

Template Alignment: 2020-11-19_D09_ASAS17BSP3

ccgcgcacgccgaaggggggtgcccccttctcgaaccctcccgggccgctaacgcgggcctcccatccccccaggggctgcgcccctcggccgcgaac

10 20 30 40 50 60 70 80 90 100

oriV

template sequence pAS1.7 (PprqR-prqR-TprqR)

aligned sequence 2020-11-19_D09_ASAS17BSP3

ggcctcaccaccaaaaatggcagcgtggccaattcgtgcgcggaaccctatttgttttttctaaatacattcaaatatgtatccgctcatgagaca

110 120 130 140 150 160 170 180 190 200

AmpR promoter

template sequence pAS1.7 (PprqR-prqR-TprqR)

aligned sequence 2020-11-19_D09_ASAS17BSP3

ataaccctgataaatgcttcaataatatgaaaaaggaagagtatgagtattcaacatttcggtgctgcccttattcccttttttgcggcattttgcctt

210

220

230

240

250

260

270

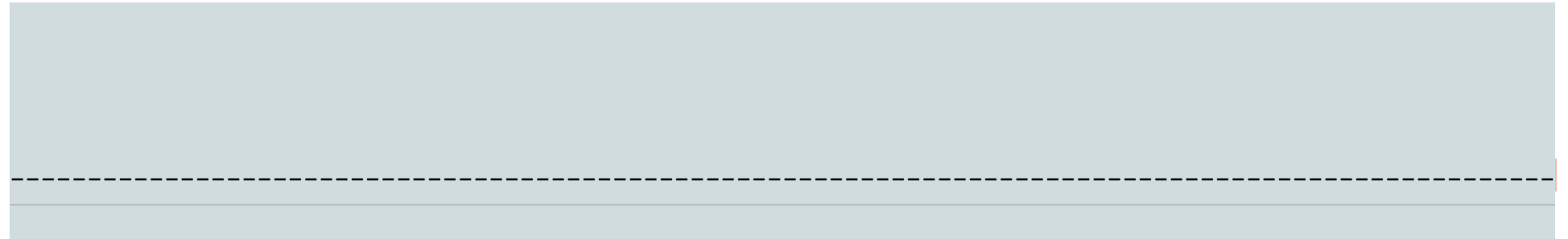
280

290

300



template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

cctgtttttgctcaccagaaacgctggtgaaagtaaaagatgctgaagatcagttgggtgcacgagtggttacatcgaactggatctcaacagcggt

310

320

330

340

350

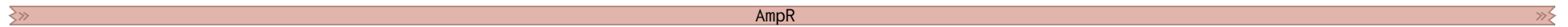
360

370

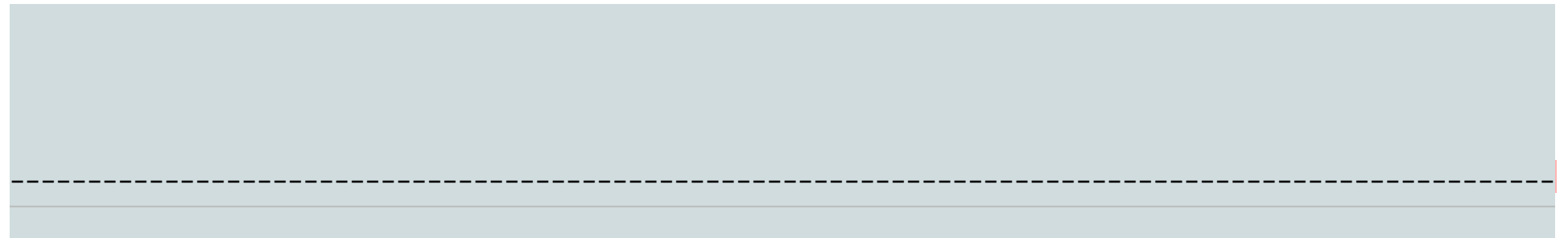
380

390

400



template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

agatccttgagagttttcgccccgaagaacgttttccaatgatgagcacttttaaagttctgctatgtggcgcggtattatcccgtattgacgccgggca

410

420

430

440

450

460

470

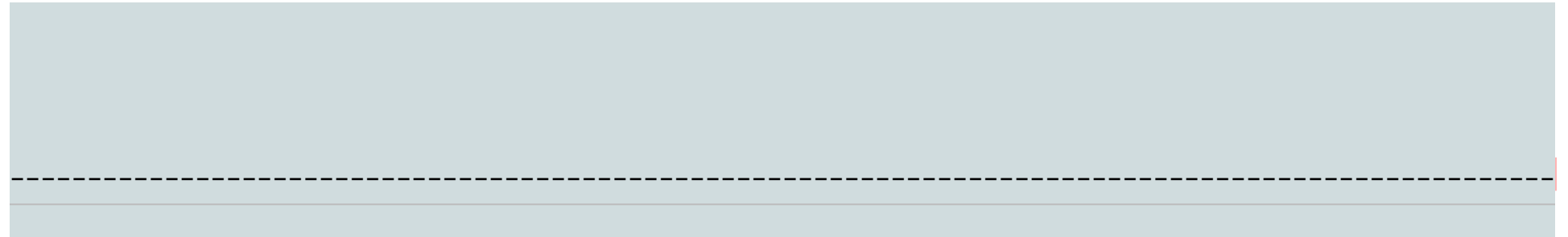
480

490

500



template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

agagcaactcggtcgccgcatacactattctcagaatgacttggttgagtactcaccagtcacagaaaagcatcttacggatggcatgacagtaagagaa

510

520

530

540

550

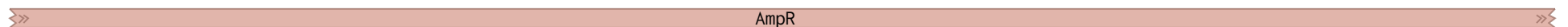
560

570

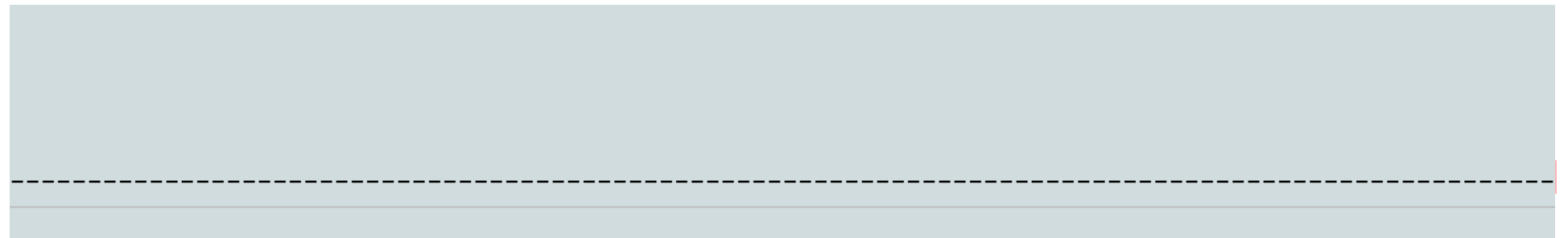
580

590

600



template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

ttatgcagtgcctgccataaccatgagtgataacactgcggccaacttacttctgacaacgatcggaggaccgaaggagctaaccgcttttttgcacaaca

610

620

630

640

650

660

670

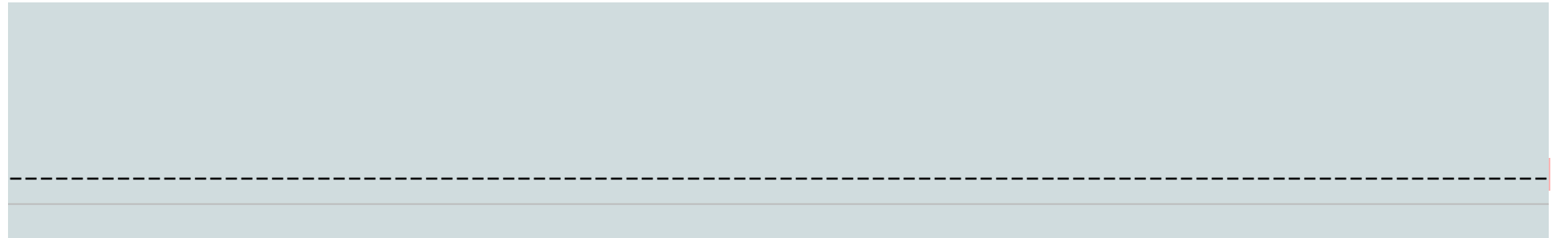
680

690

700

>> AmpR >>

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

tgggggatcatgtaactcgccttgatcgttgggaaccggagctgaatgaagccataccaaacgacgagcgtgacaccacgatgcctgtagcaatggcaac

710

720

730

740

750

760

770

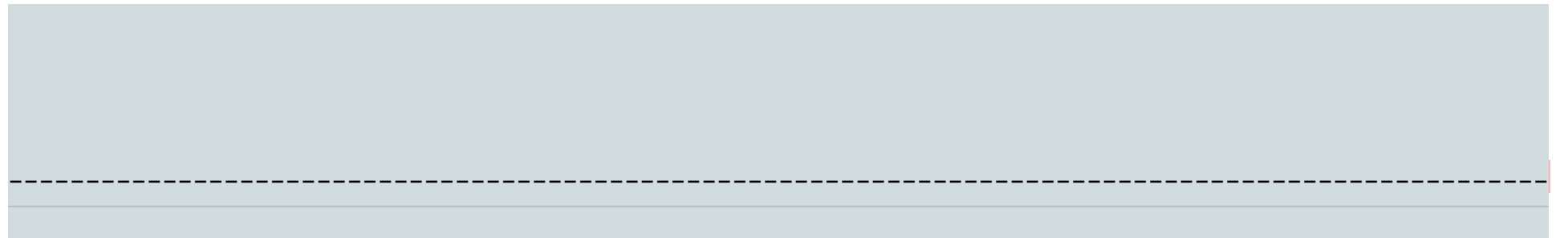
780

790

800

>> AmpR >>

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

aacgttgcgcaaactattaactggcgaactacttactctagcttcccggcaacaattaactgactggatggaggcggataaagttgcaggaccacttctg

