

Supplemental Table S1:

COMPARISON OF THREE EXPANDED-SPECTRUM CEPHALOSPORIN HYDROLYSIS ASSAYS AND THE NG-TEST CTX-M MULTI ASSAY THAT DETECTS ALL CTX-M-LIKE ENZYMES

Camille GONZALEZ^{1,2}, Christian MOGUET³, Arnaud CHALIN⁴, Saoussen OUESLATI^{1,2}, Laurent DORTET^{1,2,5}, Stéphanie SIMON³, Hervé VOLLAND³, Thierry NAAS^{1,2,5*}

Supplemental Table S1: Detailed results for the 93 bacterial isolates studied with each tested method.

#	Isolate	Species	β -lactam resistance mechanisms ^a	β -lactamase ^b	NG-Test [®] CTX-M MULTI	LFIA-CTX	β -LACTA [™]	ESBL NDP
<i>Enterobacteriales</i>								
1	I8R8	<i>E. coli</i>	WT	None	-	-	-	-
2	D9O66	<i>P. mirabilis</i>	WT	None	-	-	-	-
3	SalR12-B2	<i>Salmonella</i> spp.	WT	None	-	-	-	-
4	SalR10-A10	<i>Salmonella</i> spp.	WT	None	-	-	-	-
5	3F7	<i>K. pneumoniae</i>	WT, Chromosome-encoded penicillinase	SHV-1	-	-	-	-
6	I10R8	<i>K. pneumoniae</i>	WT, Chromosome-encoded penicillinase	SHV-28	-	-	-	-
7	2E1	<i>K. pneumoniae</i>	WT, Chromosome-encoded penicillinase	SHV-11	-	-	-	-
8	J2R8	<i>C. freundii</i>	WT	Low level CMY	-	-	-	-
9	J3R8	<i>E. cloacae</i>	WT	Low level ACT	-	-	-	-
10	D1O40	<i>E. coli</i>	CTX-M-enzyme lacking CTX hydrolysis	CTX-M-93	positive	-	-	-
11	1I7	<i>S. marscecens</i>	Class A carbapenemase	SME-1	-	-	positive	ESBL
12	1I3	<i>E. cloacae</i>	Class A carbapenemase	IMI-1	-	-	NI ^c	-
13	1I5	<i>E. asburiae</i>	Class A carbapenemase	IMI-2	-	-	-	-
14	CNR143D4	<i>E. cloacae</i>	Class A carbapenemase	IMI-17	-	-	-	-
15	2G2	<i>E. cloacae</i>	Hyperexpressed AmpC	High level ACT	-	positive	positive	-
16	2E3	<i>E. coli</i>	Plasmid-encoded AmpC	ACC-1	-	positive	positive	ESBL and/or AMPC
17	2E4	<i>K. pneumoniae</i>	Plasmid-encoded AmpC	DHA-2	-	positive	positive	ESBL and/or AMPC
18	I4O38	<i>E. coli</i>	Plasmid-encoded AmpC	CMY-136	-	positive	-	ESBL and/or AMPC
19	EC-R4	<i>E. coli</i>	ESBL	CTX-M	positive	positive	positive	ESBL

