

Supplementary Materials

Identification and Functional Analysis of Two Novel Genes—Geranylgeranyl Pyrophosphate Synthase Gene (*AlGGPPS*) and Isopentenyl Pyrophosphate Isomerase Gene (*AlIDI*)—from *Aurantiochytrium limacinum* Significantly Enhance De Novo β -carotene Biosynthesis in *Escherichia coli*

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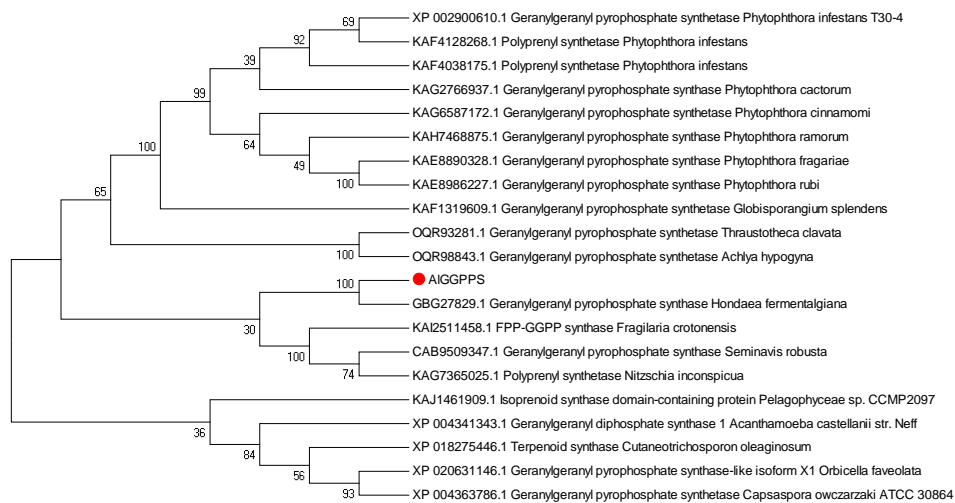
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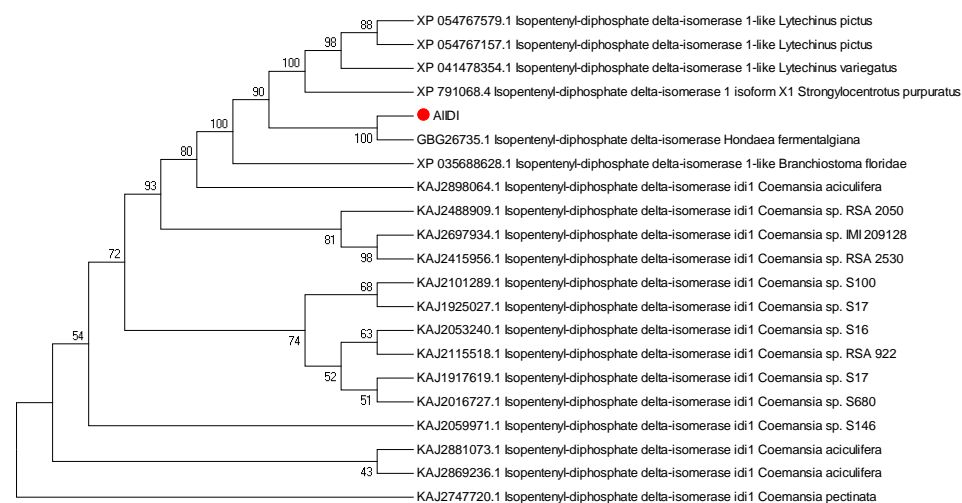
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(a)



(b)

Figure S1. Phylogenetic analysis of AIGGPPS (a) and AIIDI (b).

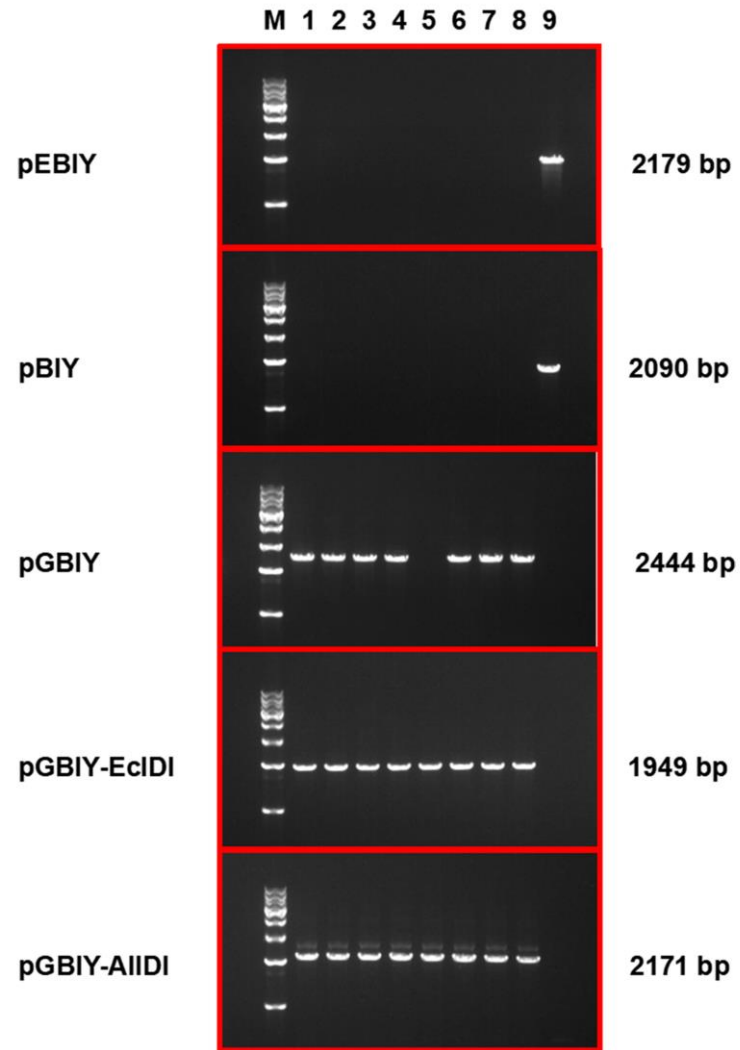


Figure S2. Amplification and verification of structured plasmids. pEBIY: M, 1k-10k marker; Lane 1-8, eight pEBIY transformants as the template; Lane 9, plasmid pACCAR16 Δ crtX as the template; primer pairs P1/P2 were used. pBIY: M,

1k-10k marker; Lane 1-8, eight pBIY transformants as the template; Lane 9, plasmid pEBIY as the template; primer pairs P1/P3 were used. pGBIY: M, 1k-10k marker; Lane 1-8, eight pGBIY transformants as the template; Lane 9, plasmid pBIY as the template; primer pairs P4/P3 were used. pGBIY-EcIDI: M, 1k-10k marker; Lane 1-8, eight pGBIY-EcIDI transformants as the template; Lane 9, plasmid pGBIY as the template; primer pairs P6/P8 were used. pGBIY-AlIDI: M, 1k-10k marker; Lane 1-8, eight pGBIY-AlIDI transformants as the template; Lane 9, plasmid pGBIY as the template; primer pairs P6/P10 were used.