*In vitro* amplification of whole large plasmids via transposon-mediated *oriC* insertion

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**SUPPLEMENTARY**

**Supplementary Table: A list of primers used in this study**

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| SUE814 | CTGTCTCTTATACACATCTGCTCTGCCAGTGTTACAACC |
| SUE815 | CTGTCTCTTATACACATCTTAACGCGGTATGAAAATGGAT |
| SUE829 | AAACCTGTATTTTCAGGGCGGTGGTATTACCAGTGCACTGCATCG |
| SUE830 | AGCTGCGCTAGTAGACGAGTCCATGTTAGATTTTAATGCCCTGCGCCA |
| SUE996 | CTGTCTCTTATACACATCTGAAGATCCGGCAGAAGAATG |
| SUE997 | CTGTCTCTTATACACATCTGTCGGCTTGAGAAAGACCTG |



**Supplementary Figure 1. Amplification of a small plasmid contaminant in isothermal RCR.** The indicated amount of pRpoABCDZ was subjected into the Tn-oriC insertion reaction, followed by RCR at 30˚C for 16 h.



**Supplementary Figure 2. Restriction enzyme analysis of the amplification products of pTT8.** Purified pTT8 plasmid or the amplification product of the pTT8 plasmid generated by Tn-RCR were incubated at 37ºC for 3 h with (cut) or without (no cut) *Kpn*I and *Nhe*I. The incubated products were then analyzed by 1% agarose-gel electrophoresis and SYBR Green staining. It should be noted that the ratio of supercoiled form decreased in “no cut” sample due to DNA damage during the incubation. Size-marker fragments (M2) were derived from lambda phage DNA. A digestion map of pTT8 is shown on the right.



**Supplementary Figure 3. Restriction enzyme analysis of the amplification products of the F plasmid.** A purified F-plasmid or the amplification product of the F plasmid generated by Tn-RCR were digested with *Pme*I as described in Supplementary Figure 2. The digested products were analyzed by 0.75% pulse-field agarose gel electrophoresis using a Pippin pulse power supply (Sage science) and SYBR Green staining. Although this pulse-field methods can separate large sized linear DNA, discrimination of supercoiled DNA band is difficult. Size-marker fragments (M3), *Saccharomyces cerevisiae* chromosomal DNA. Size-marker fragments (M4) were derived from T7 phage DNA. A digestion map of F plasmid is shown on the right.