

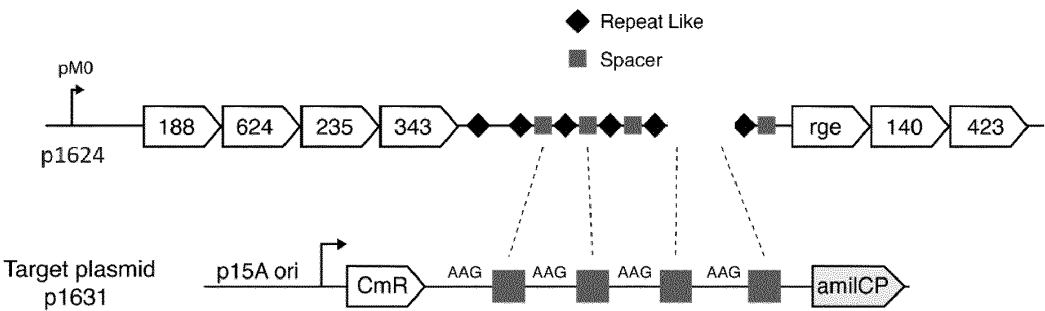


Figure 1

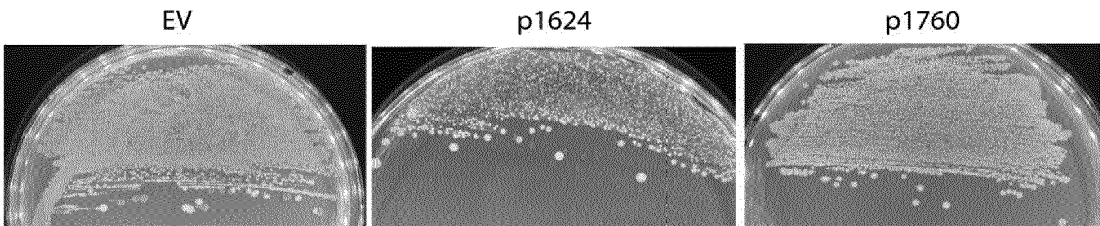
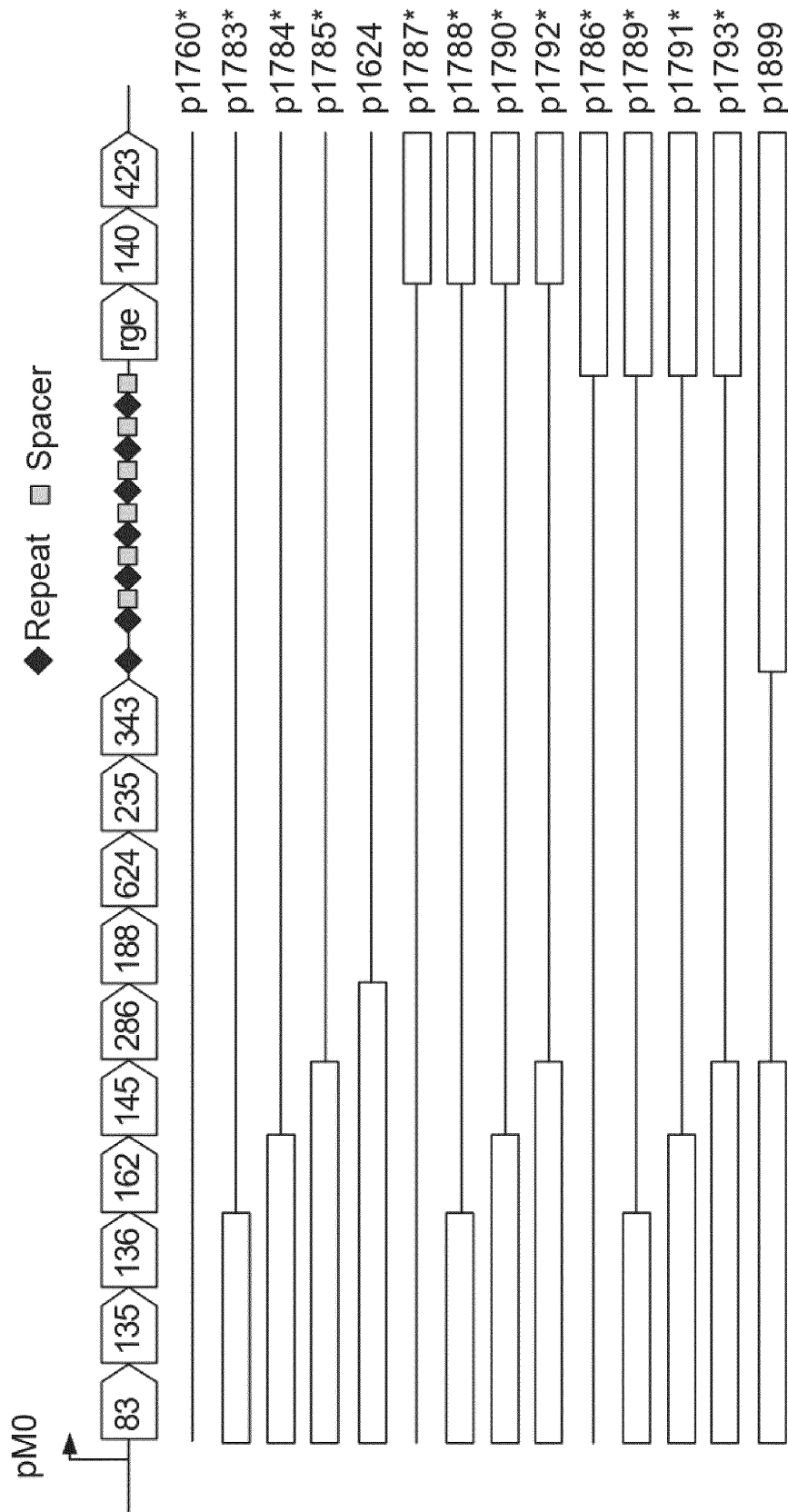