20	3F8	<i>E. aerogenes</i>	ESBL	TEM-24	-	positive	positive	-
21	9.40	<i>E. coli</i>	ESBL	TEM-52 + CTX-M-15	positive	positive	positive	ESBL
22	E10R13	<i>E. cloacae</i>	ESBL	GES-6	-	positive	-	-
23	2E6	<i>E. coli</i>	ESBL	CTX-M-1	positive	positive	positive	ESBL
24	A6R5	<i>E. coli</i>	ESBL	CTX-M-2	positive	positive	positive	ESBL
25	11.10	<i>K. pneumoniae</i>	ESBL	CTX-M-3	positive	positive	positive	ESBL
26	11.176	<i>E. coli</i>	ESBL	CTX-M-8	positive	positive	positive	ESBL
27	11.175	<i>K. pneumoniae</i>	ESBL	CTX-M-8	positive	positive	positive	ESBL
28	11.200	<i>E. cloacae</i>	ESBL	CTX-M-9	positive	positive	positive	-
29	E8O13	<i>E. coli</i>	ESBL	CTX-M-10	positive	positive	-	-
30	11.63	<i>E. coli</i>	ESBL	CTX-M-14	positive	positive	positive	ESBL
31	16.79	<i>E. coli</i>	ESBL	CTX-M-15	positive	positive	positive	ESBL
32	16.29	<i>K. pneumoniae</i>	ESBL	CTX-M-15	positive	positive	positive	ESBL
33	9.17	<i>E. cloacae</i>	ESBL	CTX-M-15	positive	positive	positive	ESBL
34	11.204 CAP	<i>C. freundii</i>	ESBL	CTX-M-15	positive	positive	positive	ESBL
35	16.60	<i>E. coli</i>	ESBL	CTX-M-17	positive	positive	-	-
36	G1R4	<i>K. pneumoniae</i>	ESBL	CTX-M-18	positive	positive	positive	ESBL
37	G2R4	<i>K. pneumoniae</i>	ESBL	CTX-M-19	positive	positive	positive	ESBL
38	Red-93	<i>E. coli</i>	ESBL	CTX-M-24	positive	positive	NI	ESBL
39	10.73	<i>E. coli</i>	ESBL	CTX-M-27	positive	positive	NI	ESBL
40	10.64	<i>E. coli</i>	ESBL	CTX-M-32	positive	positive	positive	ESBL
41	E3R12	<i>E. coli</i>	ESBL	CTX-M-37	positive	positive	-	ESBL
42	Red 88	<i>E. coli</i>	ESBL	CTX-M-55	positive	positive	positive	ESBL
43	10.231	<i>E. coli</i>	ESBL	CTX-M-57	positive	positive	positive	ESBL
44	Red83A	<i>E. coli</i>	ESBL	CTX-M-65	positive	positive	positive	ESBL
45	11.110	<i>P. mirabilis</i>	ESBL	CTX-M-71	positive	positive	positive	ESBL

46	16.48	<i>E. coli</i>	ESBL	CTX-M-82	positive	positive	NI	ESBL
47	16.69	<i>E. coli</i>	ESBL	CTX-M-101	positive	positive	positive	ESBL
48	1F1	<i>E. coli</i>	Class A carbapenemase	KPC-2	-	positive	positive	ESBL and/or AMPC
49	3F2	<i>K. pneumoniae</i>	Class A carbapenemase +ESBL	KPC-3 + CTX-M	positive	positive	positive	ESBL and/or AMPC
50	1A1	<i>E. coli</i>	Class B carbapenemase	NDM-1	-	positive	NI	ESBL and/or AMPC
51	CNR190E6	<i>E. coli</i>	Class B carbapenemase + ESBL	NDM-19 + CTX-M	positive	positive	positive	ESBL and/or AMPC
52	1C3	<i>E. coli</i>	Class B carbapenemase + Plasmid-encoded AmpC	VIM-1 + CMY-13	-	positive	-	ESBL and/or AMPC
53	1C9	<i>K. pneumoniae</i>	Class B carbapenemase + ESBL	VIM-1 + SHV-5	-	positive	NI	ESBL and/or AMPC
54	1D9	<i>E. coli</i>	Class B carbapenemase	IMP-1	-	positive	positive	ESBL and/or AMPC
55	1E5	<i>K. pneumoniae</i>	Class B carbapenemase	IMP-8	-	positive	positive	ESBL and/or AMPC
56	2J3	<i>K. pneumoniae</i>	Class D carbapenemase + ESBL	OXA-163 + CTX-M	positive	positive	positive	ESBL and/or AMPC
57	CNR172D10	<i>E. coli</i>	Class D carbapenemase	OXA-484	-	positive	positive	ESBL and/or AMPC
58	2J5	<i>S. marcescens</i>	OXA-48-like enzyme hydrolysing ESCs	OXA-405	-	positive	positive	ESBL and/or AMPC
59	2A1	<i>E. coli</i>	Class D carbapenemase + ESBL	OXA-48 + CTX-M-15	positive	positive	positive	ESBL and/or AMPC
60	3G8	<i>K. pneumoniae</i>	Class D carbapenemase + ESBL	OXA-370 + CTX-M-9	positive	positive	positive	ESBL and/or AMPC
<i>Pseudomonas spp</i>								
61	G7R1	<i>P. putida</i>	WT, Basal AmpC	Low level AMPC	-	-	-	-
62	G5R8	<i>P. aeruginosa</i>	WT, Basal AmpC	Low level AMPC	-	-	-	-
63	carba1A8	<i>P. aeruginosa</i>	Efflux (Mex C/D-OprJ)	Low level AMPC	-	-	-	-
64	carba1A9	<i>P. aeruginosa</i>	Efflux (Mex A/B-OprM)	Low level AMPC	-	-	-	-

