

## **Supplementary data**

# **Development of PLGA-lipid nanoparticles with covalently conjugated indocyanine green as a versatile nanoplatform for tumor-targeted imaging and drug delivery**

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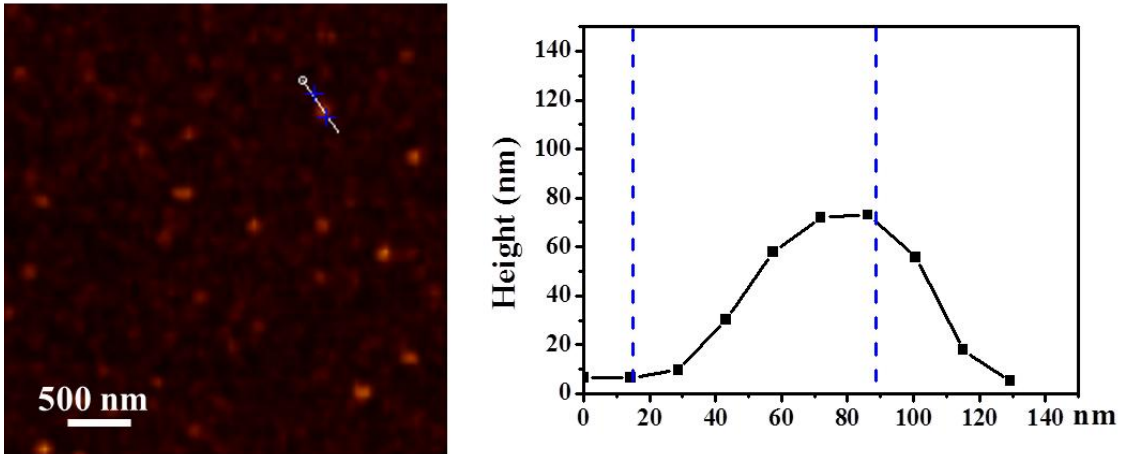
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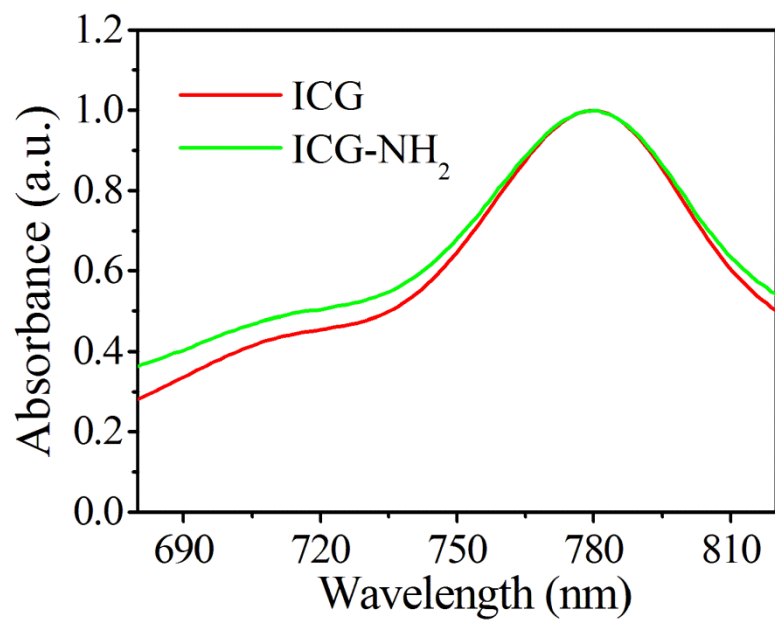
Email: yuxin\_new@163.com



