

Sample: NA19828

Locus: HLA-A

Resolution: 4th field

Full typing result:

HLA-A*36:01:01:01

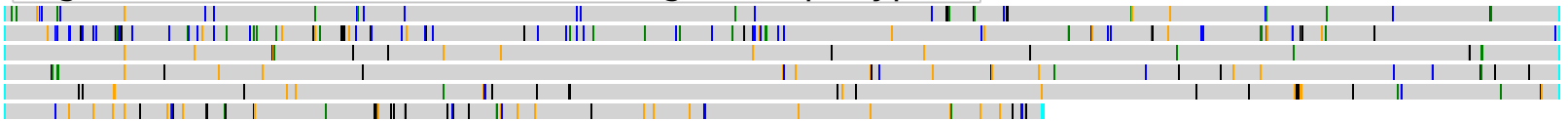
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 2)



0.0kb

1.0kb

2.0kb

3.0kb

HLA-A*36:01:01:01 (identity: 99.97%)



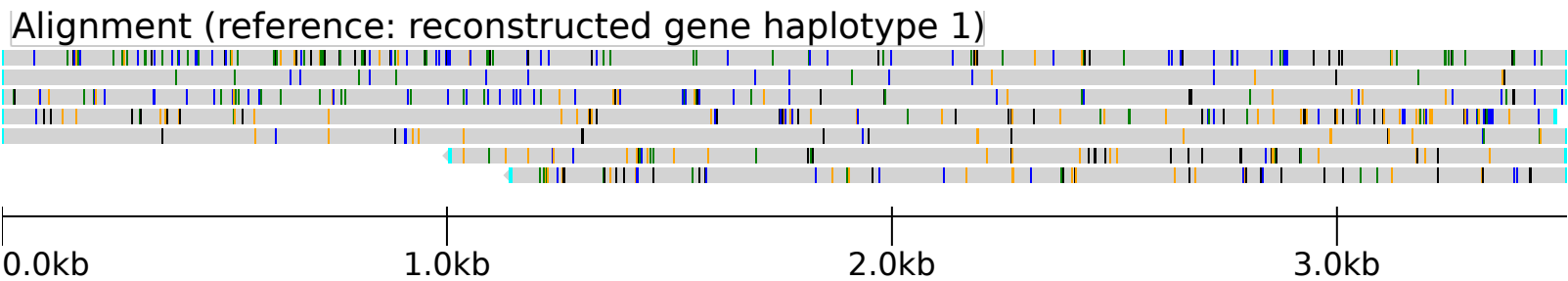
Sample: NA19828

Locus: HLA-A

Resolution: 4th field

Full typing result:

HLA-A*02:01:01:01	HLA-A*02:01:01:52	HLA-A*02:01:01:51
HLA-A*02:01:01:05	HLA-A*02:01:01:06	HLA-A*02:01:01:07
HLA-A*02:01:01:08	HLA-A*02:01:01:132	HLA-A*02:01:01:137
HLA-A*02:01:01:147	HLA-A*02:01:01:148	HLA-A*02:01:01:159
HLA-A*02:01:01:198	HLA-A*02:01:01:206	HLA-A*02:01:01:209



HLA-A*02:01:01:01 (identity: 100.00%)
HLA-A*02:01:01:52 (identity: 99.94%)
HLA-A*02:01:01:51 (identity: 99.97%)
HLA-A*02:01:01:05 (identity: 99.97%)
HLA-A*02:01:01:06 (identity: 99.97%)
HLA-A*02:01:01:07 (identity: 99.97%)
HLA-A*02:01:01:08 (identity: 99.97%)
HLA-A*02:01:01:132 (identity: 99.97%)
HLA-A*02:01:01:137 (identity: 99.97%)
HLA-A*02:01:01:147 (identity: 99.97%)

Sample: NA19828

Locus: HLA-B

Resolution: 4th field

Full typing result:

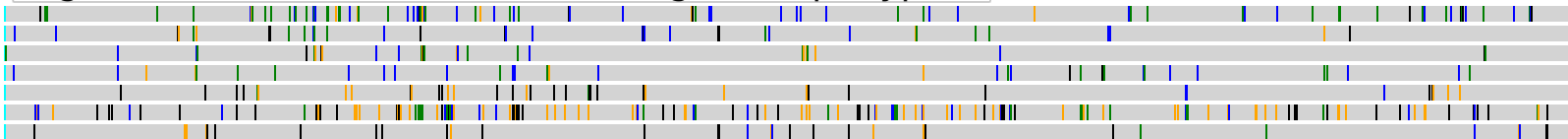
HLA-B*40:01:02:04

bam coverage



variants

Alignment (reference: reconstructed gene haplotype 1)



0.0kb

1.0kb

2.0kb

3.0kb

4.0kb

HLA-B*40:01:02:04 (identity: 100.00%)

Sample: NA19828

Locus: HLA-B

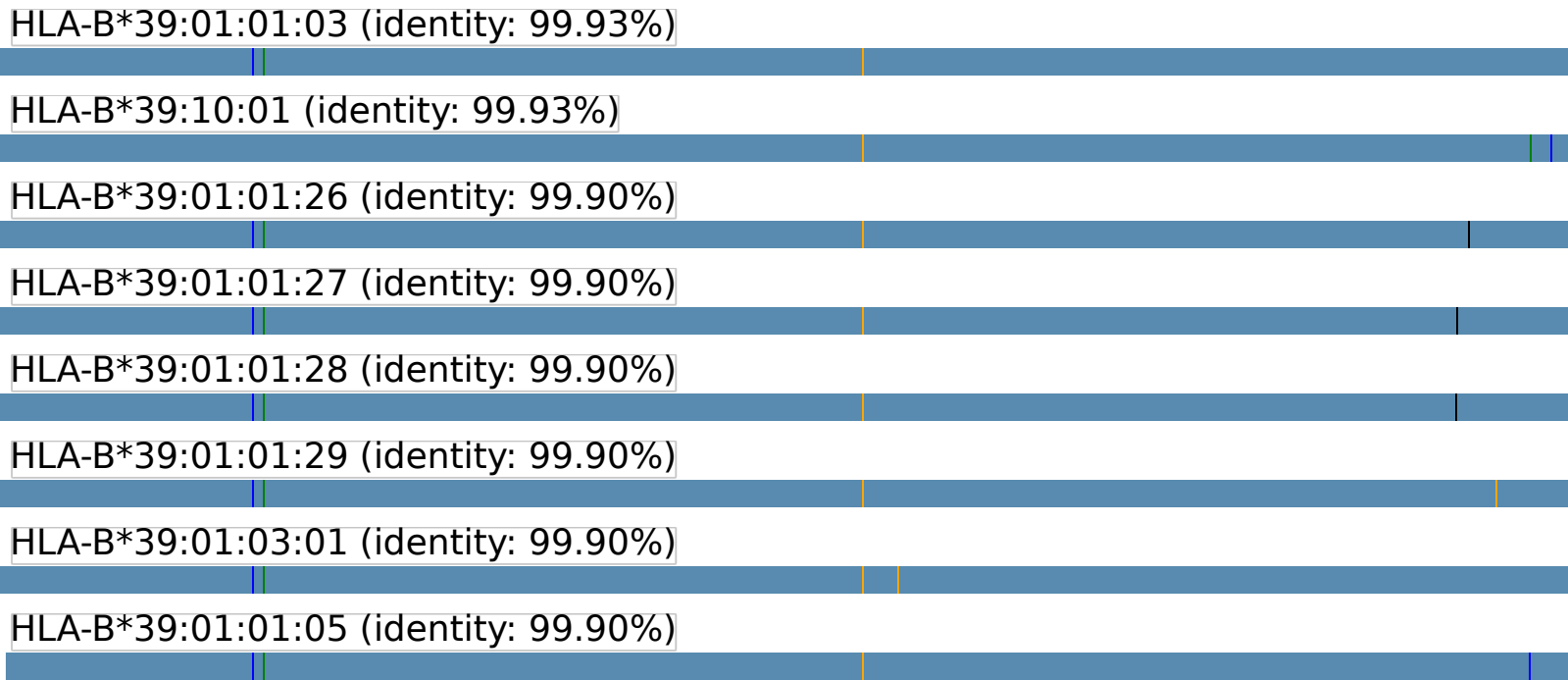
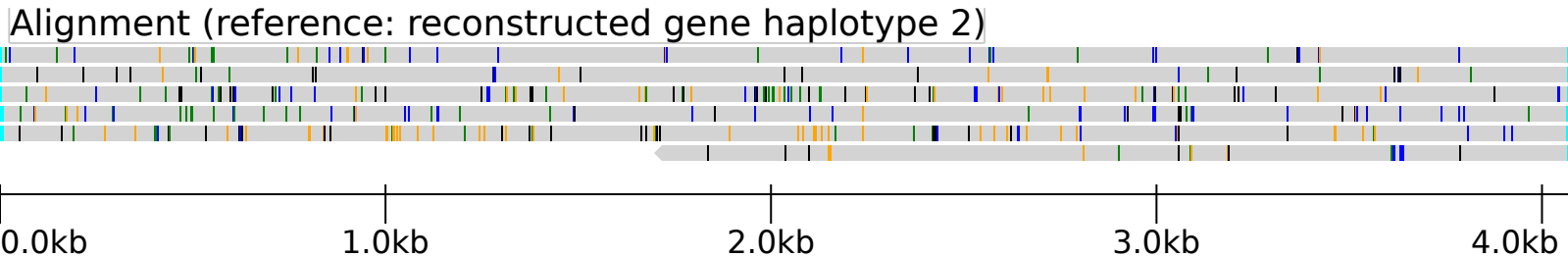
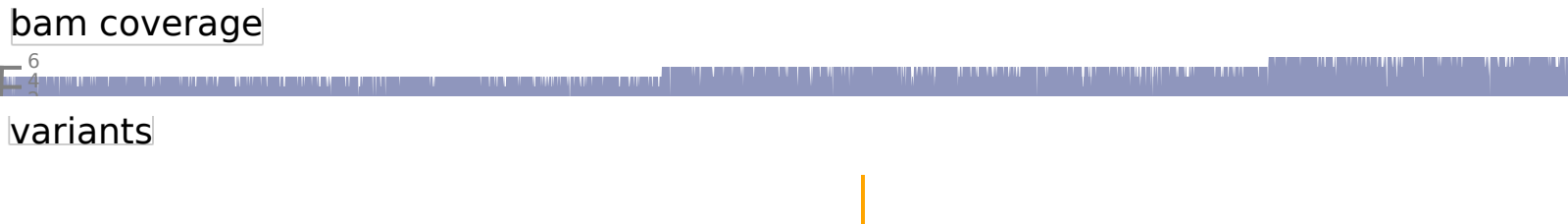
Resolution: 4th field

Full typing result:

HLA-B*39:01:01:03 HLA-B*39:10:01 HLA-B*39:01:01:26

HLA-B*39:01:01:27 HLA-B*39:01:01:28 HLA-B*39:01:01:29

HLA-B*39:01:03:01 HLA-B*39:01:01:05



Sample: NA19828

Locus: HLA-C

Resolution: 4th field

Full typing result:

- HLA-C*03:04:01:01
- HLA-C*03:04:01:02
- HLA-C*03:04:01:86
- HLA-C*03:04:01:88
- HLA-C*03:04:01:90Q
- HLA-C*03:04:75
- HLA-C*03:605
- HLA-C*03:09
- HLA-C*03:04:05
- HLA-C*03:38:02

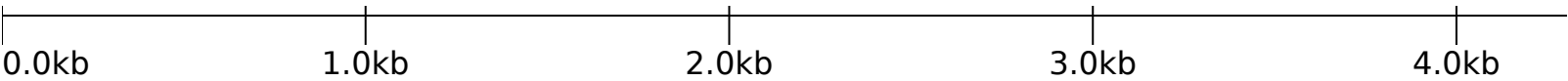
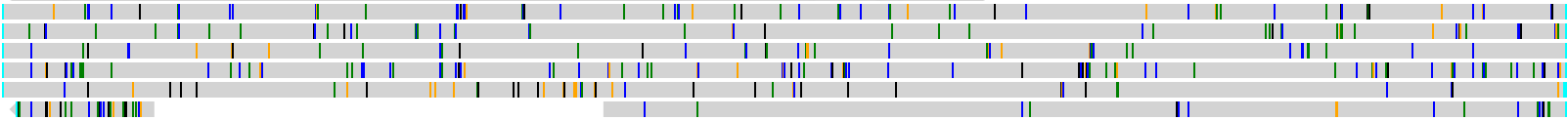
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 2)



HLA-C*03:04:01:01 (identity: 100.00%)



HLA-C*03:04:01:02 (identity: 99.98%)



HLA-C*03:04:01:86 (identity: 99.98%)



HLA-C*03:04:01:88 (identity: 99.98%)



HLA-C*03:04:01:90Q (identity: 99.91%)



HLA-C*03:04:75 (identity: 99.98%)



HLA-C*03:605 (identity: 99.98%)



HLA-C*03:09 (identity: 99.98%)



HLA-C*03:04:05 (identity: 99.98%)



HLA-C*03:38:02 (identity: 99.98%)



Sample: NA19828

Locus: HLA-C

Resolution: 4th field

Full typing result:

HLA-C*12:03:01:01

HLA-C*12:03:01:63

HLA-C*12:03:01:64

HLA-C*12:13:01:02

HLA-C*12:23

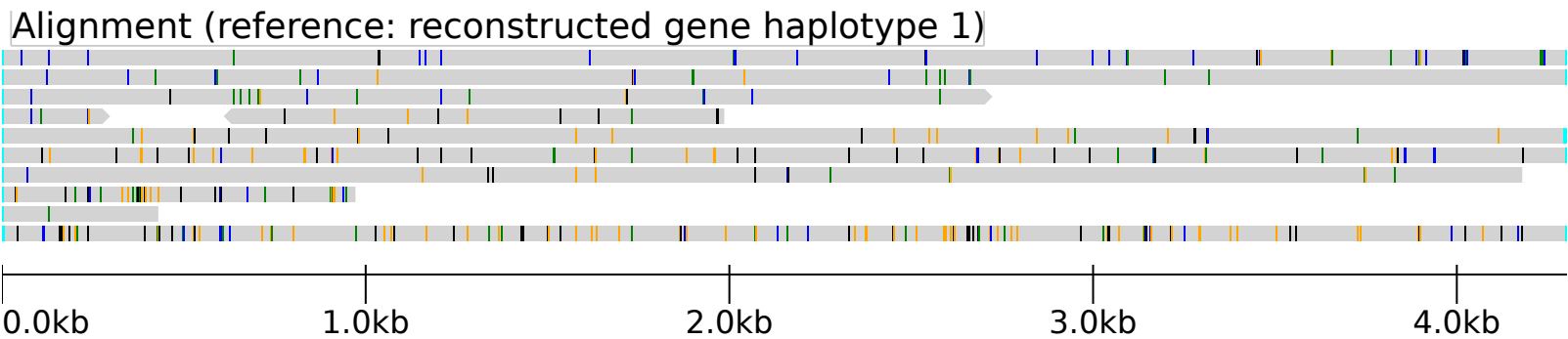
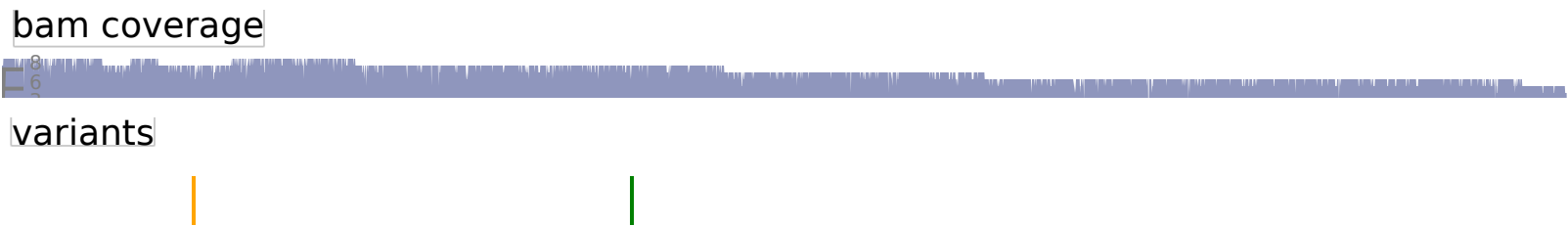
HLA-C*12:34

