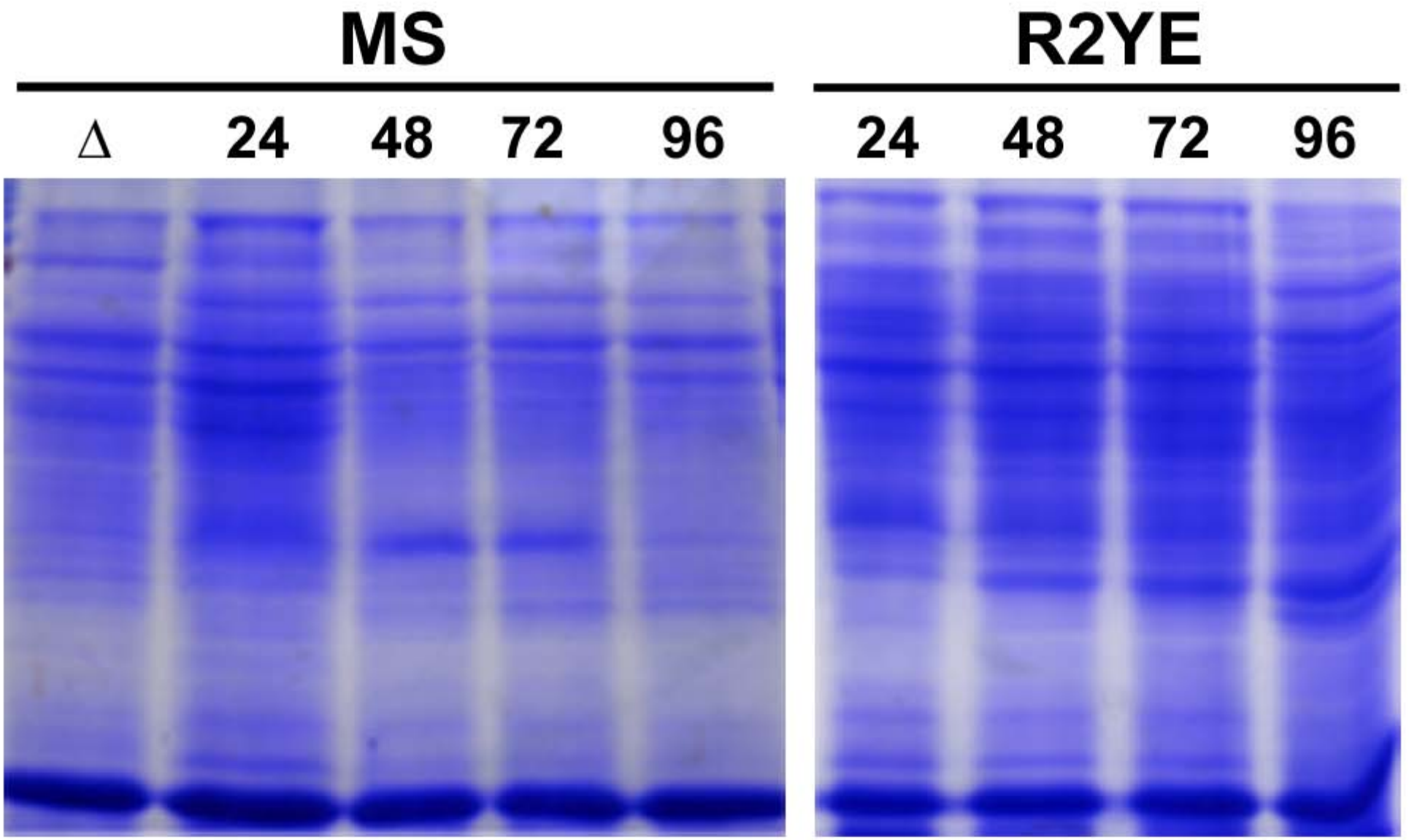

Figure S1: Total protein extract loading control for sIHF expression analysis. Protein extracts were separated on a 12.5% polyacrylamide gel and stained with Coomassie Brilliant Blue.

