



Fig. S1. *In vitro* cleavage assay of two different sgRNAs targeting the PPT synthase locus. A PCR fragment containing the targeted PPT synthase gene sequence was synthesized and mixed with Cas9 and each sgRNA (sgRNA1 and sgRNA4). A negative control that lacked sgRNA was included for comparison. Cleavage efficiency was assessed by agarose gel electrophoresis.