Supporting Information

Improving the Intracellular Drug Concentration in Lung Cancer Treatment through the Co-delivery of Doxorubicin and miR-519c Mediated by Porous PLGA Microparticle

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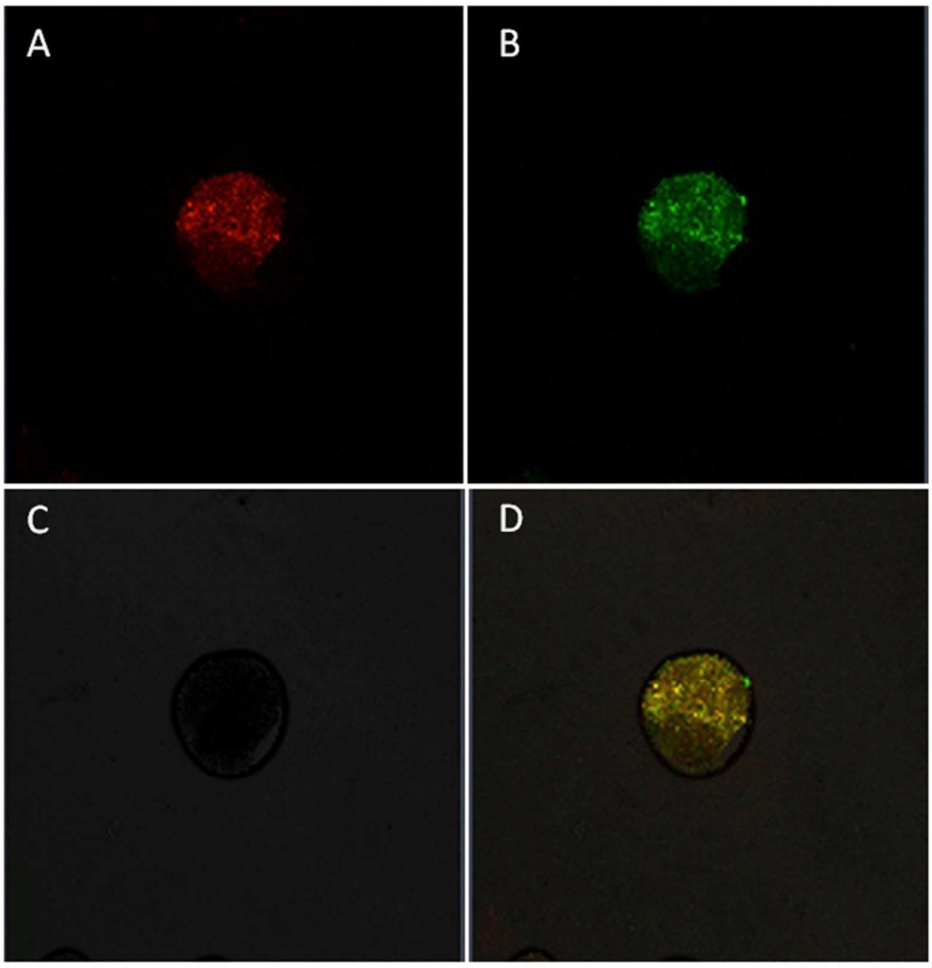

Figure S1. Confocal laser scanning microscopic analysis of the co-encapsulation of doxorubicin and miR-519c in porous PLGA microparticle MP-4. (A) Doxorubicin; (B) FITC-labeled PEI25K; (C) bright field; and (D) merge.

