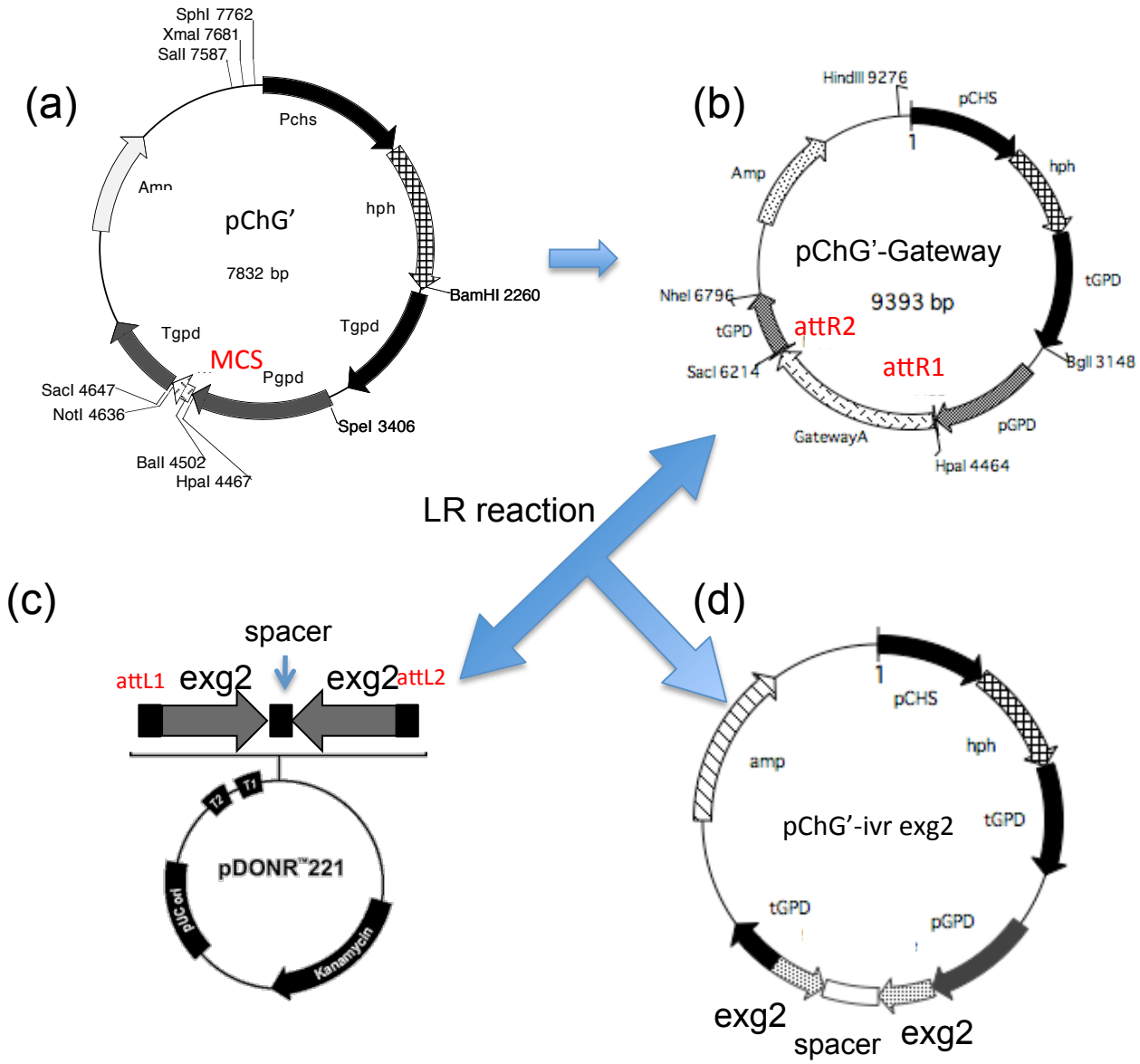

Fig. S1 Construction of a RNAi vector pChG'-ivr-exg2. GatewayA fragment was inserted into pChG' (a:Nakade et al, 2011) to construct pChG'-Gateway (b). The 250-bp short homologous hairpin dsRNA sequences of the *exg2* was synthesized and inserted into pDONR221 (c). The pGhG'-ivr-exg2 (d) was constructed by LR reaction between (b) and (c).

