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RNA Sequence to Discern Coronavirus Genome Structure

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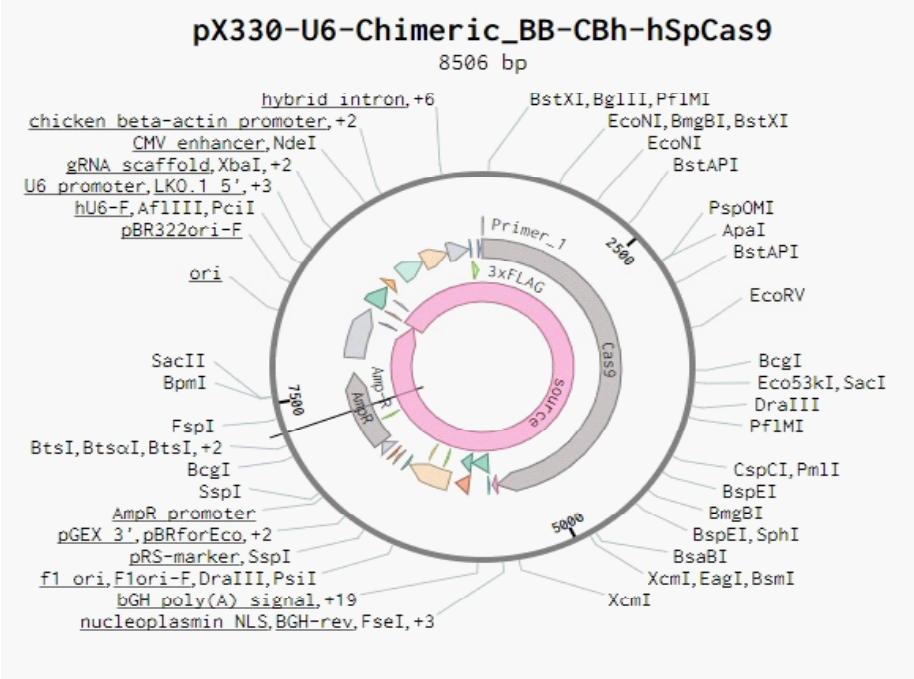
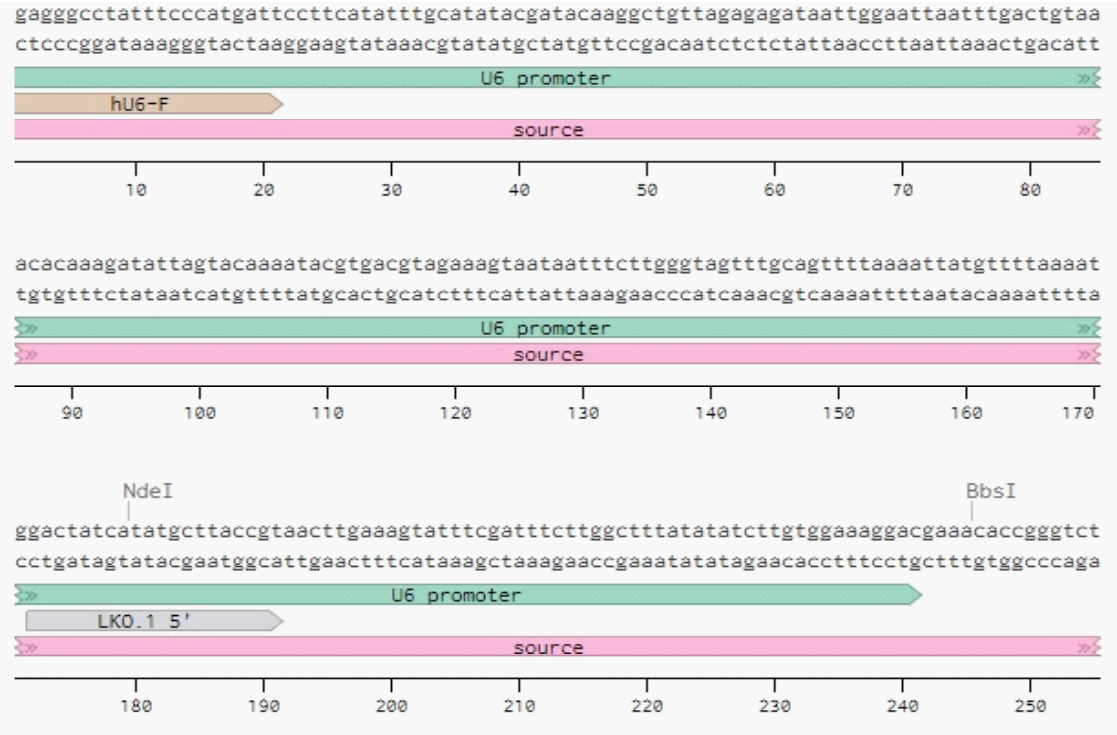
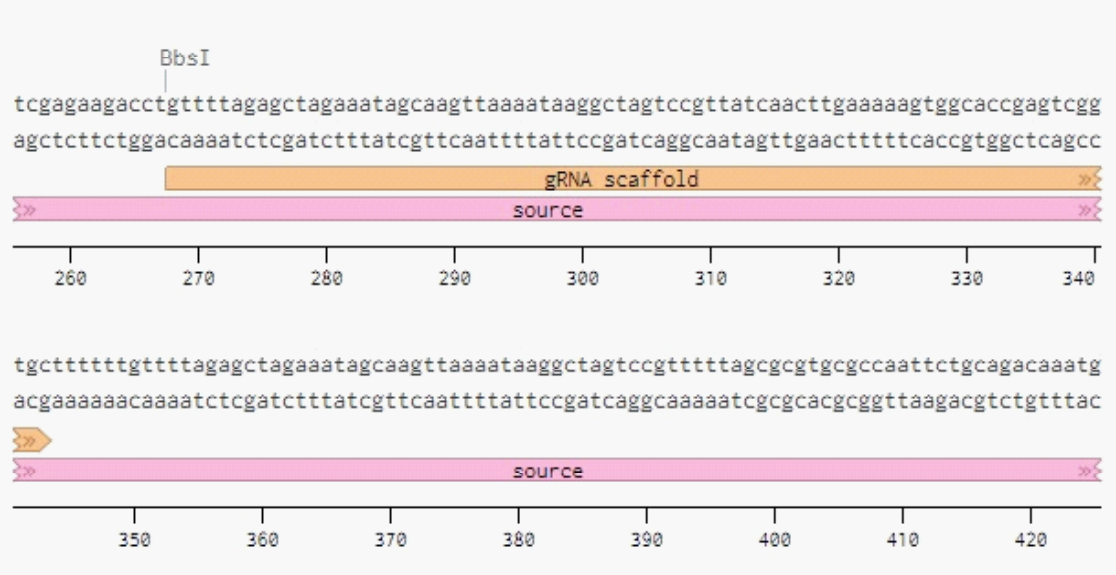


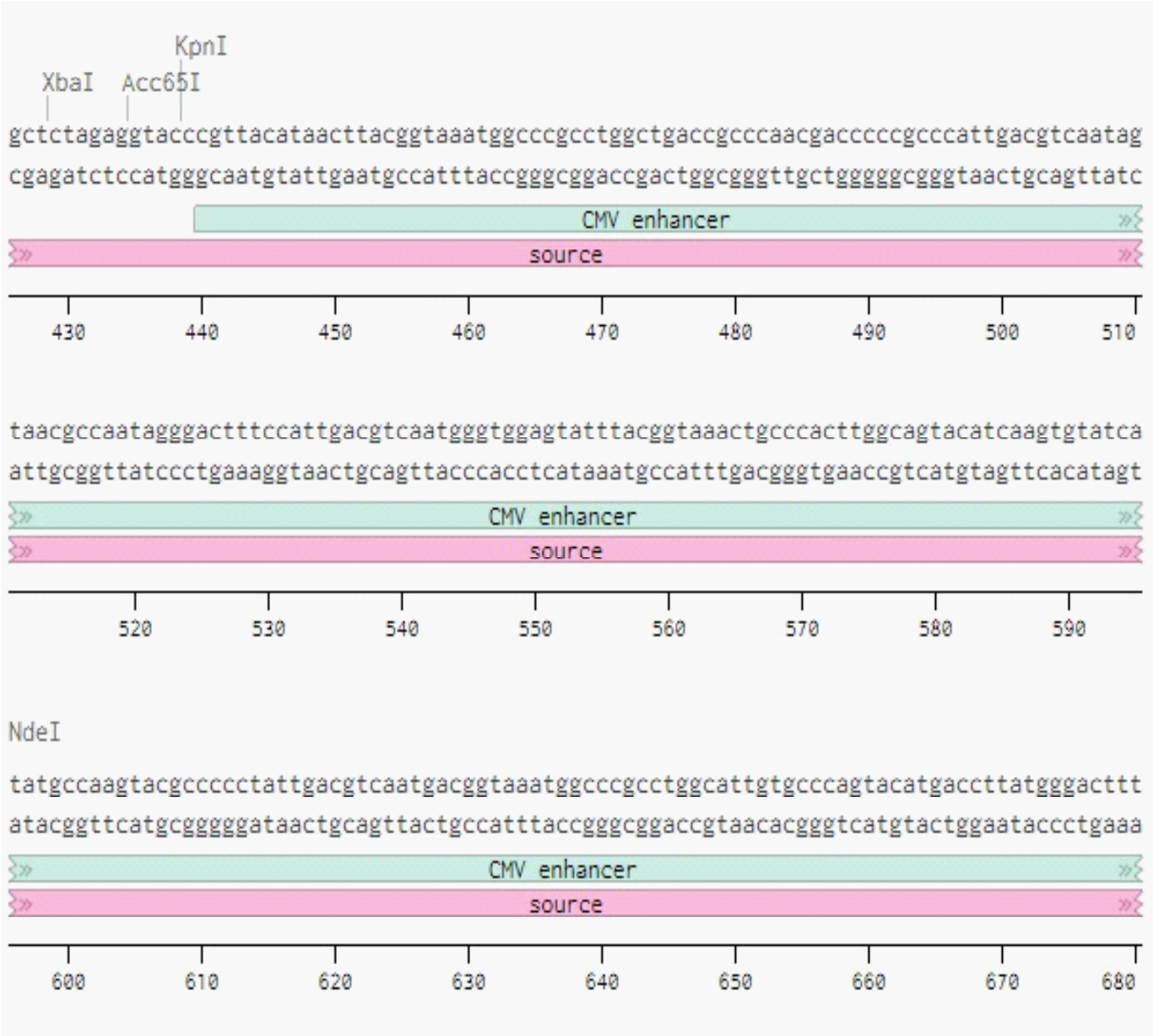
Example of pX330-U6-Chimeric_BB-CBh-hSpCas9



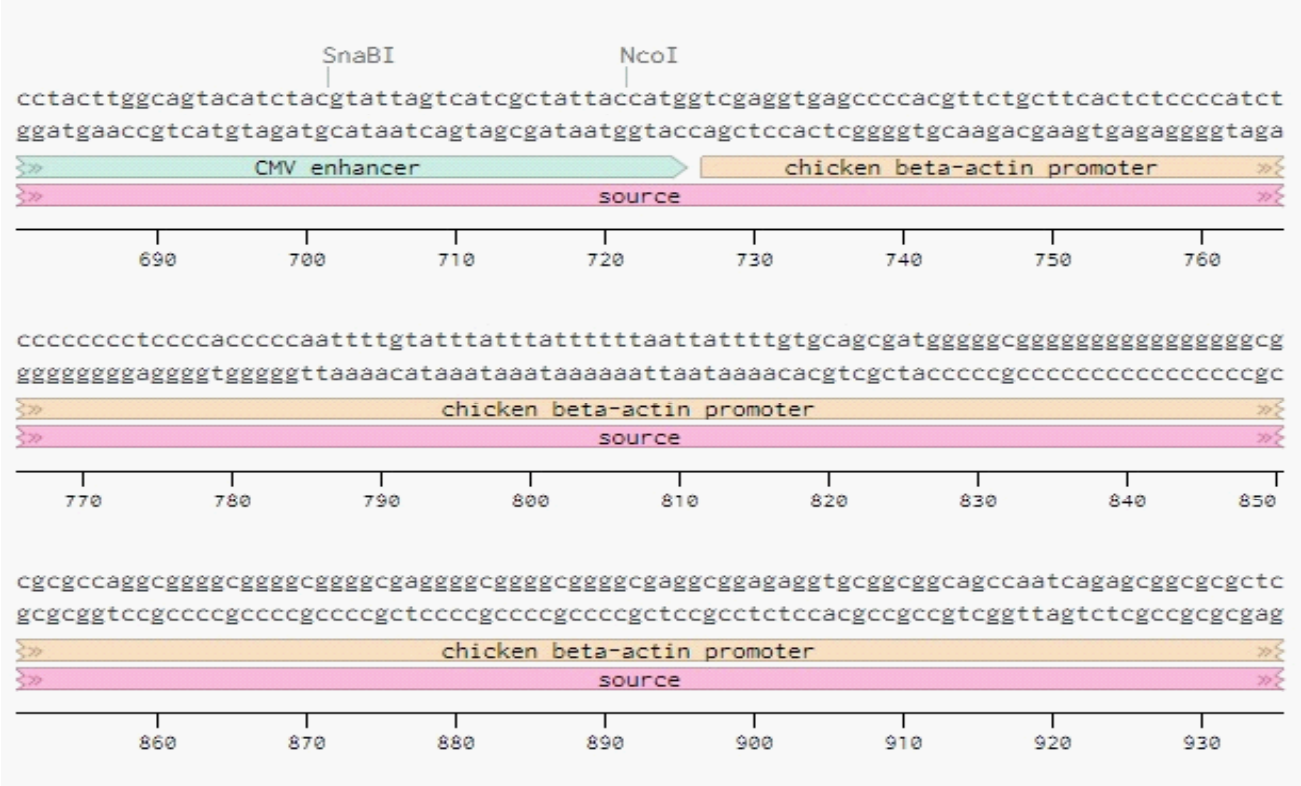
1. U6 Promotor (10 - 250)