HLA-C*12:03:67

HLA-C*12:380

HLA-C*12:03:01:44

HLA-C*12:330Q



HLA-C*12:03:01:01 (identity: 100.00%)

HLA-C*12:03:01:63 (identity: 99.98%)

HLA-C*12:03:01:64 (identity: 99.98%)

HLA-C*12:13:01:02 (identity: 99.98%)

HLA-C*12:23 (identity: 99.98%)

HLA-C*12:34 (identity: 99.98%)

HLA-C*12:03:67 (identity: 99.98%)

HLA-C*12:380 (identity: 99.98%)

HLA-C*12:03:01:44 (identity: 99.98%)

HLA-C*12:330Q (identity: 99.98%)

Sample: NA19828

Locus: HLA-DMA

Resolution: 4th field

Full typing result:

HLA-DMA*01:01:01:02 HLA-DMA*01:01:01:16 HLA-DMA*01:01:01:29

HLA-DMA*01:01:01:20

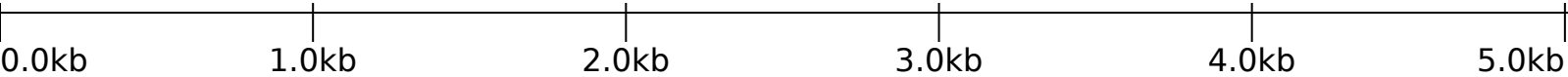
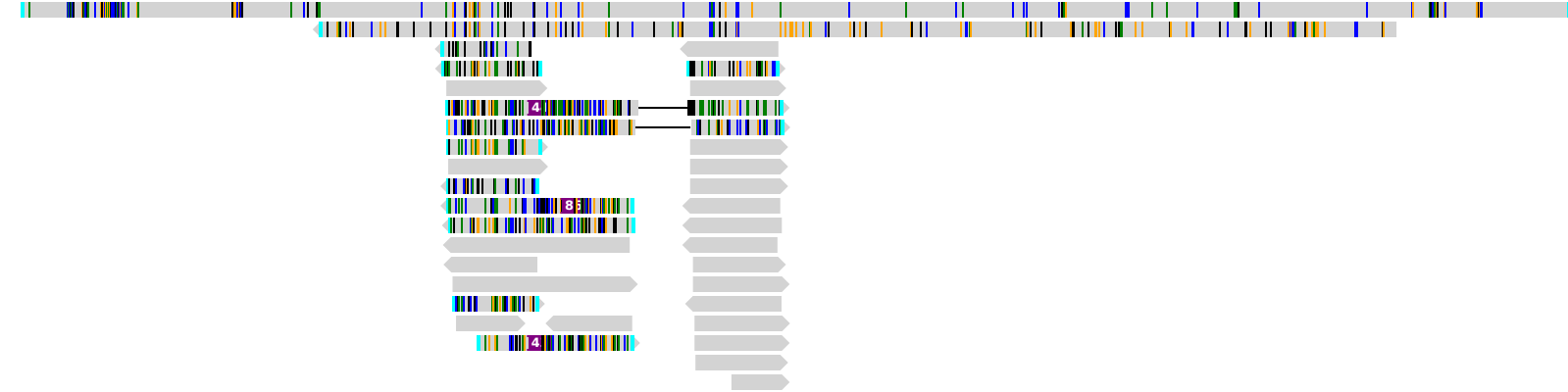
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 1)



HLA-DMA*01:01:01:02 (identity: 95.02%)



HLA-DMA*01:01:01:16 (identity: 94.91%)



HLA-DMA*01:01:01:29 (identity: 94.91%)



HLA-DMA*01:01:01:20 (identity: 94.93%)



Sample: NA19828

Locus: HLA-DMB

Resolution: 4th field

Full typing result:

HLA-DMB*01:03:01:03

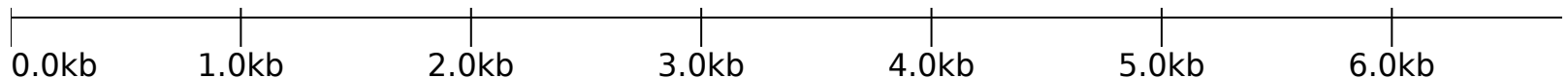
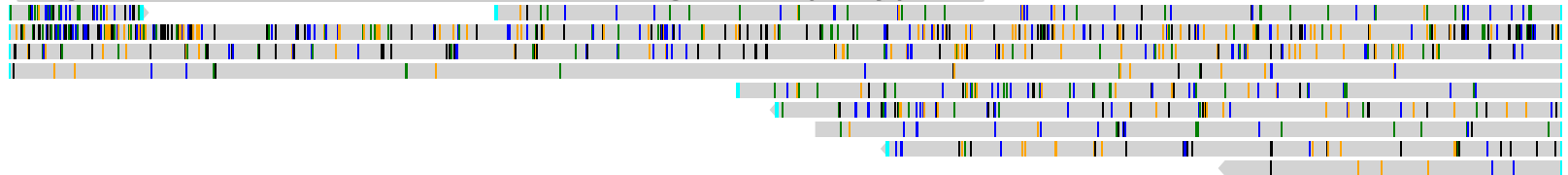
bam coverage

8
6

variants



Alignment (reference: reconstructed gene haplotype 1)



HLA-DMB*01:03:01:03 (identity: 100.00%)



Sample: NA19828

Locus: HLA-DOA

Resolution: 4th field

Full typing result:

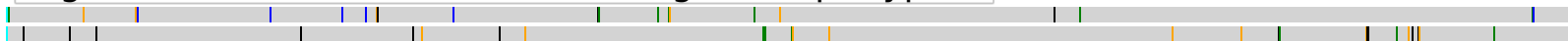
HLA-DOA*01:01:01:01

bam coverage



variants

Alignment (reference: reconstructed gene haplotype 1)



0.0kb

1.0kb

2.0kb

3.0kb

HLA-DOA*01:01:01:01 (identity: 100.00%)



Sample: NA19828

Locus: HLA-DOA

Resolution: 4th field

Full typing result:

HLA-DOA*01:01:04:05 HLA-DOA*01:01:04:10 HLA-DOA*01:01:04:03

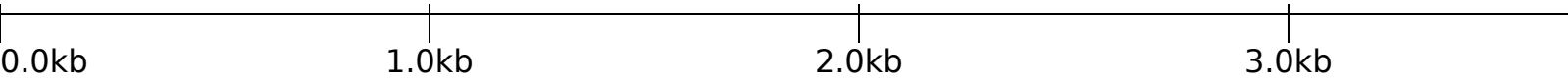
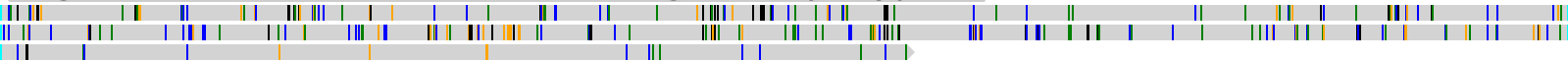
HLA-DOA*01:01:04:06

bam coverage



variants

Alignment (reference: reconstructed gene haplotype 2)



HLA-DOA*01:01:04:05 (identity: 99.92%)



HLA-DOA*01:01:04:10 (identity: 99.89%)



HLA-DOA*01:01:04:03 (identity: 99.89%)



HLA-DOA*01:01:04:06 (identity: 99.89%)



Sample: NA19828

Locus: HLA-DOB

Resolution: 4th field

Full typing result:

HLA-DOB*01:05

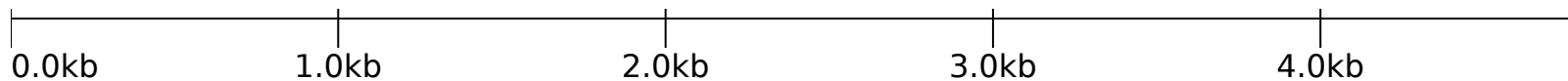
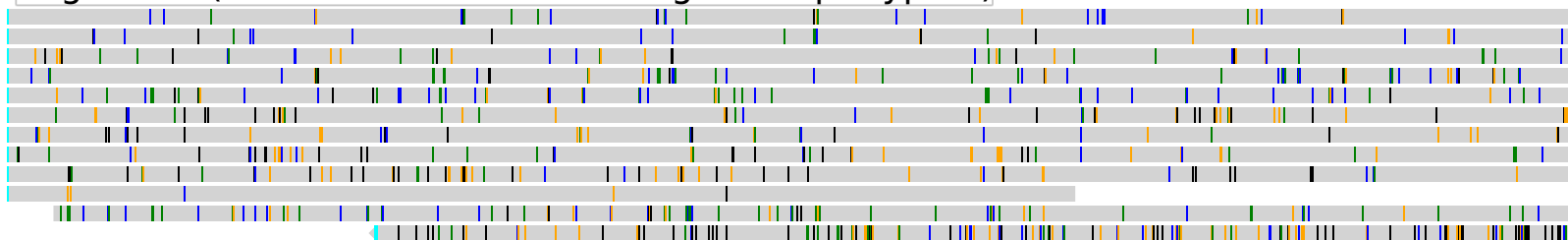
HLA-DOB*01:01:01:04

bam coverage



variants

Alignment (reference: reconstructed gene haplotype 1)



HLA-DOB*01:05 (identity: 99.96%)



HLA-DOB*01:01:01:04 (identity: 99.94%)



Sample: NA19828

Locus: HLA-DPA2

Resolution: 4th field

Full typing result:

HLA-DPA2*01:01:01:03

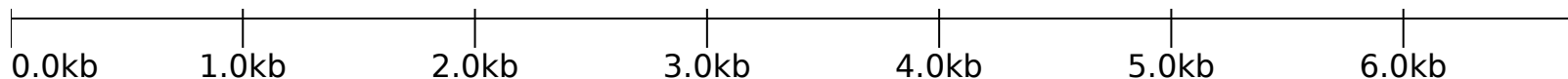
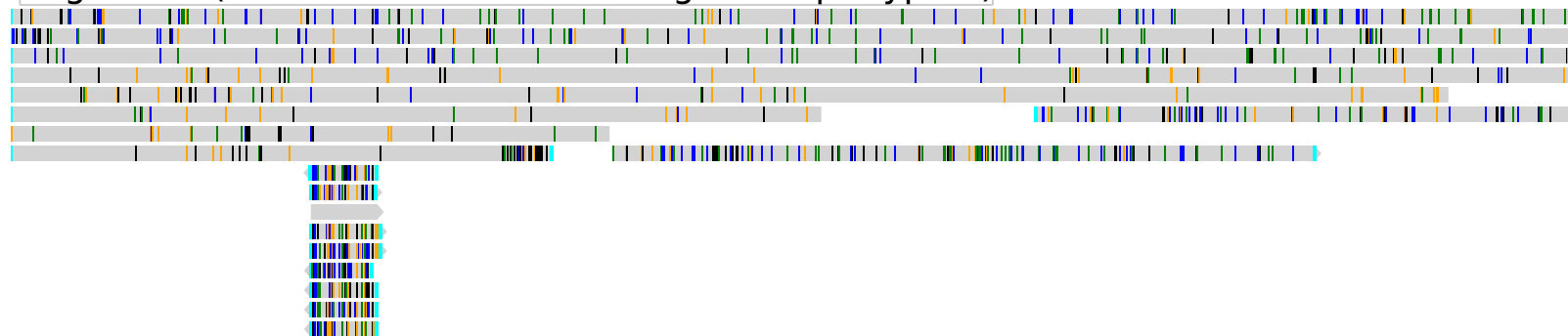
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 1)



HLA-DPA2*01:01:01:03 (identity: 99.97%)



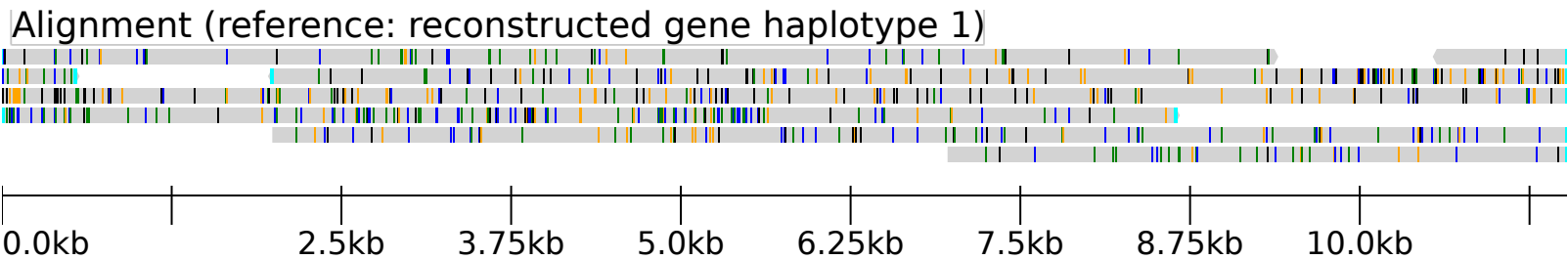
Sample: NA19828

Locus: HLA-DPB1

Resolution: 4th field

Full typing result:

