

**Table S2. Strains, plasmids, and primers used in this study**

**Strains**

Strain	Genotype or description	Reference
<b><i>A. baumannii</i></b>		
ATCC 17978	cerebrospinal fluid isolate	(1)
EGA738	ATCC 17978 $\Delta elsL$ (ACX60_RS03475)	(2)
EGA739	ATCC 17978 $\Delta dt_{Ab}$ (ACX60_RS05685)	(2)
EGA740	ATCC 17978 $\Delta elsL \Delta dt_{Ab}$	This study
YDA350	ATCC 17978 with pYDE153 (vector)	This study
YDA475	EGA738 ( $\Delta elsL$ ) with pEGE305 (vector)	This study
YDA515	EGA738 ( $\Delta elsL$ ) with pYDE350 (P(IPTG)- <i>elsL</i> -3xFLAG)	This study
YDA516	EGA738 ( $\Delta elsL$ ) with pYDE351 (P(IPTG)- <i>ldcA</i> -3xFLAG)	This study
YDA519	EGA739 ( $\Delta dt_{Ab}$ ) with pEGE305 (vector)	This study
YDA518	EGA739 ( $\Delta dt_{Ab}$ ) with pYDE240 (P(IPTG)- <i>ldt_{Ab}</i> )	This study
YDA004	ATCC 17978 <i>attTn7::tetR-tetP-dcas9-rnnBT1-T7Te Gm<sup>r</sup></i>	(3)
YDA007	YDA004 with pYDE007 (non-targeting control)	(3)
YDA232	YDA004 with pYDE044 (sgRNA <sub><i>ldtAb</i></sub> )	This study
YDA549	YDA004 with pYDE381 (sgRNA <sub><i>blhA</i></sub> )	This study
YDA535	YDA004 with pYDE376 (sgRNA <sub><i>RS13190</i></sub> )	This study
YDA533	YDA004 with pYDE374 (sgRNA <sub><i>mIaF</i></sub> )	This study
YDA186	ATCC 17978 $\Delta elsL \text{ attTn7::tetR-tetP-dcas9-rnnBT1-T7Te Gm}^r$	This study
YDA281	YDA186 with pYDE007 (non-targeting control)	This study
YDA284	YDA186 with pYDE044 (sgRNA <sub><i>ldtAb</i></sub> )	This study
YDA550	YDA186 with pYDE381 (sgRNA <sub><i>blhA</i></sub> )	This study
YDA539	YDA186 with pYDE376 (sgRNA <sub><i>RS13190</i></sub> )	This study
YDA537	YDA186 with pYDE374 (sgRNA <sub><i>mIaF</i></sub> )	This study
YDA315	EGA740 ( $\Delta elsL \Delta dt_{Ab}$ ) <i>ampG</i> (W99*)	This study
YDA331	EGA740 ( $\Delta elsL \Delta dt_{Ab}$ ) <i>mpl</i> (A335T)	This study
YDA380	EGA740 ( $\Delta elsL \Delta dt_{Ab}$ ) <i>ltgF::IS</i>	This study
EGA516	ATCC 17978 $\Delta ampG$	(4)
EGA692	ATCC 17978 $\Delta pbp2$	(4)
YDA414	ATCC 17978 $\Delta elsL \Delta dt_{Ab} \Delta ampG$	This study
YDA411	ATCC 17978 $\Delta elsL \Delta ampG$	This study
AB5075-UW	bone isolate/osteomyelitis	(5)
AB07436	AB5075-UW <i>ltgF</i> 118::T26	(5)
AB03078	AB5075-UW <i>ampG</i> 117::T26	(5)
<b><i>E. coli</i></b>		
DH5 $\alpha$	<i>supE44 \Delta lacU169</i> ( $\phi$ 80 <i>lacZ</i> $\Delta$ M15) <i>hsdR17 recA1 endA1 gyrA96 thi-1 relA1</i>	(6)
DH5 $\lambda$ pir	DH5 $\alpha$ ( $\lambda$ pir) <i>tet::Mu recA</i>	(7)
XL1-blue	<i>recA1 endA1 gyrA96 thi-1 hsdR17 supE44 relA1 lac</i> [F' <i>proAB lac<sup>f</sup></i> $\Delta$ M15 Tn10 Tc']]	Stratagene

