

Name	Sequence
AvFM1-upstream-F- <i>NdeI</i>	5'-GGAATT CCATATG GGCAGCAAGTGACCGAAGCATTGCCTTCGACGATCGCC-3'
AvFM1-upstream-R- <i>EcoRI</i>	5'-CCG GAATTC GGGAAGCAGCTCGTCGCTCTCGGCGTGAG-3'
AvFM1-downstream-F- <i>EcoRI</i>	5'-CCG GAATTC GGCAGCAAGTGACCGAAGCATTGCCTTCGACGATCGCC-3'
AvFM1-downstream-R- <i>HindIII</i>	5'-CCCA AGCTT TCTCGATGTTCAACCACGCGCACGGTCTGCG-3'
AvFM2-upstream-F- <i>NdeI</i>	5'-GGAATT CCATATG CGGATTAAGGTGCGGCACAGGATTTGCTAATCTTCTCT-3'
AvFM2-downstream-R- <i>HindIII</i>	5'-CCCA AGCTT AACTTGCCCTTTTCCACCTCGCTTTCCAGGT-3'
AvFM2-downstream-F- <i>EcoRI</i>	5'-GGG GAATTC ATTCCGCCCCGACCTGGTGCTGAAGGTGTTCTGA-3'
p _{aph} ::KIXX-F- <i>EcoRI</i>	5'-CCG GAATTC GGATCCGTCGAGCTCCCGGGAAGCT-3'
p _{aph} ::KIXX-R- <i>EcoRI</i>	5'-CCG GAATTC TCTAGAAGAACTCGTCAAGAAGGCGATAGAAGG-3'
p _{aph} ::KIXX-F- <i>SmaI</i>	5'-TAAC CCCGGGG GATCCGTCGAGCTCCCGGGAAGCT-3'
p _{aph} ::KIXX-R- <i>Sall</i>	5'-TGCG GTCTGAC GCGAAACGATCCTCATCCTGTCTCTTGATCAGATCTTGATCCC-3'
p _{aph} ::KIXX-F- <i>Sall</i>	5'-ACG CGTCTGAC GGATCCGTCGAGCTCCCGGGAAGCT-3'
p _{aph} ::KIXX-F-R- <i>SmaI</i>	TCC CCCGGGT CAGAAGAACTCGTCAAGAAGGCGATAGAAGG-3'
KIXX-F- <i>EcoRI</i>	5'-CCG GAATTC ATGATTGAACAAGATGGATTGCACGCAGTTCTCCGGC-3'
KIXX-R- <i>EcoRI</i>	5'-GGG GAATTC TCTAGAAGAACTCGTCAAGAAGGCGATAGAAGGCGATGC-3'
KIXX-F- <i>SmaI</i>	5'-TAAC CCCGGGG ATGATTGAACAAGATGGATTGCACGCAGTTCTCCGGC-3'
KIXX-R- <i>Sall</i>	5'-TGCG GTCTGAC TCTAGAAGAACTCGTCAAGAAGGCGATAGAAGGCGATGC-3'
p _{aph} -F- <i>EcoRI</i>	5'-CCG GAATTC GGATCCGTCGAGCTCCCGGGAAGCT-3'
p _{aph} -R- <i>EcoRI</i>	5'-CCG GAATTC GCGAAACGATCCTCATCCTGTCTCTTGATCAGATCTTGATCCC-3'
p _{aph} -F- <i>SmaI</i>	5'-TAAC CCCGGGG GATCCGTCGAGCTCCCGGGAAGCT-3'
p _{aph} -R- <i>Sall</i>	5'-TGCG GTCTGAC GCGAAACGATCCTCATCCTGTCTCTTGATCAGATCTTGATCCC-3'
p _{cydAB} -F- <i>EcoRI</i>	5'-CCG GAATTC TCTGCAGGTAGCCGAACACCTCCAGGTCCC-3'
p _{cydAB} -R- <i>EcoRI</i>	5'-GGG GAATTC CAGGACTCTCCTCGGTGCGGGATTGATCTTGCACTGCC-3'
p _{cydAB} -F- <i>SmaI</i>	5'-TAAC CCCGGGG ATCGAGGTAGCCGAACACCTCCAGGTCCC-3'
p _{cydAB} -R- <i>Sall</i>	5'-TGCG GTCTGAC CAGGACTCTCCTCGGTGCGGGATTGATCTTGCACTGCC-3'
p _{cydB} -F- <i>EcoRI</i>	5'-CCG GAATTC ACTCCGGCGCATTCTAGCGGCCGCCGAAGTTCT-3'
p _{cydB} -R- <i>EcoRI</i>	5'-GGG GAATTC CGTGGCTGATTACGTGCGCCCGCGGC-3'
p _{cydB} -F- <i>SmaI</i>	5'-TAAC CCCGGGG ACTCCGGCGCATTCTAGCGGCCGCCGAAGTTCT-3'