- HLA-DPB1*1436:01HLA-DPB1*04:01:01:01HLA-DPB1*04:01:01:35
- HLA-DPB1*04:01:01:06HLA-DPB1*1423:01NHLA-DPB1*04:01:01:02
- HLA-DPB1*04:01:01:04HLA-DPB1*04:01:01:07HLA-DPB1*04:01:01:08
- HLA-DPB1*04:01:01:10HLA-DPB1*04:01:01:101HLA-DPB1*04:01:01:104
- HLA-DPB1*04:01:01:108HLA-DPB1*04:01:01:113HLA-DPB1*04:01:01:114



HLA-DPB1*1436:01 (identity: 100.00%)
HLA-DPB1*04:01:01:01 (identity: 99.99%)
HLA-DPB1*04:01:01:35 (identity: 99.92%)
HLA-DPB1*04:01:01:06 (identity: 99.96%)
HLA-DPB1*1423:01N (identity: 99.96%)
HLA-DPB1*04:01:01:02 (identity: 99.92%)
HLA-DPB1*04:01:01:04 (identity: 99.96%)
HLA-DPB1*04:01:01:07 (identity: 99.98%)
HLA-DPB1*04:01:01:08 (identity: 99.98%)
HLA-DPB1*04:01:01:10 (identity: 99.98%)

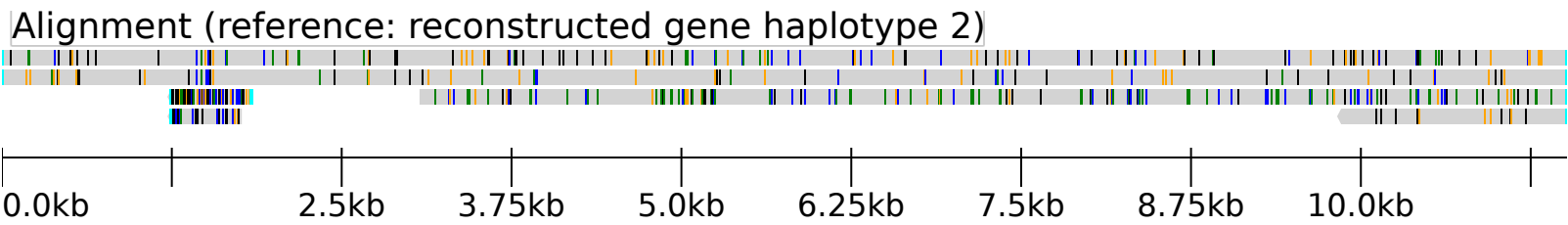
Sample: NA19828

Locus: HLA-DPB1

Resolution: 4th field

Full typing result:

- HLA-DPB1*17:01:01:01HLA-DPB1*1233:01HLA-DPB1*1367:01
- HLA-DPB1*1394:01HLA-DPB1*1397:01HLA-DPB1*1555:01
- HLA-DPB1*1556:01HLA-DPB1*17:01:01:03HLA-DPB1*17:01:01:04
- HLA-DPB1*17:01:01:05HLA-DPB1*17:01:01:07HLA-DPB1*17:01:01:08
- HLA-DPB1*17:01:01:09HLA-DPB1*17:01:04HLA-DPB1*245:01



- HLA-DPB1*17:01:01:01 (identity: 99.94%)
- HLA-DPB1*1233:01 (identity: 99.93%)
- HLA-DPB1*1367:01 (identity: 99.93%)
- HLA-DPB1*1394:01 (identity: 99.93%)
- HLA-DPB1*1397:01 (identity: 99.93%)
- HLA-DPB1*1555:01 (identity: 99.93%)
- HLA-DPB1*1556:01 (identity: 99.93%)
- HLA-DPB1*17:01:01:03 (identity: 99.93%)
- HLA-DPB1*17:01:01:04 (identity: 99.93%)
- HLA-DPB1*17:01:01:05 (identity: 99.93%)

Sample: NA19828

Locus: HLA-DPB2

Resolution: 4th field

Full typing result:

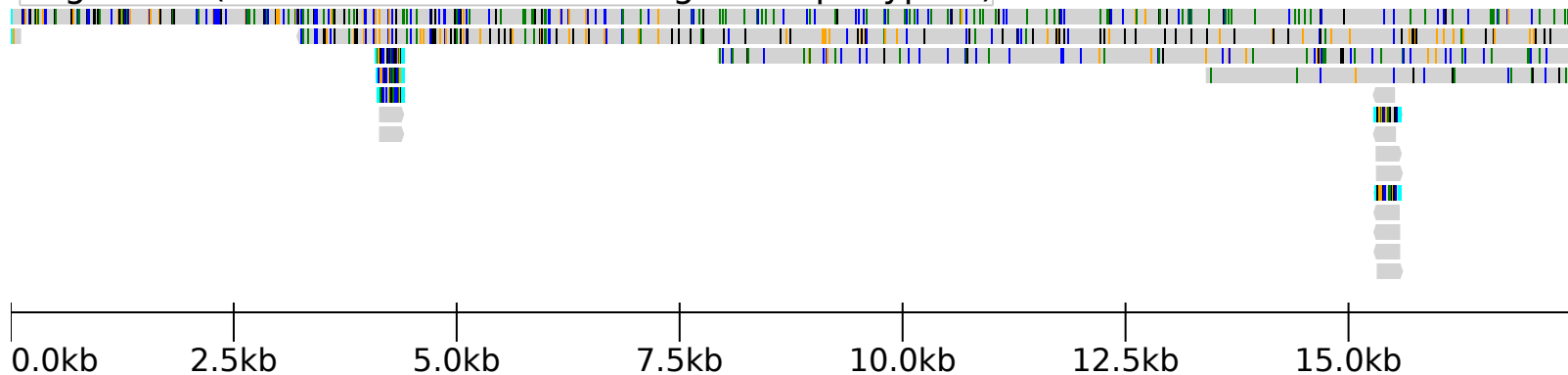
HLA-DPB2*01:01:02

bam coverage

13
8

variants

Alignment (reference: reconstructed gene haplotype 2)



HLA-DPB2*01:01:02 (identity: 96.42%)



Sample: NA19828

Locus: HLA-DPB2

Resolution: 4th field

Full typing result:

HLA-DPB2*03:01:01:01

bam coverage

29
19
12

variants

Alignment (reference: reconstructed gene haplotype 1)



0.0kb 2.5kb 5.0kb 7.5kb 10.0kb 12.5kb 15.0kb 17.5kb

HLA-DPB2*03:01:01:01 (identity: 99.94%)



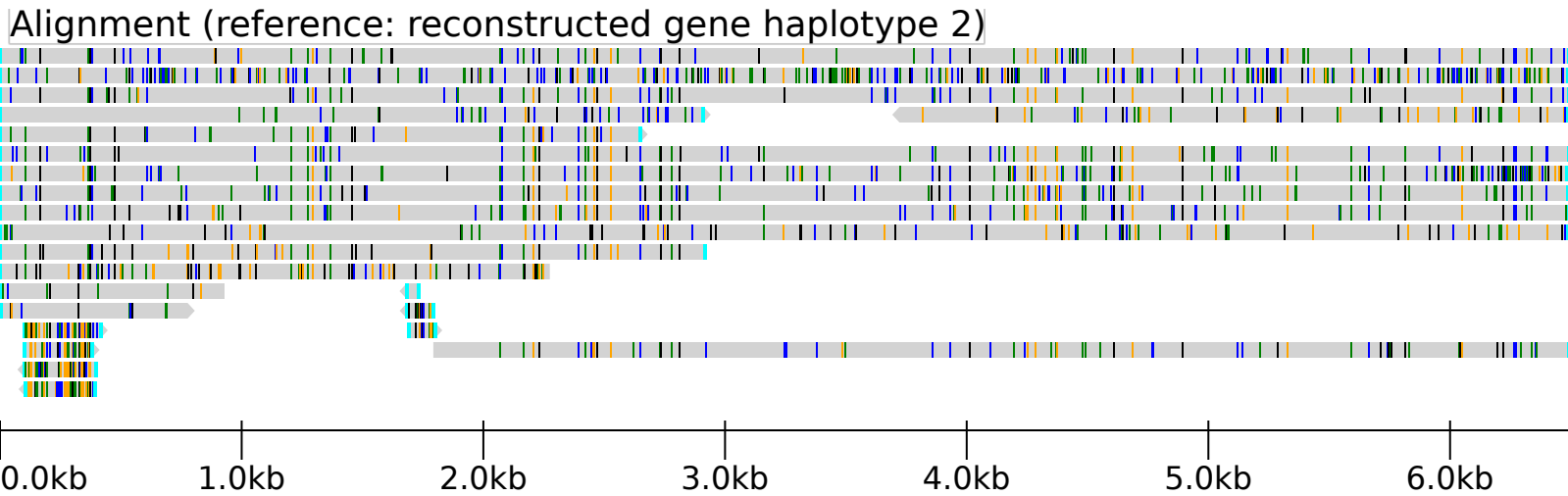
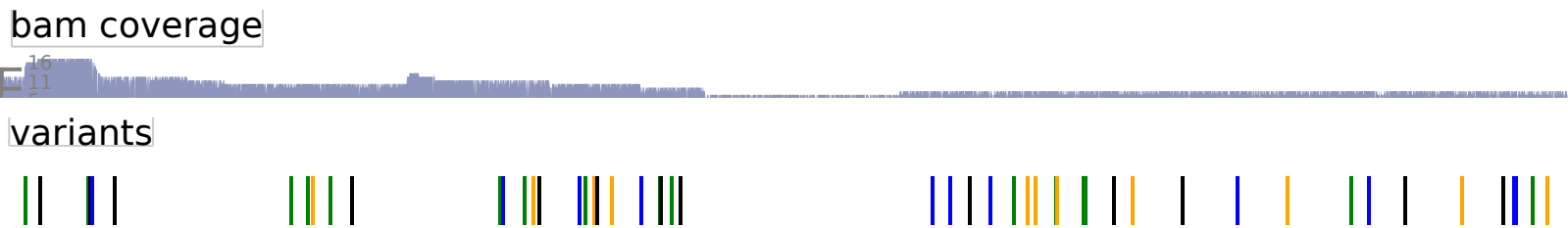
Sample: NA19828

Locus: HLA-DQA1

Resolution: 4th field

Full typing result:

HLA-DQA1*01:01:01:01	HLA-DQA1*01:01:01:05	HLA-DQA1*01:01:02:01
HLA-DQA1*01:03:01:02	HLA-DQA1*01:03:01:12	HLA-DQA1*01:03:01:17



HLA-DQA1*01:01:01:01 (identity: 99.20%)	
HLA-DQA1*01:01:01:05 (identity: 99.21%)	
HLA-DQA1*01:01:02:01 (identity: 99.12%)	
HLA-DQA1*01:03:01:02 (identity: 99.21%)	
HLA-DQA1*01:03:01:12 (identity: 99.20%)	
HLA-DQA1*01:03:01:17 (identity: 99.20%)	

Sample: NA19828

Locus: HLA-DQA1

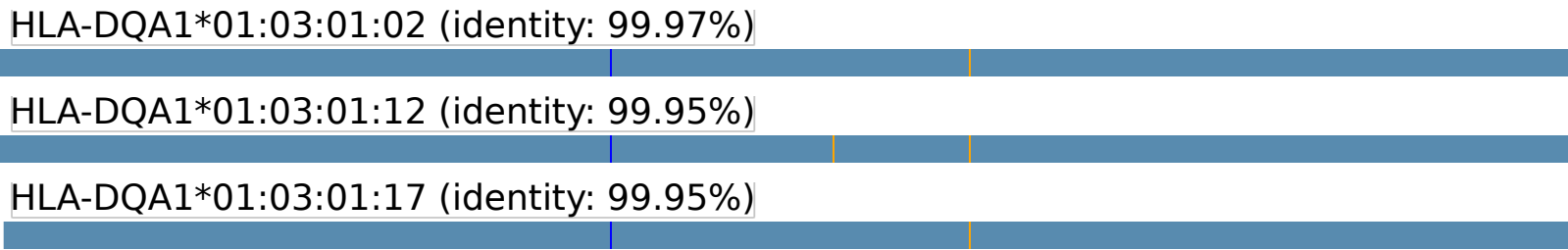
Resolution: 4th field

Full typing result:

HLA-DQA1*01:03:01:02

HLA-DQA1*01:03:01:12

HLA-DQA1*01:03:01:17



Sample: NA19828

Locus: HLA-DQA2

Resolution: 4th field

Full typing result:

HLA-DQA2*01:01:02:01

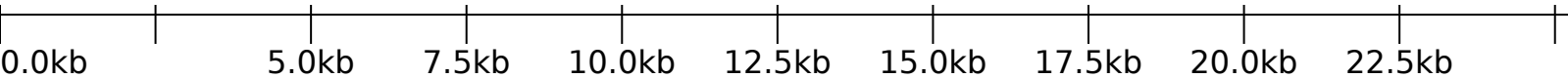
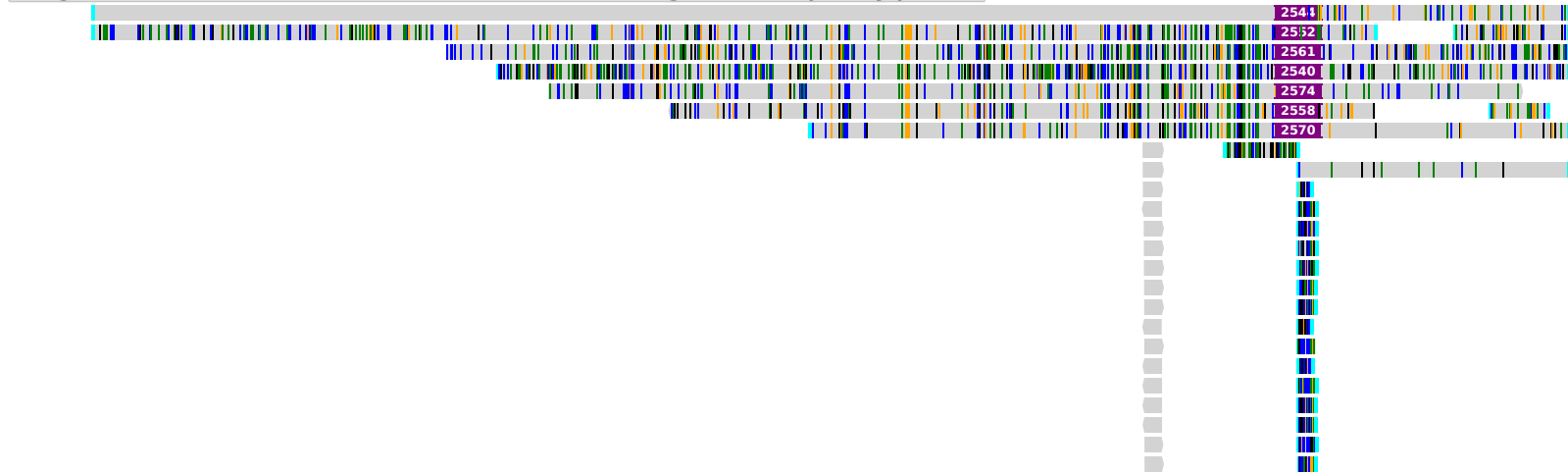
bam coverage

