

Supplementary Table 5. Oligos used in this study.

Name	Sequence
P1	AGCGATTGTGTAGGCTGGAGCTG
P2	CATATGAATATCCTCCTTAGTTCCTATTCCG
UP paaB 5' Fwd	GTCGATAACACTGTACCGCAAG
UP paaB-zeo 5' Rev	GCAGCTCCAGCCTACACAATCGCTCCATAAATCTTGTTAAGCCAC
UP zeo-paaB 3' Fwd	GAACTAAGGAGGATATTCATATGGGGGAATGGCAAATGAATCATT
UP paaB 3' Rev	CAACCACTGGCGTACAATCG
UPAB1 paaB flank F	GAAGCCATGATGGCTTTGGC
UPAB1 paaB flank R	GATTTACAGCAAGCGCG
17 paaBKO Fwd	AATGGGTTCTGTGATGCAGCAGTGGTCTACGCGAAAAACAGCAGCTTGAAGCG AACAAAGTGGCTTAACAAGATTTATGGAAAAATTTGAGGAAATCAAATGGAACA TATGAATATCCTCCTTAGTTCCTATTCCG
17 paaBKO Rev	ATGCCCGCACCATTGAGCCAAACGCTGAGATAAAACCAGTTGGCTGTCGCCAAT ATGTAATAAGAATTTAGATAAAACTGAATGATTCATTTGCCATTCCCCTTACATAG CGATTGTGTAGGCTGGAGCTGCTTCG
17 paaB flank F	ATCGTTTGTGCAAAGTCACC
17 paaB flank R	AACTTGGCTTGGAAAGTACCG
17paaX 5' Fwd	GCTCCATATATTCTTGCGTGCC
17paaX-frt 5' Rev	CGAAGCAGCTCCAGCCTACACAATCGCTCATGCCTTGTTATAGTATTGA CGG
17paaX-frt 3' Fwd	CGGAATAGGAACTAAGGAGGATATTCATATGACTCATGTCTTGCGGTTT AGTTTCAGG
17paaX 3' Rev	GAAGGCTTACCGATTATTCGTTACCG
17 paaX flank F	CTCTTGCATTGAATTTAAGCAGCGC
17 paaX flank R	CAGGTGAAGTCTGTAAAGATGGCG
17 pUCT-paaABC Fwd	CATGCATGAGCTCACTAGTGGATCCCTCACCTCCTTGTCTTACCAGG
17 pUCT-paaABC Rev	GCGAGGTACCGGGCCCAAGCTTGTAAATCTTCGTCAGACGAATGCC
UP pUCT-paa operon Fwd	CATGAGCTCACTAGTGGATCCCTGTGTCAGTTGAGGTTCTTCTAGG
UP pUCT-paa operon Rev	GCGAGGTACCGGGCCCAAGCTTTTAGCGCCCTTTAAAATTTGTTTCACG
UPAB1 paaB Rev	GCCATTCCCCTTACATGTGC
rpoB FWD set 5	ACGGTACTGAGCGTGTAAATC
rpoB REV set 5	TTACCACTTGAGTGGGTCTTAC
csuA/B FWD set 1	GTTGCTGGTTATGCGGTAATA
csuA/B REV set 1	TCAGTTTGACTACCACCTACA
paaA FWD Set 6	TCTCGCCAAACTCATAGTGG
paaA REV Set 6	GTCGATAACACCGTACCTCAA
paaB FWD set 2	AGCTTAAGAGCACCTGATGAT
paaB REV set 2	CTGAACGAACCACCCAAATG
mao FWD Set 6	ACTTATTCCAGGTGGCTCTTC
mao REV Set 6	CAGCGGGCATAACGAATAGA
feaB FWD Set 7	CAAACCATGCAACCCTCTATTC
feaB REV Set 7	ATTCCAAGGCACAATCCCT