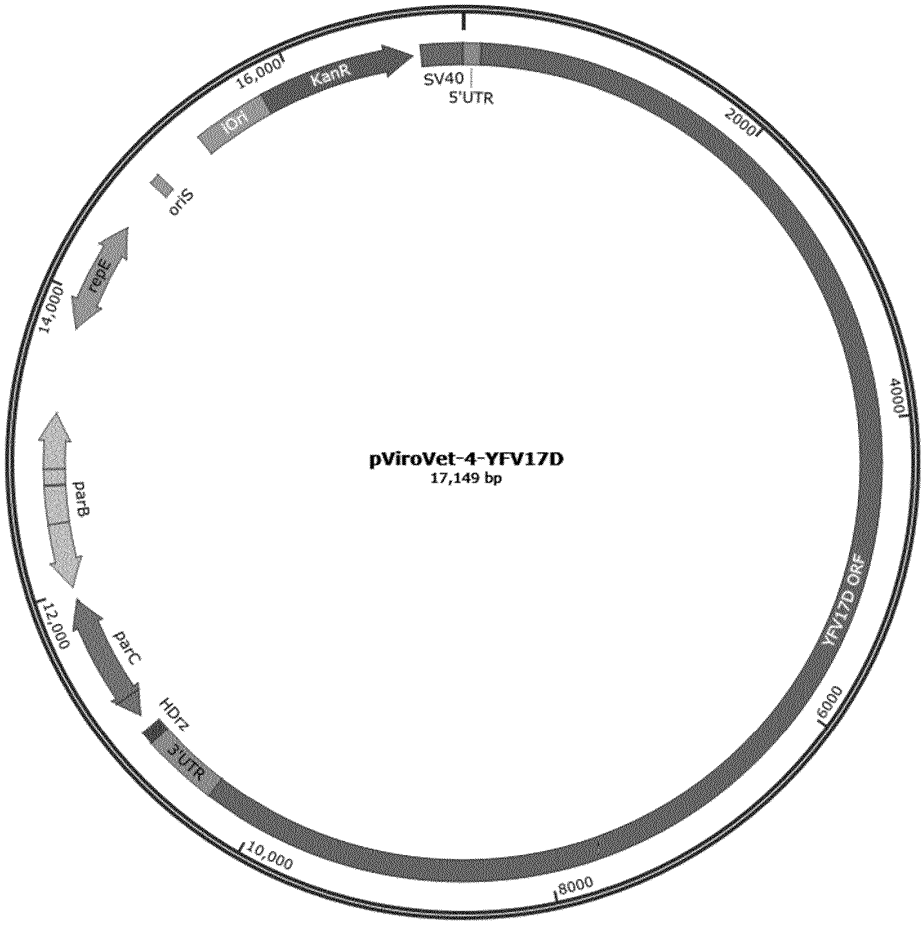
FIG 1.



iOri:

Iori.ape from 1 to 498

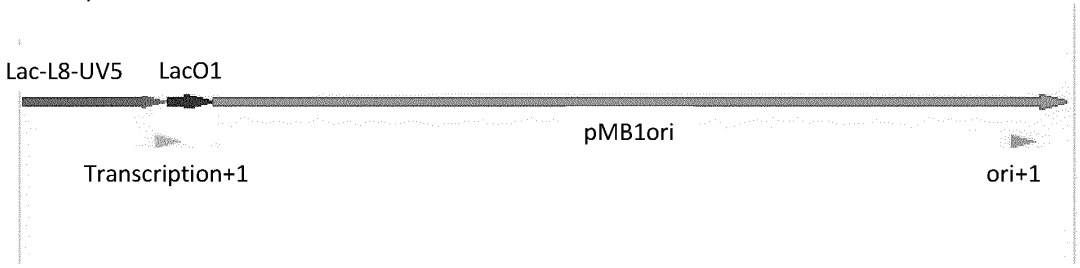


FIG 2.

