

Table S1 Bacterial strains and plasmids used in this study

Strain or plasmid	Genotype or properties	Reference
<i>S. maltophilia</i>		
KJ	A clinical quinolone-susceptible isolate	Hu et al. 2008
KJ Δ DEF	<i>S. maltophilia</i> KJ mutant of <i>smeDEF</i> operon; Δ <i>smeDEF</i>	Huang et al. 2017
KJ Δ 5	<i>S. maltophilia</i> KJ mutant of <i>smeUIVWU2X</i> operon; Δ <i>smeUIVWU2X</i>	Chen et al. 2011
KJ Δ Qnr	<i>S. maltophilia</i> KJ mutant of <i>Smqnr</i> ; Δ <i>Smqnr</i>	Chang et al. 2011
KJ Δ RpoE	<i>S. maltophilia</i> KJ mutant of <i>rpoE</i> ; Δ <i>rpoE</i>	Huang et al. 2014
KJ Δ RseA	<i>S. maltophilia</i> KJ mutant of <i>rseA</i> ; Δ <i>rseA</i>	Huang et al. 2014
KJ Δ RpoE Δ RseA	<i>S. maltophilia</i> KJ mutant of <i>rseA</i> and <i>rpoE</i> ; Δ <i>rseA</i> , Δ <i>rpoE</i>	Huang et al. 2014
V53	A clinical quinolone-resistant isolate	This study
V53 Δ DEF	<i>S. maltophilia</i> V53 mutant of <i>smeDEF</i> operon; Δ <i>smeDEF</i>	This study
V63	A clinical quinolone-resistant isolate	This study
V63 Δ DEF	<i>S. maltophilia</i> V63 mutant of <i>smeDEF</i> operon; Δ <i>smeDEF</i>	This study
V82	A clinical quinolone-resistant isolate	This study
V82 Δ DEF	<i>S. maltophilia</i> V82 mutant of <i>smeDEF</i> operon; Δ <i>smeDEF</i>	This study
V99	A clinical quinolone-resistant isolate	This study
V99 Δ 5	<i>S. maltophilia</i> V99 mutant of <i>smeUIVWU2X</i> operon; Δ <i>smeUIVWU2X</i>	This study
V47	A clinical quinolone-resistant isolate	This study
V47 Δ DEF	<i>S. maltophilia</i> V47 mutant of <i>smeDEF</i> operon; Δ <i>smeDEF</i>	This study
V47 Δ 5	<i>S. maltophilia</i> V47 mutant of <i>smeUIVWU2X</i> operon; Δ <i>smeUIVWU2X</i>	This study
V47 Δ DEF Δ 5	<i>S. maltophilia</i> V47 mutant of <i>smeDEF</i> and <i>smeUIVWU2X</i> operons; Δ <i>smeDEF</i> , Δ <i>smeUIVWU2X</i>	This study
V47 Δ Smqnr	<i>S. maltophilia</i> V47 mutant of <i>Smqnr</i> ; Δ <i>Smqnr</i>	This study
V47 Δ RpoE	<i>S. maltophilia</i> V47 mutant of <i>rpoE</i> ; Δ <i>rpoE</i>	This study
V84	A clinical quinolone-resistant isolate	This study
V84 Δ RpoE	<i>S. maltophilia</i> V84 mutant of <i>rpoE</i> ; Δ <i>rpoE</i>	This study
V61	A clinical quinolone-resistant isolate	This study
V61 Δ RpoE	<i>S. maltophilia</i> V61 mutant of <i>rpoE</i> ; Δ <i>rpoE</i>	This study
<i>E. coli</i>		
DH5a	F- ϕ 80d/ <i>acZAM15</i> Δ (<i>lacZYA-argF</i>) <i>U169 deoR recA1 endA1 hsdR17</i> (<i>r_k⁻ m_k⁺</i>) <i>phoA supE44λ</i>	Invitrogen

S17-1	<i>thi-1 gyrA96 relA1</i> λ pir ⁺ mating strain	Simon et al. 1986
Plasmids		
pEX18Tc	<i>sacB oriT</i> , Tc ^r	Hoang et al. 1998
pRK415	Mobilizable broad-host-range plasmid cloning vector, RK2 origin; Tc ^r	Keen et al. 1988
pΔDEF	pEX18Tc with an internal-deletion <i>smeDEF</i> operon; Tc ^r	Huang et al. 2017
pΔ5	pEX18Tc with an internal-deletion <i>smeUIVWU2X</i> operon; Tc ^r	Chen et al. 2011
pΔQnr	pEX18Tc with an internal-deletion <i>smqnr</i> gene; Tc ^r	Chang et al. 2011
pΔRpoE	pEX18Tc with an internal-deletion <i>rpoE</i> gene; Tc ^r	Huang et al. 2014
pΔRseA	pEX18Tc with an internal-deletion <i>rseA</i> gene; Tc ^r	Huang et al. 2014
pRpoH	pRK415 with an intact <i>rpoH</i> gene; Tc ^r	This study
pSmqnrC	pRK415 with an intact <i>SmqnrR-Smqnr</i> cluster; Tc ^r	This study

- Chang, Y. C., Tsai, M. J., Huang, Y. W., Chung, T. C., and Yang, T. C. (2011). SmeQnrR, a DeoR-type transcriptional regulator, negatively regulates the expression of *Smqnr* and *SmtcrA* in *Stenotrophomonas maltophilia*. *J. Antimicrob. Chemother.* 66, 1024-1028.
- Chen, C. H., Huang, C. C., Chung, T. C., Hu, R. M., Huang, Y. W., and Yang, T. C. (2011). Contribution of resistance-nodulation-division efflux pump operon *smeUI-V-W-U2-X* to multidrug resistance of *Stenotrophomonas maltophilia*. *Antimicrob. Agents Chemother.* 55, 5826-5833.
- Hoang, T. T., Karkhoff-Schweizer, R. R., Kutchma, A. J., and Schweizer, H. P. (1998). A broad-host-range FLP-FRT recombination system for site-specific excision of chromosomally-located DNA sequences: application for isolation of unmarked *Pseudomonas aeruginosa* mutants. *Gene.* 212, 77-86.
- Hu, R. M., Huang, K. J., Wu L. T., Hsiao, Y. J., and Yang, T. C. (2008). Inductin of L1 and L2 β-lactamases of *Stenotrophomonas maltophilia*. *Antimicrob. Agents Chemother.* 52, 1198-1200.
- Huang, Y. W., Lin, C. W., Ning, H. C., Lin, Y. T., Chang, Y. C., and Yang, T. C. (2017). Overexpression of SmeDEF efflux pump decrease aminoglycoside resistance in *Stenotrophomonas maltophilia*. *Antimicrob. Agents Chemother.* 61, e02685-16.
- Huang, Y. W., Liou, R. S., Lin, Y. T., Huang, H. H., and Yang, T. C. (2014). A linkage between

SmeIJK efflux pump, cell envelope integrity, and σ^E -mediated envelope stress response in *Stenotrophomonas maltophilia*. *PLoS One* 9, e111784.

Keen, N. T., Tamaki, S., Kobayashi, D., and Trollinger, D. (1988). Improved broad-host-range plasmids for DNA cloning in gram-negative bacteria. *Gene*. 70, 191-197.

Simon, R., O'Connell, M., Labes, M., and Puhler, A. (1986). Plasmid vectors for the genetic analysis and manipulation of rhizobia and other gram-negative bacteria. *Methods Enzymol.* 118, 640-659.