

**Table S1 Strains Used in This Study**

NAME	GENOTYPE	SOURCE
C61	<i>yA1 nicB8 pyroA4 niiA4 riboB2 veA1</i>	(Dowzer and Kelly 1991)
CDS36	<i>sonB1 nimA1 pyrG89 wA veA1</i>	(De Souza <i>et al.</i> 2003)
CDS364	<i>sonB1 pyroA4 wA3 veA1</i>	(De Souza <i>et al.</i> 2006)
CDS509	<i>sonA1 pyroA4 wA3 yA2<sup>1</sup> veA1</i>	This study
JLA1	<i>nimA1 pyrG89 wA2/wA3<sup>1</sup> yA2<sup>1</sup> veA1</i>	This study
JLA73	<i>nimA1 mutant D pyrG89 wA2/wA3<sup>?</sup> yA2<sup>1</sup> veA1</i>	This study
JLA75	<i>nimA1 mutant F pyrG89 wA2/wA3<sup>1</sup> yA2<sup>1</sup> veA1</i>	This study
JLA77	<i>nimA1 mutant C (sonC1) pyrG89 wA2/wA3<sup>1</sup> yA2<sup>1</sup> veA1</i>	This study
JLA78	<i>nimA1 mutant E pyrG89 wA2/wA3<sup>1</sup> yA2<sup>1</sup> veA1</i>	This study
JLA184	<i>nimA1 mutant 89 pyrG89 wA2/wA3<sup>?</sup> yA2<sup>1</sup> veA1</i>	This study
JLA185	<i>nimA1 sonA2 pyrG89 wA2/wA3<sup>1</sup> yA2<sup>1</sup> veA1</i>	This study
JLA227	<i>sonA2 riboB2 pyroA4 yA2 wA2/wA3<sup>1</sup> veA1</i>	This study
JLA255	<i>nimA1 sonA3 pyrG89 wA2/wA3<sup>1</sup> yA2<sup>1</sup> veA1</i>	This study
JLA263	<i>mag1-GFP::pyrG<sup>Af</sup> pyrG89 nkuAΔ::argB argB2 pyroA4 SE15</i> <i>nirA14 chaA1 wA3 fwA1 veA1</i>	This study
JLA264	<i>mag1Δ::pyrG<sup>Af</sup> pyrG89 argB2 nirA14<sup>1</sup> wA3 chaA1<sup>1</sup> fwA1<sup>1</sup> yA2<sup>1</sup></i> <i>veA1</i>	This study
JLA265	<i>sonC-GFP::pyrG<sup>Af</sup> pyrG89 argB2 wA3 nirA14<sup>1</sup> yA2<sup>1</sup> chaA1<sup>1</sup></i> <i>fwA1<sup>1</sup> veA1</i>	This study
JLA268	<i>sonA3 wA3 yA2<sup>1</sup> veA1</i>	This study
JLA319	<i>sonC-GFP::pyrG<sup>Af</sup> H1-mCherry::pyro<sup>Af</sup> pyroA4<sup>1</sup> pyrG89 argB2</i> <i>wA3 yA2<sup>1</sup> chaA1<sup>1</sup> fwA1<sup>1</sup> veA1</i>	This study
JLA324	<i>sonC-GFP::pyrG<sup>Af</sup> bop1-mCherry::pyrG<sup>Af</sup> pyrG89 argB2</i> <i>nirA14<sup>1</sup> wA3 yA2<sup>1</sup> chaA1<sup>1</sup> fwA1<sup>1</sup> veA1</i>	This study
JLA325	<i>sonC-GFP::pyrG<sup>Af</sup> pol I-mCherry::pyrG<sup>Af</sup> pyrG89 argB2 nirA14<sup>1</sup></i> <i>wA3 yA2<sup>1</sup> chaA1<sup>1</sup> fwA1<sup>1</sup> veA1</i>	This study
KF018	<i>nimA-GFP::pyrG<sup>Af</sup> H1-mCherry::pyro<sup>Af</sup> nirA14<sup>1</sup></i> <i>sE15<sup>1</sup> wA3 veA1</i>	This study

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KF110	<i>nimA-GFP::pyrG<sup>AF</sup> nup170-mCherry::pyroA<sup>AF</sup> ΔnKuA::argB argB2 wA3 veA1</i>	This study
KF120	<i>nimA-GFP::pyrG<sup>AF</sup> pyrG89 fib-mCherry::pyrG<sup>AF</sup> wA3 veA1</i>	This study
KF122	<i>nimA-GFP::pyrG<sup>AF</sup> pyrG89 topo1-mCherry::pyrG<sup>AF</sup> pyroA4 argB2 wA3 veA1</i>	This study
LPW29	<i>nimA1 sonA1 riboA1/riboB2<sup>1</sup> pyrG89 wA2 veA1</i>	(Wu <i>et al.</i> 1998)
LU178	<i>cgrA-GFP::pyrG<sup>AF</sup> H1-mCherry::pyrG<sup>AF</sup> pyrG89 argB2 wA3 nirA14<sup>1</sup> fwaA1<sup>1</sup> chaA1<sup>1</sup> veA1</i>	(Ukil <i>et al.</i> 2009)
LU193	<i>bop1-GFP::pyrG<sup>AF</sup> H1-mCherry::pyrG<sup>AF</sup> pyrG89 argB2 wA3 SE15 pabaA1 pyroA4 nirA14<sup>1</sup> fwaA1<sup>1</sup> chaA1<sup>1</sup> veA1</i>	(Ukil <i>et al.</i> 2009)
R153	<i>pyroA4 wA3 veA1</i>	C. F. Roberts
SO369	<i>sonA1 pyrG89 wA2 nicA2 veA1</i>	This study

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<sup>1</sup> In some strains we have not confirmed some markers that could be covered by or are recessive to other markers in the strain.