Method S1

Cloning *Populus alba* isoprene synthase

The 105bp N' end of the original mRNA (GenBank: AB198180.1) coding a transit peptide was omitted. The remaining sequence was codon-optimized for better expression in *E. coli* using an on-line tool, OPTIMIZER (http://genomes.urv.es/OPTIMIZER/), and synthesized chemically. Then it was amplified using primers ispSAs (5'-GGAATTCCATATG^{NdeI}AGATGTAGCGTGTCCACCGAA-3') and ispSAa (5'-GGAAGATCT ^{BglII} TTAGCGTTCAAACGGCAGAATC-3'). The PCR product and pACYduet1 were digested with NheI and BglII and subsequently ligated together. Ligation mixtures were transformed into *E. coli* DH5a chemical component cells, and the resulting transformants were plated on LB agar with chloramphenicol.