# SUPPORTING INFORMATION

# A Multifunctional Nanoparticulate Theranostic System with Simultaneous Chemotherapeutic, Photothermal Therapeutic, and MRI Contrast Capabilities

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## Characterization of SPION

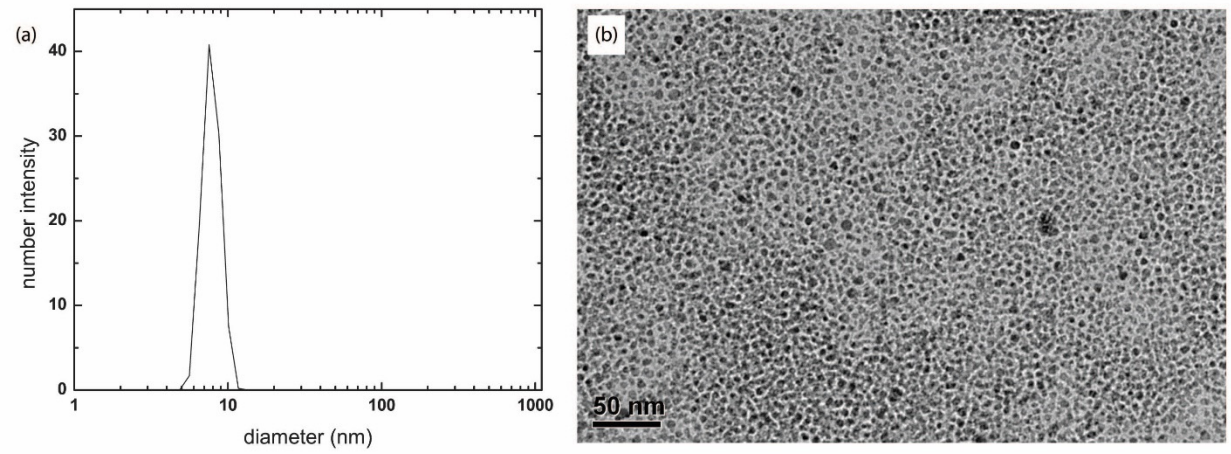


**Figure S1**. (a) The particle size distribution of SPION measured by dynamics light scattering (DLS). The hydrodynamic diameter ranged from 5.6 nm to 11.7 nm, with a mean value of 7.85nm. (b) TEM micrograph of SPION. This micrograph revealed that SPION was fairly spherical and homogeneous in size in agreement with DLS data.

## Release Profiles of Magnetically Separated Multifunctional Nanomedicine

Due to the lack of contrast between polymer stabilizer and paclitaxel in TEM, we conducted another release study specifically aimed at confirming the co-localization of SPION and paclitaxel. To this end, we applied a magnetic field using Neodymium-Iron-Boron rare earth magnet with a pull force of 10 kg to separate MNTS containing SPION (Fig. S2).

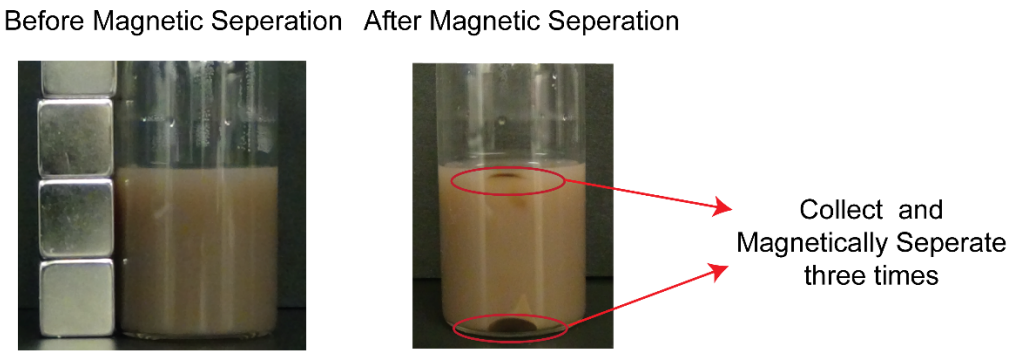


**Figure S2**. MNTS dispersion was magnetically separated to collect MNTS containing SPION for assessing the colocalization of SPION and paclitaxel. This procedure was repeated three times.

Then, we investigated the paclitaxel release behavior of the magnetically separated MNTS. The observed release of any paclitaxel indicates that SPION and paclitaxel are localized (Fig. S3). Considering that TEM studies demonstrated that SPION, AuNP, and polymer stabilizer are colocalized within a single particle, the confirmation of the localization of SPION and paclitaxel indicates that SPION, AuNP, polymer stabilizer, and paclitaxel are simultaneously located within a single particle.

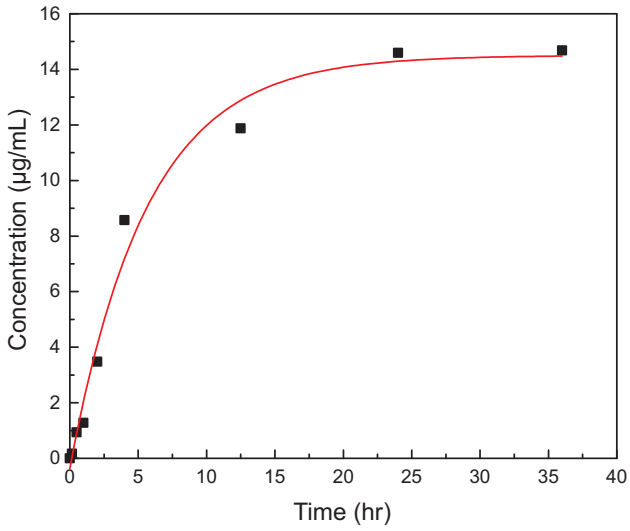


**Figure S3**. The release profile of paclitaxel from MNTS that have been magnetically separated from the original MNTS suspension.