

**Supplementary Table S1. Main characteristics of 342 carbapenem-resistant *Enterobacteriaceae* used in this study.**

No.	Species	Spe	ST	beta-lactamase genes					MHT	Carba NP	MH A		mCIM		
				Carbapenem ase	TEM	SHV	CTX-M	AmpC			1 h	2 h	MEM	IPM	ETP
D01	<i>Enterobacter cloacae</i>	bl	-	-	-	-	-	-	w +	-	-	-	+	+	+
D02	<i>Enterobacter cloacae</i>	bl	-	-	TEM-1	-	-	-	w +	-	-	-	-	-	-
D03	<i>Escherichia coli</i>	bl	354	KPC-2	TEM-1	-	-	CMY-2	+	+	+	+	+	+	+
D04	<i>Klebsiella pneumoniae</i>	bl	11	KPC-2	TEM-1	SHV-11	CTX-M-14	CMY-2	+	+	-	+	+	+	+
D06	<i>Klebsiella pneumoniae</i>	bl	11	KPC-2	TEM-1	SHV-11	CTX-M-14	CMY-2	+	+	-	+	+	+	+
D07	<i>Klebsiella pneumoniae</i>	bl	69	KPC-2	TEM-1	-	CTX-M-14	CMY-2	+	+	+	+	+	+	+
D09	<i>Klebsiella pneumoniae</i>	bl	11	KPC-2	TEM-1	SHV-11	CTX-M-14	CMY-2	+	+	-	+	+	+	+
D11	<i>Citrobacter freundii</i>	df	-	IMP-1	-	-	CTX-M-3,CTX-M-14	CMY-2	+	+	+	+	+	+	+
D13	<i>Escherichia coli</i>	af	-	-	-	-	CTX-M-3	-	-	-	-	-	-	-	-
D16	<i>Klebsiella pneumoniae</i>	bl	14	KPC-2	TEM-1	SHV-11	CTX-M-3,CTX-M-14	-	+	+	+	+	+	+	+
D17	<i>Klebsiella pneumoniae</i>	df	11	KPC-2	-	SHV-11	-	-	+	+	+	+	+	+	+
D18	<i>Klebsiella pneumoniae</i>	bl	147	KPC-2	TEM-1	SHV-11	CTX-M-3	-	+	+	+	+	+	+	+

D21	<i>Escherichia coli</i>	bl	648	KPC-2	TEM-1	-	CTX-M-3, CTX-M-14	-	+	-	+	+	+	+	+
D22	<i>Klebsiella pneumoniae</i>	bl	11	KPC-2	TEM-1	SHV-11	-	-	+	+	-	+	+	+	+
D23	<i>Klebsiella pneumoniae</i>	af	-	-	-	SHV-12	CTX-M-14	DHA-1	-	-	-	-	-	-	-
D24	<i>Enterobacter cloacae</i>	df	-	-	TEM-1	-	-	-	-	-	-	-	-	-	-
D25	<i>Enterobacter cloacae</i>	df	-	NDM-1	-	-	-	-	+	w+	+	+	+	+	-
D26	<i>Klebsiella pneumoniae</i>	sp	11	KPC-2	-	SHV-1	CTX-M-14	CMY-2	+	+	+	+	+	+	+
D27	<i>Klebsiella pneumoniae</i>	bi	11	KPC-2	-	SHV-11	CTX-M-14	CMY-2	+	+	-	+	+	+	+
D28	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	-	SHV-11	-	CMY-2	+	+	-	+	+	+	+
D29	<i>Escherichia coli</i>	ur	354	IMP-1	TEM-1	-	CTX-M-15	-	+	+	+	+	+	+	+
D30	<i>Klebsiella pneumoniae</i>	bl	11	KPC-2	TEM-1	SHV-11	CTX-M-14	CMY-2	+	+	-	+	+	+	+
D32	<i>Escherichia coli</i>	df	-	-	TEM-1	-	CTX-M-14	-	-	-	-	-	-	-	-
D33	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	TEM-1	SHV-11	CTX-M-14	CMY-2	+	+	-	+	+	+	+
D34	<i>Klebsiella pneumoniae</i>	sp	11	KPC-2	TEM-1	SHV-11	CTX-M-14	CMY-2	+	+	-	+	+	+	+
D35	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	TEM-1	SHV-11	CTX-M-14	CMY-2	+	+	-	+	+	+	+
D36	<i>Enterobacter cloacae</i>	sp	-	IMP-1	-	SHV-11	-	-	+	+	+	+	+	+	+

