

Supporting Information

Induction of cell death in mesothelioma cells by magnetite nanoparticles

Shofu Matsuda [†], Airi Hitsuji [†], Takuya Nakanishi [†], Hong Zhang [†], Akane Tanaka [‡], Hiroshi Matsuda [‡], Tetsuya Osaka ^{*,†}

[†] *Graduate School of Advanced Science and Engineering, Waseda University, 3-4-1 Okubo, Shinjuku-ku, Tokyo 169-8555, Japan*

[‡] *Division of Animal Life Science, Institute of Agriculture, Tokyo University of Agriculture and Technology, 3-8-1, Harumi-cho, Fuchu, Tokyo 183-0057, Japan*

The list of Supporting Information is as follows.

- Morphology of MSTO-211H cells incubated for 24 h with MNPs at a dose of 800 μg to 5×10^5 cells. (Figure S1, Page S1)
- Characterization of MSTO-211H cells without the addition of MNPs: the incubation time-dependence of cell productivity (A) and the fluorescent image of rhodamine phalloidin stained cells (B). (Figure S2, Page S2)
- Dependence of the percentage of non-viable MSTO-211H cells on the incubation time at a dose of 800 μg of MNPs (diamonds) and without MNPs (circles) in 5×10^5 cells. (Figure S3, Page S3)

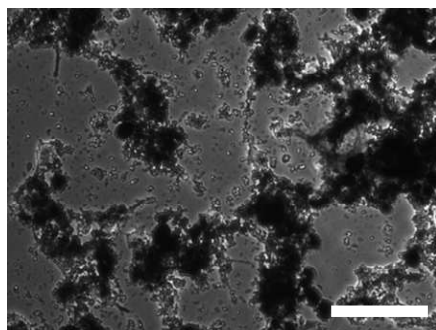


Figure S1. Morphology of MSTO-211H cells incubated for 24 h with MNPs at a dose of 800 μg to 5×10^5 cells. Scale bar: 50 μm .

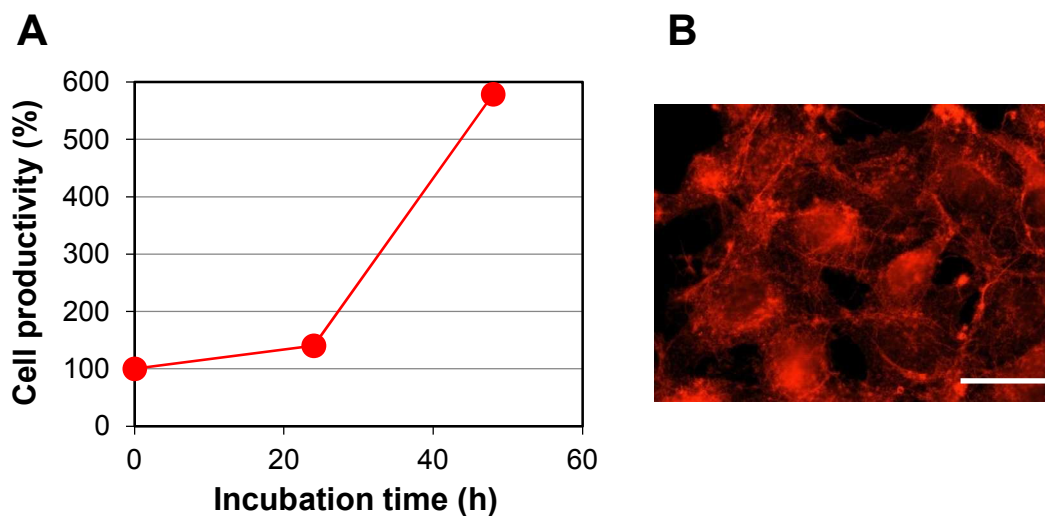


Figure S2. Characterization of MSTO-211H cells without the addition of MNPs: the incubation time-dependence of cell productivity (A) and the fluorescent image of rhodamine phalloidin stained cells (B). Scale bar 25 μm .

As shown Figure S2A, the number of MSTO-211H cells was kept almost constant at the incubation time from 0 to 24 h, then increased drastically at the incubation time between 24 and 48 h. This cell-growth behavior suggests that these cells were normal and healthy and the experiment was carried out at the proper period in the cell cycle. Moreover, we investigated the actin-stain using an F-Actin Visualization Biochem Kit™ (Cytoskeleton, Inc.). As shown Figure S2B, the actin stress fibers existed throughout the cell before the addition of MNPs, suggesting that the cell condition is preferable to the experiment.

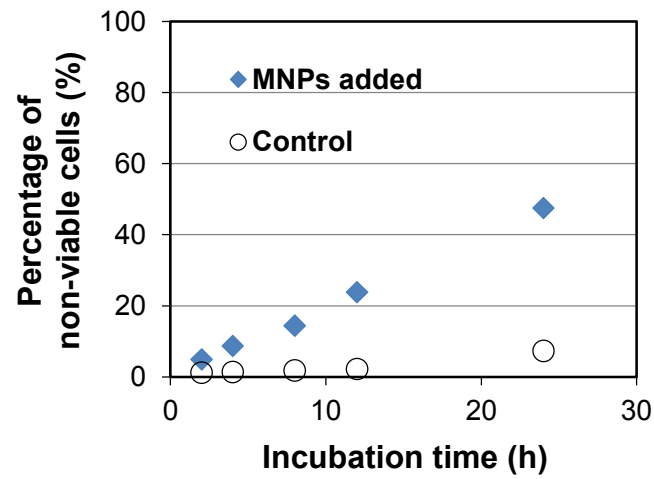


Figure S3. Dependence of the percentage of non-viable MSTO-211H cells on the incubation time at a dose of 800 μg of MNPs (diamonds) and without MNPs (circles) in 5×10^5 cells.