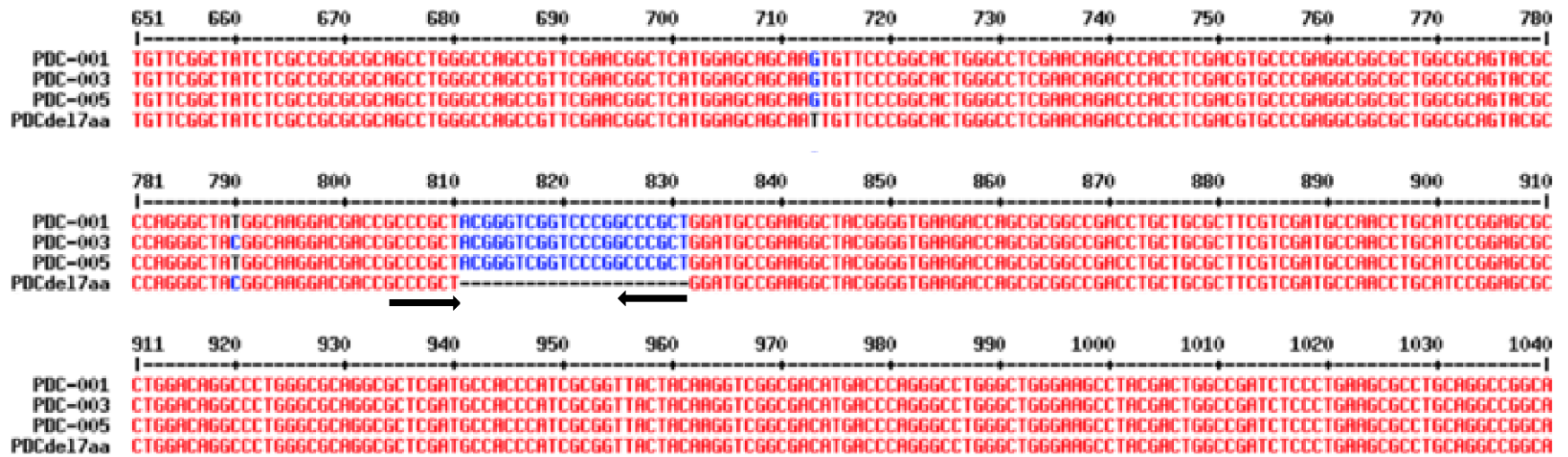




4 **Figure S2.** Multiple sequence alignment of wild type *bla*<sub>PDC-1</sub>, *bla*<sub>PDC-3</sub>, *bla*<sub>PDC-5</sub>, and the mutant *bla*<sub>PDC</sub> displaying the 7 amino acid  
 5 deletion flanked by direct repeats (represented by black arrows). The alignment was done using the Ugene software and visualized  
 6 with the Multalin website application.

7



8

**Table S1.** Ceftazidime Hollow Fiber Infection Model Concentration determinations by experiment.

*Experiment #1*

Arm B:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g/mL}$ )
ArmBS_0h	0	4.76
ArmB_2h	2	64.8
ArmB_4h	4	6.290
ArmB_6h	6	0.809
ArmB_8h	8	0.09
ArmB_10h	10	69.5
ArmB_24h	24	0.19
ArmB_26h	26	71.4
ArmB_28h	28	10.2
ArmB_30h	30	1.04
ArmB_32h	32	0.159
ArmB_34h	34	65.9
ArmB_48h	48	0.48

Arm C:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g/mL}$ )
ArmC_2h	2	58.6
ArmC_4h	4	12.2
ArmC_6h	6	2.86
ArmC_8h	8	0.656
ArmC_10h	10	54.2
ArmC_24h	24	0.68
ArmC_26h	26	47.90
ArmC_28h	28	13.7
ArmC_30h	30	2.88

ArmC_32h	32	0.625
ArmC_34h	34	54.4
ArmC_48h	48	0.606

Arm D:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g}/\text{mL}$ )
ArmD_2h	2	45.80
ArmD_4h	4	13.80
ArmD_6h	6	4.39
ArmD_8h	8	1.30
ArmD_10h	10	41.70
ArmD_24h	24	0.930
ArmD_26h	26	36.30
ArmD_28h	28	13.60
ArmD_30h	30	3.68
ArmD_32h	32	1.21
ArmD_34h	34	44.80
ArmD_48h	48	1.16