D37	<i>Citrobacter freundii</i>	ur	-	IMP-1	-	-	CTX-M-3,CTX-M-14	CMY-2	+	+	+	+	+	+	+
D38	<i>Klebsiella oxytoca</i>	rs	-	IMP-1	-	-	-	CMY-2	+	+	+	+	+	+	+
D39	<i>Klebsiella planticola</i>	bl	-	-	-	SHV-11	CTX-M-14	-	-	-	-	-	-	-	-
D40	<i>Enterobacter cloacae</i>	bl	-	IMP-4	TEM-1	-	-	-	w +	+	+	+	+	+	+
D41	<i>Enterobacter aerogenes</i>	sp	-	-	-	-	-	-	-	-	-	-	-	-	-
D42	<i>Klebsiella pneumoniae</i>	ot	11	KPC-2	-	SHV-11	-	CMY-2	+	+	-	+	+	+	+
D43	<i>Klebsiella pneumoniae</i>	ti	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
D44	<i>Klebsiella pneumoniae</i>	sp	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
D45	<i>Klebsiella pneumoniae</i>	bl	14	KPC-2	-	SHV-11	CTX-M-3,CTX-M-14	-	+	+	+	+	+	+	+
D47	<i>Citrobacter freundii</i>	sp	-	IMP-1	-	SHV-11	-	CMY-2	w +	+	+	+	+	+	+
D48	<i>Enterobacter aerogenes</i>	sp	-	-	-	-	-	DHA-1	-	-	-	-	-	-	-
D49	<i>Enterobacter cloacae</i>	pe	97	KPC-2	-	-	-	CMY-2	+	+	+	+	+	+	+
D50	<i>Klebsiella pneumoniae</i>	ws	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
D51	<i>Klebsiella pneumoniae</i>	df	11	KPC-2	-	SHV-11	-	-	+	+	-	+	+	+	+
D52	<i>Klebsiella pneumoniae</i>	sp	65	KPC-2	TEM-1	SHV-11	CTX-M-3	-	+	+	+	+	+	+	+



H13	<i>Klebsiella pneumoniae</i>	ti	11	KPC-2	TEM-1	SHV-12	CTX-M-14	-	+	+	-	+	+	+	+
H17	<i>Klebsiella pneumoniae</i>	af	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
H18	<i>Enterobacter aerogenes</i>	af	-	-	-	-	-	-	-	-	-	-	-	-	-
H19	<i>Escherichia coli</i>	ur	410	KPC-2	-	-	-	-	+	+	+	+	+	+	+
H20	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
H22	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
H23	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
H24	<i>Escherichia coli</i>	ti	-	-	TEM-1	SHV-1a	CTX-M-3,CTX-M-14	DHA-1	-	-	-	-	-	-	-
H26	<i>Escherichia coli</i>	ti	167	KPC-2	-	-	CTX-M-14	-	+	+	+	+	+	+	+
H27	<i>Klebsiella pneumoniae</i>	ab	169 7	IMP-26 like	-	-	CTX-M-3	DHA-1	+	+	+	+	+	+	+
H28	<i>Enterobacter aerogenes</i>	ab	-	-	-	-	CTX-M-3,CTX-M-14	-	-	-	-	-	-	-	-
H29	<i>Klebsiella pneumoniae</i>	ur	-	-	TEM-1	SHV-1	CTX-M-3,CTX-M-14	DHA-1	-	-	-	-	-	-	-
H30	<i>Klebsiella pneumoniae</i>	ur	48	IMP	TEM-1	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
H31	<i>Klebsiella pneumoniae</i>	ur	48	IMP-8 like	TEM-1	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
H32	<i>Klebsiella pneumoniae</i>	af	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+

H33	<i>Enterobacter cloacae</i>	ur	-	-	TEM-1	-	CTX-M-14	-	-	-	-	-	-	-
H34	<i>Klebsiella planticola</i>	ur	-	IMP-4	TEM-1	SHV-11	CTX-M-3	-	+	+	+	+	+	+
H35	<i>Escherichia coli</i>	ur	617	KPC-2	-	-	CTX-M-14	-	+	+	+	+	+	+
H36	<i>Escherichia coli</i>	ur	354	KPC-2	TEM-1	-	CTX-M-3,CTX-M-14	-	+	+	+	+	+	+
H44	<i>Klebsiella pneumoniae</i>	ur	-	-	-	SHV-1a	CTX-M-14	DHA-1	-	-	-	-	-	-
H45	<i>Klebsiella pneumoniae</i>	bi	-	-	-	SHV-1a	CTX-M-14	-	-	-	-	-	-	-
H46	<i>Enterobacter aerogenes</i>	bi	-	-	-	-	-	-	-	-	-	-	-	-
H48	<i>Enterobacter cloacae</i>	bi	-	-	-	-	-	-	-	-	-	-	-	-
H50	<i>Klebsiella pneumoniae</i>	af	-	-	-	SHV-11	CTX-M-14	DHA-1	-	-	-	-	-	-
H53	<i>Serratia marcescens</i>	ab	-	IMP	-	-	-	-	w +	+	+	+	+	+
H54	<i>Klebsiella oxytoca</i>	ab	-	IMP-4 like	-	-	CTX-M-3	-	+	+	+	+	+	+
H55	<i>Enterobacter aerogenes</i>	ab	-	KPC-2	TEM-1	-	-	-	+	+	+	+	+	+
H57	<i>Klebsiella pneumoniae</i>	ti	37	KPC-2	TEM-1	SHV-1	CTX-M-14	-	+	+	+	+	+	+
H61	<i>Klebsiella pneumoniae</i>	af	11	KPC-2	-	SHV-11	-	-	+	+	-	+	+	+
H62	<i>Citrobacter freundii</i>	af	-	IMP-1	-	-	CTX-M-3,CTX-M-14	CMY-2	+	+	-	+	+	+
H67	<i>Escherichia coli</i>	ti	-	-	-	-	CTX-M-14	-	-	-	-	-	-	-