810

820

830

840

850

860

870

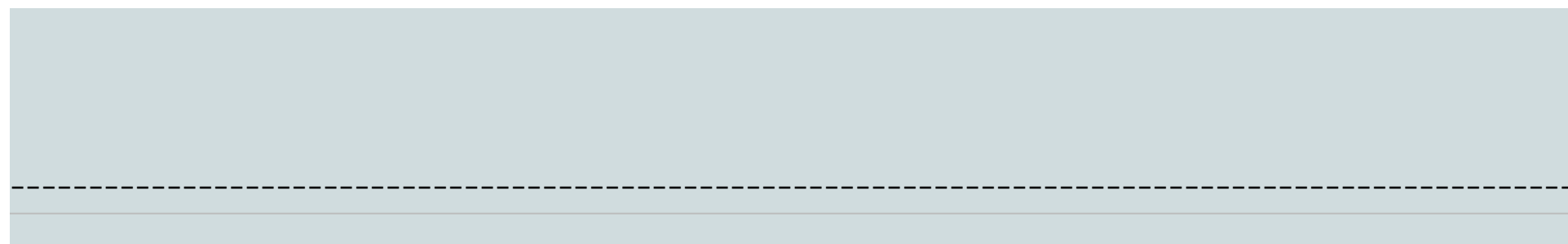
880

890

900

>> AmpR >>

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

cgctcggcccttccggctggctggtttattgctgataaatctggagccggtgagcgtggttctcgcggtatcattgcagcactggggccagatggtaagc

910

920

930

940

950

960

970

980

990

1,000

>> AmpR >>

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

cctcccgtagttagttatctacacgacggggagtcaggcaactatggatgaacgaaatagacagatcgctgagataggtgcctcactgattaagcattg

1,010

1,020

1,030

1,040

1,050

1,060

1,070

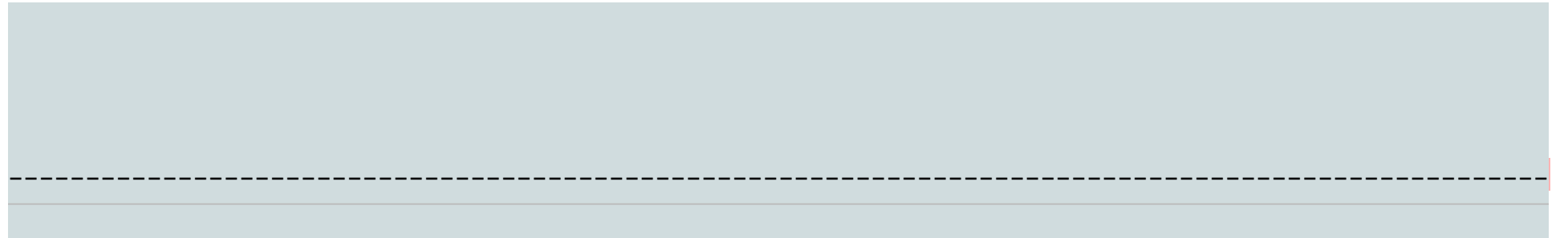
1,080

1,090

1,100

»» AmpR »»

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

gtaactgtcagaccaagtttactcatatatacttttagattgatttaaaacttcatttttaatttaaaggatctaggtgaagatcctttttgataatctc

1,110

1,120

1,130

1,140

1,150

1,160

1,170

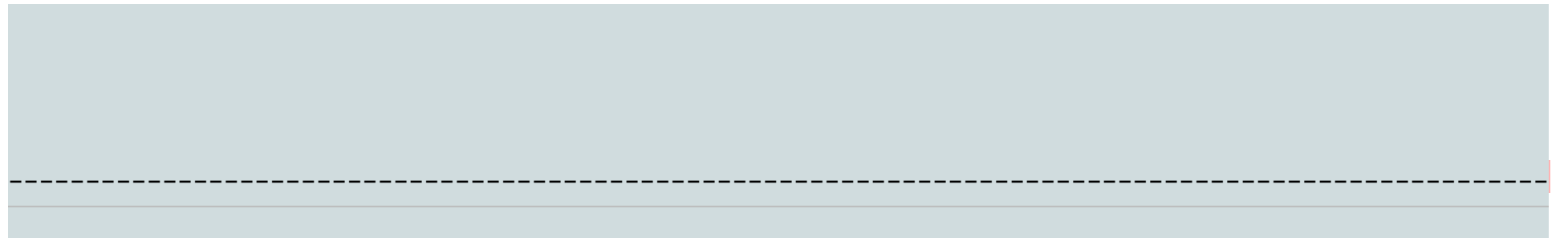
1,180

1,190

1,200

»»

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

atgaccaaaatcccttaacgtgagttttcgttccactgagcgtcagaccccgtagaaaagatcaaaggatcttcttgagatccttttttctgcgcgtaa

1,210

1,220

1,230

1,240

1,250

1,260

1,270

1,280

1,290

1,300

ori

template sequence pAS1.7 (PprqR-prqR-TprqR)

aligned sequence 2020-11-19_D09_ASAS17BSP3

tctgctgcttgcaaacaaaaaaaccaccgctaccagcgggtggtttgtttgccggatcaagagctaccaactctttttccgaaggtaactggcttcagcag

1,310

1,320

1,330

1,340

1,350

1,360

1,370

1,380

1,390

1,400

ori

template sequence pAS1.7 (PprqR-prqR-TprqR)

aligned sequence 2020-11-19_D09_ASAS17BSP3

agcgcagataccaaatactgtccttctagtgtagccgtagttaggccaccacttcaagaactctgtagcaccgcctacatacctcgctctgctaatacctg

1,410

1,420

1,430

1,440

1,450

1,460

1,470

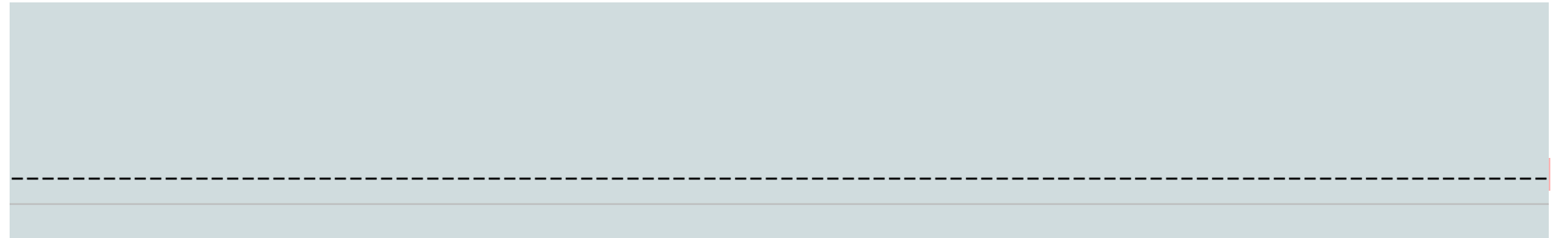
1,480

1,490

1,500

ori

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

ttaccagtggctgctgccagtggcgataagtcgtgtcttaccgggttggactcaagacgatagttaccggataaggcgcagcggtcgggctgaacggggg

1,510

1,520

1,530

1,540

1,550

1,560

1,570

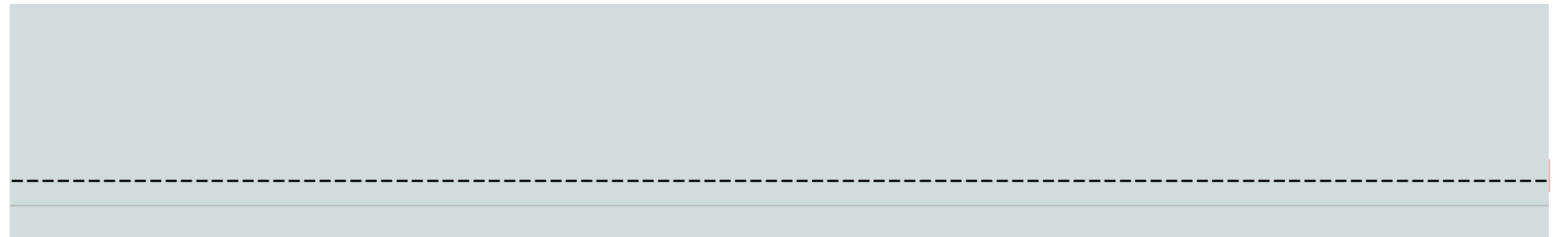
1,580

1,590

1,600

ori

template sequence pAS1.7 (PprqR-prqR-TprqR)



