

Table S1. Bacterial strains and plasmids used in this study

Strains	Designation in this study	Description	Source
<i>B. anthracis</i>			
Sterne 34F2	WT	Wild-type (pXO1 ⁺ pXO2 ⁻)	(1)
Δ <i>lcpB1</i>	<i>lcpB1</i>	Deletion of <i>lcpB1</i> (<i>bas1830</i>) nucleotides 1856993-1857982 in 34F2	This work
<i>lcpB2::apha3</i>	<i>lcpB2</i>	<i>lcpB2</i> (<i>bas0572</i>):: <i>apha3</i> transposon insertion at nucleotide 619533 in 34F2	This work
Δ <i>lcpB3</i>	<i>lcpB3</i>	Deletion of <i>lcpB3</i> (<i>bas0746</i>) nucleotides 798568-799746 in 34F2	This work
Δ <i>lcpB4</i>	<i>lcpB4</i>	Deletion of <i>lcpB4</i> (<i>bas3381</i>) nucleotides 3356447-3357475 in 34F2	This work
Δ <i>lcpC</i>	<i>lcpC</i>	Deletion of <i>lcpC</i> (<i>bas5115</i>) nucleotides 4995461-4994610 in 34F2	This work
<i>lcpD::aad9</i>	<i>lcpD</i>	<i>lcpD</i> (<i>bas5047</i>):: <i>aad9</i> transposon insertion at nucleotide 4919831 in 34F2	This work
Δ <i>sap</i>	<i>sap</i>	Deletion of <i>sap</i> (<i>bas0841</i>) nucleotides 896758-899063 in 34F2	(2)
Δ <i>eag</i>	<i>eag</i>	Deletion of <i>eag</i> (<i>bas0842</i>) nucleotides 899843-902414 in 34F2	(2)
<i>bslR::Sp</i>	<i>bslR</i>	<i>bslR</i> (<i>bas3463</i>)::Sp transposon insertion at nucleotide 3437623 in 34F2	This work
<i>bslU::Sp</i>	<i>bslU</i>	<i>bslU</i> (<i>bas2351</i>)::Sp transposon insertion at nucleotide 2351169 in 34F2	This work
<i>S. aureus</i>			
MSSA1112	WT (<i>S. aureus</i>)	Wild-type Methicillin sensitive <i>S. aureus</i> , clinical isolate	(3)
Δ <i>lcp</i>	Δ <i>lcp</i>	MSSA1112 lacking all three <i>lcp</i> genes	(4)
Plasmids	Designation in this study	Description	
pGC2- <i>lcpA_{Sa}</i>	<i>plcpA_{Sa}</i>	pGC2 (pT194-based) encoding <i>lcpA_{Sa}</i> (<i>msrR</i>)	(4)
pWWW412	vector	pEC194 derivative carrying the <i>hprK</i> promoter of <i>S. aureus</i> (Cm ^R)	(5)
pYC99	<i>plcpB2_{Ba}</i>	pWWW412 encoding <i>lcpB2_{Ba}</i> (<i>bas0572</i>)	This work
pYC105	<i>plcpB3_{Ba}</i>	pWWW412 encoding <i>lcpB3_{Ba}</i> (<i>bas0746</i>)	This work
pYC100	<i>plcpB1_{Ba}</i>	pWWW412 encoding <i>lcpB1_{Ba}</i> (<i>bas1830</i>)	This work
pYC103	<i>plcpB4_{Ba}</i>	pWWW412 encoding <i>lcpB4_{Ba}</i> (<i>bas3381</i>)	This work
pYC101	<i>plcpD_{Ba}</i>	pWWW412 encoding <i>lcpD_{Ba}</i> (<i>bas5047</i>)	This work
pYC102	<i>plcpC_{Ba}</i>	pWWW412 encoding <i>lcpC_{Ba}</i> (<i>bas5115</i>)	This work