**Figure S1** AFM image.

**Note:** AFM image (left) and height analysis (right) of FA-RIPNPs.

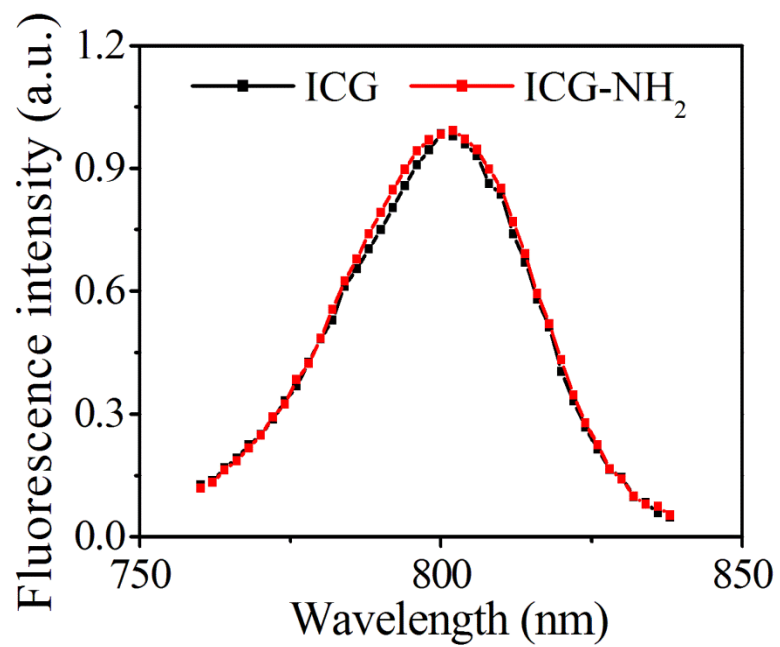
**Abbreviations:** AFM, atomic force microscopy; FA-RIPNPs, folic acid-RSV/ICG-PLGA-Lipid NPs.



**Figure S2** Absorbance spectra.

**Note:** Absorbance spectra of ICG and ICG-NH<sub>2</sub>.

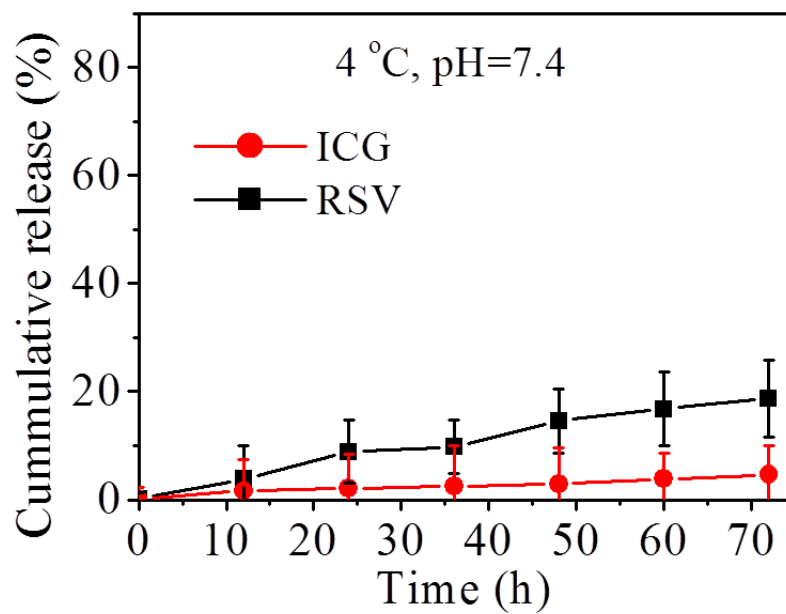
**Abbreviations:** ICG, indocyanine green; ICG-NH<sub>2</sub>, amino- ICG.



**Figure S3** Fluorescence spectra.

**Note:** Fluorescence spectra of ICG and ICG-NH<sub>2</sub> at 765 nm excitation wavelength.

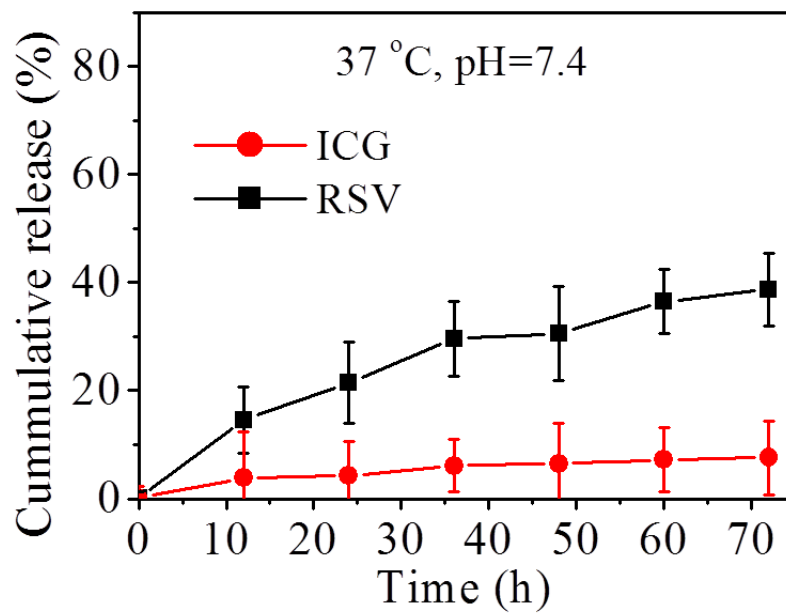
**Abbreviations:** ICG, indocyanine green; ICG-NH<sub>2</sub>, amino- ICG.