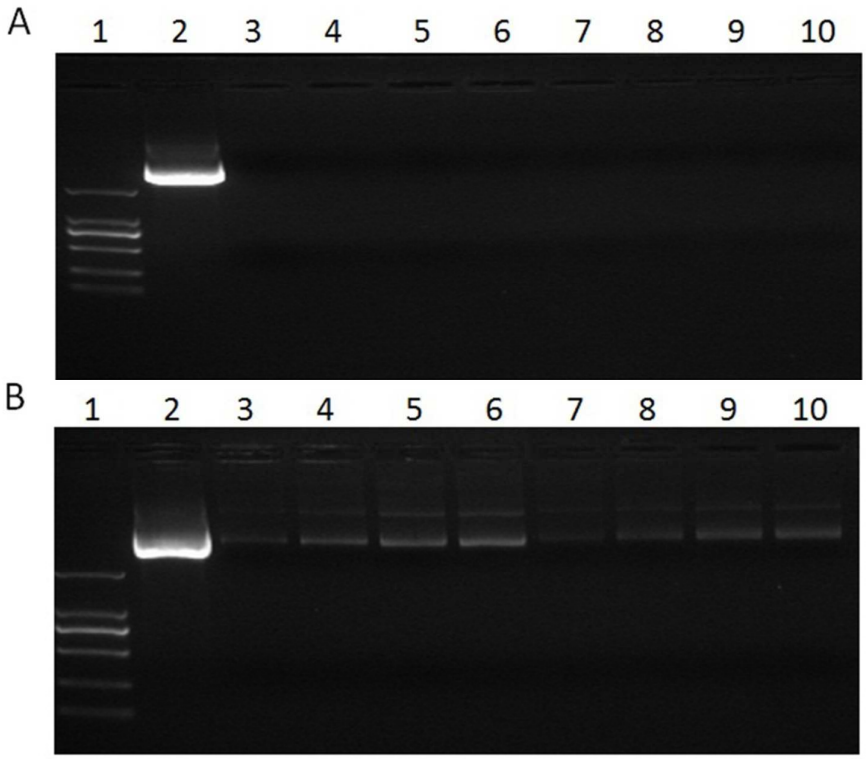

Figure S2. Agarose gel electrophoresis of PEI25K/miR-519c released from porous PLGA microparticles MP-2 and MP-4.

(A) No heparin treatment: lane 1, DL2000 maker; lane 2, naked plasmid pcDNA-miR-519c, lane 3-6, release supernatants from MP-2 at 1, 3, 5 and 7 days; lane 7-10, release supernatants from MP-4 at 1, 3, 5 and 7 days.

(B) Treatment with 4 mg/mL heparin: lane 1, DL2000 maker; lane 2, naked plasmid pcDNA-miR-519c, lane 3-6, release supernatants from MP-2 at 1, 3, 5 and 7 days; lane 7-10, release supernatants from MP-4 at 1, 3, 5 and 7 days.

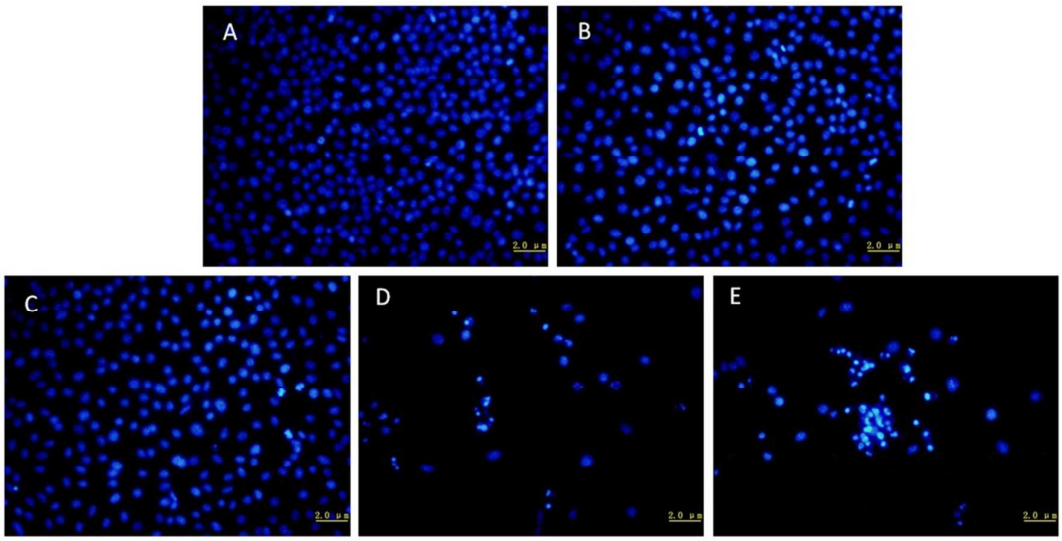

Figure S3. DAPI staining of A549 cells treated with the release supernatants at 7 days for 48 h. A: Control; B-E: treatment with release supernatants from MP-1, MP-2, MP-3 and MP-4, respectively.

