

Supplementary Materials: Binding Specificities of the Telomere Phage φ KO2 Prophage Repressor CB and Lytic Repressor Cro

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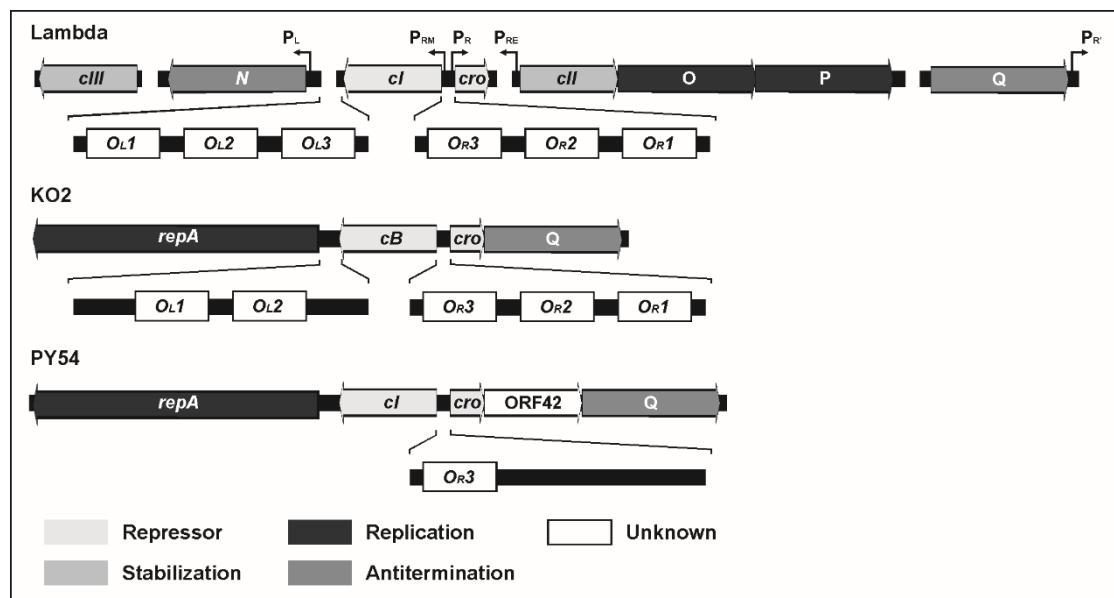


Figure S1. Organization of the immunity region and the operator sites (O_L and O_R) of lambda, φ KO2 and PY54.

Table S1. Bacterial strains and plasmids.

Strains	Description	Reference or Origin
<i>E. coli</i> SCS1	<i>recA1 endA1 gyrA96 thi-1 hsdR17(rk-mk^r) supE44 relA1</i>	Stratagene
<i>E. coli</i> UT5600	F ⁻ <i>ara-14 leuB6 secA6 lacY1 proC14 tsx-67 φ (ompT-fepC)266 entA403 trpE38 rfbD1 rpsL109 xyl-5 mtl-1 thi-1</i>	NEB
<i>E. coli</i> Genehogs	F ⁻ <i>mcrA Δ(mrr-hsdRMS-mcrBC) φ80 lacZ ΔM15 ΔlacX74 recA1 araD139 Δ(ara-leu)7697 galU galK rpsL (Sm^r) endA1 nupG fhuA::IS2</i> (confers phage T1 resistance)	Invitrogen
<i>K. oxytoca</i> CCUG 15788	wild type strain, isolated from a mineral oil emulsion tank in Göteborg, Sweden; contains the φKO2 prophage	[1]
Plasmids	Description	Reference or Origin
pBR329	4.2 kb cloning vector, pMB1 replicon; Ap ^r , Cm ^r , Tc ^r	[2]
pMS470Δ8cat	6.9 kb cloning vector, pMB1 replicon, P _{lac} / lacI; T7 gene Shine-Dalgarno sequence; Ap ^r , Cm ^r	[3]
pKKlux	7.7 kb promoter probe vector; pMB1 replicon; promoterless luxAB genes from <i>Vibrio harveyi</i> ; T ₁ T ₂ of rrnB; Ap ^r	[4]
pKKL700lux	9.3 kb; derived from pKKlux, contains the <i>Solanum tuberosum</i> ST-LS promoter; Ap ^r	[4]
pJH531	pBR329 Δ[BamHI-HindIII] Ω[φKO2 PCR, φKO2 39.098-39.259, BamHI-HindIII]	Figure 3, this work
pJH532	pBR329 Δ[BamHI-HindIII] Ω[φKO2 PCR, φKO2 39.179-39.259, BamHI-HindIII]	Figure 3, this work
pJH533	pBR329 Δ[BamHI-HindIII] Ω[φKO2 PCR, φKO2 39.098-39.198, BamHI-HindIII]	Figure 3, this work
pJH534	pBR329 Δ[BamHI-HindIII] Ω[φKO2 PCR, φKO2 39.206-39.259, BamHI-HindIII]	Figure 3, this work
pJH535	pBR329 Δ[BamHI-HindIII] Ω[φKO2 PCR, φKO2 39.195-39.244, BamHI-HindIII]	Figure 3, this work
pJH536	pBR329 Δ[BamHI-HindIII] Ω[φKO2 PCR, φKO2 39.098-39.175, BamHI-HindIII]	Figure 3, this work
pJH536Δcl	pBR329 Δ[BamHI-HindIII] Ω[φKO2 PCR, φKO2 39.146-39.175, BamHI-HindIII]	Figure 3, this work
pJH536-26	pBR329 Δ[BamHI-HindIII] Ω[φKO2 PCR, φKO2 39.148-39.173, BamHI-HindIII]	Figure 5, this work
pJH536-18	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR3, φKO2 39.156-39.173, BamHI-HindIII]	Figure 5, this work
pJH536-16	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR3-2, φKO2 39.157-39.172, BamHI-HindIII]	Figure 5, this work
pJH536-14	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR3-4, φKO2 39.158-39.171, BamHI-HindIII]	Figure 5, this work
pJH536-R	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR3-R, φKO2 39.162-39.171, BamHI-HindIII]	Figure 5, this work
pJH536-L	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR3-L, φKO2 39.158-39.167, BamHI-HindIII]	Figure 5, this work
pJH536-SYM-AT	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR3AT, φKO2 39.156-39.173, BamHI-HindIII]	Figure 5, this work
pJH536-SYM-GC	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR3GC, φKO2 39.156-39.173, BamHI-HindIII]	Figure 5, this work
pJH136-18	pBR329 Δ[BamHI-HindIII] Ω[PY54 OR3, PY54 32.536-32.551, BamHI-HindIII]	Figure 5
φKO2-OR2	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR2, φKO2 39.182-39.200, BamHI-HindIII]	Figure 5, this work
N15-OR2	pBR329 Δ[BamHI-HindIII] Ω[N15 OR2, N15 34.754-34.771, BamHI-HindIII]	Figure 5, this work
φKO2-OR1	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR1, φKO2 39.205-39.223, BamHI-HindIII]	Figure 5, this work
N15-OR1	pBR329 Δ[BamHI-HindIII] Ω[N15 OR1, N15 34.777-34.791, BamHI-HindIII]	Figure 5, this work
pJH537	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR2, φKO2 38.275-38.563, BamHI-HindIII]	Figure 6, this work