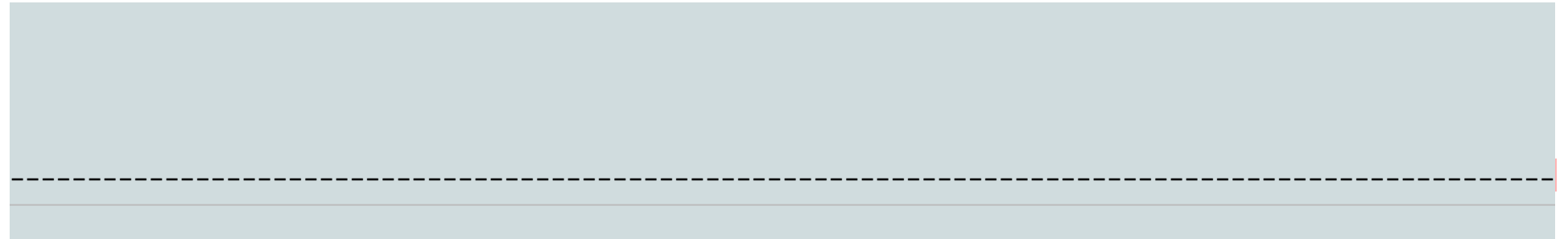
aligned sequence 2020-11-19_D09_ASAS17BSP3

gttcgtgcacacagcccagcttggagcgaacgacctacaccgaactgagatacctacagcgtgagctatgagaaagcgccacgcttcccgaaggagaaa

1,610 1,620 1,630 1,640 1,650 1,660 1,670 1,680 1,690 1,700

ori

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

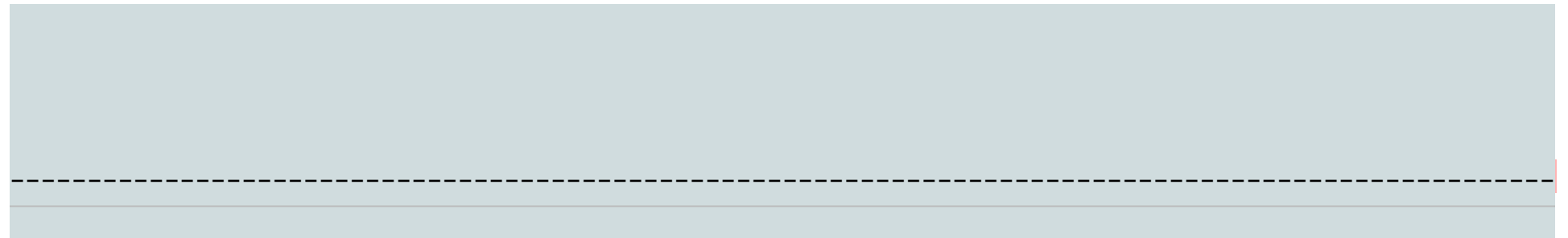
ggcggacaggtatccggtaagcggcagggtcggaacaggagagcgcacgaggagcttccagggggaaacgcctggtatctttatagtcctgtcgggttt

1,710 1,720 1,730 1,740 1,750 1,760 1,770 1,780 1,790 1,800

ori

pBR322ori-F

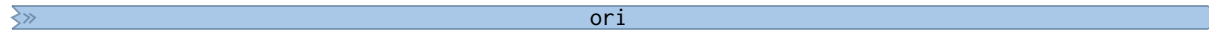
template sequence pAS1.7 (PprqR-prqR-TprqR)



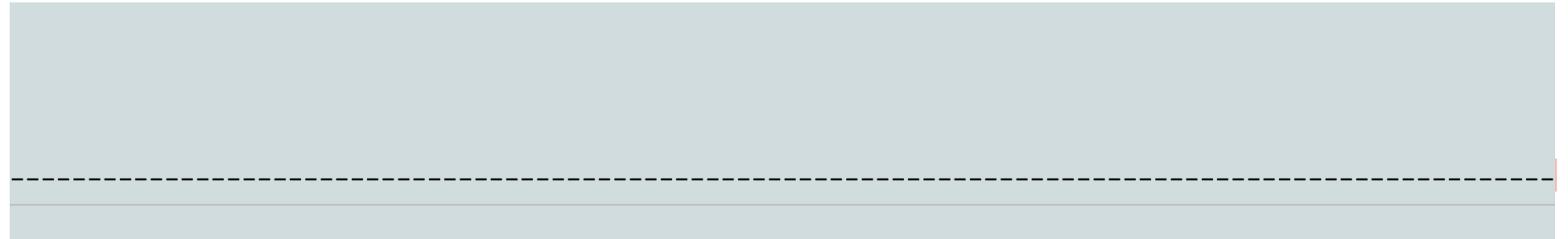
aligned sequence 2020-11-19_D09_ASAS17BSP3

cgccacctctgacttgagcgtcgatTTTTGTGATGCTCGTCAGGGGGGCGGAGCCTATGGAAAAACGCCAGCAACGCGGCCTTTTACGGTTCCTGGCAG

1,810 1,820 1,830 1,840 1,850 1,860 1,870 1,880 1,890 1,900



template sequence pAS1.7 (PprqR-prqR-TprqR)

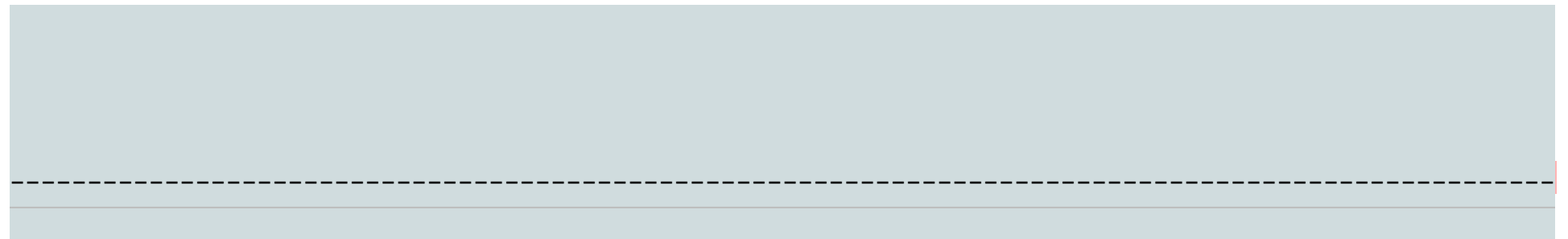


aligned sequence 2020-11-19_D09_ASAS17BSP3

atcctagatgtggcgcaacgatgccggcgacaagcaggagcgcaccgacttcttccgcatcaagtgttttggctctcaggccgaggcccacggcaagtat

1,910 1,920 1,930 1,940 1,950 1,960 1,970 1,980 1,990 2,000

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

ttgggcaaggggtcgctggtattcgtgcagggcaagattcgggaataccaagtacgagaaggacggccagacggtctacgggaccgacttcattgccgata

2,010

2,020

2,030

2,040

2,050

2,060

2,070

2,080

2,090

2,100

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

aggtggattatctggacaccaaggcaccaggcgggtcaaatacaggaataagggcacattgccccggcgtagtcgggggcaatcccgcaaggagggtgaat

2,110

2,120

2,130

2,140

2,150

2,160

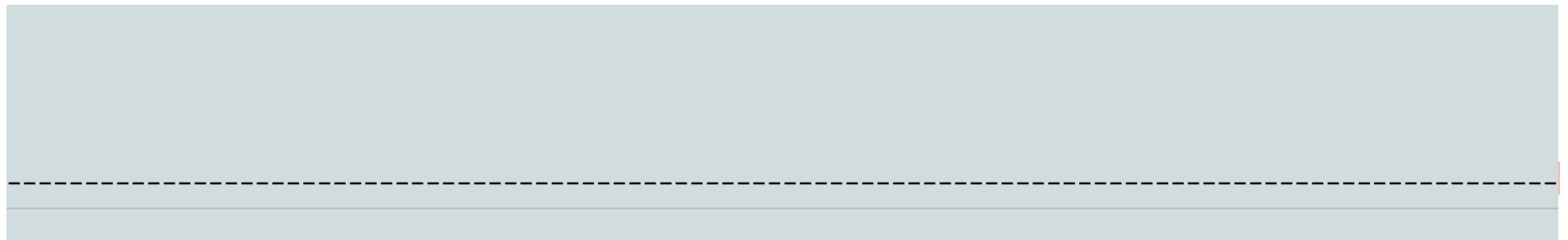
2,170

2,180

2,190

2,200

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

gaatcggacgtttgaccggaaggcatacaggcaagaactgatcgacgcgggggtttccgccgaggatgccgaaaccatcgcaagccgcaccgtcatgcgt

2,210 2,220 2,230 2,240 2,250 2,260 2,270 2,280 2,290 2,300

trfA

template sequence pAS1.7 (PprqR-prqR-TprqR)



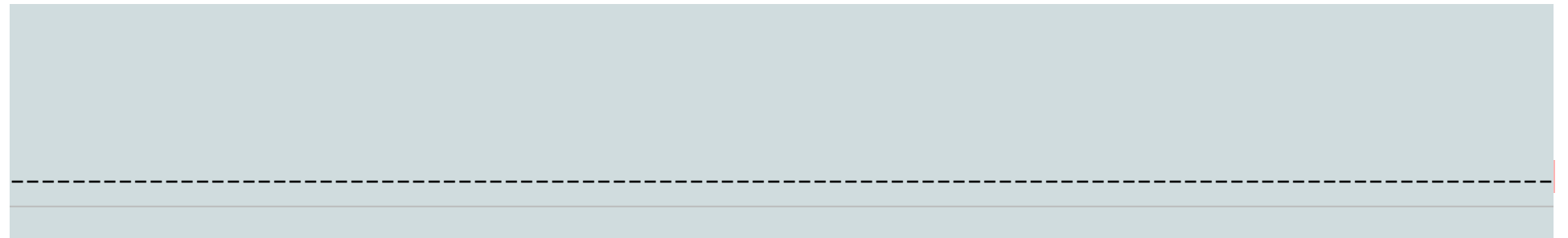
aligned sequence 2020-11-19_D09_ASAS17BSP3

gcgccccgcgaaaccttccagtcggtcgcgatgggtccagcaagctacggccaagatcgagcgcgacagcgtgcaactggctccccctgccctgcccc