Full pMB1 (ColE1) ori (including RNAII*, RNAI, RNAIp and RNAIIp) SEQ ID NO 10

GTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTTCTGCGCGTAATCTGCTGCTTGCAAACAAAAAAACC
ACCGCTACCAGCGGTGGTTTGTTTGCCGGATCAAGAGCTACCAACTCTTTTTCCGAAGGTAACTGGCTTCAGCA
GAGCGCAGATACCAAATACTGTCCTTCTAGTGTAGCCGTAGTTAGGCCACCACTTCAAGAACTCTGTAGCACC
GCCTACATACCTCGCTCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGGGT
TGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTCGGGCTGAACGGGGGGTTCGTGCACACAGCCC
AGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCC
GAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCAGGGTCGGAACAGGAGAGCGCACGAGGGAGCTTC
CAGGGGGAAACGCCTGGTATCTTTATAGTCCTGTCGGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGA
TGCTCGTCAGGGGGGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTTACGGTTCCT

Name	type	location
RNAII*	misc_feature	238..644
ori +1	misc_feature	624..624
RNAI -35	-35_signal	201..206
RNAI -10	-10_signal	177..182
RNAI +1	misc_signal	170..170
RNAII -10 (original)	-10_signal	47..52
RNAII -35 (original)	-35_signal	24..29
RNAII +1 (original)	misc_feature	60..60

Full iOri (including lac-L8-UV5, lacO1 and RNAII* including mutations) SEQ ID NO 9

ATGTAAGTTAGCTCATTCATTAGGCACCCCAGGCTTTACACTTTATGCTTCCGGCTCGTATAATGTGTGGAattgt
gagcggataacaattCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGGGTTGG
ACTCAAGACGATAGTTACCGGATGAGGCGCAGCGGTCGGGCTGAACGGGGGGTTCGTGCACACAGCCCAGC
TTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAA
GGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCAGGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAG
GGGGAAACGCCTGGTATCTTTATAGTCCTGTTGGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGC
TCGTCAGGGGGGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTTACGGTTCCT

Name	type	location
lac-L8-UV5	promoter	1..70
LacO1	misc_feature	71..91
RNAII*	misc_feature	92..498
C->T mutation	modified_base	397..397
A->G mutation	modified_base	176..176
transcription+1	misc_feature	71..71
ori +1	misc_feature	478..478

FIG 3.

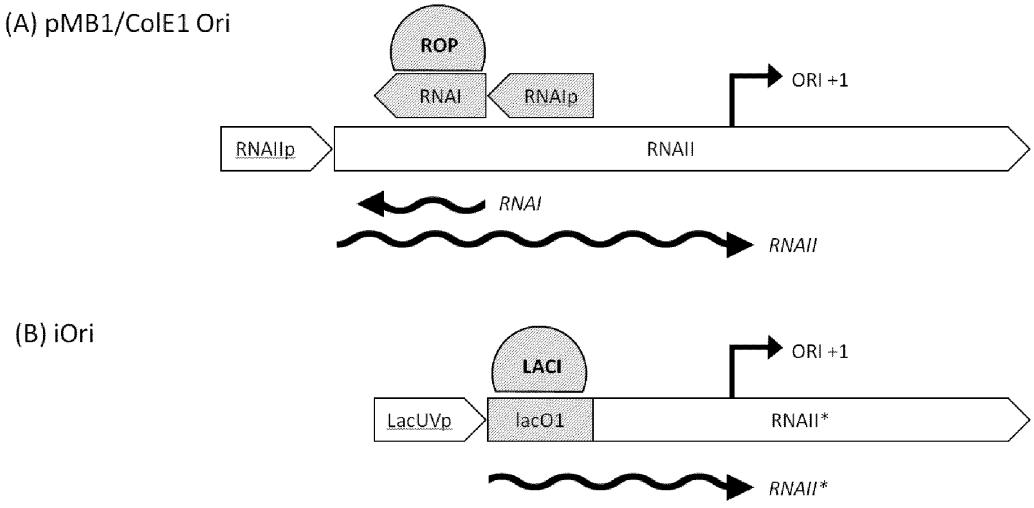

(A) pMB1/ColE1 Ori
ROP
RNAI
RNAIp
ORI +1
RNAIIp
RNAII
RNAI
RNAII
(B) iOri
LACI
ORI +1
LacUVp
lacO1
RNAII*
RNAII*

FIG 4.