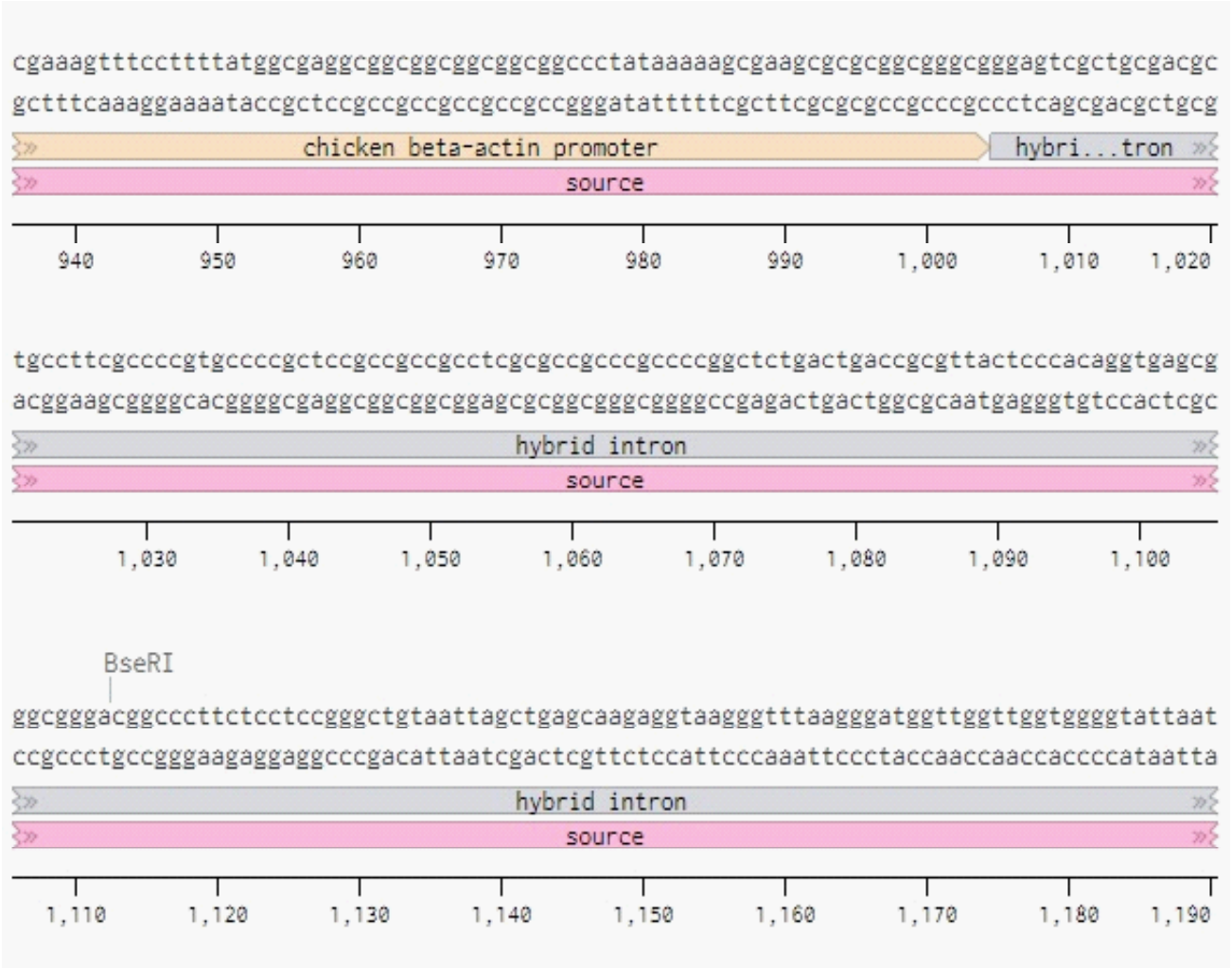
2. gRNA Scaffold (260 - 420)



3. CMV Enhancer (430 - 680)

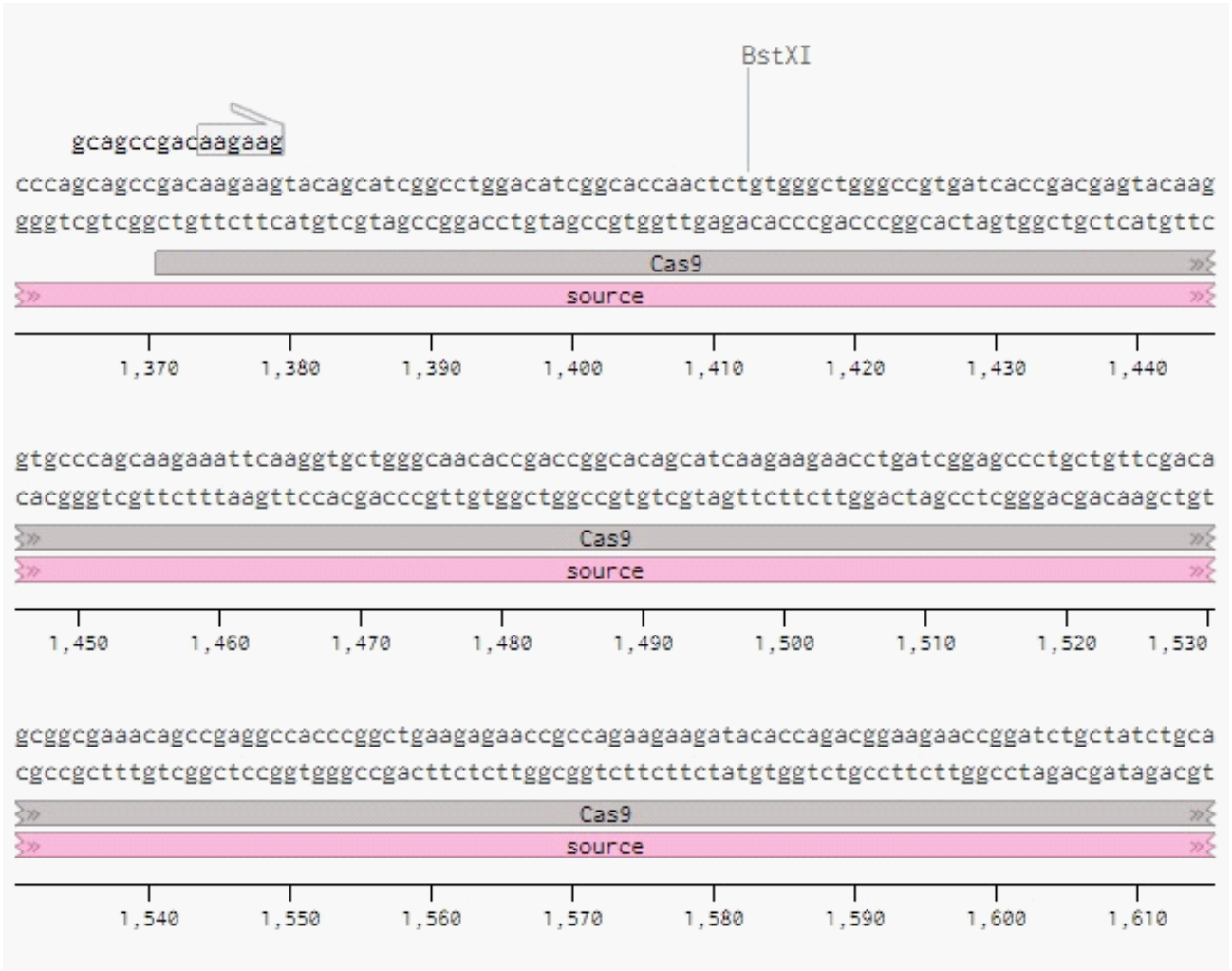


4. Chicken beta-actin promoter (690 - 930)

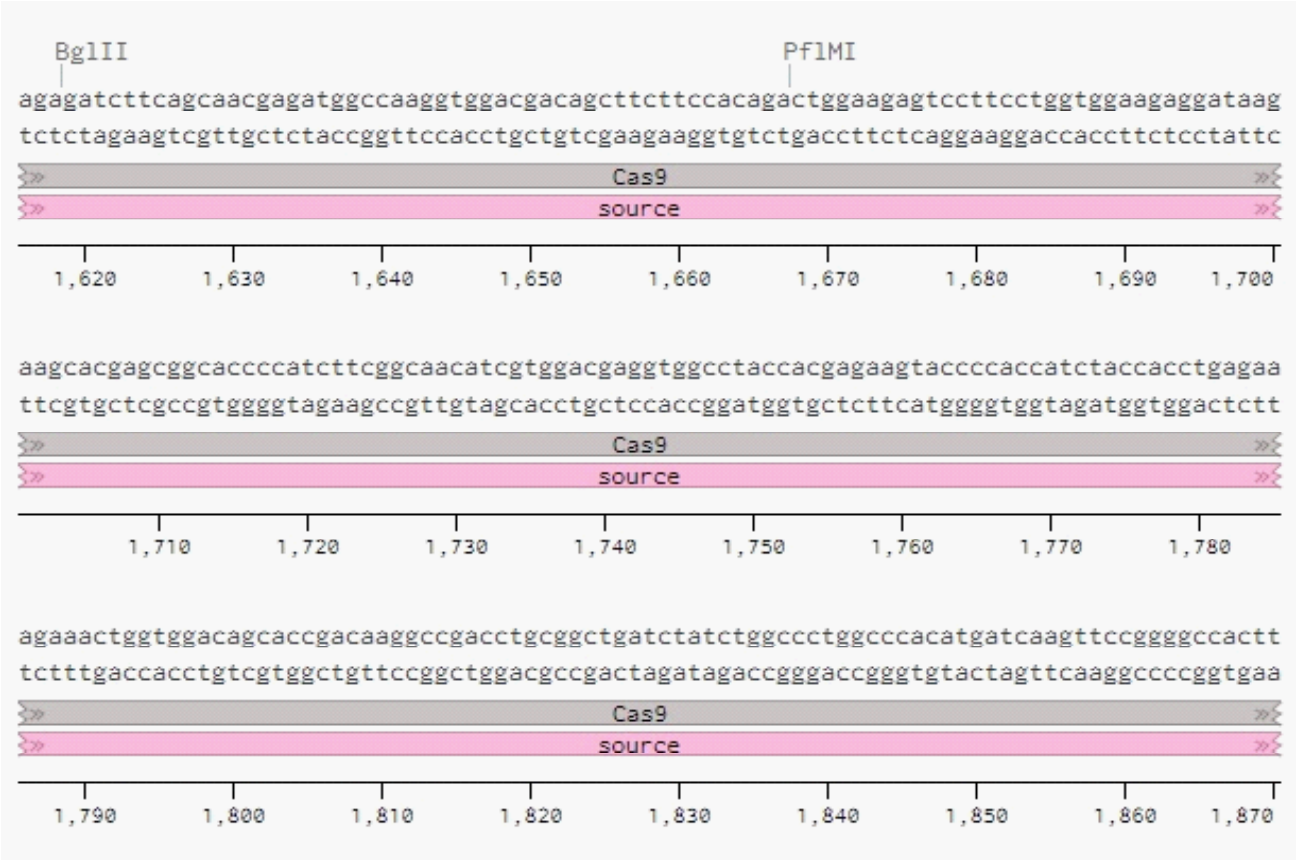


5. Hybrid intron (940 – 1,190)

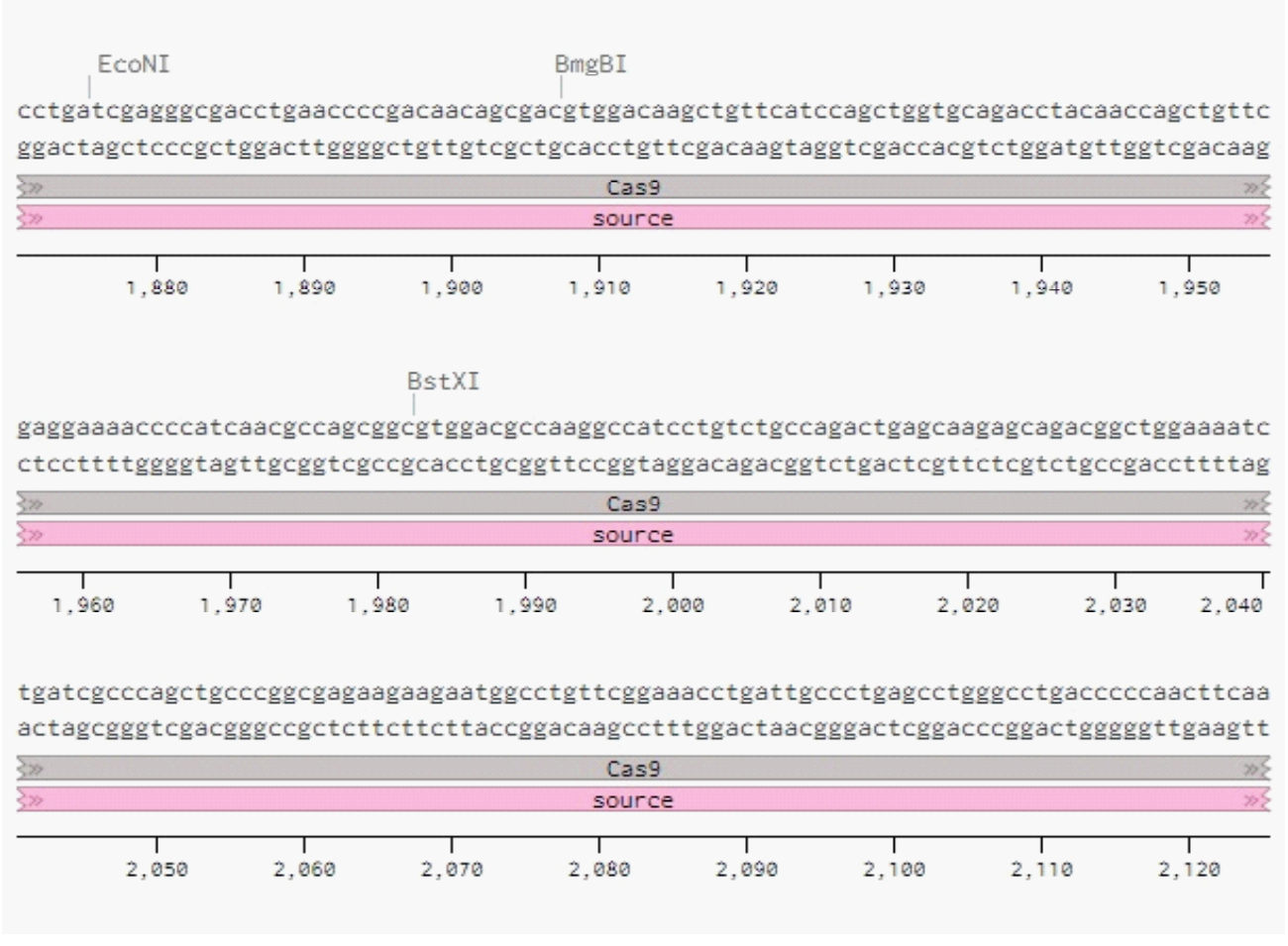
6. 3xFLAG



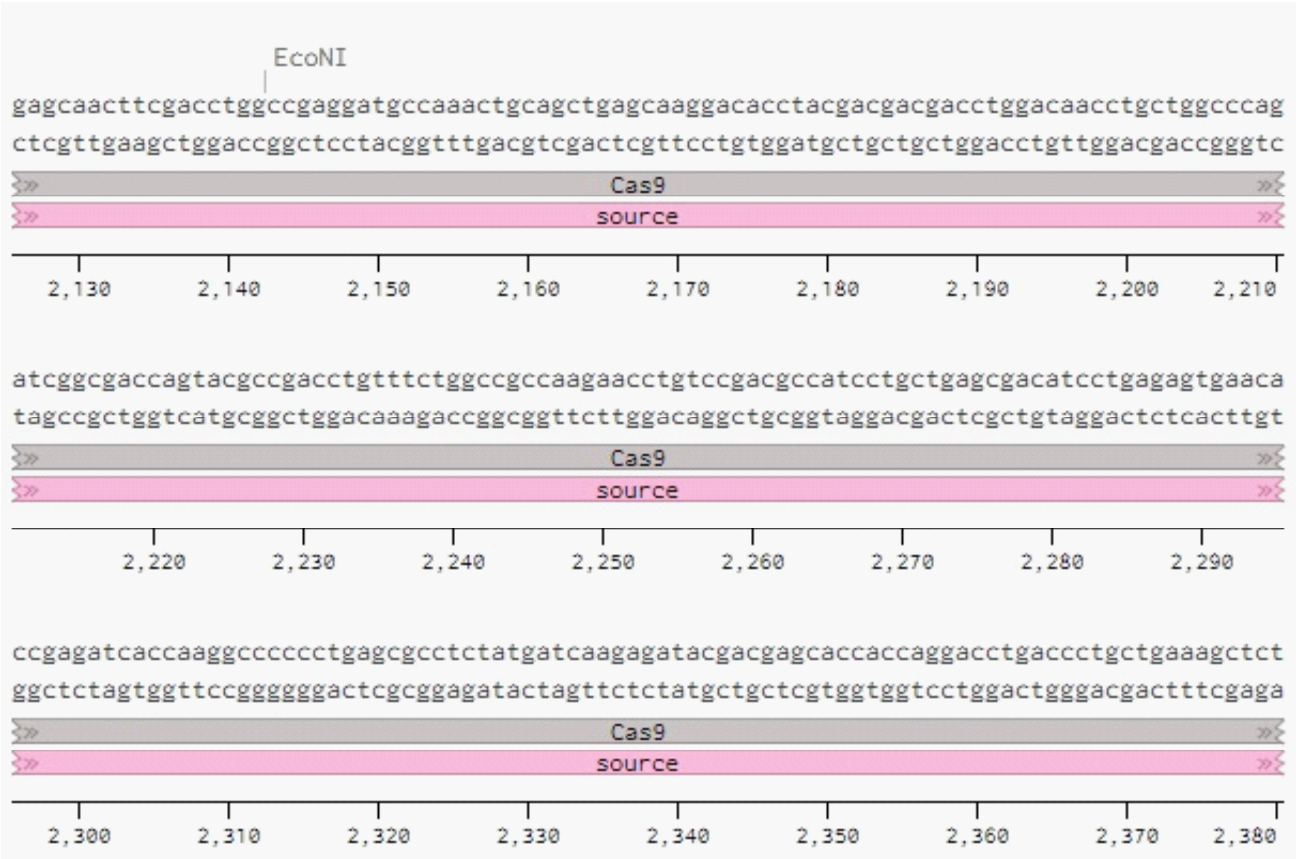
7. Cas9 (1,370 – 1,610)



