



**Figure S3** Characterization of the *nup42Δ* mutant. (A) H<sub>2</sub>O<sub>2</sub> tolerance was measured as described in Figure 1 in wild type and *nup42Δ* mutant cells before ('b') or at 60 min after treatment with 0.7M NaCl ('A'), and in cells with a memory at 180 min after return to stress-free medium ('M'). The sum viability score across the 11 doses of H<sub>2</sub>O<sub>2</sub> is shown, and data represent the average and standard deviation of biological triplicates. In all cases, the mutant was indistinguishable from the wild type cells ( $p > 0.1$ ). (B) Levels of heat-shock factor Ssa3/4p were measured by Western analysis (and normalized to an internal Act1p control in each lane) in cells grown at 25°C and then shifted to either 0.7 M NaCl or fresh medium preheated to 35°C or 42°C for 60 min. Data represent the average of biological duplicates. (C) Sum-viability across 11 doses of H<sub>2</sub>O<sub>2</sub> is shown relative to the comparable score in mock-treated cells to represent the level of acquired stress resistance 60 min after 0.7M NaCl, a 25-35°C heat shock, or a 25-42°C heat shock. Together, the data show that the *nup42Δ* mutant behaves like wild type after mild heat or NaCl treatment but not after a severe 25-42°C heat shock.