Figure 2



*Constructs showing full activity

Figure 3

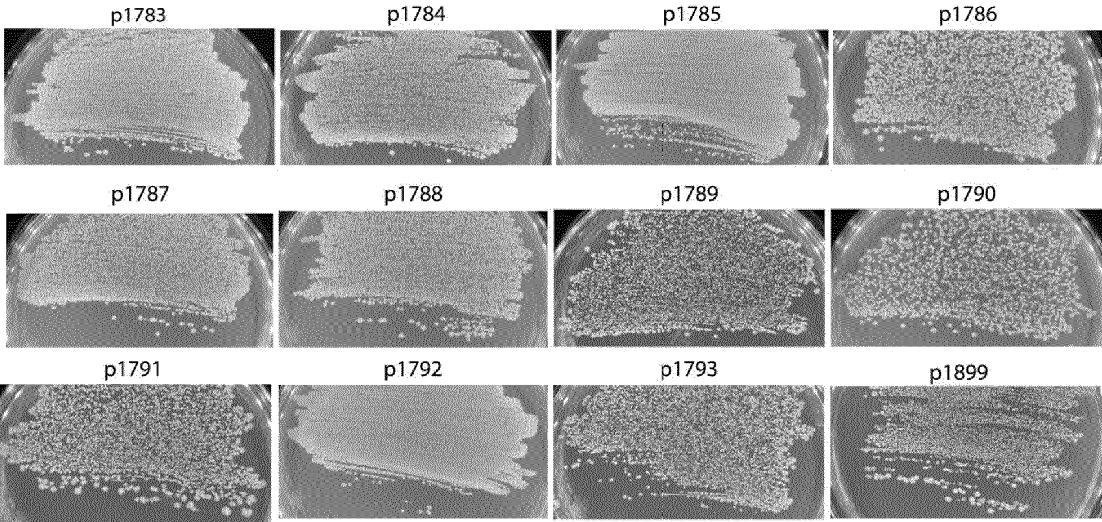


Figure 4

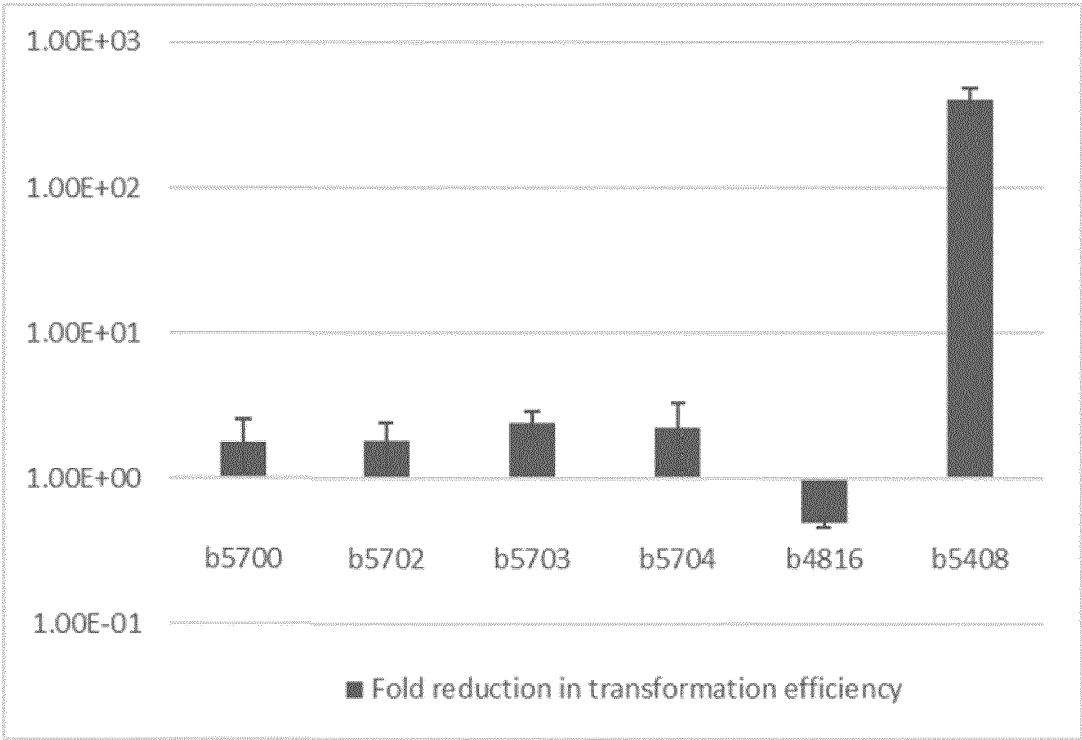


Figure 5

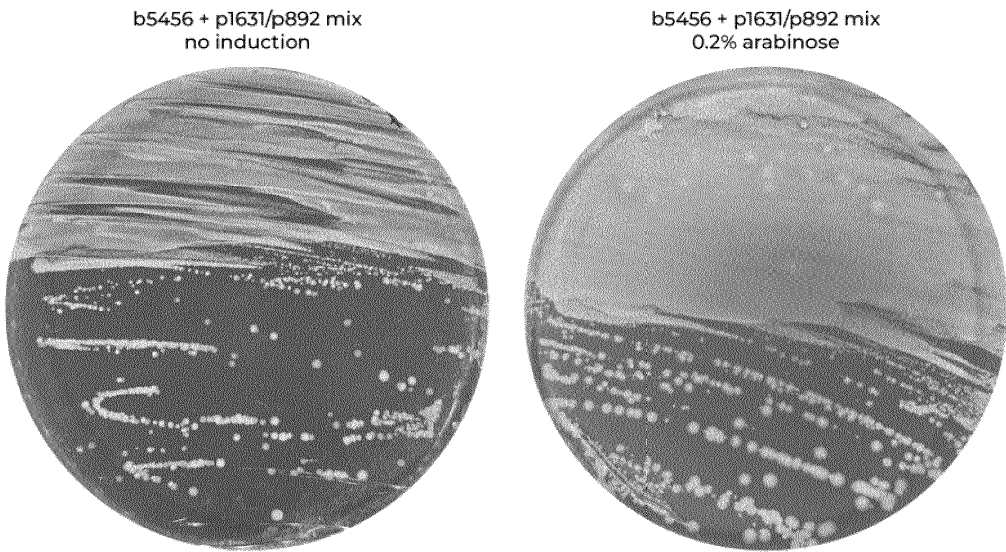


Figure 6

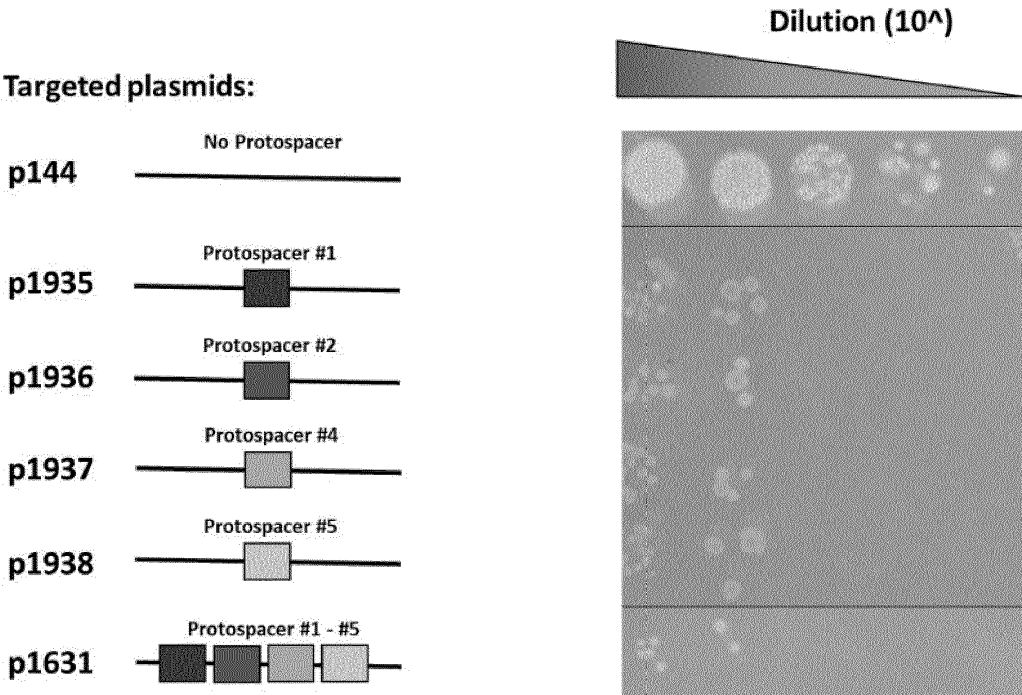


Figure 7

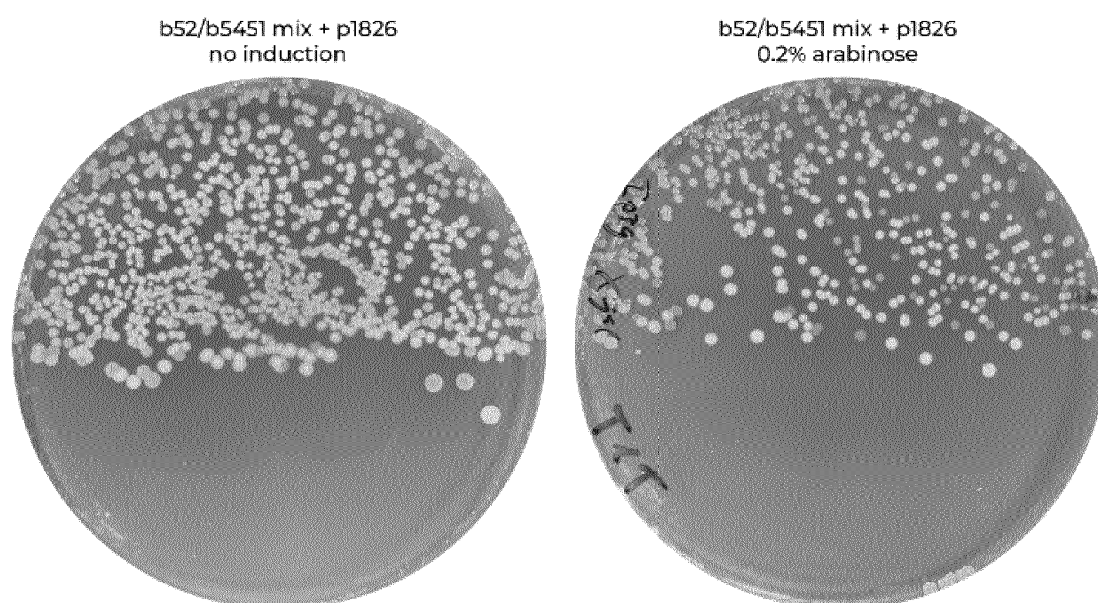


Figure 8
bSNP5810

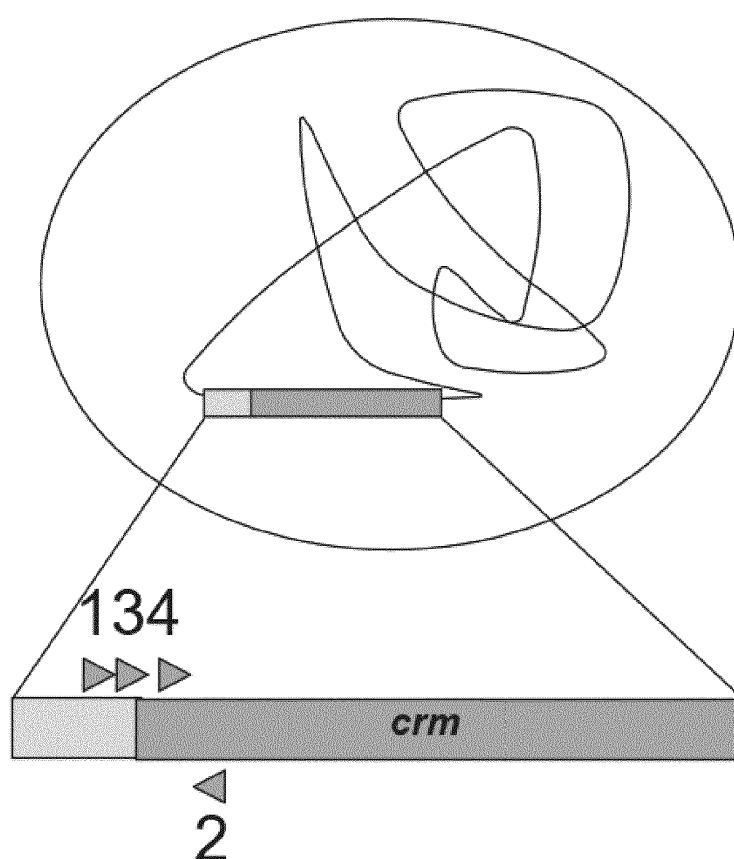
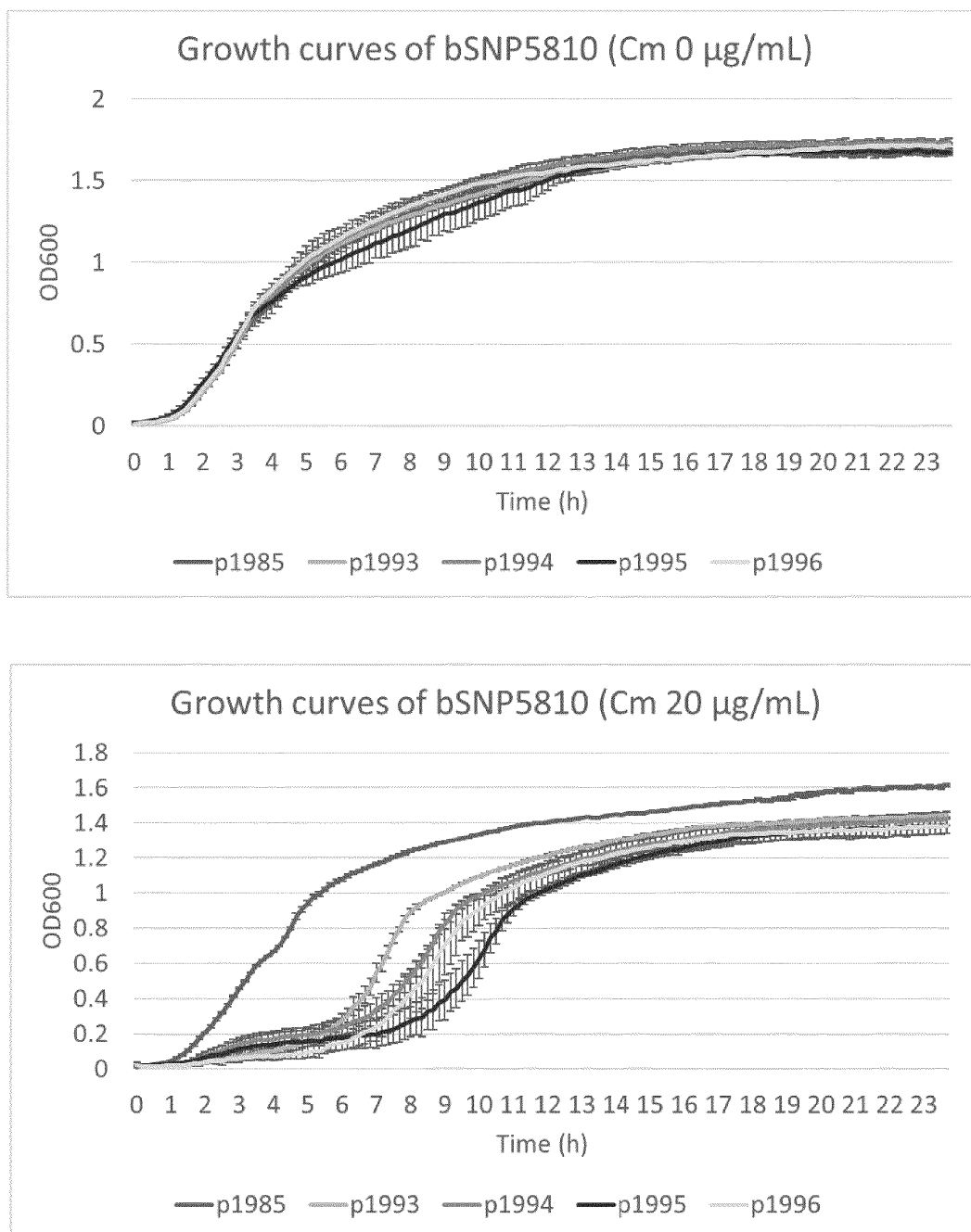