pJH538	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR2, φKO2 38.275-38.463, BamHI-HindIII]	Figure 6, this work
pJH539	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR2, φKO2 38.435-38.563, BamHI-HindIII]	Figure 6, this work
pJH542	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR2, φKO2 38.483-38.523, BamHI-HindIII]	Figure 6, this work
pJH542OL1-18	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR2, φKO2 38.483-38.500, BamHI-HindIII]	Figure 6, this work
pJH542OL1-16	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR2, φKO2 38.484-38.499, BamHI-HindIII]	Figure 6, this work
pJH542OL2-18	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR2, φKO2 38.506-38.523, BamHI-HindIII]	Figure 6, this work
pJH542OL2-16	pBR329 Δ[BamHI-HindIII] Ω[φKO2 OR2, φKO2 38.507-38.522, BamHI-HindIII]	Figure 6, this work
pJH541-2	pMS470Δ8cat Δ[NdeI-HindIII] Ω[φKO2 PCR, cB φKO2 38.534-39.145, NdeI-HindIII]	This work
pJH542-2	pMS470Δ8cat Δ[NdeI-HindIII] Ω[φKO2 PCR, cro φKO2 39.226-39.438, NdeI-HindIII]	This work
pJH682	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 39.146-39.225, SmaI-XbaI]	Figure 7, this work
pJH683	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 39.146-39.205, SmaI-XbaI]	Figure 7, this work
pJH684	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 39.146-39.185, SmaI-XbaI]	Figure 7, this work
pJH686	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 39.166-39.225, SmaI-XbaI]	Figure 7, this work
pJH687	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 39.186-39.225, SmaI-XbaI]	Figure 7, this work
pJH688	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 39.197-39.225, SmaI-XbaI]	Figure 7, this work
pJH690	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 39.146-39.190, SmaI-XbaI]	Figure 7, this work
pJH691	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 39.146-39.205, SmaI-XbaI]	Figure 7, this work
pJH692cro	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 39.148-39.414, SmaI-XbaI]	Figure 8, this work
pJH693croΔ10cro	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 39.148-39.427, SmaI-XbaI]	Figure 8, this work
pJH693cro	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 39.148-39.438, SmaI-XbaI]	Figure 8, this work
pJH694MOR3	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 39.148-39.438, SmaI-XbaI]	Figure 8, this work
pJH695ΔOR3	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 39.178-39.438, SmaI-XbaI]	Figure 8, this work
pJH793cB	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 38.534-39.223, SmaI-XbaI]	Figure 8, this work
pJH793cBΔ10cB	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 38.540-39.223, SmaI-XbaI]	Figure 8, this work
pJH794MOR1	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 38.534-39.223, SmaI-XbaI]	Figure 8, this work
pJH795ΔOR1	pKKluxBamHI Δ[SmaI-XbaI] Ω[φKO2 PCR, φKO2 38.534-39.203, SmaI-XbaI]	Figure 8, this work

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