Table S3. PCR primers used for *P. protegens* clean deletion mutagenesis.

Primers	Final product size (bp)	Primer use	Ta (°C)[a]/DNA polymerase
F1_fwd: 5'-CACGACGTTGTAAAACGACGGCCAGTGCCAGGCCTGGACCTTGTCCAGTG-3' **F1_rev:** 5'-TGGCCGTCATGACAGGTTCATTCAAAATCCTTTTTAAATGGAGAGCC-3'	545	Amplify upstream fragment (F1)	62.5 / Q5
F2_fwd: 5'-GGATTTTGAATGAACCTGTCATGACGGCCATGAATC-3' **F2_rev:** 5'-ACACAGGAAACAGCTATGACCATGATTACGATCTGCATGATCAGTCGATC-3'	550	Amplify downstream fragment (F2)	65 / Q5
M13_fwd: 5'-AGGGTTTTCCCAGTCACGACGTT-3' **M13_rev:** 5'-GAGCGGATAACAATTTCACACAGG-3'	1,090 (pMQ30_F1_F2) 146 in (pMQ30)	Confirm recombinant pMQ30_F1_F2 construct	58 / *Taq*
M13_fwd: 5'-AGGGTTTTCCCAGTCACGACGTT-3' **Seq_chr_rev:** 5'-TACCGTCGGAATCGCCAGCC-3'	3,132 (recombination at F1) 1,284 (recombination at F2)	Confirm transconjugant *P. protegens*	60 / *Taq*
Seq_chr_fwd: 5'-CAGGACGAAAACTGCTGAACAGGA-3' **M13_rev:** 5'-GAGCGGATAACAATTTCACACAGG-3'	1,271 (recombination at F1) 3,119 (recombination at F2)	Confirm transconjugant *P. protegens*	60 / *Taq*
Seq_chr_fwd: 5'-CAGGACGAAAACTGCTGAACAGGA-3' **Seq_chr_rev:** 5'- TACCGTCGGAATCGCCAGC C-3'	3,313 (wild-type) 1,465 (clean deletion)	Confirm *pgnD* clean deletion	62 / *Taq*

[a]Ta = Annealing temperature