Figure 9

**Figure 10**

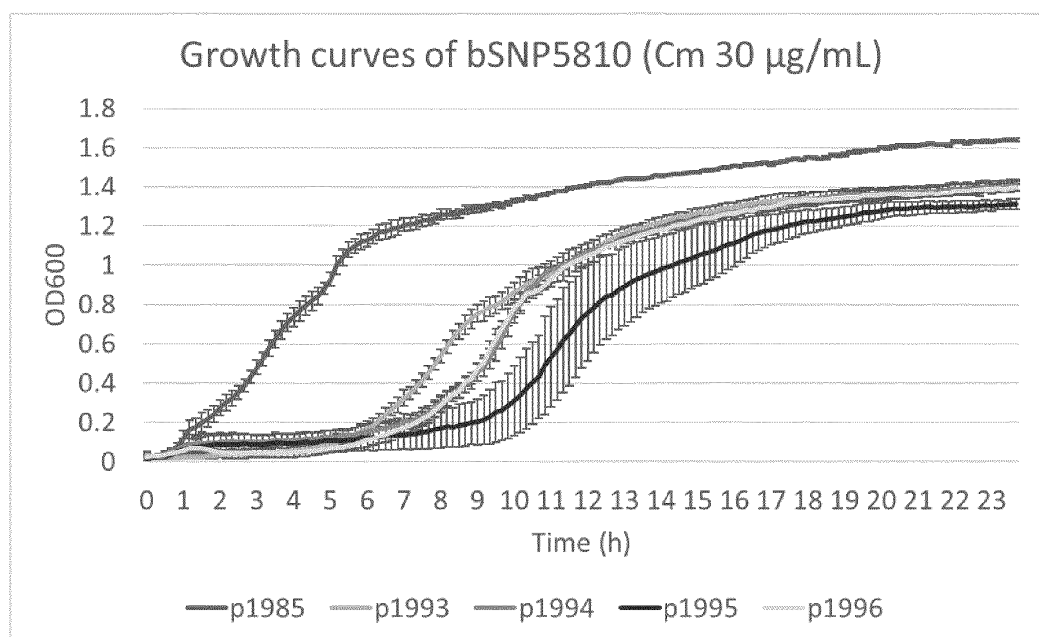
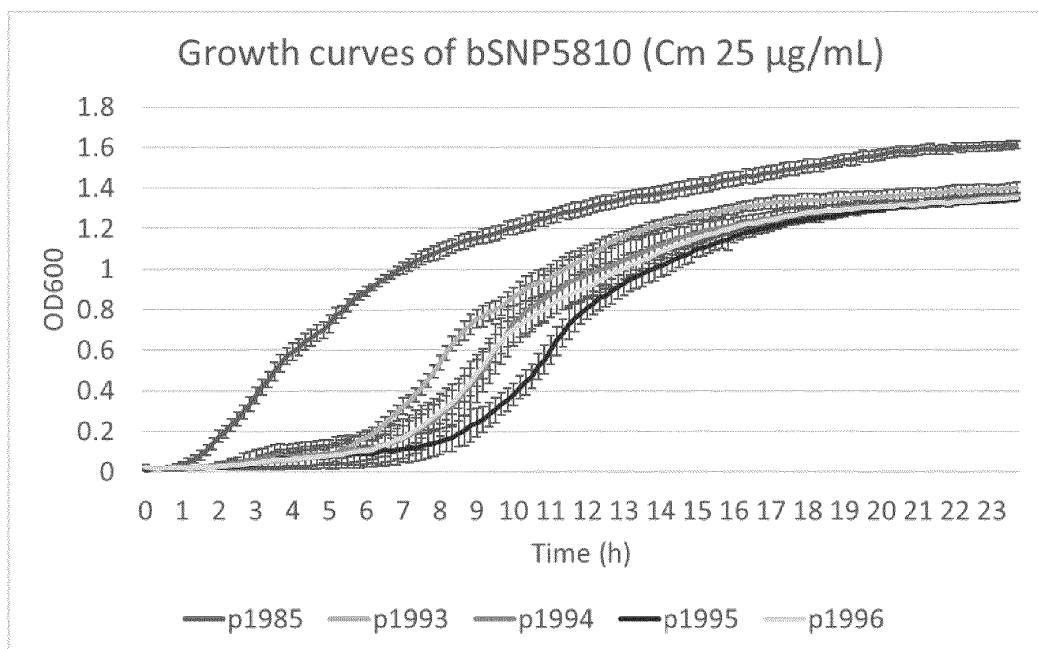