2,310 2,320 2,330 2,340 2,350 2,360 2,370 2,380 2,390 2,400

trfA

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

cgccatcgccgcccgtggagcggttcgcgtcgtcttgaacaggaggcggcagggttggcgaagtcgatgaccatcgacacgcgaggaactatgacgaccaa

2,410

2,420

2,430

2,440

2,450

2,460

2,470

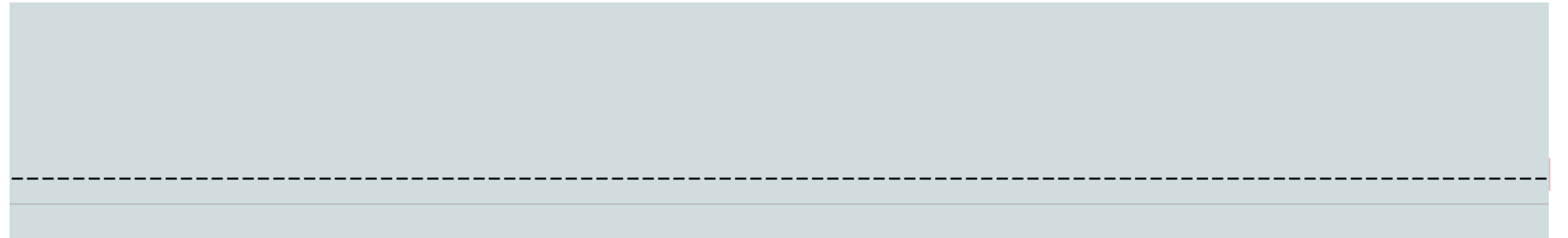
2,480

2,490

2,500

trfA

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

gaagcgaaaaaccgcccggcgaggacctggcaaaacaggtcagcgaggccaagcaggccgcgttgctgaaacacacgaagcagcagatcaaggaaatgcag

2,510

2,520

2,530

2,540

2,550

2,560

2,570

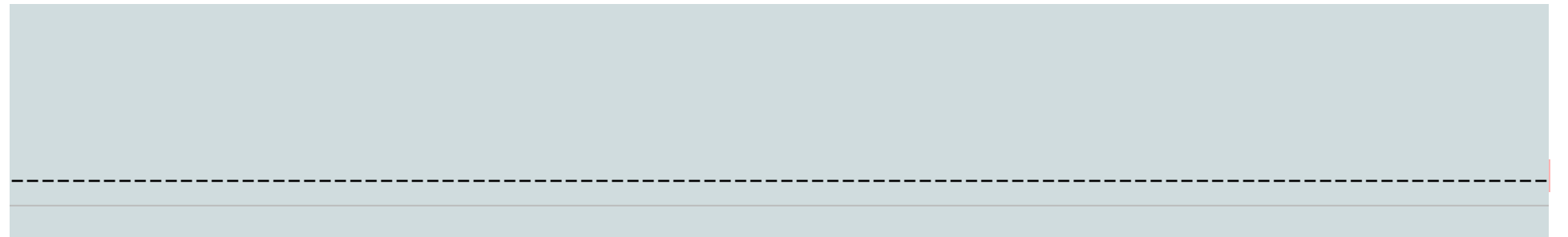
2,580

2,590

2,600

trfA

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

ctttccttgttcgatattgcgccgtggccggacacgatgcgagcgatgccaaacgacacggcccgctctgccctgttcaccacgcgcaacaagaaaatcc

2,610

2,620

2,630

2,640

2,650

2,660

2,670

2,680

2,690

2,700

trfA

template sequence pAS1.7 (PprqR-prqR-TprqR)

aligned sequence 2020-11-19_D09_ASAS17BSP3

cgcgcgaggcgctgcaaaacaagggtcattttccacgtcaacaaggacgtgaagatcacctacaccggcgctcgagctgcgggccgacgatgacgaactggt

2,710

2,720

2,730

2,740

2,750

2,760

2,770

2,780

2,790

2,800

trfA

template sequence pAS1.7 (PprqR-prqR-TprqR)

aligned sequence 2020-11-19_D09_ASAS17BSP3

gtggcagcaggtgttggagtacgcgaagcgcacccctatcggcgagccgatcaccttcacgttctacgagctttgccaggacctgggctggtcgatcaat

2,810

2,820

2,830

2,840

2,850

2,860

2,870

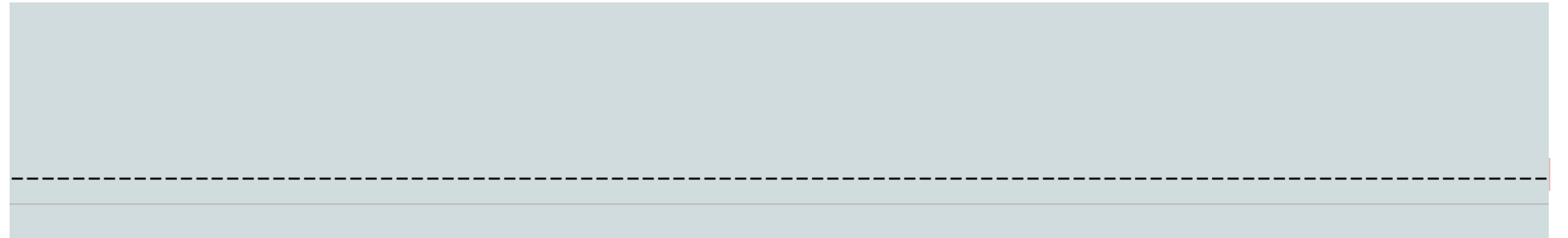
2,880

2,890

2,900

>> trfA >>

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

ggccggtattacacgaaggccgaggaatgcctgtcgcgcctacaggcgacggcgatgggcttcacgtccgaccgcgttgggcacctggaatcgggtgtcgc

2,910

2,920

2,930

2,940

2,950

2,960

2,970

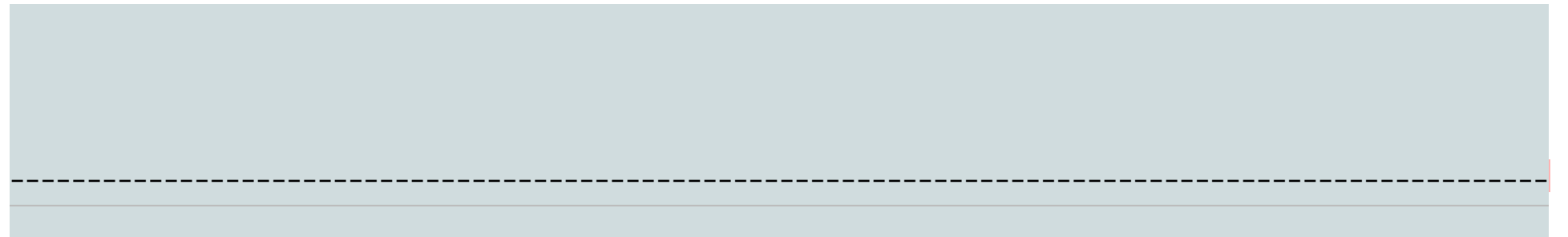
2,980

2,990

3,000

>> trfA >>

template sequence pAS1.7 (PprqR-prqR-TprqR)



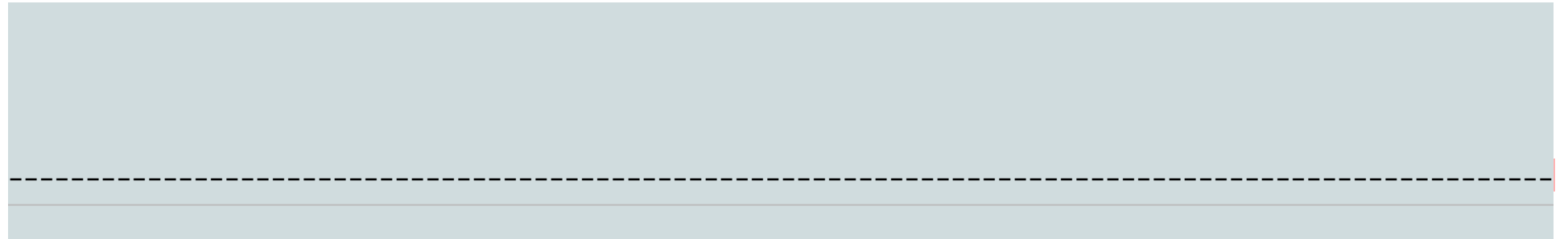
aligned sequence 2020-11-19_D09_ASAS17BSP3

tgctgcaccgcttccgcgtcctggaccgtggcaagaaaacgtcccgttgccaggctcctgatcgacgaggaaatcgctcgtgctgtttgctggcgaccacta

3,010 3,020 3,030 3,040 3,050 3,060 3,070 3,080 3,090 3,100

trfA

template sequence pAS1.7 (PprqR-prqR-TprqR)



