ACCSCIENCE PUBLISHING

International Journal of Bioprinting

RESEARCH ARTICLE

Development of 3D-bioprinted-based artificial blood vessels loaded with rapamycin-nanoparticles for ischemic repair

Supplementary File

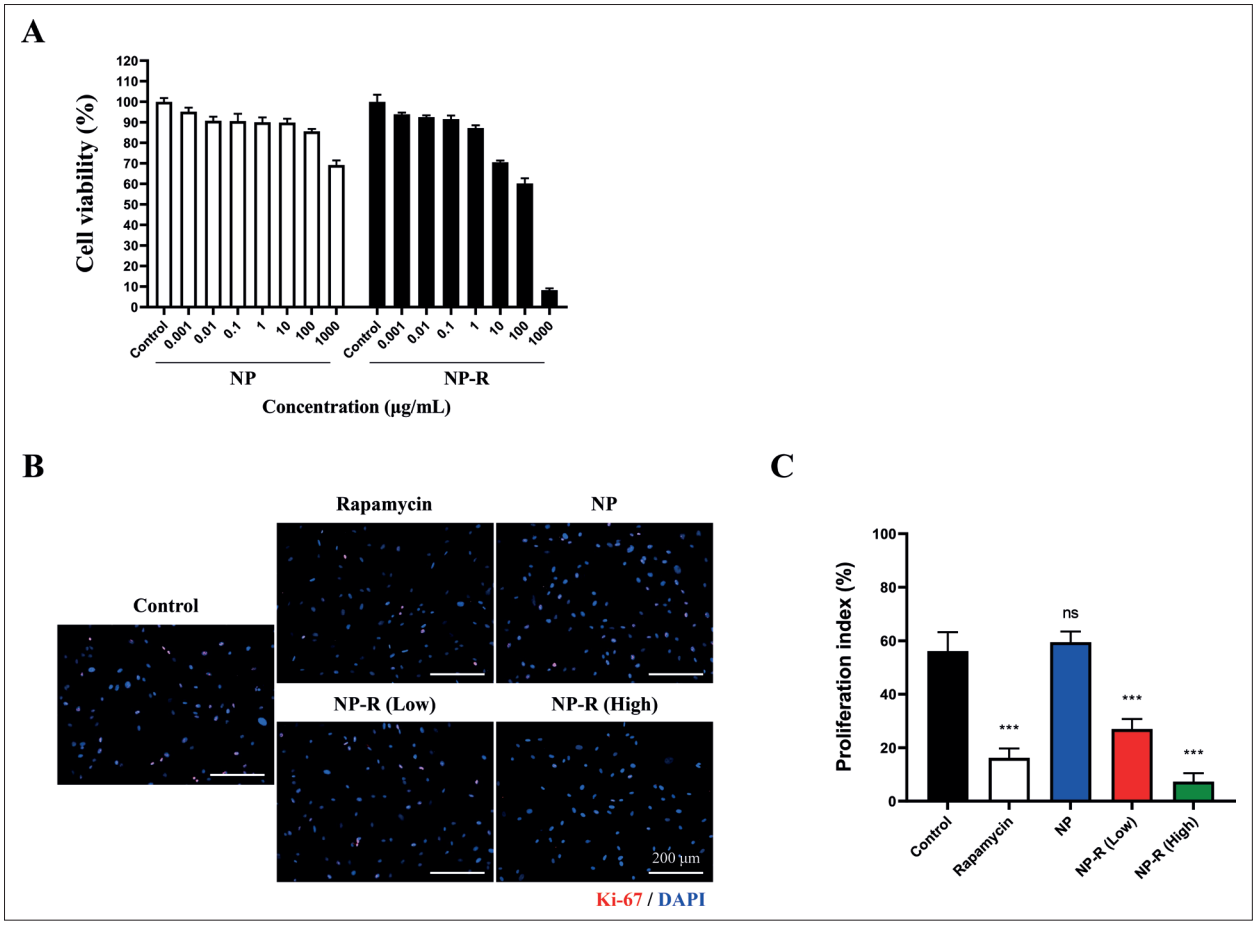

Figure S1. Cell viability and cell cycle in smooth muscle cell treated with rapamycin-loaded nanoparticles. (A) The cell viability of human coronary artery smooth muscle cells treated with nanoparticle and rapamycin-nanoparticles evaluated using a CCK-8 assay. (B) Immunostaining of Ki-67 in human coronary artery smooth muscle cell treated with rapamycin, nanoparticles and rapamycin-nanoparticles. Scale bars = 200 μm. (C) Quantification of Ki-67-positive cells. ***$P < 0.001$; n.s., $P > 0.05$ versus control. The values represent the mean ± standard deviation (SD) (n = 5). Abbreviation: NP, nanoparticle.