20
14
7

variants



Alignment (reference: reconstructed gene haplotype 1)



HLA-DQA2*01:01:02:01 (identity: 99.98%)



Sample: NA19828

Locus: HLA-DQB1

Resolution: 4th field

Full typing result:

HLA-DQB1*06:09:01:01

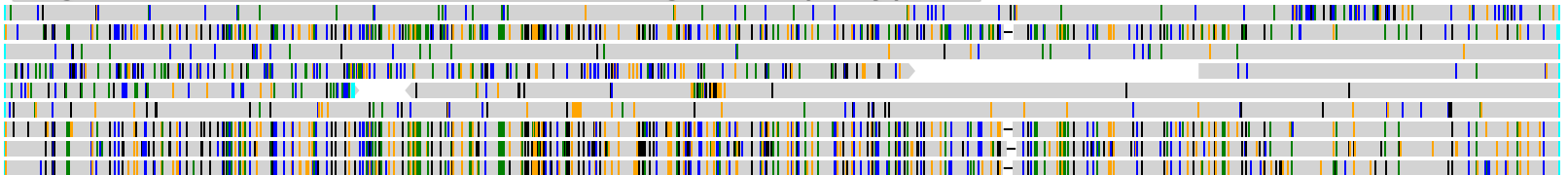
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 1)



0.0kb 1.0kb 2.0kb 3.0kb 4.0kb 5.0kb 6.0kb 7.0kb

HLA-DQB1*06:09:01:01 (identity: 99.99%)



Sample: NA19828

Locus: HLA-DQB1

Resolution: 4th field

Full typing result:

HLA-DQB1*05:01:01:03

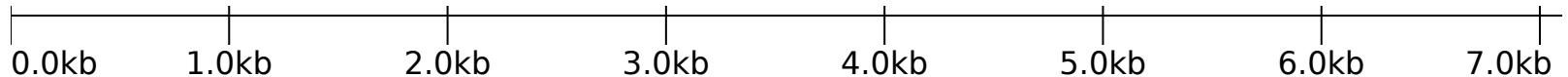
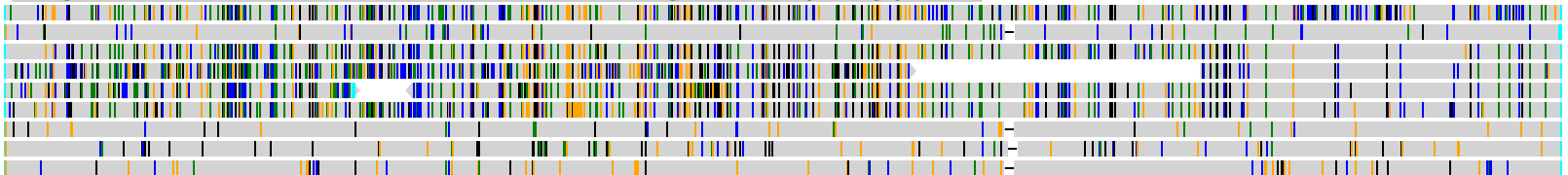
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 2)



HLA-DQB1*05:01:01:03 (identity: 98.56%)



Sample: NA19828

Locus: HLA-DQB2

Resolution: 4th field

Full typing result:

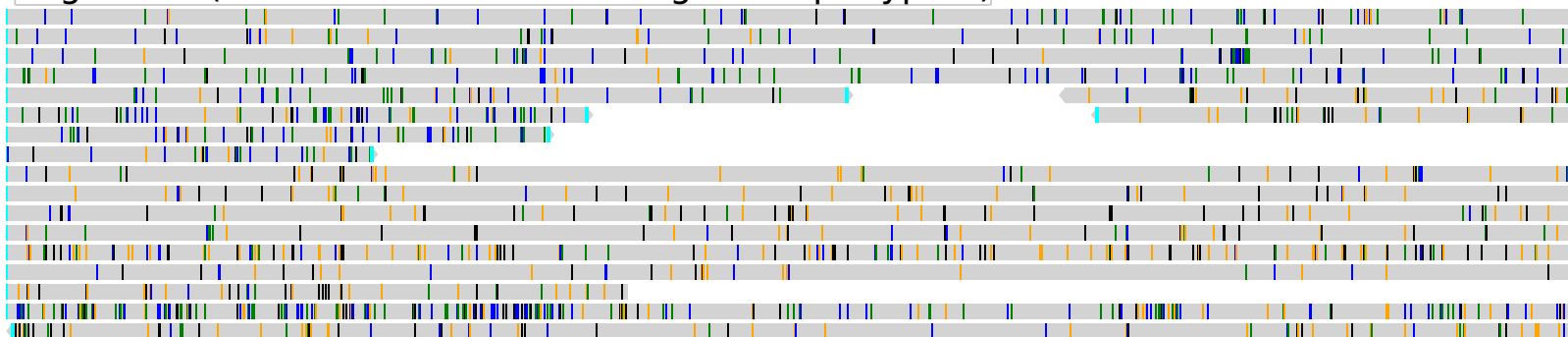
HLA-DQB2*01:01:01:01

bam coverage



variants

Alignment (reference: reconstructed gene haplotype 1)



0.0kb

1.0kb

2.0kb

3.0kb

4.0kb

5.0kb

6.0kb

7.0kb

HLA-DQB2*01:01:01:01 (identity: 100.00%)

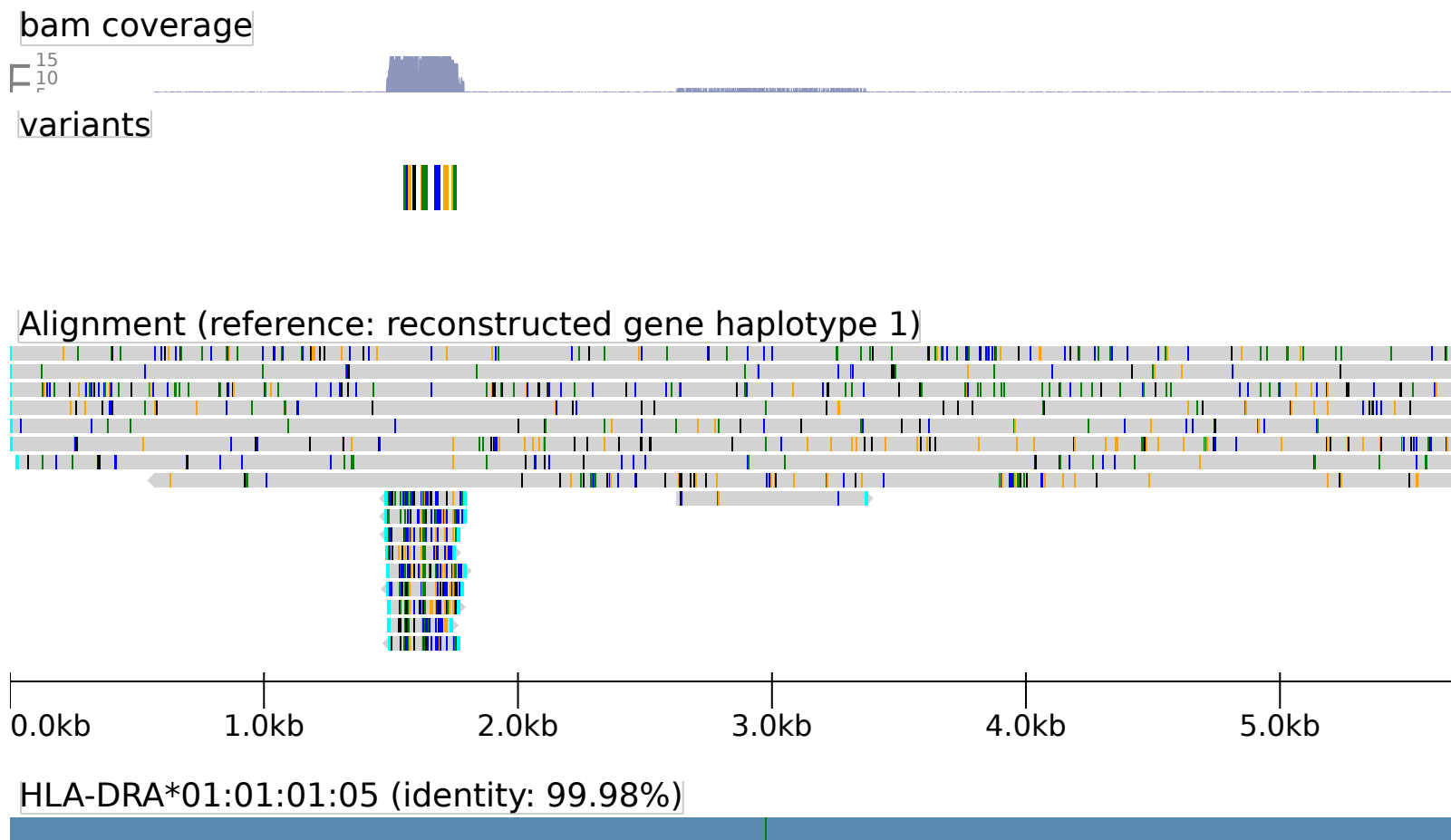
Sample: NA19828

Locus: HLA-DRA

Resolution: 4th field

Full typing result:

HLA-DRA*01:01:01:05



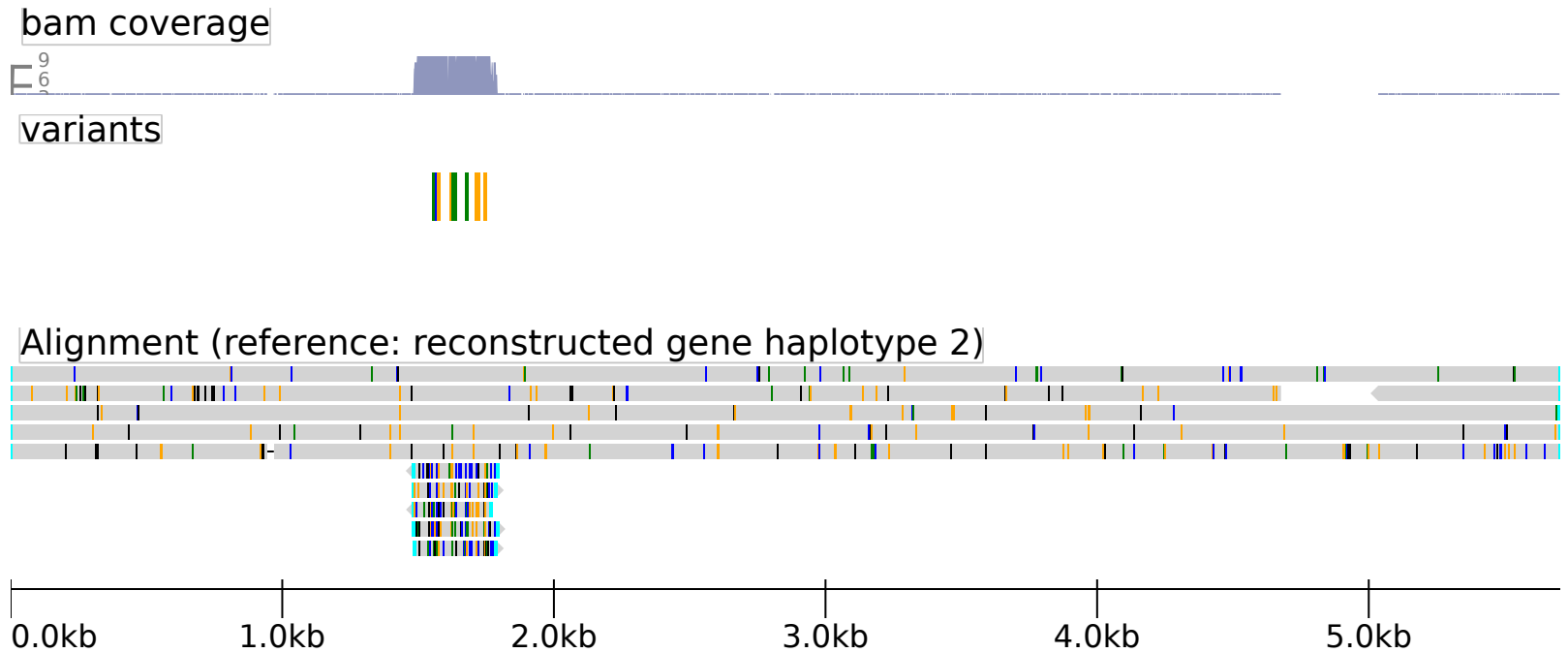
Sample: NA19828

Locus: HLA-DRA

Resolution: 4th field

Full typing result:

HLA-DRA*01:02:03:01



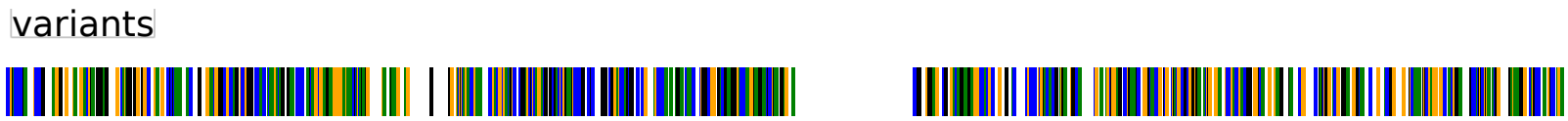
HLA-DRA*01:02:03:01 (identity: 99.98%)

Sample: NA19828

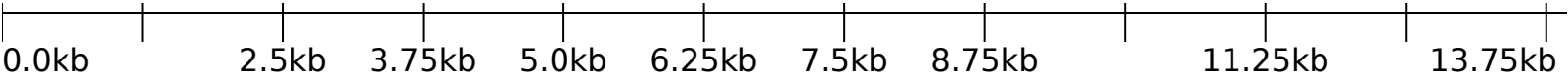
Locus: HLA-DRB1

Resolution: 4th field

Full typing result:

HLA-DRB1*13:01:01:01

Alignment (reference: reconstructed gene haplotype 1)



HLA-DRB1*13:01:01:01 (identity: 99.99%)

Sample: NA19828

Locus: HLA-DRB3

Resolution: 4th field

Full typing result:

