



**Fig. S1. NE569 (*sucC*) HoR mutants contain RSH (*relA*) and *relQ* mutations. A.** Population analysis profiling of JE2, *sucC* HoR1 and *sucC* HoR2 grown in BHI broth to exponential phase, adjusted to OD<sub>600</sub> of 1 and serially diluted before plating onto BHI agar supplemented with increasing concentrations of oxacillin (0-100 mg/ml) for enumeration of CFUs. This assay was repeated three times and data from a representative experiment is shown. **B.** *relA-dtd-lytH* operon in *S. aureus* and RSH (RelA) domain architecture including the location of the 1bp deletion in *sucC* HoR1 and the Tn insertion in NE1714. **C.** Location of A178V mutation in ppGpp synthase domain of RelQ in strain *sucC* HoR2.