**S1 Table. Primers used in this study.**

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| --- | --- | --- | --- |
| **Primer Name** | **Direction** | **Sequence 5’ to 3’** | **Description** |
| P1 | Forward | CTCTCTGGTACCTACGAGGTTCTTTTGAAGC | P1 and P2 generate *dxr*CT amplicon for cloning into pBAD24. Underlined sequence indicates KpnI and SalI restriction sites, respectively. |
| P2 | Reverse | CTCTCTGTCGACTGACATCCCACGAACA |
| P3 | Forward | CTCTCTGGTACCTCAACTCTGGATGTTTC | P3 and P4 generate *dxr*EC amplicon for cloning into pBAD24. Underlined sequence indicates KpnI and SalI restriction sites, respectively. |
| P4 | Reverse | CTCTCTGTCGACTCTGTAGCCGGATTATC |
| P5 | Forward | GTAACAAAGCGGGACCAAAG | P5 and P6 primers are upstream and downstream of pBAD24 multiple cloning site. |
| P6 | Reverse | CAGTTCCCTACTCTCGC  |
| P7 | Forward | ATCGGCTGGCGGCGTTTTGCTTTTTATTCTGTCTCAACTCTGGATGTTTCGTGTAGGCTGGAGCTGCTTCG   | P7 and P8 contain upstream and downstream sequence from dxrEC, respectively. The underlined sequence recognizes pKD4 to amplify the kanamycin cassette. Used to generate *dxr*::*kan* linear fragment. |
| P8 | Reverse | ATTCCGGGGATCCGTCGACCCTGAAGCCCTACGCTAACAAATAGCGCGACTCTCTGTAGCCGGATTATCC |
| P9 | Forward | ACGATGTACAGAAACTG | P9 is upstream of *E. coli* MG1655 *dxr* and P10 recognizes the Kan cassette. Primer set used to confirm insertion of Kan cassette. |
| P10 | Reverse | GGATTCATCGACTGTGGCCG |