HLA-DRB3*02:02:01:02

HLA-DRB3*02:02:01:01

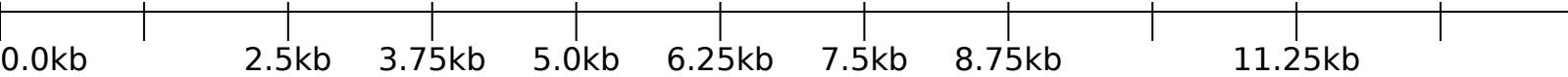
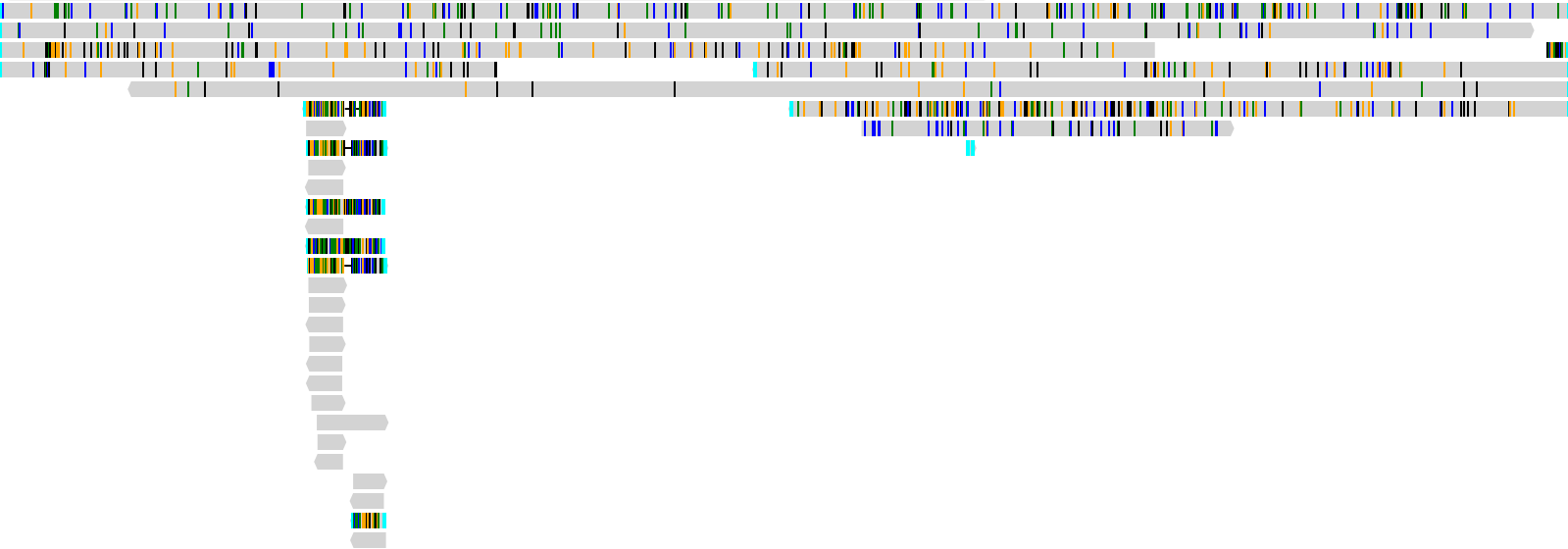
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 1)



HLA-DRB3*02:02:01:02 (identity: 99.94%)



HLA-DRB3*02:02:01:01 (identity: 99.92%)



Sample: NA19828

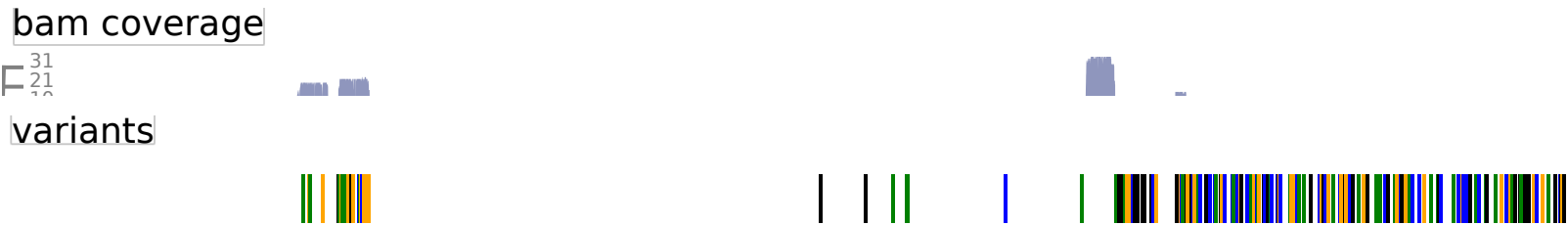
Locus: HLA-DRB4

Resolution: 4th field

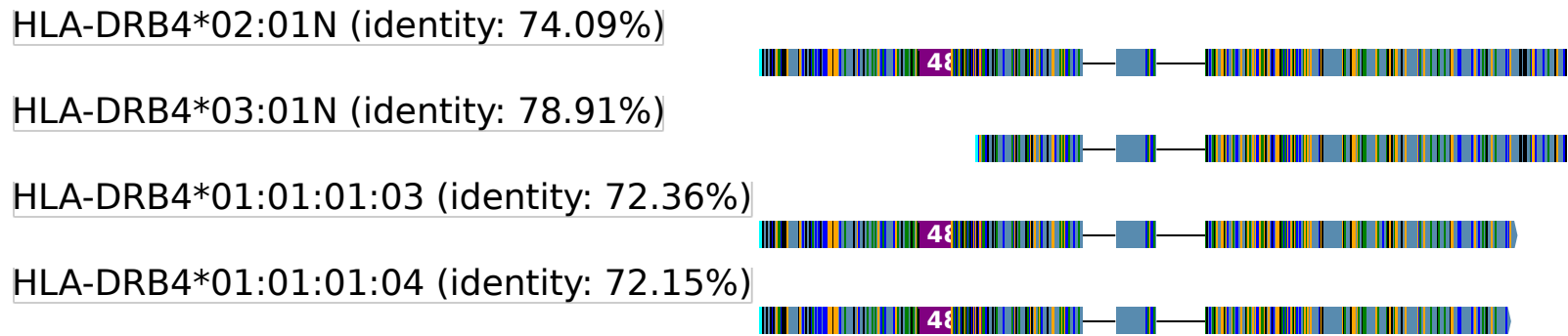
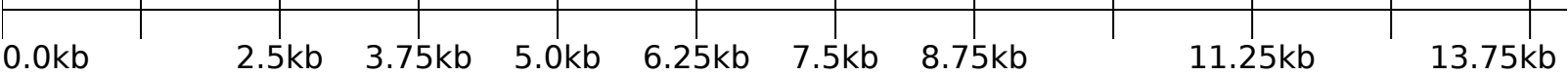
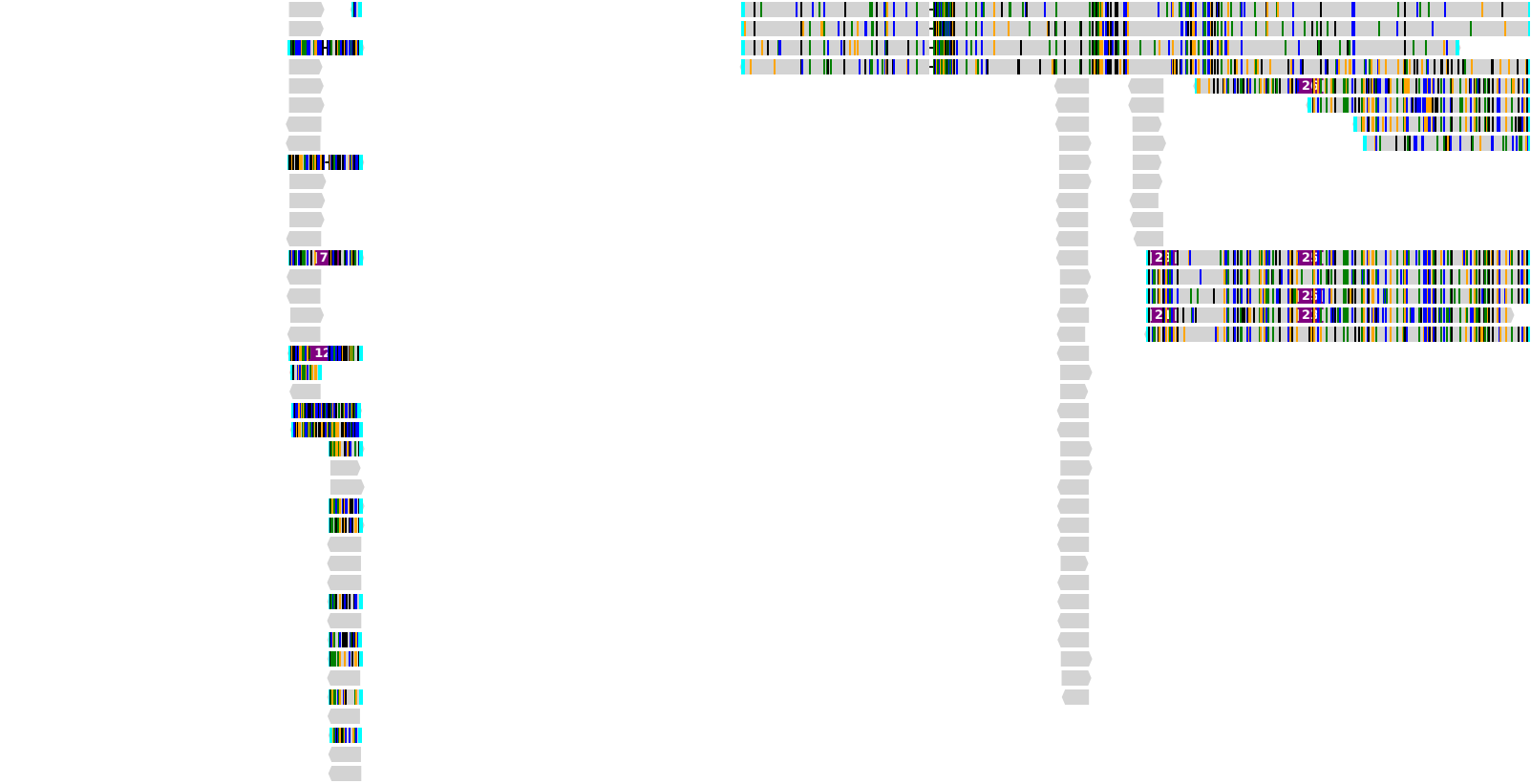
Full typing result:

HLA-DRB4*02:01N HLA-DRB4*03:01N HLA-DRB4*01:01:01:03

HLA-DRB4*01:01:01:04



Alignment (reference: reconstructed gene haplotype 1)



Sample: NA19828

Locus: HLA-DRB5

Resolution: 4th field

Full typing result:

HLA-DRB5*01:03

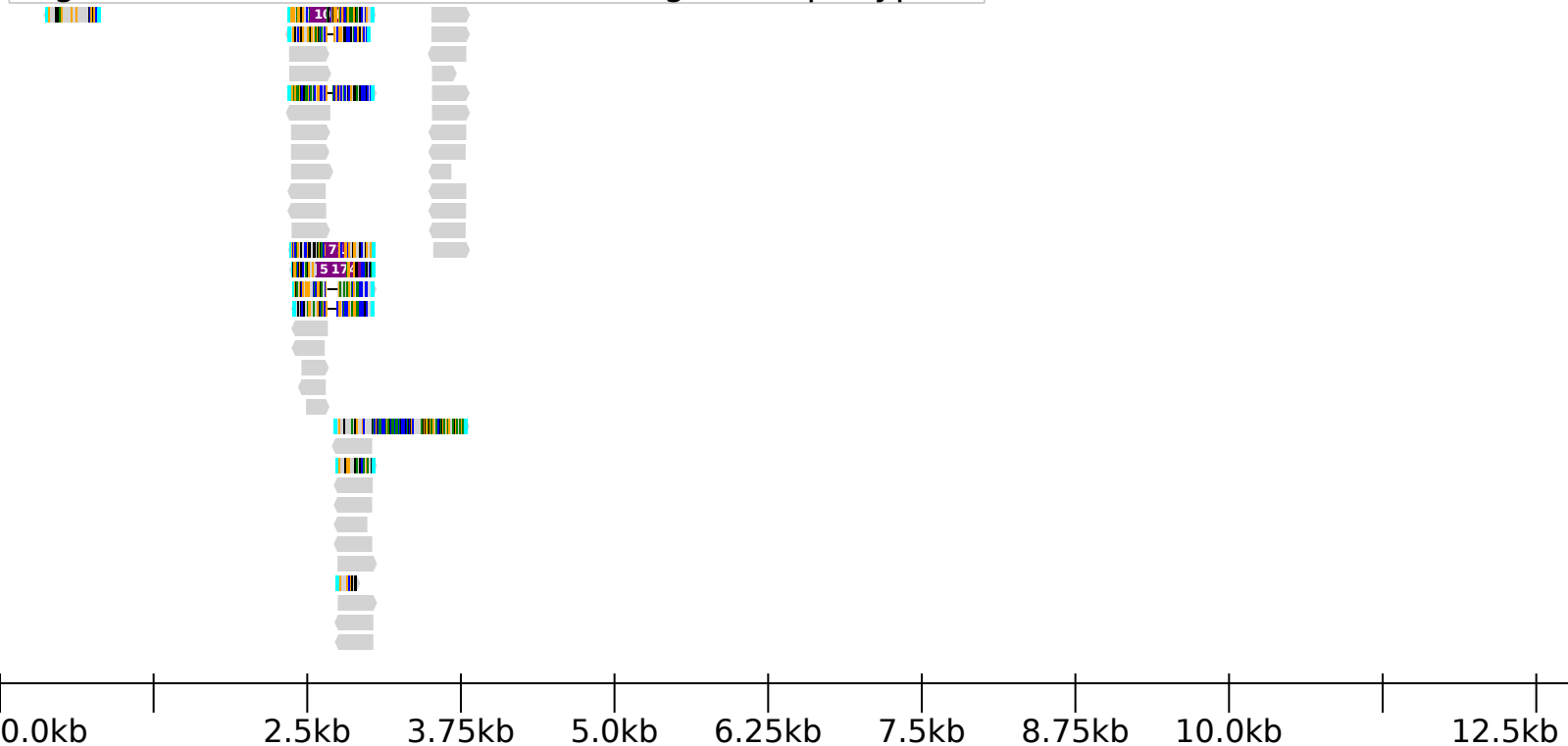
bam coverage



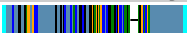
variants



Alignment (reference: reconstructed gene haplotype 1)



HLA-DRB5*01:03 (identity: 72.01%)



Sample: NA19828

Locus: HLA-E

Resolution: 4th field

Full typing result:

