

Tabela S2. Oligonucleotides used in this work

Name	Sequence ^a 5'-3'	Tm [°C]	Complementary region ^b	Aim of use
oMLO322	atataataagcttCAAACGCTT CGCTGCTAAA	56.6/p	Phage λ genome, pos. 45458-45476	Amplification of bacteriophage λ R gene and addition of HindIII and SalI recognition sites at its flanks
oMLO323	ataataagtcgacAGGCAGAC GATGATGCAGATA	56.6/p	Phage λ genome, pos. 46001-46021	
oMLO391	atataagcttGTAAAAAATTC GCTTATGAGGTCTTTATG AA	58/p	Phage P7 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 24635-24665	Amplification of <i>lyz</i> gene of phage P7 and addition of HindIII and SalI recognition sites at its flanks
oMLO392	ttaagtcgacTTATTCATTGAT CAGCCCCGTCAG	58/p	Phage P7 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 24082-24105	
oMLO607	attctgcatgcGCGCTGAGGT CTGCCTCGTGAAGA	51.6/p	pUC4K plasmid, pos. 433-456	
oMLO608	attcagcatgcAAAGCCACGT TGTGTCTCAAAATC	51.6/p	pUC4K plasmid, pos. 1622-1650	Amplification of Kan ^R cassette of pUC4K plasmid and addition of PaeI recognition sites at its flanks
oMLO597	CACGCTGATCGCTAAAA CATTGTGC	59,3/p	pWWO1 plasmid, pos.	Verification of sequence correctness of pWWO1 plasmid insert (P7 <i>lyz</i> gene)
oMLO598	GGAAGGAGCTGACTGG GTTGAAGG	59,3/p	pWWO1 plasmid, pos.	
oAKI1	atattcaatgagacgGCGCTGA GGTCTGCCTCGTGAAGA	68,7	pUC4K plasmid, pos. 433-456	Amplification of Kan ^R cassette of pUC4K plasmid
oAKI2	atatcgctccaTTGAAAAGCC ACGTTGTGTCTCAAAAT C	64,0	pUC4K plasmid, pos. 1622-1650	
oAKI4	GTCACGCAACAAAGA TCTCCGTA	61,1	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 31035-31058	Identification of <i>lydCA12_13TG</i> mutation in the genome of P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> recombinants
oAKI5	CCAGCACAACCTAAGTG ACGCAT	61,4	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 31820-31843	
oAKI6	ACCCATACACAGGAAA TTCTTAACACAGA	62,6	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 19320-19348	Confirmation of Kan ^R insertion in the <i>lydD</i> gene of P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> recombinants
oAKI7	AGACCTGAGAACCTTTT CGTAAATACTCACT	63,9	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 21255-21285	
oAKI8	CTTTCGTTGTTGCGCGG TTGCTGGAGTC	70,5	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 30292-30319	Identification of <i>lydA::195GATC</i> mutations in the genomes of P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> recombinants
oAKI9	GCATGCTGCGCCCAAG ACGGTCTAACTT	71	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 31843-31870	
oAKI10	CAAGTTCTAAATGCGTG ATGTCCT	59,6	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 30770-30793	Confirmation of the <i>lydCA12TG</i> mutation presence in a phage recombinant by sequencing
oAKI11	CGATAATAAATACCGCC GTTCTTA	57,1	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 33452-33475	
oAKI12	CCGATCGCATCTGCCAT GTCCACACCCT	71,9	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 28730-28757	Confirmation of the <i>lydA::195GATC</i> mutation presence in a phage recombinant by sequencing. Used with OAKI9.

oAKI18	ttaagtcgacACTATTATCGC CTTCGCCTGCGTG	65,6	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 20074-20097	Amplification of phage P1 <i>c1-100 mod749::IS5</i> <i>IS1::Tn9</i> genome fragment of coord. 20074-20332
oAKI19	tatagaattcGTGAAAAAGG GAGGCGGGAAATGAAT AAACTCCGGCAGCTCCG C	72,2	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 20309-20332	
oAKI22	tatagtcgacTTTACGCTCCA GGACAAACAC	65	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 20903-20923	Amplification of phage P1 <i>c1-100 mod749::IS5</i> <i>IS1::Tn9</i> genome fragment of coord. 21549-20903
oAKI24	tatagaattcCCGCTTTTCTTT CAGTCGTTT	62,3	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 21549-21569	
oAKI35	tatagtcgacaattcgcttatgaggtc tttATGGTAGAAATCAAT AATCAAC	65,2	Phage λ genome, pos. 45493-45514	Amplification of phage λ R gene and supplementing it with the SD sequence of P1 <i>lyz</i>
oAKI38	tatacaattgTCATACATCAA TCTCTCTGA	57,2	Phage λ genome, pos. 45950-45969	
oAKI20	tatatacgtactACTATTATCGC CTTCGCCTGCGTG	44,12	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 20074-20097	Amplification of phage P1 <i>lydD</i> gene with its own SD sequence
oAKI37	tatacaattgGCTTTGCCTGA CGGGACTGGTC	50	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 200334-20355	
oAKI55	tataTACGTAGAACTGGAT AACCTCCCGATTTTC	38,24	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 19800-19823	Amplification of phage P1 <i>c1-100 mod749::IS5</i> <i>IS1::Tn9</i> genome fragment of coord. 19800-20251
oAKI56	tataCAATTGGCGGTATAT GTGCTCAATGAGACG	41,18	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 20228-20251	
oAKI40	tatagaattcCATGGGTACTC CGACGAGTC	64,9	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 19556-19576	Amplification of phage P1 <i>c1-100 mod749::IS5</i> <i>IS1::Tn9</i> genome fragment of coord. 19556-20040
oAKI50	tatagagctcTGGTGGTTATTT AAACGGATTGATTGA	63,5	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 20013- 20040	
oAKI42	tatagagctcCCGGAGTTTAT TCATTGACC	63,5	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 20318-20338	Amplification of phage P1 <i>c1-100 mod749::IS5</i> <i>IS1::Tn9</i> genome fragment of coord. 20318-20693
oAKI43	tatagtcgacTGACGGGATCG GTAATACAC	64,5	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 20673-20693	
oAKI59	tatagagctcGCGGTATATGT GCTCAATGAGACG	66,3	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 20228-20251	Amplification of phage P1 <i>c1-100 mod749::IS5</i> <i>IS1::Tn9</i> genome fragment of coord. 19800-20251
oAKI60	tatagaattcGAACTGGATAA CCTCCCGATTTTC	63,5	Phage P1 <i>c1-100 mod749::IS5 IS1::Tn9</i> genome, pos. 19800-19824	

^aFragments of primers complementary to the target sequences are in capital letters, the fragment of oAKI35 primer with the SD sequence of *lyz* gene is in bold.

^bPositions in the genomes of plasmid pUC4K and phages P7 *c1.9ts*, P1 *c1-100 mod749::IS5 IS1::Tn9* and λ refer to the sequences deposited in GenBank under the accession numbers X06404.1, AF503408.1, AF234172.1 and NC_001416.1, respectively.