Figure 10 continued

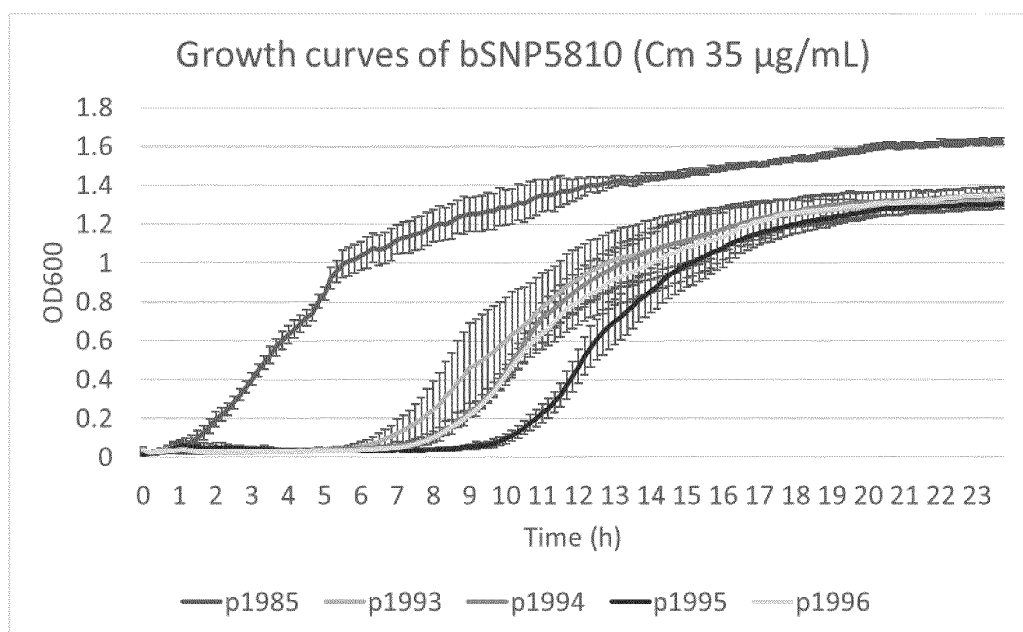


Figure 10 continued

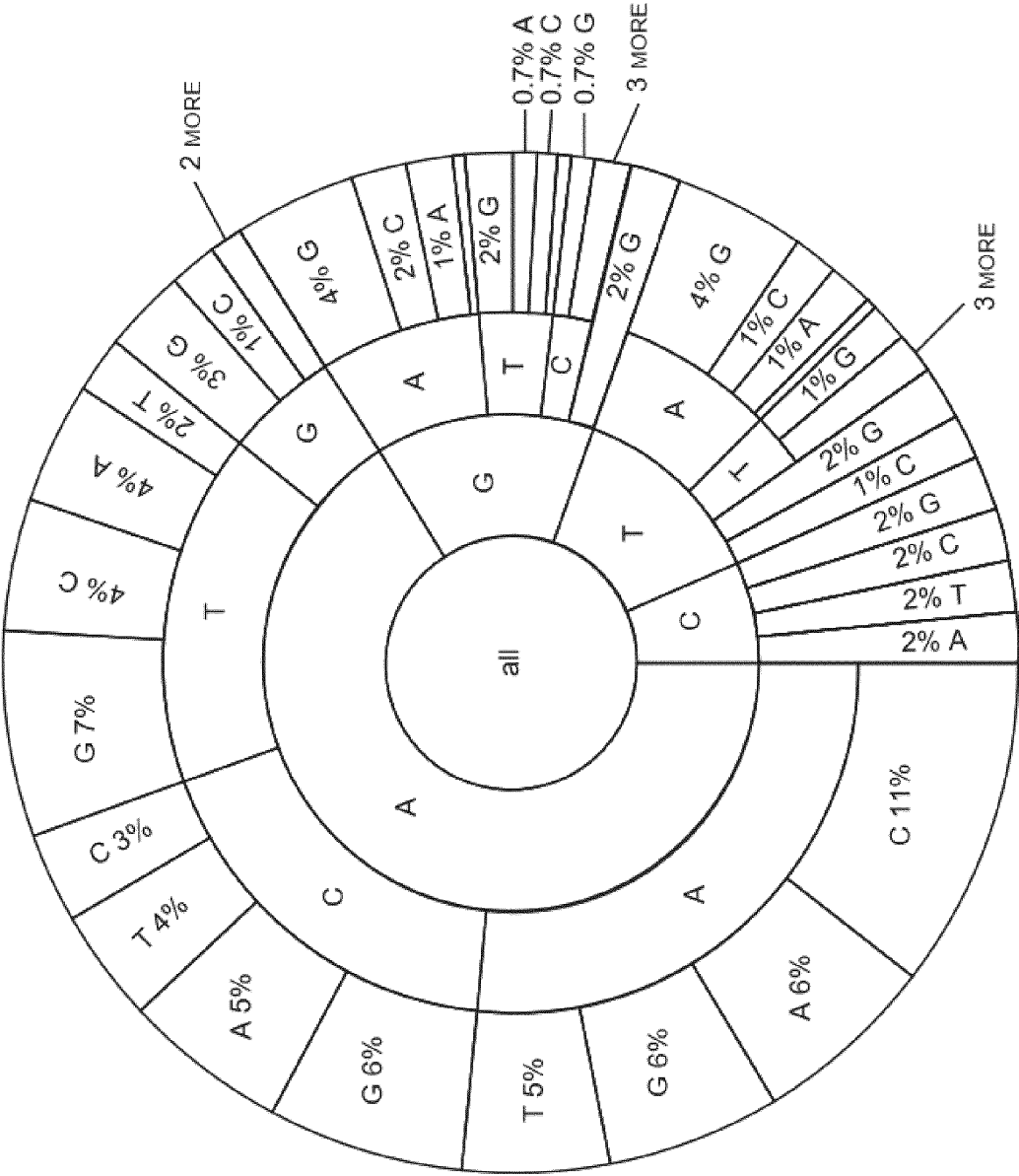


Figure 11

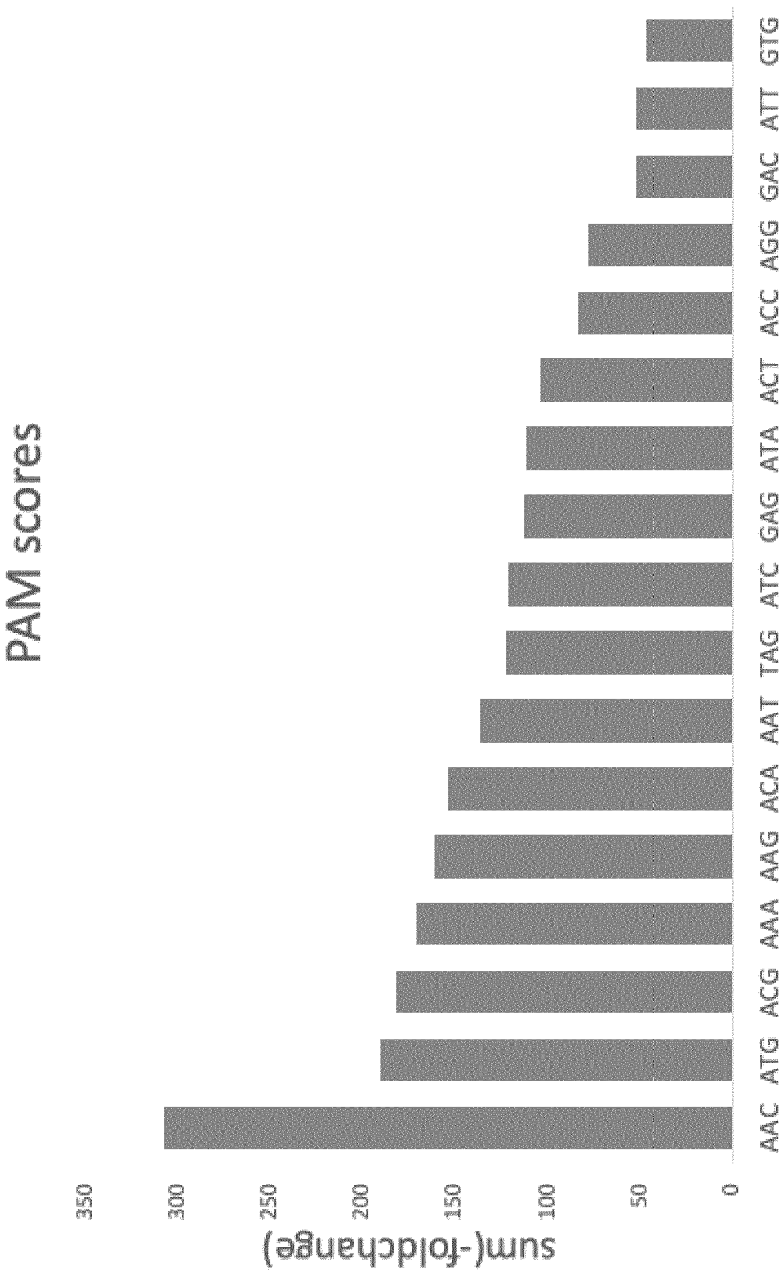


Figure 12

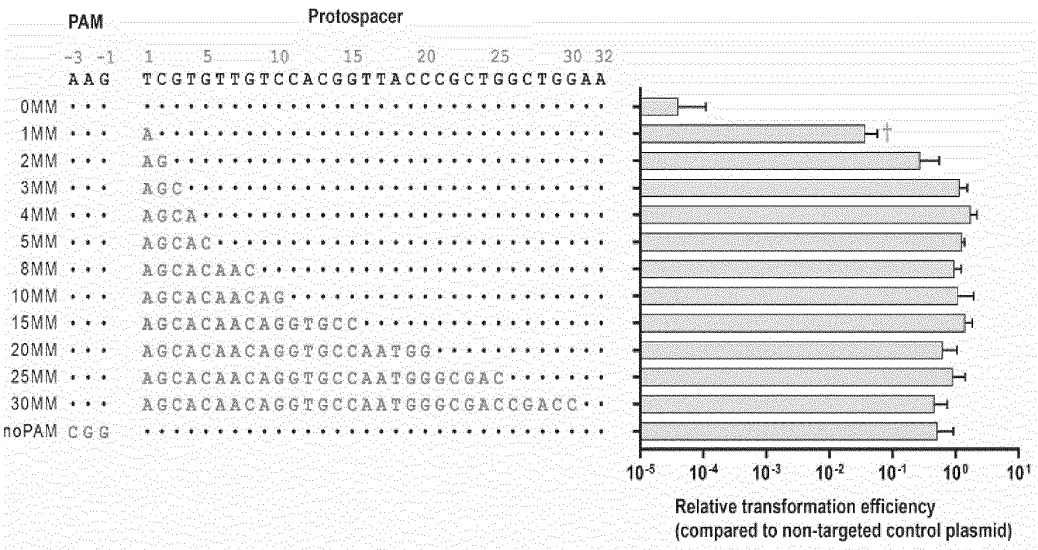


Figure 13A: PAM proximal mismatches (stretches)

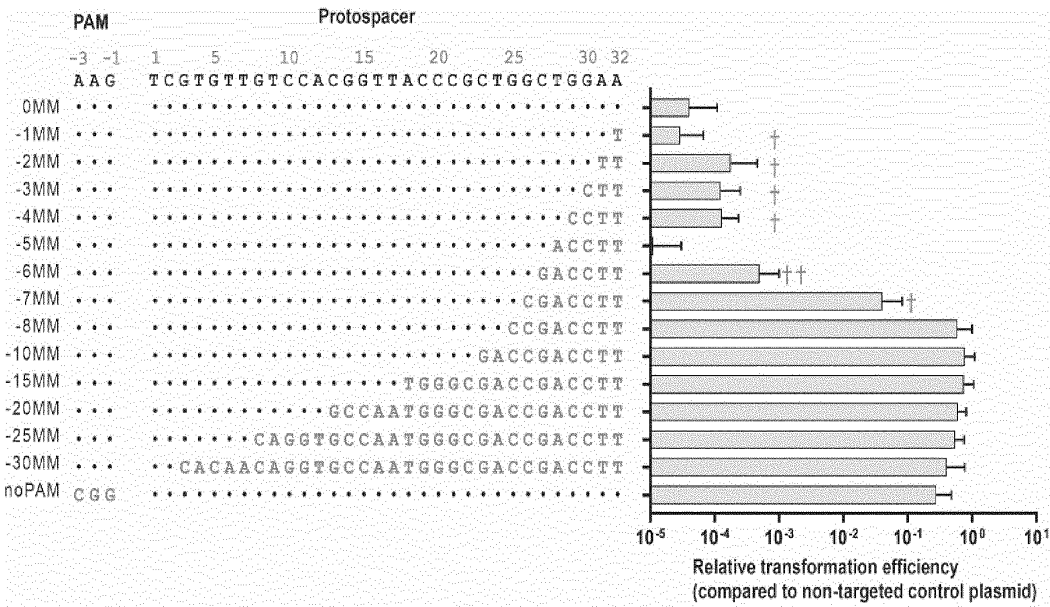


Figure 13B: PAM distal mismatches (stretches)

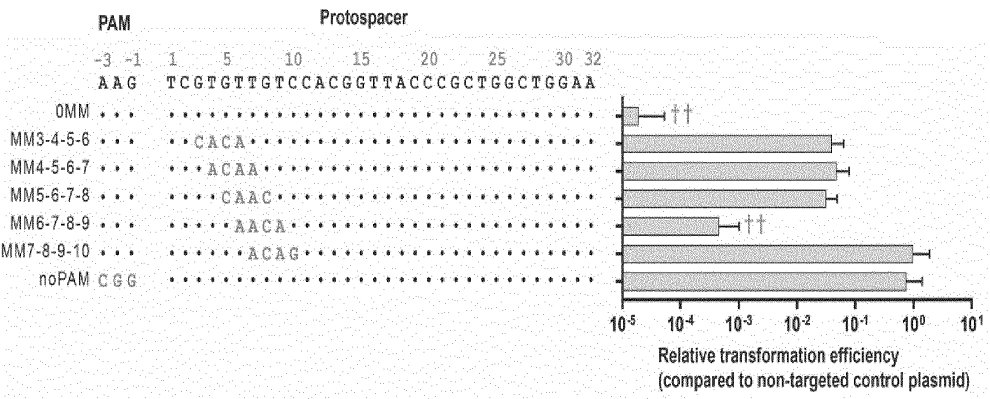


Figure 13F: PAM proximal quadruple mismatches

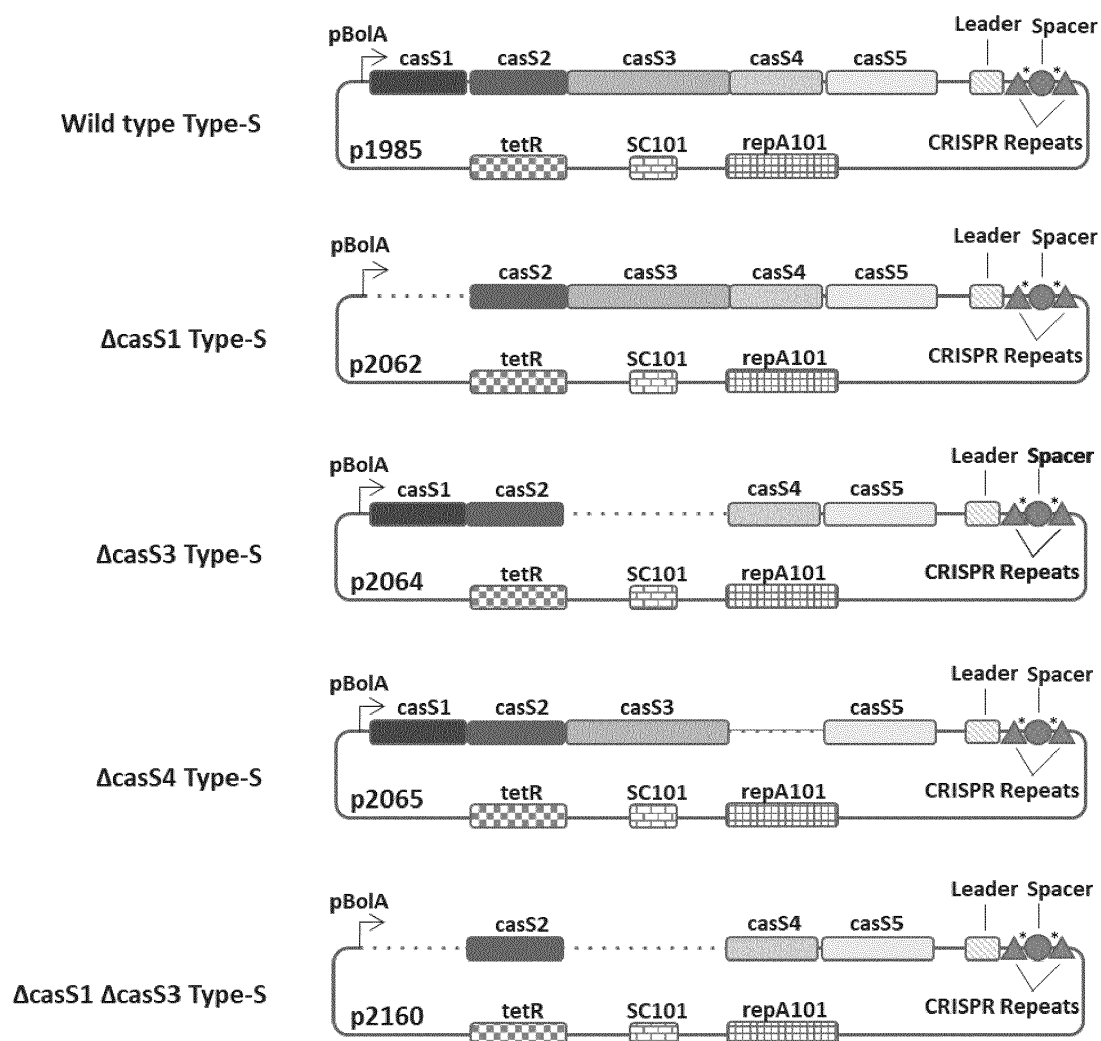


Figure 14

b5815

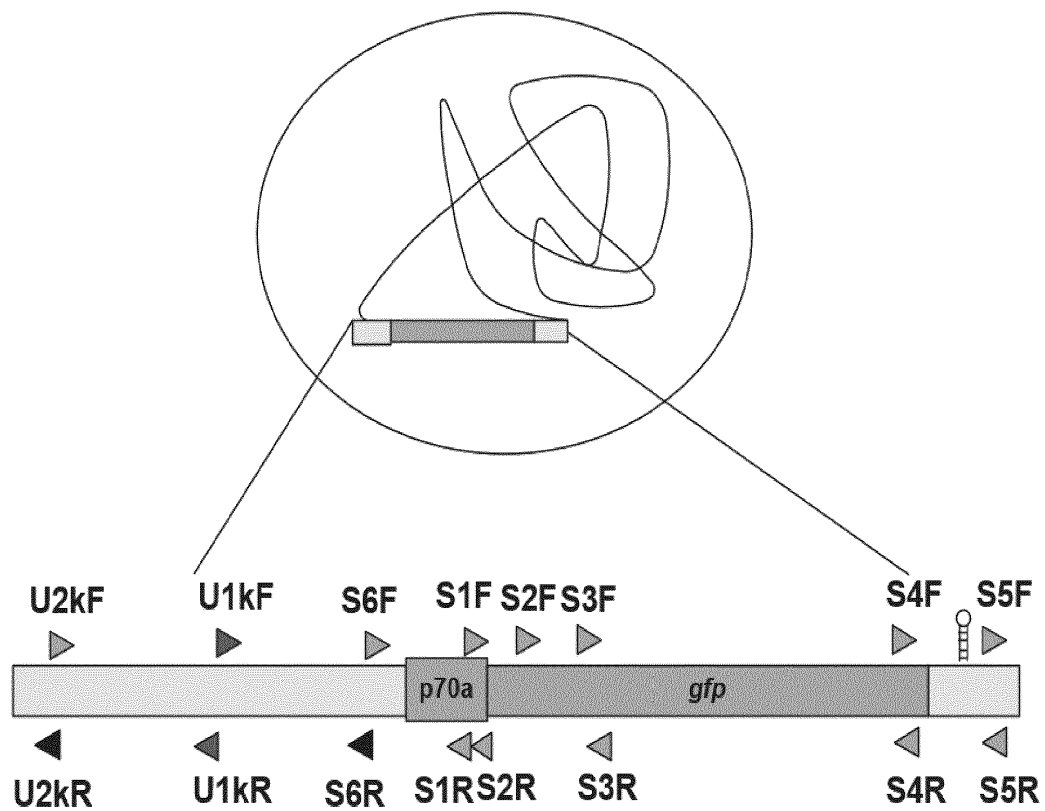


Figure 15

CRISPRi wild type Type-S_chromosome

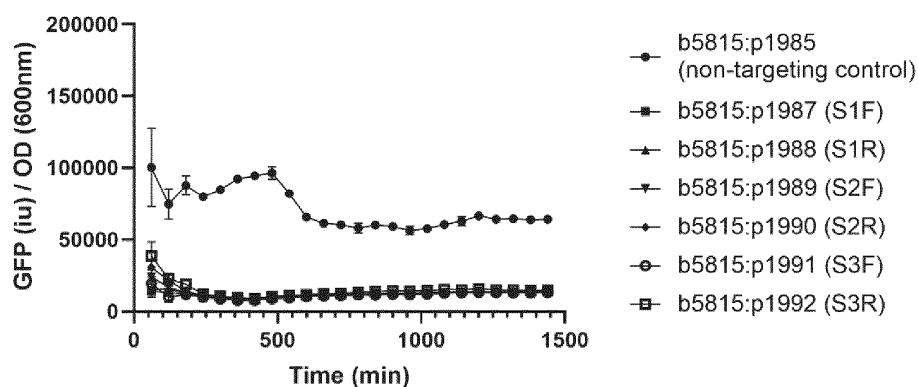


Figure 16A

CRISPRi wild type Type-S_chromosome

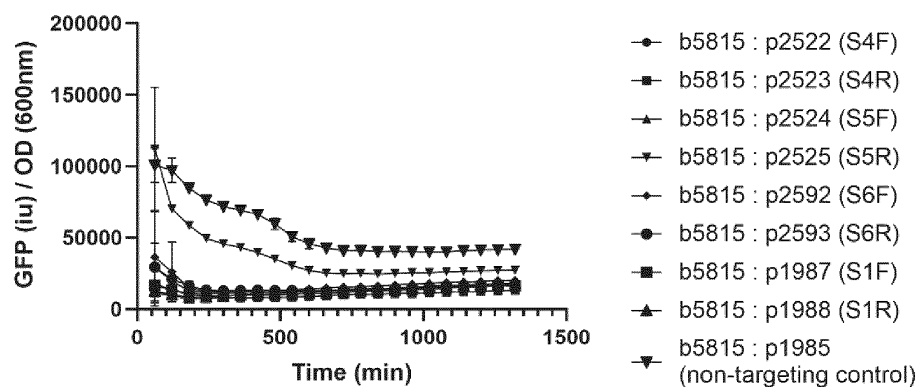


Figure 16B

CRISPRi wild type Type-S_chromosome

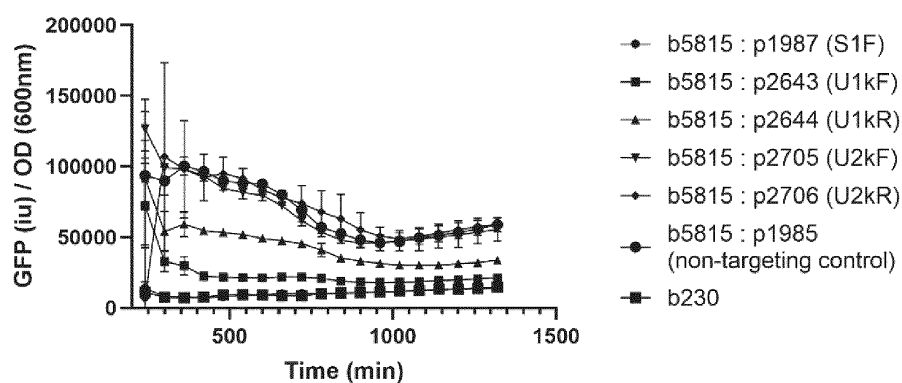


Figure 16C

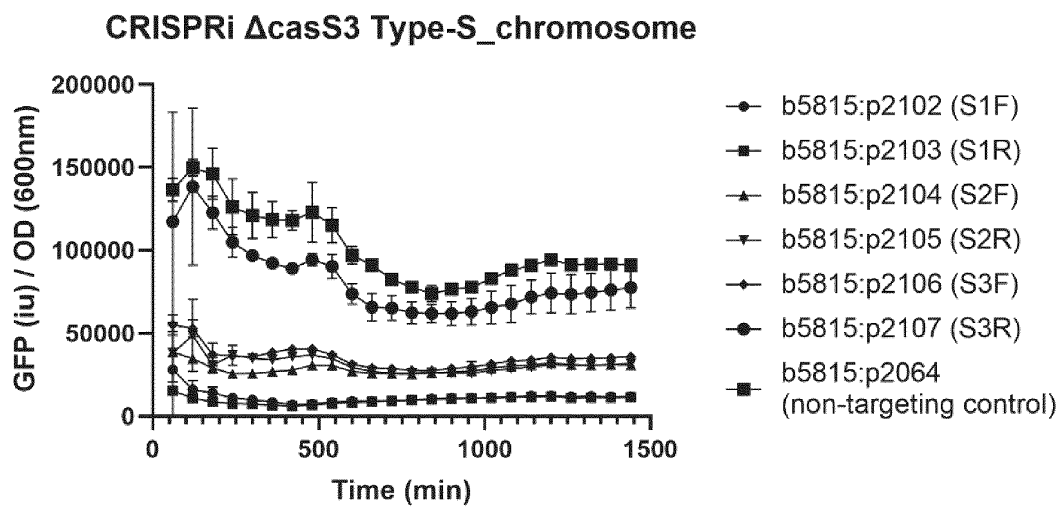


Figure 17A

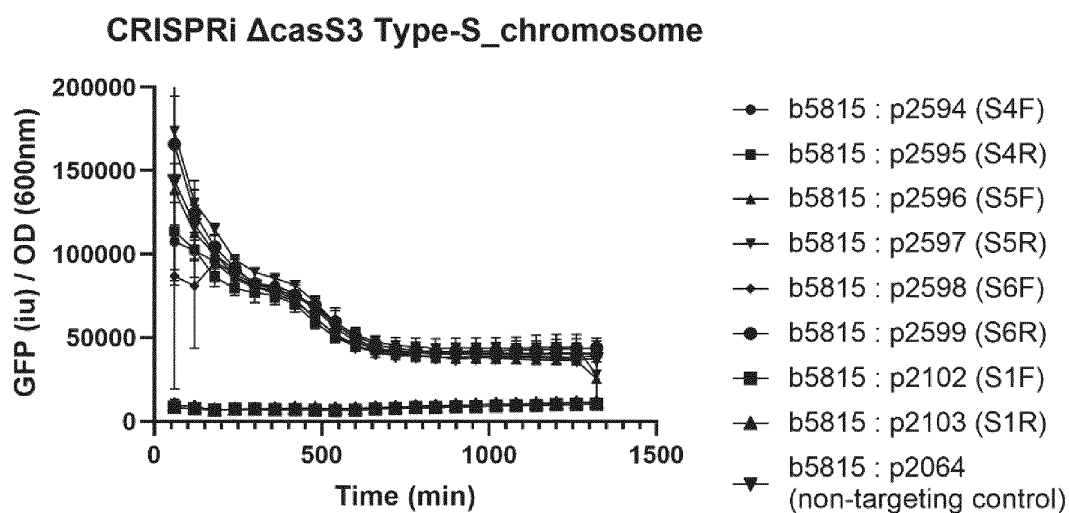