**Figure S4** ICG and RSV release.

**Note:** ICG and RSV release at pH 7.4 and 4 °C.

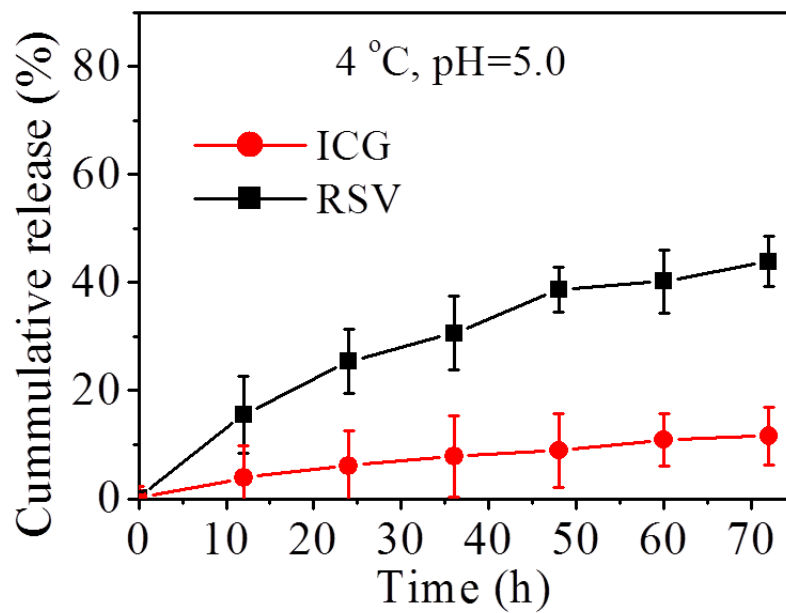
**Abbreviations:** ICG, indocyanine green; RSV, resveratrol.



**Figure S5** ICG and RSV release.

**Note:** ICG and RSV release at pH 7.4 and 37 °C.

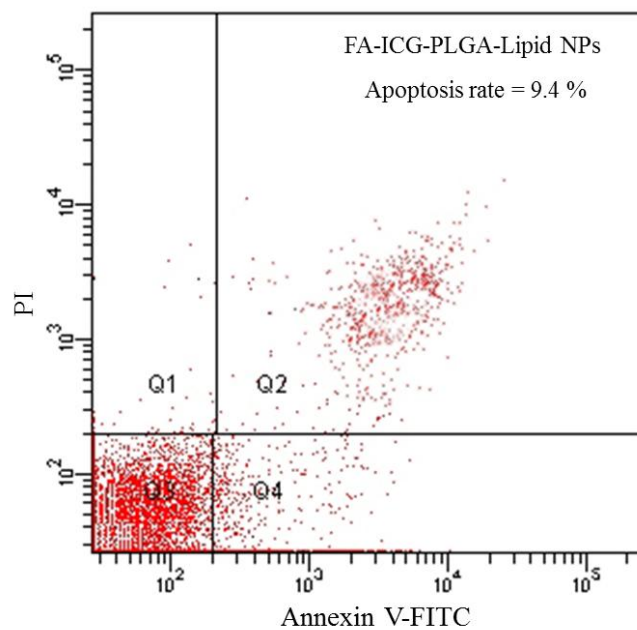
**Abbreviations:** ICG, indocyanine green; RSV, resveratrol.



**Figure S6** ICG and RSV release.

**Note:** ICG and RSV release at pH 5 and 4 °C.

**Abbreviations:** ICG, indocyanine green; RSV, resveratrol.



**Figure S7** Apoptosis detection.

**Note:** Flow cytometer analysis of U87 cells treated by FA-ICG-PLGA-Lipid NPs. The cells in Q2+Q4 regions are defined as apoptotic cells.

**Abbreviations:** ICG, indocyanine green; FA, folic acid; FITC, fluorescein isothiocyanate; PI, propidium iodide.