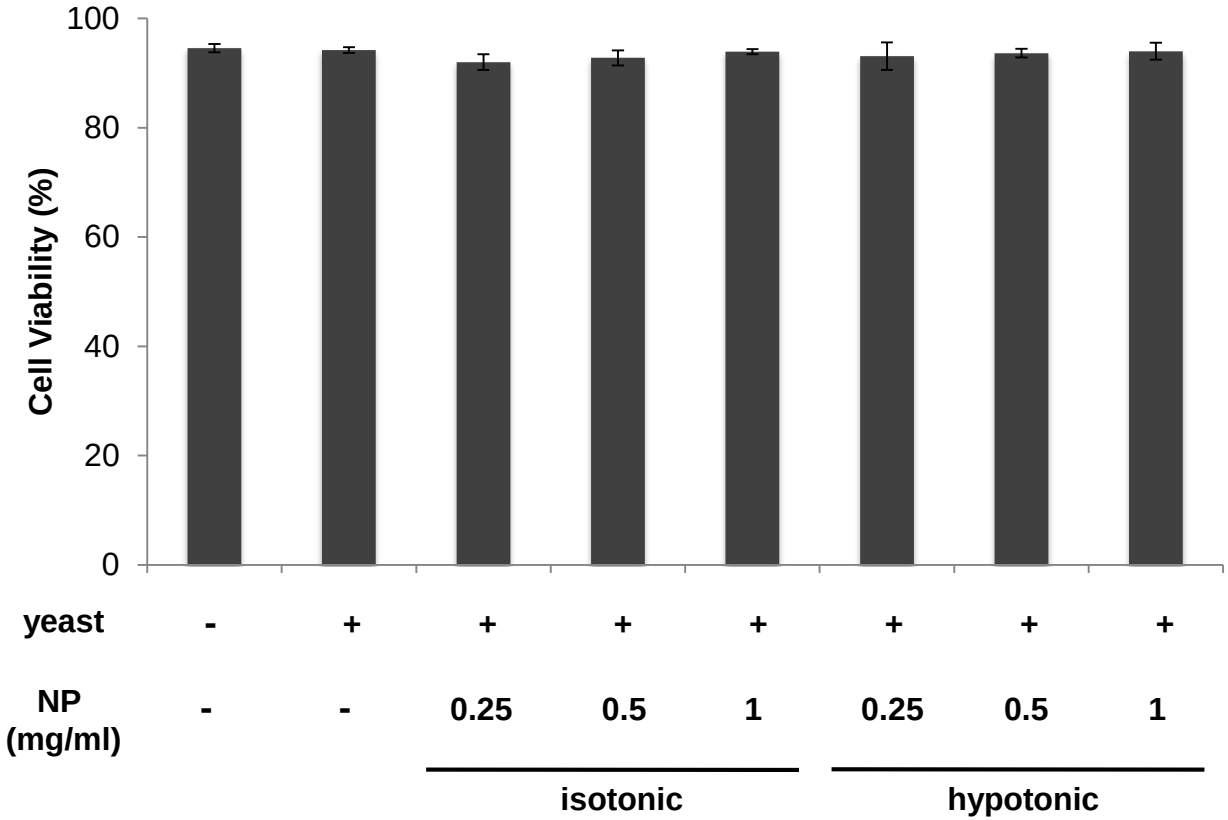

Figure S1: Viability of macrophages (MΦ) after incubation with yeast/NP complexes. THP-1 MΦ were incubated with yeast cells resp. yeast/NP complexes at a MOI of 5 for 16 h; untreated MΦ served as control. Cells were stained with propidium iodide and analyzed *via* flow cytometry. Data represent the mean values of PI-negative cells ± SD of three independent samples.

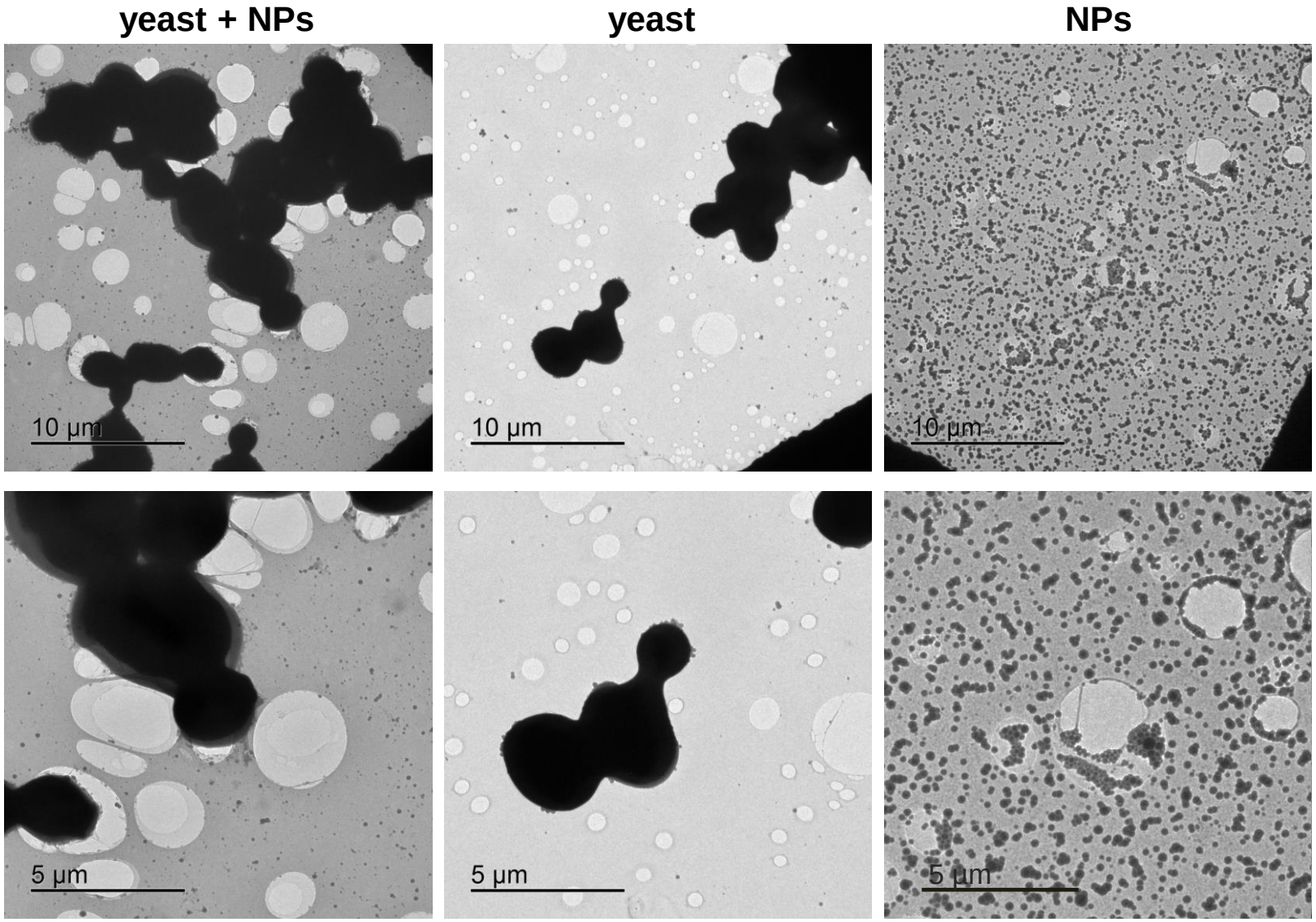

Figure S2: Separation of yeast/NP complexes from unbound nanoparticles. Yeast cells of the strain BY4742 were incubated with 1 mg/mL NPs for 1 h. After density gradient centrifugation the received fractions were examined *via* transmission electron microscopy (TEM). Displayed are representative images of both, the original solution containing yeast cells as well as NPs (left), and the separated sucrose phase (middle) and aqueous phase (right).

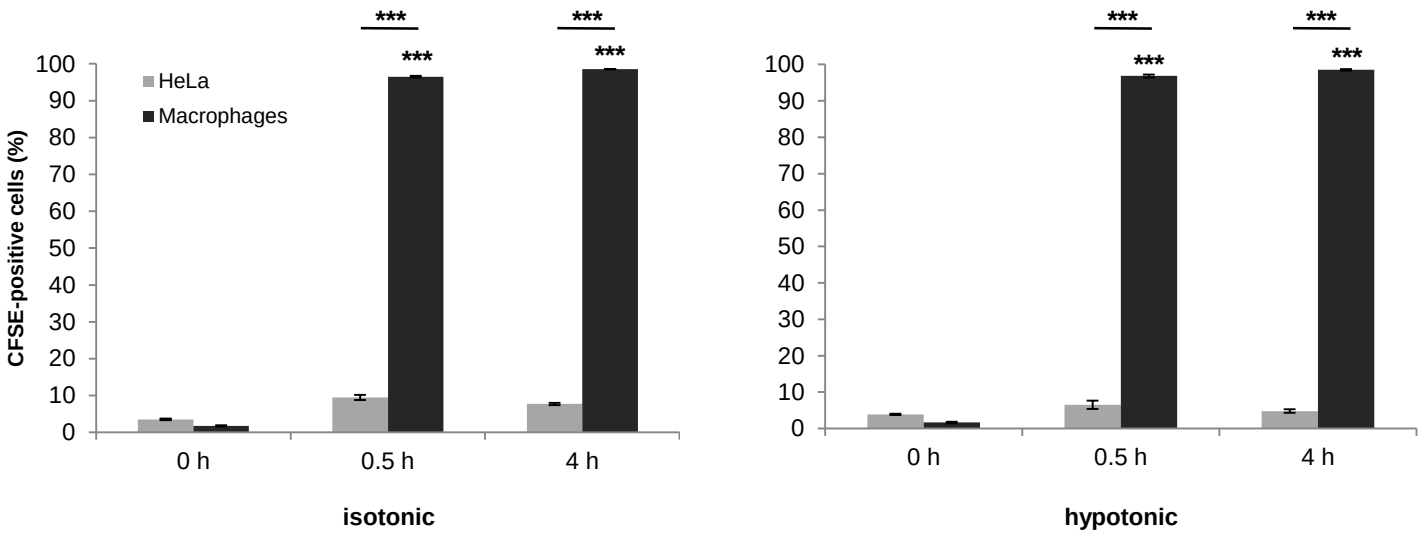

Figure S3: Uptake of CFSE-labeled yeast cells by co-cultured HeLa cells and primary human macrophages (MΦ). Co-cultures were incubated with either isotonic (left) or hypotonic NP-carrying *S. cerevisiae* (right) for 0.5 h or 4 h. The percentage of CFSE-positive HeLa and macrophages was determined by flow cytometry. Samples taken at 0 h served as negative control. The mean values ± SEM of 2 independent experiments performed in cells from different donors and measured in duplicates each are shown; p-values were calculated by one-way ANOVA (***$p < 0.001$).