Table S2. Primers used in this study

Name	Sequence ¹	Use
BAS0572 NdeI F	NNcatatgAACAAAGATACTCGAGCC	Expression of <i>lcpB2_{Ba}</i>
BAS0572 BamHI R	NNggatccTTATAATTTTTATGTTTCATTTTTATTTCG	Expression of <i>lcpB2_{Ba}</i>
BAS0746 XhoI F	NNctcgagCAAACCCATCTTTGCAAGAAAATAC	Expression of <i>lcpB3_{Ba}</i>
BAS0746 XhoI R	NNctcgagTTATTCATTGTCGTTAGACGATG	Expression of <i>lcpB3_{Ba}</i>
BAS1820 NdeI F	NNcatatgAGCTCTGAATTAGAACAAAATACGAG	Expression of <i>lcpB1_{Ba}</i>
BAS1830 BamHI R	NNggatccTTATTCATTTGAACTGATTTGGTG	Expression of <i>lcpB1_{Ba}</i>
BAS3381 XhoI F	NNctcgagAATCACTCTTCTTCAAGAGAAAGGAAA	Expression of <i>lcpB4_{Ba}</i>
BAS3381 XhoI R	NNctcgagTCAATTTTCTCAATCTCCTTTTC	Expression of <i>lcpB4_{Ba}</i>
BAS5047 NdeI F	NNcatatgGAAGAAGTTATTATCATCTCCAAA	Expression of <i>lcpD_{Ba}</i>
BAS5047 BamHI R	NNggatccTTATTGCTGATTTCTCATAATCCACTC	Expression of <i>lcpD_{Ba}</i>
BAS5115 NdeI F	NNcatatgAAAAAGAAAATTTATTTTGGGTAICTCGG	Expression of <i>lcpC_{Ba}</i>
BAS5115 BamHI R	NNggatccTACTTAGTCACTTCAAGATGCGTTC	Expression of <i>lcpC_{Ba}</i>
BAS0746 1kb up EcoRI F	TTTgaattcATTGCTGCTATTATGATGTTTCGTAC	Allelic replacement of <i>lcpB3_{Ba}</i>
BAS0746 1kb up XhoI R	TTTctcgagAACGACAATGAATAATAAGAAGCAG	Allelic replacement of <i>lcpB3_{Ba}</i>
BAS0746 1kb dn XhoI F	TTTctcgagCATTTCTGTACTCCTTCATTTGG	Allelic replacement of <i>lcpB3_{Ba}</i>
BAS0746 1kb dn XmaI R	TTTccggGTTACACAACCACCTACTTTACC	Allelic replacement of <i>lcpB3_{Ba}</i>
BAS1830 1kb up EcoRI F	TTTgaattcGTTTATTGATTGTGATGCAACAGGTG	Allelic replacement of <i>lcpB1_{Ba}</i>
BAS1830 1kb up XhoI R	TTTctcgagTCATAACCATTGCTCTCTTTCTC	Allelic replacement of <i>lcpB1_{Ba}</i>
BAS1830 1kb dn XhoI F	TTTctcgagATGAATAATAAAAAGATTGGCTTC	Allelic replacement of <i>lcpB1_{Ba}</i>
BAS1830 1kb dn XmaI R	TTTccgggCTTCATTAACATCTTACTTTCTAC	Allelic replacement of <i>lcpB1_{Ba}</i>
BAS3381 1kp up EcoRI F	TTTgaattcGGATGATGAAAAATTATTTGATGAG	Allelic replacement of <i>lcpB4_{Ba}</i>
BAS3381 1kp up XhoI R	TTTctcgagAGTGATTCTCCATATAATTATCCC	Allelic replacement of <i>lcpB4_{Ba}</i>
BAS3381 1kb dn XhoI F	TTTctcgagGGCGAAATGTCTGCTTTTTATTATG	Allelic replacement of <i>lcpB4_{Ba}</i>
BAS3381 1kb dn XmaI R	TTTccgggAATACTGATTCTGATGATGATGTCC	Allelic replacement of <i>lcpB4_{Ba}</i>
BAS5115 1kb up EcoRI F	AAAgattcTTAGCATTCTTCGAGGC	Allelic replacement of <i>lcpC_{Ba}</i>
BAS5115 1kb up NheI R	AAAgctagCCGAGTACCCAAAATAAAATTTCTTTTC	Allelic replacement of <i>lcpC_{Ba}</i>
BAS5115 1kb dn NheI F	AAAgctagCAAGAACGCATCTTGAAGTACTAA	Allelic replacement of <i>lcpC_{Ba}</i>
BAS5115 1kb dn XmaI R	AAAccgggTAAACGTGCTGGATCTCCC	Allelic replacement of <i>lcpC_{Ba}</i>

¹NN refers to random nucleotides incorporated for optimal restriction activity.
Restriction site sequence is denoted in lower-case.

References

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