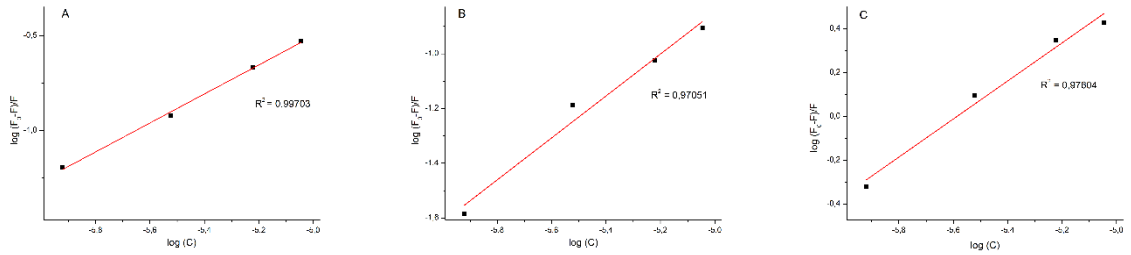

Fig.S6 The plots of log(F_0− F)/F versus log[c] of (A) BrCl-F-Lipo (B) Lipo and (C) BrCl-F at 300 K obtained from HSA fluorescence quenching.

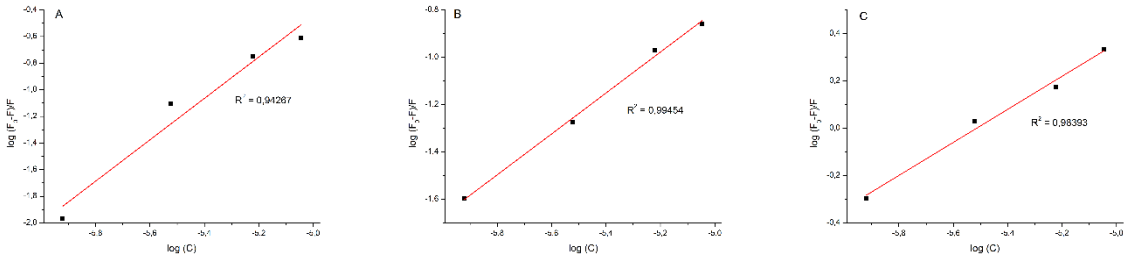

Fig.S7 The plots of log(F_0− F)/F versus log[c] of (A) BrCl-F-Lipo (B) Lipo and (C) BrCl-F at 305 K obtained from HSA fluorescence quenching.

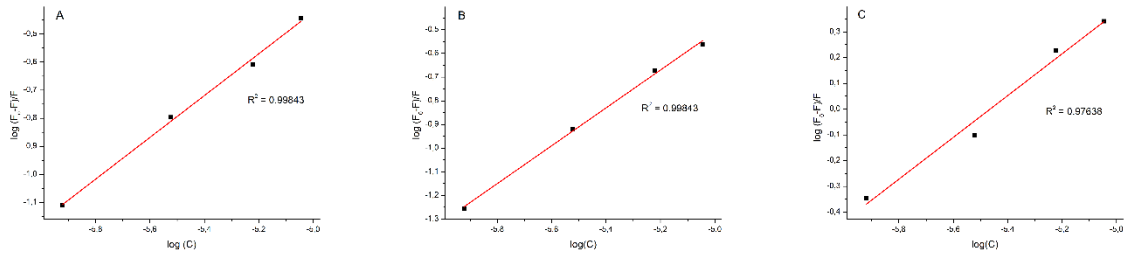

Fig.S8 The plots of log(F_0− F)/F versus log[c] of (A) BrCl-F-Lipo (B) Lipo and (C) BrCl-F at 310 K obtained from HSA fluorescence quenching.

