Strain or plasmid	Genotype or relevant characteristics <sup>a</sup>	Source or reference
Strains		
E. coli		
DH5a	F <sup>-</sup> , $\phi$ 80d <i>lacZ</i> ΔM15 Δ( <i>lacZYA-argF</i> )U169 <i>deoR</i> <i>recA1 endA1 hsdR17</i> (rK <sup>-</sup> , mK <sup>+</sup> ) <i>phoA supE44</i> λ <sup>-</sup> <i>thi-1</i>	Invitrogen
CC118 λ-pir	$\Delta$ (ara-leu) araD $\Delta$ lacX74 galE galK phoA20 thi- 1 rpsE rpoB argE(Am) recAl $\lambda$ pir	(3)
S17.1 λ-pir	<i>hsdR recA pro</i> RP4-2 (Tc::Mu; Km::Tn7)( λ <i>pir</i> )	(9)
A. baumannii		
A424	Clinical isolate	$QMC^a$
A473	Clinical isolate	(7)
ATCC 19606	Clinical isolate	$\mathrm{SGSC}^a$
Plasmids		
pGEM <sup>®</sup> -T Easy	Cloning vector; Ap <sup>r</sup>	Promega
pUC18R6KminiTn7T- Gm	Ap <sup>r</sup> ; source of Gm <sup>r</sup> cassette	(1)
pISAba11	1.7 kb fragment containing entire ISAba11 inserted into pGEM <sup>®</sup> -T Easy	This study
pISAba11Gm	<i>aacC1</i> cassette inserted downstream of ISAba11 into pISAba11	This study
pDS132	Suicide vector, R6K ori, mobRP4, cat, sacB	(5)
pDISAba11Gm	aacC1-tagged ISAba11 inserted into pDS132	This study

Table S1. Bacterial strains and plasmids used in this study

<sup>a</sup> Abbreviations: QMC, Queen's Medical Centre, Nottingham; SGSC, Salmonella Genetic

Stock Centre; Ap<sup>r</sup>, ampicillin resistance; Gm<sup>r</sup>, gentamicin resistance.

Table S2. ISAba11 and TnAbaR PCR survey results for the 148 strains representative of ≥19 Acinetobacter species investigated experimentally in this study

Strain	Species	tnp <sub>ISAba11</sub> a	ISAba11 <sup>ª</sup>	tniA <sup>a</sup>	rpoB <sup>a</sup>
A1	A. baumannii	-	-	+	+
A13	A. baumannii	-	-	-	+
A14	A. baumannii	-	-	+	+
A20	A. baumannii	-	-	-	+
A25	A. baumannii	-	-	+	+
A37	A. baumannii	-	-	-	+
A47	A. baumannii	-	-	+	ND
A52	A. baumannii	-	-	-	ND
A63	A. baumannii	-	-	+	+
A92	A. baumannii	-	-	-	+
A94	A. baumannii	-	-	-	+
A97	A. baumannii	-	-	-	+
A167	A. baumannii	-	-	-	+
A186	A. baumannii	-	-	+	ND
A187	A. baumannii		-	-	ND
A230	A. baumannii	-	-	+	ND
A329	A. baumannii	-	-	-	ND
A335	A. baumannii	-	-	+	ND
A343	A. baumannii	-	-	+	ND
A365	A. baumannii	-	-	+	ND
A367	A. baumannii	-	-	-	ND
A297	A. baumannii	-	-	+	+
A332	A. baumannii	-	-	+	+
A369	A. baumannii	-	-	+	+
A371	A. baumannii	-	-	+	+
A377	A. baumannii	-	-	-	+
A379	A. baumannii	-	-	-	ND
A380	A. baumannii	-	-	+	ND
A384	A. baumannii	-	-	+	+
A387	A. baumannii	-	-	+	+
A388	A. baumannii	-	-	+	+
A390	A. baumannii	-	-	+	ND
A392	A. baumannii	-	-	+	+
A397	A. baumannii	-	-	-	ND
A401	A. baumannii	-	-	-	+
A418	A. baumannii	-	-	+	+
A424	A. baumannii	-	-	+	+
A442	A. baumannii	-	-	+	+
A443	A. baumannii	-	-	+	+
A457	A. baumannii	-	-	-	+
A472	A. baumannii	-	-	+	+
A473	A. baumannii	+	+	+	+
A474	A. baumannii	-	-	+	ND
A479	A. baumannii	+	-	-	ND
A480	A. baumannii	-	-	+	ND