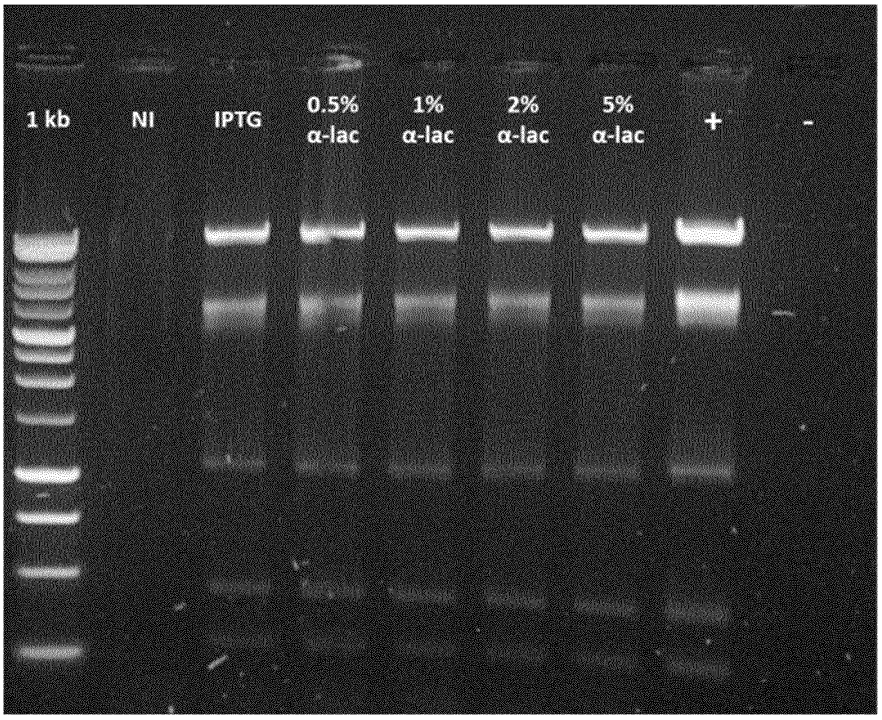

1 kb
NI
IPTG
0.5% α-lac
1% α-lac
2% α-lac
5% α-lac
+
-

FIG 5.

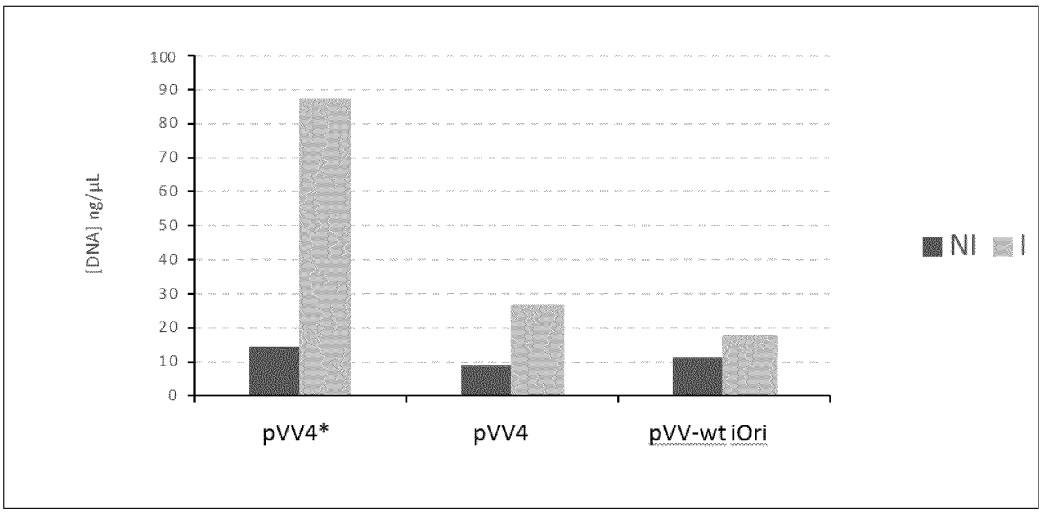

[DNA] ng/µL
100
90
80
70
60
50
40
30
20
10
0
pVV4*
pVV4
pVV-wt iOri
NI
I

FIG 6.