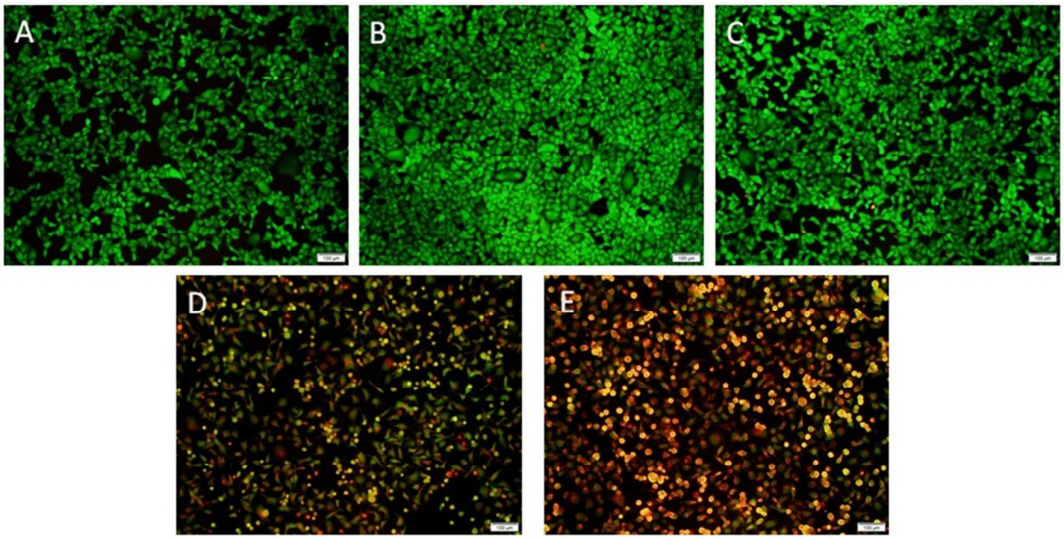

Figure S4. Live/Dead assays of A549 cells treated with the release supernatants at 7 days from porous PLGA microparticles for 24 h: (A) control; (B-E) treatment with release supernatants from MP-1, MP-2, MP-3 and MP-4, respectively. Living cells exhibited green fluorescence, and dead cells exhibited red fluorescence.

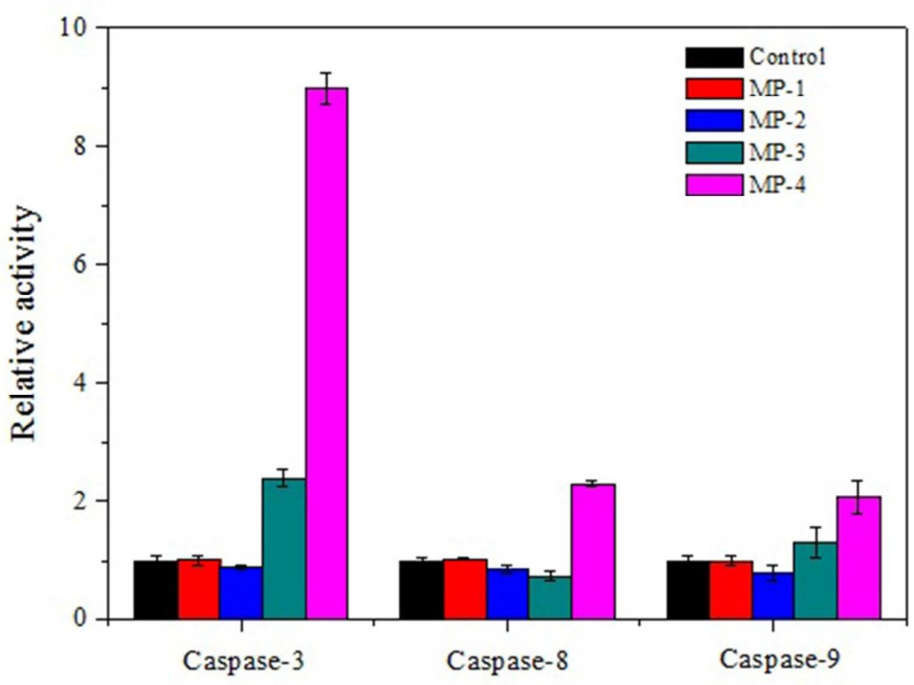

Figure S5. Relative activity of caspase-3, caspase-8 and caspase-9 in A549 cells treated with the release supernatants at 7 days from porous PLGA microparticles. The data were expressed as mean value ± SD of three experiments.

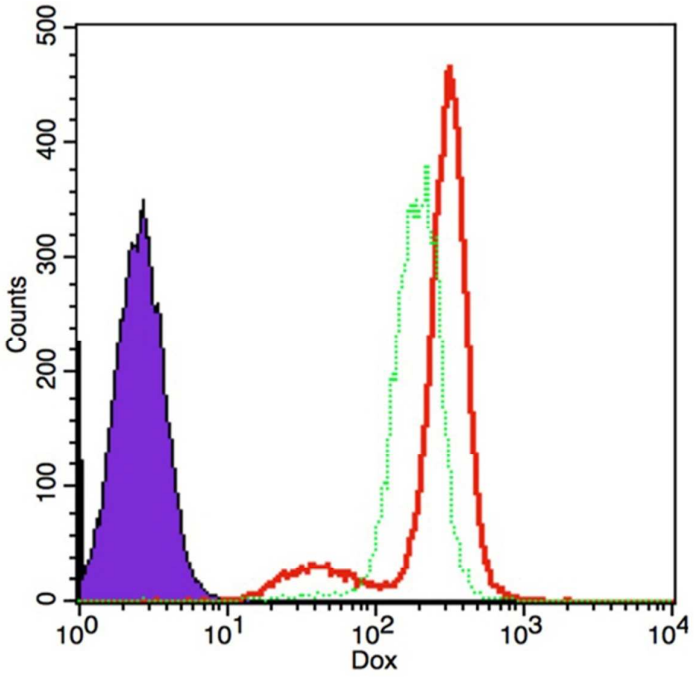

Figure S6. Intracellular fluorescence analysis of doxorubicin in A549 cells treated with the release supernatants at 7 days from MP-3 (green) and MP-4 (red) for 24 h.