

Template Alignment: 2020-12-10_B10_AST42ASPTF

gaattaattccccggatcgatccgtcgatcttgatcccctgcgccatcagatccttggcggcaagaaagccatccagtttactttgcagggcttcccaac

10 20 30 40 50 60 70 80 90 100
template sequence pAST.42 (J23119-eYFP-TclpPX)

aligned sequence 2020-12-10_B10_AST42ASPTF

cttaccagagggcgccccagctggcaattccggttcgcttgctgtccataaaaccgcccagctctagctatcgccatgtaagcccactgcaagctacctgc

110 120 130 140 150 160 170 180 190 200
template sequence pAST.42 (J23119-eYFP-TclpPX)

aligned sequence 2020-12-10_B10_AST42ASPTF

tttctctttgcgcttgcgttttcccttgtccagatagcccagtagctgacattcatccggggtcagcaccggtttctgcggactggctttctacgtggctg

210

220

230

240

250

260

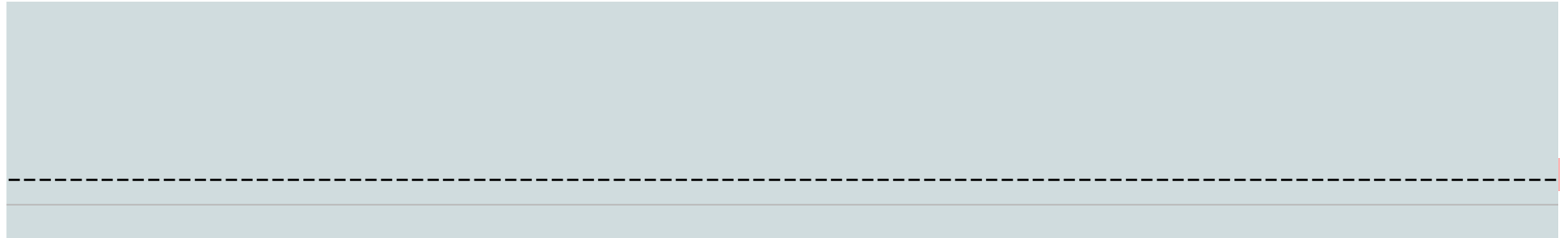
270

280

290

300

template sequence pAST.42 (J23119-eYFP-TclpPX)



aligned sequence 2020-12-10_B10_AST42ASPTF

ccatTTTTGGGGTgaggccgttcgcggccgaggggcgcagcccctgggggggatgggaggcccgcgtttagcgggccgggaggggttcgagaagggggggcac

310

320

330

340

350

360

370

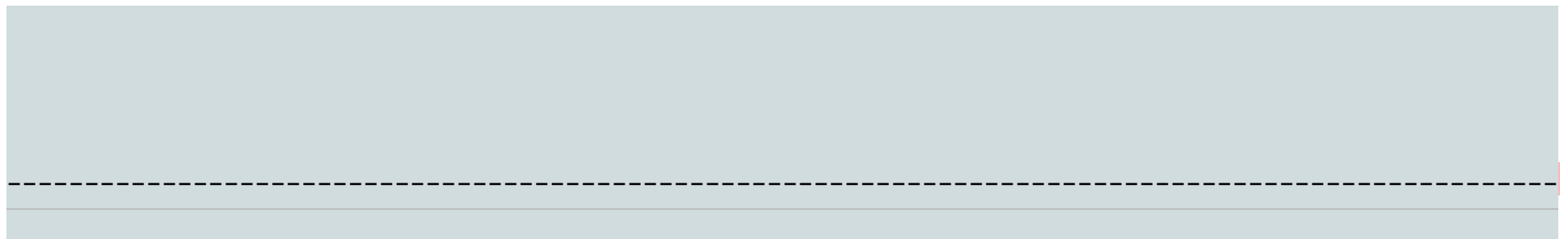
380

390

400

template sequence pAST.42 (J23119-eYFP-TclpPX)

oriV »»



aligned sequence 2020-12-10_B10_AST42ASPTF

cccccttcggcgtgcgcggtcacgcgcacagggcgcagccctgggttaaaaacaaggtttataaatattggtttaaagcaggttaaaagacaggttagcg

410

420

430

440

450

460

470

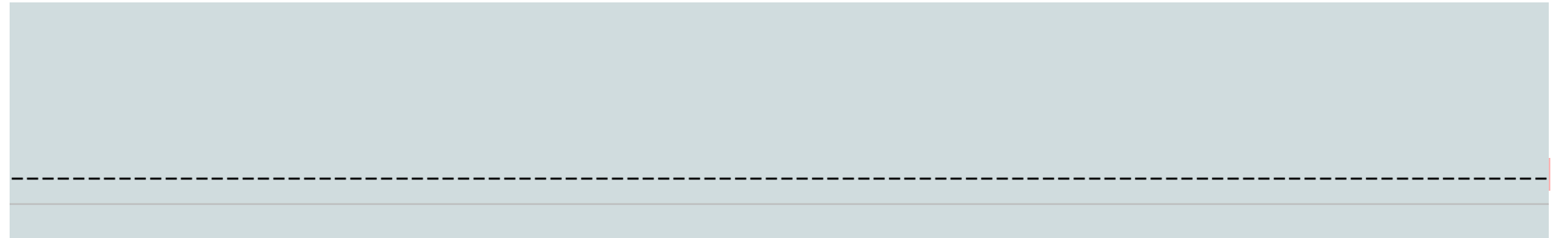
480

490

500

oriV

template sequence pAST.42 (J23119-eYFP-TclpPX)



aligned sequence 2020-12-10_B10_AST42ASPTF

gtggccgaaaaacgggcggaaacccttgcaaatgctggattttctgcctgtggacagcccctcaaagtcaataggtgcgcccctcatctgtcagcactc

510

520

530

540

550

560

570

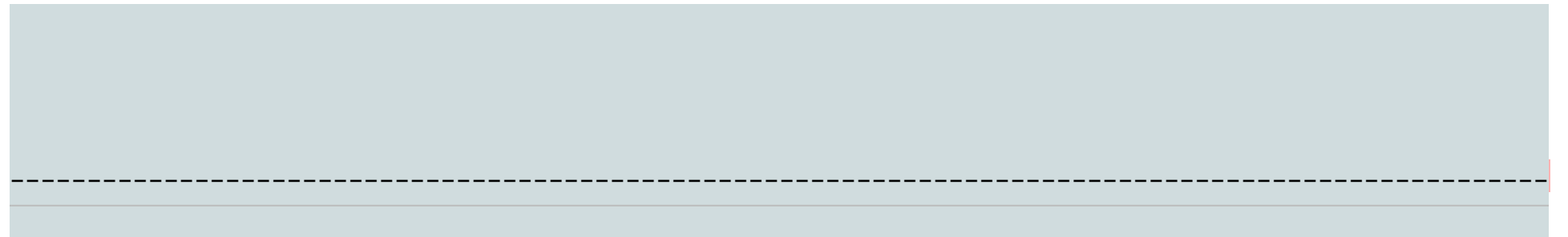
580

590

600

oriV

template sequence pAST.42 (J23119-eYFP-TclpPX)



aligned sequence 2020-12-10_B10_AST42ASPTF

tgcccctcaagtgtcaaggatcgcgcccctcatctgtcagtagtcgcgcccctcaagtgtcaataccgcagggcacttatcccaggcttgtccacatca

610

620

630

640

650

660

670

680

690

700

oriV

template sequence pAST.42 (J23119-eYFP-TclpPX)

aligned sequence 2020-12-10_B10_AST42ASPTF

tctgtgggaaactcgcgtaaaatcaggcgttttcgccgatttgcgaggctggccagctccacgtcgccggccgaaatcgagcctgcccctcatctgtcaa