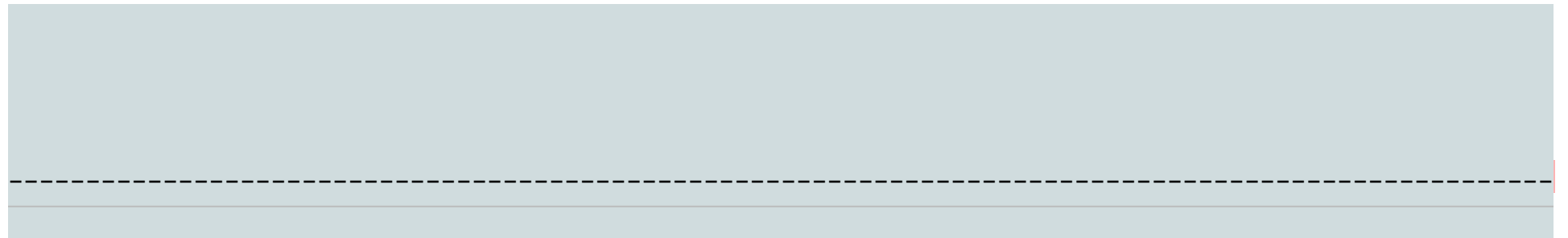
aligned sequence 2020-11-19_D09_ASAS17BSP3

cacgaaattcatatgggagaagtaccgcaagctgtcgccgacggcccgacggatgttcgactatttcagctcgcaccgggagccgtacccgctcaagctg

3,110 3,120 3,130 3,140 3,150 3,160 3,170 3,180 3,190 3,200

trfA

template sequence pAS1.7 (PprqR-prqR-TprqR)



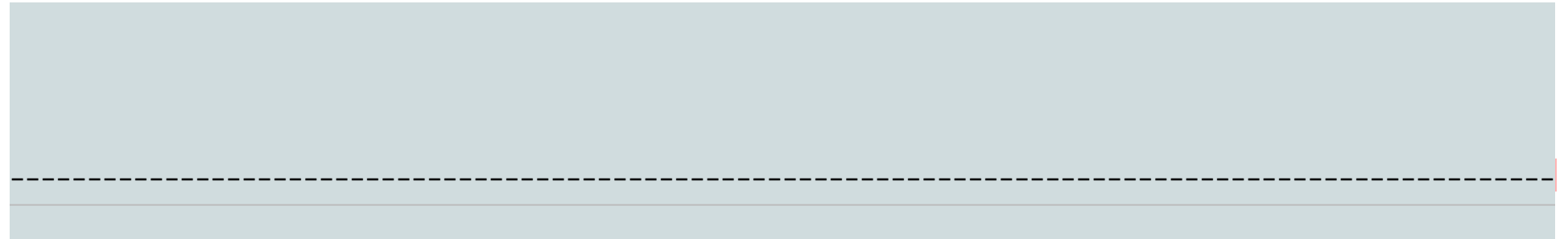
aligned sequence 2020-11-19_D09_ASAS17BSP3

gaaaccttccgcctcatgtgcggatcggattccacccgcgtgaagaagtggcgcgagcaggtcggcgaagcctgcgaagagttgcgaggcagcggcctgg

3,210 3,220 3,230 3,240 3,250 3,260 3,270 3,280 3,290 3,300

trfA

template sequence pAS1.7 (PprqR-prqR-TprqR)



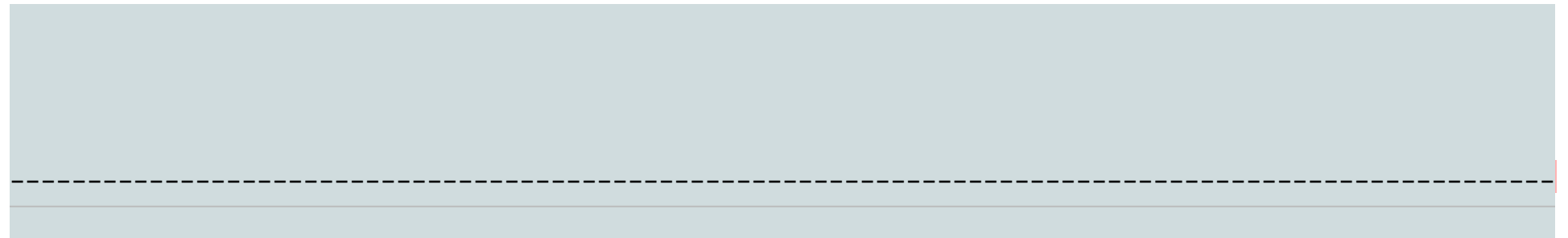
aligned sequence 2020-11-19_D09_ASAS17BSP3

tggaacacgcctgggtcaatgatgacctgggtgcattgcaaacgctagggccttgtggggtcagttccggctgggggttcagcagccagcgcctgatctgg

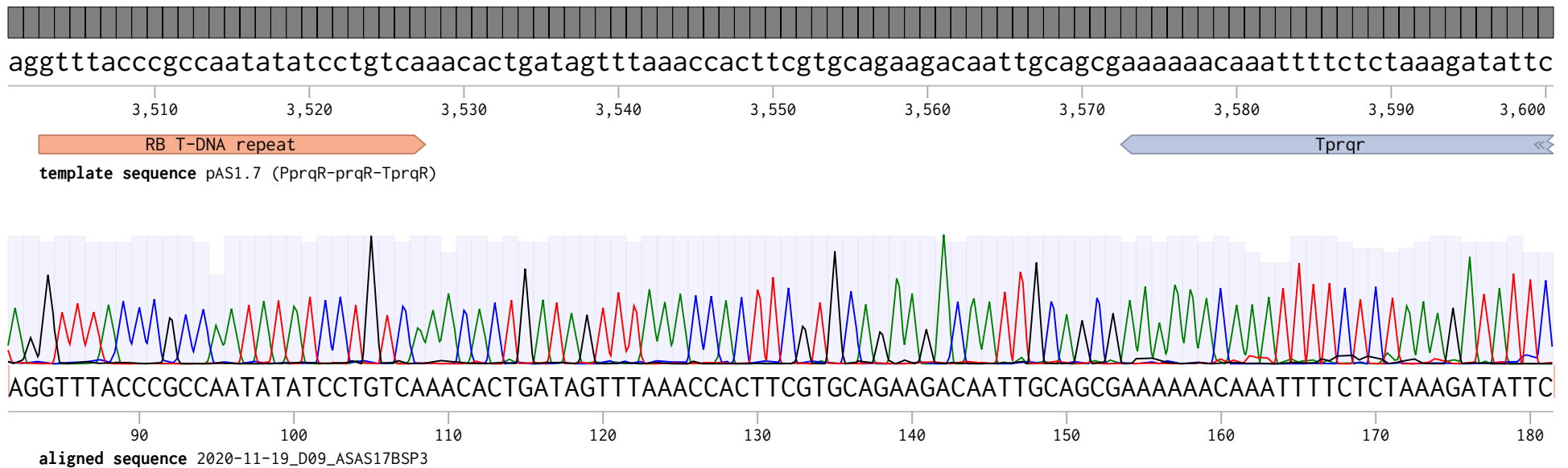
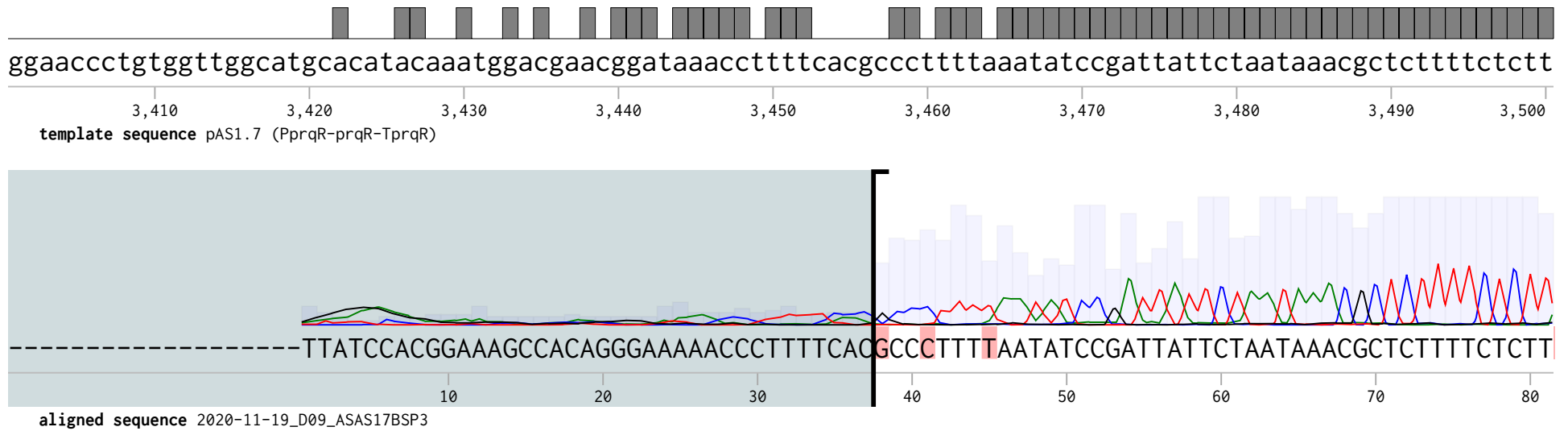
3,310 3,320 3,330 3,340 3,350 3,360 3,370 3,380 3,390 3,400

