Supporting Information for

ORIGINAL ARTICLE

Intracellular codelivery of anti-inflammatory drug and anti-miR155 to treat inflammatory disease

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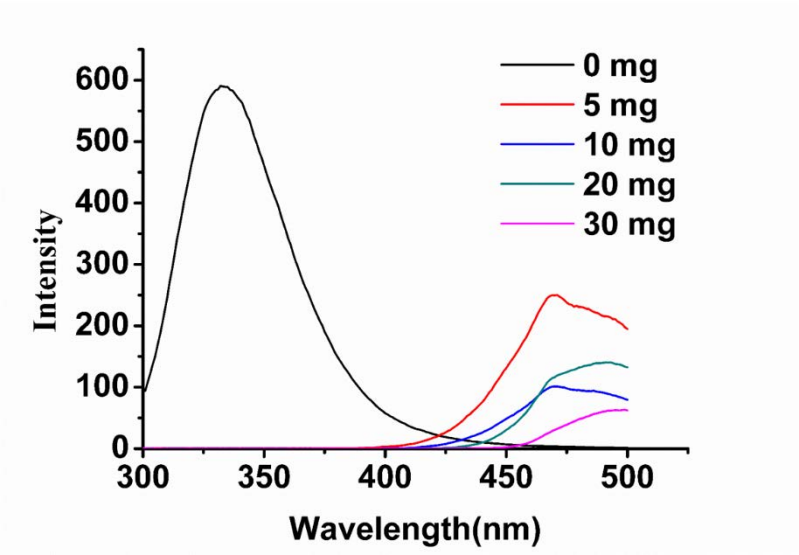

Figure S1 Fluorescence emission of BNRs with 0%–75% of drug-loading (0–30 mg in drug formulation). The emission spectrum from 300–500 nm was scanned at an excitation wavelength of 295 nm using a fluorescence spectrometer (SHIMADZU RF-5301PC, Japan). The stabilizer (CLG) was 0.1 mg/mL.

