



Figure S1. Construction of allele replacements. In the first step, one pair of primers (F1 and R1) was used to amplify the promoter and the coding sequence of the gene to be replaced with 60 bp overlapping the 5' end of the resistance marker attached at the 3' end of the PCR product (shown in orange). Another pair of primers (F2 and R2) was used to amplify the resistance marker with 60 bp overlapping the genomic region immediately downstream of the transcribed portion of the gene using the first primer pair attached at the 3' end of the PCR product. In the second step, the two overlapping PCR products were transformed into the strains. Integration into the genome requires recombination between the PCR products and the target locus.