HLA-E*01:01:01:52

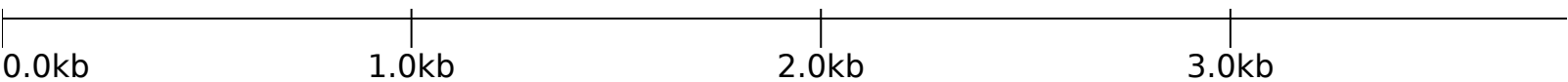
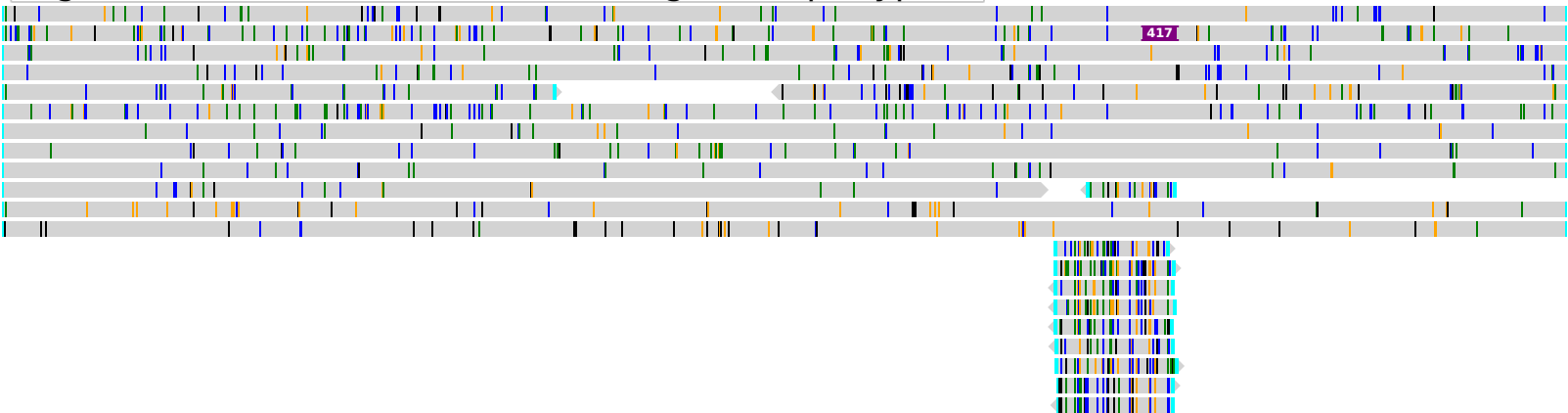
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 1)



HLA-E*01:01:01:52 (identity: 100.00%)



Sample: NA19828

Locus: HLA-F

Resolution: 4th field

Full typing result:

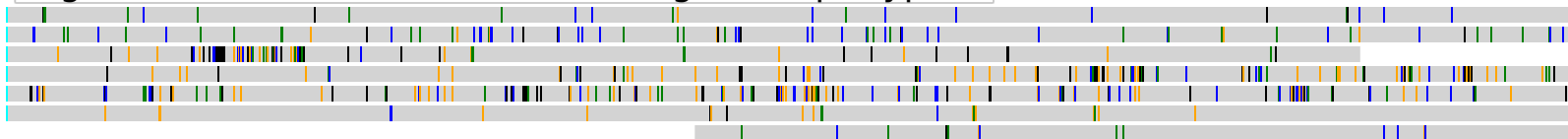
HLA-F*01:03:01:03

bam coverage



variants

Alignment (reference: reconstructed gene haplotype 2)



0.0kb

1.0kb

2.0kb

3.0kb

HLA-F*01:03:01:03 (identity: 99.97%)



Sample: NA19828

Locus: HLA-F

Resolution: 4th field

Full typing result:

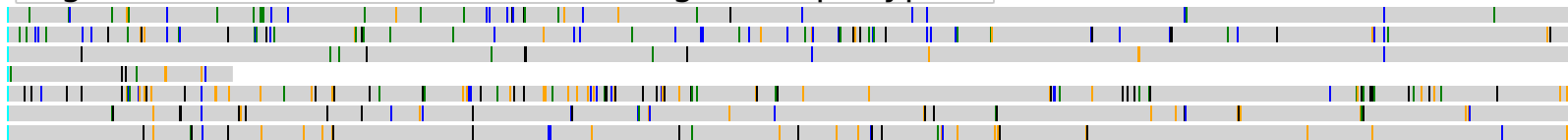
HLA-F*01:01:01:01

bam coverage



variants

Alignment (reference: reconstructed gene haplotype 1)



0.0kb

1.0kb

2.0kb

3.0kb

HLA-F*01:01:01:01 (identity: 99.97%)



Sample: NA19828

Locus: HLA-G

Resolution: 4th field

Full typing result:

HLA-G*01:04:04:01

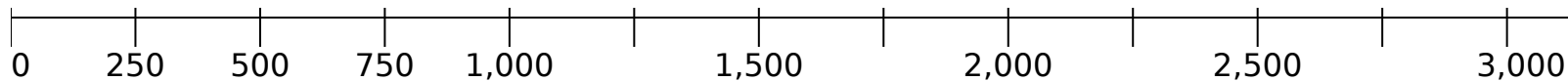
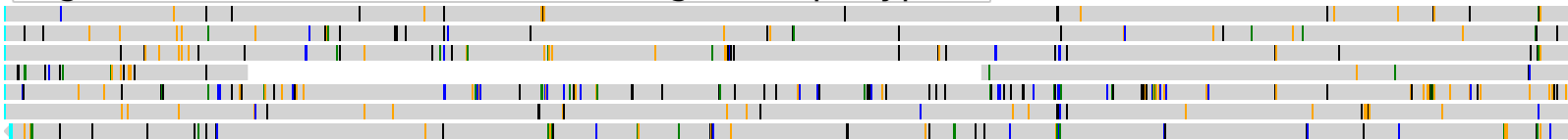
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 1)



HLA-G*01:04:04:01 (identity: 99.97%)



Sample: NA19828

Locus: HLA-G

Resolution: 4th field

Full typing result:

HLA-G*01:01:01:01

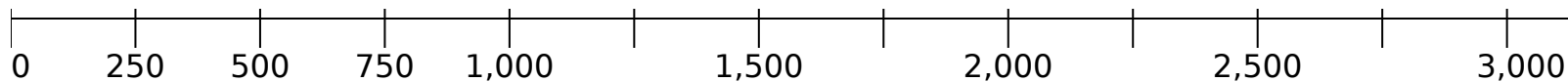
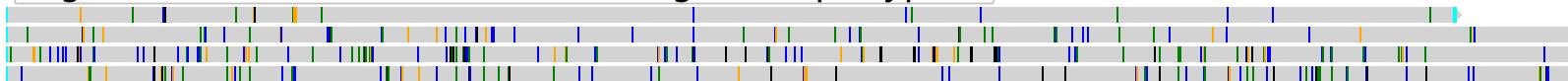
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 2)



HLA-G*01:01:01:01 (identity: 99.94%)



Sample: NA19828

Locus: HLA-H

Resolution: 4th field

Full typing result:

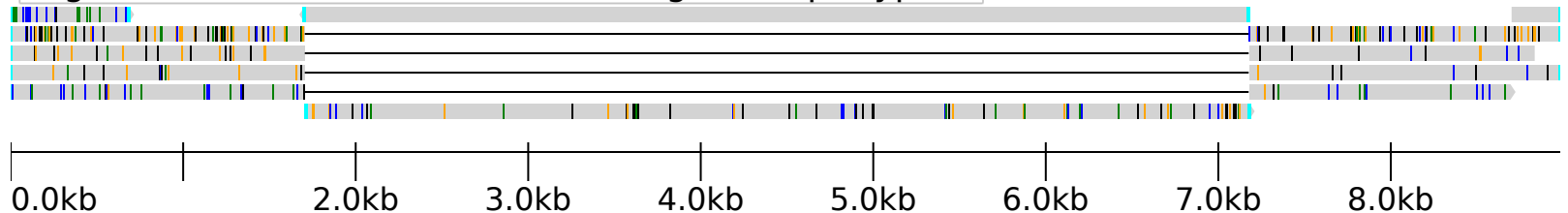
HLA-H*02:10:01:02

bam coverage

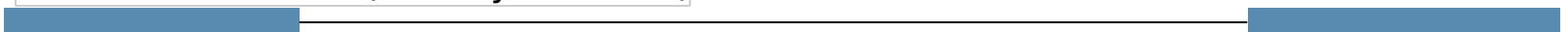


variants

Alignment (reference: reconstructed gene haplotype 1)



HLA-H*02:10:01:02 (identity: -55.82%)



Sample: NA19828

Locus: HLA-H

Resolution: 4th field

Full typing result:

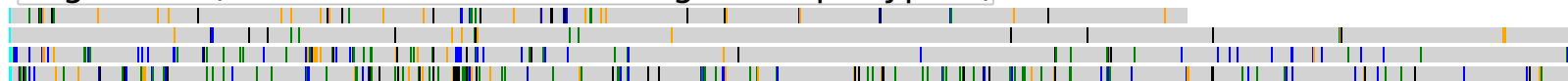
HLA-H*01:01:01:01

bam coverage



variants

Alignment (reference: reconstructed gene haplotype 2)



0.0kb

1.0kb

2.0kb

3.0kb

HLA-H*01:01:01:01 (identity: 100.00%)

Sample: NA19828

Locus: HLA-J

Resolution: 4th field

Full typing result:

HLA-J*01:01:01:02

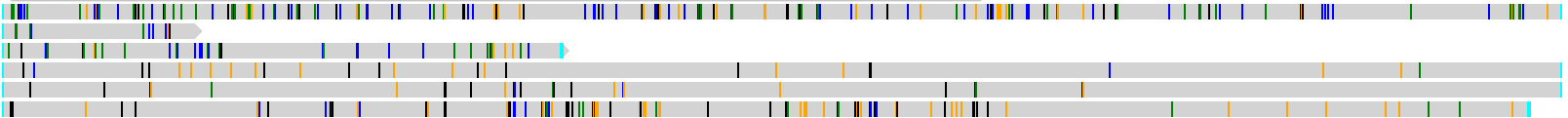
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 2)



0.0kb

1.0kb

2.0kb

3.0kb

HLA-J*01:01:01:02 (identity: 99.97%)



Sample: NA19828

Locus: HLA-J

Resolution: 4th field

Full typing result:

HLA-J*01:01:01:05

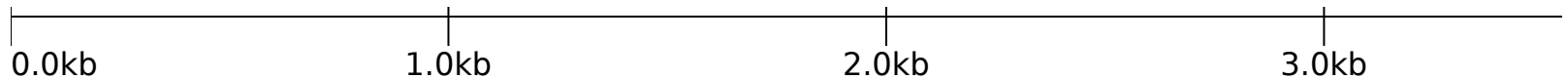
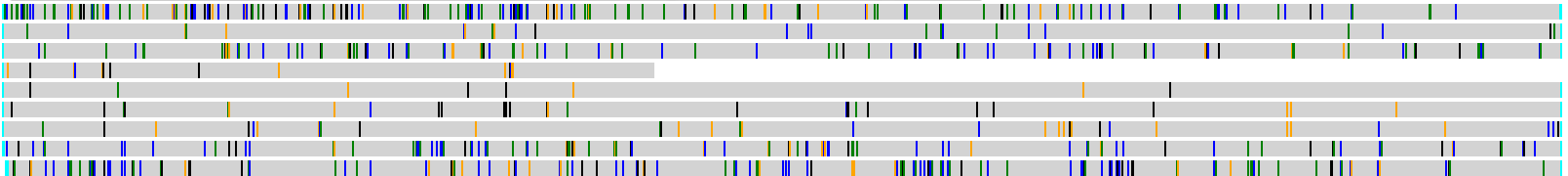
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 1)



HLA-J*01:01:01:05 (identity: 100.00%)



Sample: NA19828

Locus: HLA-K

Resolution: 4th field

Full typing result:

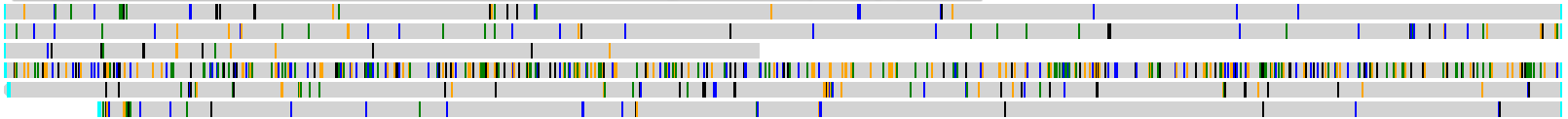
HLA-K*01:01:01:02

bam coverage



variants

Alignment (reference: reconstructed gene haplotype 2)



0.0kb

1.0kb

2.0kb

3.0kb

HLA-K*01:01:01:02 (identity: 99.97%)



Sample: NA19828

Locus: HLA-K

Resolution: 4th field

Full typing result:

HLA-K*01:02

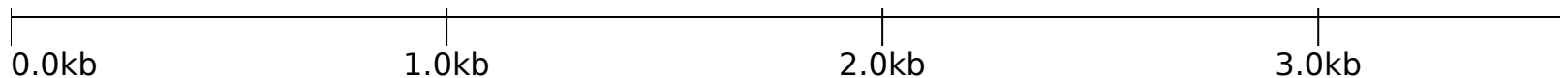
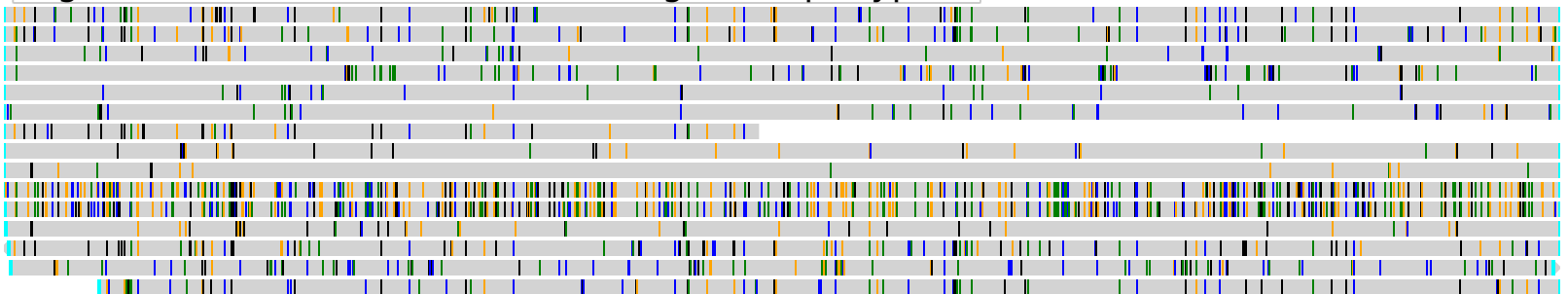
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 1)



HLA-K*01:02 (identity: 100.00%)