Figure 17B

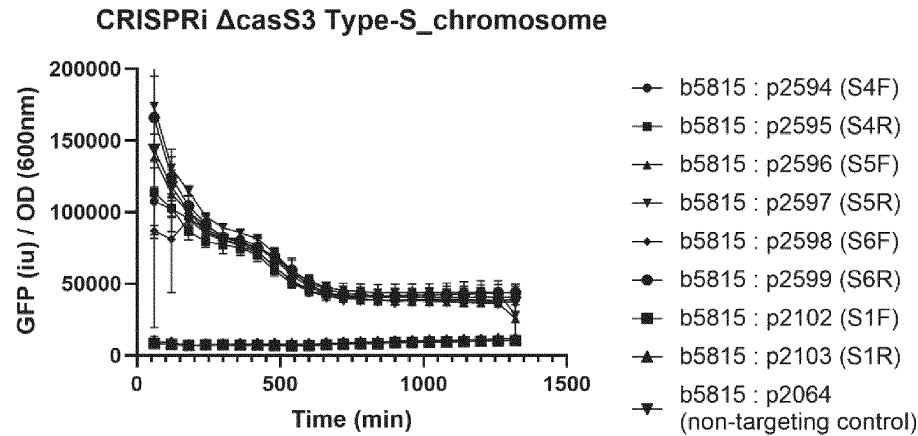


Figure 18A

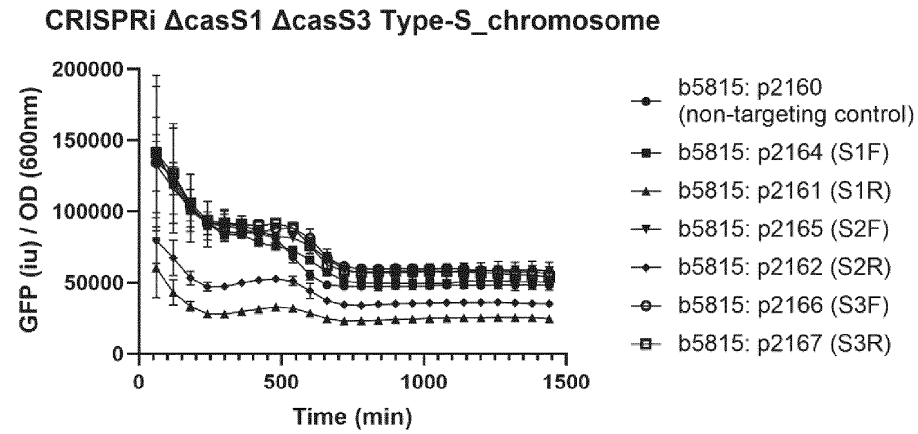


Figure 18B

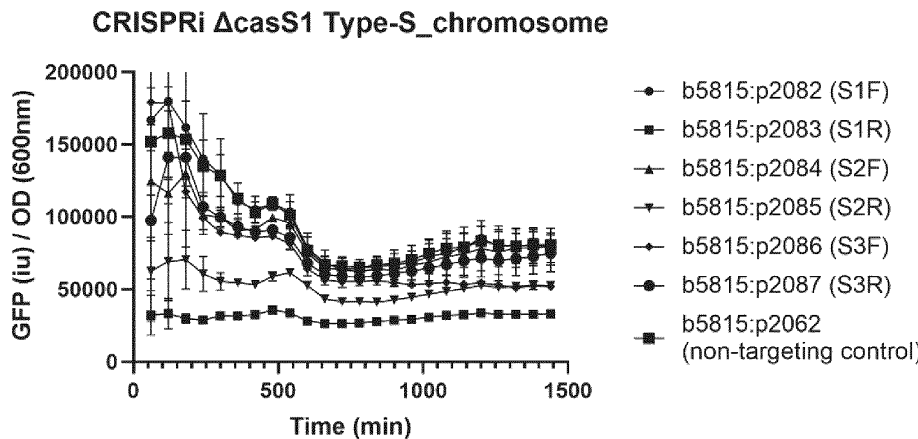


Figure 18C

CRISPRi ΔcasS3 Type-S_plasmid

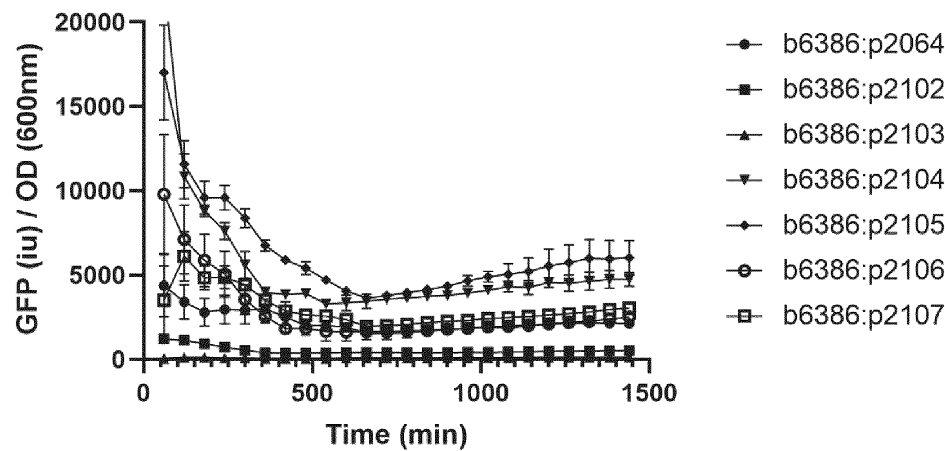


Figure 19A

CRISPRi ΔcasS4 Type-S_plasmid

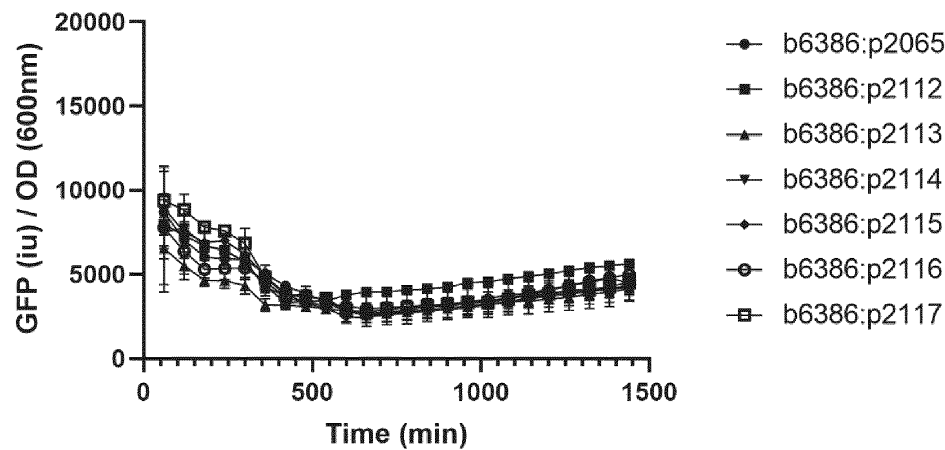


Figure 19B

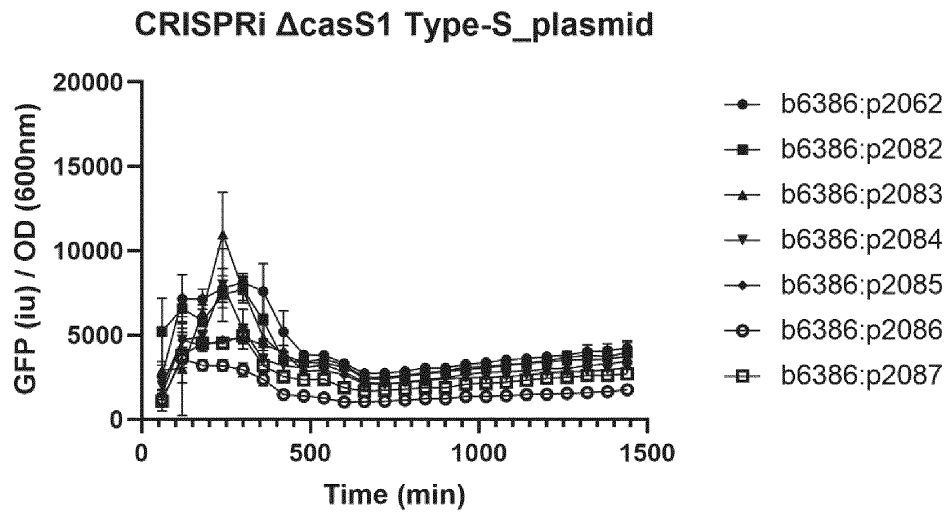


Figure 19C

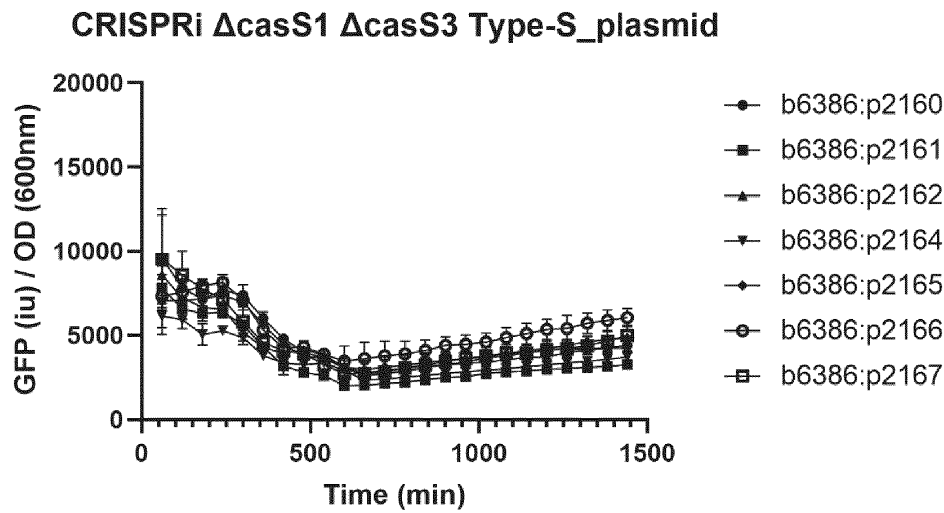


Figure 19D

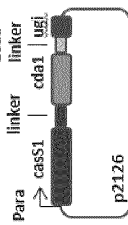
2nd plasmid category / Guide plasmids (transformation #2)