A481	A. baumannii	-	-	-	ND
A482	A. baumannii	-	-	+	ND
AB13	A. baumannii	-	-	+	ND
AB14	A. baumannii	-	-	+	ND
AS15	A. baumannii	-	-	+	ND
AB16	A. baumannii	-	-	+	ND
AB17	A. baumannii	-	-	+	ND
AB18	A. baumannii	-	-	-	ND
AB20	A. baumannii	-	-	+	+
AS20	A. baumannii	-	-	+	+
AB21	A. baumannii	-	-	+	ND
AB22	A. baumannii	-	-	+	ND
AL7	A. baumannii	+	-	-	+
AS27	A. baumannii	-	-	-	+
AS42	A. baumannii	+	+	-	+
KR1774	A. baumannii	-	-	-	+
AS44	A. baumannii	-	-	-	+
KR175	A. baumannii	-	-	+	+
AS45	A. baumannii	-	-	-	+
HPA10	A. bayli/A. genomospecies 11	-	-	-	+
HPA16	A. bayli/A. genomospecies 11	-	-	-	+
HPA22	A. berezinae	-	-	-	+
HPA26	A. berezinae	-	-	-	+
HPA3	A. beijerinckii	+	+	-	+
HPA21	A. calcoaceticus	-	-	-	+
HPA18	A. genomospecies 13	-	-	-	+
HPA23	A. genomospecies 13	+	+	-	+
HPA1	A. genomospecies 16	-	-	-	+
AS46	A. genomospecies 15TU	+	+	+	+
AS47	A. genomospecies 15TU	+	+	-	+
HPA8	A. genomospecies 15TU	+	+	-	+
HPA11	A. gyllenbergii	+	+	-	+
HPA29	A. haemolyticus	-	-	-	+
HPA30	A. haemolyticus	+	-	-	+
HPA34	A. haemolyticus	+	-	-	+
AL1	A. johnsonnii	+	+	-	+
AS24	A. johnsonnii	+	+	-	+
HPA6	A. johnsonnii	-	-	-	+
HPA14	A. johnsonnii	+	+	-	+
HPA17	A. johnsonnii	+	+	-	+
HPA28	A. johnsonnii	+	+	-	+
AJ11	A. junii	+	+	-	+
AJ30	A. junii	+	+	-	+
AJ31	A. junii	+	+	+	+
AJ33	A. junii	+	+	-	+
AJ34	A. junii	+	+	-	+
AJ35	A. junii	+	+	+	+
HPA7	A. junii	+	+	-	+
HPA19	A. junii	+	+	-	+
AB3	A. Iwoffii/A. genomospecies 9	+	+	-	+

AL2	A. Iwoffii/A. genomospecies 9	+	+	-	+
AL5	A. Iwoffii/A. genomospecies 9	+	+	-	+
AL6	A. Iwoffii/A. genomospecies 9	+	+	-	+
AL27	A. Iwoffii/A. genomospecies 9	+	+	-	ND
AL23	A. Iwoffii/A. genomospecies 9	+	+	-	+
AS10	A. Iwoffii/A. genomospecies 9	+	+	-	+
AS25	A. Iwoffii/A. genomospecies 9	+	+	-	+
AS27	A. Iwoffii/A. genomospecies 9	-	-	-	+
AS28	A. Iwoffii/A. genomospecies 9	+	+	+	+
AS38	A. Iwoffii/A. genomospecies 9	+	+	+	+
AS43	A. Iwoffii/A. genomospecies 9	+	+	-	+
AS48	A. Iwoffii/A. genomospecies 9	+	-	+	ND
AS49	A. Iwoffii/A. genomospecies 9	+	+	-	+
AS50	A. Iwoffii/A. genomospecies 9	+	+	-	+
AS51	A. Iwoffii/A. genomospecies 9	-	-	-	ND
AS52	A. Iwoffii/A. genomospecies 9	+	+	+	+
AS53	A. Iwoffii/A. genomospecies 9	+	+	-	+
AS54	A. Iwoffii/A. genomospecies 9	+	+	-	+
AS55	A. Iwoffii/A. genomospecies 9	+	+	+	+
AS56	A. Iwoffii/A. genomospecies 9	+	+	-	+
AS57	A. Iwoffii/A. genomospecies 9	+	+	-	+
AS58	A. Iwoffii/A. genomospecies 9	+	+	-	+
AS59	A. Iwoffii/A. genomospecies 9	+	+	-	+
KR1773	A. Iwoffii/A. genomospecies 9	+	+	-	+
KR1776	A. Iwoffii/A. genomospecies 9	-	-	-	+
AS61	A. Iwoffii/A. genomospecies 9	+	+	-	+
HPA12	A. Iwoffii/A. genomospecies 9	+	+	-	+
HPA13	A. Iwoffii/A. genomospecies 9	+	-	+	+
HPA4	<i>A. nosocomialis</i> sp. nov.	-	-	-	+
HPA27	<i>A. nosocomialis</i> sp. nov.	-	-	-	+
AL40	A. parvus	+	+	-	+
AS62	A. parvus	+	+	-	+
AS63	A. parvus	-	-	-	+
A164	<i>A. pittii</i> sp. nov.	-	-	-	+
A215	<i>A. pittii</i> sp. nov.	-	-	-	+
A376	<i>A. pittii</i> sp. nov.	-	-	-	+
AB8	<i>A. pittii</i> sp. nov.	-	-	+	+
AB12	<i>A. pittii</i> sp. nov.	-	-	-	+
HPA5	<i>A. pittii</i> sp. nov.	-	-	-	+
HPA32	<i>A. pittii</i> sp. nov.	-	-	-	+
AS64	A. radioresistens	-	-	+	+
HPA2	A. radioresistens	-	-	-	+
HPA33	A. radioresistens	+	+	-	+
AS65	A. schindleri	+	-	+	+
HPA20	A. schindleri	-	-	-	+
HPA31	A. schindleri	-	-	-	+
AS26	A. ursingii	+	+	-	+
HPA25A	A. ursingii	-	-	-	+
HPA15	A. ursingii	-	-	-	+
HPA9	A. ursingii	-	-	-	+