p _{cydB} -R- <i>Sall</i>	5'-TGCG GTCTGAC CGTGGCTGATTACGTGCGCCCGCGGC-3'
lacZ-F	5'-ATGACCATGATTACGCCAAGCTTGATGCCT-3'
lacZ-R	5'-GCGGATATCCTATGCGGCATCAGAGCAGATTGTACTGAGAGTGACCA-3'
lacZ-R- <i>EcoRV</i>	5'-GCG GATATC CTATGCGGCATCAGAGCAGATTGTACTGAGAGTGACCA-3'
SOE-p _{aph} ::lacZ-F1	5'-TGAGGATCGTTTCGCATGACCATGATTACGCCAAGCTTGATGCCT-3'
SOE-p _{aph} ::lacZ-R1	5'-GGCGTAATCATGGTCATGCGAAACGATCCTCATCCTGTCTCTTGAT-3'
SOE-p _{aph} ::lacZ-F2	5'-ATCAAGAGACAGGATGAGGATCGTTTCGCATGACCATGATTACGCC-3'
SOE-p _{aph} ::lacZ-R2	5'-AGGCATGCAAGCTTGCGTAATCATGGTCATGCGAAACGATCCTCA-3'
SOE-p _{cydAB} ::lacZ-F1	5'-CCCGACCGAGGAGAGTCCCTGATGACCATGATTACGCCAAGCTTGATGCCT-3'
SOE-p _{cydAB} ::lacZ-R1	5'-CGTAATCATGGTCATCAGGGACTCTCCTCGGTGCGGGATTGATCTTGCACTGCC-3'
SOE-p _{cydAB} ::lacZ-F2	5'-GGCAGTGCAAGATCAATCCCCGACCGAGGAGAGTCCCTGATGACCATGATTACG-3'
SOE-p _{cydAB} ::lacZ-R2	5'-AGGCATGCAAGCTTGCGTAATCATGGTCATCAGGGACTCTCCTCGGTGCG-3'
SOE-p _{cydB} ::lacZ-F1	5'-GCACGTAATCAGCCACGATGACCATGATTACGCCAAGCTTGATGCCT-3'
SOE-p _{cydB} ::lacZ-R1	5'-CTTGCGCTAATCATGGTCATCGTGGCTGATTACGTGCGCCCGCGGC-3'
SOE-p _{cydB} ::lacZ-F2	5'-GCCGCGGGCGCACGTAATCAGCCACGATGACCATGATTACGCCAAG-3'
SOE-p _{cydB} ::lacZ-R2	5'-AGGCATGCAAGCTTGCGTAATCATGGTCATCGTGGCTGATTACGTGC-3'
p _{aph} -F- <i>EcoRV</i>	5'-CGC GATATC TCTGCAGGTAGCCGAACACCTCCAGGTCCC-3'
p _{cydA} -F- <i>EcoRV</i>	5'-CGC GATATC ACTCCGGCGCATTCTAGCGGCCGCCGAAGTTCT-3'
p _{cydB} -F- <i>EcoRV</i>	5'-CGC GATATC ACTCCGGCGCATTCTAGCGGCCGCCGAAGTTCT-3'
p _{aph} -F	5'-GGATCCGTCGAGCTCCCGGGAAGCT-3'
p _{aph} -R	5'-GCGAAACGATCCTCATCCTGTCTCTTGATCAGATCTTGATCC-3'
p _{cydAB} -F	5'-ACTCCGGCGCATTCTAGCGGCCGCCGAAGTTCT-3'
p _{cydAB} -R	5'-CAGGGACTCTCCTCGGTGCGGGATTGATCTTGCACTGCC-3'
p _{cydB} -F	5'-ACTCCGGCGCATTCTAGCGGCCGCCGAAGTTCT-3'
p _{cydB} -R	5'-CGTGGCTGATTACGTGCGCCCGCGGC-3'
nifA-F	5'-CGCGACGTGGTCTCGCTGAC-3'
nifA-R	5'-ATCACCCGTTTCGCGTCTGTC-3'
nifH-F	5'-GTCTGGGCGGCCTGATCTGC-3'
nifH-R	5'-GTCACGCGGCACGAAGTGGA-3'

<i>rnfA1</i> -F	5'-CGAGATGATCATCCGCAAGGCCAGCCCCTCGCTGTA-3'
<i>rnfA1</i> -R	5'-GCCTTCGCGCACGCTGAGCAGCGGTACG-3'
<i>rnfD1</i> -F	5'-GCTCTATCAGCTGACCTCCGGCGGCCTGATACTGTGC-3'
<i>rnfD1</i> -R	5'-CGTAGATCAGCACGCCGCAGCCCACACCGAAGA-3'
<i>gyrB</i> -F	5'-ACGGCGTCGGTGTGGAGGTC-3'
<i>gyrB</i> -R	5'-CCAGATGGGTGCCACCGTCA-3'