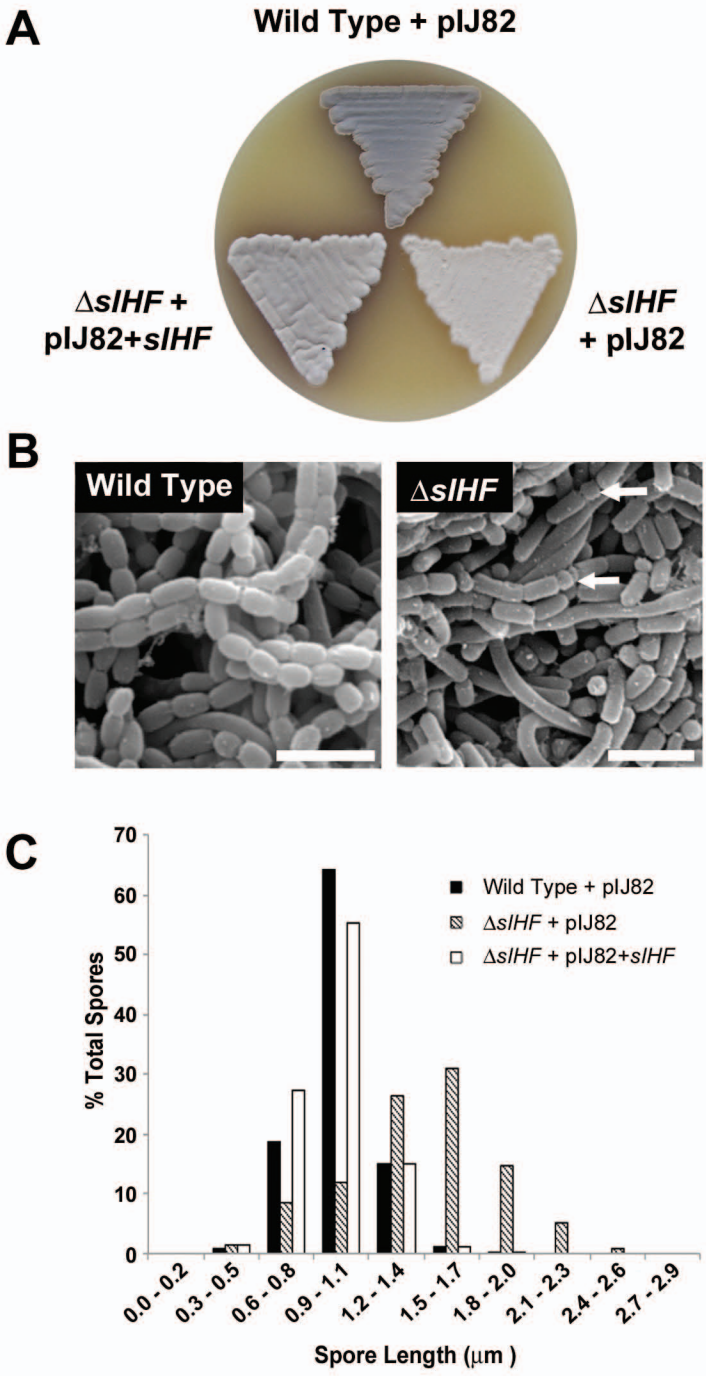

Figure S2. Developmental defects of the *S. coelicolor slHF* deletion mutant. **(A)** Plasmid-containing wild type and *slHF* deletion strains, together with the complementation strain, grown on MS agar medium for 5 days. **(B)** SEM images of wild type and the *slHF* deletion strain spores after 5 days of growth on MS agar. Scale bar represents 2.5 μm (for all images). **(C)** Comparison of spore lengths of wild type, Δ*slHF* mutant and complementation strains, as determined from light microscopy images. Between 1,000 and 1,100 spores were measured for each strain, and lengths were rounded to the nearest 0.1 μm.

