

**(a)**

**(b)**

**Fig S3.** The functional plasmid construction of CRISPR/Cpf1 system. The plasmid consists of Cpf1 nuclease gene and crRNA-pyrG cassettes for targeted genome modification in *A. aculeatus* TBRC 277. **(a)** pCRISPR/Cpf1-pyrG plasmid, crRNA is expressed under control of U3-AF pol. III promoter, **(b)** Guide RNA cassette, crRNA, consists of 19-bp direct repeats (DR) to form a stem-loop structure, as well as 20-bp *pyrG*-targeted protospacers.