H68	<i>Klebsiella pneumoniae</i>	ti	-	-	-	SHV-5	CTX-M-14	-	-	-	-	-	-	-	-
H69	<i>Serratia marcescens</i>	bi	-	-	-	-	-	-	-	-	-	-	-	-	-
H71	<i>Enterobacter cloacae</i>	ur	-	-	-	SHV-11	-	-	-	-	-	-	-	-	-
H73	<i>Klebsiella pneumoniae</i>	ab	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
H74	<i>Klebsiella pneumoniae</i>	ti	11	KPC-2	TEM-1	SHV-12	CTX-M-14	-	+	+	-	+	+	+	+
H75	<i>Escherichia coli</i>	ab	200 3	KPC-2	-	-	CTX-M-15	CMY-2	+	+	+	+	+	+	+
H78	<i>Escherichia coli</i>	af	131	KPC-2	TEM-1	-	CTX-M-3,CTX-M-14	-	+	+	+	+	+	+	+
H79	<i>Klebsiella pneumoniae</i>	af	15	KPC-2	TEM-1	SHV-11	-	-	+	+	+	+	+	+	+
H80	<i>Escherichia coli</i>	af	131	KPC-2	TEM-1	-	CTX-M-3,CTX-M-14	-	+	+	+	+	+	+	+
H81	<i>Klebsiella pneumoniae</i>	ab	37	KPC-2	-	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
H82	<i>Klebsiella pneumoniae</i>	ab	290	KPC-2	-	SHV-11	CTX-M-14	DHA-1	+	+	+	+	+	+	+
H83	<i>Klebsiella pneumoniae</i>	ab	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
H85	<i>Escherichia coli</i>	ab	200 3	KPC-2	-	-	CTX-M-3	CMY-2	+	+	+	+	+	+	+
H86	<i>Serratia marcescens</i>	ab	-	KPC-2	-	-	-	-	+	+	+	+	+	+	+
H87	<i>Klebsiella pneumoniae</i>	ab	290	KPC-2	-	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
H88	<i>Klebsiella pneumoniae</i>	bi	11	KPC-2	TEM-1	SHV-11	CTX-M-14	DHA-1	+	+	-	+	+	+	+

H89	<i>Escherichia coli</i>	ab	200 3	KPC-2	-	-	CTX-M-3	CMY-2	+	+	+	+	+	+	+
H90	<i>Serratia marcescens</i>	ab	-	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
H91	<i>Escherichia coli</i>	pe	648	KPC-2	TEM-1	-	CTX-M-3,CTX-M-14	-	+	+	+	+	+	+	+
H92	<i>Escherichia coli</i>	ab	354	KPC-2	-	-	CTX-M-3,CTX-M-14	CMY-2	+	+	+	+	+	+	+
H93	<i>Escherichia coli</i>	bi	410	KPC-2	TEM-1	-	-	-	+	+	+	+	+	+	+
H95	<i>Klebsiella pneumoniae</i>	ab	290	KPC-2	-	SHV-11	CTX-M-14	DHA-1	+	+	+	+	+	+	+
H96	<i>Escherichia coli</i>	ab	354	KPC-2	-	-	CTX-M-14	CMY-2	+	+	+	+	+	+	+
H97	<i>Klebsiella pneumoniae</i>	ab	15	KPC-2	TEM-1	SHV-11	-	-	+	+	+	+	+	+	+
H98	<i>Klebsiella pneumoniae</i>	ab	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
L00 1	<i>Klebsiella pneumoniae</i>	sp	1	NDM-1	TEM-1	SHV-11	-	-	-	+	+	+	+	+	+
L00 2	<i>Enterobacter cloacae</i>	ws	-	NDM-1	TEM-1	SHV-11	CTX-M-3	DHA-1	+	+	+	+	+	+	+
L00 3	<i>Klebsiella pneumoniae</i>	sp	25	NDM-1	-	SHV-11	-	-	-	+	+	+	+	+	+
L00 4	<i>Klebsiella pneumoniae</i>	sp	25	NDM-1	-	SHV-11	-	-	-	+	+	+	+	+	+
L00 5	<i>Enterobacter cloacae</i>	ca	-	NDM-1	-	SHV-11	CTX-M-14	CMY-2	w +	+	+	+	+	+	+
L00 6	<i>Enterobacter cloacae</i>	sp	-	NDM-1	TEM-1	SHV-11	CTX-M-3	DHA-1	w +	+	+	+	+	+	+