1st plasmid category / Base editors (transformation #1)

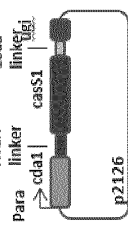
C-terminal PmCDA1 fusions

N-terminal PmCDA1 fusions

A

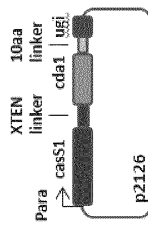


or

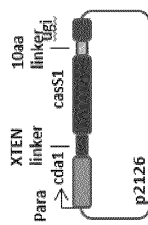


+

B

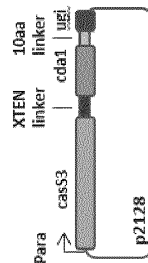


or

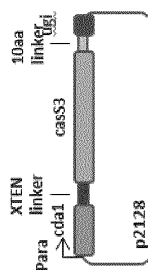


+

C

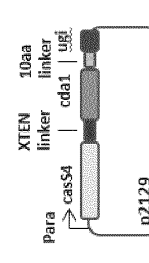


or

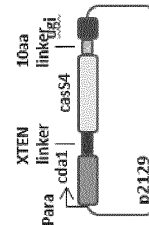


+

D

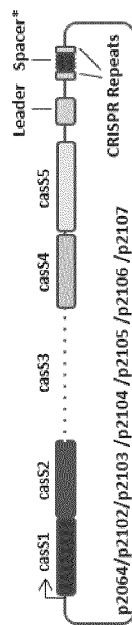
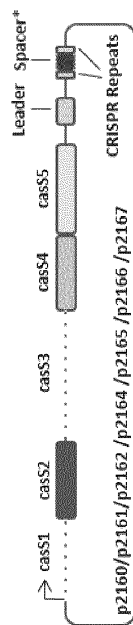
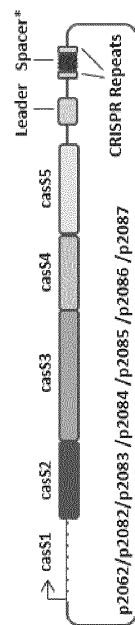


or



+

Figure 20



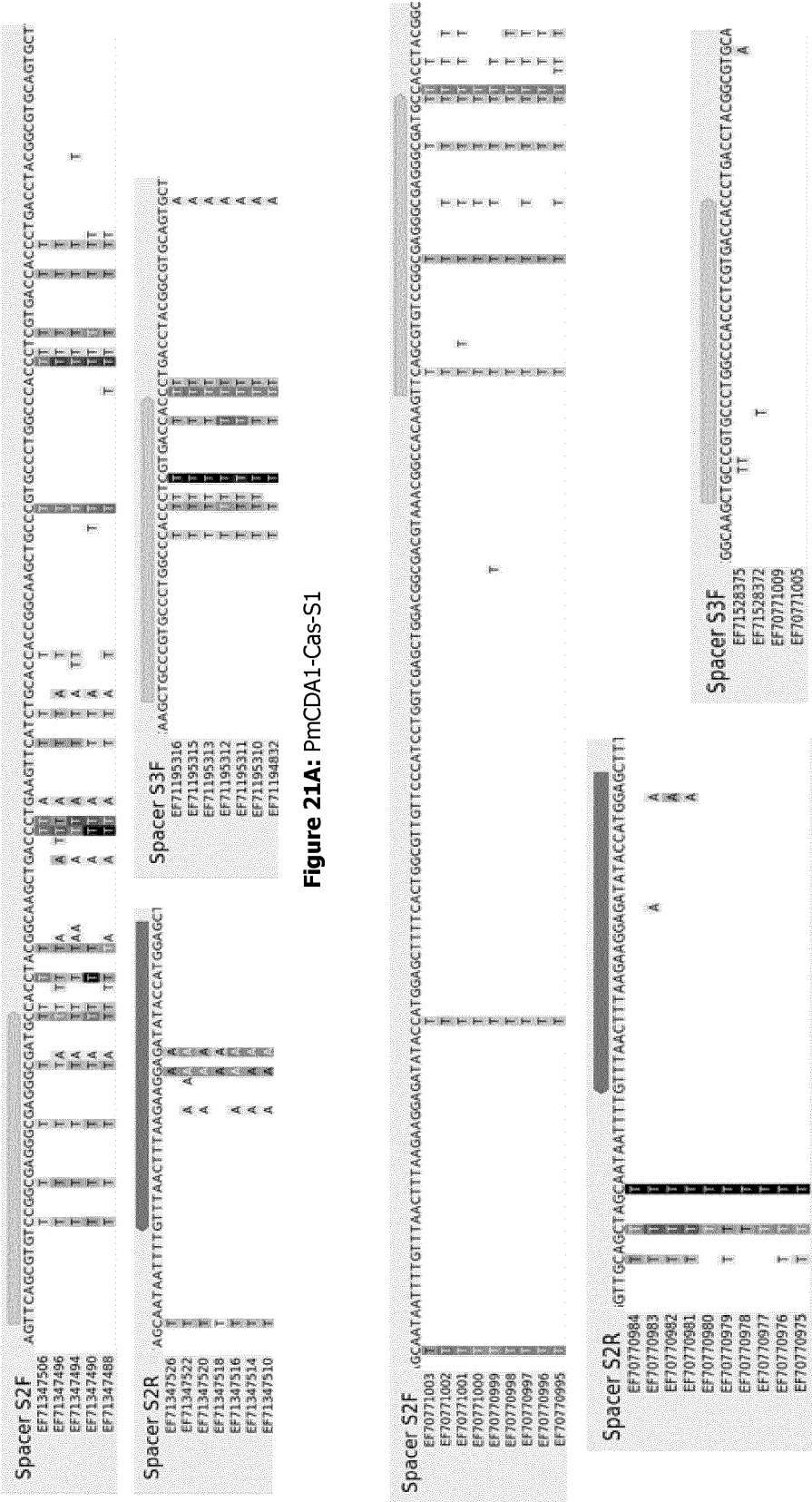


Figure 21A: PmCDA1-Cas-S1

Figure 21B: PmCDA1-Cas-S1 (Δcas-S3)