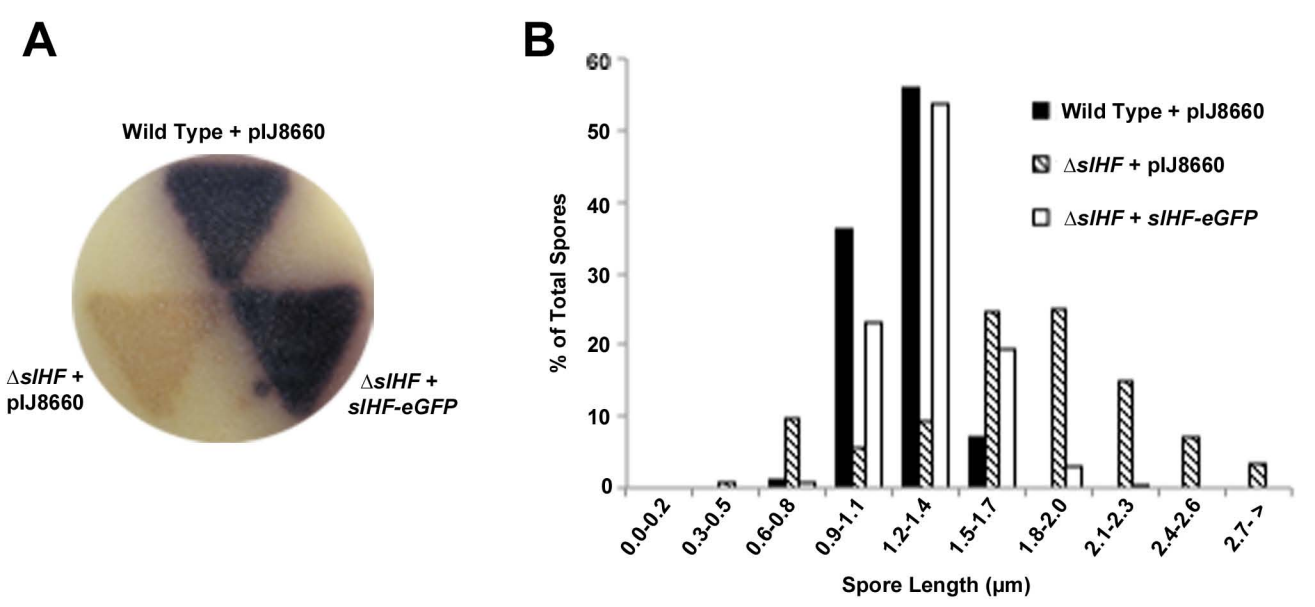

Figure S3: Complementation of Δ*slHF* with *slHF-eGFP*. (A) Wild type, Δ*slHF* (both carrying pIJ8660) and the *slHF-eGFP* complementation strains grown on MS agar for 6 days. Image is taken from the underside of the plate to show the complementation of antibiotic production. (B) Spore length measurements of wild type, Δ*slHF* (both carrying pIJ8660) and the *slHF-eGFP* complementation strains. A total of 300 spores were measured.

