

1 Supplementary data

2 **Table S1. Primers used in the study.**

Primers	Sequences (5'-3')	Reference
<i>bla</i> _{TEM} -specific-C1	GGGAATTCTCGGGGAAATGTGCGCGGAAC	(1)
<i>bla</i> _{TEM} -specific-C2	GGGATCCGAGTAAACTTGGTCTGACAG	(1)
<i>bla</i> _{ADC} -F	ATGCGATTTAAAAAATTTCTTGTC	This study
<i>bla</i> _{ADC} -R	TTTCTTTATTGCATTCAGCAC	This study
TEM Promo F	ATAAAATTCTTGAAGAC	(2)
TEM Promo R	TTACCAATGCTTAATCA	(2)
<i>ISAbal</i> - <i>bla</i> _{ADC} -F	CACGAATGCAGAAGTTG	This study
RT TEM-F	TTTTTGCGGCATTTTGCCTT	(3)
RT TEM-R	GGGCGAAAACCTCTCAAGG ATC	(3)
qPCR for ADC -F	ACGCCTGGTAAGTATTGGAAAG	(4)
qPCR for ADC-R	ACCGATTGAGTTTTTAGGTTCC	(4)
qPCR for <i>rpoB</i> -F	GAG TCT AAT GGC GGT GGT TC	(4) and (5)
qPCR for <i>rpoB</i> -R	ATT GCT TCA TCT GCT GGT TG	(4) and (5)

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5 References

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Table S2. Clinical information and characteristics of the *A. baumannii* strains in the study.