AS4	A. ursingii group	-	-	-	+
AS39	A. ursingii group	-	-	+	+
KR1778	A. ursingii group	-	-	-	+

<sup>*a*</sup> The following PCR primers were used: *tnp*<sub>ISAba11</sub>, tnp-F/tnp-R; ISAba11, ISAba11-F/ ISAba11-R; *tniA*, tniAF/tniA; *rpoB*, Ac696F/Ac1093R. The *tnp*<sub>ISAba11</sub>-primers amplify a 300 bp internal segment of ISAba11, while the ISAba11-primers amplify the entire 1101 bp element. *rpoB* PCR amplicons were sequenced to inform about speciation. ND, not done.

## Table S3. ISAba11 and TnAbaR PCR survey results for the 48 genome sequences representative of ≥9 Acinetobacter species investigated by BlastN and *in silico* PCR analysis in this study

Strain	Species	tnp <sub>ISAba11</sub> a	ISAba11 <sup>ª</sup>	tniA <sup>a</sup>	Genome status	GenBank accession no.
1656-2	A. baumannii	-	-	+	assembled	CP001921
3909	A. baumannii	-	-	-	not assembled	AEOZ0000000
3990	A. baumannii	-	-	-	not assembled	AEOY0000000
4190	A. baumannii	-	-	-	not assembled	AEPA0000000
6013113	A. baumannii	+	-	-	not assembled	ACYR02000038
6014059	A. baumannii	-	-	+	not assembled	ACYS02000127
A118	A. baumannii	-	-	-	not assembled	AEOW0000000
AB0057	A. baumannii	-	-	+	assembled	CP001182
AB056	A. baumannii	-	-	+	not assembled	ADGZ01000825
AB058	A. baumannii	-	-	+	not assembled	ADHA01000065
AB059	A. baumannii	-	-	+	not assembled	ADHB01000787
AB210	A. baumannii	-	-	+	not assembled	AEOX01000067
AB307-0294	A. baumannii	-	-	-	assembled	CP001172
AB900	A. baumannii	-	-	-	not assembled	ABXK0000000
ABNIH1	A. baumannii	-	-	-	not assembled	AFSZ0000000
ABNIH2	A. baumannii	-	-	+	not assembled	AFTA01000065
ABNIH3	A. baumannii	-	-	+	not assembled	AFTB01000233
ABNIH4	A. baumannii	-	-	-	not assembled	AFTC0000000
ACICU	A. baumannii	-	-	-	assembled	CP000863
ATCC 17978	A. baumannii	+	+	+	not assembled	CP000521
ATCC 19606	A. baumannii	+	+	-	not assembled	ACQB0000000
AYE	A. baumannii	-	-	+	assembled	CU459141
D1279779	A. baumannii	-	-	-	not assembled	AERZ0000000
DR1	A. baumannii	-	-	-	assembled	CP002080
MDR-TJ	A. baumannii	-	-	+	assembled	AEOE01000001
MDR-ZJ06	A. baumannii	-	-	+	assembled	CP001937
Naval-18	A. baumannii	-	-	+	assembled	AFDA01000030
Naval-81	A. baumannii	-	-	-	not assembled	AFDB0000000
OIFC032	A. baumannii	-	-	+	not assembled	AFCZ01000012
SDF	A. baumannii	-	-	-	assembled	CU468230
TCDC-AB0715	A. baumannii	-	-	+	assembled	CP002522
UMB001	A. baumannii	-	-	-	not assembled	AEBK0000000
UMB002	A. baumannii	-	-	-	not assembled	AEBL0000000
UMB003	A. baumannii	-	-	-	not assembled	AEBM00000000
WM99c	A. baumannii	-	-	+	not assembled	AERY01000108
PHEA-2	A. calcoaceticus	-	-	-	assembled	CP002177
RUH2202	A. calcoaceticus	-	-	-	not assembled	ABCK0000000
ATCC 19194	A. haemolyticus	+	-	-	not assembled	ADMT01000000
ATCC 27244	A. haemolyticus	+	-	-	not assembled	ABYN01000000
ADP1	A. johnsonnii	-	-	-	assembled	CR543861
SH046	A. johnsonnii	+	-	-	not assembled	ACPL0100000
SH205	A. junii	-	-	-	not assembled	АСРМ0000000
SH145	A. lwoffii/A. genomospecies 9	+	+	-	not assembled	ACPN01000000
WJ10621	A. lwoffii/A. genomospecies 9	+	+	-	not assembled	AFQY01000001
SH024	<i>A. pittii</i> sp. nov.	-	-	-	not assembled	ADCH0000000
RUH2624	A. nosocomialis sp. nov.	-	-	-	not assembled	ACQF0000000
SH164	A. radioresistens	-	-	-	not assembled	ACPO0000000
SK82	A. radioresistens	-	-	-	not assembled	ACVR0000000

