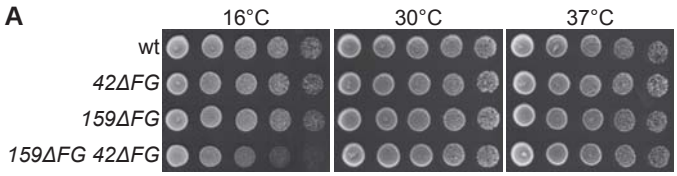

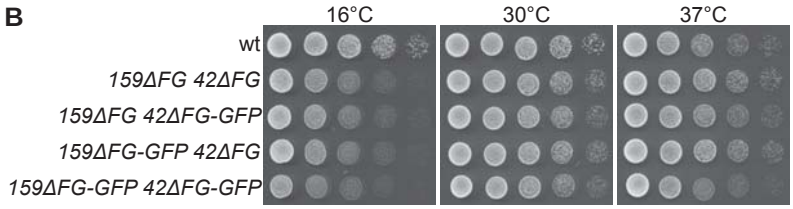

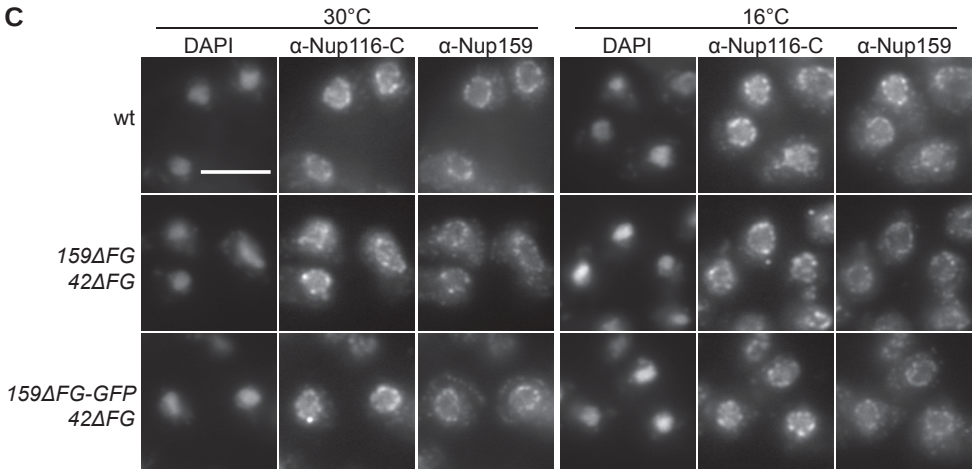

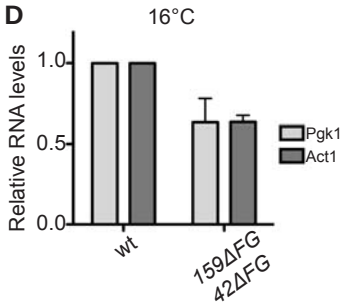

Figure S1 The cold-sensitive mRNA export defect of *nup42ΔFG nup159ΔFG* is not due to mislocalized or non-functional nup42 and nup159 proteins or altered poly(A)+ RNA levels. (A) Deletion of both Nup42 and Nup159 FG domains results in a growth defect at cold temperatures. Yeast strains were grown at 30° and five-fold serially diluted on YPD plates for growth at the indicated temperature. (B) GFP fusions of nup42ΔFG and nup159ΔFG do not result in enhanced growth defects. Yeast strains were grown at 30° and five-fold serially diluted on YPD plates for growth at the indicated temperature. (C) nup159ΔFG and nup159ΔFG-GFP localize to the nuclear envelope at the permissive and restrictive temperatures. Indicated strains were grown at 30°, shifted to 16° or 30° overnight, and processed for immunofluoresence using the indicated antibodies. DAPI staining marks the nucleus. Scale bar, 5μm. (D) Steady-state levels of poly-adenylated transcripts are decreased in *nup42ΔFG nup159ΔFG*. Indicated strains were grown at 30°, shifted to 16° or 30° overnight, and total RNA was isolated. Q-PCR analysis of the resulting cDNA was performed for *Pgk1*, and *Act1*, and normalized to the non-poly-adenylated *Scr1* RNA. Wt levels were set to 1.0, and error bars indicate SEM of triplicate biological replicates. Levels are likely decreased due to feedback mechanisms that reduce transcription in mRNA export mutants.