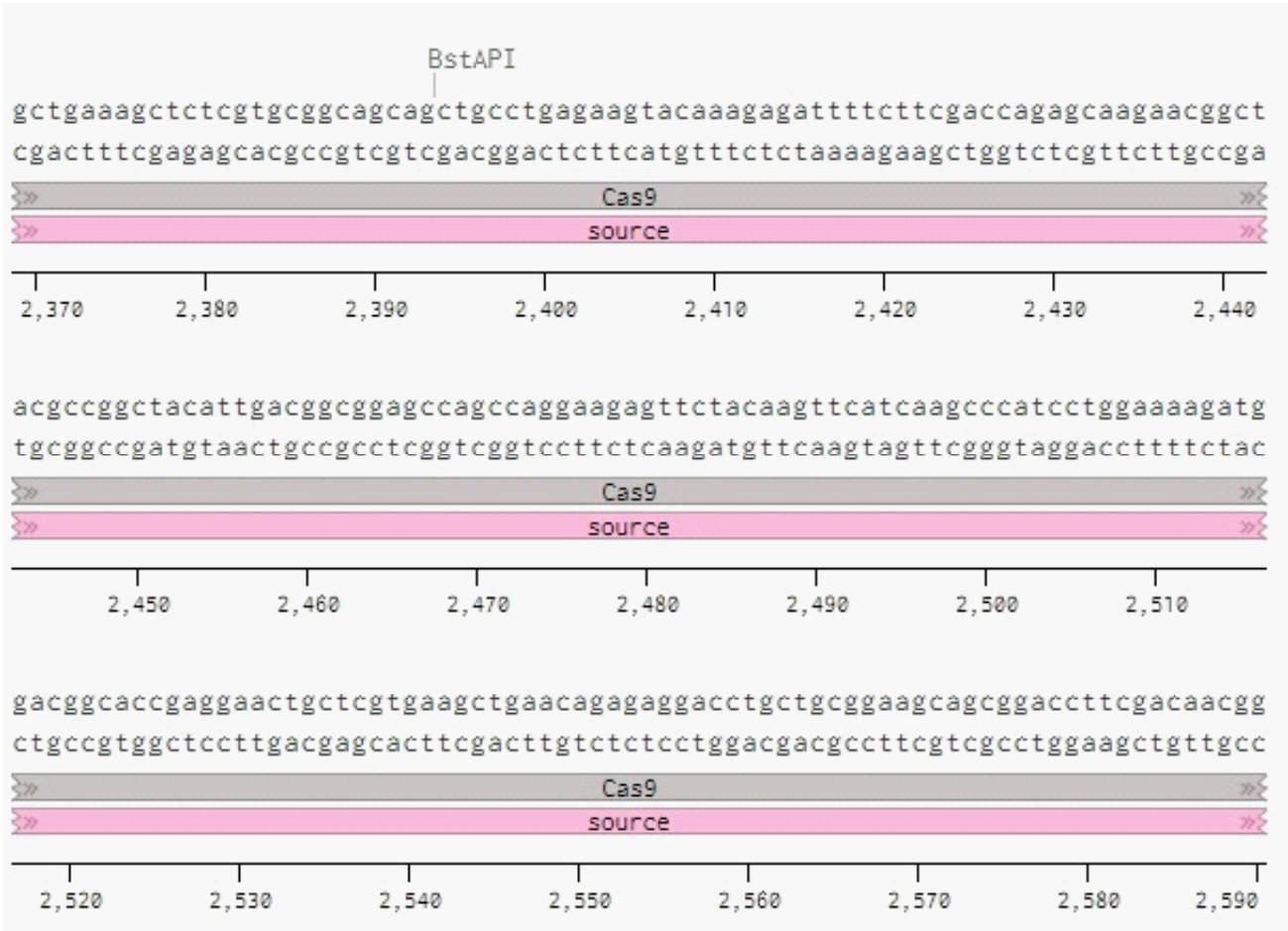
8. Cas9 (1,620 – 1,870) [BglII]



9. Cas9 (1,880 – 2,120) [EcoNI and BmgBI]

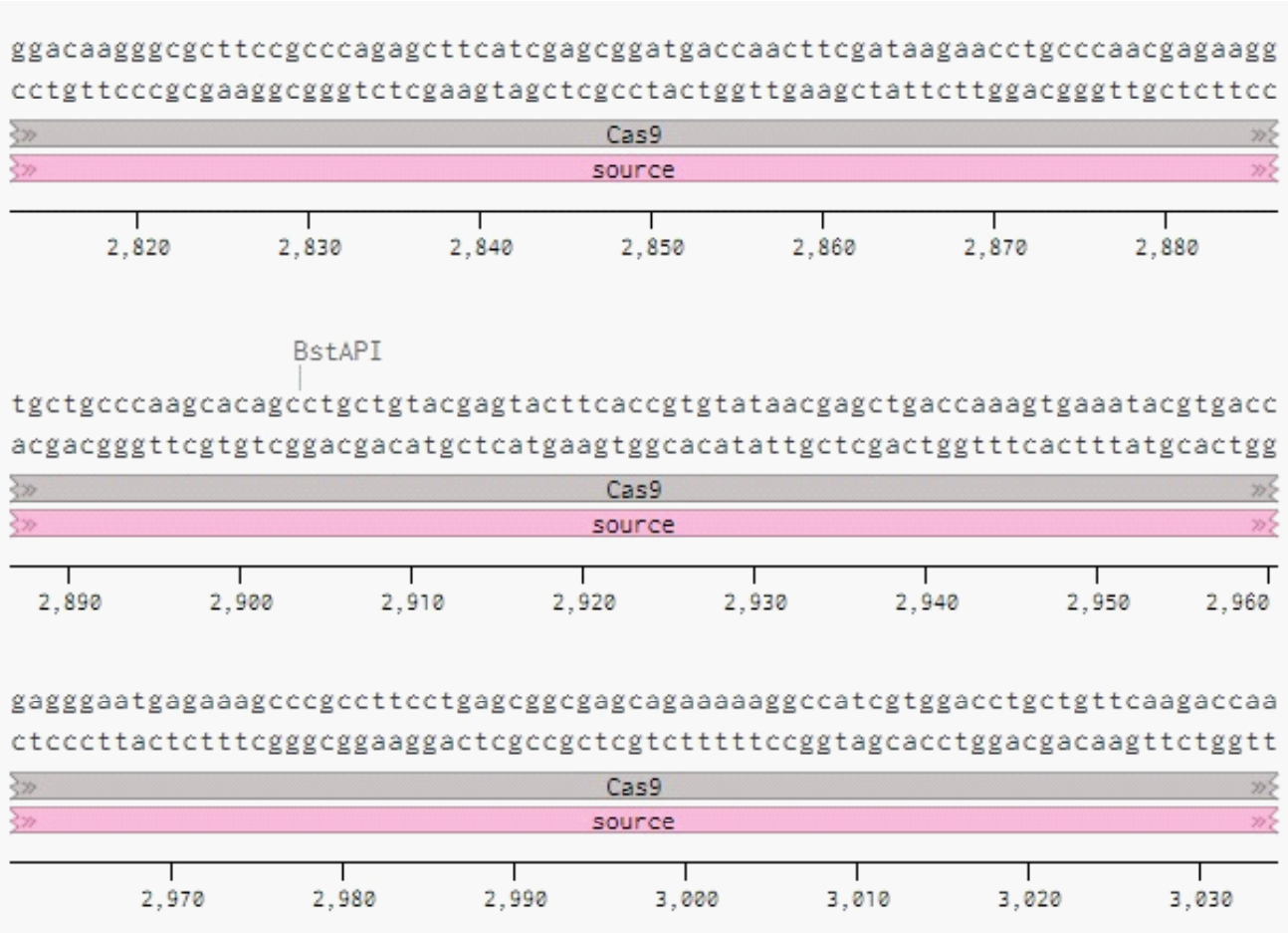


10. Cas9 (2,130- 2,380) [EcoNI]

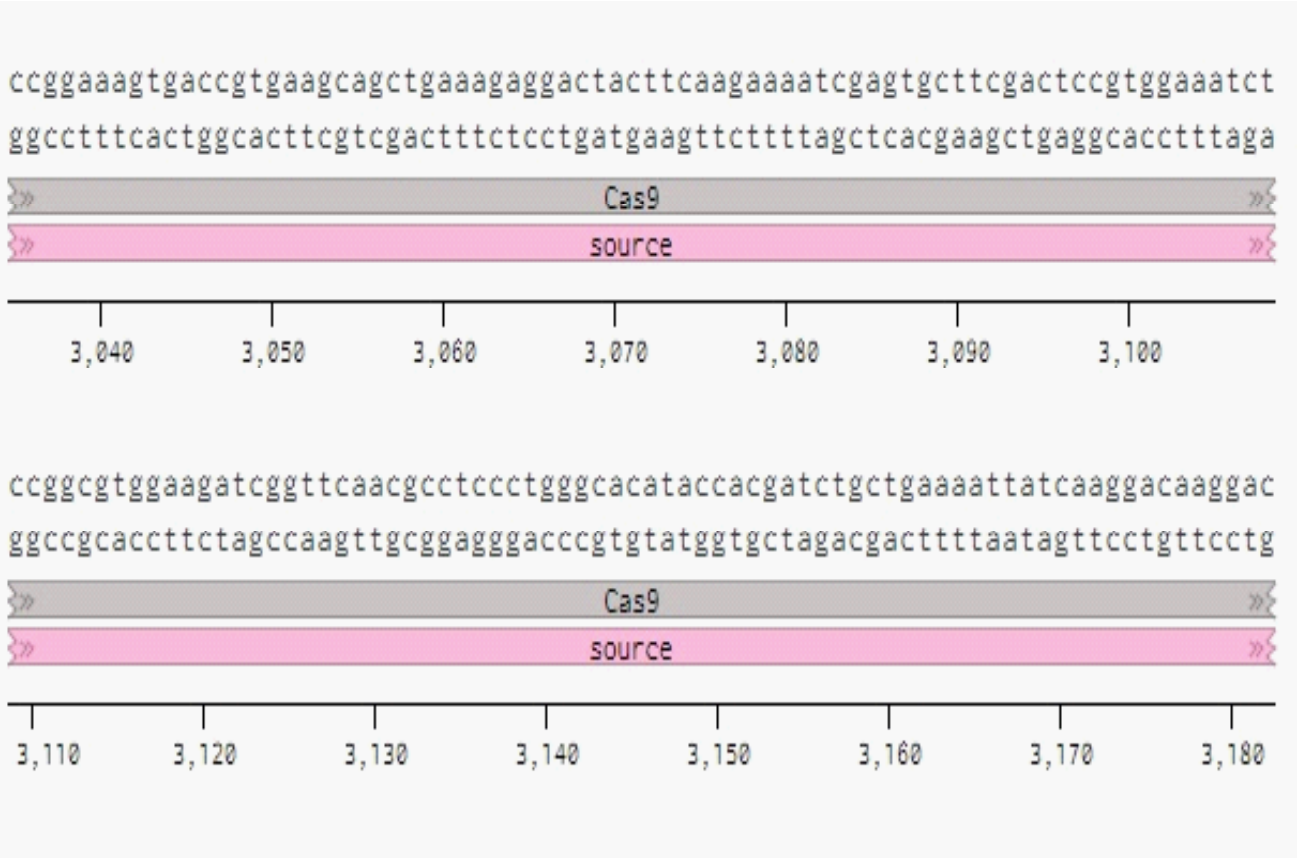


11. Cas9 (2,370 – 2,590) [BstAPI]

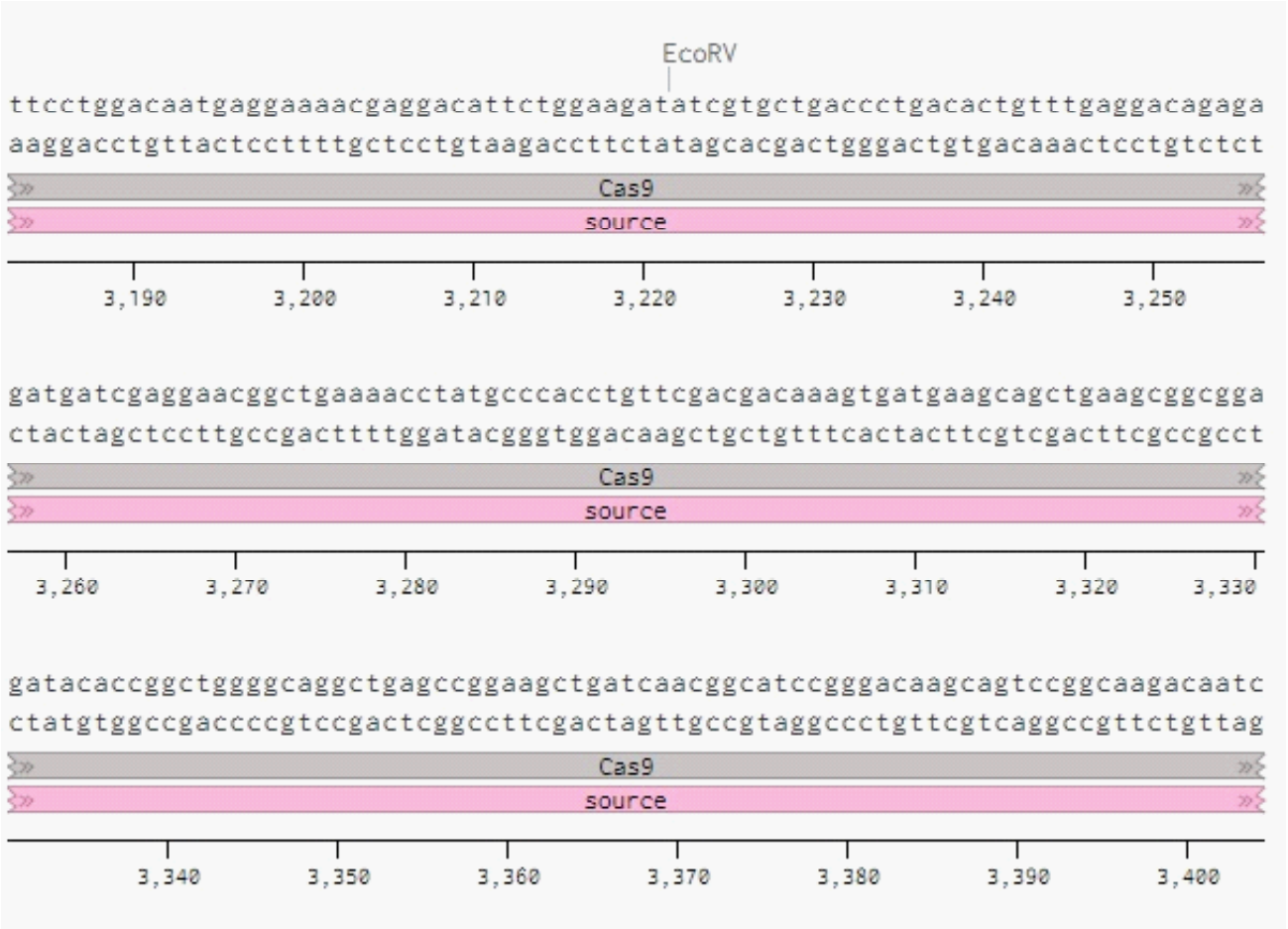
12. Cas9 (2,600 – 2,810) [ApaI]