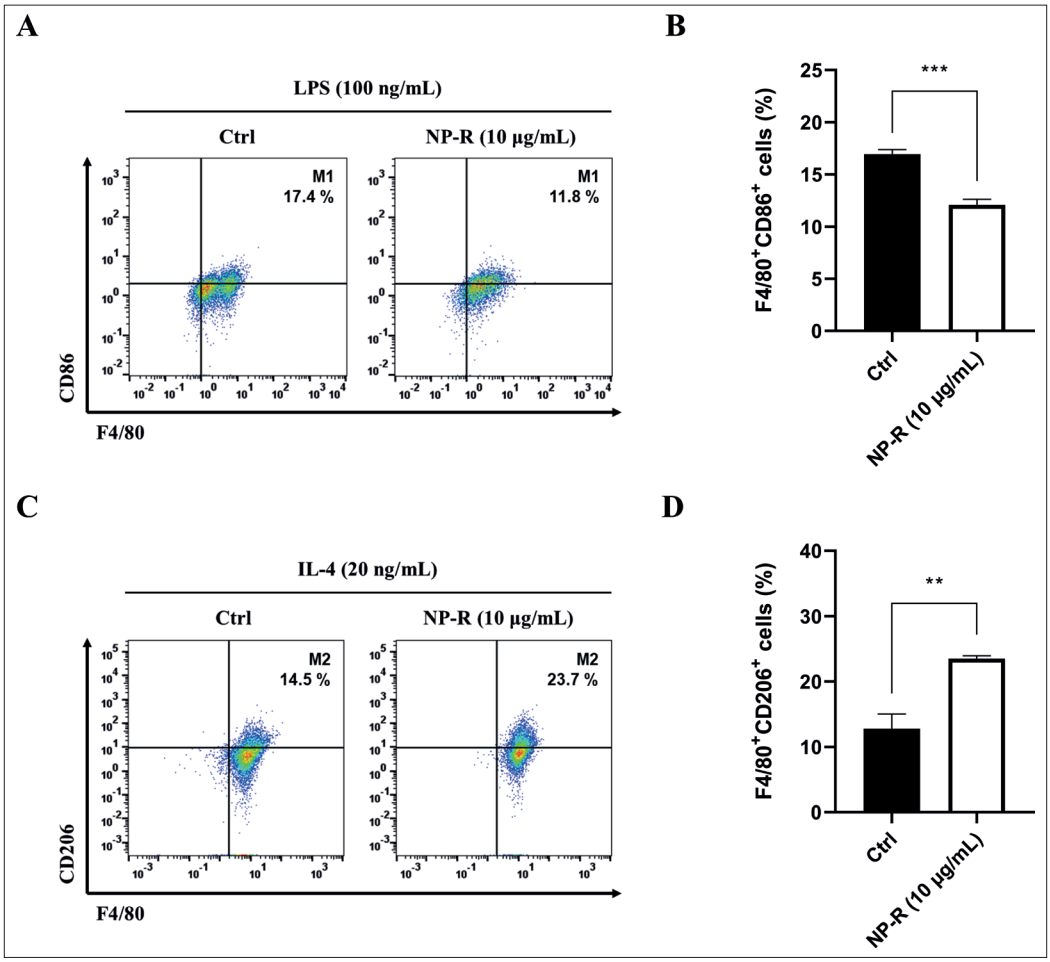

Figure S2. Rapamycin-nanoparticles attenuate M1 macrophage polarization and promote M2 macrophage polarization. (A) Representative flow cytometry dot plots showing the population of F4/80$^+$CD86$^+$ M1 macrophage in RAW 264.7 cells. (B) Frequencies of F4/80$^+$CD86$^+$ M1 macrophage in RAW 264.7 cells. ***$P < 0.001$ versus control. The values represent the mean ± standard deviation (SD) (n = 3). (C) Representative flow cytometry dot plots showing the population of F4/80$^+$CD206$^+$ M2 macrophage in RAW 264.7 cells. (D) Frequencies of F4/80$^+$CD206$^+$ M2 macrophage in RAW 264.7 cells. **$P < 0.01$ versus control. The values represent the mean ± standard deviation (SD) (n = 3). Abbreviations: IL-4, interleukin-4; LPS, lipopolysaccharide; NP, nanoparticle; PBS, phosphate-buffered saline.