

Figure S1. Scheme for the biosynthesis pathway of  $\beta$ -barbatene in *S. cerevisiae*. Endogenous genes are shown in black italic font. Heterologous genes are shown in red italic font. *FvSTS08*: *Flammulina velutipes*  $\beta$ -barbatene synthase; *DPP1*: phosphatidate phosphatase *DPP1*; *LPP1*: phosphatidate phosphatase *LPP1*; FPP: farnesyl diphosphate.

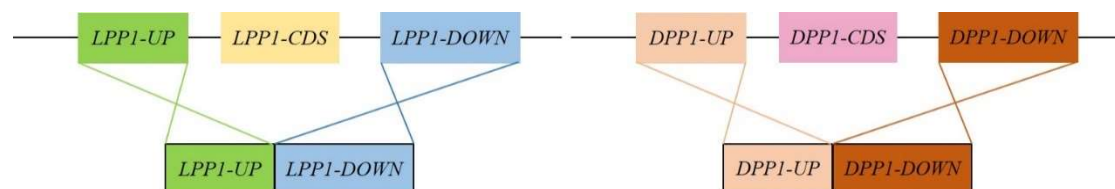


Figure S2. Preparation of DNA donor expression box of genes to be knock out.