L007	<i>Enterobacter cloacae</i>	sp	-	IMP-26 like	-	-	CTX-M-3	-	+	+	+	+	+	+	+
L008	<i>Enterobacter cloacae</i>	bl	-	NDM-1	-	SHV-11	-	DHA-1	+	+	+	+	+	+	+
L009	<i>Enterobacter cloacae</i>	sp	-	NDM-1	TEM-1	SHV-11	-	DHA-1	-	w+	+	+	+	+	+
L010	<i>Enterobacter cloacae</i>	sp	-	NDM-1	TEM-1	SHV-11	CTX-M-3	DHA-1	w+	+	+	+	+	+	+
L011	<i>Enterobacter cloacae</i>	bl	-	NDM-1	TEM-1	SHV-11	CTX-M-3	-	w+	+	+	+	+	+	+
L012	<i>Klebsiella oxytoca</i>	bl	-	NDM-1	-	SHV-11	CTX-M-14	-	-	+	+	+	+	+	+
L013	<i>Klebsiella pneumoniae</i>	bi	11	NDM-1	TEM-1	SHV-11	-	-	-	+	+	+	+	+	+
L014	<i>Klebsiella pneumoniae</i>	sp	11	NDM-1	TEM-1	SHV-11	-	-	-	+	+	+	+	+	+
L015	<i>Enterobacter cloacae</i>	bl	-	NDM-1	-	SHV-11	-	DHA-1	-	+	+	+	+	+	+
L016	<i>Enterobacter cloacae</i>	ws	-	NDM-1	-	SHV-11	-	DHA-1	w+	+	+	+	+	+	+
L017	<i>Enterobacter cloacae</i>	ca	-	-	TEM-1	-	CTX-M-3	-	-	-	-	-	-	-	-
L018	<i>Enterobacter cloacae</i>	bl	-	-	-	-	CTX-M-3	DHA-1	-	-	-	-	-	-	-
L019	<i>Enterobacter cloacae</i>	sf	-	-	-	-	CTX-M-3	DHA-1	-	-	-	-	-	-	-
L021	<i>Enterobacter cloacae</i>	ca	-	-	TEM-1	-	CTX-M-3	-	-	-	-	-	-	-	-
L024	<i>Enterobacter cloacae</i>	ab	-	-	-	-	-	-	-	-	-	-	-	-	-
L025	<i>Enterobacter cloacae</i>	ti	-	-	TEM-1	-	CTX-M-14	DHA-1	-	-	-	-	-	-	-



L04 7	<i>Klebsiella pneumoniae</i>	ur	-	-	-	SHV-11	-	DHA-1	-	-	-	-	-	-
L04 8	<i>Klebsiella pneumoniae</i>	sp	655	KPC-2	TEM-1	SHV-11	CTX-M-3	-	+	+	+	+	+	+
L04 9	<i>Klebsiella pneumoniae</i>	af	15	KPC-2	TEM-1	SHV-11	CTX-M-3,CTX-M-14	DHA-1	+	w+	+	+	+	+
L05 0	<i>Klebsiella pneumoniae</i>	bl	-	-	TEM-1	SHV-11	-	DHA-1	-	-	-	-	-	-
L05 1	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	TEM-1	SHV-11	CTX-M-3,CTX-M-14	CMY-2	+	+	-	+	+	+
L05 2	<i>Klebsiella pneumoniae</i>	ur	22	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	+	+	+	+
L05 3	<i>Escherichia coli</i>	bl	167	KPC-2	TEM-1	-	CTX-M-14	-	w+	+	+	+	+	+
L05 4	<i>Escherichia coli</i>	ur	167	KPC-2	TEM-1	-	CTX-M-3	-	+	+	+	+	+	+
L05 5	<i>Escherichia coli</i>	bl	-	-	-	-	-	CMY-2	-	-	-	-	-	-
L05 6	<i>Serratia marcescens</i>	sp	-	KPC-2	-	-	-	DHA-1	+	+	+	+	+	+
L05 7	<i>Klebsiella pneumoniae</i>	fe	11	KPC-2	TEM-1	SHV-11	CTX-M-14	DHA-1	+	+	-	+	+	+
L05 8	<i>Klebsiella pneumoniae</i>	sf	11	KPC-2	TEM-1	SHV-11	CTX-M-3	-	+	+	-	+	+	+
L05 9	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	-	SHV-11	-	DHA-1	+	+	+	+	+	+
L06 0	<i>Klebsiella pneumoniae</i>	sp	412	KPC-2	-	SHV-11	-	DHA-1	+	+	+	+	+	+
L06 1	<i>Klebsiella pneumoniae</i>	bi	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	+	+	+	+