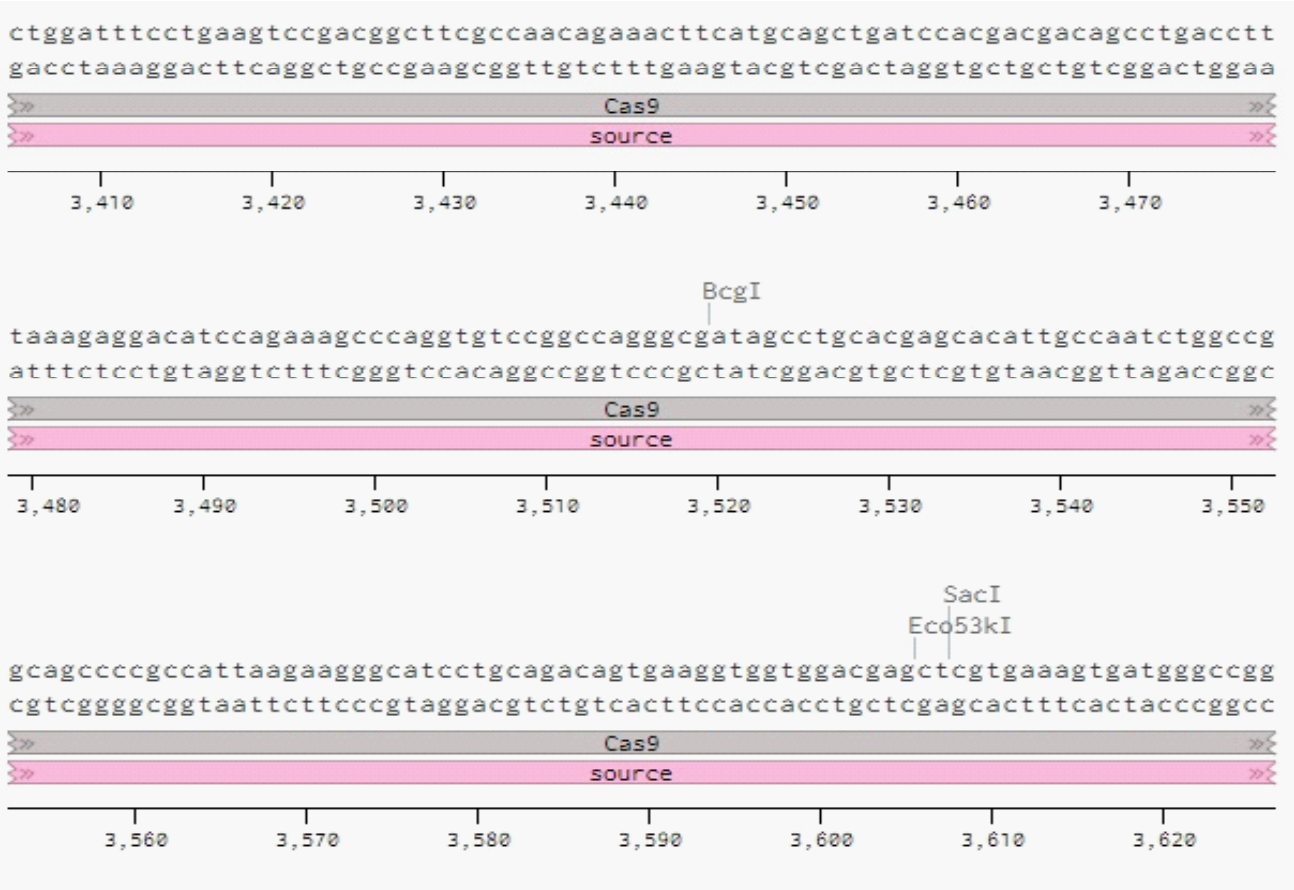
13. Cas9 (2,820 – 3,030)



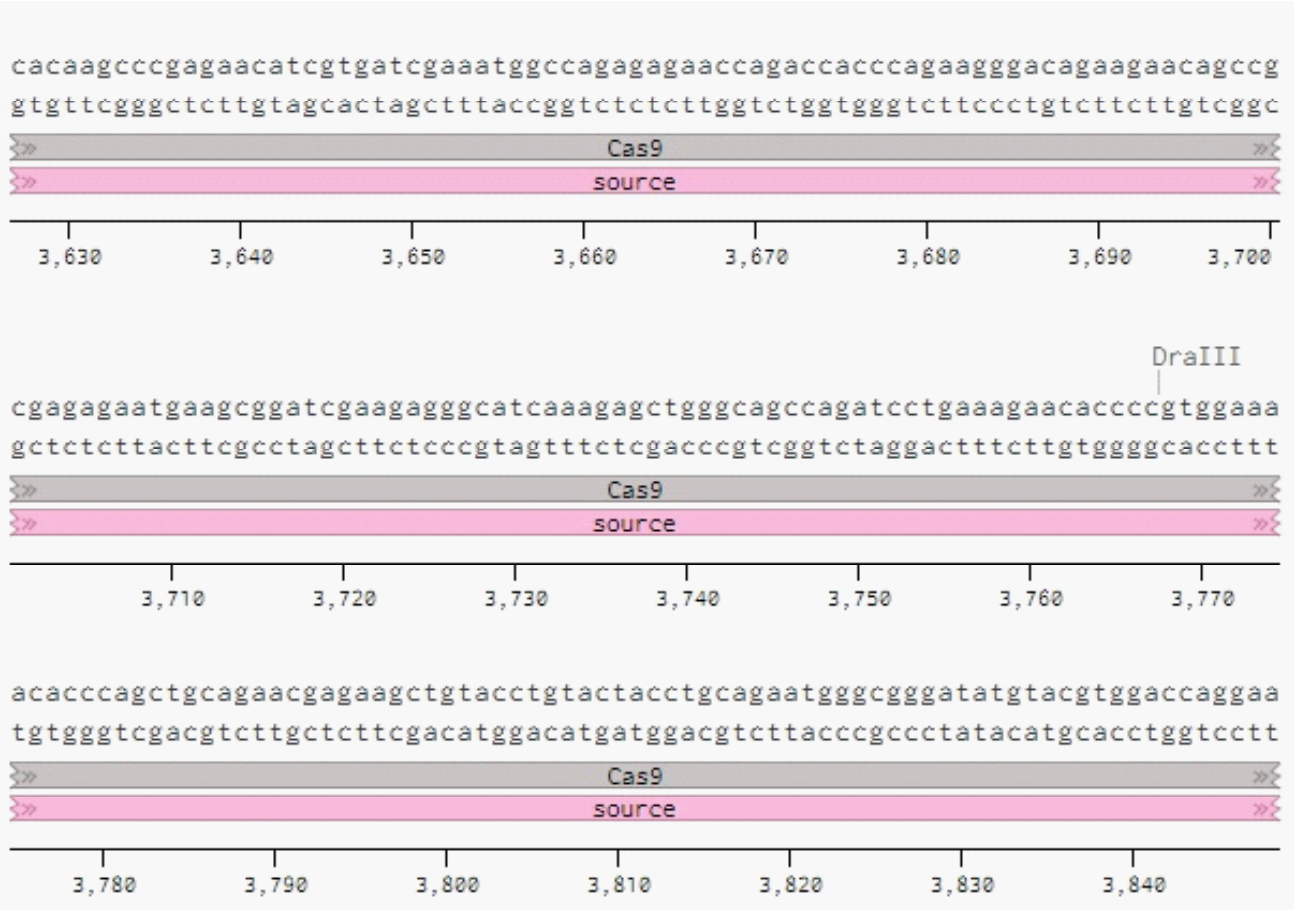
14. Cas9 (3,040 – 3,180)