Sample: NA19828

Locus: HLA-L

Resolution: 4th field

Full typing result:

HLA-L*01:01:01:01

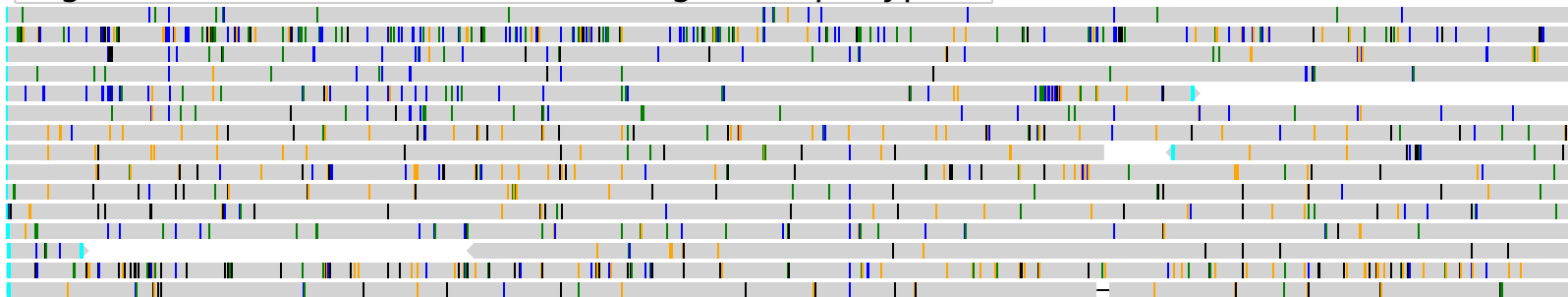
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 1)



0.0kb

1.0kb

2.0kb

3.0kb

HLA-L*01:01:01:01 (identity: 100.00%)



Sample: NA19828

Locus: HLA-N

Resolution: 4th field

Full typing result:

HLA-N*01:01:01:01

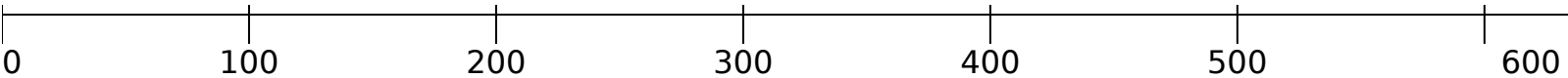
bam coverage

$\frac{2}{1}$

variants



Alignment (reference: reconstructed gene haplotype 1)



HLA-N*01:01:01:01 (identity: 100.00%)



Sample: NA19828

Locus: HLA-P

Resolution: 4th field

Full typing result:

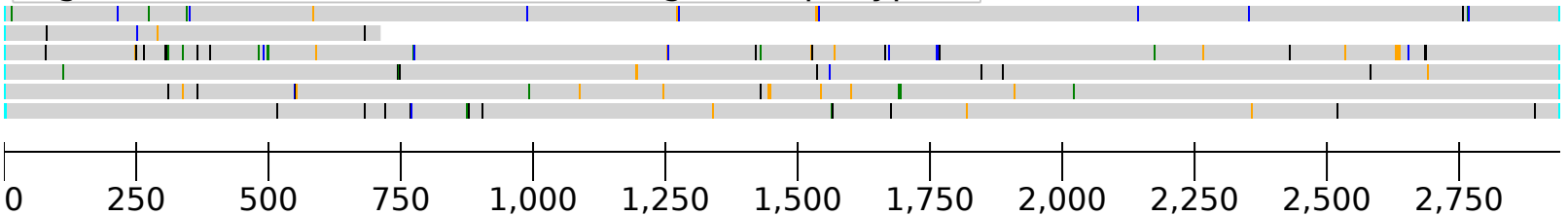
HLA-P*01:01:01:01

bam coverage



variants

Alignment (reference: reconstructed gene haplotype 1)



HLA-P*01:01:01:01 (identity: 98.98%)



Sample: NA19828

Locus: HLA-P

Resolution: 4th field

Full typing result:

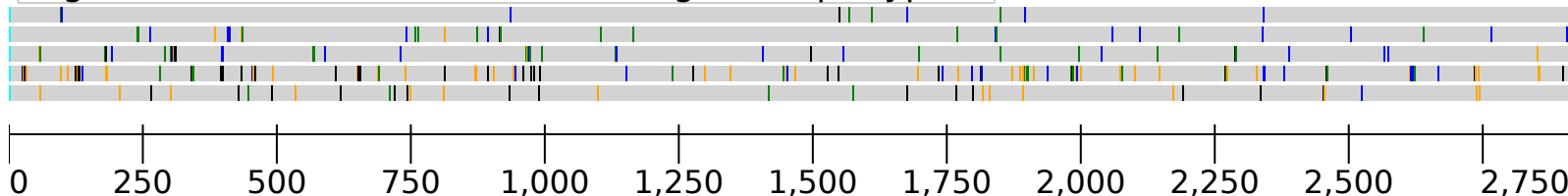
HLA-P*02:01:01:01

bam coverage



variants

Alignment (reference: reconstructed gene haplotype 2)



HLA-P*02:01:01:01 (identity: 100.00%)



Sample: NA19828

Locus: HLA-T

Resolution: 4th field

Full typing result:

HLA-T*01:01:01:05

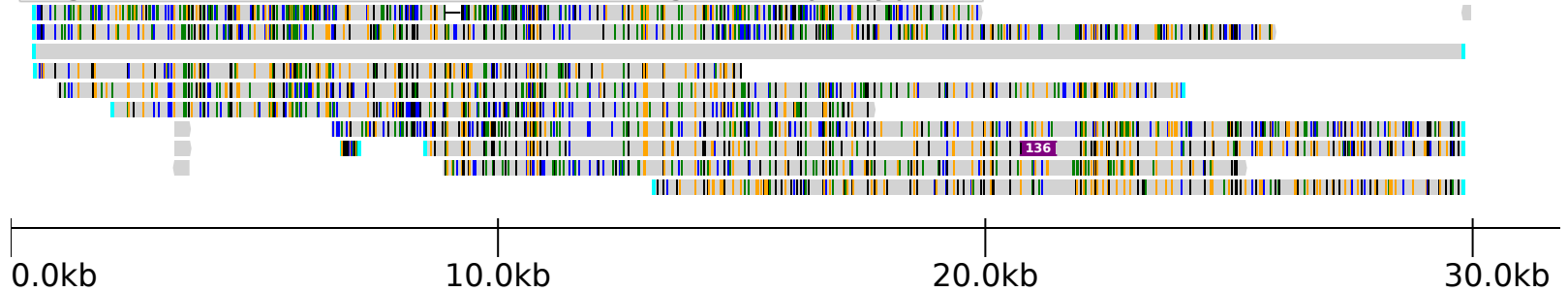
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 1)



HLA-T*01:01:01:05 (identity: 97.99%)



Sample: NA19828

Locus: HLA-T

Resolution: 4th field

Full typing result:

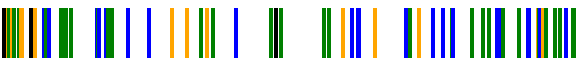
HLA-T*03:01:01:01

HLA-T*03:01:01:02

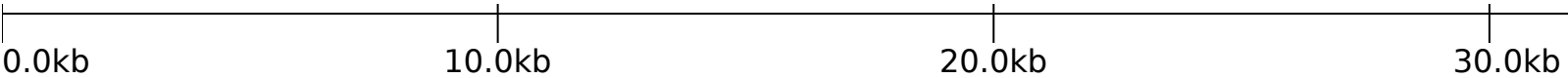
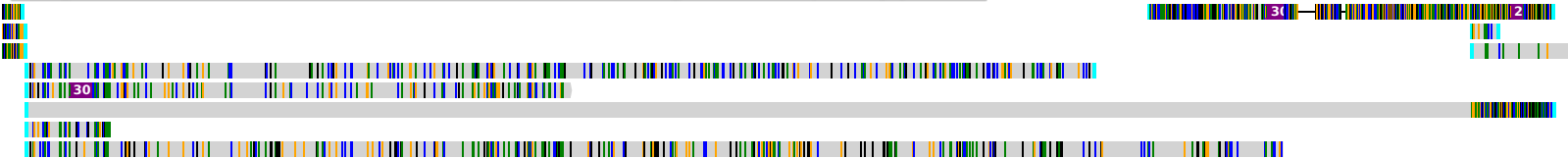
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 2)



HLA-T*03:01:01:01 (identity: 99.95%)

HLA-T*03:01:01:02 (identity: 99.95%)



Sample: NA19828

Locus: HLA-U

Resolution: 4th field

Full typing result:

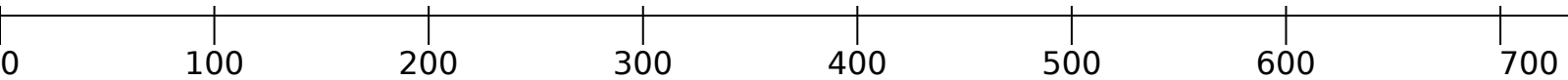
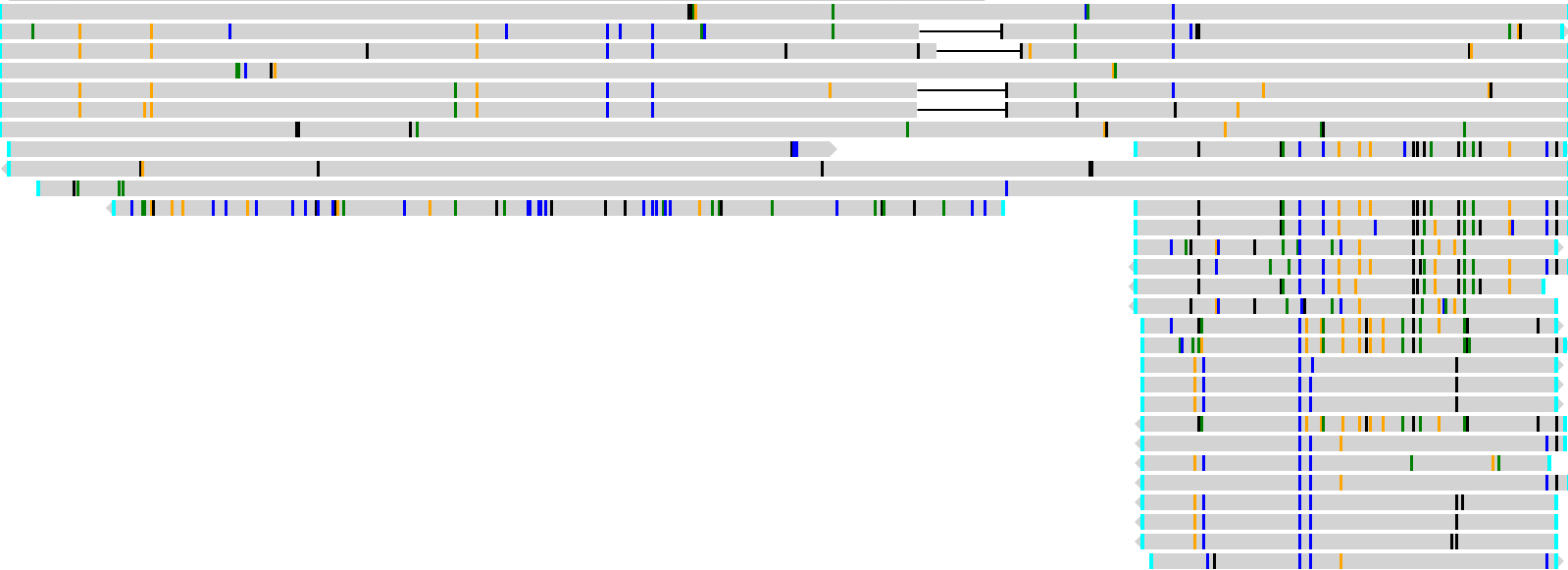
HLA-U*01:03

bam coverage

25
17

variants

Alignment (reference: reconstructed gene haplotype 1)



HLA-U*01:03 (identity: 100.00%)



Sample: NA19828

Locus: HLA-W

Resolution: 4th field

Full typing result:

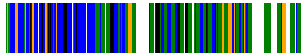
HLA-W*01:01:01:02

HLA-W*01:01:01:06

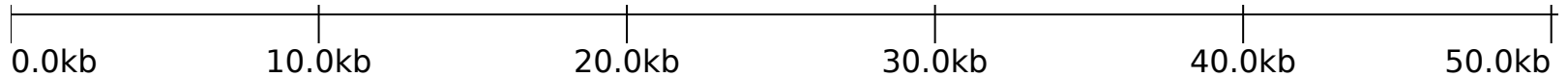
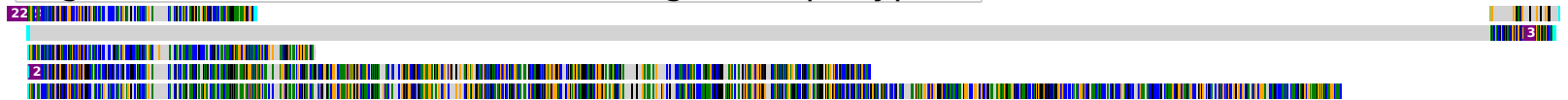
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 2)



HLA-W*01:01:01:02 (identity: 100.00%)

HLA-W*01:01:01:06 (identity: 99.96%)



Sample: NA19828

Locus: HLA-W

Resolution: 4th field

Full typing result:

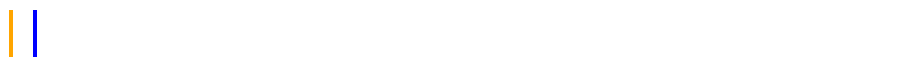
HLA-W*03:01:01:01

HLA-W*03:01:01:02

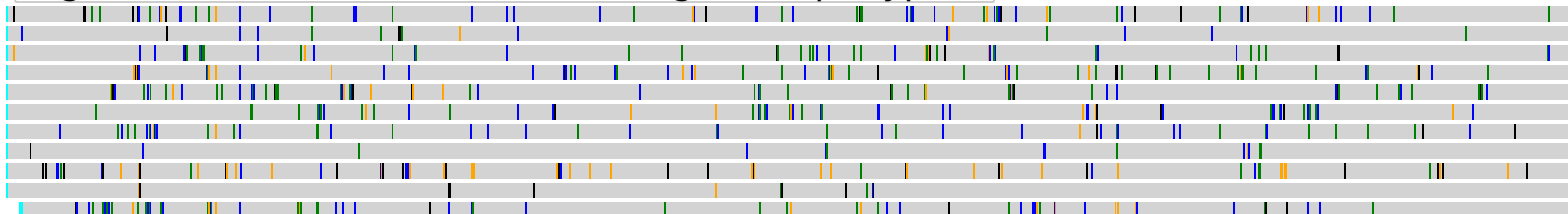
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 1)