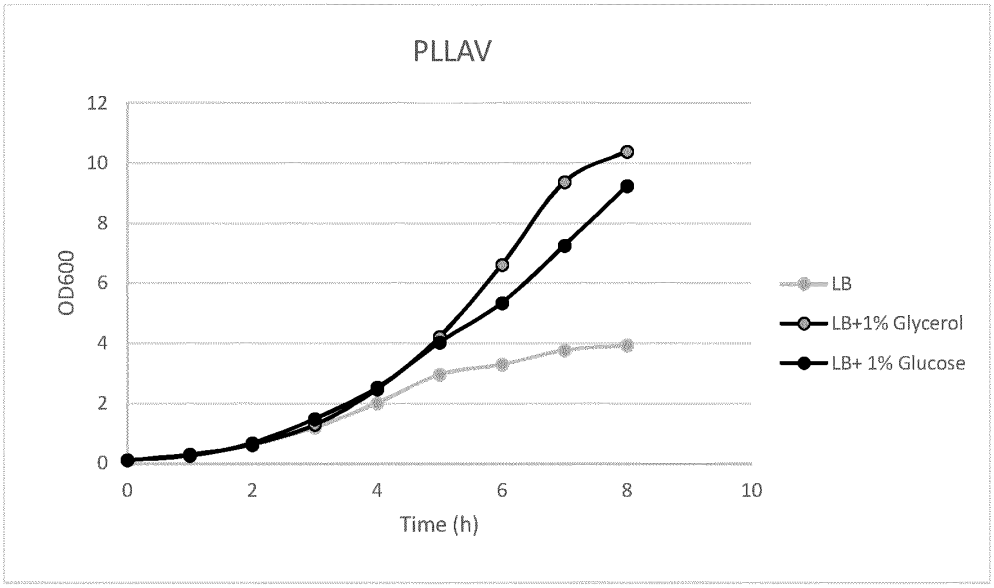

PLLAV
OD600
12
10
8
6
4
2
0
0
2
4
6
8
10
Time (h)
LB
LB+1% Glycerol
LB+ 1% Glucose

FIG 7.

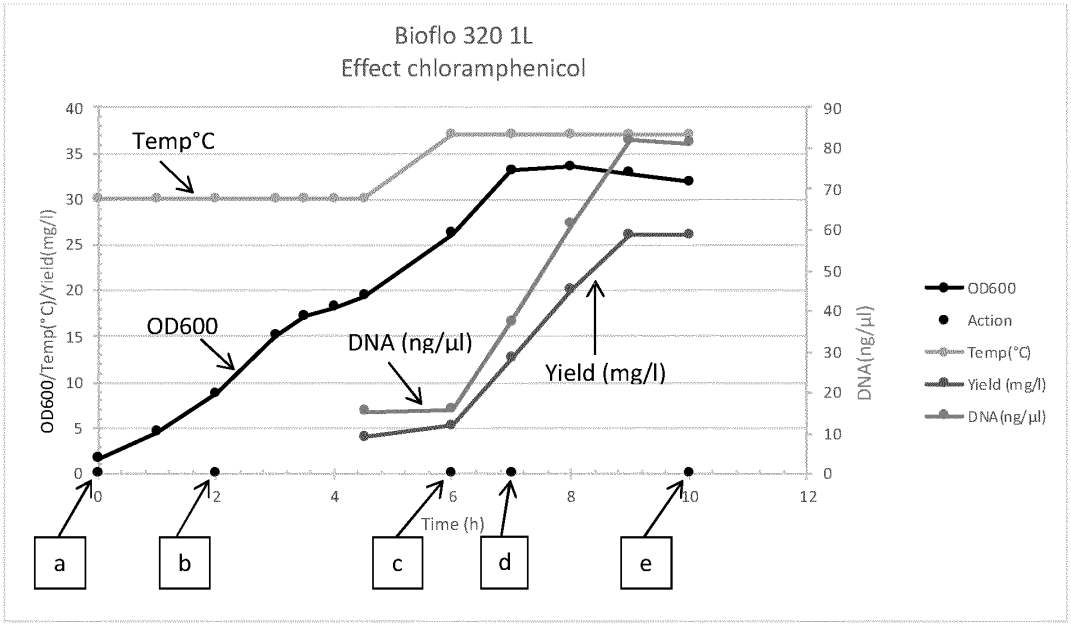

Bioflo 320 1L
Effect chloramphenicol
Temp°C
OD600
DNA (ng/µl)
Yield (mg/l)
OD600/Temp(°C)/Yield(mg/l)
DNA(ng/µl)
Time (h)
a
b
c
d
e
OD600
Action
Temp(°C)
Yield (mg/l)
DNA(ng/µl)

FIG 8.