710

720

730

740

750

760

770

780

790

800

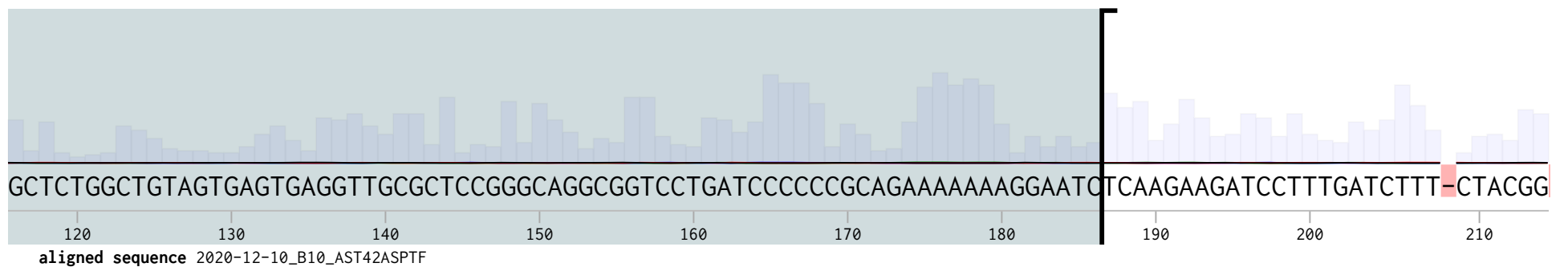
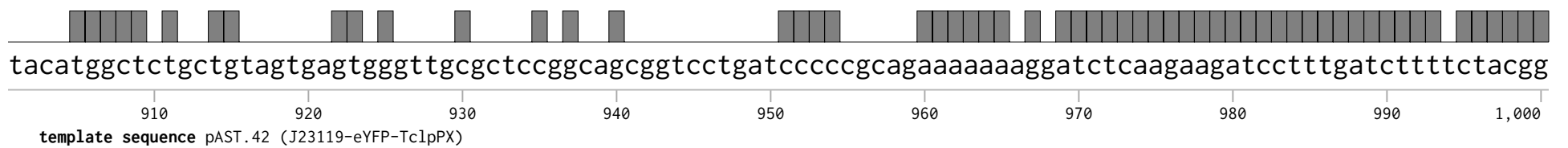
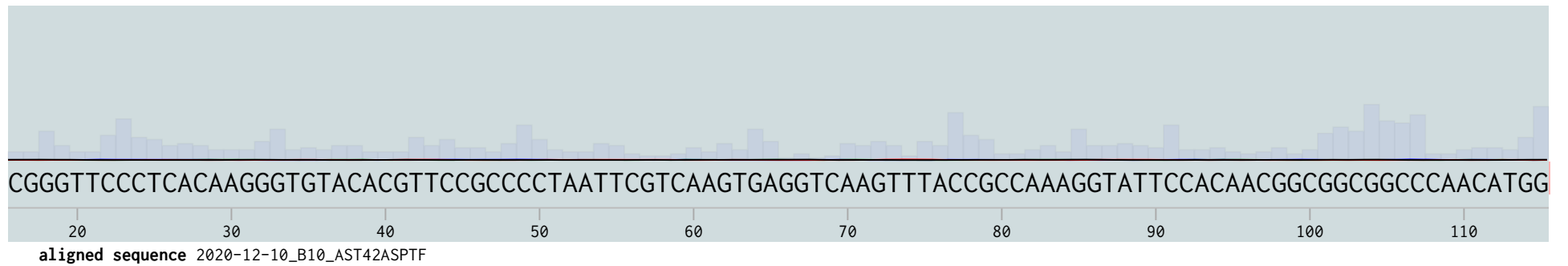
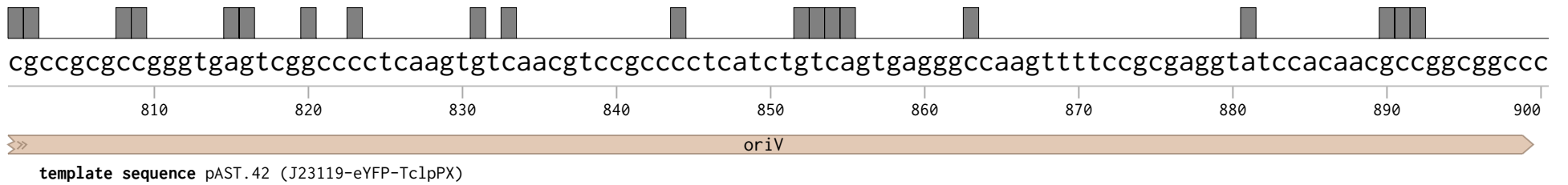
oriV

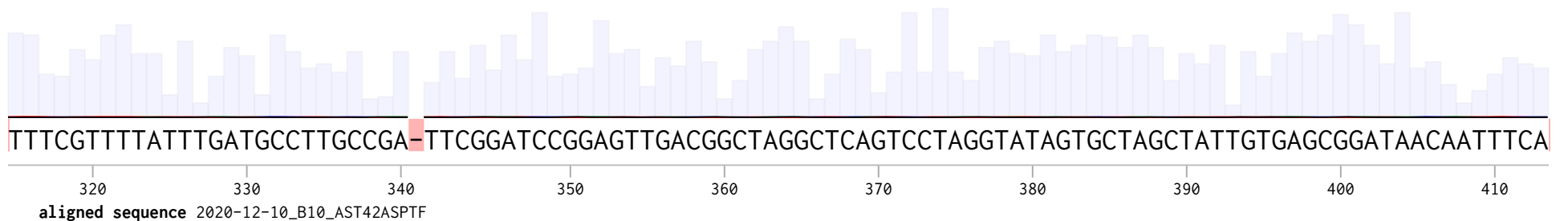
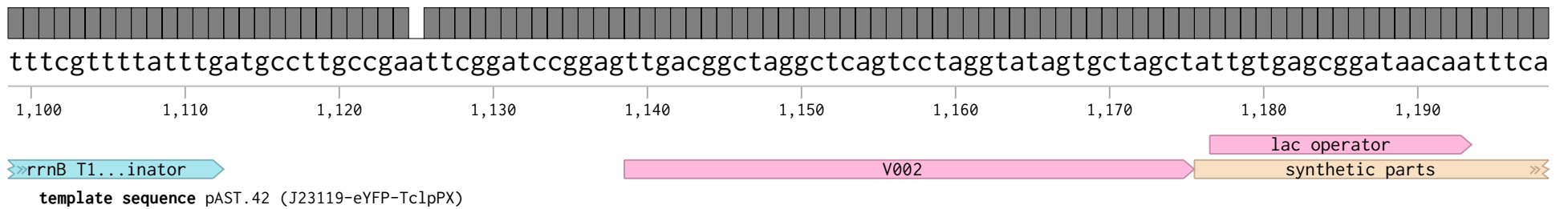
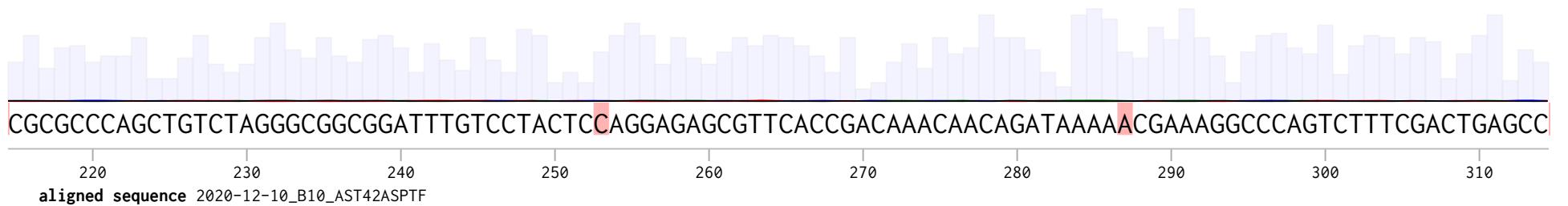
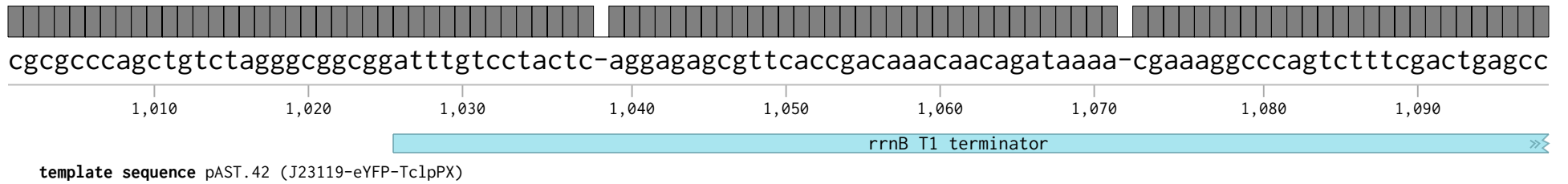
template sequence pAST.42 (J23119-eYFP-TclpPX)