65	E8R5	<i>P. aeruginosa</i>	Plasmid-encoded penicillinase	CARB-4	-	-	positive	ESBL
66	carba1H2	<i>P. aeruginosa</i>	Acquired oxacillinase	OXA-32	-	-	NI	-
67	D4O5	<i>P. aeruginosa</i>	Acquired oxacillinase	OXA-13	-	-	positive	-
68	carba1F1	<i>P. aeruginosa</i>	Class B carbapenemase	AIM-1	-	-	positive	ESBL and/or AMPC
69	carba1F7	<i>P. aeruginosa</i>	ESBL	PME-1	-	-	positive	ESBL
70	pyo ctrl E6	<i>P. aeruginosa</i>	ESBL	PER-1	-	positive	positive	ESBL and/or AMPC
71	carba1F8	<i>P. aeruginosa</i>	ESBL	CTX-M-2	positive	positive	positive	ESBL and/or AMPC
72	F1O26	<i>P. aeruginosa</i>	ESBL	SHV-2a	-	positive	NI	-
73	F1R7	<i>P. aeruginosa</i>	ESBL	SHV-5	-	-	positive	-
74	F2R7 ou C8O5	<i>P. aeruginosa</i>	ESBL	TEM-4	-	-	-	-
75	F10O35	<i>P. stutzeri</i>	Class B carbapenemase	DIM-1	-	positive	positive	ESBL and/or AMPC
76	carba1B2	<i>P. aeruginosa</i>	Class A carbapenemase	GES-5	-	-	-	ESBL
77	Carba1A4	<i>P. aeruginosa</i>	Class A carbapenemase	KPC-2	-	positive	positive	ESBL and/or AMPC
78	carba1E2	<i>P. aeruginosa</i>	Class B carbapenemase	NDM-1	-	positive	NI	-
79	C3O51	<i>P. aeruginosa</i>	Class B carbapenemase	VIM-2	-	positive	NI	ESBL and/or AMPC
80	carbaD2	<i>P. stutzeri</i>	Class B carbapenemase	IMP-1	-	positive	positive	ESBL and/or AMPC
81	carba2B7	<i>P. aeruginosa</i>	Class B carbapenemase	IMP-26	-	positive	positive	ESBL and/or AMPC
<i>A. baumannii</i>								
82	ctrl A9	<i>A. baumannii</i>	Acquired penicillinase	RTG-4	-	-	positive	-
83	ctrlB3	<i>A. baumannii</i>	Overexpressed AmpC	High level ADC	-	positive	positive	-
84	carba1A10	<i>A. baumannii</i>	Overexpressed AmpC+ OXA	High level ADC + OXA-21 (penicillinase)	-	positive	positive	ESBL and/or AMPC
85	ctrlA7	<i>A. baumannii</i>	ESBL	PER-1	-	positive	positive	ESBL and/or AMPC
86	ctrlH9	<i>A. baumannii</i>	ESBL	VEB-1	-	positive	NI	-
87	H10R8	<i>A. baumannii</i>	ESBL	CTX-M-15	positive	positive	NI	-

88	F5O22	<i>A. baumannii</i>	Class B carbapenemase	SIM-1	-	positive	NI	-
89	metalloI2	<i>A. baumannii</i>	Class B carbapenemase	IMP-4	-	positive	positive	ESBL and/or AMPC
90	OXA-58 J3	<i>A. baumannii</i>	Class D carbapenemase	OXA-253	-	positive	positive	ESBL and/or AMPC
91	OXA-58 A8	<i>A. baumannii</i>	Class D carbapenemase	High level ADC + OXA- 58	-	positive	-	-
92	metalloB2	<i>A. baumannii</i>	Class A carbapenemase	GES-11	-	positive	positive	ESBL and/or AMPC
93	mG7	<i>A. baumannii</i>	Class A carbapenemase	GES-14	-	positive	positive	ESBL

^a β -lactam resistance mechanisms: corresponds to the phenotype conferred by the main β -lactamase encountered in the isolate.

^b β -lactamase content. When no acquired enzyme, the level of expression of naturally encoded enzymes is indicated. When acquired enzymes are present, only the latter are indicated.

^cNI: Non-Interpretable