<sup>a</sup> The following PCR primers were used: *tnp*<sub>ISAba11</sub>, tnp-F/tnp-R; ISAba11, ISAba11-F/ ISAba11-R; *tniA*, tniAF/tniAR.

Name	Sequence 5'- 3'	Source	Target (Purpose)
tniA-R2	CGAAGACGACAGCAGGTACA	This study	tniA junction
tnp-F	CAAAGATCCCCTCAAACTGG	This study	tap
tnp-R	ATCAGGGTCAAGTGGTCTGG	This study	mp <sub>ISAba11</sub>
orf1-F	GTTTGAATCGACCCTTGAGC	This study	Tr Ab a D ouf1
orf1-R	CCCTCATAACCGACAACCAC	This study	ThAbak orj1
Gm-F-BamHI	CG <b>GGATCC</b> GAATTAGCTTCAAAAGCGCTCTGA <sup>a</sup>	This study	a a c C 1 coccotto
Gm-R-BamHI	CG <b>GGATCC</b> GAATTGGGGATCTTGAAGTTCCT <sup>a</sup>	This study	<i>aacC1</i> cassette
ISAba11-F	TAGGACTTACGCATTGACG	This study	ICAb = 11
ISAba11-R	TAGGACTTACGCACTATCATTTAT	This study	15Aba11
ISAba11-InF	CG <b>GGATCC</b> TCATTTATAGATTCTCTGTGGTAGC <sup>a</sup>	This study	pDSISAba11
ISAba11-InR	CG <b>GGATCC</b> AGTGCGTAAGTCCTACATATAATC <sup>a</sup>	This study	(inverse-PCR)
DFISAba11-1	GTAGGCCATCAAGGCTGAAA	This study	ISAba11
DFISAba11-2	GGCAAGTTGTGTGCAGCTAA	This study	(walking)
pDS-F	GGAACACTTAACGGCTGAC	This study	nDC innotions
pDS-R	GGATCGATCCTCTCAGAGTC	This study	pDS junctions
sacB-F	CGGCATTTTCTTTTGCGTTT	Kochar et al.	
sacB-R	AGGAACTTCAAGATCCCCAATTCGTCTTTAGGCC CGTAGTCTGC	Kochar et al.	sacB
4R	AATCGATGCGGTCGAGTAAC	(8)	<i>comM</i> junction
aacC1F	GACATAAGCCTGTTCGGTT	(4)	ageC1
aacC1R	CTCCGAACTCACGACCGA	(4)	<i>aucc1</i>
oxa51a	CTAATAATTGATCTACTCAAG	(6)	bla <sub>OXA-51-like</sub>
oxa51b	CCAGTGGATGGATGGATAGATTATC	(6)	
Ac696F	TAYCGYAAAGAYTTGAAAGAAG	(2)	
Ac1093R	CMACACCYTTGTTMCCRTGA	(2)	гроВ
tniAF	CATCCCCAATCGTTAAATGG	(7)	traiA
tniAR	TTTTCTTTTRCGCTTTCGAT	(7)	INIA

## Table S4. Primers used in this study

<sup>*a*</sup> Residues shown in bold correspond to primer-incorporated *Bam*HI sites.

