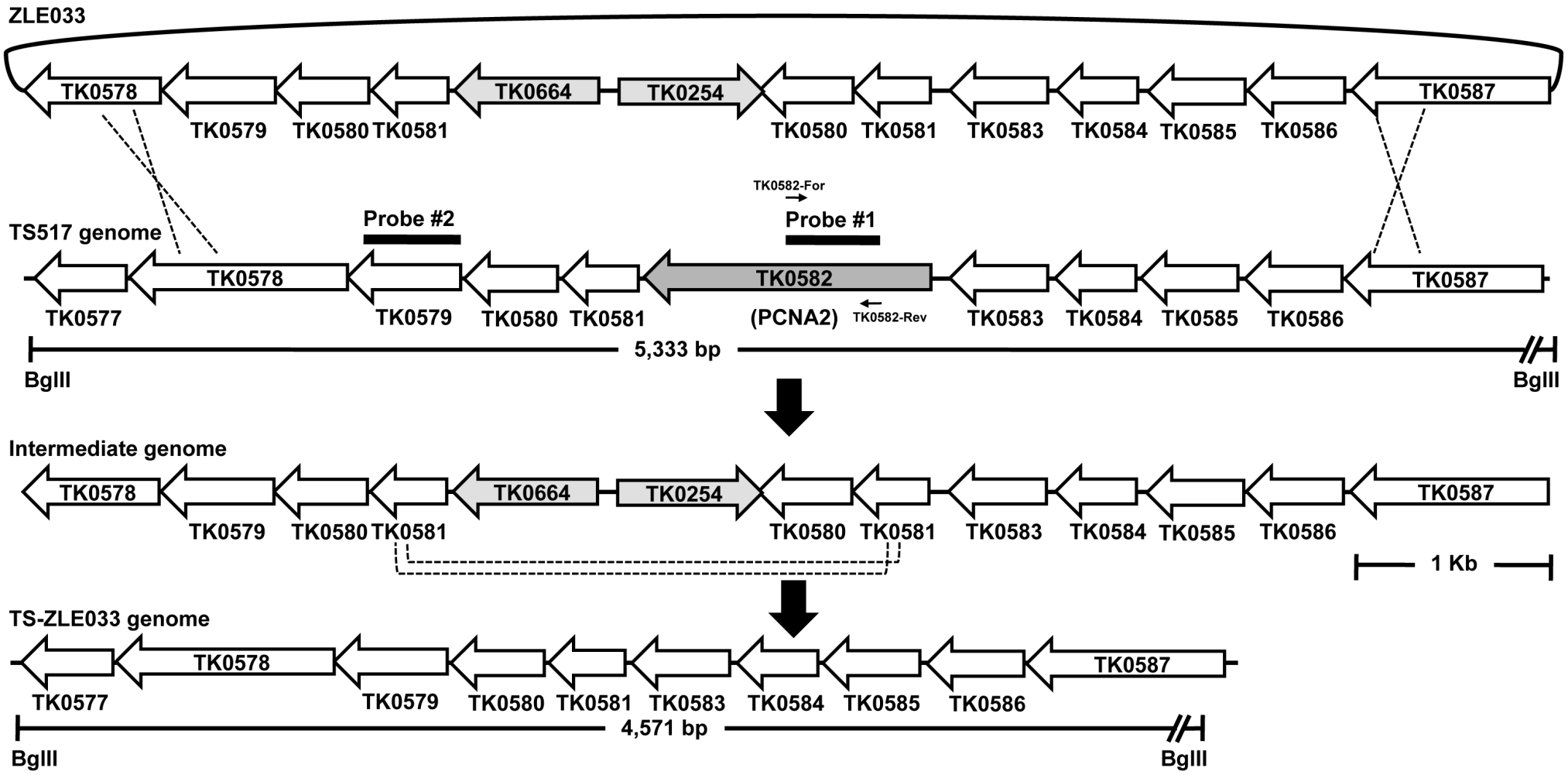
Supplementary Figure S1. Construction of the genome structure of *T. kodakarensis* TS-ZLE033 (ΔTK0582).

The gene organizations in plasmid pZLE033 and in the *T. kodakarensis* TS517 genome are shown above the genome of the intermediate strain generated by transformation of *T. kodakarensis* TS517 with pZLE033 DNA and homologous recombination (dotted lines) into the *T. kodakarensis* TS517 genome. In the intermediate strain, the TK0664-TK0254 expression cassette replaced TK0582 and was flanked by direct repeats of TK0581 and TK0580. A spontaneously 6-methylpurine resistant ($6MP^R$) derivative of the intermediate strain was isolated and shown to have undergone deletion of TK0664 by homologous recombination within the TK0581-TK0580 duplication (indicated by the dotted lines). This isolate was designated *T. kodakarensis* TS-ZLE033 (ΔTK0582).


ZLE033
TK0578
TK0579
TK0580
TK0581
TK0664
TK0254
TK0580
TK0581
TK0583
TK0584
TK0585
TK0586
TK0587
TS517 genome
Probe #2
TK0582-For
Probe #1
TK0577
TK0578
TK0579
TK0580
TK0581
TK0582
(PCNA2)
TK0582-Rev
TK0583
TK0584
TK0585
TK0586
TK0587
5,333 bp
BglII
BglII
Intermediate genome
TK0578
TK0579
TK0580
TK0581
TK0664
TK0254
TK0580
TK0581
TK0583
TK0584
TK0585
TK0586
TK0587
1 Kb
TS-ZLE033 genome
TK0577
TK0578
TK0579
TK0580
TK0581
TK0583
TK0584
TK0585
TK0586
TK0587
4,571 bp
BglII
BglII