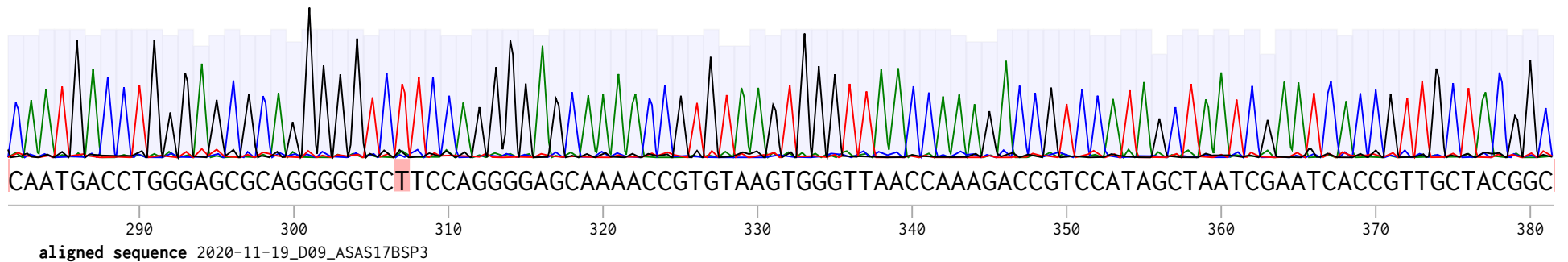
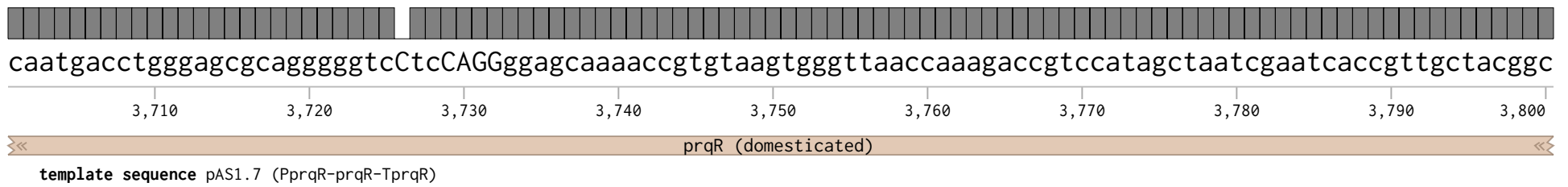
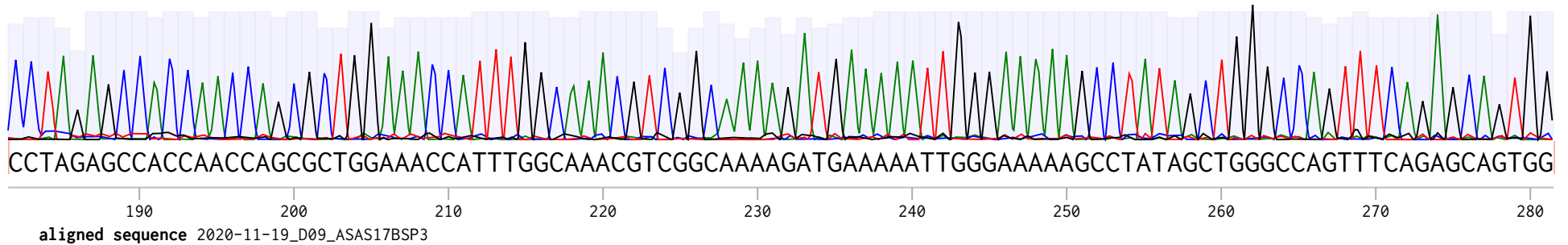
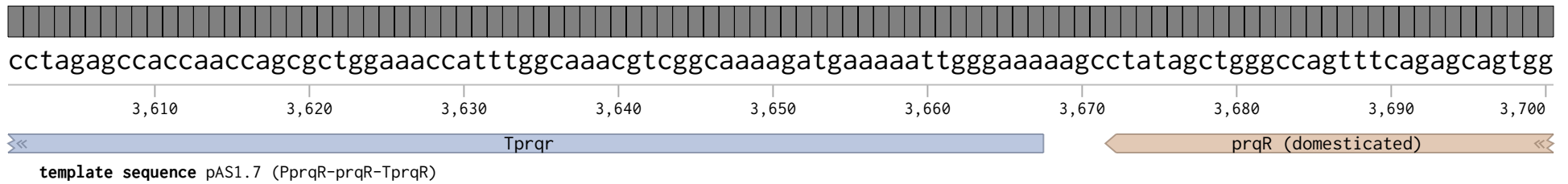
trfA

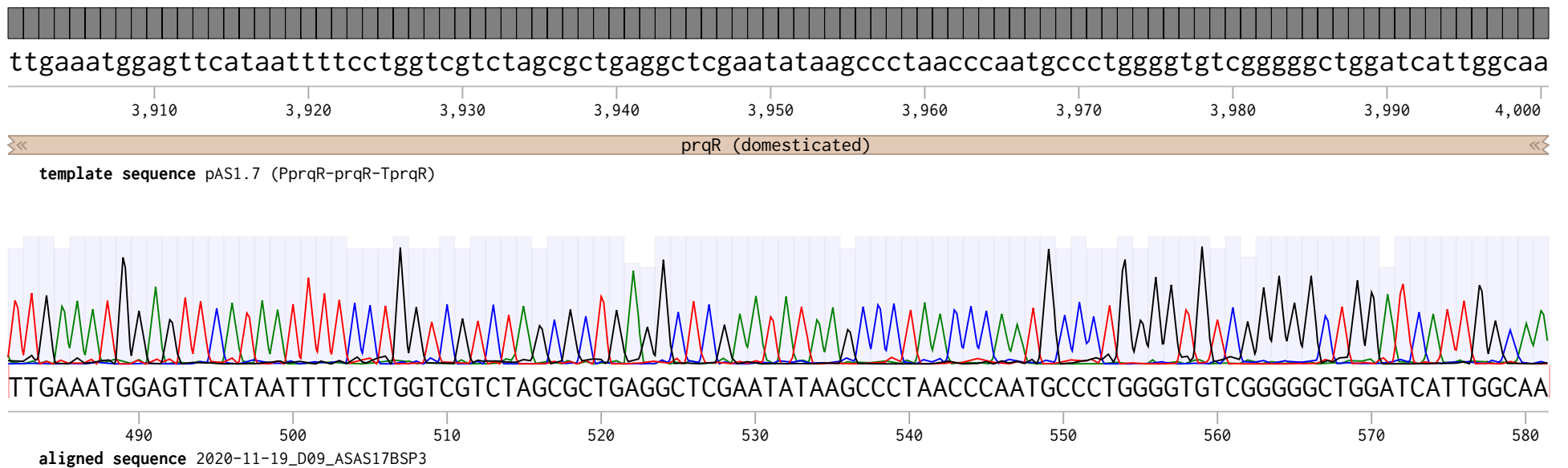
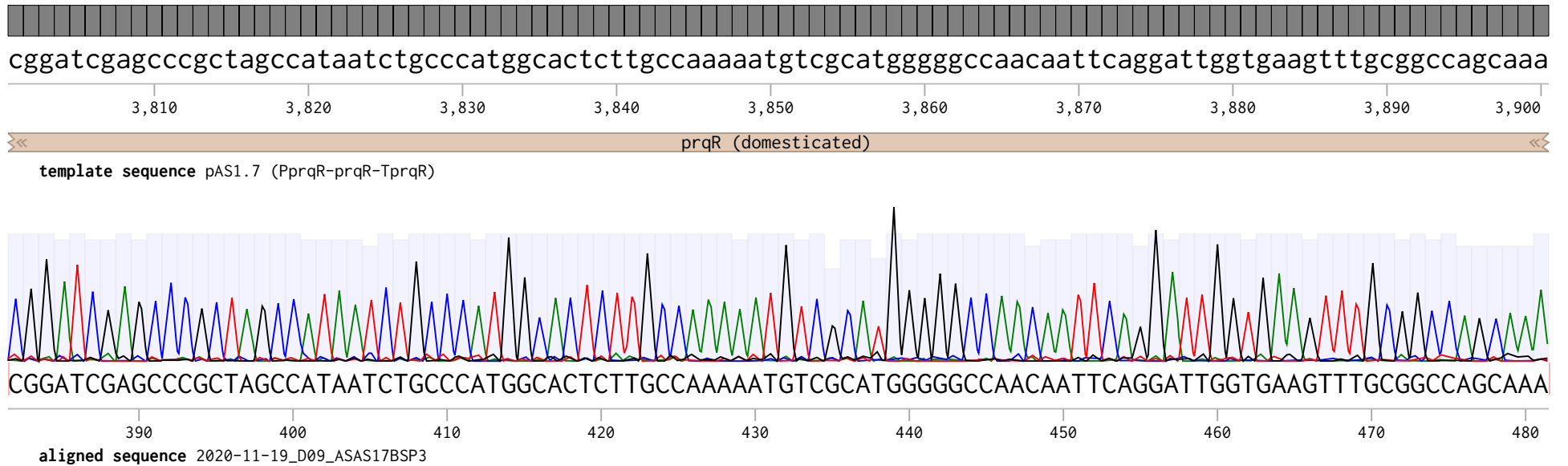
template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3





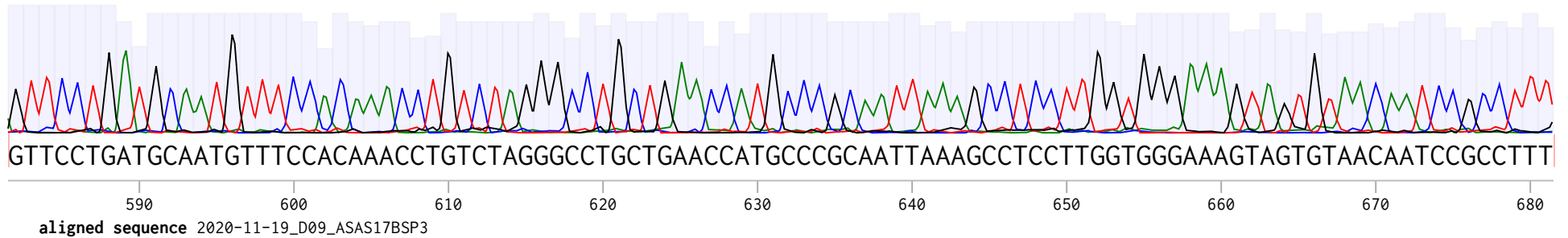


gttcctgatgcaatgtttccacaaacctgtctagggcctgctgaaccatgcccgcattaaagcctccttgggtgggaaagtagtgtaacaatccgccttt