Arm E:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g}/\text{mL}$ )
ArmE_2h	2	39.10
ArmE_4h	4	15.20
ArmE_6h	6	5.04
ArmE_8h	8	2.00
ArmE_10h	10	34.70
ArmE_24h	24	1.71
ArmE_26h	26	38.70

ArmE_28h	28	14.40
ArmE_30h	30	5.27
ArmE_32h	32	2.09
ArmE_34h	34	35.30
ArmE_48h	48	2.02

Arm F:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g/mL}$ )
ArmF_2h	2	35.30
ArmF_4h	4	18.60
ArmF_6h	6	8.67
ArmF_8h	8	4.52
ArmF_10h	10	30.10
ArmF_24h	24	3.18
ArmF_26h	26	35.50
ArmF_28h	28	17.60
ArmF_30h	30	8.73
ArmF_32h	32	4.53
ArmF_34h	34	32.10
ArmF_48h	48	4.41

Arm G:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g/mL}$ )
ArmG_2h	2	4.10
ArmG_4h	4	4.15
ArmG_6h	6	3.97
ArmG_8h	8	4.12
ArmG_10h	10	3.87
ArmG_24h	24	2.91

ArmG_26h	26	4.24
ArmG_28h	28	4.13
ArmG_30h	30	3.88
ArmG_32h	32	3.87
ArmG_34h	34	3.80
ArmG_48h	48	3.68

*Experiment #2*

Arm B:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g}/\text{mL}$ )
ArmBS_0h	0	No Peak
ArmB_2h	2	60.0
ArmB_4h	4	21.2
ArmB_6h	6	9.41
ArmB_8h	8	4.08
ArmB_10h	10	56.5
ArmB_24h	24	5.02
ArmB_26h	26	54.7
ArmB_28h	28	24.2
ArmB_30h	30	8.06
ArmB_32h	32	3.35
ArmB_34h	34	47.8
ArmB_48h	48	4.9

Arm C:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g}/\text{mL}$ )
ArmC_2h	2	59.0
ArmC_4h	4	26.0

ArmC_6h	6	12.0
ArmC_8h	8	5.31
ArmC_10h	10	53.1
ArmC_24h	24	4.92
ArmC_26h	26	37.1
ArmC_28h	28	25.8
ArmC_30h	30	10.2
ArmC_32h	32	5.17
ArmC_34h	34	49.5
ArmC_48h	48	2.52

Arm D:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. (µg/mL)
ArmD_2h	2	49.7
ArmD_4h	4	22.3
ArmD_6h	6	11.7
ArmD_8h	8	4.77
ArmD_10h	10	46.2
ArmD_24h	24	3.87
ArmD_26h	26	34.8
ArmD_28h	28	22.4
ArmD_30h	30	10.1
ArmD_32h	32	4.38
ArmD_34h	34	46.7
ArmD_48h	48	3.01

Arm E:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. (µg/mL)
ArmE_2h	2	54.9

ArmE_4h	4	22.2
ArmE_6h	6	8.52
ArmE_8h	8	4.41
ArmE_10h	10	41.4
ArmE_24h	24	3.05
ArmE_26h	26	45.6
ArmE_28h	28	21.4
ArmE_30h	30	9.29
ArmE_32h	32	3.59
ArmE_34h	34	44.7
ArmE_48h	48	3.5

Arm F:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g/mL}$ )
ArmF_2h	2	54.6
ArmF_4h	4	27.9
ArmF_6h	6	12.4
ArmF_8h	8	6.35
ArmF_10h	10	47.0
ArmF_24h	24	4.13
ArmF_26h	26	51.7
ArmF_28h	28	24.8
ArmF_30h	30	12.4
ArmF_32h	32	6.11
ArmF_34h	34	45.8
ArmF_48h	48	6.19



Arm G:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g/mL}$ )
ArmG_2h	2	50.3
ArmG_4h	4	25.5
ArmG_6h	6	11.6
ArmG_8h	8	6.56
ArmG_10h	10	40.9
ArmG_24h	24	4.23
ArmG_26h	26	43.9
ArmG_28h	28	23
ArmG_30h	30	10.3
ArmG_32h	32	5.41
ArmG_34h	34	42.8
ArmG_48h	48	5.01

*Experiment #3*

Arm B:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g/mL}$ )
ArmB_2h	2	52.9
ArmB_4h	4	28.9
ArmB_6h	6	13.8
ArmB_8h	8	6.64
ArmB_10h	10	49.1
ArmB_24h	24	5.95
ArmB_26h	26	46.8
ArmB_28h	28	25.2
ArmB_30h	30	12.8
ArmB_32h	32	6.23
ArmB_34h	34	47.3
ArmB_48h	48	7.21