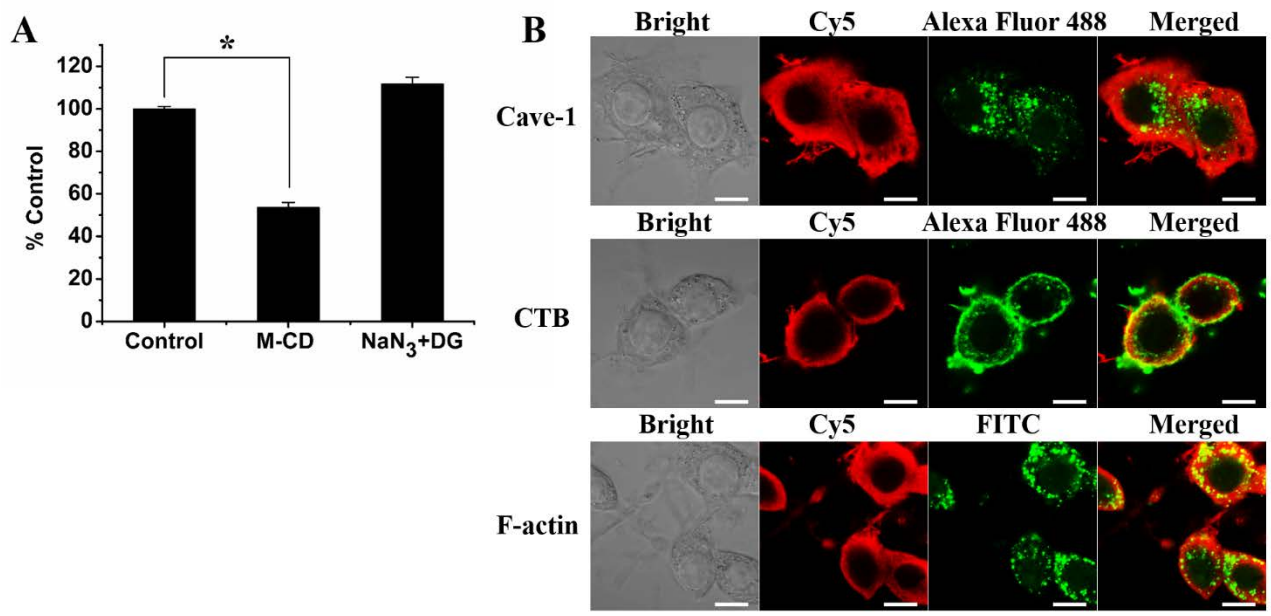

Figure S2 Endocytic pathway and caveolae tracking. (A) Cellular uptake of Cy5-labeled SA-BNRplex in RAW264.7 cells pretreated with different inhibitors for 0.5 h, followed by 4 h incubation at 37 °C at a dose of 100 nmol/L Cy5-RNA (mean±SD, n=5, $^{*}P$<0.05). (B) Colocalization of Cy5-labeled SA-BNRplex with Alexa Fluor 488-labeled CTB (green), and Alexa Fluor 488-labeled Cave-1 (green), FITC-labeled F-actin (green). The scale bar is 10 μm. Yellow spots display the colocalization of SA-BNRplex with F-actin, CTB, or Cave-1.

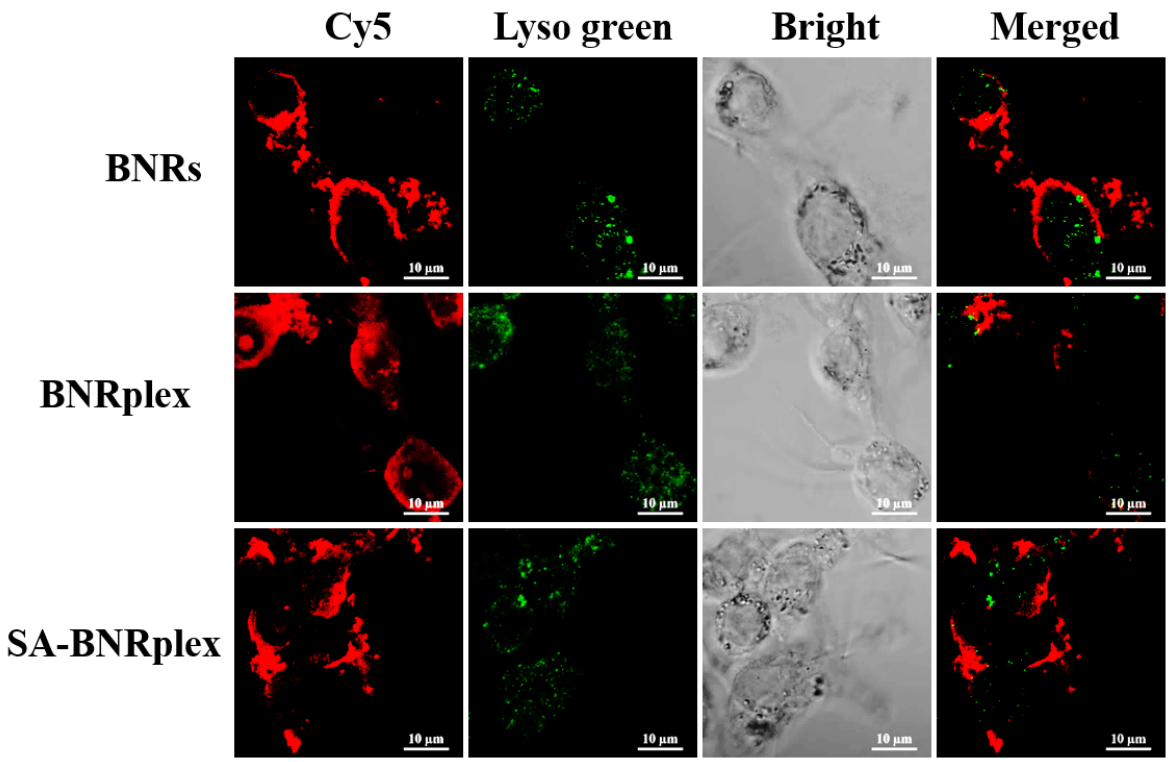

Figure S3 Uptake *via* bypassing lysosomes. Colocalization of Cy5-labeled nanoparticles with lysosomes after 4 h incubation at 37 °C at a dose of 100 nmol/L Cy5-RNA. The scale bar is 10 μm.