L06 2	<i>Klebsiella pneumoniae</i>	sp	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	+	+	+	+
L06 3	<i>Klebsiella pneumoniae</i>	bl	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+
L06 4	<i>Klebsiella pneumoniae</i>	bl	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+
L06 5	<i>Klebsiella pneumoniae</i>	bl	11	KPC-2	-	SHV-11	-	-	+	+	+	+	+	+
L06 6	<i>Klebsiella pneumoniae</i>	sp	11	KPC-2	-	SHV-11	-	DHA-1	+	+	+	+	+	+
L06 7	<i>Klebsiella pneumoniae</i>	fe	257 0	KPC-2	TEM-1	SHV-11	CTX-M-3	-	+	+	+	+	+	+
L06 8	<i>Proteus mirabilis</i>	ur	-	KPC-2	TEM-1	-	-	-	+	+	+	+	+	+
L06 9	<i>Klebsiella pneumoniae</i>	sp	11	KPC-2	-	SHV-11	-	-	+	+	-	+	+	+
L07 0	<i>Klebsiella pneumoniae</i>	bl	48	KPC-2	TEM-1	SHV-11	CTX-M-3	-	w +	+	+	+	+	+
L07 1	<i>Klebsiella pneumoniae</i>	sp	11	KPC-2	TEM-1	SHV-11	-	-	+	+	+	+	+	+
L07 2	<i>Klebsiella pneumoniae</i>	bi	11	KPC-2	TEM-1	SHV-11	CTX-M-14	DHA-1	+	+	-	+	+	+
L07 3	<i>Klebsiella pneumoniae</i>	bi	11	KPC-2	TEM-1	SHV-11	CTX-M-3	-	+	+	+	+	+	+
L07 4	<i>Klebsiella pneumoniae</i>	ab	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	+	+	+	+
L07 5	<i>Klebsiella pneumoniae</i>	df	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+
L07 7	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	-	SHV-11	-	-	+	+	+	+	+	+
L07 8	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	+	+	+	+

L07 9	<i>Klebsiella pneumoniae</i>	df	11	KPC-2	-	SHV-11	-	-	+	+	-	+	+	+	+
L08 0	<i>Klebsiella pneumoniae</i>	bi	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
L08 1	<i>Enterobacter aerogenes</i>	gf	-	-	-	-	CTX-M-14	-	-	-	-	-	-	-	-
L08 2	<i>Klebsiella pneumoniae</i>	df	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
L08 3	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
L08 4	<i>Enterobacter cloacae</i>	bl	-	NDM-1	-	-	CTX-M-14	-	+	+	+	+	+	+	+
L08 5	<i>Enterobacter cloacae</i>	bl	-	NDM-1	TEM-1	SHV-11	CTX-M-3	-	+	+	+	+	+	+	+
L08 6	<i>Enterobacter cloacae</i>	BAL F	-	NDM-1	TEM-1	SHV-11	CTX-M-3	-	w +	+	+	+	+	-	-
L08 7	<i>Enterobacter cloacae</i>	bl	-	NDM-1	TEM-1	SHV-11	CTX-M-3	-	+	+	+	+	-	-	-
L08 8	<i>Enterobacter cloacae</i>	ur	-	-	-	-	CTX-M-3,CTX-M-14	-	-	-	-	-	-	-	-
L08 9	<i>Enterobacter cloacae</i>	bl	-	-	-	SHV-11	CTX-M-14	-	-	-	-	-	-	-	-
L09 0	<i>Klebsiella pneumoniae</i>	ur	656	KPC-2	-	-	-	-	+	+	+	+	+	+	+
L09 1	<i>Klebsiella pneumoniae</i>	ur	-	-	-	SHV-11	-	DHA-1	-	-	-	-	-	-	-
L09 3	<i>Klebsiella pneumoniae</i>	bi	-	-	-	SHV-11	CTX-M-14	-	-	-	-	-	-	-	-
L09 4	<i>Klebsiella pneumoniae</i>	ws	11	IMP-8	TEM-1	SHV-11	CTX-M-14	-	w +	+	-	+	+	+	+





L12 8	<i>Klebsiella pneumoniae</i>	bl	11	KPC-2	TEM-1	SHV-11	CTX-M-14	DHA-1	+	+	+	+	+	+	+
L12 9	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
L13 0	<i>Klebsiella pneumoniae</i>	bl	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
L13 1	<i>Klebsiella pneumoniae</i>	CSF	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
L13 2	<i>Klebsiella pneumoniae</i>	bi	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
L13 3	<i>Klebsiella pneumoniae</i>	bl	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
L13 4	<i>Klebsiella pneumoniae</i>	df	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
L13 5	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
L13 6	<i>Klebsiella pneumoniae</i>	bl	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
L13 7	<i>Enterobacter cloacae</i>	ur	93	KPC-2	TEM-1	-	CTX-M-3,CTX-M-14	-	+	+	-	+	+	+	+
L13 8	<i>Klebsiella pneumoniae</i>	bl	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
L13 9	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
L14 0	<i>Enterobacter cloacae</i>	ur	-	-	TEM-1	-	CTX-M-14	-	-	-	-	-	-	-	-
L14 1	<i>Klebsiella pneumoniae</i>	af	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
L14 2	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	-	SHV-11	CTX-M-14	-	w +	+	-	+	+	+	+