Arm C:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g/mL}$ )
ArmB_2h	2	55.7
ArmB_4h	4	32.6
ArmB_6h	6	19.1
ArmB_8h	8	9.28
ArmB_10h	10	51.8
ArmB_24h	24	8.64
ArmB_26h	26	52.0
ArmB_28h	28	28.2
ArmB_30h	30	13.7
ArmB_32h	32	8.32
ArmB_34h	34	49.0
ArmB_48h	48	8.13

Arm D:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g/mL}$ )
ArmB_2h	2	52.2
ArmB_4h	4	31.0

ArmB_6h	6	15.1
ArmB_8h	8	8.28
ArmB_10h	10	52.2
ArmB_24h	24	7.31
ArmB_26h	26	46.9
ArmB_28h	28	25.6
ArmB_30h	30	14.0
ArmB_32h	32	7.13
ArmB_34h	34	46.8
ArmB_48h	48	7.21

Arm E:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g/mL}$ )
ArmB_2h	2	49.8
ArmB_4h	4	25.2
ArmB_6h	6	13.1
ArmB_8h	8	6.78
ArmB_10h	10	46.3
ArmB_24h	24	5.80
ArmB_26h	26	48.3
ArmB_28h	28	22.5

ArmB_30h	30	11.1
ArmB_32h	32	5.91
ArmB_34h	34	43.7
ArmB_48h	48	5.83

Arm F:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g/mL}$ )
ArmB_2h	2	50.0
ArmB_4h	4	28.4
ArmB_6h	6	14.0
ArmB_8h	8	7.36
ArmB_10h	10	51.4
ArmB_24h	24	5.60
ArmB_26h	26	50.0
ArmB_28h	28	21.4
ArmB_30h	30	10.8
ArmB_32h	32	6.28
ArmB_34h	34	49.1
ArmB_48h	48	5.81

*Experiment #4*

Arm B:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g/mL}$ )
ArmB_0h	0	No Peak
ArmB_2h	2	73.3
ArmB_4h	4	37.6
ArmB_6h	6	19.8
ArmB_8h	8	10.1
ArmB_10h	10	78.9
ArmB_24h	24	8.2
ArmB_26h	26	71.4
ArmB_28h	28	33.3
ArmB_30h	30	16
ArmB_32h	32	7.86
ArmB_34h	34	75.5
ArmB_48h	48	6.91

Arm C:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g/mL}$ )
ArmC_0h	0	No Peak

ArmC_2h	2	66.5
ArmC_4h	4	35.5
ArmC_6h	6	15.9
ArmC_8h	8	7.59
ArmC_10h	10	67.4
ArmC_24h	24	8.15
ArmC_26h	26	73.4
ArmC_28h	28	33.8
ArmC_30h	30	15.1
ArmC_32h	32	8.81
ArmC_34h	34	69.5
ArmC_48h	48	8.04

Arm D:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g/mL}$ )
ArmD_2h	2	74.6
ArmD_4h	4	36.8
ArmD_6h	6	19.6
ArmD_8h	8	9.49
ArmD_10h	10	75.7
ArmD_24h	24	6.12
ArmD_26h	26	67.1
ArmD_28h	28	33.2
ArmD_30h	30	14
ArmD_32h	32	6.36
ArmD_34h	34	63.3
ArmD_48h	48	5.87

Arm E:

<b>Central Reservoir</b>
--------------------------

Samples	Time (hours)	Conc. ( $\mu\text{g}/\text{mL}$ )
ArmE_2h	2	68.9
ArmE_4h	4	34.1
ArmE_6h	6	16.8
ArmE_8h	8	8.02
ArmE_10h	10	72.4
ArmE_24h	24	6.66
ArmE_26h	26	73.4
ArmE_28h	28	33
ArmE_30h	30	13.8
ArmE_32h	32	6.63
ArmE_34h	34	75.9
ArmE_48h	48	6.19

Arm F:

<b>Central Reservoir</b>		
Samples	Time (hours)	Conc. ( $\mu\text{g}/\text{mL}$ )
ArmF_0h	0	No Peak
ArmF_2h	2	49.7
ArmF_4h	4	30.4
ArmF_6h	6	16.8
ArmF_8h	8	9.99
ArmF_10h	10	81.7
ArmF_24h	24	13.7
ArmF_26h	26	74.8
ArmF_28h	28	45.1
ArmF_30h	30	24.1
ArmF_32h	32	12.8
ArmF_34h	34	79.8
ArmF_48h	48	13.5