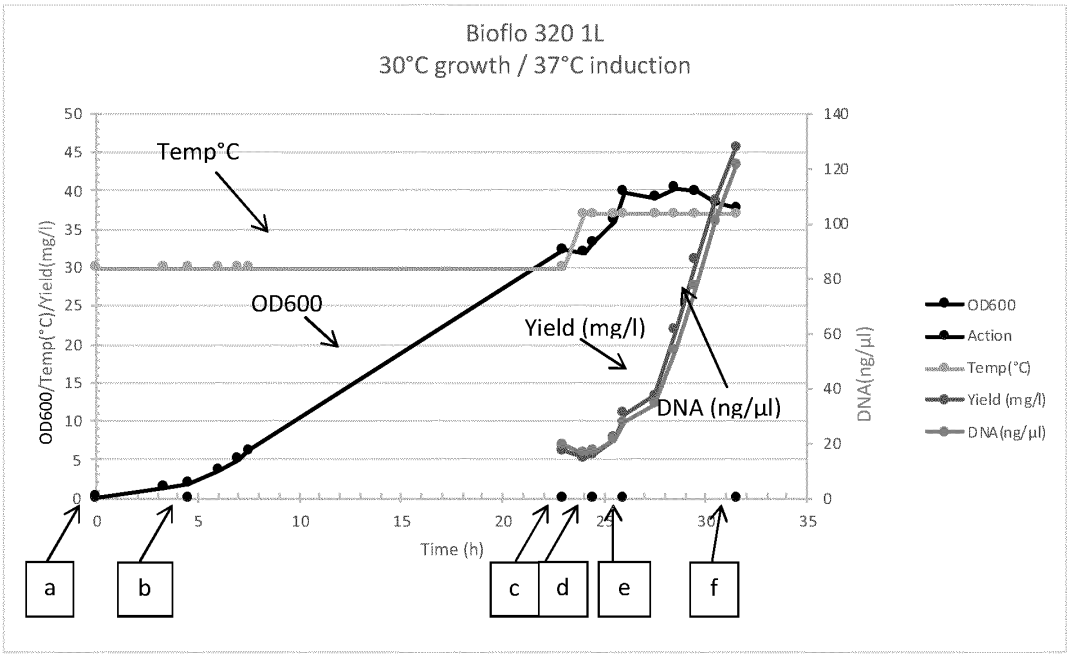

Bioflo 320 1L
30°C growth / 37°C induction
Temp°C
OD600
Yield (mg/l)
DNA (ng/µl)
OD600/Temp(°C)/Yield(mg/l)
DNA(ng/µl)
Time (h)
a
b
c
d
e
f
OD600
Action
Temp(°C)
Yield (mg/l)
DNA(ng/µl)

FIG 9.

RNAI (SEQ ID NO 1):

ACAGTATTTGGTATCTGCGCTCTGCTGAAGCCAGTTACCTTCGGAAAAAGAGTTGGTAGC
TCTTGATCCGGCAAACAAACCACCGCTGGTAGCGGTGGTTTTTTTGTTTGCAAGCAGCAG
ATTACGCGCAGAAAAAAAGGATCTCAAGAAGATCCTTTGATCTTTTCTAC

RNAI promoter (SEQ ID NO 2):

AGCGAGGTATGTAGGCGGTGCTACAGAGTTCTTGAAGTGGTGGCCTAACTACGGCTACAC
TAGAAGG

endogenous promoter of the RNAII pre-primer (SEQ ID NO 3):

GTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTTCTGCGCGTAATCTGCTGCTT

***lac* promoter (SEQ ID NO 4):**

ATGTAAGTTAGCTCATTCATTAGGCACCCCAGGCTTTACACTTTATGCTTCCGGCTCGTAT
AATGTGTGG

LacO1 operator (SEQ ID NO 5):

attgtgagcggataacaatt

truncated RNAII pre-primer (SEQ ID NO 6):

CTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGGGTTGG
ACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTCGGGCTGAACGGGGGGTTCGTGC
ACACAGCCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCT
ATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCA
GGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGGAAACGCCTGGTATCTTTAT
AGTCCTGTCGGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGG
GGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTTACGGTTCCT

Mutated truncated RNAII pre-primer (SEQ ID NO 7):

CTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGGGTTGG
ACTCAAGACGATAGTTACCGGAT**G**AGGCGCAGCGGTCGGGCTGAACGGGGGGTTCGTGC
ACACAGCCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCT
ATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCA
GGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGGAAACGCCTGGTATCTTTAT
AGTCCTGT**T**GGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGG
GGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTTACGGTTCCT

FIG 9. (continued)

iOri with truncated RNAII pre-primer (SEQ ID NO 8)

ATGTAAGTTAGCTCATTCATTAGGCACCCCAGGCTTTACACTTTATGCTTCCGGCTCGTAT
AATGTGTGGAattgtgagcggataacaattCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGA
TAAGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTC
GGGCTGAACGGGGGGTTCGTGCACACAGCCCAGCTTGGAGCGAACGACCTACACCGAAC
TGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCG
GACAGGTATCCGGTAAGCGGCAGGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAGG
GGGAAACGCCTGGTATCTTTATAGTCCTGTCGGGTTTCGCCACCTCTGACTTGAGCGTCGA
TTTTTGTGATGCTCGTCAGGGGGGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTT
TTACGGTTCCT

iOri with mutated truncated RNAII pre-primer (SEQ ID NO 9)

ATGTAAGTTAGCTCATTCATTAGGCACCCCAGGCTTTACACTTTATGCTTCCGGCTCGTAT
AATGTGTGGAattgtgagcggataacaattCTGCTAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGA
TAAGTCGTGTCTTACCGGGTTGGACTCAAGACGATAGTTACCGGAT**G**AGGCGCAGCGGTC
GGGCTGAACGGGGGGTTCGTGCACACAGCCCAGCTTGGAGCGAACGACCTACACCGAAC
TGAGATACCTACAGCGTGAGCTATGAGAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCG
GACAGGTATCCGGTAAGCGGCAGGGTCGGAACAGGAGAGCGCACGAGGGAGCTTCCAGG
GGGAAACGCCTGGTATCTTTATAGTCCTGT**T**GGGTTTCGCCACCTCTGACTTGAGCGTCGA
TTTTTGTGATGCTCGTCAGGGGGGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTT
TTACGGTTCCT

Full pMB1 (ColE1) ori (SEQ ID NO 10)

GTAGAAAAGATCAAAGGATCTTCTTGAGATCCTTTTTTTCTGCGCGTAATCTGCTGCTTGC
AAACAAAAAAACCACCGCTACCAGCGGTGGTTTGTTTGCCGGATCAAGAGCTACCAACTC
TTTTTCCGAAGGTAACTGGCTTCAGCAGAGCGCAGATACCAAATACTGTCCTTCTAGTGT
AGCCGTAGTTAGGCCACCACTTCAAGAACTCTGTAGCACCGCCTACATACCTCGCTCTGC
TAATCCTGTTACCAGTGGCTGCTGCCAGTGGCGATAAGTCGTGTCTTACCGGGTTGGACTC
AAGACGATAGTTACCGGATAAGGCGCAGCGGTCGGGCTGAACGGGGGGTTCGTGCACAC
AGCCCAGCTTGGAGCGAACGACCTACACCGAACTGAGATACCTACAGCGTGAGCTATGA
GAAAGCGCCACGCTTCCCGAAGGGAGAAAGGCGGACAGGTATCCGGTAAGCGGCAGGGT
CGGAACAGGAGAGCGCACGAGGGAGCTTCCAGGGGGAAACGCCTGGTATCTTTATAGTC
CTGTCGGGTTTCGCCACCTCTGACTTGAGCGTCGATTTTTGTGATGCTCGTCAGGGGGGCG
GAGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTTACGGTTCCT