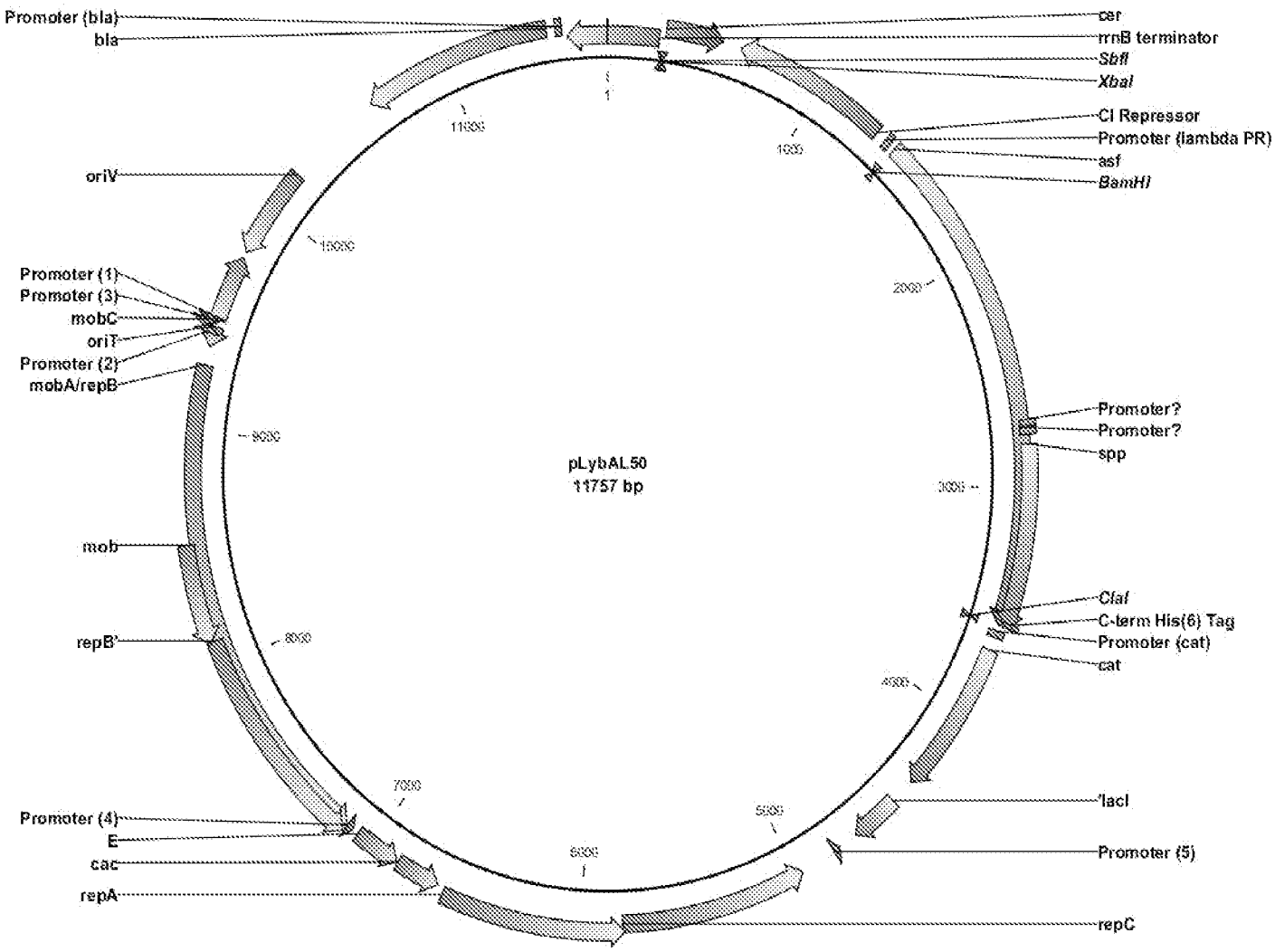

Promoter (bla)
bla
oriV
Promoter (1)
Promoter (3)
mobC
oriT
Promoter (2)
mobA/repB
mob
repB'
Promoter (4)
E
cac
repA
cer
rrnB terminator
SbfI
XbaI
CI Repressor
Promoter (lambda PR)
asf
BamHI
Promoter?
Promoter?
spp
ClaI
C-term His(6) Tag
Promoter (cat)
cat
lacI
Promoter (5)
repC
pLybAL50
11757 bp

FIG. 1

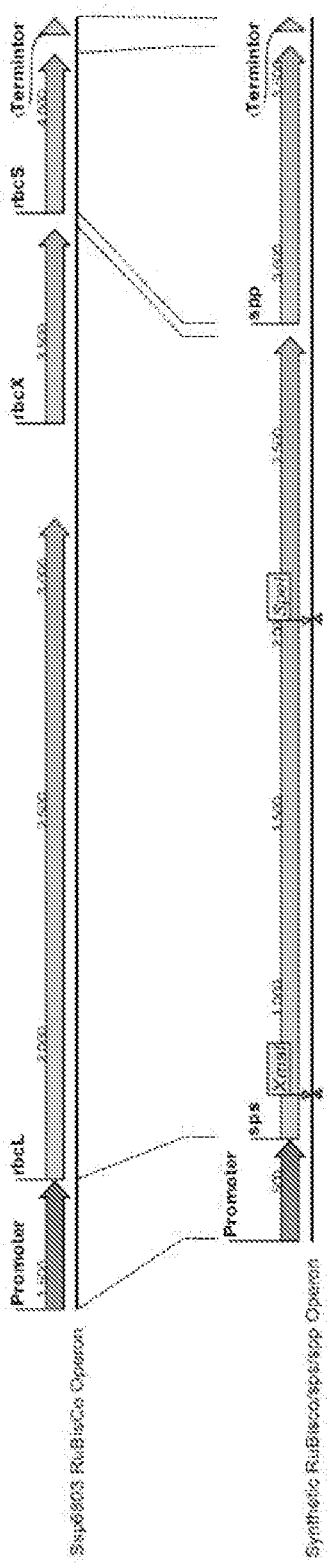

Terminator
rbcS
rbcX
rbcL
Promoter
Terminator
spp
Spe I
Xma I
sps
Promoter
Synechococcus sp. PCC 6803 RuBisCo Operon
Synthetic RuBisCo/sps/spp Operon

FIG. 2

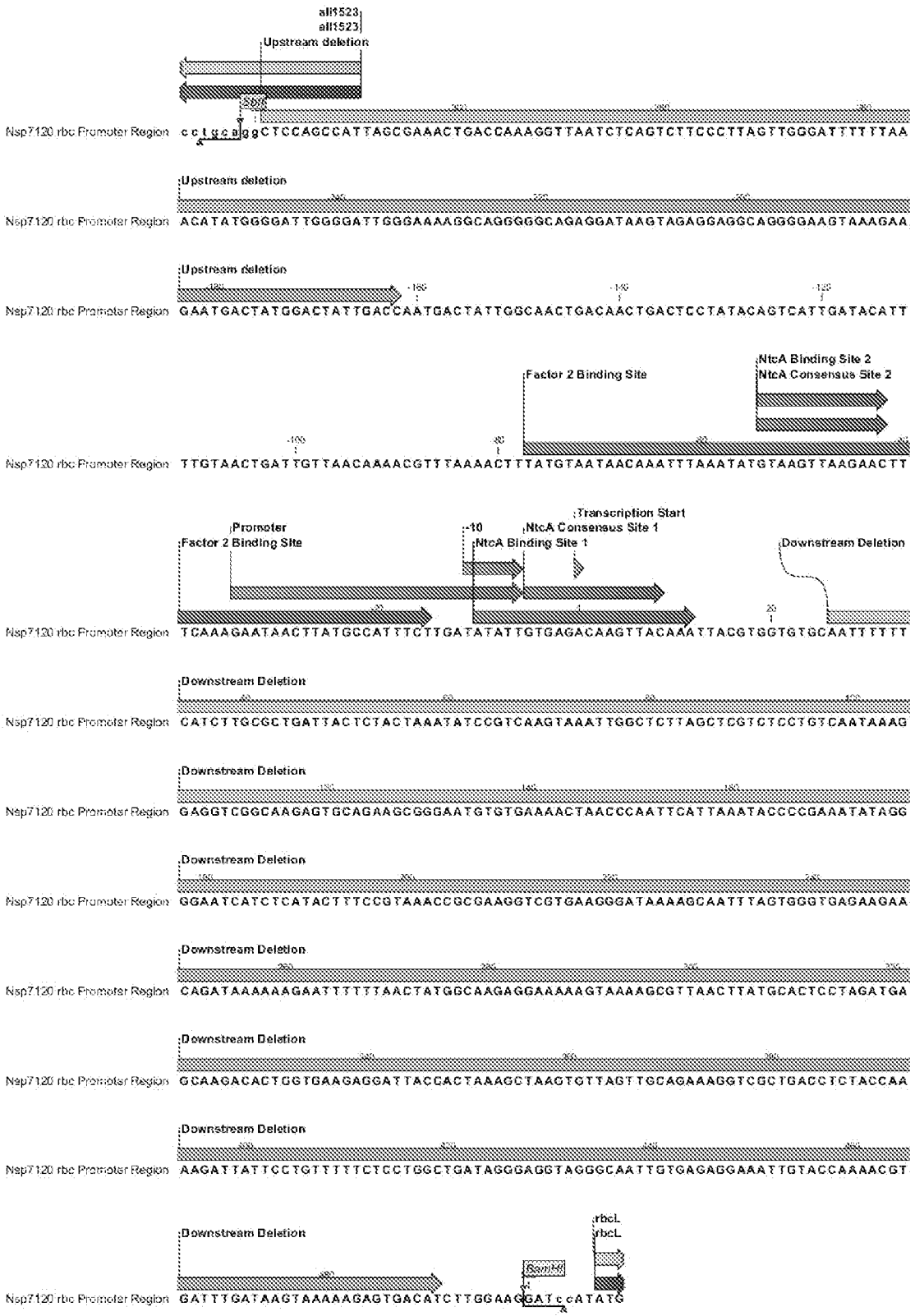

all1523
all1523
Upstream deletion
SbfI
Nsp7120 rbc Promoter Region
Upstream deletion
Nsp7120 rbc Promoter Region
Upstream deletion
Nsp7120 rbc Promoter Region
NtcA Binding Site 2
NtcA Consensus Site 2
Factor 2 Binding Site
Nsp7120 rbc Promoter Region
Transcription Start
Promoter
Factor 2 Binding Site
-10
NtcA Consensus Site 1
NtcA Binding Site 1
Downstream Deletion
Nsp7120 rbc Promoter Region
Downstream Deletion
Nsp7120 rbc Promoter Region
Downstream Deletion
Nsp7120 rbc Promoter Region
Downstream Deletion
Nsp7120 rbc Promoter Region
Downstream Deletion
Nsp7120 rbc Promoter Region
Downstream Deletion
Nsp7120 rbc Promoter Region
Downstream Deletion
rbcL
rbcL
BamHI
Nsp7120 rbc Promoter Region

FIG. 3A

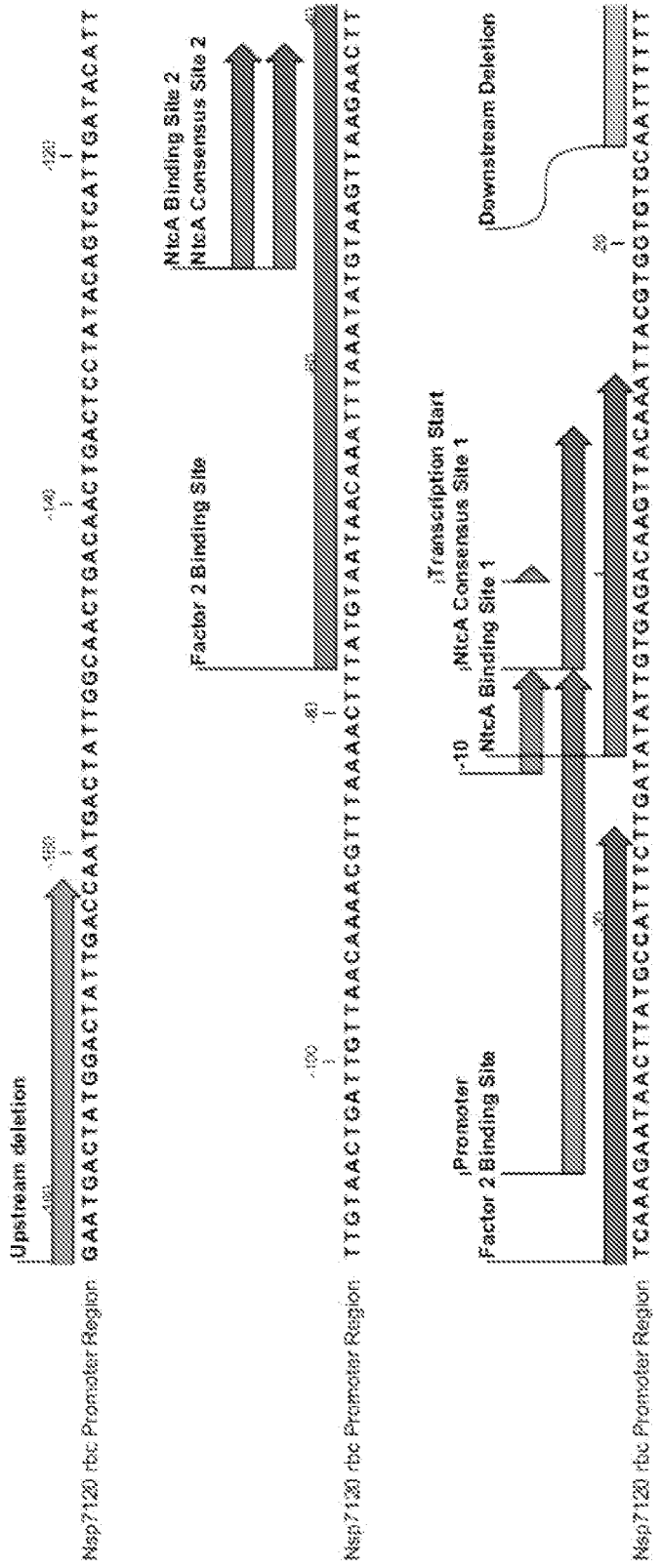

Upstream deletion
Nsp7120 rbc Promoter Region
GAATGACTATGGACTATTGACCAATGACTATTGGCAACTGACAACTGACTCCTATACAGTCATTGATACATT
Factor 2 Binding Site
NtcA Binding Site 2
NtcA Consensus Site 2
Nsp7120 rbc Promoter Region
TTGTAACTGATTGTTAACAAAACGTTTAAAACTTTATGTAATAACAAATTTAAATATGTAAGTTAAGAACTT
Transcription Start
Promoter
Factor 2 Binding Site
-10
NtcA Consensus Site 1
NtcA Binding Site 1
Downstream Deletion
Nsp7120 rbc Promoter Region
TCAAAGAATAACTTATGCCATTTCTTGATATATTGTGAGACAAGTTACAAATTACGTGGTGTGCAATTTTTT

FIG. 3B