L14 3	<i>Klebsiella pneumoniae</i>	bl	494	KPC-2	-	SHV-11	CTX-M-3	-	w +	+	+	+	+	+	+
L14 4	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
L14 5	<i>Klebsiella pneumoniae</i>	df	11	KPC-2	TEM-1	SHV-11	-	-	+	+	-	+	+	+	+
L14 6	<i>Klebsiella pneumoniae</i>	bl	11	KPC-2	-	SHV-11	-	-	+	+	+	+	+	+	+
L14 7	<i>Enterobacter cloacae</i>	bl	-	KPC-2	-	-	CTX-M-14	DHA-1	+	+	+	+	+	+	+
L14 8	<i>Enterobacter cloacae</i>	bl	-	KPC-2	-	-	CTX-M-14	DHA-1	+	+	+	+	+	+	+
L14 9	<i>Klebsiella pneumoniae</i>	df	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
L15 0	<i>Klebsiella oxytoca</i>	df	-	KPC-2, IMP-4	-	SHV-11	-	-	+	+	+	+	+	+	+
L15 1	<i>Escherichia coli</i>	df	123 7	NDM-1	-	-	-	-	-	+	+	+	+	+	+
L15 2	<i>Klebsiella pneumoniae</i>	ti	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
L15 3	<i>Escherichia coli</i>	bl	361	NDM-1	-	-	CTX-M-3	-	-	+	+	+	+	+	+
L15 4	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	TEM-1	SHV-11	CTX-M-3,CTX-M-14	-	+	+	+	+	+	+	+
L15 5	<i>Klebsiella pneumoniae</i>	af	11	KPC-2	TEM-1	SHV-11	CTX-M-3,CTX-M-14	-	+	+	-	+	+	+	+
L15 6	<i>Klebsiella pneumoniae</i>	bl	11	KPC-2	TEM-1	SHV-11	CTX-M-3,CTX-M-14	-	+	+	-	+	+	+	+
L15 8	<i>Klebsiella pneumoniae</i>	df	11	KPC-2	TEM-1	SHV-11	CTX-M-3	-	+	+	+	+	+	+	+

L15	<i>Klebsiella pneumoniae</i>	bi	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
L16	<i>Klebsiella pneumoniae</i>	sp	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
L16	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
R01	<i>Klebsiella pneumoniae</i>	af	-	-	-	SHV-11	CTX-M-14	DHA-1	-	-	-	-	-	-	-
R02	<i>Enterobacter cloacae</i>	af	-	-	-	-	CTX-M-14	-	-	-	-	-	-	-	-
R03	<i>Escherichia coli</i>	af	-	-	-	-	CTX-M-14	-	-	-	-	-	-	-	-
R04	<i>Escherichia coli</i>	af	-	-	TEM-1	-	CTX-M-3	-	-	-	-	-	-	-	-
R05	<i>Escherichia coli</i>	af	-	-	-	-	CTX-M-15	-	-	-	-	-	-	-	-
R06	<i>Escherichia coli</i>	af	-	-	-	-	CTX-M-55	-	-	-	-	-	-	-	-
R07	<i>Klebsiella pneumoniae</i>	af	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
R08	<i>Klebsiella pneumoniae</i>	af	11	KPC-2	-	-	CTX-M-14	-	+	+	+	+	+	+	+
R09	<i>Klebsiella pneumoniae</i>	af	-	-	-	-	-	-	-	-	-	-	-	-	-
R10	<i>Klebsiella pneumoniae</i>	af	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
R11	<i>Escherichia coli</i>	af	-	-	TEM-1	-	CTX-M-55	-	-	-	-	-	-	-	-
R12	<i>Klebsiella pneumoniae</i>	af	11	KPC-2	-	SHV-11	CTX-M-3,CTX-M-14	-	+	+	-	+	+	+	+
R13	<i>Escherichia coli</i>	af	354	KPC-2	-	-	CTX-M-14	-	+	+	+	+	+	+	+

