



Extended Data Figure 2 | Ultrasound contrast from buoyancy-enriched cells. **a**, Diagram of centrifugation-assisted enrichment of buoyant cells.

b, Image of *arg1* *E. coli* culture 22 h after induction and 4 h of centrifugation at 350g, showing the presence of buoyant cells. Arrowhead points to the meniscus layer containing buoyant cells. Experiment repeated three times with similar results. **c**, Ultrasound images of *E. coli* expressing *arg1* at various cellular concentrations, with and without buoyancy enrichment. Experiment was repeated three times with similar results. **d**, Ultrasound contrast from *E. coli* expressing *arg1*, with and without buoyancy enrichment, and GFP at various cell densities. Data are from three biological replicates; lines represent the mean.