Strain	Age	Sex	Specimen	Diagnosis	Ward	Region	ST(Oxford)	ST(Pasteur)	Subbactam MIC(mg/L)	<i>bla</i> _{TEM}	<i>bla</i> _{TEM} Promoter	Relative expression of <i>bla</i> _{TEM}	Copy number of <i>bla</i> _{TEM}	<i>ampC</i> allele	accession number	ADC protein variant	protein ID	<i>ISAbal</i>	Relative expression of <i>ampC</i>	Copy number of <i>ampC</i>
WE1572	-	-	-	-	-	Zhejiang	1562	490	0.25	None	None	NT	NT	49	MG601727	ADC-99		None	0.01 ± 0.00	1.30 ± 0.41
JX101	-	-	-	-	-	Zhejiang	1563	216	0.5	None	None	NT	NT	50	MG601726	ADC-154	AUD40655	None	0.03 ± 0.01	1.23 ± 0.15
SH37	-	-	-	-	-	Shanghai	620	575	1	None	None	NT	NT	10		ADC-76		None	0.04 ± 0.00	0.57 ± 0.03
N8	59	Male	Sputum	Pulmonary tumor	Pneumology	Zhejiang	744	150	1	None	None	NT	NT	51	MG601728	ADC-163	AUD40657	None	0.05 ± 0.01	0.64 ± 0.08
SH40	-	-	-	-	-	Shanghai	585	10	1	None	None	NT	NT	10		ADC-76		None	0.06 ± 0.01	0.56 ± 0.02
A369	78	Male	Sputum	-	Neurosurgery	Guangdong	373	40	1	None	None	NT	NT	36	MF164462	ADC-155	ARX71325	None	0.01 ± 0.00	1.22 ± 0.41
B30	-	-	-	-	-	Beijing	1564	193	1	None	None	NT	NT	52	MG601729	ADC-156	AUD40658	None	0.02 ± 0.00	1.11 ± 0.23
LS066	-	-	-	-	-	Zhejiang	1603	1156	1	None	None	NT	NT	53	MF164464	ADC-157	ARX71327	None	0.01 ± 0.00	1.15 ± 0.25
T12	70	Female	Sputum	Cerebral hemorrhage	Neurosurgery	Zhejiang	553	193	1	None	None	NT	NT	52		ADC-156		None	0.01 ± 0.00	1.14 ± 0.01
WE1926	-	-	-	-	-	Zhejiang	1591	329	1	None	None	NT	NT	54	MG601730	ADC-6		None	0.03 ± 0.01	1.10 ± 0.24
JX214	-	-	-	-	-	Zhejiang	605	106	1	None	None	NT	NT	55	MG601731	ADC-164	AUD40660	None	0.02 ± 0.01	0.96 ± 0.36
JX111	-	-	-	-	-	Zhejiang	1537	36	1	None	None	NT	NT	56	MG601732	ADC-26		None	0.00 ± 0.00	1.03 ± 0.17
JX204	-	-	-	-	-	Zhejiang	383	36	2	None	None	NT	NT	56		ADC-26		None	0.02 ± 0.01	1.06 ± 0.46
B6	-	-	-	-	-	Beijing	1538	1157	2	None	None	NT	NT	52		ADC-156		None	0.01 ± 0.00	0.80 ± 0.22
WE2714	-	-	-	-	-	Zhejiang	1539	52	2	None	None	NT	NT	38		ADC-158		None	0.01 ± 0.00	0.89 ± 0.16
B7	-	-	-	-	-	Beijing	1540	341	2	None	None	NT	NT	57	MG601734	ADC-166	AUD40663	None	0.02 ± 0.00	1.59 ± 63
JX106	-	-	-	-	-	Zhejiang	520	40	2	None	None	NT	NT	36		ADC-155		None	0.03 ± 0.03	1.23 ± 0.65
LS0178	-	-	-	-	-	Zhejiang	883	77	2	None	None	NT	NT	56		ADC-26		None	0.03 ± 0.01	0.81 ± 0.15
LSP80	-	-	-	-	-	Zhejiang	867	239	2	None	None	NT	NT	60	MG601733	ADC-165	AUD40662	None	0.01 ± 0.00	0.83 ± 0.08
SH25	-	-	-	-	-	Shanghai	1592	1158	2	None	None	NT	NT	56		ADC-26		None	0.01 ± 0.00	0.78 ± 0.20
T10	73	Male	Sputum	Respiratory failure	ICU	Zhejiang	1593	155	2	None	None	NT	NT	58	MG601735	ADC-167	AUD40664	None	0.06 ± 0.03	0.81 ± 0.12
N9130	-	-	-	-	-	Zhejiang	520	40	2	None	None	NT	NT	36		ADC-155		None	0.01 ± 0.00	1.05 ± 0.09
SH27	-	-	-	-	-	Shanghai	1594	452	2	None	None	NT	NT	16	MG702533	ADC-169		None	0.01 ± 0.00	0.66 ± 0.06
N5806	-	-	-	-	-	Zhejiang	1595	216	2	None	None	NT	NT	60		ADC-165		None	0.01 ± 0.00	0.53 ± .09
T16	84	Male	Sputum	-	Ophthalmology	Zhejiang	1556	1161	2	None	None	NT	NT	59	MG601736	ADC-168		None	0.00 ± 0.00	0.61 ± 0.08
SH43	-	-	-	-	-	Shanghai	1596	268	2	None	None	NT	NT	56		ADC-26		None	0.03 ± 0.01	0.55 ± 0.03
LS0148	-	-	-	-	-	Zhejiang	447	10	4	None	None	NT	NT	10		ADC-76		None	0.07 ± 0.02	0.61 ± 0.07
JX215	-	-	-	-	-	Zhejiang	1597	150	4	None	None	NT	NT	51		ADC-163		None	0.07 ± 0.01	0.54 ± 0.03
CQ301	-	-	-	-	-	Chongqing	1598	1159	4	None	None	NT	NT	36		ADC-155		None	0.11 ± 0.03	0.55 ± 0.06
P7	-	-	-	-	-	Zhejiang	447	10	4	None	None	NT	NT	10		ADC-76		None	0.07 ± 0.00	0.59 ± 0.04
T17	46	Male	Sputum	Cerebral hemorrhage	Neurosurgery	Zhejiang	208	2	8	None	None	NT	NT	2		ADC-30		+	0.93 ± 0.45	0.67 ± 0.33
A2265	68	Male	Sputum	Cerebral infraction	Rehabilitation	Shandong	368	2	8	None	None	NT	NT	19		ADC-25		None	0.01 ± 0.01	0.78 ± 0.29
A2466	69	Male	Sputum	-	ICU	Henan	642	23	8	None	None	NT	NT	10		ADC-76		None	0.02 ± 0.00	1.20 ± 0.46
A2986	66	Male	Sputum	Pulmonary disease	Pneumology	Shanghai	381	2	8	None	None	NT	NT	2		ADC-30		+	0.75 ± 0.29	0.87 ± 0.21
A387	85	Male	Sputum	-	Pneumology	Guangdong	806	215	8	<i>bla</i> _{TEM-ID}	P4	1.07 ± 0.59	1.16 ± 0.11	2		ADC-30		+	1.49 ± 1.07	1.21 ± 0.29
A396	80	Male	Sputum	-	Cardiovascularology	Guangdong	806	215	8	<i>bla</i> _{TEM-ID}	P4	1.46 ± 0.32	0.49 ± 0.41	2		ADC-30		+	0.98 ± 0.62	0.77 ± 0.33
A2841	76	Male	-	-	Emergency	Shanghai	643	2	8	None	None	NT	NT	20		ADC-73		+	0.84 ± 0.36	0.65 ± 0.34
A101	42	Male	Sputum	-	Neurosurgery	Anhui	368	2	8	None	None	NT	NT	2		ADC-30		+	0.56 ± 0.23	0.92 ± 0.61
SX5	-	-	Sputum	-	NICU	Zhejiang	208	2	8	None	None	NT	NT	2		ADC-30		+	0.50 ± 0.24	0.69 ± 0.27
A1469	30	Male	Sputum	Abdominal closed injury	ICU	Shanxi	643	2	16	None	None	NT	NT	2		ADC-30		+	1.40 ± 0.73	0.45 ± 0.11
A468	78	Female	Sputum	Fracture	Osteology	Beijing	191	2	16	<i>bla</i> _{TEM-ID}	P4	1.64 ± 0.11	0.70 ± 0.25	2		ADC-30		+	0.86 ± 0.49	1.12 ± 0.37
A74	37	Male	Intravenous catheter	Burn	Burn	Anhui	191	2	16	None	None	NT	NT	2		ADC-30		+	0.41 ± 0.11	0.71 ± 0.17
A97	57	Female	-	-	Senior ward	Anhui	368	2	16	None	None	NT	NT	2		ADC-30		+	0.69 ± 0.06	0.74 ± 0.09
A107	47	Male	Sputum	-	Senior ward	Anhui	368	2	16	None	None	NT	NT	2		ADC-30		+	0.72 ± 0.23	0.83 ± 0.52
A138	-	Male	Sputum	Renal insufficiency	RICU	Xinjiang	642	23	16	None	None	NT	NT	10		ADC-76		None	0.07 ± 0.01	0.50 ± 0.03
A141	-	Male	Sputum	Renal insufficiency	ICU	Xinjiang	642	23	16	None	None	NT	NT	10		ADC-76		None	0.07 ± 0.01	0.96 ± 0.23
A142	-	Male	Sputum	Subdural hematoma	ICU	Xinjiang	642	23	16	None	None	NT	NT	10		ADC-76		None	0.07 ± 0.01	0.84 ± 0.26
A173	87	Male	Sputum	-	CCU	Xinjiang	191	2	16	<i>bla</i> _{TEM-ID}	P4	1.46 ± 0.55	0.60 ± 0.27	2		ADC-30		+	0.70 ± 0.29	0.92 ± 0.17
A205	59	Female	Sputum	-	-	Xinjiang	642	23	16	None	None	NT	NT	10		ADC-76		None	0.02 ± 0.01	1.27 ± 0.12
A474	68	Female	Sputum	-	Emergency	Beijing	520	40	16	None	None	NT	NT	36		ADC-155		None	0.01 ± 0.00	1.44 ± 0.10
A75	37	Male	Burn	Burn	Burn	Anhui	191	2	32	<i>bla</i> _{TEM-ID}	P4	0.97 ± 0.09	0.81 ± 0.05	2		ADC-30		+	0.66 ± 0.49	1.38 ± 0.75
A78	76	Female	Sputum	-	Neurosurgery	Anhui	191	2	32	<i>bla</i> _{TEM-ID}	P4	1.58 ± 0.56	0.53 ± 0.08	2		ADC-30		+	0.90 ± 0.41	0.64 ± 38
A82	76	Female	Sputum	-	Senior ward	Anhui	368	2	32	None	None	NT	NT	2		ADC-30		+	0.63 ± 0.54	0.88 ± 0.62
A83	16	Male	Sputum	-	Senior ward	Anhui	540	2	32	<i>bla</i> _{TEM-ID}	P4	1.22 ± 0.43	0.61 ± 0.19	2		ADC-30		+	1.07 ± 0.83	0.88 ± 0.39
A84	82	Male	Sputum	-	Pneumology	Anhui	540	2	32	<i>bla</i> _{TEM-ID}	P4	1.33 ± 0.17	0.78 ± 0.26	2		ADC-30		+	0.79 ± 0.38	0.77 ± 0.42
A85	49	Male	fester	-	Otolaryngology	Anhui	540	2	32	<i>bla</i> _{TEM-ID}	P4	1.10 ± 0.33	1.15 ± 0.10	2		ADC-30		+	0.99 ± 0.60	1.07 ± 0.14
A87	79	Female	Sputum	-	Senior ward	Anhui	208	2	32	<i>bla</i> _{TEM-ID}	P4	1.61 ± 0.89	0.92 ± 0.45	2		ADC-30		+	1.36 ± 0.57	1.03 ± 0.03
A93	43	Female	Sputum	-	Senior ward	Anhui	368	2	32	None	None	NT	NT	2		ADC-30		+	1.30 ± 0.70	1.74 ± 0.58
A94	77	Male	urine	-	Urology	Anhui	208	2	32	<i>bla</i> _{TEM-ID}	P4	1.41 ± 0.21	0.53 ± 0.19	2		ADC-30		+	1.34 ± 0.36	0.74 ± 0.20
A104	76	Male	Sputum	-	Emergency	Anhui	540	2	32	<i>bla</i> _{TEM-ID}	P4	0.84 ± 0.22	0.99 ± 0.03	2		ADC-30		+	0.77 ± 0.38	0.65 ± 0.28
A111	53	Female	Sputum	-	Senior ward	Anhui	191	2	32	<i>bla</i> _{TEM-ID}	P4	0.75 ± 0.07	0.71 ± 0.07	2		ADC-30		+	0.58 ± 0.19	0.58 ± 0.39
A124	-	Male	Purulent secretion	Perianal abscess	Emergency	Xinjiang	208	2	32	<i>bla</i> _{TEM-ID}	P4	1.00 ± 0.02	0.60 ± 0.08	19		ADC-25		None	0.01 ± 0.00	1.07 ± 0.13
A132	-	Male	Sputum	Pulmonary infection	ICU	Xinjiang	642	23	32	None	None	NT	NT	10		ADC-76		None	0.02 ± 0.01	1.09 ± 0.19
A136	-	Male	Sputum	COPD	ICU	Xinjiang	642	23	32	None	None	NT	NT	10		ADC-76		None	0.02 ± 0.01	1.28 ± 0.19
A157	-	Male	Sputum	Coronary heart disease	ICU	Xinjiang	208	2	32	None	None	NT	NT	19		ADC-25		None	0.01 ± 0.00	0.58 ± 0.11
A168	-	Female	Urine	Chronic renal failure	Nephrology	Xinjiang	208	2	32	<i>bla</i> _{TEM-ID}	P4	0.78 ± 0.14	0.60 ± 0.23	19		ADC-25		None	0.01 ± 0.00	0.93 ± 0.30
A206	74	Female	Sputum	-	ICU	Xinjiang	191	2	32	<i>bla</i> _{TEM-ID}	P4	1.08 ± 0.45	0.76 ± 0.44	28		ADC-30		+	0.44 ± 0.03	0.84 ± 0.52
A370	61	Female	Sputum	-	ICU	Guangdong	381	2	32	<i>bla</i> _{TEM-ID}	P4	0.92 ± 0.13	1.49 ± 0.78	2		ADC-30		+	0.63 ± 0.14	1.41 ± 0.73
A373	76	Male	Sputum	-	Cardiovascularology	Guangdong	806	215	32	<i>bla</i> _{TEM-ID}	P4	1.31 ± 0.69	0.74 ± 0.40	2		ADC-30		+	0.48 ± 0.09	0.84 ± 0.53
A374	87	Female	Sputum	-	Cardiovascularology	Guangdong	457	2	32	<i>bla</i> _{TEM-ID}	P4	2.80 ± 1.40	1.99 ± 0.55	20		ADC-73		+	0.65 ± 0.09	0.98 ± 0.12
A376	65	Male	Intravenous catheter	-	Pneumology	Guangdong	806	215	32	<i>bla</i> _{TEM-ID}	P4	2.71 ± 2.28	1.25 ± 0.42	2		ADC-30		+	0.70 ± 0.32	1.18 ± 0.12
A378	73	Male	Sputum	-	Hepatobiliary surgery	Guangdong	381	2	32	<i>bla</i> _{TEM-ID}	P4	1.11 ± 0.59	0.71 ± 0.21	2		ADC-30		+	0.66 ± 0.02	0.69 ± 0.19
A379	89	Female	Sputum	-	Pneumology	Guangdong	381	2	32											

A384	48	Female	nasal swab	-	-	Guangdong	806	215	32	<i>bla</i> _{TEM-ID}	P4	1.44 ± 0.79	0.74 ± 0.39	2	ADC-30	+	0.74 ± 0.08	0.66 ± 0.45
A385	55	Female	lung tissue	-	Pneumology	Guangdong	381	2	32	<i>bla</i> _{TEM-ID}	P4	1.28 ± 0.39	0.69 ± 0.30	2	ADC-30	+	0.71 ± 0.35	0.69 ± 0.29
A386	79	Male	Sputum	-	Pneumology	Guangdong	806	215	32	<i>bla</i> _{TEM-ID}	P4	1.68 ± 0.46	1.06 ± 0.30	2	ADC-30	+	0.62 ± 0.29	0.73 ± 0.16
A394	86	Female	Sputum	-	-	Guangdong	381	2	32	<i>bla</i> _{TEM-ID}	P4	0.98 ± 0.15	0.64 ± 0.17	2	ADC-30	+	0.48 ± 0.16	0.61 ± 0.19
A403	63	Female	Respiratory tract	-	ICU	Guangdong	806	215	32	<i>bla</i> _{TEM-ID}	P4	1.73 ± 0.71	0.86 ± 0.27	2	ADC-30	+	0.46 ± 0.03	0.68 ± 0.45
A92	53	Female	Sputum	-	Emergency	Anhui	540	2	64	<i>bla</i> _{TEM-ID}	P4	1.22 ± 0.19	1.07 ± 0.20	2	ADC-30	+	0.37 ± 0.01	0.88 ± 0.22
A106	33	Male	Sputum	-	Senior ward	Anhui	540	2	64	<i>bla</i> _{TEM-ID}	P4	1.24 ± 0.35	0.78 ± 0.56	2	ADC-30	+	0.48 ± 0.13	0.63 ± 0.27
A115	71	Male	Sputum	-	Neurology	Anhui	540	2	64	<i>bla</i> _{TEM-ID}	P4	1.19 ± 0.20	0.70 ± 0.22	2	ADC-30	+	0.60 ± 0.17	0.56 ± 0.27
A186	75	Male	Sputum	-	ICU	Xinjiang	452	2	64	<i>bla</i> _{TEM-ID}	P4	1.24 ± 0.18	0.97 ± 0.30	2	ADC-30	+	0.63 ± 0.26	0.63 ± 0.46
A322	81	Female	Sputum	Cerebral hemorrhage	Neurosurgery	Liaoning	369	2	64	<i>bla</i> _{TEM-ID}	P4	1.00 ± 0.27	0.68 ± 0.42	2	ADC-30	+	0.58 ± 0.06	0.71 ± 0.35
A325	75	Female	Sputum	Intracranial space-occupying lesion	Neurosurgery	Liaoning	369	2	64	<i>bla</i> _{TEM-ID}	P4	1.14 ± 0.37	0.79 ± 0.29	2	ADC-30	+	0.69 ± 0.31	0.71 ± 0.22
A469	41	Male	Sputum	OSAS	ICU	Beijing	368	2	64	<i>bla</i> _{TEM-ID}	P4	1.00 ± 0.35	0.78 ± 0.33	19	ADC-25	None	0.02 ± 0.01	1.30 ± 0.27
ZS11	60d	Female	Sputum	COPD	Pneumology	Zhejiang	208	2	256	<i>bla</i> _{TEM-ID}	P4	2.67 ± 0.87	1.21 ± 0.60	20	ADC-73	+	0.66 ± 0.31	0.77 ± 0.33
ZS3	77	Female	Sputum	Cerebral hemorrhage	Neurosurgery	Zhejiang	208	2	256	<i>bla</i> _{TEM-ID}	P4	11.38 ± 4.76	5.43 ± 0.95	20	ADC-73	+	0.32 ± 0.21	0.55 ± 0.03
XH856	-	-	-	-	-	-	381	2	64	<i>bla</i> _{TEM-ID}	P4	1.00 ± 0.15	1.00 ± 0.08	2	ADC-30	+	1.00 ± 0.18	1.12 ± 0.46

NOTE:

None, negative; +, positive; -, missing; NT, not tested.

Table S3. The correlation between the *ampC* alleles and STs of the clinical isolates in the study.

<i>ampC</i> allele	Strain	ST(Pasteur)
2	T17	2
	A2986	2
	A387	215
	A396	215
	A101	2
	SX5	2
	A1469	2
	A468	2
	A74	2
	A97	2
	A107	2
	A173	2
	A75	2
	A78	2
	A82	2
	A83	2
	A84	2
	A85	2
	A87	2
	A93	2
	A94	2
	A104	2
	A111	2
	A370	2
	A373	215
	A376	215
	A378	2
	A379	2
	A381	215
	A384	215
	A385	2
	A386	215
	A394	2
	A403	215
	A106	2
A115	2	
A186	2	
A322	2	
A325	2	
10	SH37	575
	SH40	10
	LS0148	10
	P7	10
	A2466	23
	A138	23
	A141	23
	A142	23
	A205	Novel
	A132	23
	A136	23
	16	SH27
19	A2265	2
	A124	2
	A157	2
	A168	2

	A469	2
20	A2841	2
	A374	2
	ZS11	2
	ZS3	2
28	A206	2
36	A369	40
	JX106	40
	N9130	40
	CQ301	1159
	A474	40
38	WE2714	52
40	N5806	216