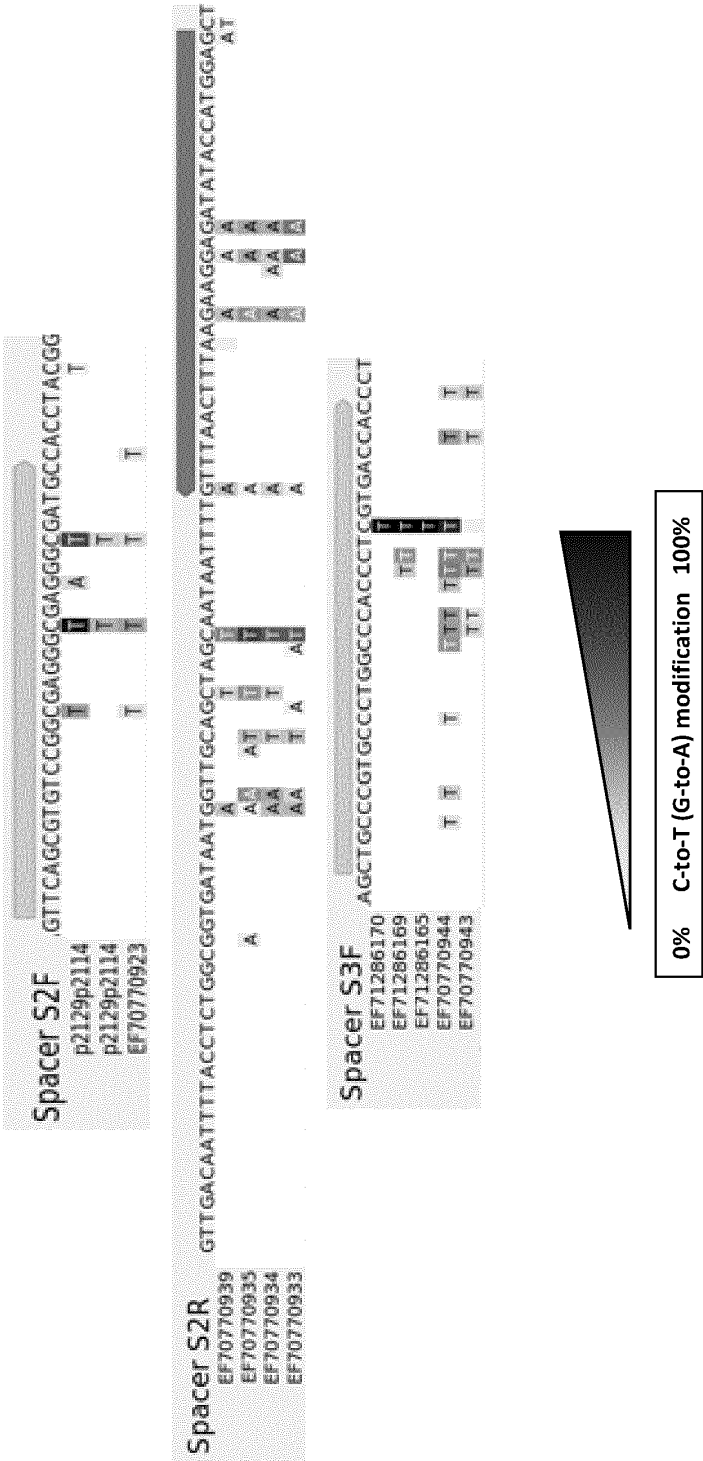


Figure 21D: PmCDA1-Cas-S4

1st Transformation

2nd Transformation

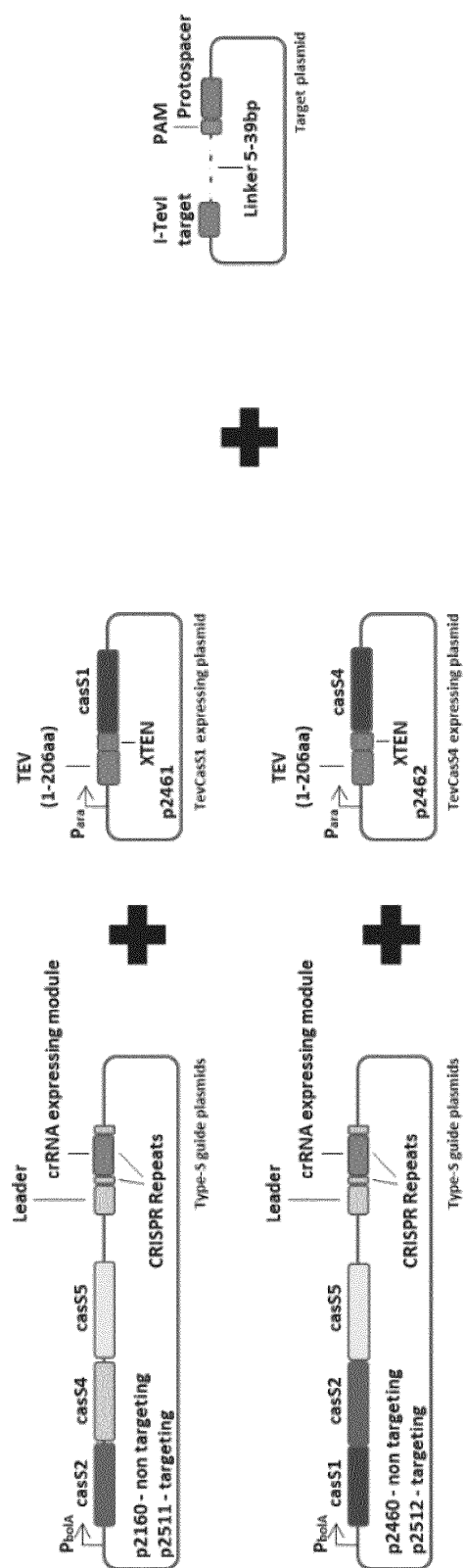


Figure 22

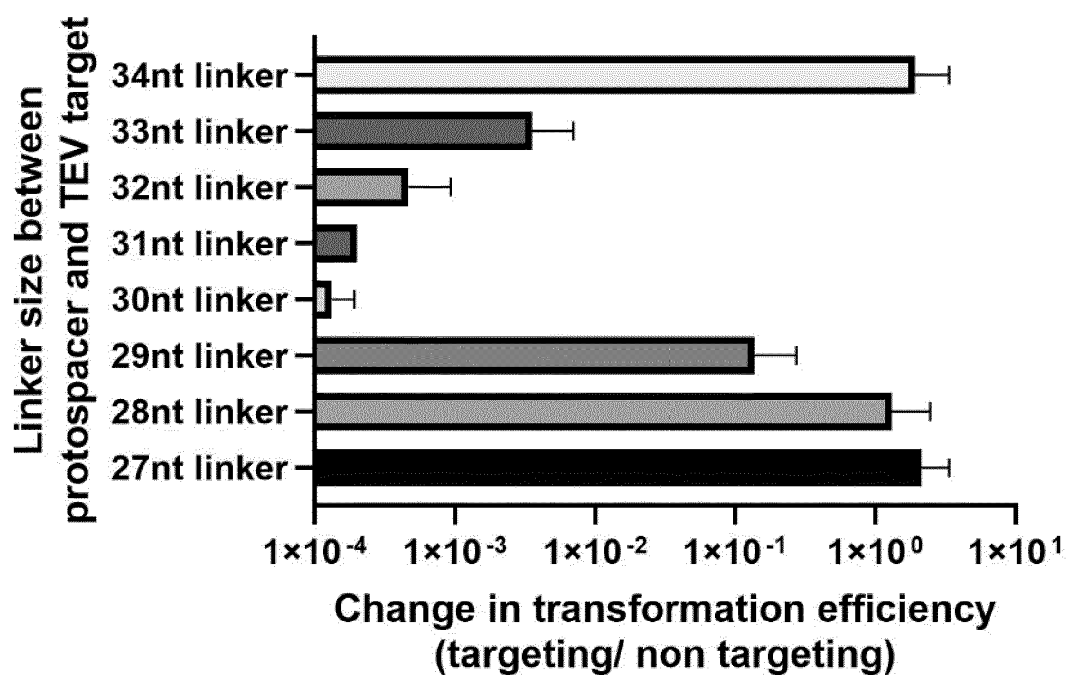


Figure 23

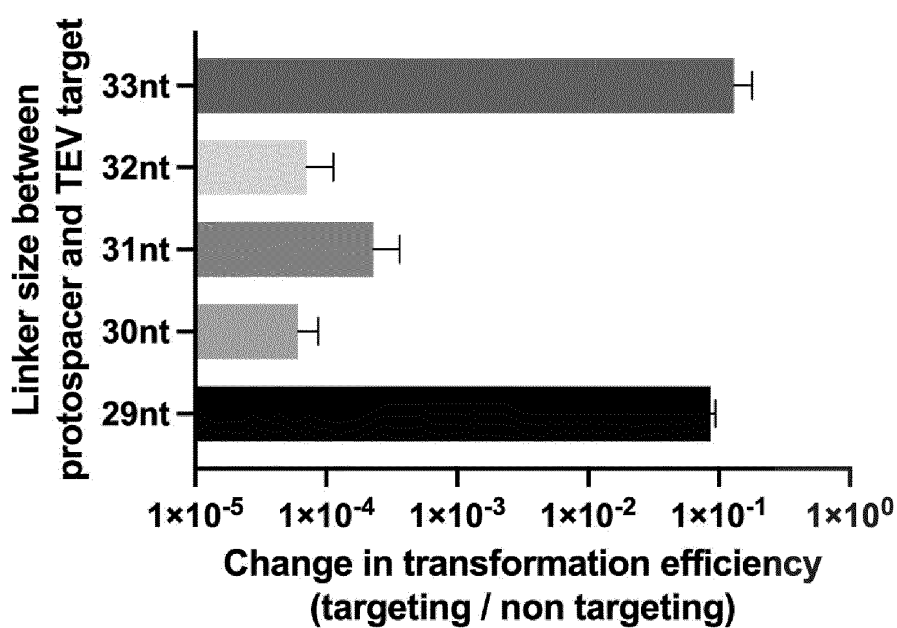


Figure 24

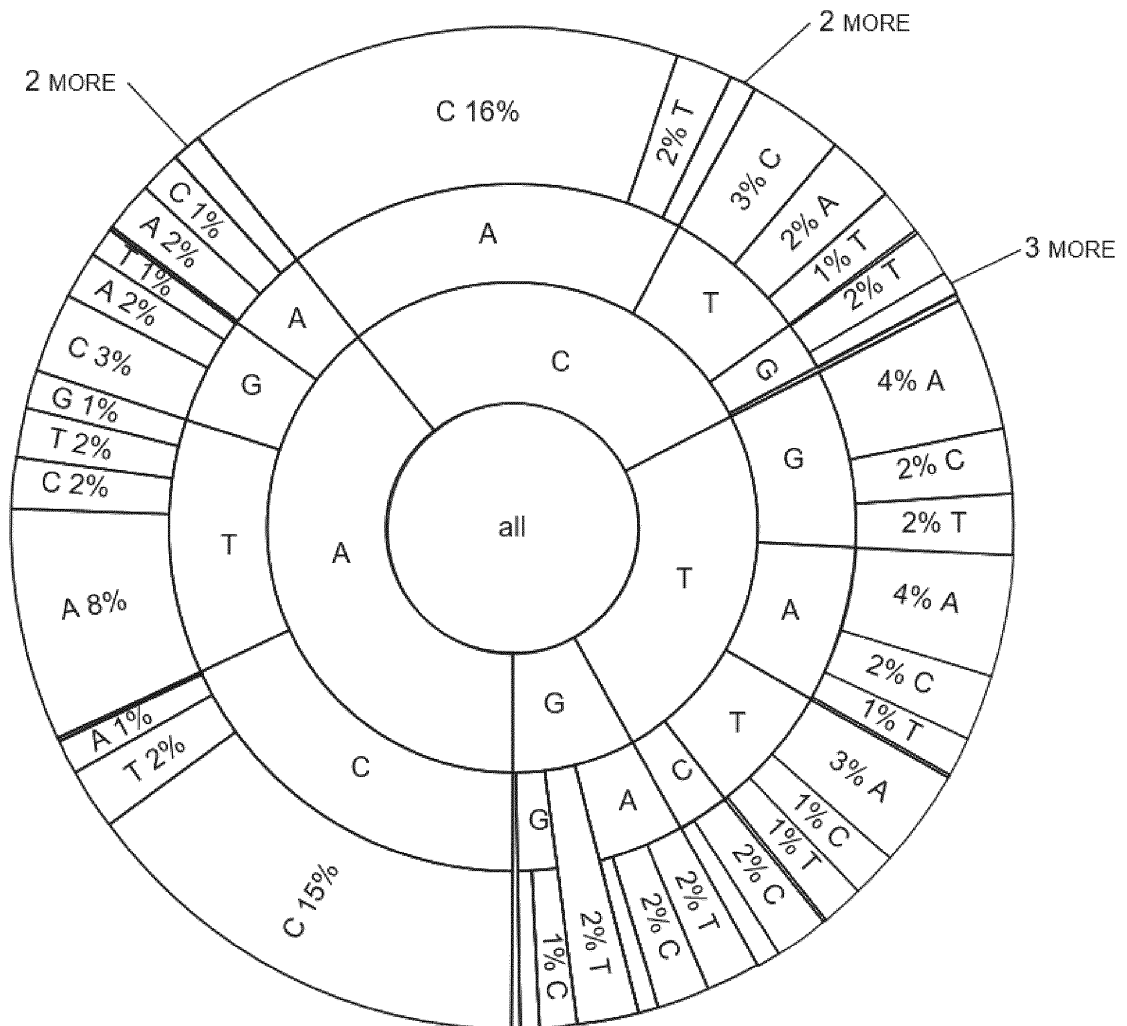


Figure 25