15. Cas9 (3,190 – 3,400) [EcoRV]

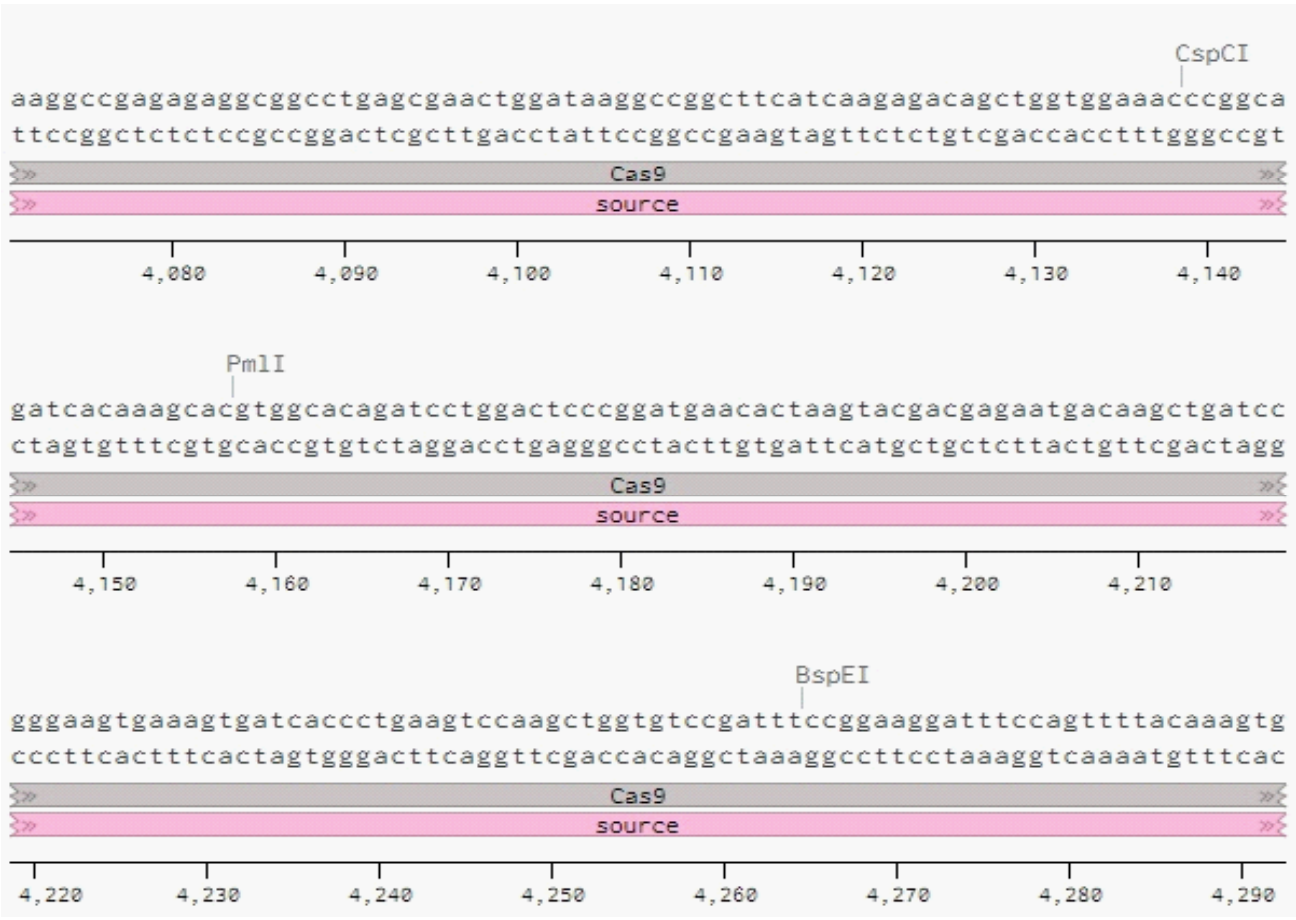


16. Cas9 (3,410 – 3,620)

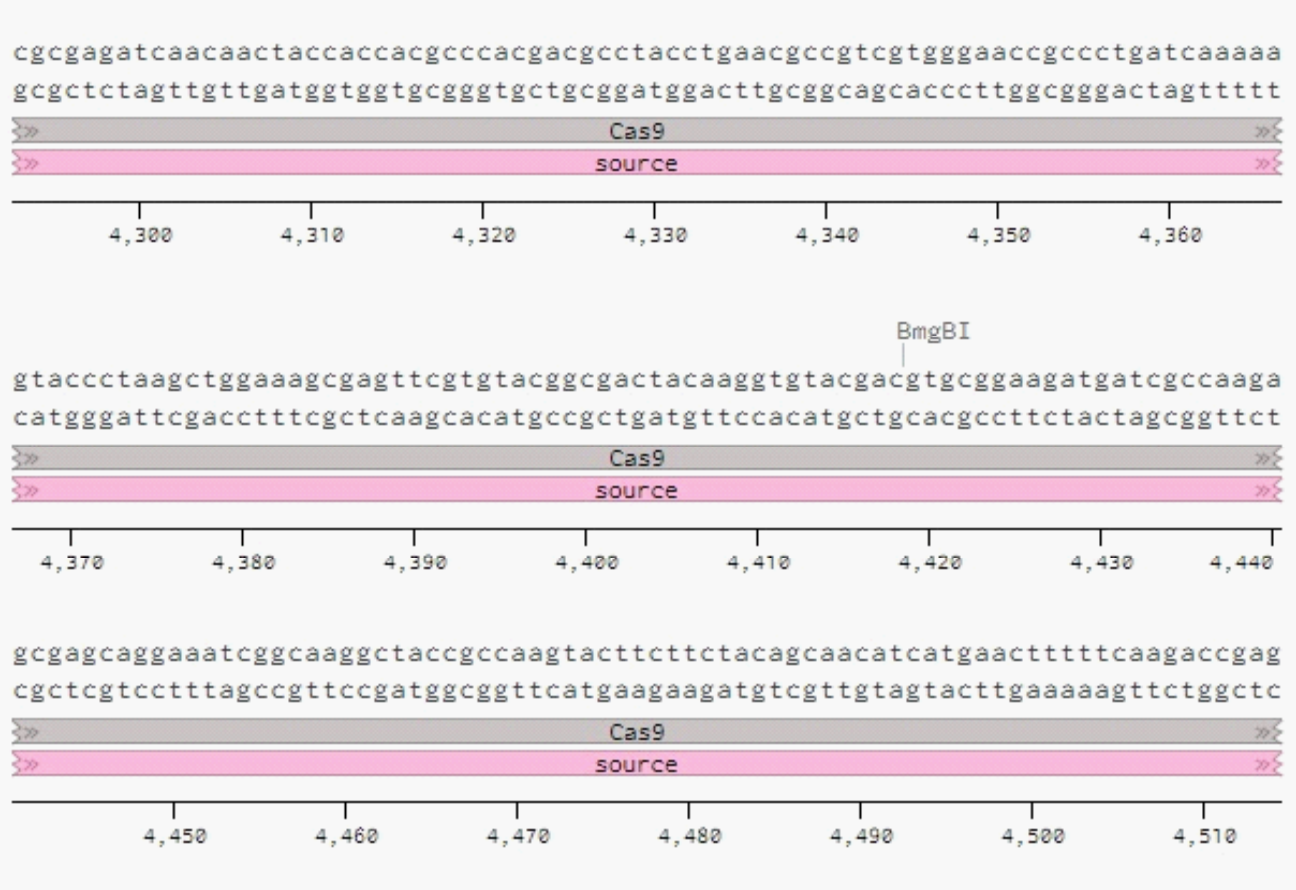


17. Cas9 (3,630 – 3,840)

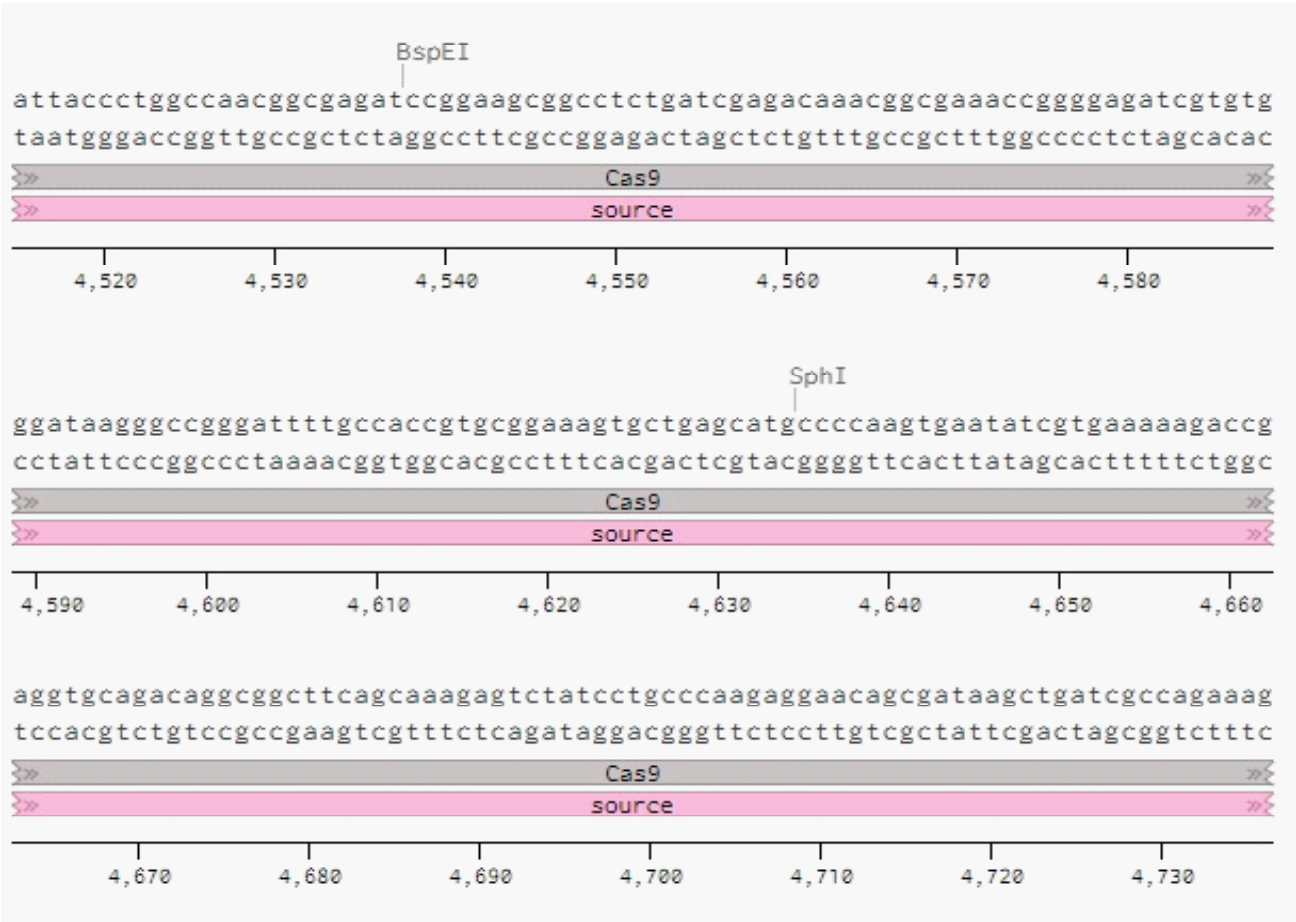
18. Cas9 (3,850 – 4,070) [pflMI]



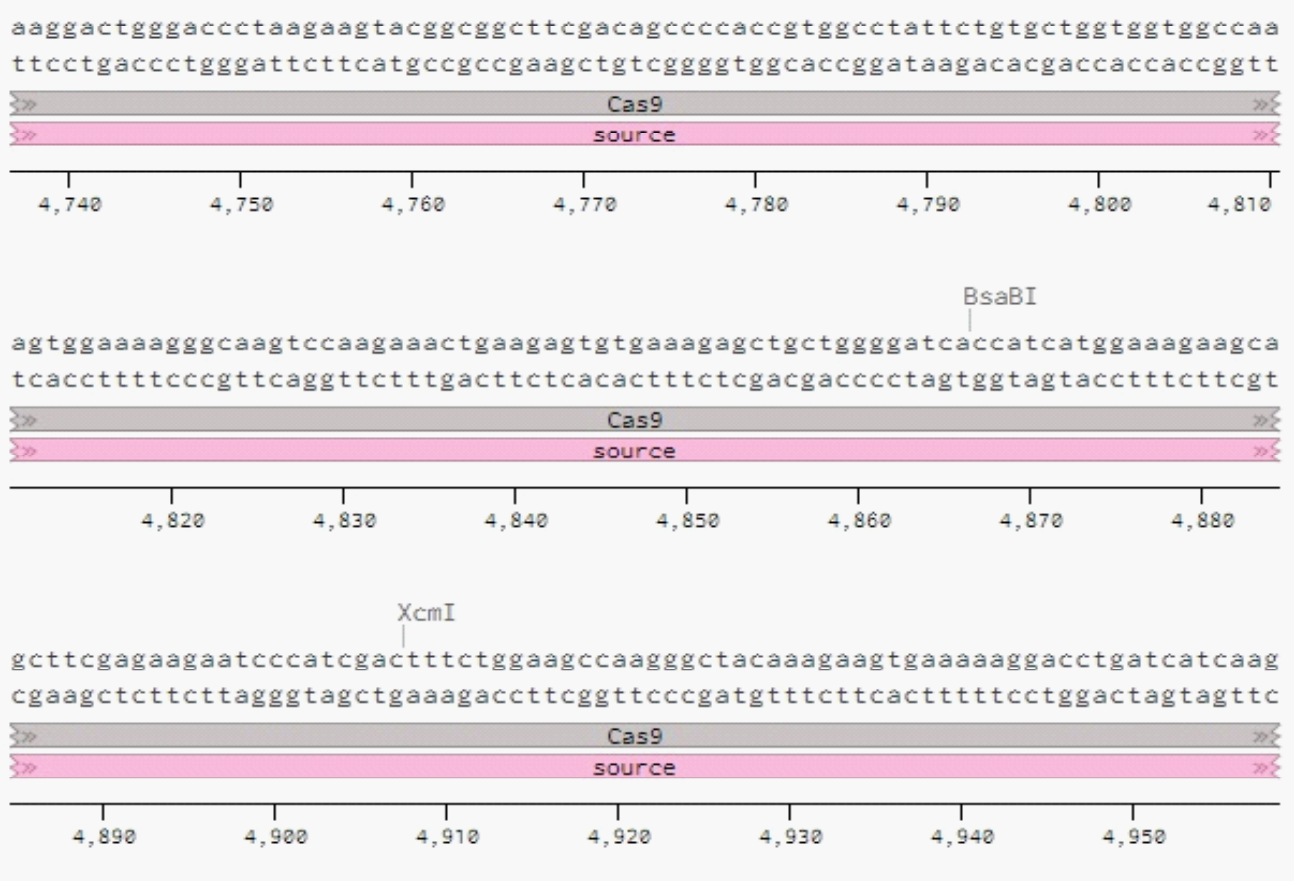
19. Cas9 (4,080 – 4,290) [PmlI]



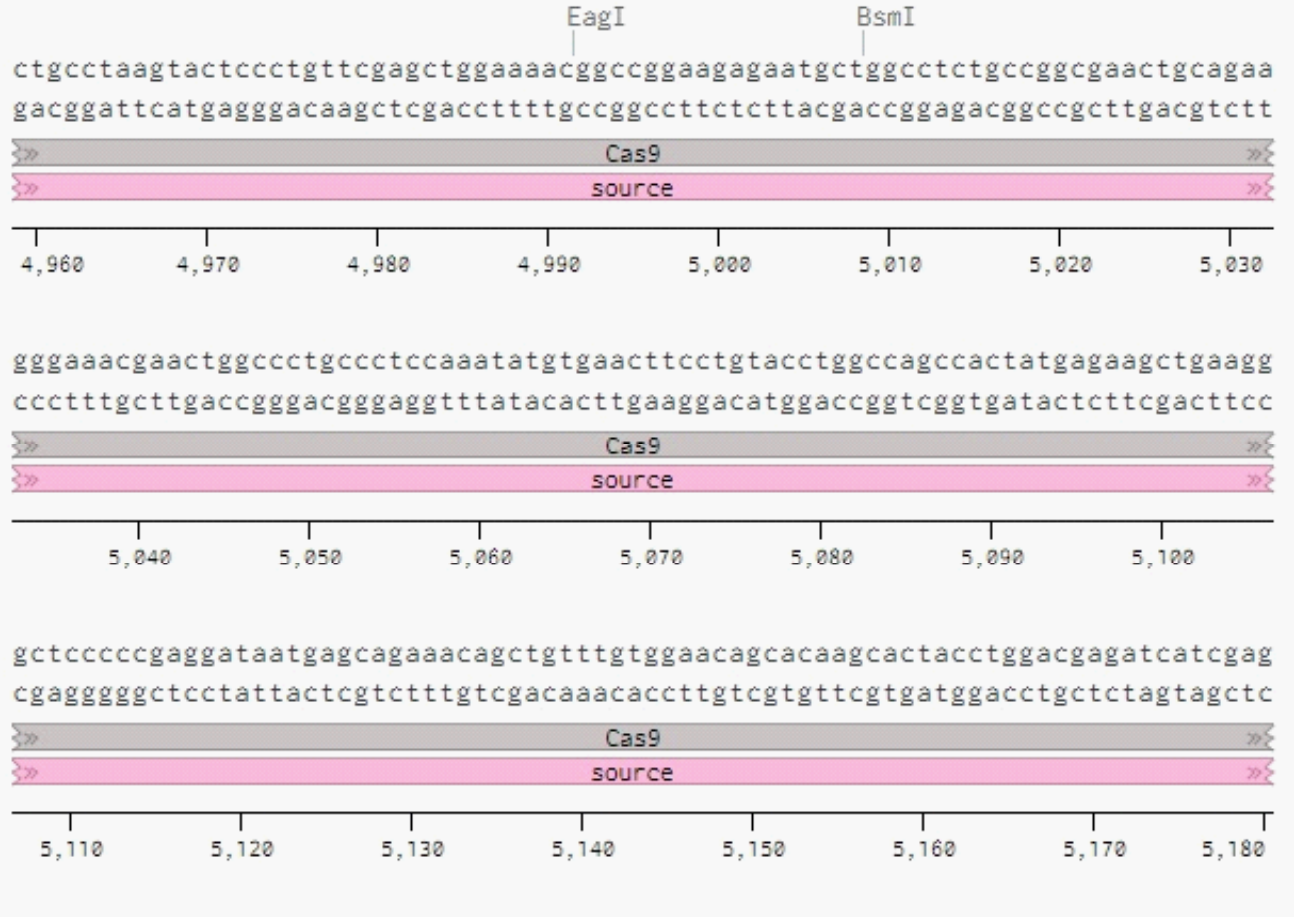
20. Cas9 (4,300 – 4,510)



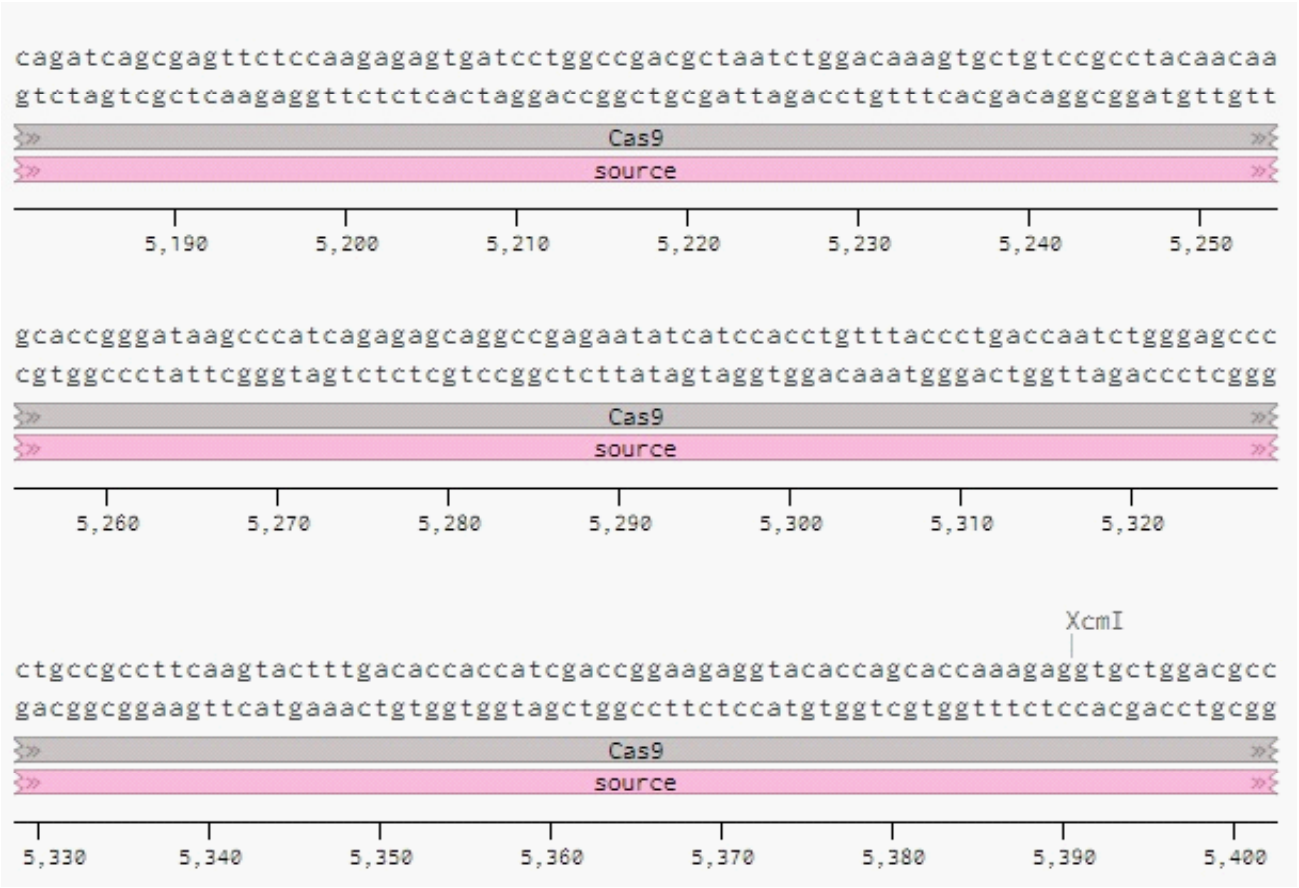
21. Cas9 (4,520 – 4,730)



