

Supplemental Table 5. Strains and plasmids used in this study.

Strain	Genotype or description	Source or reference
Strains		
<i>E. coli</i>		
Top10	Routine cloning host	Lab stock
DH5 α	Routine cloning host	Lab stock
<i>E. faecalis</i>		
OG1	Wild-type laboratory strain isolate (MLST 1)	1
SB23	OG1 Δ <i>croR</i>	2
SB35	OG1 Δ (<i>croR croS</i>)	3
ST4	OG1 <i>pbp4(5)</i> ATAA promoter mutant (4 nucleotide substitutions: ATAA)	This work
JL339	OG1 Δ <i>pbp4(5)</i>	4
V583	Vancomycin-resistant clinical isolate (MLST 6)	5
CK221	V583 Δ <i>ermB</i> (Erm ^S)	6
SB45	CK221 Δ <i>croR</i>	7
ST8	CK221 <i>pbp4(5)</i> ATAA promoter mutant (4 nucleotide substitutions: ATAA)	This work
JL640	CK221 Δ <i>pbp4(5)</i>	8
T1	Wild-type (MLST 21), CDC reference strain	9
SB29	T1 Δ <i>croR</i>	6
JL632	OG1 Δ <i>pbpA(2b)</i>	8
SB77	OG1 Δ OG1RF_RS05215	This work
SK129	OG1 Δ OG1RF_RS12755	This work
SB93	OG1 Δ OG1RF_RS02555	This work
8N14	OG1RF OG1RF_RS03660:: <i>Tn</i>	10
13D12	OG1RF OG1RF_RS05550:: <i>Tn</i>	10
2M10	OG1RF OG1RF_RS05565:: <i>Tn</i>	10
7B1	OG1RF OG1RF_RS05385:: <i>Tn</i>	10
25M20	OG1RF OG1RF_RS05555:: <i>Tn</i>	10
Plasmids		
pCI3340	<i>E. coli</i> - <i>E. faecalis</i> shuttle vector (Cm ^r)	11
pSLK234	Promoterless <i>lacZ</i> in pCI3340	12
pJLL170	<i>P_{croR}'-lacZ</i> in pCI3340 (includes 240bp upstream of the translational start site)	12
pSBT3	<i>P_{pbp2}'-lacZ</i> in pCI3340 (includes 400bp upstream of the translational start site)	This work
pSBT8	<i>P_{pbp5}'-lacZ</i> in pCI3340 (includes 154bp upstream of the translational start site)	This work
pJRG8	<i>E. faecalis</i> expression vector (Erm ^r)	13
pJLL59	<i>P_{croR}-croR croS</i> in pJRG8	3
pSLB1	<i>P_{croR}-croR D52A croS</i> in pJRG8	3
pSBT23	<i>P_{pbp5}'-lacZ</i> in pCI3340 (includes 130bp upstream of the translational start site)	This work
pSBT24	<i>P_{pbp5}'-lacZ</i> in pCI3340 (includes 120bp upstream of the translational start site)	This work
pSBT25	<i>P_{pbp5}'-lacZ</i> in pCI3340 (includes 105bp upstream of the translational start site)	This work
pSBT26	<i>P_{pbp5}'-lacZ</i> in pCI3340 (includes 90bp upstream of the translational start site)	This work
pSBT29	pSBT25 with 8 nucleotide substitutions AAATAATT in CroR-dependent regulatory motif TTTATTAA	This work
pSBT30	pSBT25 with 6 nucleotide substitutions TAATAATA in CroR-dependent regulatory motif TTTATTAA	This work
pSBT31	pSBT25 with 4 nucleotide substitutions TTATAAAA in CroR-dependent regulatory motif TTTATTAA	This work
pSBT38	pJLL170 with 8 nucleotide substitutions AAATAATT in CroR-dependent regulatory motif TTTATTAA	This work
pJH086	<i>E. faecalis</i> allelic exchange vector (Cm ^r); <i>pheS</i> * counterselection	14
pSBT40	<i>pbp4(5)</i> promoter from OG1 with 4 nucleotide substitutions (ATAA) in pJH086	This work

pSBT64	<i>bbp4(5)</i> promoter from CK221 with 4 nucleotide substitutions (ATAA) in pJH086	This work
pJRG9	<i>E. faecalis</i> expression vector with constitutive P23s promoter (Cm ^r)	2
pJLL255	<i>bbp4(5)</i> from OG1 in pJRG9	This work
pCPN1	<i>OG1RF_RS05560</i> in pJRG9	This work
pJH123	<i>E. faecalis</i> expression vector with constitutive P23s promoter (Cm ^r)	13
pSLK245	<i>OG1RF_RS05565-HA</i> with C-terminal HA tag in pJH123	This work
pEAW9	<i>bbpA(2b)</i> from OG1 in pJRG9	8
pSLK239	<i>OG1RF_RS11270-HA</i> with C-terminal HA tag in pJH123	This work
pSLK238	<i>OG1RF_RS05340-HA</i> with C-terminal HA tag in pJH123	This work
pSLK237	<i>OG1RF_RS03825-HA</i> with C-terminal HA tag in pJH123	This work
pSLK241	<i>OG1RF_RS07205-HA</i> with C-terminal HA tag in pJH123	This work
pSLK243	<i>OG1RF_RS03660-HA</i> with C-terminal HA tag in pJH123	This work
pSLK244	<i>OG1RF_RS05215-HA</i> with C-terminal HA tag in pJH123	This work
pSLK250	<i>OG1RF_RS12755-HA</i> with C-terminal HA tag in pJH123	This work
pCJK245	<i>E. faecalis</i> allelic exchange vector (Cm ^r)	15
pSLB72	$\Delta OG1RF_RS05215$ ($\Delta L7$ -T268, 95% deletion) in pCJK245	This work
pSLB90	$\Delta OG1RF_RS02555$ ($\Delta K7$ -D380, 96% deletion) in pCJK245	This work
pSLK233	$\Delta OG1RF_RS12755$ ($\Delta K7$ -K532, 97% deletion) in pJH086	This work
pJLL286	<i>E. faecalis</i> expression vector with <i>P_{nisA}</i> nitrate-inducible promoter (Em ^r)	16
pJLL310	<i>bbpA(2b)</i> from OG1 in pJLL286	This work