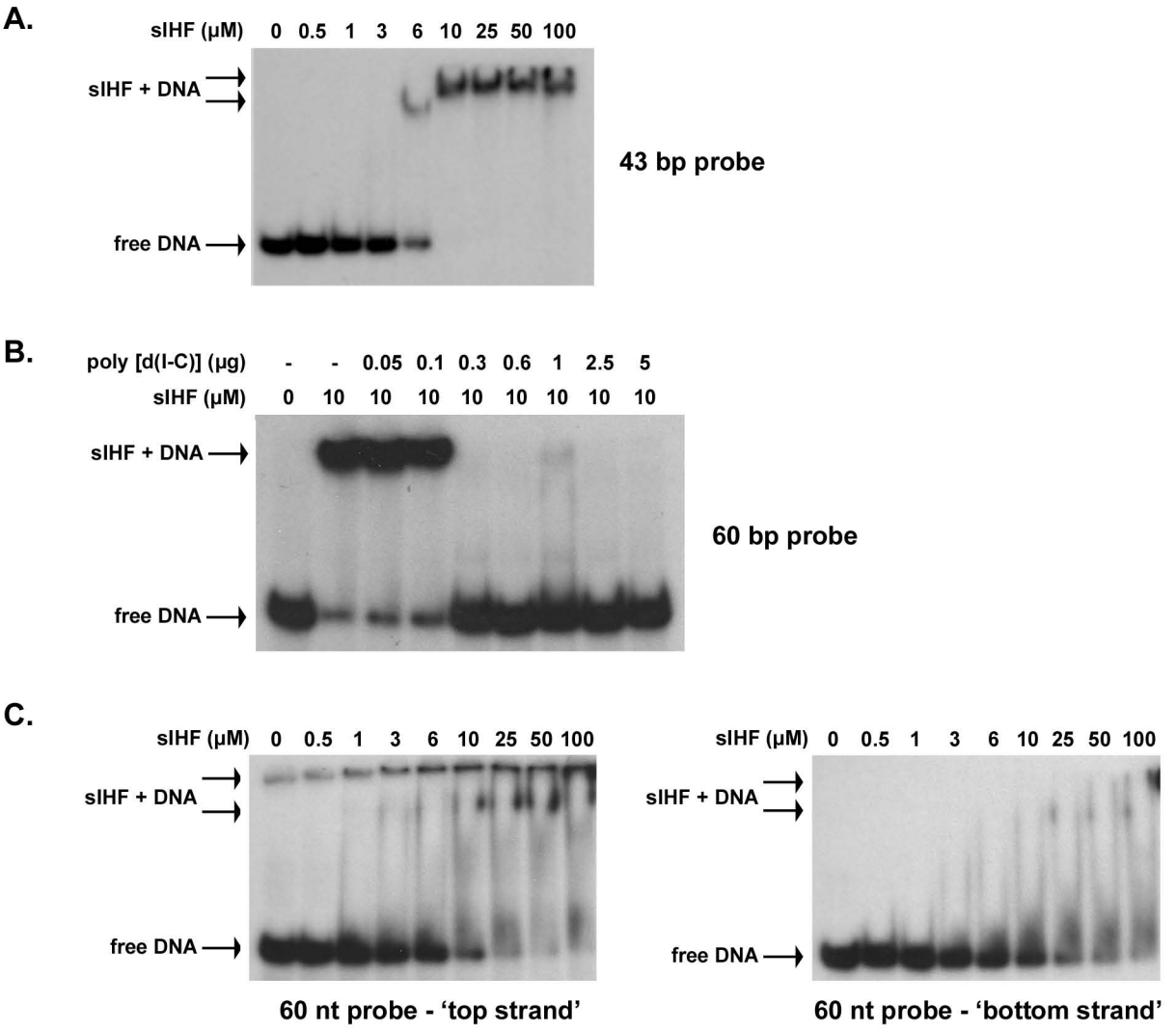

Figure S4: DNA binding by sIHF. **(A)** Electrophoretic mobility shift assay (EMSA) showing sIHF binding to a 43 bp probe. Increasing concentrations of sIHF were added as indicated. **(B)** EMSA showing the effect of increasing poly(dI-dC) concentrations on sIHF-60bp probe complexes. **(C)** EMSAs showing the binding affinity of sIHF to both single strands of the 60 bp dsDNA probe, as indicated, in the presence of increasing concentrations of sIHF.

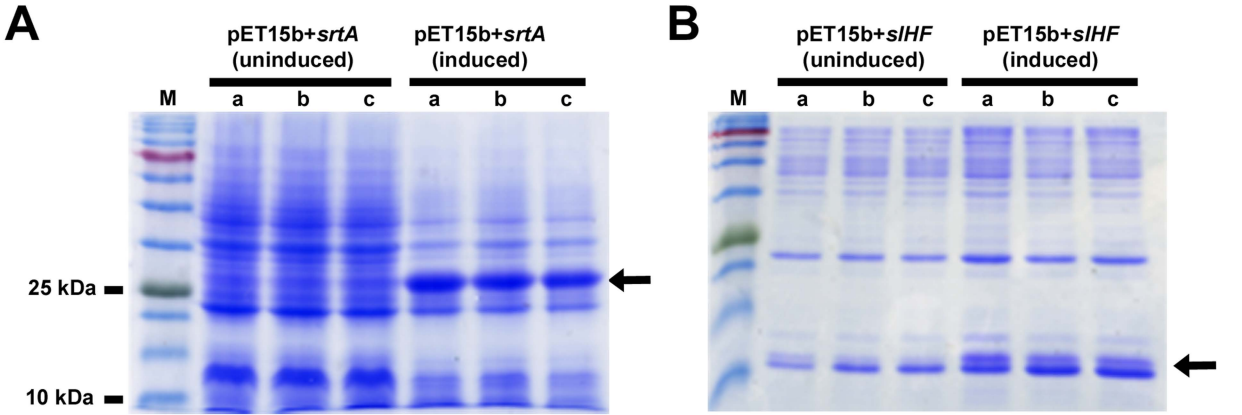

Figure S5: SrtA and sIHF expression post-induction. Protein extracts from cultures where SrtA or sIHF expression was either induced or uninduced (control) were prepared 8 hours post induction. Equivalent amounts of protein extracts from three separate uninduced and induced cultures (a, b, c) were separated on polyacrylamide gels and stained with Coomassie Brilliant Blue to confirm SrtA **(A)** or sIHF **(B)** expression. Arrows indicate the protein band of interest. First lane of each gel contains a marker (M).