0 250 500 750 1,000 1,250 1,500 1,750 2,000 2,250 2,500 2,750

HLA-W*03:01:01:01 (identity: 100.00%)

HLA-W*03:01:01:02 (identity: 99.97%)

Sample: NA19828

Locus: MICA

Resolution: 4th field

Full typing result:

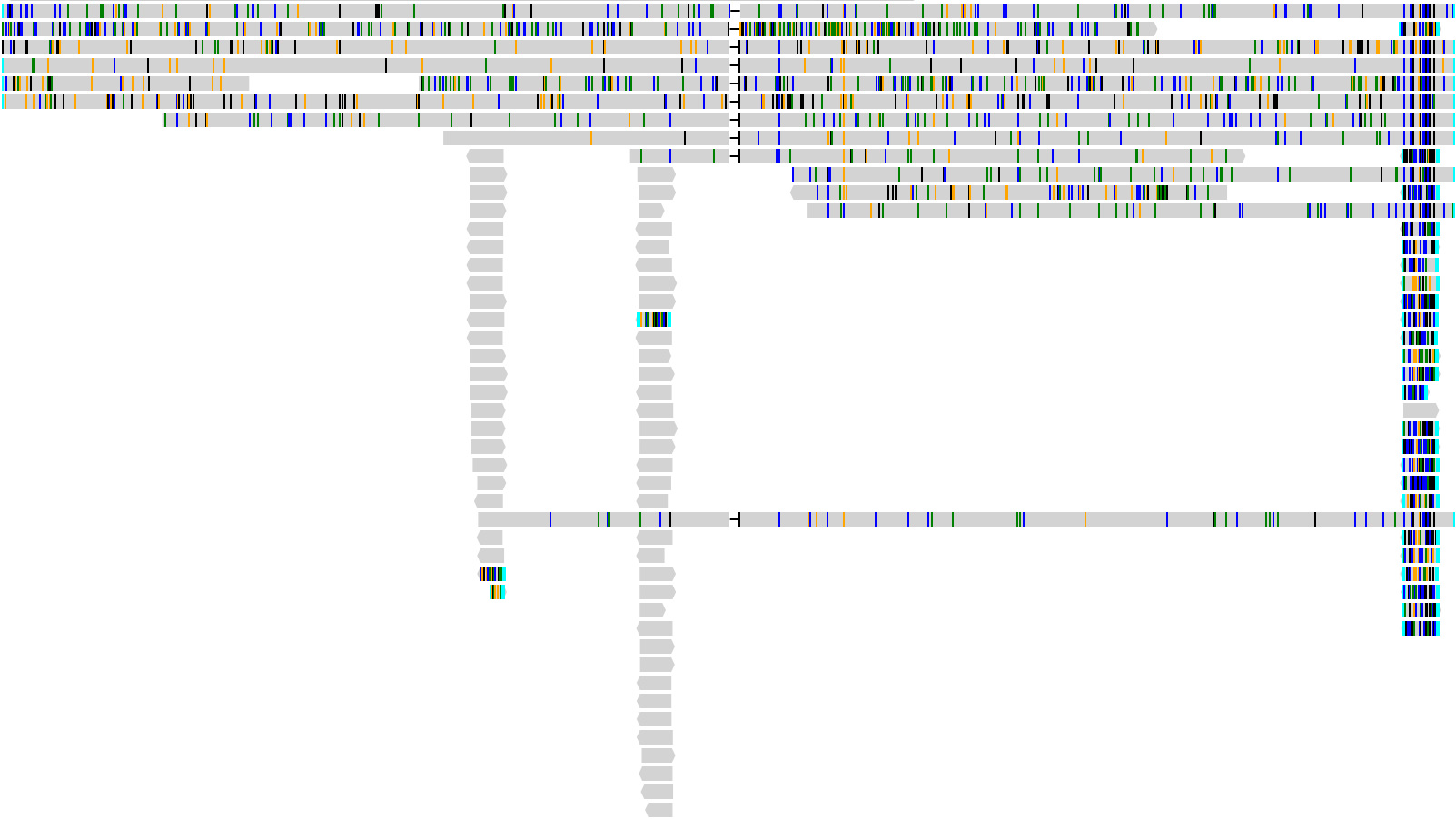
MICA*001:01

bam coverage

39
26
15

variants

Alignment (reference: reconstructed gene haplotype 1)



0.0kb 2.5kb 3.75kb 5.0kb 6.25kb 7.5kb 8.75kb 10.0kb 12.5kb

MICA*001:01 (identity: 98.86%)



Sample: NA19828

Locus: MICA

Resolution: 4th field

Full typing result:

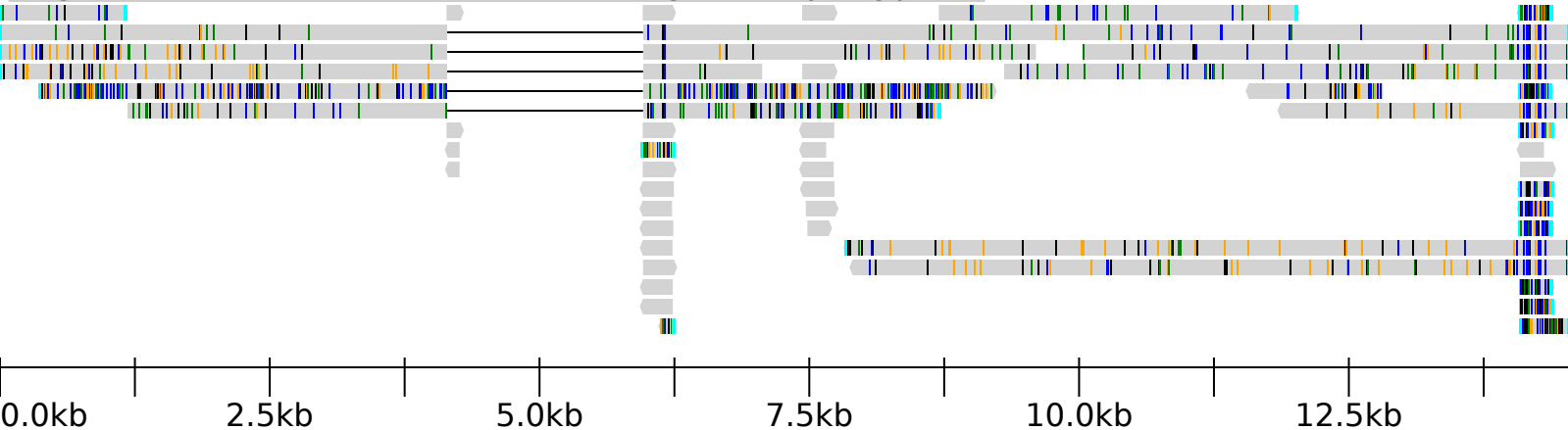
MICA*008:04:01 MICA*285 MICA*008:01:02

MICA*008:01:01

bam coverage



Alignment (reference: reconstructed gene haplotype 2)



MICA*008:04:01 (identity: 85.63%)



MICA*285 (identity: 85.35%)



MICA*008:01:02 (identity: 85.61%)



MICA*008:01:01 (identity: 85.60%)



Sample: NA19828

Locus: MICB

Resolution: 4th field

Full typing result:

MICB*005:02:02

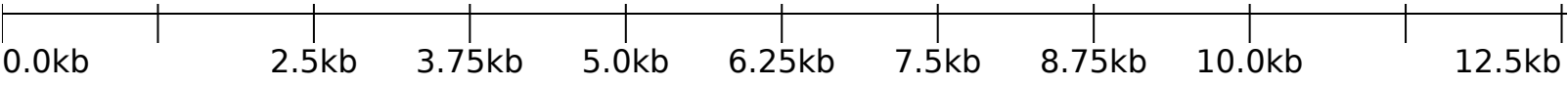
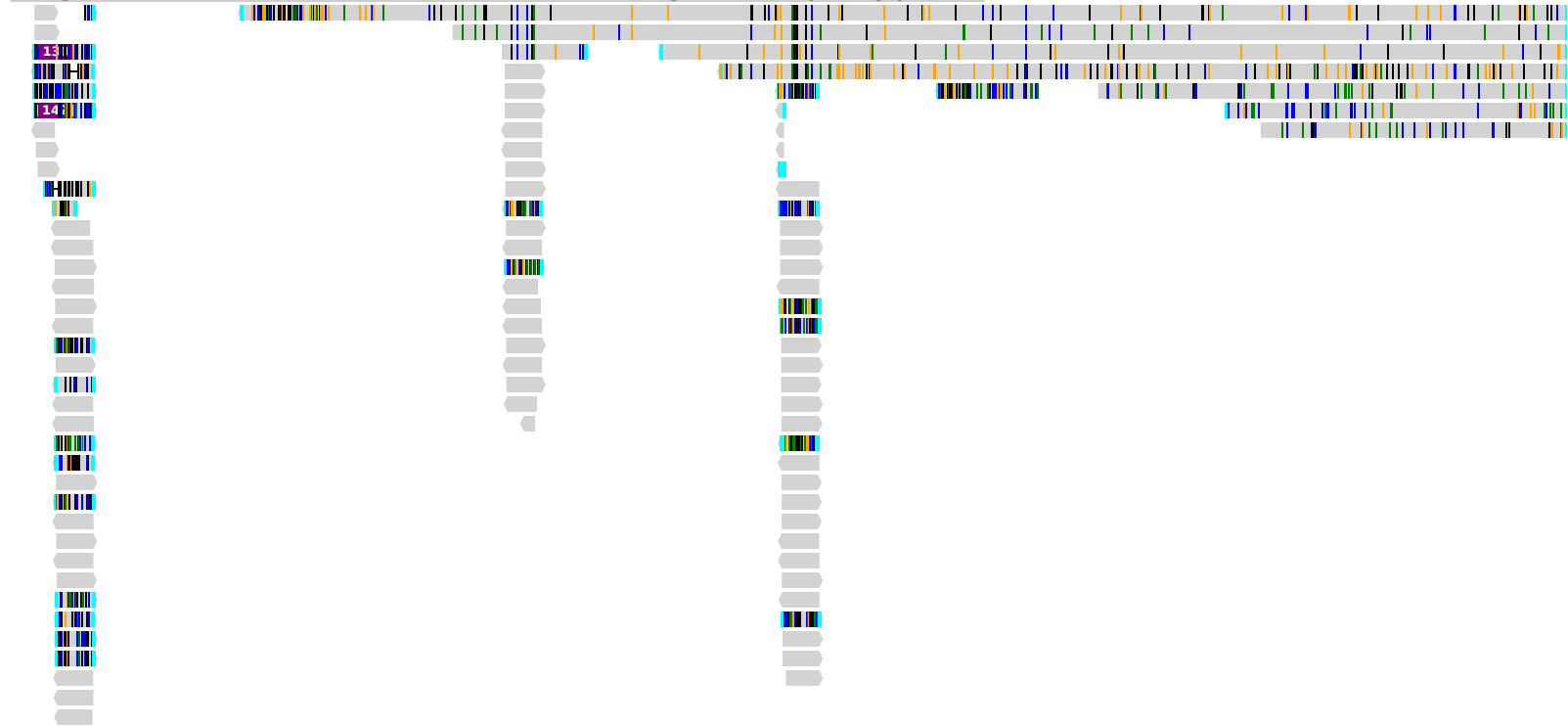
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 2)



MICB*005:02:02 (identity: 96.40%)



Sample: NA19828

Locus: TAP1

Resolution: 4th field

Full typing result:

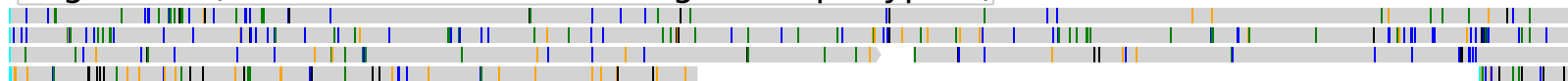
TAP1*01:01:01:03

bam coverage



variants

Alignment (reference: reconstructed gene haplotype 1)



0.0kb 2.0kb 3.0kb 4.0kb 5.0kb 6.0kb 7.0kb 8.0kb 9.0kb

TAP1*01:01:01:03 (identity: 99.99%)



Sample: NA19828

Locus: TAP1

Resolution: 4th field

Full typing result:

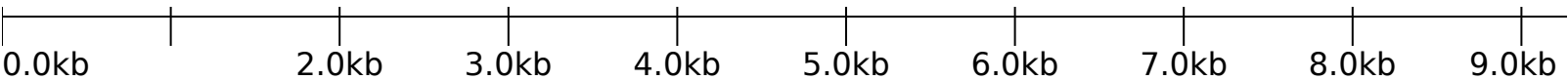
TAP1*01:01:01:02

bam coverage



variants

Alignment (reference: reconstructed gene haplotype 2)



TAP1*01:01:01:02 (identity: 97.99%)



Sample: NA19828

Locus: TAP2

Resolution: 4th field

Full typing result:

TAP2*02:01:02:01

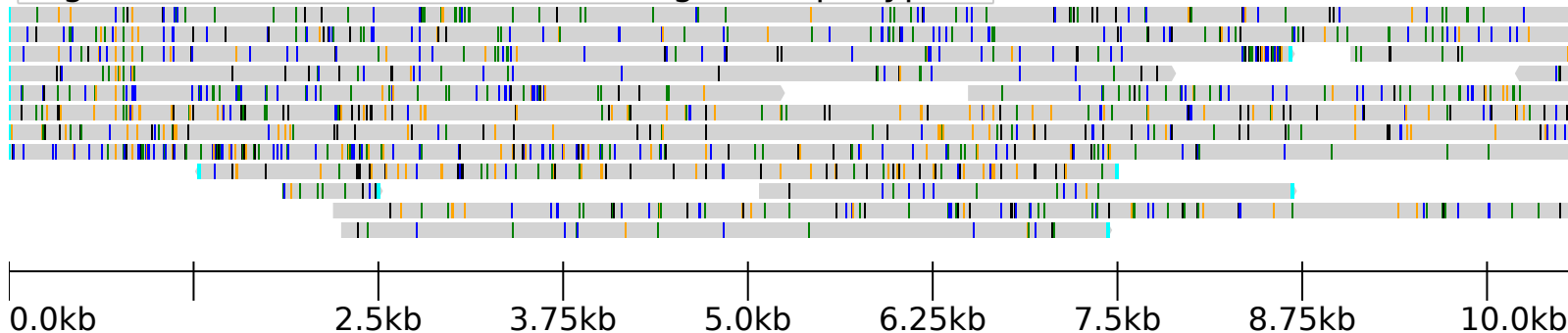
bam coverage



variants



Alignment (reference: reconstructed gene haplotype 1)



TAP2*02:01:02:01 (identity: 99.89%)