## Plasmids

Plasmid	Description	Reference
pUC18	<i>oriColE1</i> MCS Cb <sup>r</sup>	(8)
pSR47S	Conditionally replicating allele exchange plasmid, Km <sup>r</sup> ( <i>oriTRP4 oriR6K sacB</i> Km <sup>r</sup> )	(9)
pJB4648	Conditionally replicating allele exchange plasmid, Gm <sup>r</sup> ( <i>oriTRP4 oriR6K sacB</i> Gm <sup>r</sup> )	(9)
pEGE305	P(IPTG) shuttle vector ( <i>ori-pBR322 ori-pWH1277 bla::lacI<sup>q</sup>-T5lacP</i> , Tc <sup>r</sup> )	(4)
pYDE153	P(IPTG) shuttle vector ( <i>ori-pBR322 ori-pWH1277 bla::lacI<sup>q</sup>-T5lacP-MCS</i> , Tc <sup>r</sup> )	(2)
pDL1100	<i>Himar1 mariner</i> (Km <sup>r</sup> ) delivery plasmid, C9 transposase, <i>ori pSC101</i> Cb <sup>r</sup>	(2)
pYDE009	<i>dcas9</i> miniTn7 delivery plasmid ( <i>oriColE1</i> miniTn7:: <i>tetR-tetP-dcas9-rmBT1-T7Te</i> , Gm <sup>r</sup> , Cb <sup>r</sup> )	(3)
pYDE007	sgRNA delivery plasmid non-targeting control guide ( <i>ori-pBR322 ori-pWH1277 P<sub>J23119</sub>-sgRNA<sub>mrfp</sub>-terminator</i> , Cb <sup>r</sup> )	(3)
pYDE044	pYDE007 derivative with sgRNA <sub><i>ldtAb</i></sub>	This study
pYDE381	pYDE007 derivative with sgRNA <sub><i>blhA</i></sub>	This study
pYDE376	pYDE007 derivative with sgRNA <sub><i>RS13190</i></sub>	This study
pYDE374	pYDE007 derivative with sgRNA <sub><i>mIaF</i></sub>	This study
pEGE268	pSR47S:: <i>ΔelsL</i> allele exchange construct	(2)
pEGE271	pSR47S:: <i>ΔldtAb</i> allele exchange construct	(2)
pYDE388	pJB4648:: <i>ΔltgF</i> allele exchange construct	This study
pYDE231	pUC18:: <i>ldtAb</i>	This study
pYDE240	pEGE305:: <i>ldtAb</i> (P(IPTG)- <i>ldtAb</i> )	This study
pYDE350	pEGE305:: <i>elsL-3xFLAG</i> (P(IPTG)- <i>elsL-3xFLAG</i> )	This study
pYDE351	pEGE305:: <i>ldcA-3xFLAG</i> (P(IPTG)- <i>ldcA-3xFLAG</i> )	This study
pYDE342	pUC18:: <i>elsL</i> (XbaI hexameric sequence in-frame)	This study
pYDE063	pUC18:: <i>ldtAb</i> (XbaI hexameric sequence in-frame)	This study
pYDE343	pUC18:: <i>ldcA</i> (XbaI hexameric sequence in-frame)	This study
pYDE346	pUC18:: <i>elsL-3xFLAG</i>	This study
pYDE347	pUC18:: <i>ldcA-3xFLAG</i>	This study
pYDE386	pUC18:: <i>elsL-msGFP2</i>	This study
pYDE387	pUC18:: <i>ldtAb-msGFP2</i>	This study
pYDE389	pEGE305:: <i>elsL-msGFP2</i> (P(IPTG)- <i>elsL-msGFP2</i> )	This study
pYDE390	pEGE305:: <i>ldtAb-msGFP2</i> (P(IPTG)- <i>ldtAb-msGFP2</i> )	This study
pYDE281	pUC18:: <i>elsL-6xHis</i>	This study
pYDE324	pUC18:: <i>ldcA-6xHis</i>	This study
pYDE290	pET28b:: <i>elsL-6xHis</i>	This study
pYDE328	pET28b:: <i>ldcA-6xHis</i>	This study