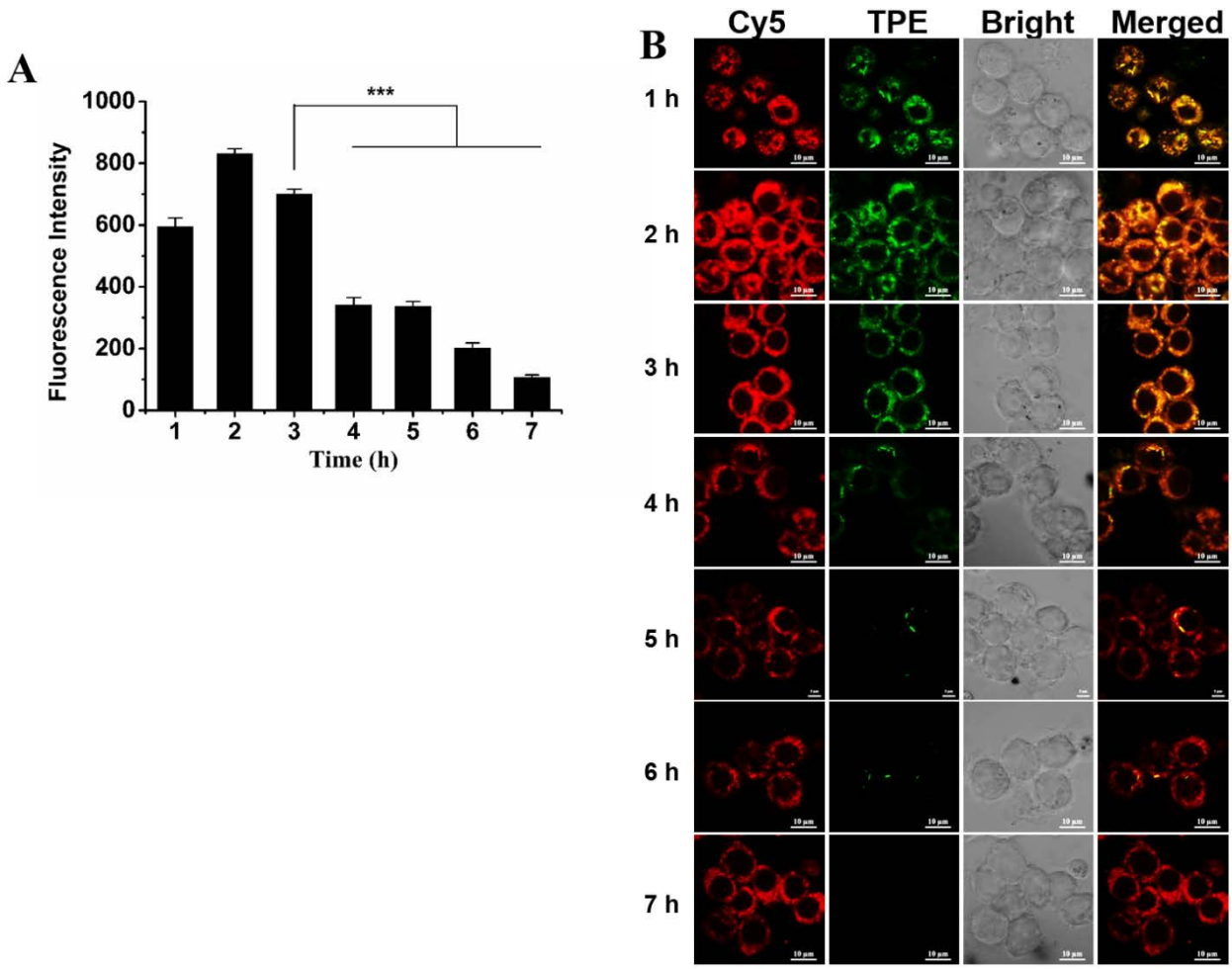

Figure S4 Intracellular fate study. (A) Fluorescence intensity quantified by flow cytometry (mean±SD, n=5, $^{***}P$<0.001) and (B) CLSM observation (Cy5: red, TPE: green). RAW264.7 were cultured with dual-labeled nanoparticles, Cy5-SA-BRNplex-TPE, at 37 °C at a TPE concentration of 50 μmol/L and Cy5 of 100 nmol/L. The scale bar is 10 μm. When encapsulated in the nanoparticles, the dye TPE emits green fluorescence due to the aggregation-induced emission; however, fluorescence quenching would occur if the dye is released from the nanoparticles and indicating the disintegration of the nanoparticles.