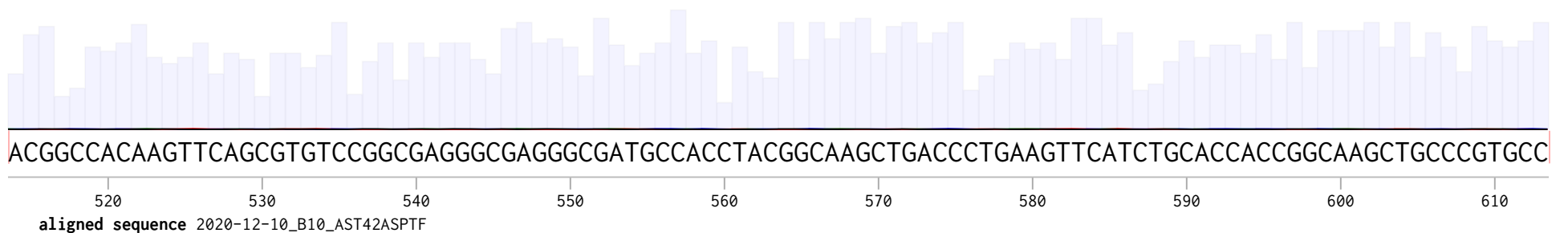
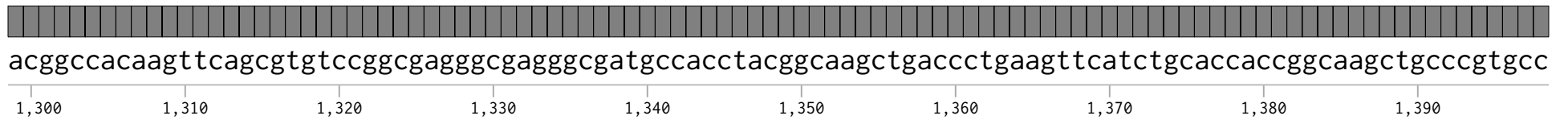
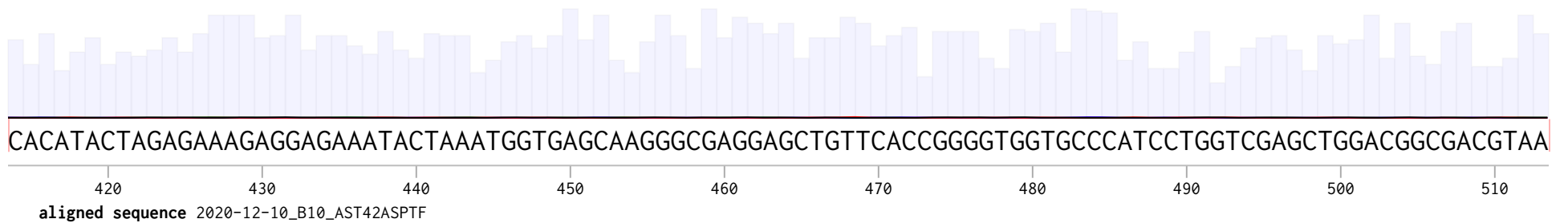
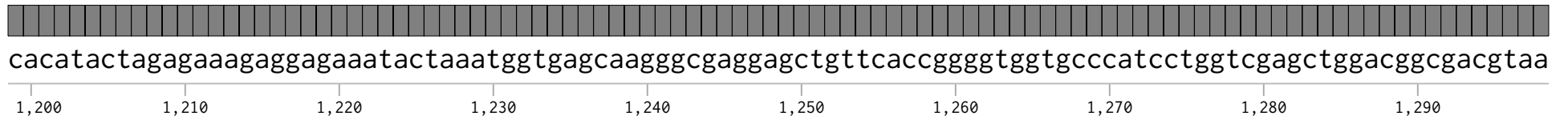
aligned sequence 2020-12-10_B10_AST42ASPTF

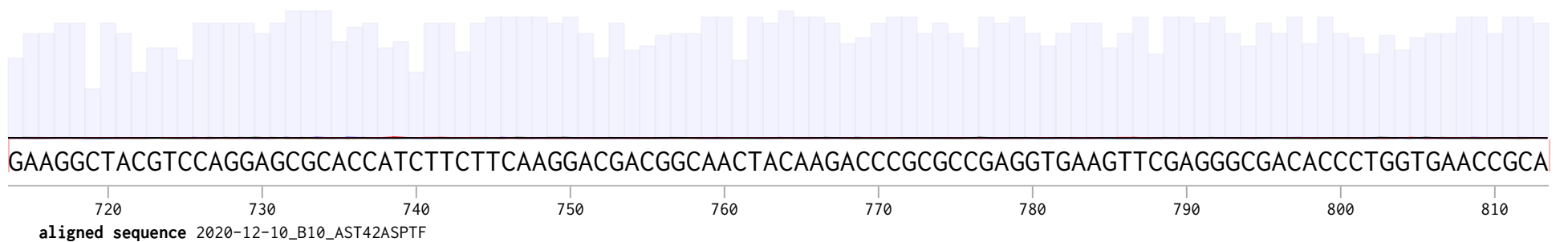
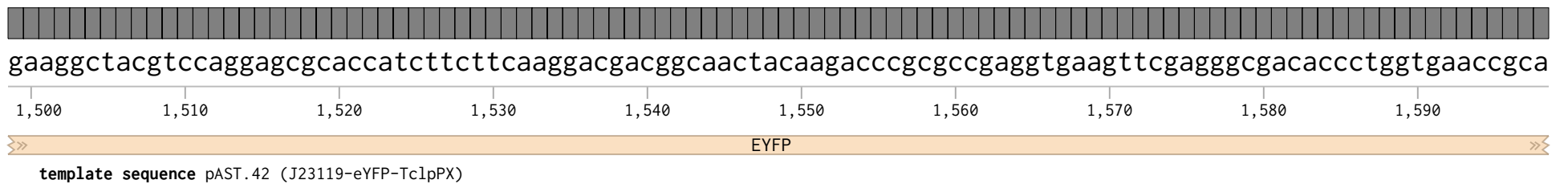
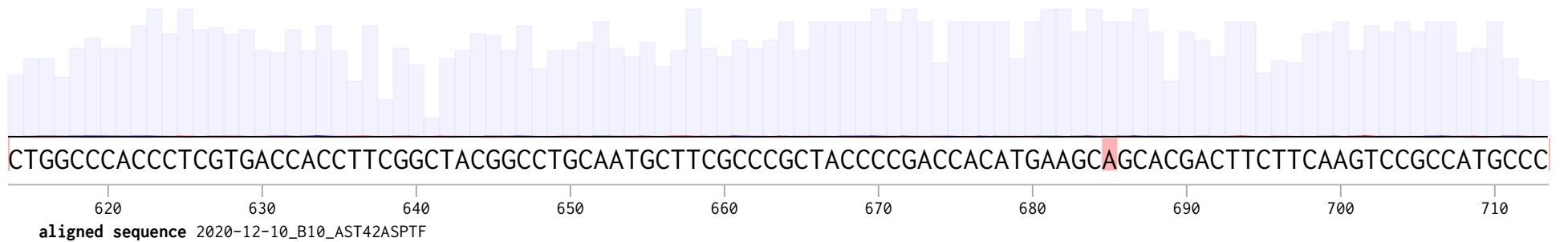
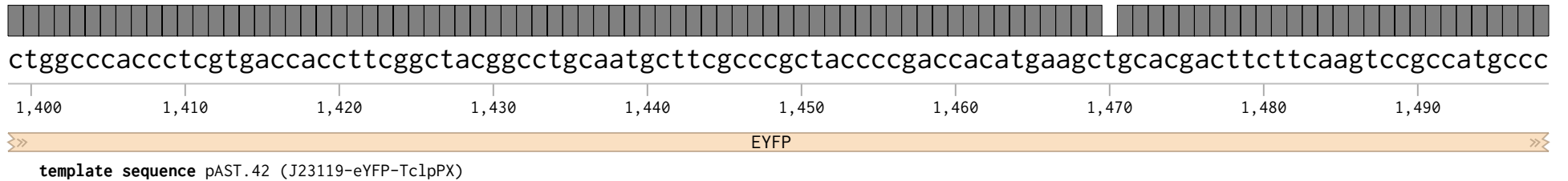
CGAGTAGAATTTGTG

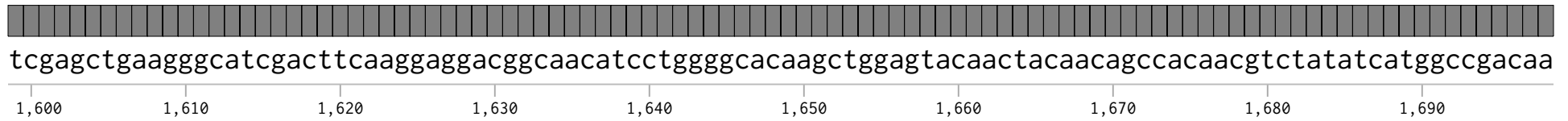
10





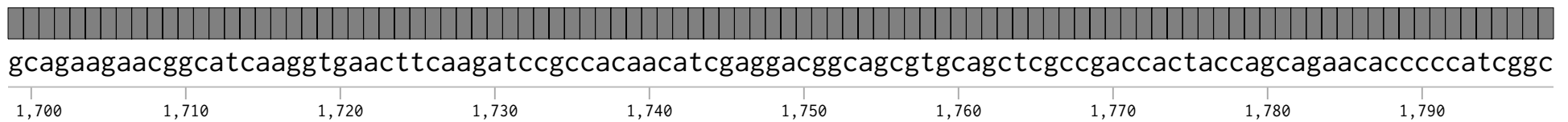
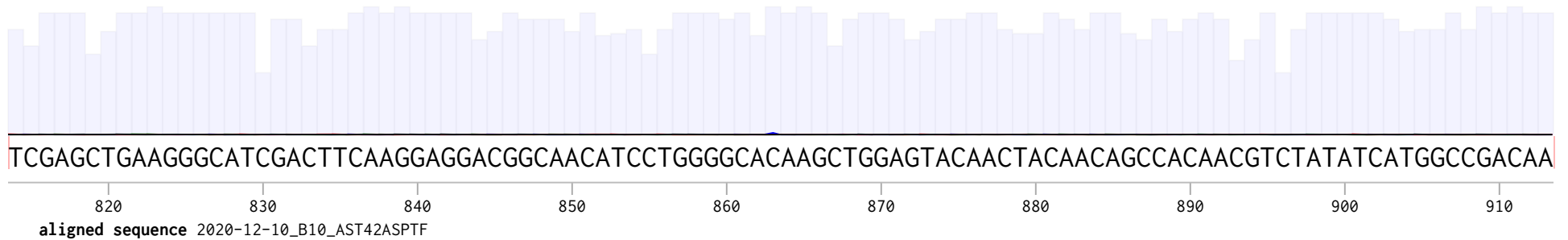