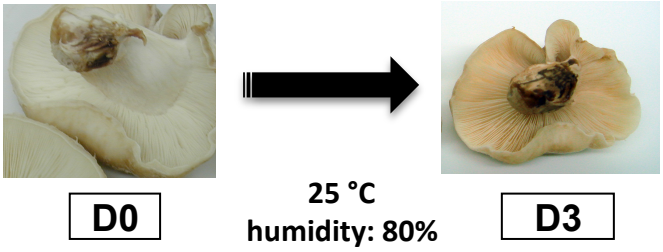

Fig. S2. Pictures of fruiting body of the EXG2 downregulated transformant (ivr-exg2#51). The harvested mature fruiting bodies were preserved at 25˚C with 80% humidity.

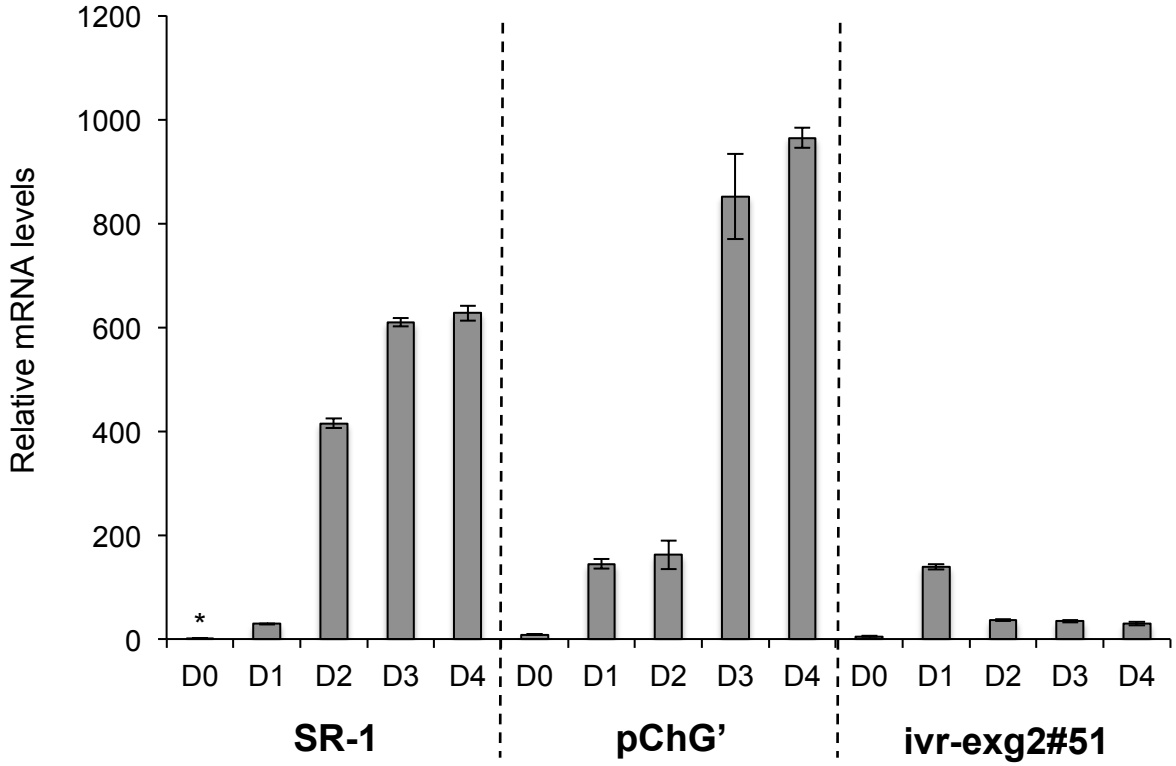

Fig. S3 Analysis of the transcription level of the *exg2* gene in the fruiting bodies of SR-1 (original strain, white), pChG' (control strain, gray) and an EXG2 downregulated strain (ivr-exg2#51, black) after harvesting. Fruiting bodies were preserved for 0-4 days after harvesting, and the expression of the *exg2* was analyzed by real-time PCR (Konno and Sakamoto 2011) . Quantities of *exg2* mRNAs were relative to the level of fresh fruiting bodies of SR-1 (*).