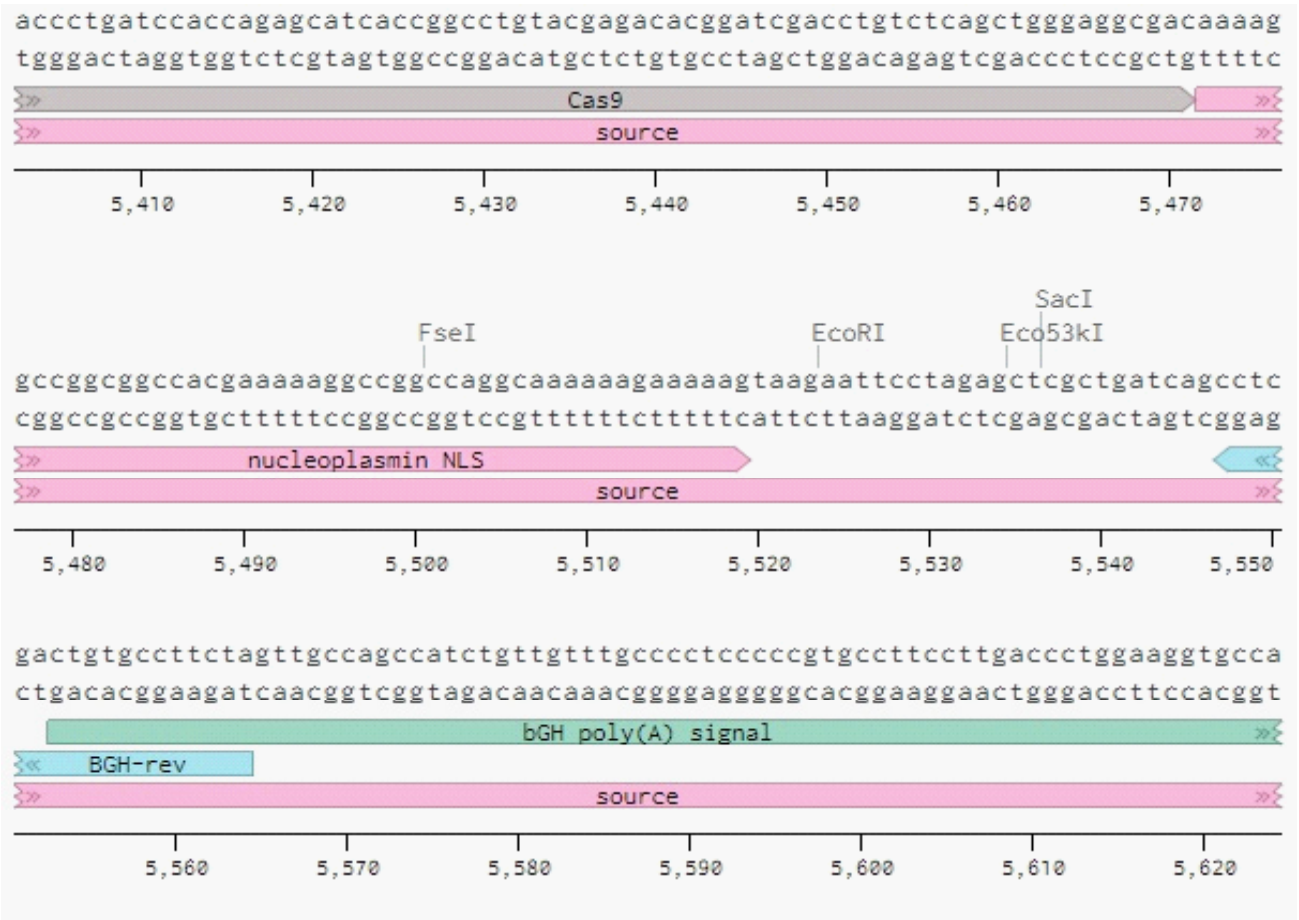
22. Cas9 (4,740 – 4,950)



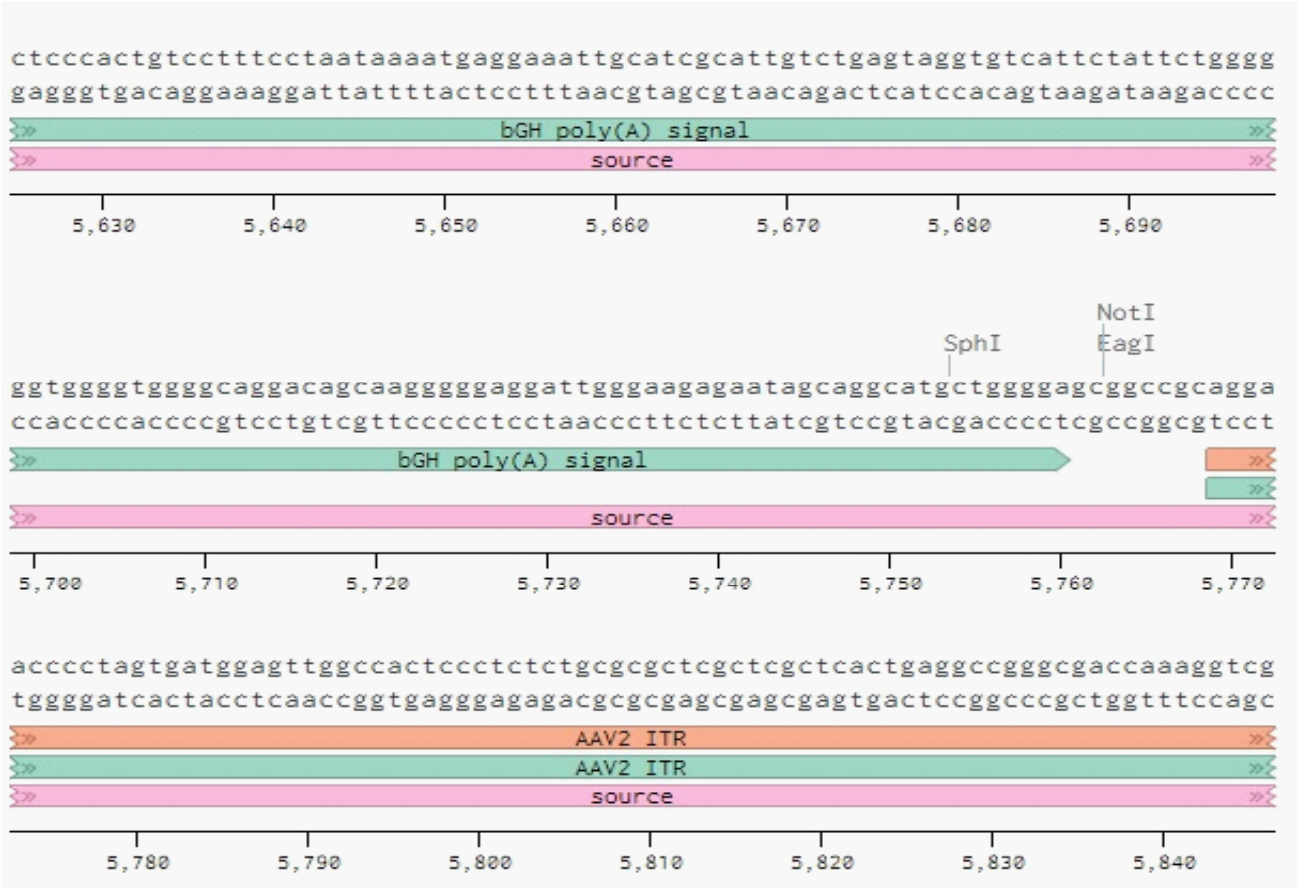
23. Cas9 (4,960 – 5,180)



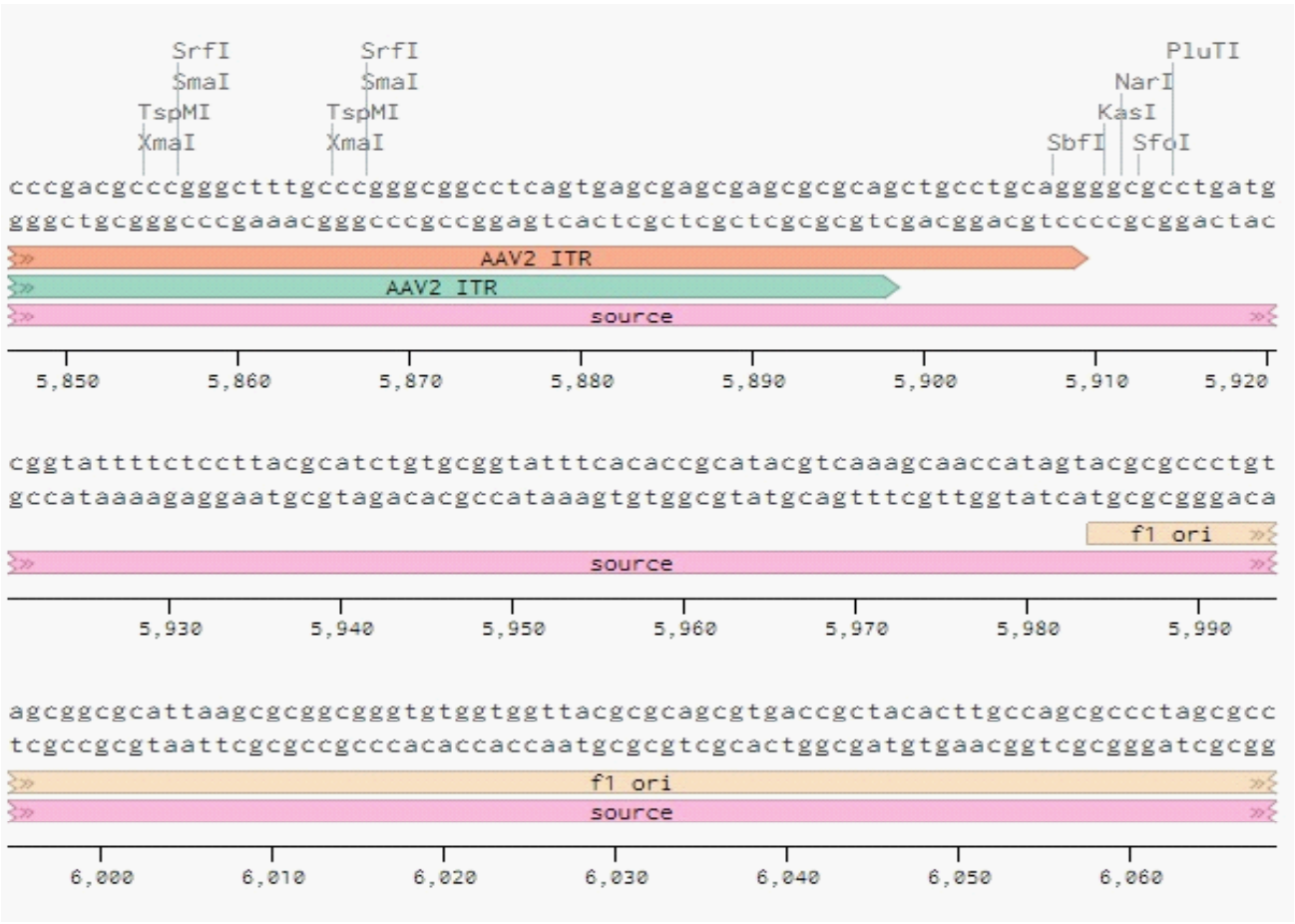
24. Cas9 (5,190 – 5,400)



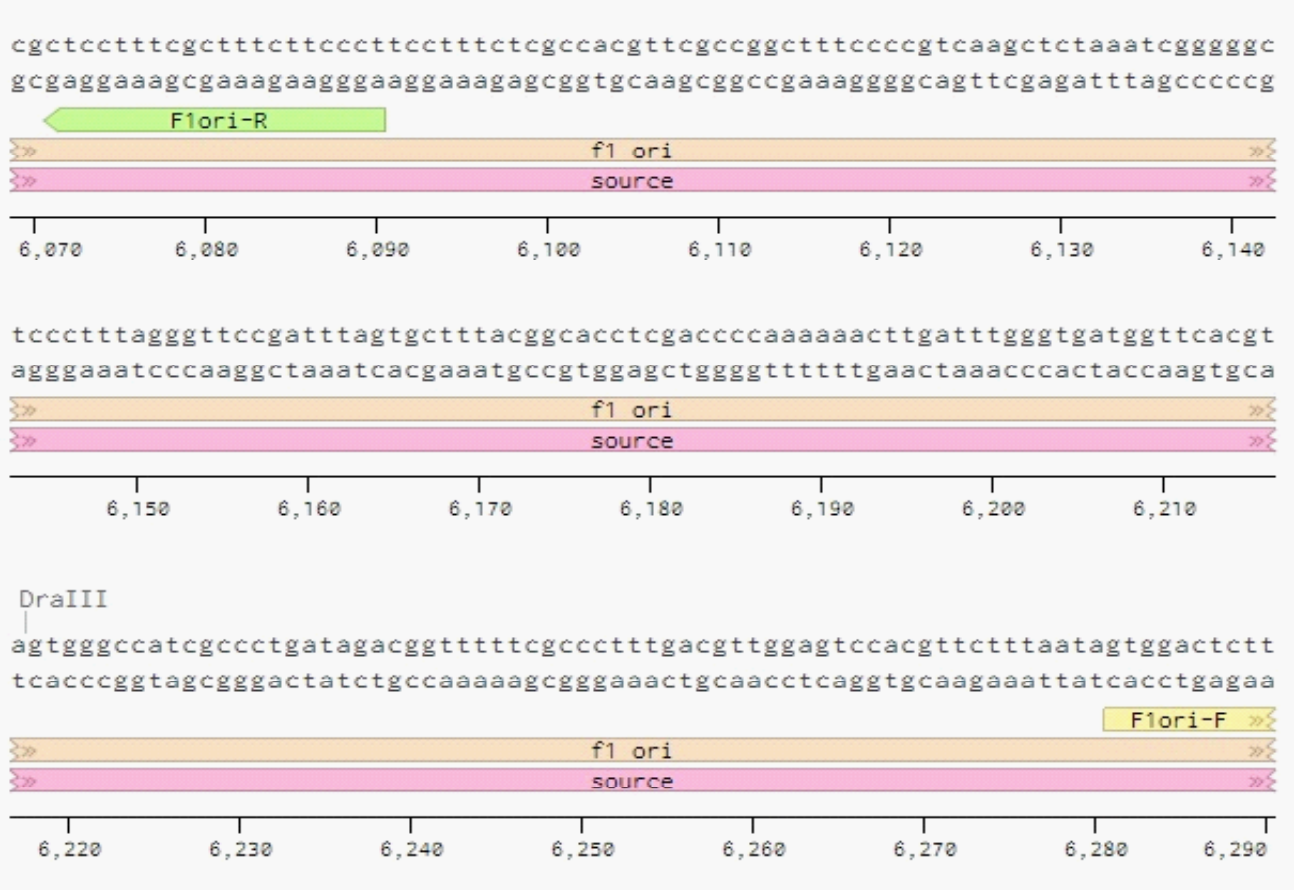
25. Nucleoplasmin NLS (5,410 – 5,620)