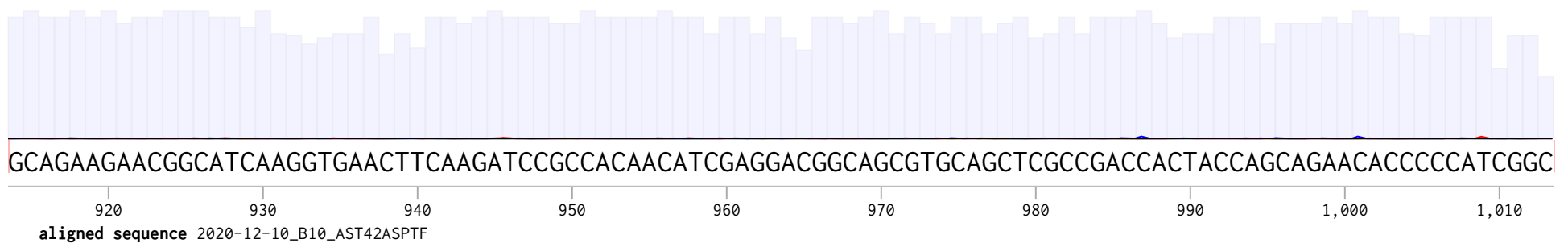
EYFP

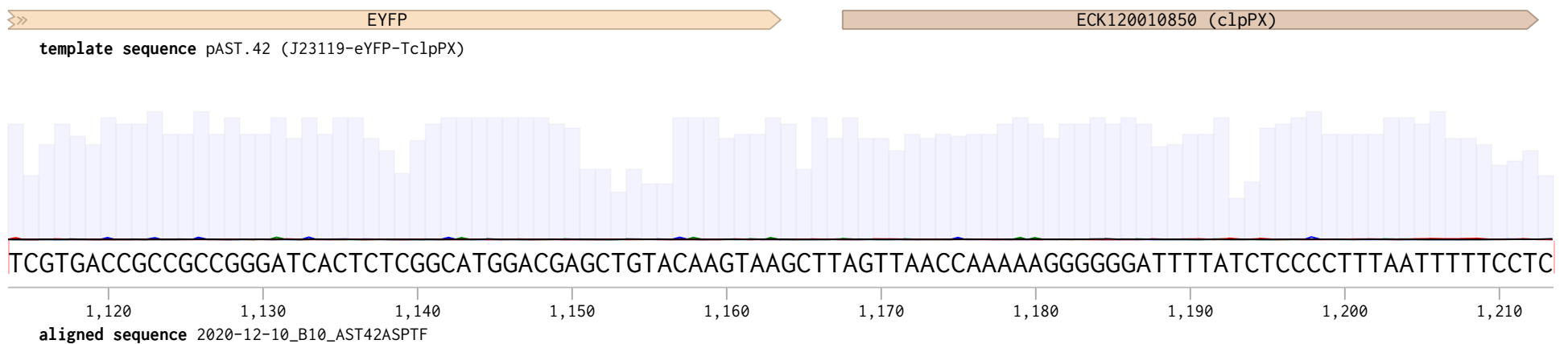
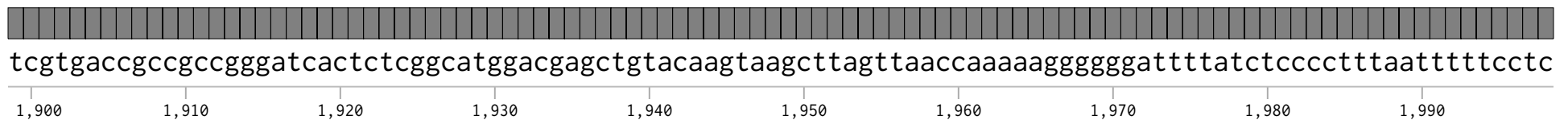
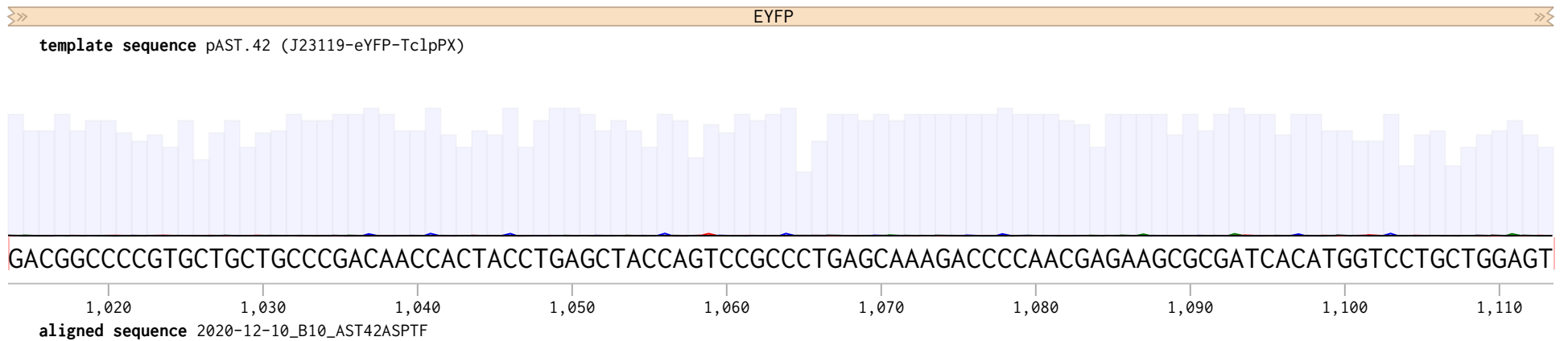
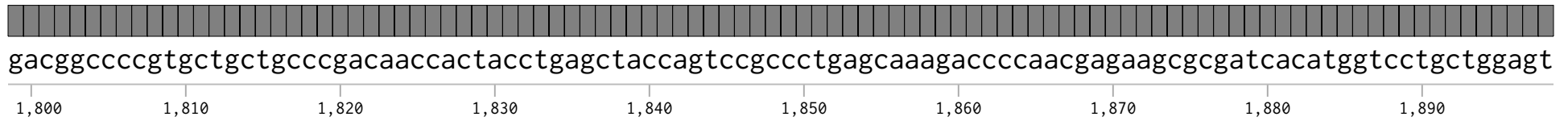
template sequence pAST.42 (J23119-eYFP-TclpPX)

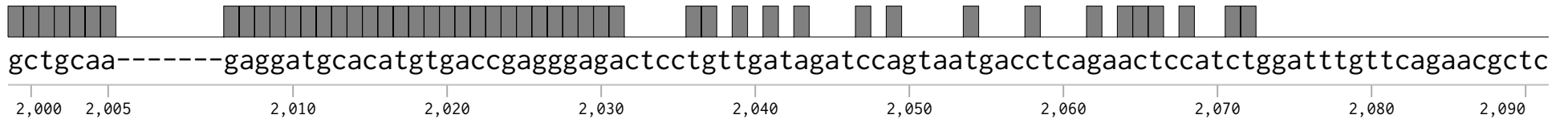


EYFP

template sequence pAST.42 (J23119-eYFP-TclpPX)