R14	<i>Klebsiella pneumoniae</i>	af	-	-	-	SHV-11	CTX-M-14	-	-	-	-	-	-	-
R15	<i>Klebsiella pneumoniae</i>	af	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	+	+	+	+
R16	<i>Klebsiella pneumoniae</i>	af	-	-	-	SHV-12	-	DHA-1	-	-	-	-	-	-
R17	<i>Enterobacter cloacae</i>	af	-	-	-	-	CTX-M-14	-	-	-	-	-	-	-
R19	<i>Enterobacter cloacae</i>	af	-	IMP-4	-	-	-	-	+	+	+	+	+	+
R22	<i>Klebsiella pneumoniae</i>	af	-	-	-	SHV-11	-	DHA-1	-	-	-	-	-	-
R23	<i>Klebsiella pneumoniae</i>	af	11	KPC-2	-	SHV-11	-	-	+	+	+	+	+	+
R25	<i>Enterobacter aerogenes</i>	sp	-	KPC-2	TEM-1	SHV-11	CTX-M-14	DHA-1	+	+	+	+	+	+
R26	<i>Enterobacter cloacae</i>	bl	-	-	TEM-1	SHV-12	-	-	-	-	-	-	-	-
R27	<i>Enterobacter cloacae</i>	af	-	-	TEM-1	-	-	-	w +	-	-	-	-	-
R28	<i>Enterobacter cloacae</i>	ur	-	-	TEM-1	-	CTX-M-14	-	-	-	-	-	-	-
R30	<i>Enterobacter cloacae</i>	ur	-	IMP-1	TEM-1	-	-	-	w +	+	+	+	+	+
R31	<i>Enterobacter cloacae</i>	ur	-	-	-	-	-	-	-	-	-	-	-	-
R34	<i>Enterobacter cloacae</i>	af	-	IMP-4	TEM-1	-	CTX-M-22 CTX-M-14	DHA-1	+	+	+	+	+	+
R35	<i>Klebsiella pneumoniae</i>	af	-	-	-	SHV-11	CTX-M-55	CMY-2	w +	-	-	-	-	-

R37	<i>Klebsiella pneumoniae</i>	af	1	KPC-2	-	SHV-11	CTX-M-15	-	+	+	+	+	+	+
R38	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	+	+	+	-
R39	<i>Klebsiella pneumoniae</i>	ur	11	KPC-2	-	SHV-11	CTX-M-14	-	+	+	+	+	+	-
R40	<i>Klebsiella pneumoniae</i>	af	11	KPC-2	-	SHV-11	CTX-M-3,CTX-M-14	-	+	+	+	+	+	+
R41	<i>Klebsiella pneumoniae</i>	af	11	KPC-2	-	SHV-11	CTX-M-14	-	w +	+	+	+	+	+
Y001	<i>Klebsiella pneumoniae</i>	sp	-	-	-	SHV-11	-	DHA-1	-	-	-	-	-	-
Y003	<i>Klebsiella pneumoniae</i>	sp	-	-	-	-	-	DHA-1	-	-	-	-	-	-
Y004	<i>Klebsiella pneumoniae</i>	sp	-	-	-	SHV-1	-	DHA-1	-	-	-	-	-	-
Y005	<i>Klebsiella pneumoniae</i>	df	-	-	-	SHV-12	-	DHA-1	-	-	-	-	-	-
Y008	<i>Klebsiella pneumoniae</i>	df	-	-	-	SHV-11	-	DHA-1	-	-	-	-	-	-
Y018	<i>Klebsiella pneumoniae</i>	ti	1	KPC-2	-	SHV28	-	DHA-1	w +	+	+	+	+	+
Y024	<i>Enterobacter cloacae</i>	ur	-	-	TEM-1	-	-	DHA-1	w +	-	-	-	-	-
Y041	<i>Enterobacter aerogenes</i>	ur	-	-	-	-	CTX-M-14	DHA-1	w +	-	-	-	-	-
Y043	<i>Escherichia coli</i>	vs	-	-	TEM-1	-	CTX-M-14	-	-	-	-	-	-	-
Y047	<i>Klebsiella pneumoniae</i>	bl	17	IMP-8	TEM-1	SHV-11	CTX-M-14	-	+	+	+	+	+	+

Y04 9	<i>Klebsiella pneumoniae</i>	ur	17	IMP-8	TEM-1	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
Y05 6	<i>Enterobacter cloacae</i>	bl	-	-	-	-	-	-	-	-	-	-	-	-	-
Y06 0	<i>Escherichia coli</i>	sp	-	-	TEM-1	-	-	CMY-2	w +	-	-	-	-	+	-
Y06 1	<i>Klebsiella pneumoniae</i>	sp	-	-	TEM-1	SHV-1a	-	CMY-2	-	-	-	-	-	-	-
Y06 2	<i>Citrobacter freundii</i>	ur	-	IMP-4	TEM-1	-	-	CMY-2	+	+	+	+	+	+	+
Y06 3	<i>Citrobacter freundii</i>	CSF	-	IMP-4	-	-	-	-	+	+	+	+	+	+	+
Y06 4	<i>Klebsiella oxytoca</i>	sp	-	IMP-4	-	-	-	-	+	+	+	+	+	+	+
Y06 6	<i>Klebsiella pneumoniae</i>	ws	-	-	-	SHV-11	-	DHA-1	-	-	-	-	-	-	-
Y06 7	<i>Klebsiella pneumoniae</i>	sp	-	-	-	SHV-2	CTX-M-14	DHA-1	w +	-	-	-	-	-	-
Y06 8	<i>Klebsiella pneumoniae</i>	sp	-	-	-	-	CTX-M-15	-	-	-	-	-	-	-	-
Y06 9	<i>Klebsiella pneumoniae</i>	sp	-	-	-	SHV-28	-	-	-	-	-	-	-	-	-
Y07 0	<i>Klebsiella pneumoniae</i>	sp	23	KPC-2	-	SHV-11	CTX-M-14	-	+	+	-	+	+	+	+
Y07 1	<i>Klebsiella pneumoniae</i>	ws	23	KPC-2	TEM-1	SHV-11	CTX-M-14	-	+	+	+	+	+	+	+
Y07 4	<i>Escherichia coli</i>	sp	-	-	TEM-1	-	CTX-M-3,CTX-M-14	-	-	-	-	-	-	-	-
Y07 5	<i>Klebsiella pneumoniae</i>	ur	-	-	-	SHV-11	-	DHA-1	-	-	-	-	-	-	-