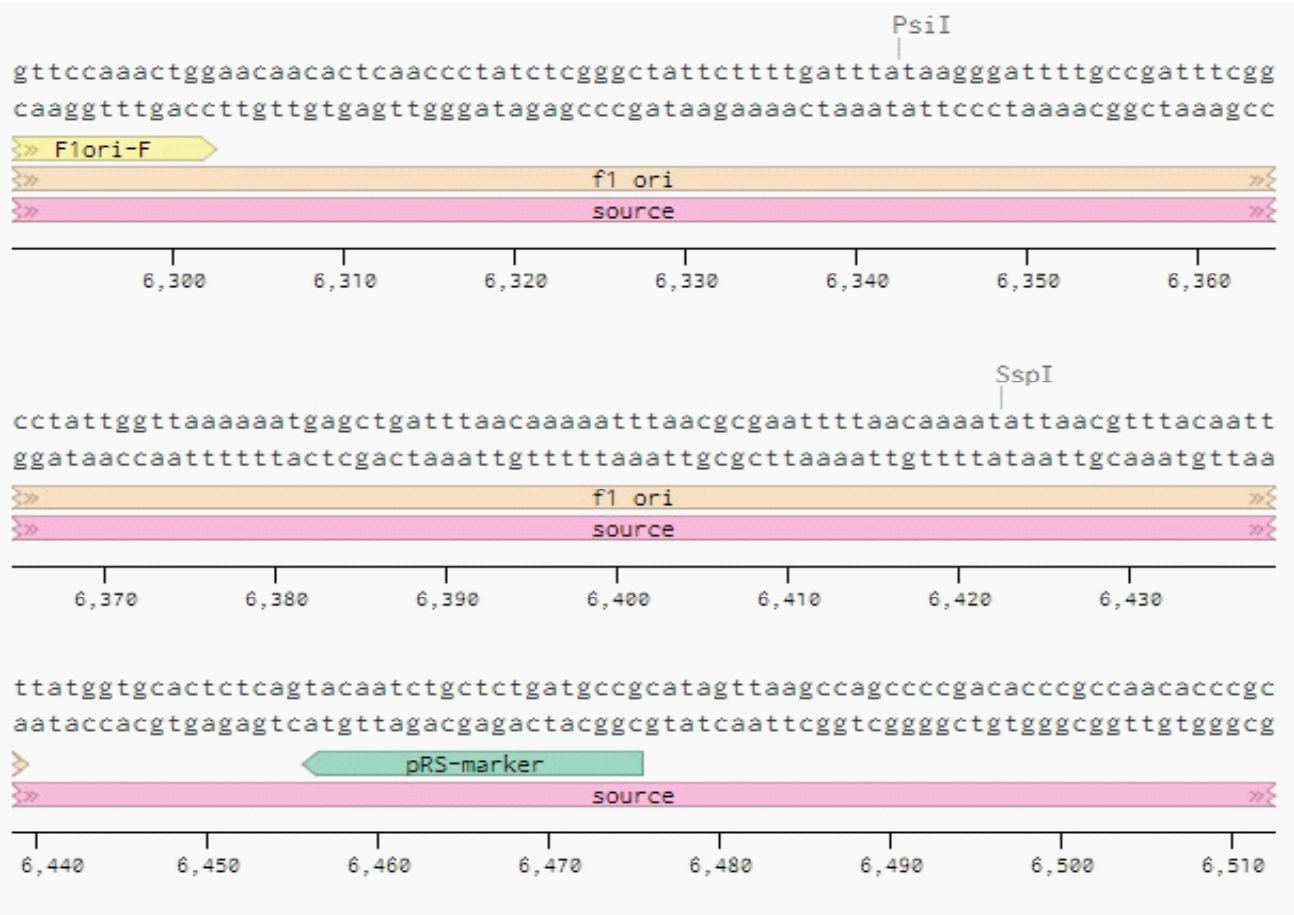
26. bGH poly(A) signal (5,630 – 5,840)



27. AAV2 ITR (5,850 – 6,060)

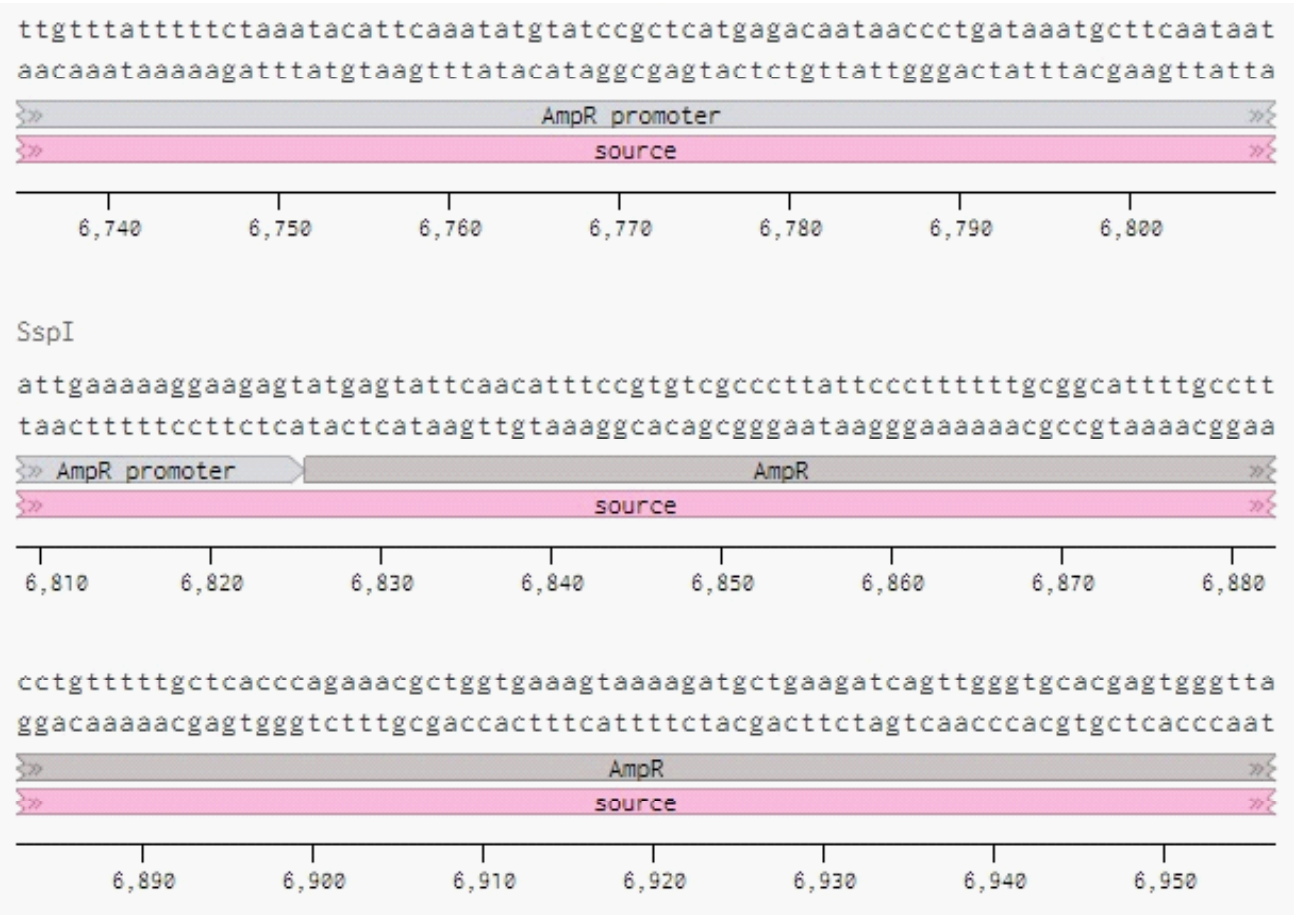


28. f1 ori (6,070 – 6,290)

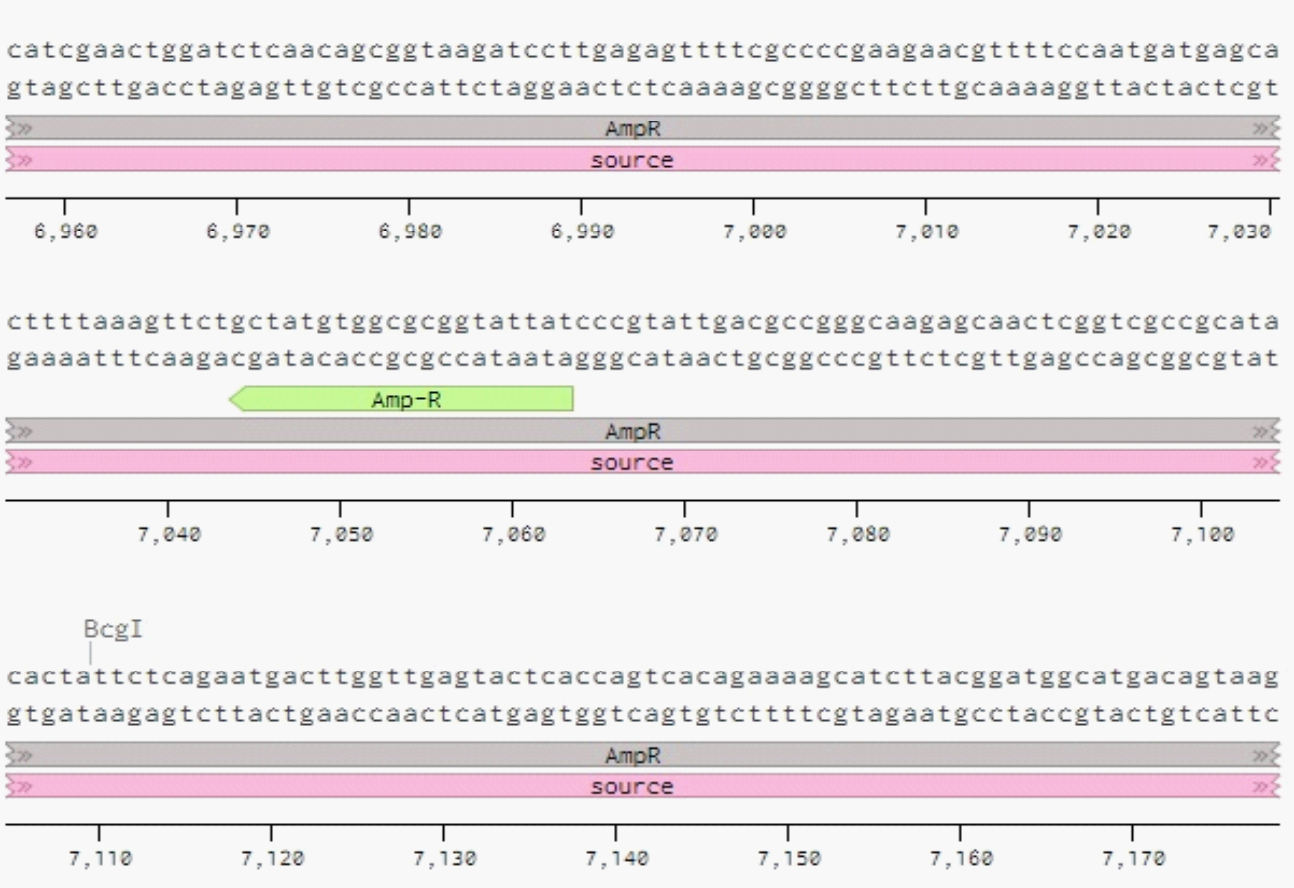


29. pRS-marker (6,300 – 6,510)

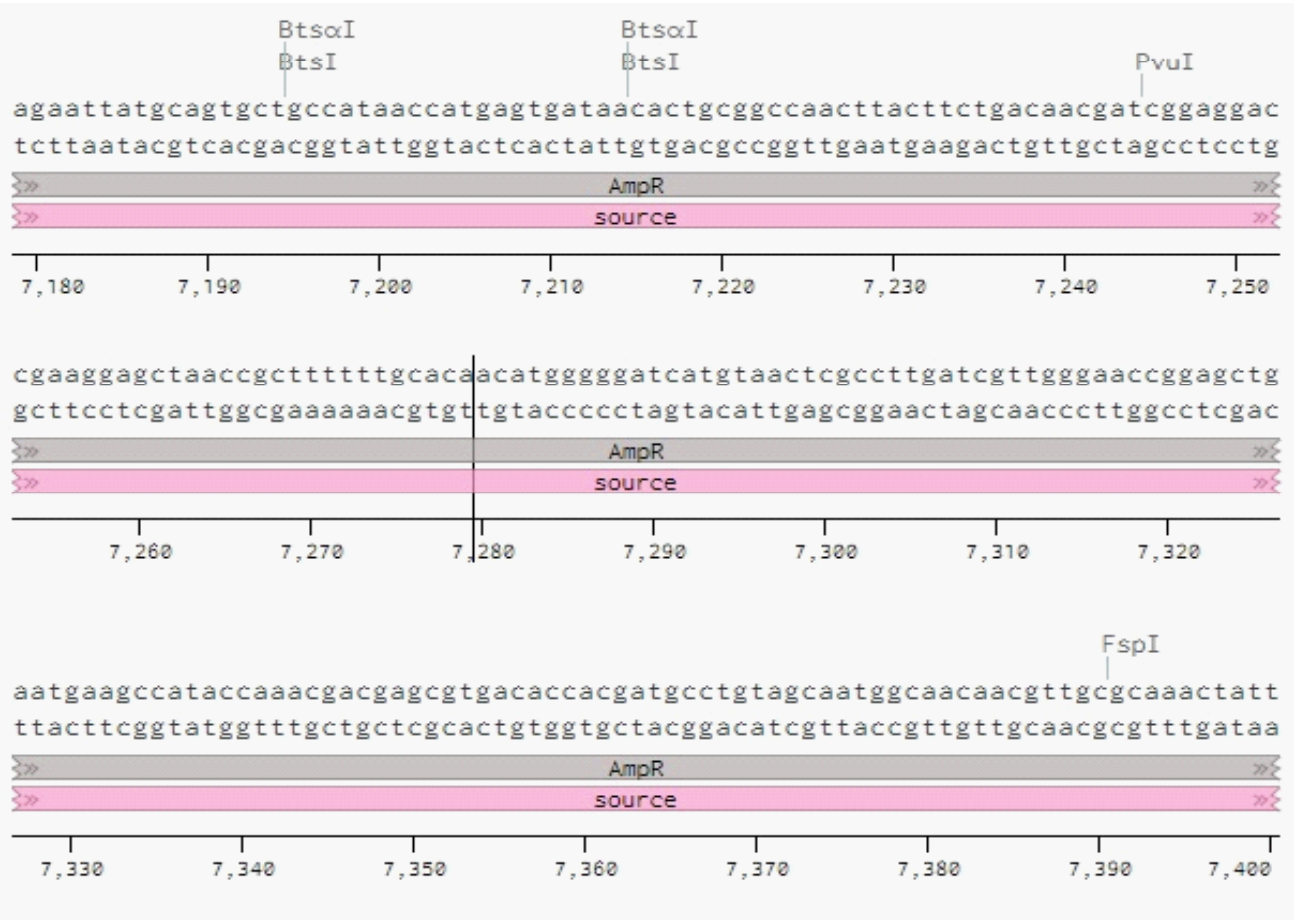
30. pGEX 3' (6,520 – 6,730)