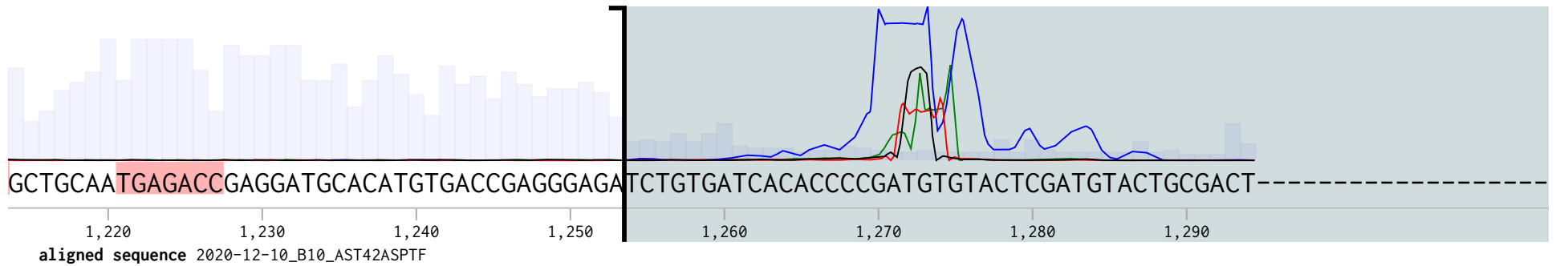






lambda t0 terminator >>

template sequence pAST.42 (J23119-eYFP-TclpPX)



ggttgccgccgggcggttttttattggtgagaatccaggggtccccaataattacgatttacgtatttaaataaaccttgaccgaacgcagcggtggtaac

2,100 2,110 2,120 2,130 2,140 2,150 2,160 2,170 2,180 2,190

>> lambda t0 terminator

template sequence pAST.42 (J23119-eYFP-TclpPX)



ggcgcagtggcggttttcatggcttggtatgactgttttttggggtacagtctatgcctcgggcatccaagcagcaagcgcgttacgccgtgggtcgat

2,200 2,210 2,220 2,230 2,240 2,250 2,260 2,270 2,280 2,290
template sequence pAST.42 (J23119-eYFP-TclpPX)



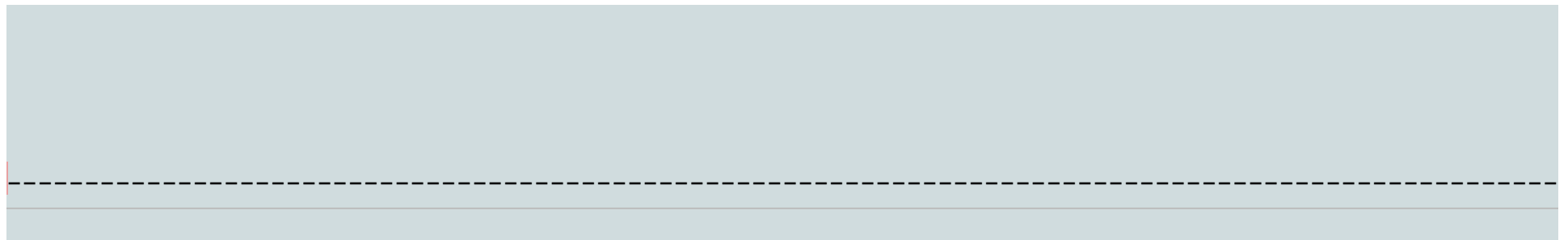
aligned sequence 2020-12-10_B10_AST42ASPTF

gtttgatgttatggagcagcaacgatgttacgcagcagggcagtcgccctaaaacaaagttaaacatcatgaggaagcggatgccgaagtatcgac

2,300 2,310 2,320 2,330 2,340 2,350 2,360 2,370 2,380 2,390

template sequence pAST.42 (J23119-eYFP-TclpPX)

SmR »»



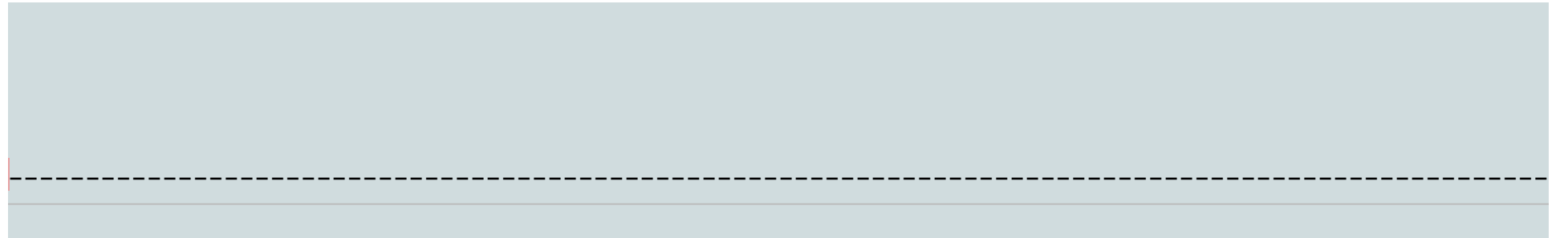
aligned sequence 2020-12-10_B10_AST42ASPTF

tcaactatcagaggtagttggcgtcatcgagcgccatctcgaaccgacgttgctggccgtacatttgtagcggtccgcagtggatggcggcctgaagcca

2,400 2,410 2,420 2,430 2,440 2,450 2,460 2,470 2,480 2,490

SmR

template sequence pAST.42 (J23119-eYFP-TclpPX)



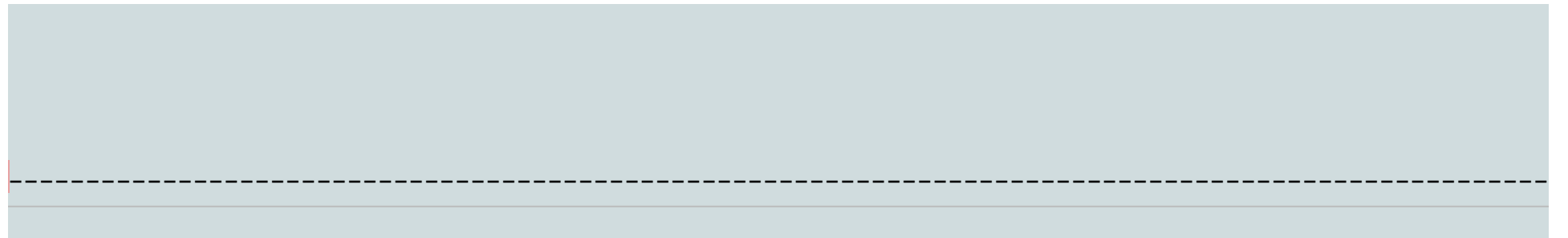
aligned sequence 2020-12-10_B10_AST42ASPTF

cacagtgatattgatttgctgggtacgggtgaccgtaaggcttgatgaaacaacgcggcgagctttgatcaacgaccttttggaacttcggcttcccctg

2,500 2,510 2,520 2,530 2,540 2,550 2,560 2,570 2,580 2,590

SmR

template sequence pAST.42 (J23119-eYFP-TclpPX)



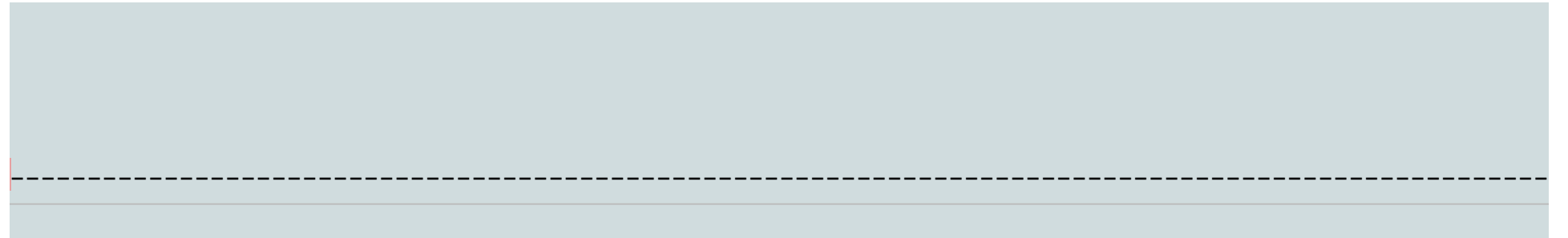
aligned sequence 2020-12-10_B10_AST42ASPTF

gagagagcgagattctccgcgctgtagaagtcaccattgttgtgcacgacgacatcattccgtggcgttatccagctaagcgcgaaactgcaatttggaga

2,600 2,610 2,620 2,630 2,640 2,650 2,660 2,670 2,680 2,690

SmR

template sequence pAST.42 (J23119-eYFP-TclpPX)