Supplemental references

1. Gold, O. G., Jordan, H. V. & van Houte, J. The prevalence of enterococci in the human mouth and their pathogenicity in animal models. *Arch. Oral Biol.* **20**, 473-IN15 (1975).
2. Snyder, H., Kellogg, S. L., Skarda, L. M., Little, J. L. & Kristich, C. J. Nutritional Control of Antibiotic Resistance via an Interface between the Phosphotransferase System and a Two-Component Signaling System. *Antimicrob. Agents Chemother.* **58**, 957–965 (2014).
3. Kellogg, S. L. & Kristich, C. J. Functional Dissection of the CroRS Two-Component System Required for Resistance to Cell Wall Stressors in *Enterococcus faecalis*. *J. Bacteriol.* **198**, 1326–1336 (2016).
4. Kristich, C. J. & Little, J. L. Mutations in the β Subunit of RNA Polymerase Alter Intrinsic Cephalosporin Resistance in Enterococci. *Antimicrob. Agents Chemother.* **56**, 2022 (2012).
5. Sahm, D. F. *et al.* In vitro susceptibility studies of vancomycin-resistant *Enterococcus faecalis*. *Antimicrob. Agents Chemother.* **33**, 1588 (1989).
6. Djorić, D. & Kristich, C. J. Extracellular SalB contributes to intrinsic cephalosporin resistance and cell envelope integrity in *Enterococcus faecalis*. *J. Bacteriol.* (2017) doi:10.1128/JB.00392-17.
7. Djorić, D. & Kristich, C. J. Oxidative Stress Enhances Cephalosporin Resistance of *Enterococcus faecalis* through Activation of a Two-Component Signaling System. *Antimicrob. Agents Chemother.* (2015) doi:10.1128/aac.03984-14.
8. Djorić, D., Little, J. L. & Kristich, C. J. Multiple low-reactivity class B penicillin-binding proteins are required for cephalosporin resistance in enterococci. *Antimicrob. Agents Chemother.* **64**, (2020).
9. Maekawa, S., Yoshioka, M. & Kumamoto, Y. Proposal of a New Scheme for the Serological Typing of *Enterococcus faecalis* Strains. *Microbiol. Immunol.* **36**, 671–681 (1992).
10. Kristich, C. J. *et al.* Development and Use of an Efficient System for Random mariner Transposon Mutagenesis To Identify Novel Genetic Determinants of Biofilm Formation in the Core *Enterococcus faecalis* Genome. *Appl. Environ. Microbiol.* **74**, 3377 (2008).
11. Hayes, F., Daly, C. & Fitzgerald, G. F. Identification of the Minimal Replicon of *Lactococcus lactis* subsp. *lactis* UC317 Plasmid pCI305. *Appl. Environ. Microbiol.* **56**, 202 (1990).
12. Kellogg, S. L. & Kristich, C. J. Convergence of PASTA kinase and two component signaling in response to cell wall stress in *Enterococcus faecalis*. *J. Bacteriol.* (2018) doi:10.1128/JB.00086-18.

13. Kristich, C. J., Little, J. L., Hall, C. L. & Hoff, J. S. Reciprocal Regulation of Cephalosporin Resistance in *Enterococcus faecalis*. *MBio* **2**, (2011).
14. Kellogg, S. L., Little, J. L., Hoff, J. S. & Kristich, C. J. Requirement of the CroRS two-component system for resistance to cell wall-targeting antimicrobials in *Enterococcus faecium*. *Antimicrob. Agents Chemother.* (2017) doi:10.1128/AAC.02461-16.
15. Kristich, C. J., Djoric, D. & Little, J. L. Genetic Basis for Vancomycin-Enhanced Cephalosporin Susceptibility in Vancomycin-Resistant Enterococci Revealed Using Counterselection with Dominant-Negative Thymidylate Synthase. (2014) doi:10.1128/AAC.02001-13.
16. Mascari, C. A., Djoric, D., Little, J. L. & Kristich, C. J. Use of an Interspecies Chimeric Receptor for Inducible Gene Expression Reveals that Metabolic Flux through the Peptidoglycan Biosynthesis Pathway is an Important Driver of Cephalosporin Resistance in *Enterococcus faecalis*. *J. Bacteriol.* **204**, (2022).