

**Table S1. Bacterial strains used in this study**

Strain	Genotype	Source/Reference
DH5 $\alpha$	<i>E. coli supE44 <math>\Delta</math>lacU169 (<math>\phi</math>80lacZDM15) hsdR17 recA1 endA1 gyrA96 thi-1 relA1</i>	Invitrogen
DH5 $\alpha$ /pRK212.1	DH5 $\alpha$ with conjugation transfer element	(3)
BL21 (DE3)	<i>E. coli fhuA2 [lon] ompT gal (<math>\lambda</math> DE3) [dcm] <math>\Delta</math>hsdS <math>\lambda</math> DE3 = <math>\lambda</math> sBamHIo <math>\Delta</math>EcoRI-B int::(lacI::PlacUV5::T7 gene1) i21 <math>\Delta</math>nin5</i>	New England Biolabs
XL1-Blue	F <sup>'</sup> ::Tn10 proA <sup>+</sup> B <sup>+</sup> lacI <sup>q</sup> $\Delta$ (lacZ)M15/recA1 endA1 gyrA96 (Nal <sup>r</sup> ) thi hsdR17 (rK <sup>-</sup> mK <sup>+</sup> ) glnV44 relA1 lac	(4)
DRH212	81-176 rpsL <sup>Sm</sup>	(1)
DRH2077	81-176 rpsL <sup>Sm</sup> $\Delta$ fliF	(5)
DRH2257	81-176 rpsL <sup>Sm</sup> $\Delta$ astA $\Delta$ fliI	(6)
DRH3302	81-176 rpsL <sup>Sm</sup> fliM::cat-rpsL	This study
DRH5332	81-176 rpsL <sup>Sm</sup> $\Delta$ fliH fliI::cat-rpsL	This study
DRH6363	81-176 rpsL <sup>Sm</sup> $\Delta$ fliM/pDRH6346	This study
DRH6411	81-176 rpsL <sup>Sm</sup> $\Delta$ fliH fliS::cat-rpsL	This study
DRH6432	81-176 rpsL <sup>Sm</sup> $\Delta$ fliM $\Delta$ fliN	This study
DRH6478	81-176 rpsL <sup>Sm</sup> $\Delta$ fliM $\Delta$ fliY/pDRH6346	This study
DRH6509	81-176 rpsL <sup>Sm</sup> $\Delta$ fliY/pDRH6472	This study
DRH6521	81-176 rpsL <sup>Sm</sup> $\Delta$ fliH/pDRH6456	This study
DRH6529	81-176 rpsL <sup>Sm</sup> $\Delta$ astA $\Delta$ fliI/pDRH6458	This study
DRH6542	81-176 rpsL <sup>Sm</sup> $\Delta$ fliM $\Delta$ fliY/pDRH6472	This study
DRH6609	81-176 rpsL <sup>Sm</sup> $\Delta$ fliY fliN::cat-rpsL	This study
DRH6630	81-176 rpsL <sup>Sm</sup> $\Delta$ fliY $\Delta$ fliN	This study
DRH6664	81-176 rpsL <sup>Sm</sup> $\Delta$ fliM $\Delta$ fliN/pDRH6461	This study
DRH6661	81-176 rpsL <sup>Sm</sup> $\Delta$ fliM $\Delta$ fliN/pDRH6346	This study
DRH6670	81-176 rpsL <sup>Sm</sup> $\Delta$ fliY $\Delta$ fliN/pDRH6472	This study
DRH6673	81-176 rpsL <sup>Sm</sup> $\Delta$ fliY $\Delta$ fliN/pDRH6461	This study
DRH6676	81-176 rpsL <sup>Sm</sup> $\Delta$ fliH fliY::kan-rpsL	This study
DRH6713	81-176 rpsL <sup>Sm</sup> $\Delta$ fliY $\Delta$ fliH	This study
DRH6723	81-176 rpsL <sup>Sm</sup> $\Delta$ fliY $\Delta$ fliH/pDRH6472	This study
DRH6726	81-176 rpsL <sup>Sm</sup> $\Delta$ fliY $\Delta$ fliH/pDRH6456	This study
DRH6856	81-176 rpsL <sup>Sm</sup> $\Delta$ fliY/pDRH6461	This study
DRH6871	81-176 rpsL <sup>Sm</sup> $\Delta$ fliH fliN::kan	This study
DRH7057	81-176 rpsL <sup>Sm</sup> $\Delta$ fliH fliN::kan/pDRH6461	This study
DRH7060	81-176 rpsL <sup>Sm</sup> $\Delta$ fliH fliN::kan/pDRH6456	This study
CRG479	81-176 rpsL <sup>Sm</sup> /pDAR964	(7)
CRG1004	81-176 rpsL <sup>Sm</sup> $\Delta$ fliM	This study
CRG1005	81-176 rpsL <sup>Sm</sup> $\Delta$ fliM	This study
CRG1760	81-176 rpsL <sup>Sm</sup> $\Delta$ fliM fliN::cat-rpsL	This study

JMB544	81-176 <i>rpsL</i> <sup>Sm</sup> $\Delta$ <i>fliH</i>	This study
JMB1242	81-176 <i>rpsL</i> <sup>Sm</sup> $\Delta$ <i>fliG</i>	(5)
JMB1903	81-176 <i>rpsL</i> <sup>Sm</sup> $\Delta$ <i>astA</i> $\Delta$ <i>fliG</i> /pJMB1746	(5)
JMB2046	81-176 <i>rpsL</i> <sup>Sm</sup> $\Delta$ <i>astA</i> $\Delta$ <i>fliF</i> /pJMB2032	(5)
SNJ311	81-176 <i>rpsL</i> <sup>Sm</sup> <i>fliH::cat-rpsL</i>	This study
WPK611	81-176 <i>rpsL</i> <sup>Sm</sup> <i>fliY::kan-rpsL</i>	This study
WPK633	81-176 <i>rpsL</i> <sup>Sm</sup> <i>fliN::kan</i>	This study
WPK662	81-176 <i>rpsL</i> <sup>Sm</sup> $\Delta$ <i>fliY</i>	This study
WPK663	81-176 <i>rpsL</i> <sup>Sm</sup> $\Delta$ <i>fliY</i>	This study
WPK672	81-176 <i>rpsL</i> <sup>Sm</sup> $\Delta$ <i>fliM</i> $\Delta$ <i>fliY</i>	This study