Primers for pZEMCS21:

**Primer pair 3**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Sequence (5'->3')** | **Template strand** | **Length** | **Start** | **Stop** | **Tm** | **GC%** | **Self complementarity** | **Self 3' complementarity** |
| **Forward primer** | GTGTAGGTCGTTCGCTCCAA | Plus | 20 | 671 | 690 | 60.04 | 55.00 | 3.00 | 2.00 |
| **Reverse primer** | AAGAACTCTGTAGCACCGCC | Minus | 20 | 855 | 836 | 60.04 | 55.00 | 4.00 | 1.00 |
| **Product length** | 185 | | | | | | | | |

**Primer pair 5**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Sequence (5'->3')** | **Template strand** | **Length** | **Start** | **Stop** | **Tm** | **GC%** | **Self complementarity** | **Self 3' complementarity** |
| **Forward primer** | TGAGTAGGACAAATCCGCCG | Plus | 20 | 270 | 289 | 59.83 | 55.00 | 3.00 | 3.00 |
| **Reverse primer** | TGACGAGTTCTTCTAGCGGG | Minus | 20 | 1263 | 1244 | 59.19 | 55.00 | 4.00 | 0.00 |
| **Product length** | 994 | | | | | | | | |

qnrA sequence:

xx: old gblock, 140bp

\*: new gblock, 237bp (USD127)

!: new short insert, 126bp

xx: BglII restriction sites

xx: primers to amplify gblock

xx: primers to verify transformation after digestion

1 atggatatta ttgataaagt ttttcagcaa gaggatttct cacgccagga tttgagtgac

61 agccgttttc gccgctgccg cttttatcag tgtgacttca gccactgtca gctgcaggat

121 gccagtttcg aggattgcag tttcattgaa agcggcgccg ttgaagggtg tcacttcagc

181 tatgccgatc tgcgcgatgc cagtttcaag gcctgccgtc tgtctttggc caacttcagc

241 ggtgccaact gctttggcat agagttcagg gagtgcgatc tcaagggcgc caacttttcc

301 cgggcccgct tctacaatca agtcagccat aagatgtact tctgctcggc ttatatctca

361 ggttgcaacc tggcctatac caacttgagt ggccaatgcc tggaaaaatg cgagctgttt

421 gaaaacaact ggagcaatgc caatctcagc ggcgcttcct tgatgggctc agatctcagc

\* !

481 cgcggcacct tctcccgcga ctgttggcaa caggtcaatc tgcggggctg tgacctgacc

541 tttgccgatc tggatgggct cgaccccaga cgggtcaacc tcgaaggagt caagatctgt

!

601 gcctggcaac aggagcaact gctggaaccc ttgggagtaa tagtgctgcc ggattag

\*

**Primer pair (gblock)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Sequence (5'->3')** | **Template strand** | **Length** | **Start** | **Stop** | **Tm** | **GC%** | **Self complementarity** | **Self 3' complementarity** |
| **Forward primer** | AACAACTGGAGCAATGCCAATC | Plus | 22 | 4 | 25 | 60.03 | 45.45 | 5.00 | 1.00 |
| **Reverse primer** | TATTACTCCCAAGGGTTCCAGC | Minus | 22 | 222 | 201 | 59.49 | 50.00 | 4.00 | 2.00 |
| **Product length** | 219 | | | | | | | | |

**Primer pair (short insert)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Sequence (5'->3')** | **Template strand** | **Length** | **Start** | **Stop** | **Tm** | **GC%** | **Self**  **complementarity** | **Self 3' complementarity** |
| **Forward primer** | TCAATCTGCGGGGCTGTGA | Plus | 19 | 45 | 63 | 61.59 | 57.89 | 3.00 | 2.00 |
| **Reverse primer** | TCGAGGTTGACCCGTCTGG | Minus | 19 | 114 | 96 | 61.27 | 63.16 | 4.00 | 3.00 |
| **Product length** | 70 | | | | | | | | |