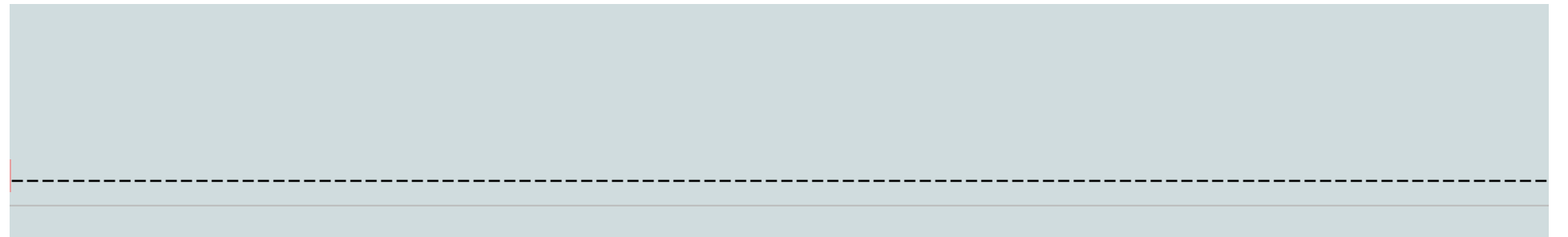
aligned sequence 2020-12-10_B10_AST42ASPTF

atggcagcgcaatgacattcttgcaggtatcttcgagccagccacgatcgacattgatctggctatcttgctgacaaaagcaagagaacatagcgttgcc

2,700 2,710 2,720 2,730 2,740 2,750 2,760 2,770 2,780 2,790

SmR

template sequence pAST.42 (J23119-eYFP-TclpPX)



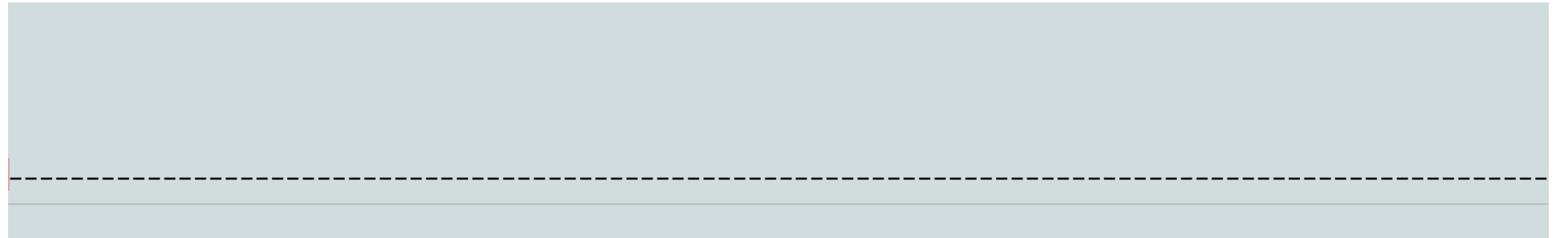
aligned sequence 2020-12-10_B10_AST42ASPTF

ttggtaggtccagcggcggaggaactctttgatccggttcctgaacaggatctatttgaggcgctaaatgaaaccttaacgctatggaactcgccgcccg

2,800 2,810 2,820 2,830 2,840 2,850 2,860 2,870 2,880 2,890

SmR

template sequence pAST.42 (J23119-eYFP-TclpPX)



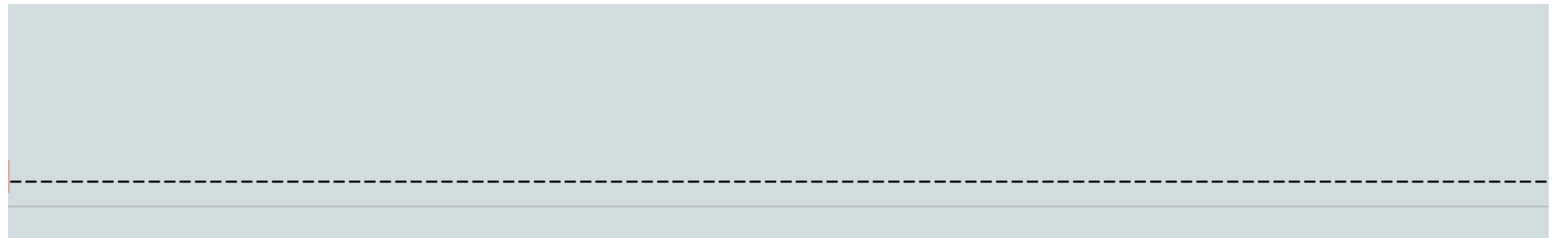
aligned sequence 2020-12-10_B10_AST42ASPTF

actgggctggcgatgagcgaaatgtagtgcttacgttgtcccgcatTTGGTACAGCGCAGTAACCGGCAAAATCGCGCCGAAGGATGTCGCTGCCGACTG

2,900 2,910 2,920 2,930 2,940 2,950 2,960 2,970 2,980 2,990

SmR

template sequence pAST.42 (J23119-eYFP-TclpPX)



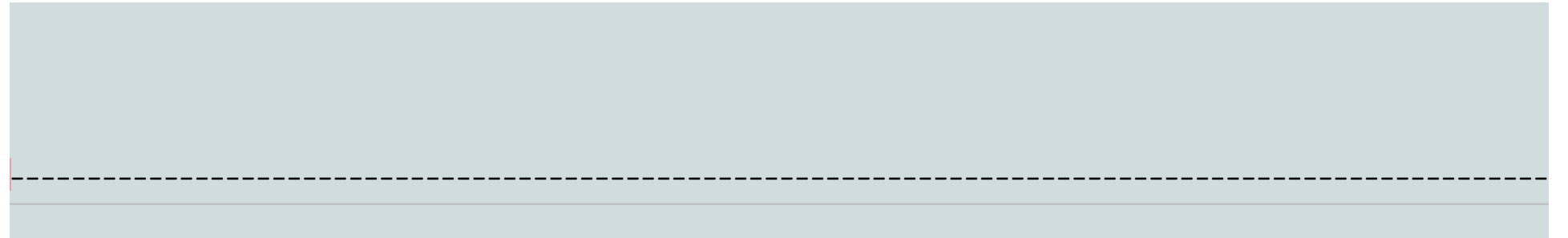
aligned sequence 2020-12-10_B10_AST42ASPTF

ggcaatggagcgcctgccggcccagtatcagcccgtcatacttgaagctagacaggcttatcttggacaagaagaagatcgcttggcctcgcgcgcagat

3,000 3,010 3,020 3,030 3,040 3,050 3,060 3,070 3,080 3,090

SmR

template sequence pAST.42 (J23119-eYFP-TclpPX)



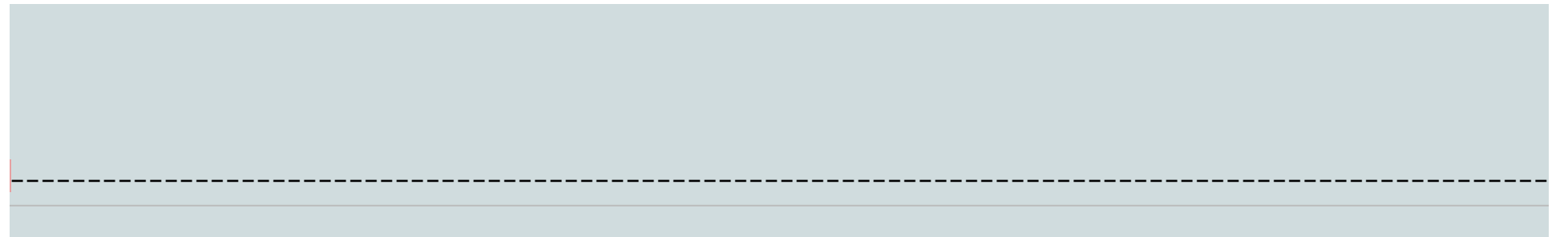
aligned sequence 2020-12-10_B10_AST42ASPTF

cagttggaagaatttgtccactacgtgaaaggcgagatcaccaaggtagtcggcaaataagacaattgtccttttccgctgcataaccctgcttcgggggt

3,100 3,110 3,120 3,130 3,140 3,150 3,160 3,170 3,180 3,190

SmR

template sequence pAST.42 (J23119-eYFP-TclpPX)



aligned sequence 2020-12-10_B10_AST42ASPTF

cattatagcgatTTTTTCGGTATATCCATCCTTTTCGCACGATATACAGGATTTGCCAAAGGGTTCGTGTAGACTTTCCTTGGTGTATCCAACGGCGT

3,200 3,210 3,220 3,230 3,240 3,250 3,260 3,270 3,280 3,290
template sequence pAST.42 (J23119-eYFP-TclpPX)

aligned sequence 2020-12-10_B10_AST42ASPTF

cagccgggcaggataggtgaagtaggccacccgcgagcgggtgttccttcttcactgtcccttattcgcacctggcggtgctcaacgggaatcctgctc

3,300 3,310 3,320 3,330 3,340 3,350 3,360 3,370 3,380 3,390
template sequence pAST.42 (J23119-eYFP-TclpPX)

incP origin of transfer

aligned sequence 2020-12-10_B10_AST42ASPTF

tgcgaggctggccgtaggccggccgcgatgcaggctggctgctgaacccccagccggaactgaccccacaaggccctagcgtttgcaatgcaccagggtcat

