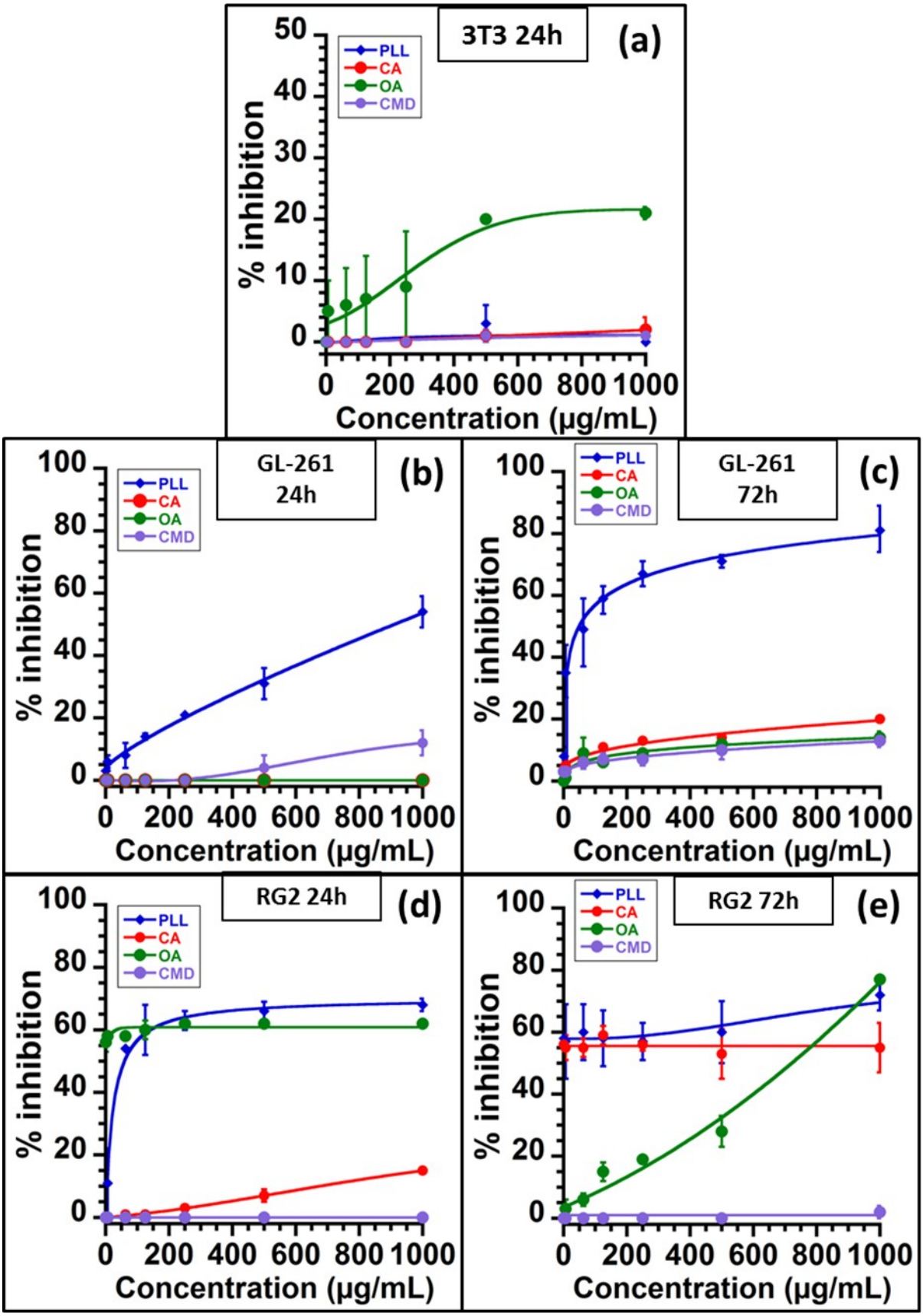
Supplementary information

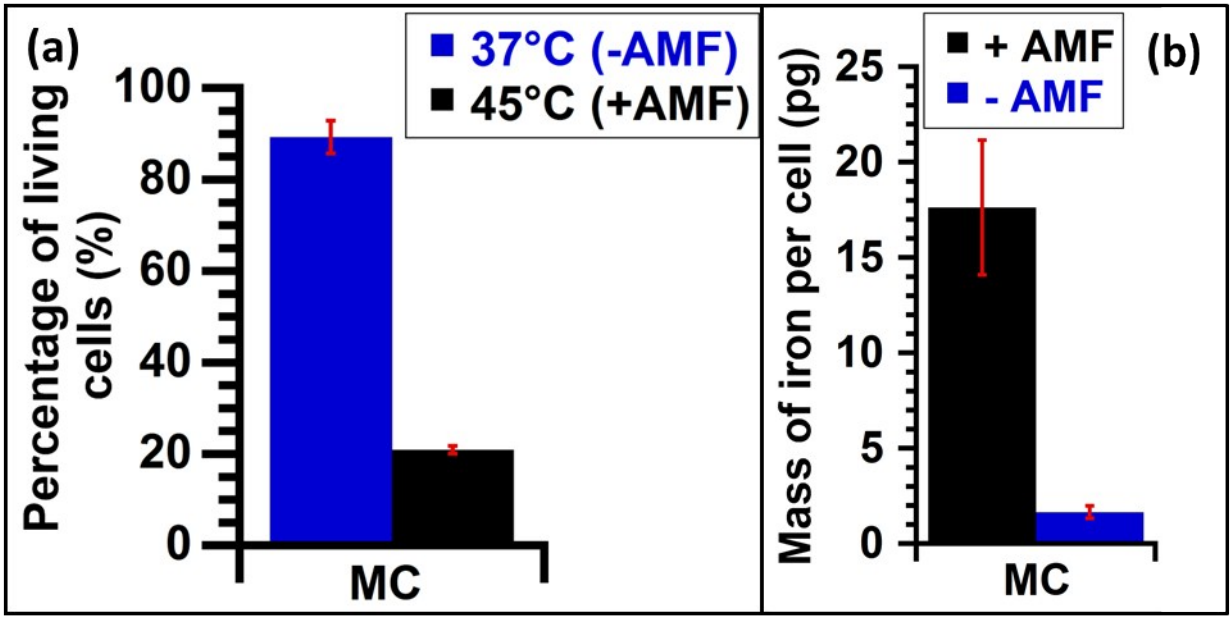
Supplementary Figure 1: (a), Percentage of 3T3 cells inhibition after 24 hours of cell incubation in the presence of poly-L-lysine, citric acid, oleic acid and carboxy-methyl-dextran, (b), Percentage of GL-261 cell inhibition after 24 hours of cell incubation in the presence of poly-L-lysine, citric acid, oleic acid and carboxy-methyl-dextran, (c), Percentage of GL-261 cells inhibition after 72 hours of cell incubation in the presence of poly-L-lysine, citric acid, oleic acid and carboxy-methyl-dextran.

Supplementary Figure 2: (a), percentage, %, of living GL-261 cells when these cells are brought into contact with 1 mg/mL of MC and either maintained at 37 °C during 30 minutes without AMF treatment, black columns: 37 °C (-AMF), or exposed during 30 minutes to an alternating magnetic field of frequency 198 kHz and strength varied between 34 and 47 mT to maintain temperature at 45°C during 30 minutes, red columns: 45 °C (+AMF). (b), Quantity of iron internalized in each GL-261 cell when GL-261 cells are brought into contact with 1 mg/mL of MC, and exposed during 30 minutes to the same alternating magnetic field as in (a). Cells are heavily washed to remove magnetosomes at the cell surface to measure the quantity of magnetosomes internalized in cells and not that of magnetosomes adsorbed at the cell surface.



Suppl. Figure 1

22



Suppl. Figure 2

23