Y07 6	<i>Klebsiella pneumoniae</i>	bl	416	IMP-4	TEM-1	SHV-14	CTX-M-3	-	+	+	+	+	+	+
Y07 7	<i>Klebsiella pneumoniae</i>	sp	416	IMP-4	TEM-1	SHV-14	CTX-M-3	-	+	+	+	+	+	+
Y07 8	<i>Citrobacter freundii</i>	bl	-	-	-	-	-	CMY-2	w +	-	-	-	-	-
Y08 1	<i>Klebsiella pneumoniae</i>	bl	-	-	TEM-1	SHV-12	-	DHA-1	w +	-	-	-	-	-
Y08 3	<i>Klebsiella pneumoniae</i>	sp	-	-	-	SHV-11	CTX-M-14	-	-	-	-	-	-	-
Y08 4	<i>Klebsiella pneumoniae</i>	bl	-	-	-	SHV-11	-	-	-	-	-	-	-	-
Y08 5	<i>Enterobacter aerogenes</i>	vs	-	-	TEM-1	-	CTX-M-3	-	-	-	-	-	-	-
Y08 6	<i>Escherichia coli</i>	ur	648	KPC-2	TEM-1	-	-	-	+	+	+	+	+	+
Y08 7	<i>Escherichia coli</i>	af	648	KPC-2	TEM-1	-	-	-	+	+	+	+	+	+
Y08 8	<i>Enterobacter cloacae</i>	bl	-	-	-	-	CTX-M-14	-	-	-	-	-	-	-
Y08 9	<i>Enterobacter cloacae</i>	bl	-	-	-	-	CTX-M-14	-	-	-	-	-	-	-
Y09 0	<i>Enterobacter cloacae</i>	bl	-	-	-	-	CTX-M-14	-	-	-	-	-	-	-
Y09 1	<i>Enterobacter cloacae</i>	sp	-	-	-	-	CTX-M-14	-	-	-	-	-	-	-
Y09 2	<i>Enterobacter cloacae</i>	bl	-	IMP-4	TEM-1	-	CTX-M-14	DHA-1	+	+	+	+	+	+
Y09 4	<i>Enterobacter cloacae</i>	df	-	IMP-4	TEM-1	-	CTX-M-3	-	+	+	+	+	+	+
Y09 6	<i>Escherichia coli</i>	df	-	-	TEM-1	-	CTX-M-14	CMY-2	w +	-	-	-	-	-

Y09 7	<i>Klebsiella pneumoniae</i>	bl	11	IMP-4	-	SHV-33	-	-	-	+	+	+	+	+	+
Y09 9	<i>Klebsiella pneumoniae</i>	sp	15	KPC-2	-	-	CTX-M-3	-	w+	+	+	+	+	+	+
Y10 1	<i>Escherichia coli</i>	bl	-	-	TEM-1	-	CTX-M-14	CMY-2	-	-	-	-	-	-	-
Y10 2	<i>Escherichia coli</i>	bl	-	-	TEM-1	-	CTX-M-14	CMY-2	-	-	-	-	-	+	-
Y10 3	<i>Enterobacter cloacae</i>	bl	-	IMP-4	TEM-1	-	CTX-M-3	-	+	+	+	+	+	+	+
Y10 4	<i>Klebsiella pneumoniae</i>	bl	-	-	TEM-1	SHV-11	CTX-M-15	-	-	-	-	-	-	-	-
Y10 5	<i>Klebsiella pneumoniae</i>	sp	-	-	TEM-1	SHV-12	CTX-M-14	DHA-1	-	-	-	-	-	-	-

Spe: specimen, ab: abscess, af: ascitic fluid, bi: bile, bl: blood, BALF: bronchoalveolar lavage fluid, ca: catheter, CSF: cerebrospinal fluid, df: drainage fluid, fe: fecal, gf: gastric fluid, ot: other, pe: pleural effusion, rs: rectal swab, sf: secretion fluid, sp: sputum, ti: tissue, ur: urine, vs: vaginal swab, ws: wound swab,

ST: sequence type, MHT: modified Hodge test, MHA: meropenem hydrolysis assay, mCIM: modified carbapenem inactivation method, MEM: meropenem, IPM: imipenem, ETP: ertapenem

w+: Results that were interpreted as weak positive and were classified as positive for analysis.