3,400

3,410

3,420

3,430

3,440

3,450

3,460

3,470

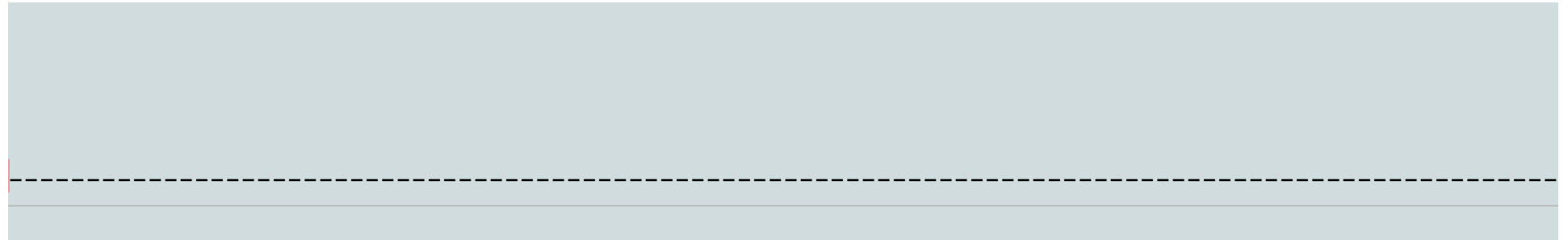
3,480

3,490

»incP or...ansfer

trfA

template sequence pAST.42 (J23119-eYFP-TclpPX)



aligned sequence 2020-12-10_B10_AST42ASPTF

cattgaccaggcgtgttccaccaggccgctgcctcgcaactcttcgcaggcttcgccgacctgctcgcgccacttcttcacgcgggtggaatccgatcc

3,500

3,510

3,520

3,530

3,540

3,550

3,560

3,570

3,580

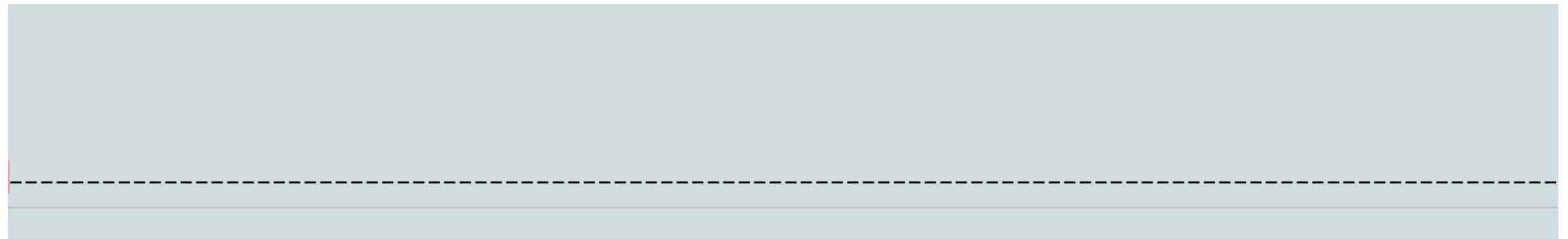
3,590

»

trfA

»

template sequence pAST.42 (J23119-eYFP-TclpPX)



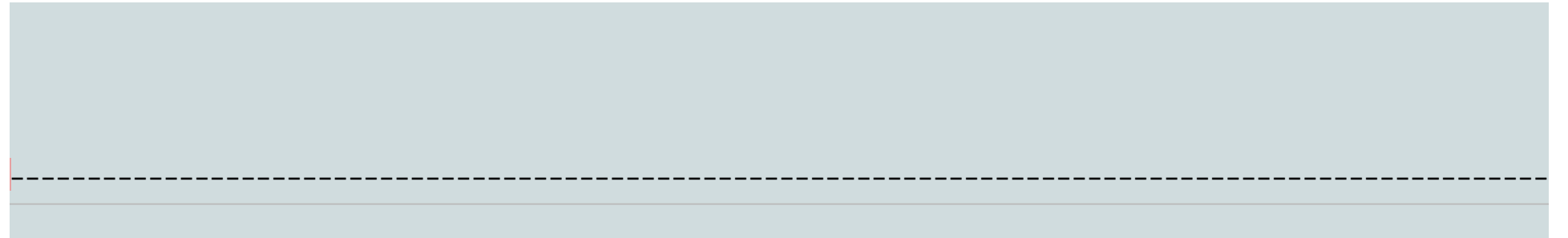
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gcacatgaggcgggaagggtttccagcttgagcgggtacggctcccgggtgcgagctgaaatagtcgaacatccgtcgggccgtcggcgacagcttgcggtac

3,600 3,610 3,620 3,630 3,640 3,650 3,660 3,670 3,680 3,690

trfA

template sequence pAST.42 (J23119-eYFP-TclpPX)



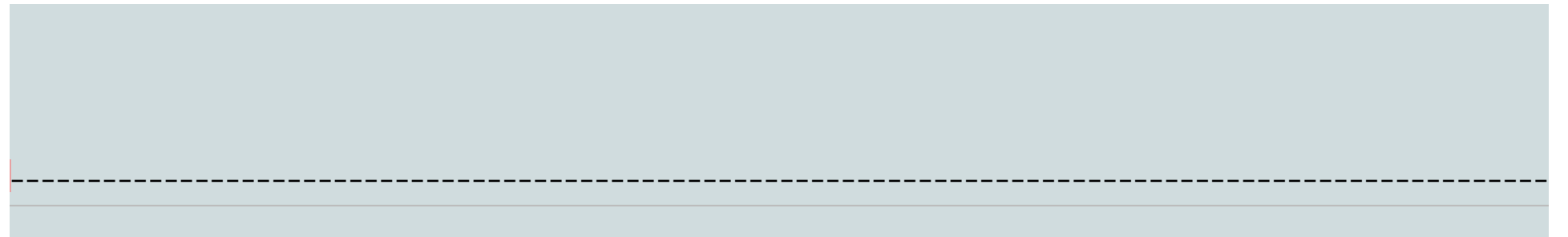
aligned sequence 2020-12-10_B10_AST42ASPTF

ttctcccatatgaatttcgtgtagtggtcgccagcaaacagcacgacgatttcctcgatcaggacctggcaacgggacgttttcttgccacgggtcca

3,700 3,710 3,720 3,730 3,740 3,750 3,760 3,770 3,780 3,790

trfA

template sequence pAST.42 (J23119-eYFP-TclpPX)



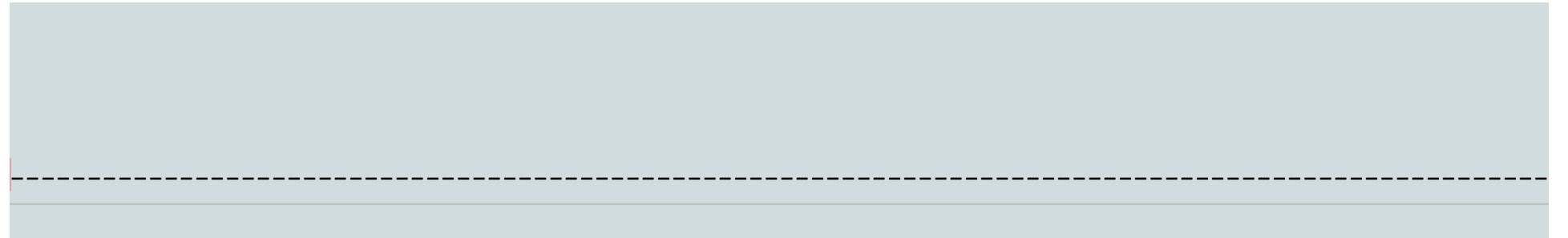
aligned sequence 2020-12-10_B10_AST42ASPTF

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3,800 3,810 3,820 3,830 3,840 3,850 3,860 3,870 3,880 3,890

trfA

template sequence pAST.42 (J23119-eYFP-TclpPX)



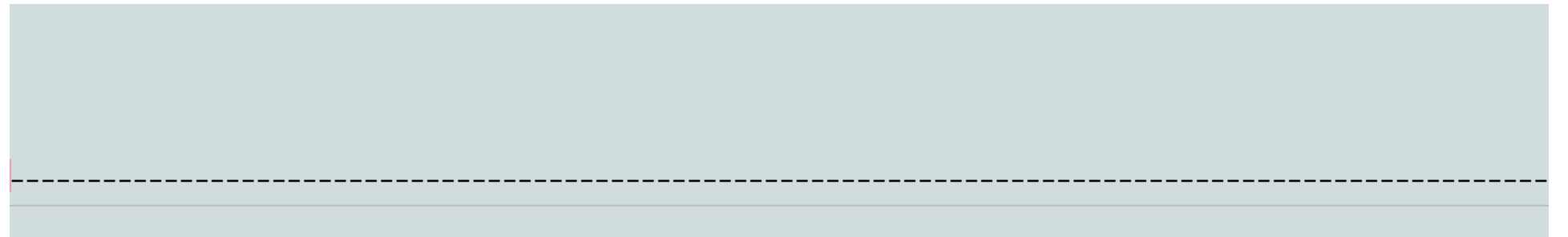
aligned sequence 2020-12-10_B10_AST42ASPTF

ggccttcgtgtaataccggccattgatcgaccagcccaggtcctggcaaagctcgtagaacgtgaaggatcggtcgccgataggggtgcgcttcgcg