## Oligonucleotide primers and gene fragment

Primer or fragment name	Sequence (5' – 3'; restriction site underlined if present)	RE site(s)
<b>Complementation and localization experiments</b>		
Bam-elsL-F	GATATCGGATCCAGTTGAGTTGATATAAGAGAAGAAATTCG	BamHI
Xba-elsL-R	GATCATTCTAGAGGTTAAAGATTGTTTCAGACAAATAAAC	XbaI
Bam-ldcA-F	GATATCGGATCCAGTTGAGTTGATATAAGAGAAGAAATTCGATGTCTCTGTTTCACTTAATTGC	BamHI
Xba-ldcA-R	GATCATTCTAGACATTTTAAGAACAGGATGACCGC	XbaI
ldtAb-BamHI-F	GATATCGGATCCGCTTATATGAAAATTCTTAAGGTTG	BamHI
ldtAb-XbaI-R	GATCATTCTAGATTCTAAGAATTTAACAGTTACGCC	XbaI
Ldt-OE-F	TGCATAGAATTCCAAAAGTCTACTGCAAGAAGAAACG	EcoRI
Ldt-OE-R	GCTGAACTGCAGGAAACAGAAGCTAAAATGCAAACC	PstI
elsL-C138S-F	TAGATTCAATTGTGAGCGGATAACAATTC	
elsL-C138S-R	GATCATTCGAATAGACCCATGTGACATTGGAAC	BstBI
msGFP2_F	GTCAGAATTC <sup>1</sup> TTAAGAAGGAGATATACATATGGATTCTACTGAATCTTTATTAC	EcoRI
msGFP2_R	A <sup>2</sup> ACTGCAGGTCTGGACATTTAAG	PstI
<b>Gene deletion</b>		
D-RS13100-up-F	TTCGTGGATCCCAGTAATACCGTGGACTTGAACAG	BamHI
D-RS13100-up-R	GGGAGGGTACCTGGTTTATACATAAAAACTTCCAAACAAC	KpnI
D-RS13100-dw-F	CTGAGGGTACCGATATCATTAAAGTGCCTAATTTATAG	KpnI
D-RS13100-dw-R	CTTGCGCGGCCGCCTTTGTAGTCTTTGATATTGTCC	NotI
<b>Overexpression and purification of elsL and ldcA</b>		
elsL-NcoI-FOR	TGCATACCATGGCTCAAATAGTTGAGTTGATATAAGAG	NcoI
elsL-his-EcoRI-REV	GATCATGAATTC <sup>1</sup> TTAGTGGTGGTGGTGGTGGTGGTAAAGATTGTTTCAGACAAATAAAC	EcoRI
ldcA-NcoI-FOR	TGCATACCATGGCATGATATACATTTCTGTTTCTGTTGTC	NcoI
ldcA-his-EcoRI-REV	GATCATGAATTC <sup>1</sup> TTAGTGGTGGTGGTGGTGGTGCATTTAAGAACAGGATGACCGCT	EcoRI
<b>CRISPRi</b>		
SGR29-F	TTACACTAGTAGCAGATACTTTATTAGGGTTCAGGTTTTAGAGCTAGAAATAGCAAG	SpeI
SGR45-F	TTACACTAGTTTGATAAGCATGACGGACAGCTTCGTTTTAGAGCTAGAAATAGCAAG	SpeI
SGR60-F	TTACACTAGTCGCTGTAATTGTTCTAACATAACGGTTTTAGAGCTAGAAATAGCAAG	SpeI
SGR58-F	TTACACTAGTAGAGAGGAGTTTTATTATTCATAAGTTTTAGAGCTAGAAATAGCAAG	SpeI
SGR-R (BglII) (ref. 3)	AAGTGGGCCCCAGATCTAAGCTTCAAAAAAAGCACCGAC	Apal, BglII
<b>Gene fragment</b>		
msGFP2 (for C-terminal fusion, codon optimized)	AGTTCGTCTAGAGGCGGCGGCGGCGGCATGGATTCTACTGAATCTTTATTCACTGGTGTGT TCCAATTTTAGTTGAATTAGATGGTGTGTTAACGGTCACAAATCTCTGTTTCGTGGTGAAGG TGAAGGTGATGCTACTAACGGTAAATTAACCTTTAAAATTCATTTGACTACTGGTAAATTACCA GTTCCATGGCCAACCTTTAGTTACTACTTTAACTTATGGTGTTCATGTTTCTCTCGTTATCCAG ATCACATGAAACAACACGATTTCTTCAAATCTGCTATGCCAGAAGGTTATGTTCAAGAACGTA CTATTACTTTCAAAGATGATGGTACTTATAAACTCGTGTGGAAGTTAAATTCGAAGGTGATA CTTTAGTTAACCCTATTGAATTTAAAGGATTGATTTCAAAGAAGATGGTAACATTTTAGGTCA CAAATTAGAATATAACTATAACTCTCACAACTTTATATTACTGCTGATAAAACAAAAAACGGT ATTAAGCTAACTTCAAAATTCGTCCAAACGTTGAAGATGGTTCTGTTCAATTAGCTGATCACT ATCAACAAAACACTCCAATTGGTGTGGTCCAGTTTTATTACCAGATAACCACTATTTATCTAC TCAATCTAAATTATCTAAAGATCCAAACGAAAAACGTGATCACATGGTTTTATTAGAGTTTGT ACTGCTGCTGGTATTACTGGTGGTTCTGGTGGTTCTTAAATGTCCAGACCTGCA <sup>2</sup> TTCTG	XbaI, PstI

## Supplemental References

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