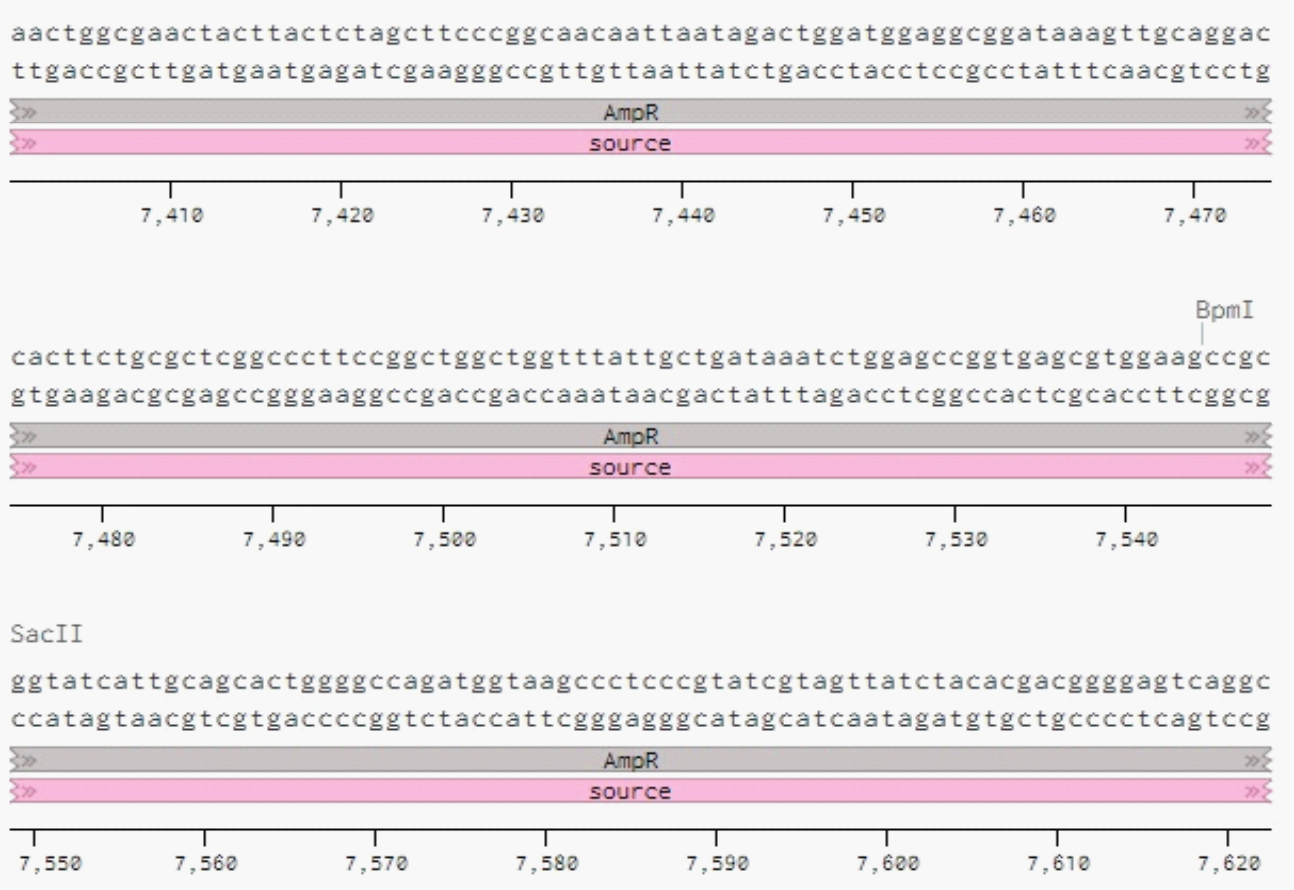
31. AmpR promotor (6,740 – 6,950)



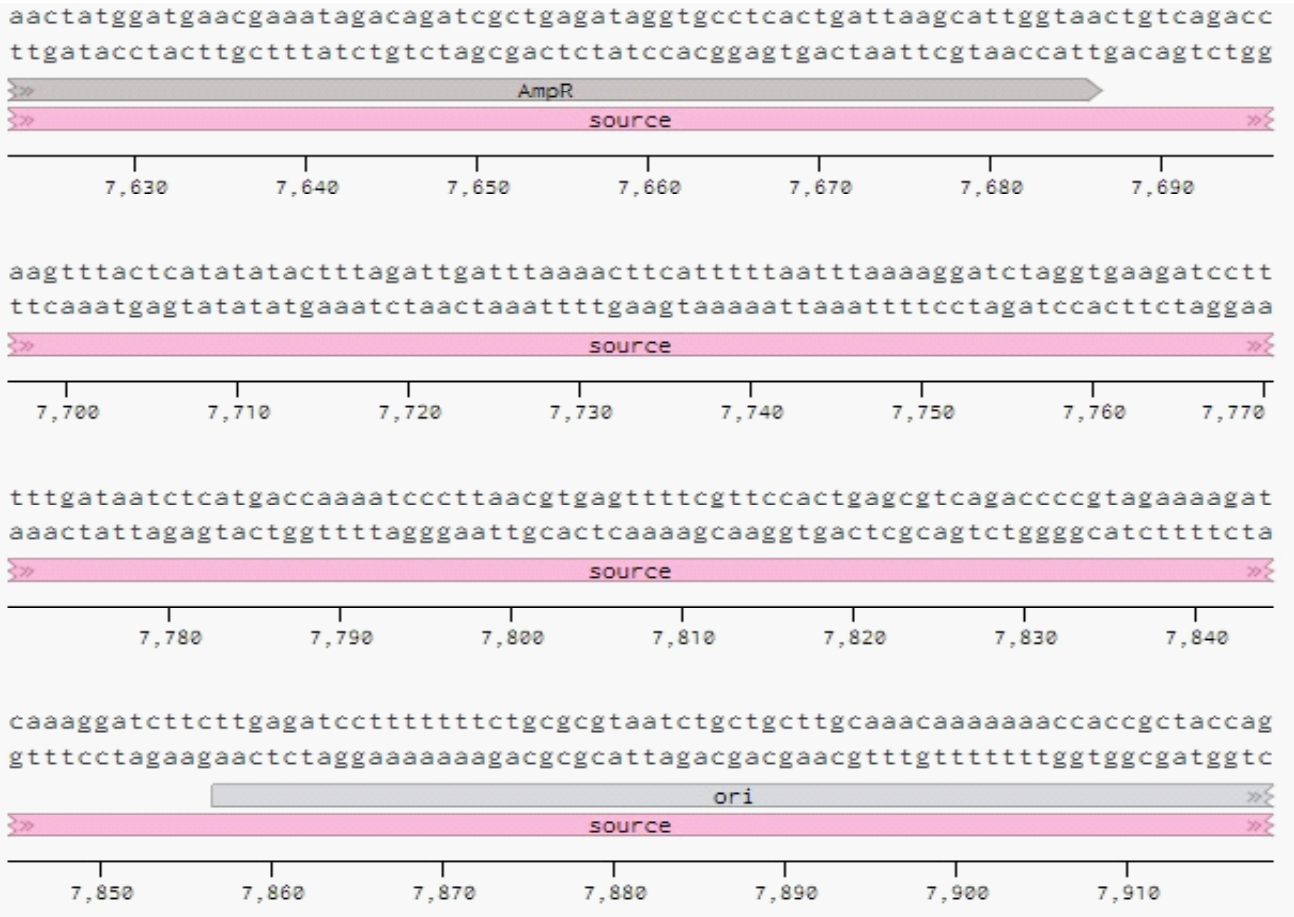
32. AmpR promotor (6,960 – 7,170)



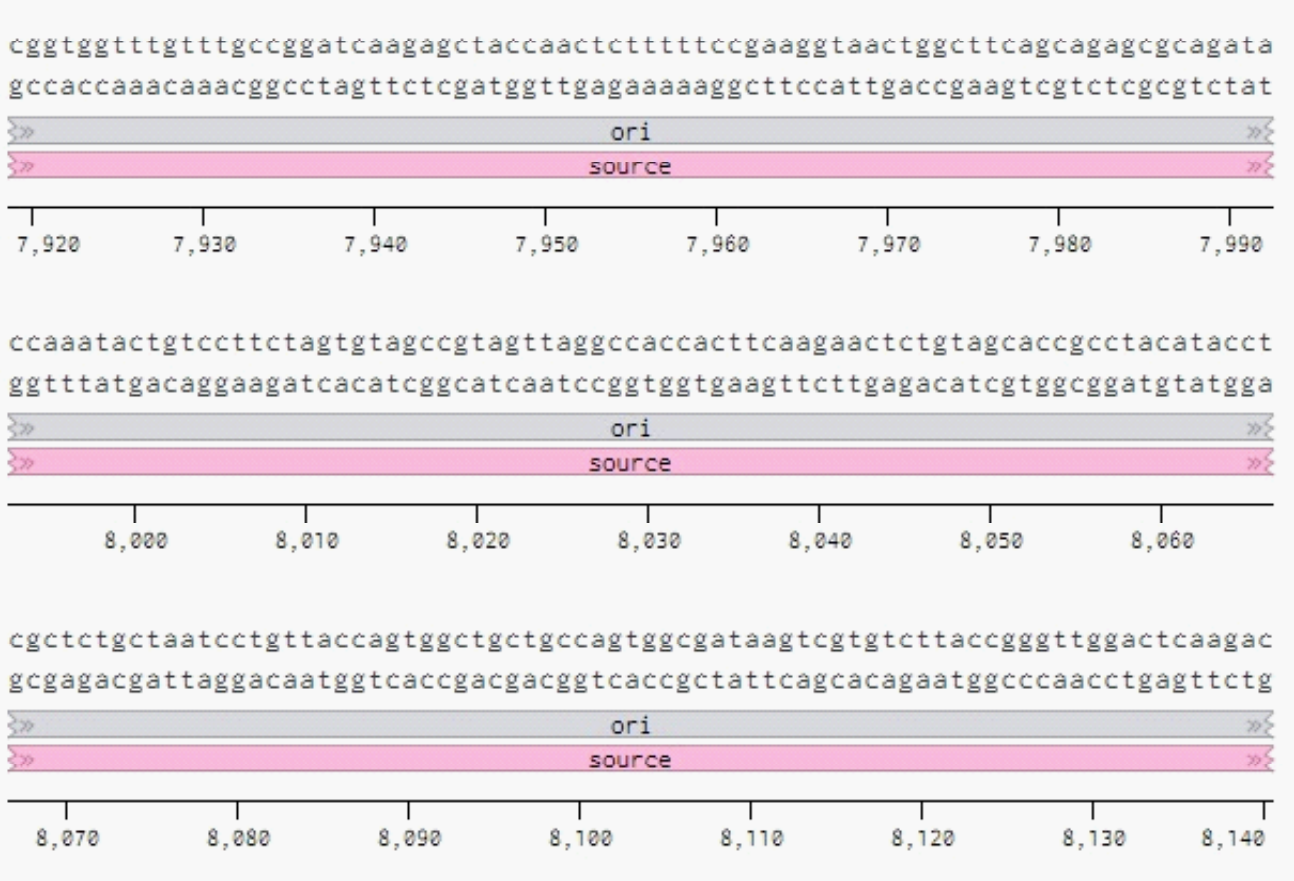
33. AmpR promotor (7,180 – 7,400) [BtsI]



34. AmpR promotor (7,410 – 7,620)

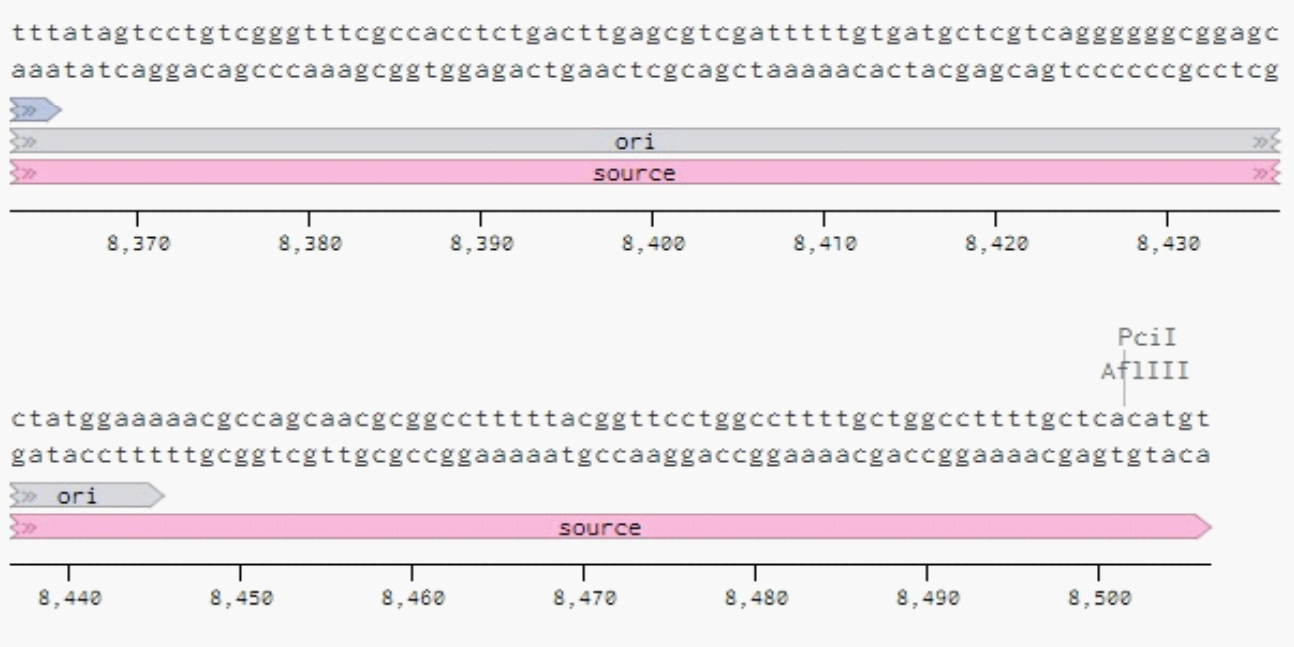


35. AmpR promotor (7,630 – 7,910)



36. ori (7,920 – 8,140)

37. ori (8,150 – 8,360)



38. ori (8,370 – 8,500)

CONCLUSION

1. A model of pX330-U6-Chimeric_BB-CBh-hSpCas9 is used to understand RNA sequence
2. It can be used to comprehend RNA sequence of coronavirus and its genome structure
3. Comparison of "pX330-U6-Chimeric_BB-CBh-hSpCas9" RNA and coronavirus RNA can be made to understand the genome structure of coronavirus

REFERENCES

1. Benchling. (2019, April 5). https://benchling.com

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