3,900 3,910 3,920 3,930 3,940 3,950 3,960 3,970 3,980 3,990

trfA

template sequence pAST.42 (J23119-eYFP-TclpPX)



aligned sequence 2020-12-10_B10_AST42ASPTF

tactccaacacctgctgccacaccagttcgtcatcgtcggcccgagctcgacgccggtgtaggtgatcttcacgtccttggtgacgtggaaaatgacct

4,000

4,010

4,020

4,030

4,040

4,050

4,060

4,070

4,080

4,090

trfA

template sequence pAST.42 (J23119-eYFP-TclpPX)



tgttttgcagcgcctcgcgcgggattttcttggtgcgcggtggtgaacagggcagagcgggccgtgtcgtttggcatcgctcgcatcggtgtccggccacgg

4,100

4,110

4,120

4,130

4,140

4,150

4,160

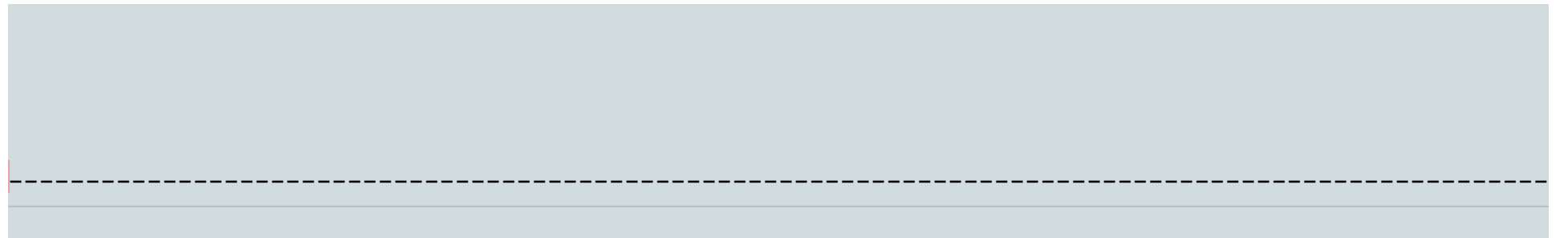
4,170

4,180

4,190

trfA

template sequence pAST.42 (J23119-eYFP-TclpPX)

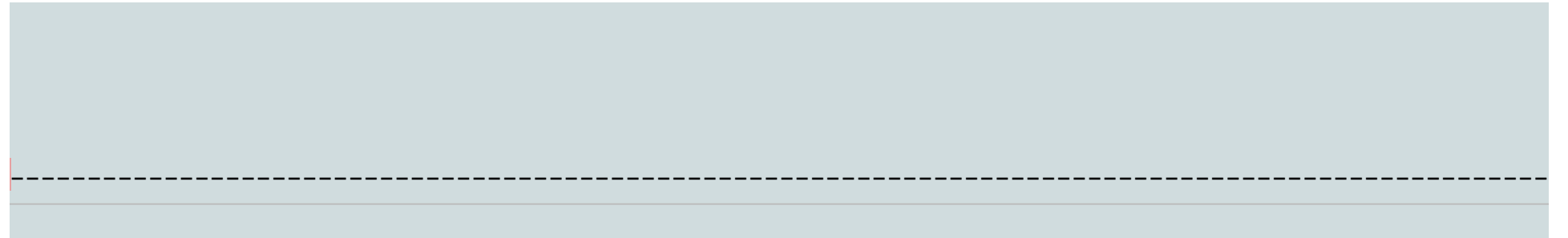


cgcaatatcgaacaaggaaagctgcatttccttgatctgctgcttcgtgtgtttcagcaacgcggcctgcttggcttcgctgacctgttttgccaggtcc

4,200 4,210 4,220 4,230 4,240 4,250 4,260 4,270 4,280 4,290

trfA

template sequence pAST.42 (J23119-eYFP-TclpPX)



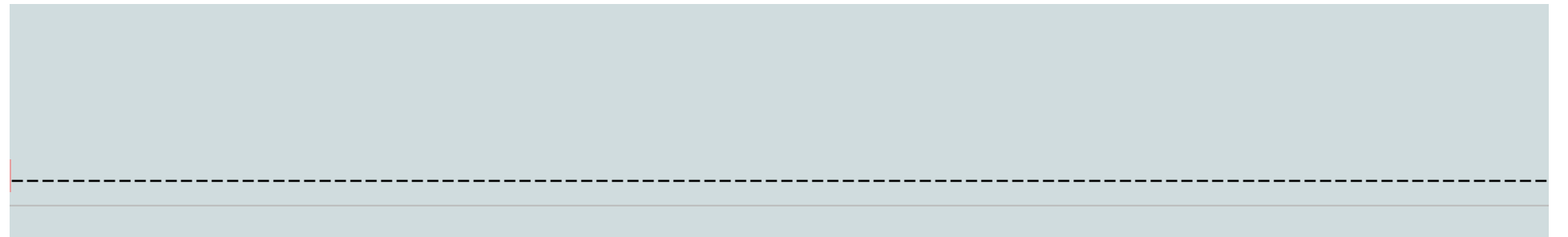
aligned sequence 2020-12-10_B10_AST42ASPTF

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4,300 4,310 4,320 4,330 4,340 4,350 4,360 4,370 4,380 4,390

trfA

template sequence pAST.42 (J23119-eYFP-TclpPX)



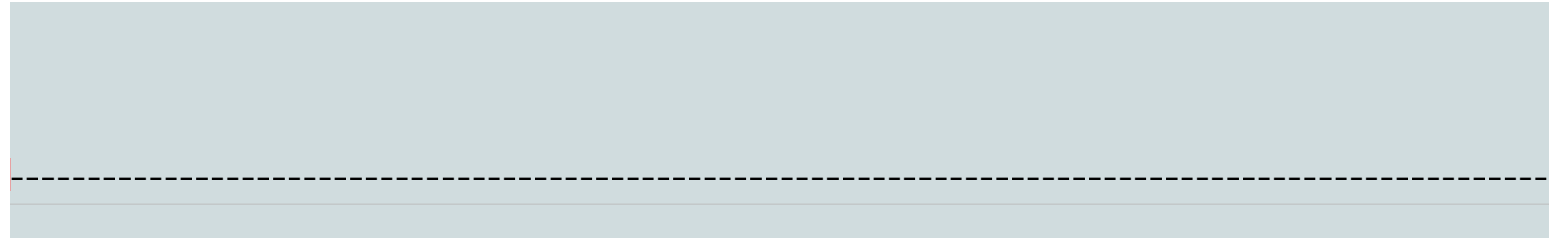
aligned sequence 2020-12-10_B10_AST42ASPTF

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4,400 4,410 4,420 4,430 4,440 4,450 4,460 4,470 4,480 4,490

trfA

template sequence pAST.42 (J23119-eYFP-TclpPX)



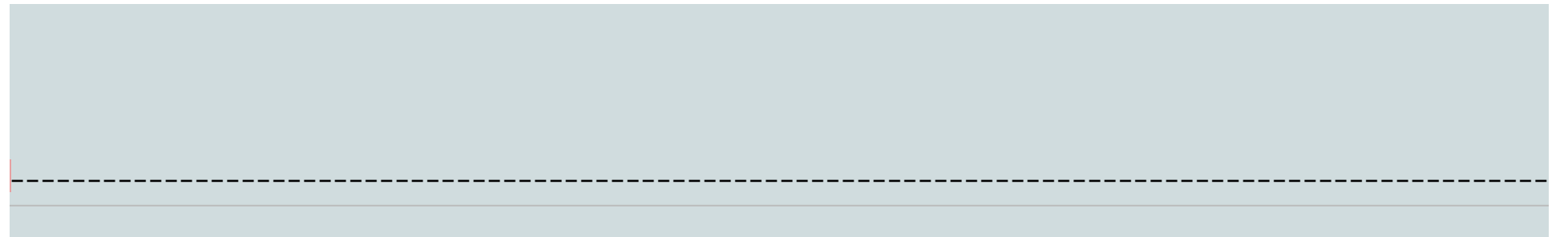
aligned sequence 2020-12-10_B10_AST42ASPTF

ctggaagggtttcgcggggcgcacgcatgacggtgcggcttgcgatgggttcggcatcctcggcggaaaaccccgcgatcagttcttgcctgtatgcc

4,500 4,510 4,520 4,530 4,540 4,550 4,560 4,570 4,580 4,590

trfA

template sequence pAST.42 (J23119-eYFP-TclpPX)



aligned sequence 2020-12-10_B10_AST42ASPTF

