

Assessment of NP interference with MTT assay

To assess NP interference with MTT assay, control cells were incubated with a 0.5 mg/mL MTT solution. After 2 h at 37°C, the medium was removed and formazan crystals were dissolved in DMSO. To these solutions were then added 10-1000 µg/mL of TiO₂-NPs. After 5 min at 37 °C, the absorbance was read on either non-centrifuged or centrifuged plates. The results show that the interference of TiO₂-NPs with MTT is lowered (Figure 1). On wells exposed to 50 µg/mL NPs and centrifuged, the residual interference would lead to interpretation of a $2.25 \pm 1.72\%$ cell death, which is not statistically significant. Conversely on non-centrifuged wells, the misinterpretation would lead to a significant $5.47 \pm 1.38\%$ false-positive cell death. Metabolic activity was determined as a percentage of the negative controls (n=5).

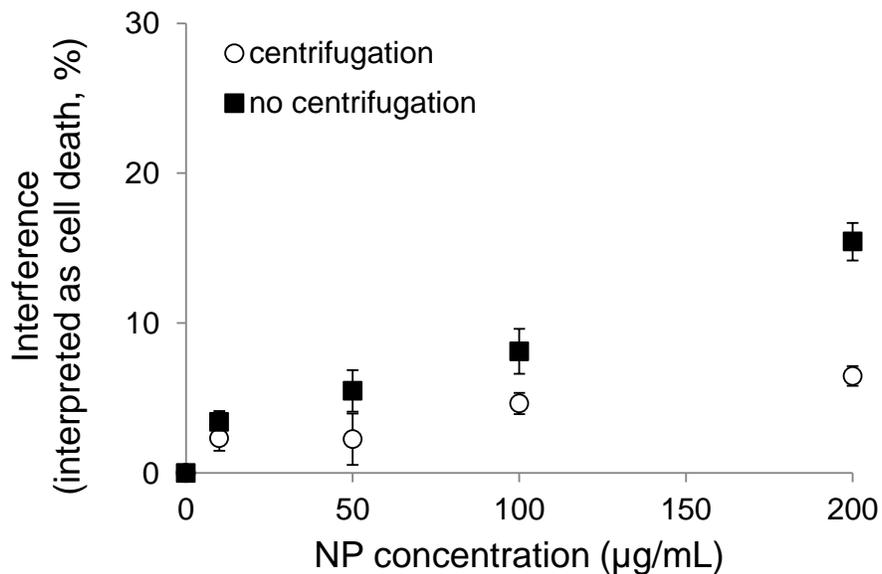


Figure 1. NP interference with MTT assay. Interference was probed by TiO₂-NP addition to dissolved formazan crystals.