

Table S1. Oligonucleotide sequences used in this study.

Identification of primers	Sequence
Primers for mutant construction	
areB_A1	5'-TTGAAATAAGGGCTACTTACTCAGG-3'
areB_A2	5'-TTATTCCTCCTAGTTAGTCACTCCAACACCATCTACTCTTGC-3'
areB_B1	5'-TACCTGGAGGGAATAATGATCCATTAGGAATTATTGGTGCAG-3'
areB_B2	5'-GTTGCTCTGGCTTGCAAAT-3'
areE_A1	5'-TTCATCAACAGGAAATGCAAG-3'
areE_A2	5'-TTATTCCTCCTAGTTAGTCACAAATACGCATAGCATATTGACC-3'
areE_B1	5'-TACCTGGAGGGAATAATGAGCTGCACCTTATGAAAGTTGGTC-3'
areE_B2	5'-ATTTGCTCCTGCTCCTGTTG-3'
areG_A1	5'-AAACCCAGTTTTTGCTGGTG-3'
areG_A2	5'-TTATTCCTCCTAGTTAGTCAGCATCATCAGGATTGTGCC-3'
areG_B1	5'-TACCTGGAGGAAATAATGAATCAGCTGGACAGGAACTGC-3'
areG_B2	5'-CTTCAAGTGCCGCATCAAC-3'
Primers for mutant confirmation	
areB_rtpcr_F	5'-TGGAAATGGACAAAATGGTG-3'
areB_rtpcr_R	5'-TCCAAGCCCTGGAATAGAAG-3'
areE_rtpcr_F	5'-TCAATTCTGTTCTGATGATTCTGA-3'
areE_rtpcr_R	5'-TCTATAAGGAGCTTCACCTTGA-3'
areG_rtpcr_F	5'-TGGCTATTACAGCAACAAATGAG-3'
areG_rtpcr_R	5'-TGAATTAATTGGTAAAAGCTCACC-3'

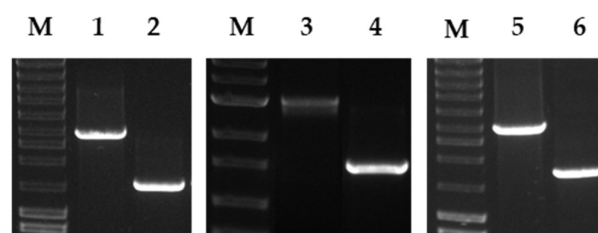


Figure S1. Confirmation of the mutants constructed by PCR. Lanes 1, 3 and 5: PCR products using specific primers for *areB*, *areE* and *areG* for the parental strain Ab_2811, respectively; 2, 5 and 6: PCR products using specific primers for *areB*, *areE* and *areG* for the mutants Ab_2811Δ*areB*, Ab_2811Δ*areE* and Ab_2811Δ*areG*, respectively; M: molecular weight.

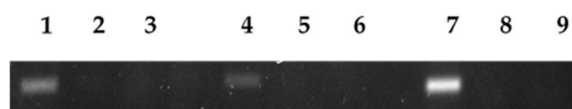


Figure S2. Expression of the mutated gene in each strain was determined by RT-PCR. Lanes 1, 4 and 7: RT-PCR products using specific primers for *areB*, *areE* and *areG* for the parental strain Ab_2811, respectively; 2, 5 and 8: RT-PCR products using specific primers for *areB*, *areE* and *areG* for the mutants Ab_2811Δ*areB*, Ab_2811Δ*areE* and Ab_2811Δ*areG*, respectively; 3, 6 and 9: negative controls.