4,010 4,020 4,030 4,040 4,050 4,060 4,070 4,080 4,090 4,100

prqR (domesticated)

template sequence pAS1.7 (PprqR-prqR-TprqR)

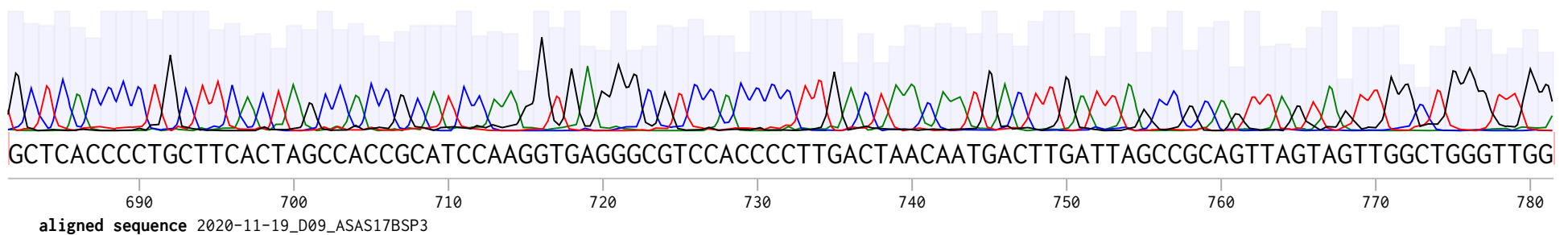


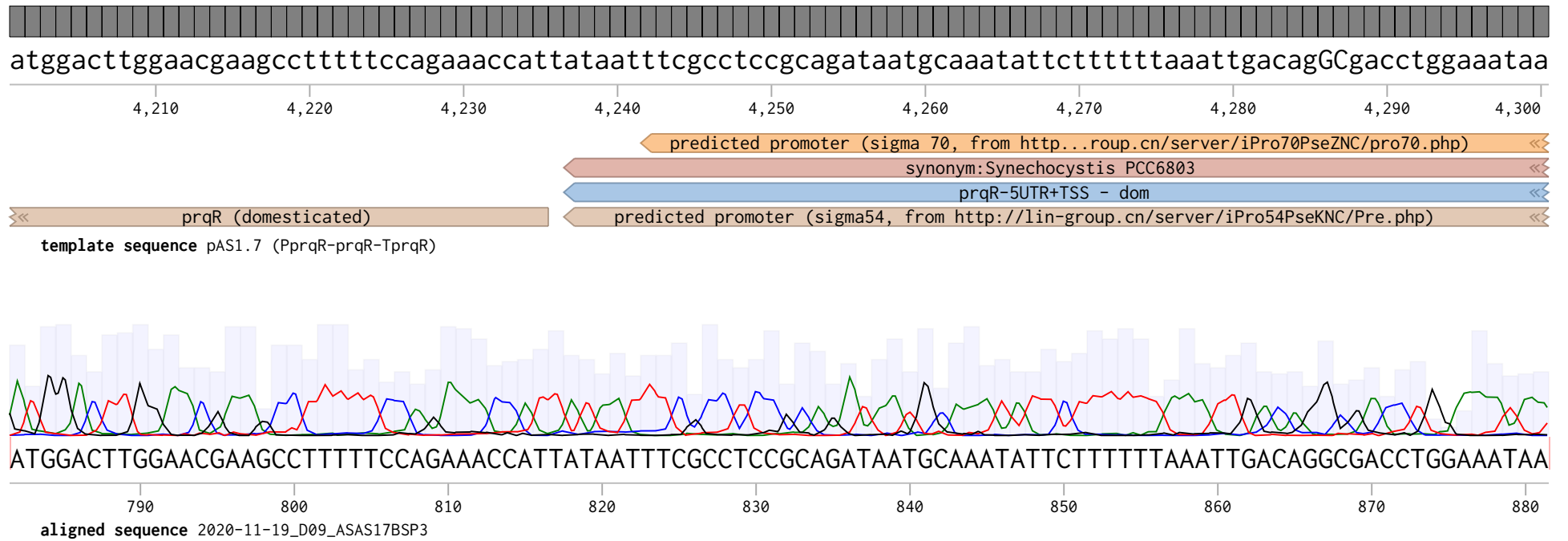
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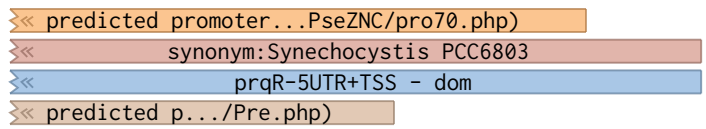
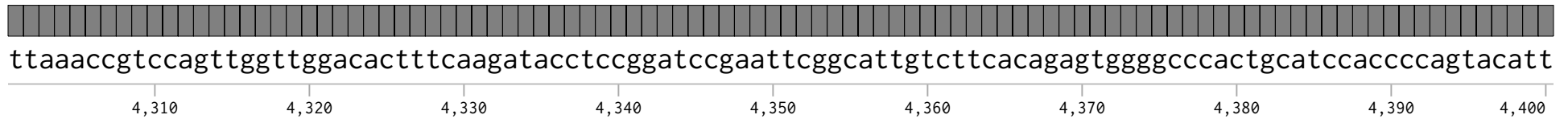
4,110 4,120 4,130 4,140 4,150 4,160 4,170 4,180 4,190 4,200

prqR (domesticated)

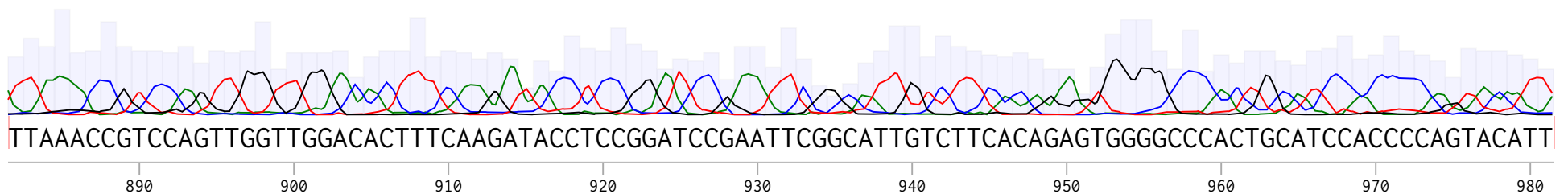
template sequence pAS1.7 (PprqR-prqR-TprqR)



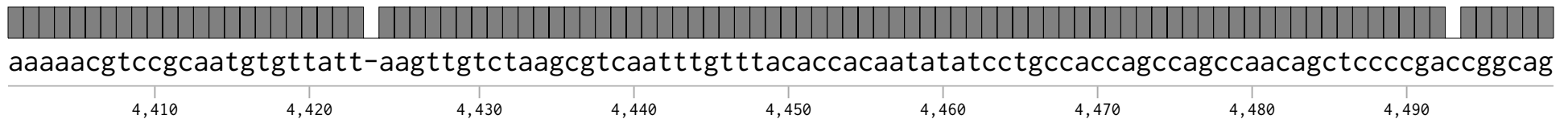




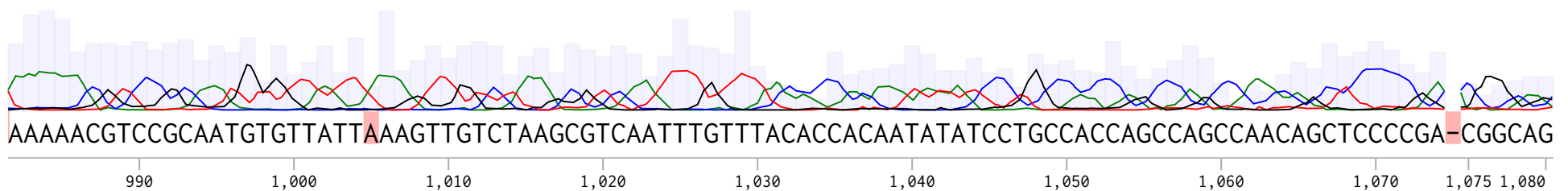
template sequence pAS1.7 (PprqR-prqR-TprqR)



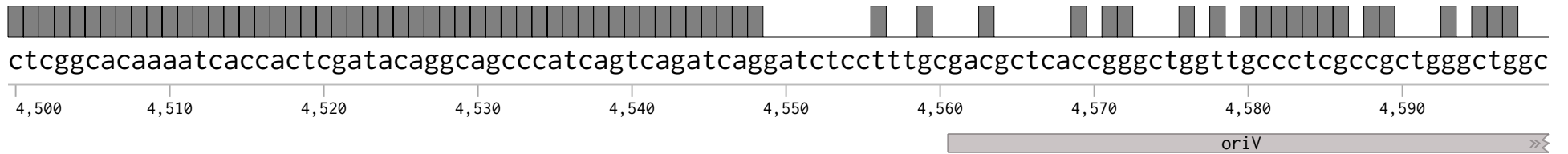
aligned sequence 2020-11-19_D09_ASAS17BSP3