GenBank				Length of non-					
accession no.				ISAba11				Identity	Identity
<i>b</i>	Species	Strain	۲IR	sequence	Target gene (site) /protein	Species (strain)	GenBank ID	BlastX	BlastN
					Upstream of				
					HMPREF0010_03298/	A. baumannii			
JN819186	A. baumannii	ATCC 19606	IRL	699 bp	hypothetical protein	ATCC 19606	EEX02178	99%	99%
					Upstream of				
					HMPREF0010_03297/	A. baumannii			
JN819187	A. baumannii	ATCC 19606	IRR	232 bp	phospholipase C	ATCC 19606	ZP_05829914	97%	98%
7N010100	A baumannii	1170	וחו	702 hn	IS Abal	A baumannii AVE	ND 004740400	100%	100%
110213192	A. buumummi	A479	IKL	792 bp	ISADU1	A. DUUIIIUIIIIII ATE	YP_001712482	100%	100%
JN819189	A. baumannii	A479	IRR	549 bp	AB57 3457/enoyl-CoA hydratase	A. baumannii AYE	YP_002320761	98%	99%
					Upstream of		_		
					HMPREF0026 01257/				
JN819190	A. junii	AJ11	IRL	802 bp	hypothetical protein	A. junii SH206	EEY93981	100%	100%
					Upstream of				
					HMPREF0017 01038/	A. Iwoffi /A. gs. 9			
JN819191	A. Iwoffii/A. gs. 9	AL1	IRL	256 bp	quinone oxidoreductase	SH145	EEY90112	100%	100%
					Upstream of				
					HMPREF0017_02635/	A. lwoffi/A. gs. 9			
JN819193	A. lwoffii/A.gs.9	AL2	IRR	368 bp	sulfite reductase	SH145	EEY88689	100%	100%
					HMPREF0017_02339	A. lwoffi/A. gs. 9			
JN819192	A. lwoffii/A. gs. 9	AL2	IRL	557 bp	/membrane protein	SH145	EEY89069	97%	90%
					HMPREF0026_02009/				
JN819194	A. lwoffii/A. gs. 9	AL5	IRR	308 bp	transposase	<i>A. junii</i> SH205	ZP_06066902	98%	97%
					HMPREF0017_01092/	A. lwoffi/A. gs. 9			
JN819195	A. lwoffii/A. gs. 9	AL5	IRL	536 bp	esterase	SH145	EEY90166	96%	97%
						A. Iwoffii /A. gs. 9			
JN819198	A. lwoffii/A. gs. 9	AS25	IRL	135 bp	NA	WJ10621	AFQY01000001	NA	95%
					Downstream of				
					HMPREF0017_00131/	A. lwoffi/A. gs. 9			
JN819196	A. lwoffii/A. gs. 9	AS10	IRR	472 bp	phosphate acetyltransferase	SH145	EEY91118	99%	90%
					HMPREF0017_01411/	A. lwoffi/A. gs. 9			
JN819197	A. lwoffii/A. gs. 9	AS10	IRL	368 bp	RNA helicase	SH145	EEY89994	98%	92%

					pMMA2_02/TonB-dependent				
JN819199	A. baumannii	A424-BR3	IRR, IRL	678 bp	receptor	A. baumannii AYE	ACV72167	98%	100%
					Downstream of ABAYE2100/				
JN819200	A. baumannii	A424-BR2	IRR, IRL	1717 bp	ABC efflux protein	A. baumannii AYE	CAM86974	100%	100%
					Upstream of FG00266.1/	Gibbersella zeae			
JN819201	A. baumannii	A424-BR1	IRR, IRL	1502 bp	hypothetical protein	PH-1	XP_380442	26%	NS

<sup>a</sup> NA, not applicable; NS, not significant; gs., genomospecies. <sup>b</sup> Genomic walking sequence data generated in this study has been deposited with GenBank and is available via the accession numbers listed. <sup>c</sup> Flanking sequence data was generated for the TIR end shown.

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