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## Ethidium bromide-bridged mesoporous silica hybrid nanocarriers for fluorescent cell imaging and drug delivery applications

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Scheme S1. Synthesis of DU-EB precursor; and DU-EB-MSH materials.



Figure S1. FT-IR spectrum of the synthesized DU-EB@MSH materials.



**Figure S2.** Particle size distribution of the DU-EB@MSH materials at (a) pH 3.0; (b) pH 5.0; (c) pH 7.4; and (d) pH 10, respectively.



Figure S3. Zeta potential of the DU-EB@MSH materials.



Figure S4. In vitro cell cytocompatibility of the MRC-5 cells treated at different concentration of DU-EB@MSH material. The data represent three separate experiments. Mean values  $\pm$  SD. \*P<0.05 versus a control group.



Figure S5. Flow cytometry analysis of control and DU-EB@MSH/Dox nanoparticles treated on MCF-7 cells.



**Figure S6.** Fluorescence intensity of the DU-EB@MSH materials at different time after incubating the samples with MCF-7 cells.