



## Supplementary material

**Table S1.** Bacterial strains and plasmids used in this study.

Strains or plasmids	Genotype and/or characteristics	Reference or source
	<i>Cronobacter sakazakii</i>	
ATCC BAA-894	WT	ATCC
$\Delta$ ompF	$\Delta$ ompF::km <sup>r</sup>	This study
cpompF	$\Delta$ ompF with pACYC184-413	This study
	<i>Escherichia coli</i>	
DH5 $\alpha$	$\gamma$ -Φ80dlacZΔM15Δ(lacZYA-argF)U169 recA1 endA1 hsdR17(r <sup>k</sup> m <sup>k</sup> ) supE44 thi-1 gyrA relA1	Kim et al.
	Plasmids	
pKD46	oriR101 repA101(Ts) Amp <sup>r</sup> araADpgam-bet-exo	Kim et al.
pMDKUD	pMD18-T	This study
pACYC184	p15A ori Cm <sup>r</sup> Tet <sup>r</sup>	Kim et al.
pACYC413	pACYC184-ompF	This study

**Table S2.** Primers used in this study.

Gene amplified	Primers	Primer sequences (5' to 3')	Amplicon size (bp)	Note
Mutant construction				
kana-F	Km <sup>r</sup> cassette	CGGATCCGAGGTATGTAGGC GGTC	26	BamHI
kana-R		CGCGTCGACATATGTATCCGCTCATGAATT	30	SalI
ompF5-F	Upstream of ompF	GGGGTACCGCGTTGTGCC TAGCC	25	KpnI
ompF5-R		CGGGATCCTGTCTGTCTGGCATCTTCC	28	BamHI
ompF3-F	Downstream of	CGCGTCGACGAAATCACAAATGGAACCTCGTC	31	SalI
ompF3-R	ompF	CCCAAGCTTCCCGTCTGCTGGTTCG	27	HindIII
Complementation				
Cp413-F	ompF gene	CGGGATCCTCTATTACGGTTACGG	27	BamHI
Cp413-R	sequence	CGCGTCGACACCGAGGTTCCATTGTGATT	28	SalI

**Table S3.** Raman intensities of different wavenumbers.

Wave numbers	Raman intensity (a.u.)		
	WT	$\Delta$ ompF	cpompF
852.63	49803.93 <sup>a</sup>	12332.86 <sup>b</sup>	22702.15 <sup>c</sup>
1002.94	46893.56 <sup>a</sup>	10611.55 <sup>b</sup>	21559.08 <sup>c</sup>
1126.76	48777.15 <sup>a</sup>	11321.138 <sup>b</sup>	22094.28 <sup>c</sup>
1287.73	52595.36 <sup>a</sup>	16261.23 <sup>b</sup>	28445.75 <sup>c</sup>
1451.74	51277.15 <sup>a</sup>	13301.40 <sup>b</sup>	24290.73 <sup>c</sup>

<sup>a, b, c</sup> in the same raw with different letters indicate significant difference at the 0.01 level according to one-way ANOVA.