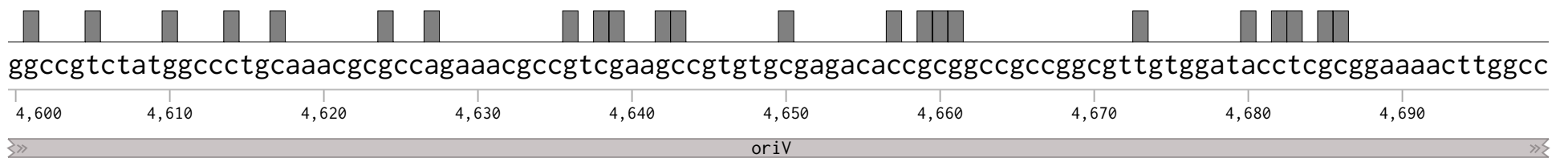
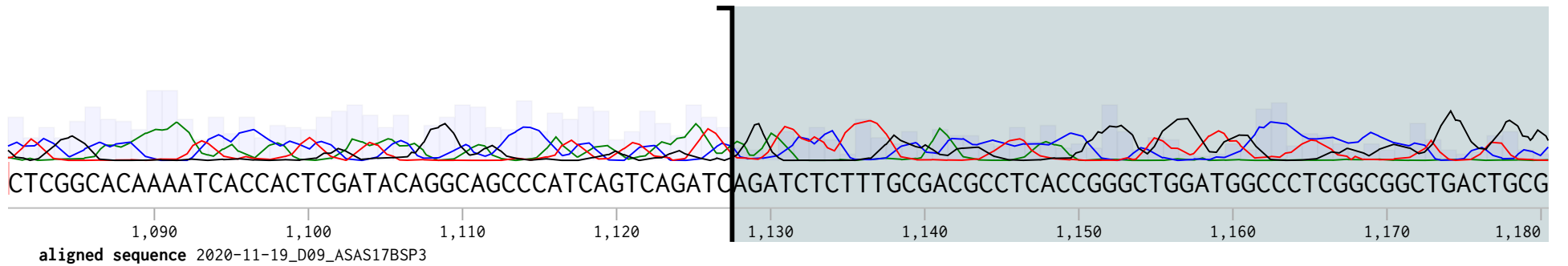
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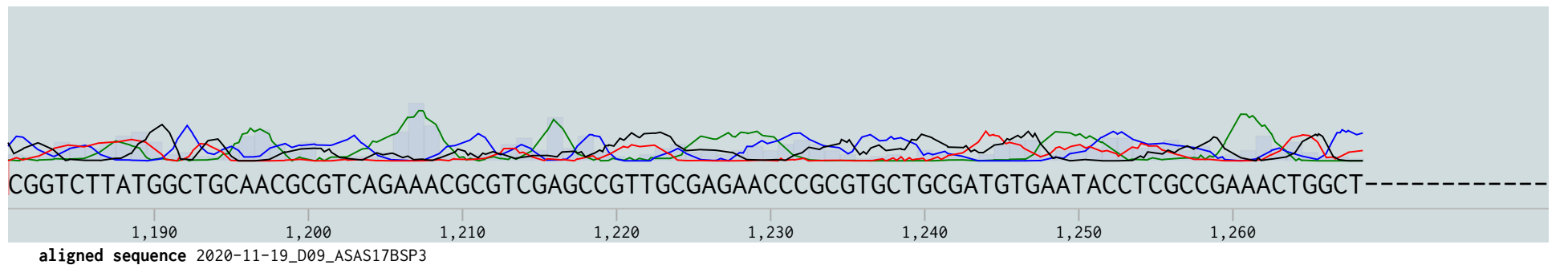
aligned sequence 2020-11-19_D09_ASAS17BSP3



template sequence pAS1.7 (PprqR-prqR-TprqR)



template sequence pAS1.7 (PprqR-prqR-TprqR)

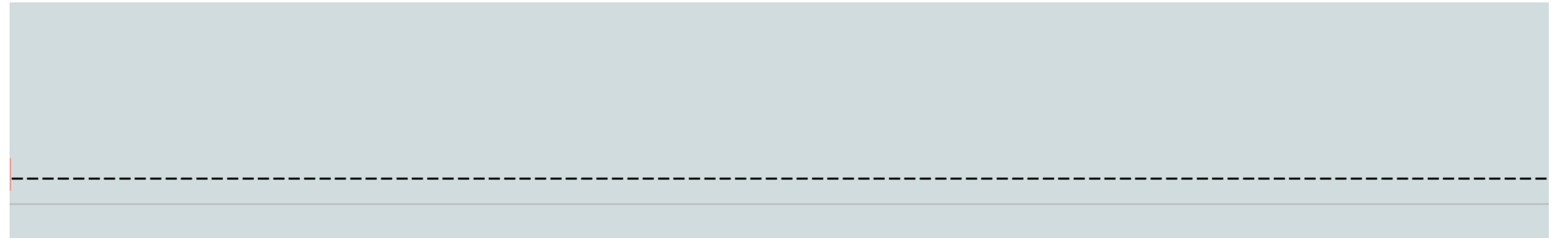


ctcactgacagatgaggggcgacgttgacacttgaggggccgactcaccgcgcgcggttgacagatgaggggcaggctcgatttcggccggcgacgt

4,700 4,710 4,720 4,730 4,740 4,750 4,760 4,770 4,780 4,790

>> oriV >>

template sequence pAS1.7 (PprqR-prqR-TprqR)

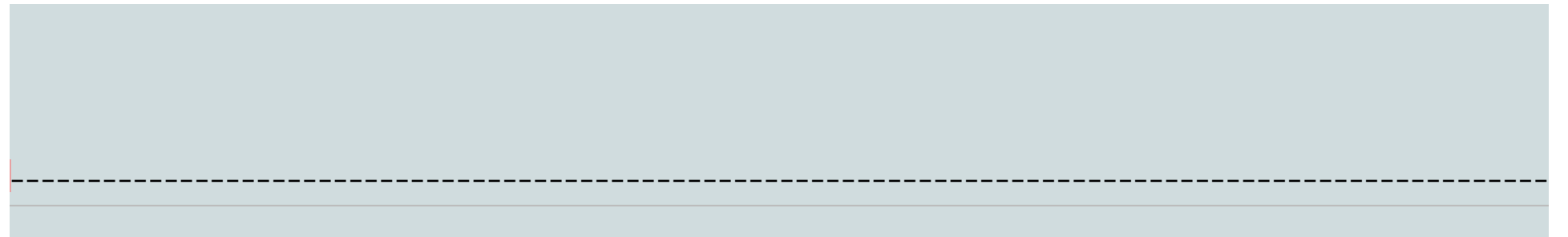


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4,800 4,810 4,820 4,830 4,840 4,850 4,860 4,870 4,880 4,890

>> oriV >>

template sequence pAS1.7 (PprqR-prqR-TprqR)

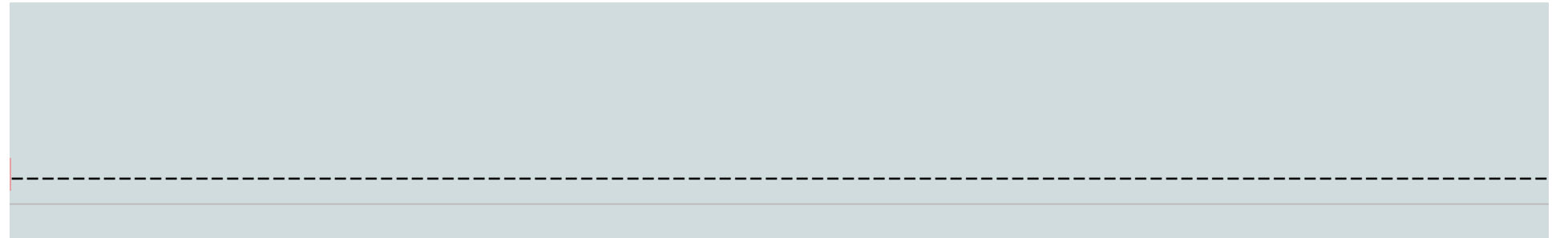


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4,900 4,910 4,920 4,930 4,940 4,950 4,960 4,970 4,980 4,990

>> oriV >>

template sequence pAS1.7 (PprqR-prqR-TprqR)



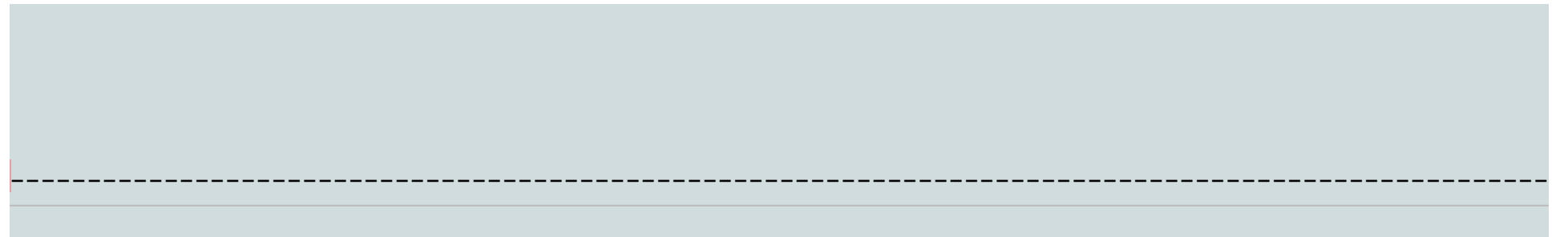
aligned sequence 2020-11-19_D09_ASAS17BSP3

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5,000 5,010 5,020 5,030 5,040 5,050 5,060 5,070 5,080 5,090

>> oriV >>

template sequence pAS1.7 (PprqR-prqR-TprqR)



aligned sequence 2020-11-19_D09_ASAS17BSP3

