



Fig. S2 Construction of *PdmpkA* disruption plasmid and identification of $\Delta PdmpkA$ transformants by PCR

(a) Construction of *PdmpkA* disruption plasmid. Black arrows represented *PdmpkA* gene, while white arrows represented neomycin resistant cassette (*neo*). The position of PCR primers were indicated with small arrows. (b, c) Identification of $\Delta PdmpkA$ by using *mpkA-i-F/mpkA-i-R* and *mpkA-V-F/neo-R*, respectively. M: 5 kb DNA marker; Lanes 1–2: the 2 knockout transformants derived from PdKH8; Lanes 3–5: the 3 knockout transformants derived from $\Delta PdKu80-25$; Lane 6: wild-type strain PdKH8