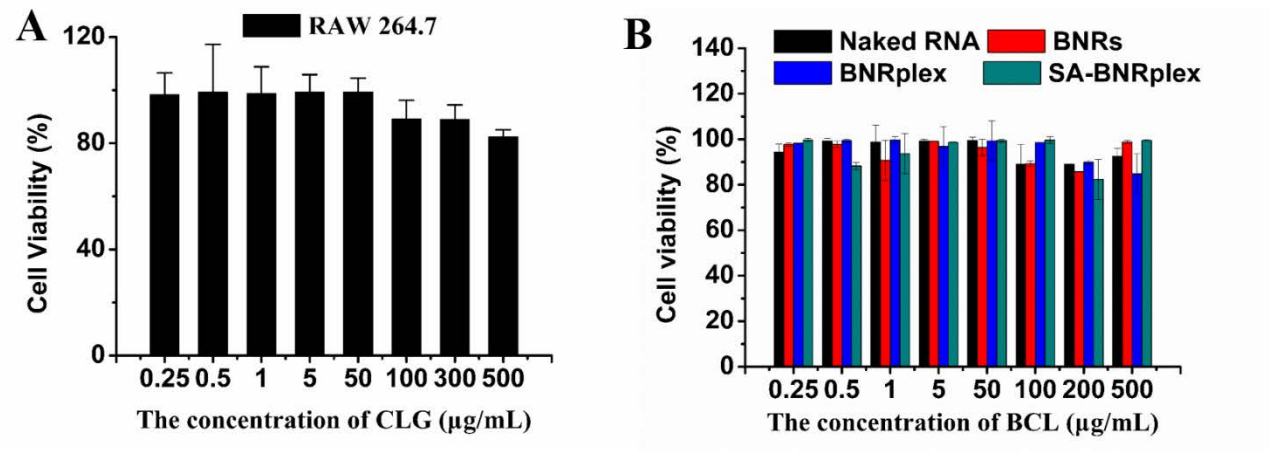

Figure S5 Cell viability. (A) Cytotoxicity of CLG against RAW 264.7 cells after 48 h incubation with CLG at concentration ranging from 0.25 to 500 μg/mL (mean±SD, *n*=5). (B) Cytotoxicity of preparations against RAW 264.7 cells after 48 h incubation with baicalein concentration ranging from 0.25 to 500 μg/mL (mean±SD, *n*=5).

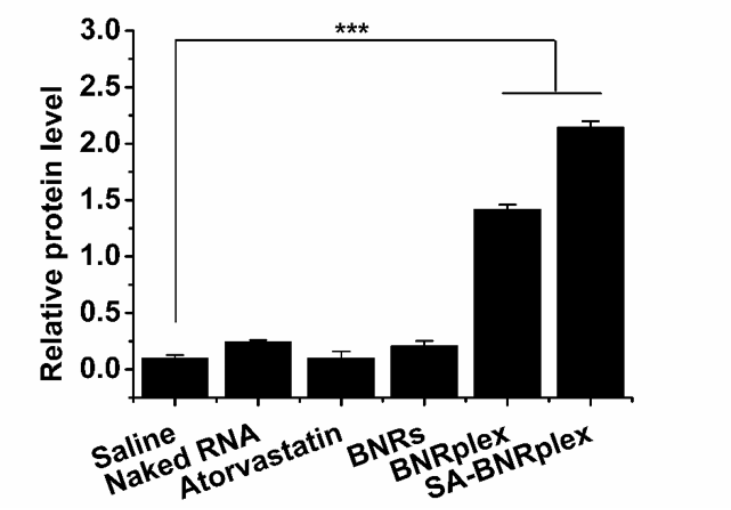

Figure S6 Transfection *in vivo*. Quantitative analysis of BCL-6 by PCR (mean±SD, n=3, $^{***}P$<0.001). The formulations (0.5 mL) were injected to the models *via* the tail vein every 3 days at a baicalein dose of 5 mg/kg, anti-miR155 dose of 0.2 mg/kg, or atorvastatin dose of 1 mg/kg, according to the body weight.