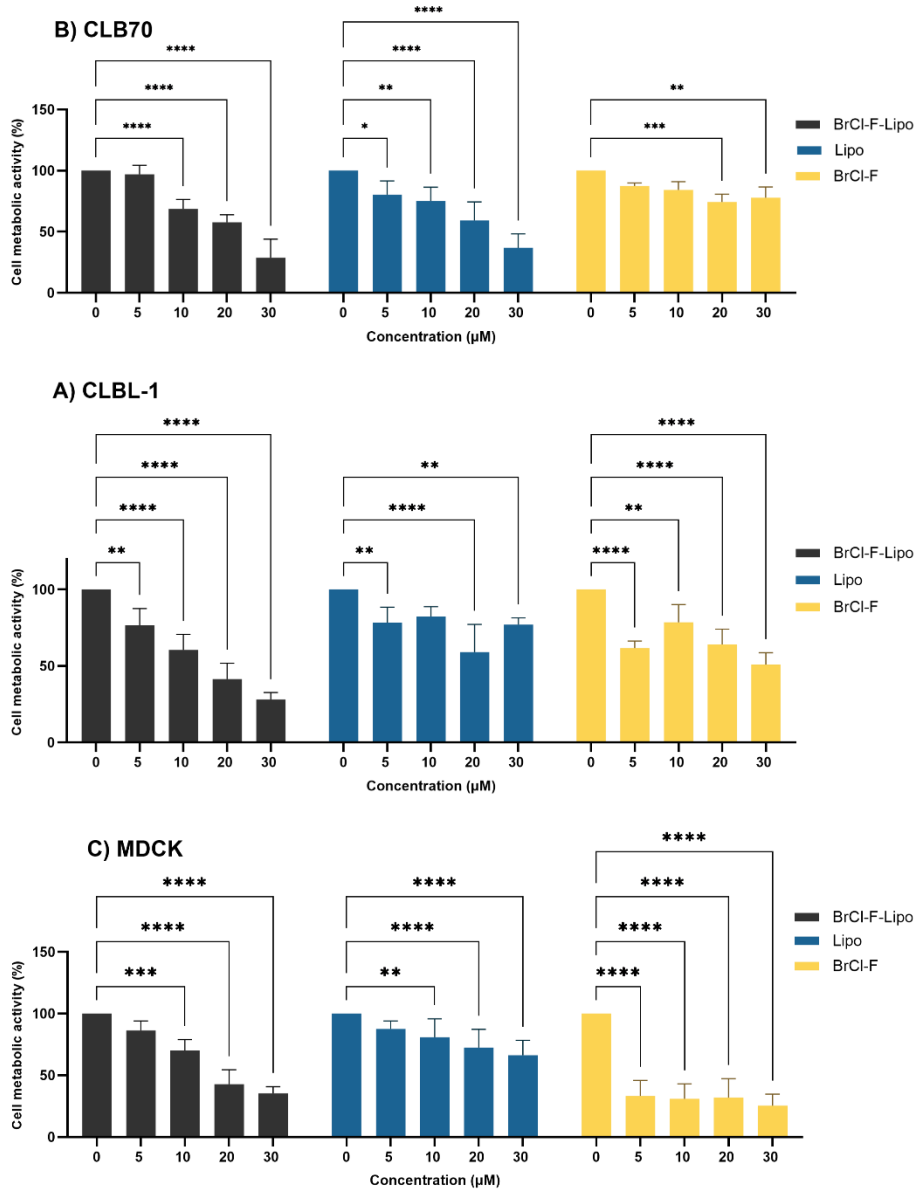

Figure S9. Effects of encapsulated BrCl-F (BrCl-F-Lipo), empty liposomes (Lipo) and 8-bromo-6-chloroflavone (BrCl-F) on metabolic activity in CLBL-1 (A), CLB70 (B) and MDCK (C) cell lines. Cells were treated with increasing concentrations (5–30 µM) of the tested compounds for 48 h, and metabolic activity was measured by the MTT assay. Data are expressed as mean ± SD from four independent experiments. Statistical significance vs. control: *p < 0.05; **p < 0.01; ***p < 0.001; ****p < 0.0001.

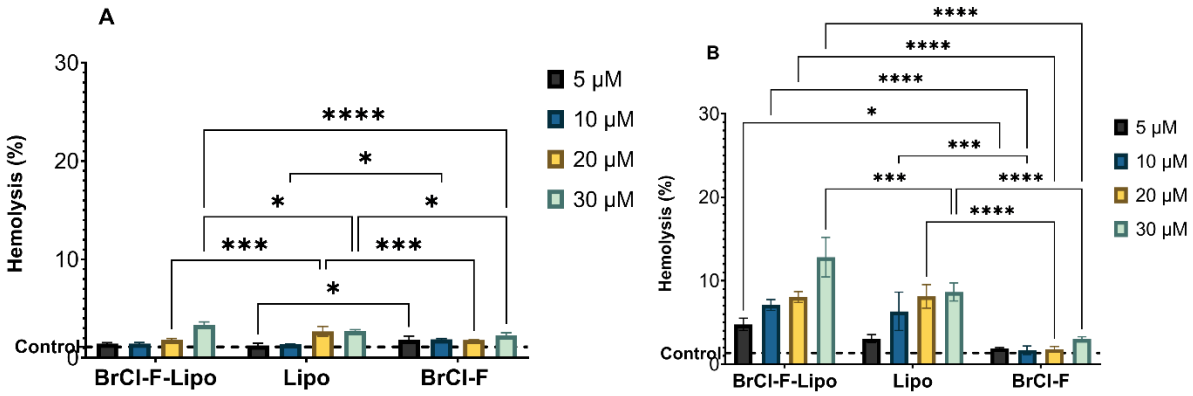

Figure S10. Percentage of hemolysis after 1 h (A) and 24 h (B) in the presence of the encapsulated BrCl-F (BrCl-F-Lipo), empty liposomes (Lipo) and 8-bromo-6-chloroflavone (BrCl-F). Data are expressed as mean ± SD from three independent experiments. Statistical significance vs. control: *p < 0.05; **p < 0.01; ***p < 0.001; ****p < 0.0001.