*Sample:* **NA19819**

*Locus:* **HFE**

*Resolution:* **4th field**

*Full typing result:*

HFE*001:01:03

bam coverage

3
2
1

variants

Alignment (reference: reconstructed gene haplotype 1)

| 0.0kb | 1.0kb | 2.0kb | 3.0kb | 4.0kb | 5.0kb | 6.0kb | 7.0kb |
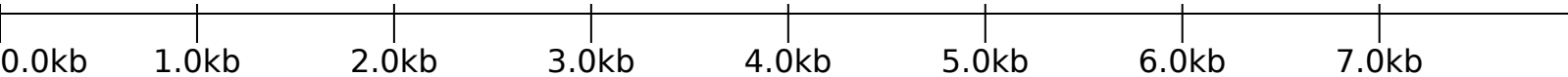
HFE*001:01:03 (identity: 100.00%)

**Sample:** NA19819

**Locus:** HLA-A

**Resolution:** 4th field

**Full typing result:**

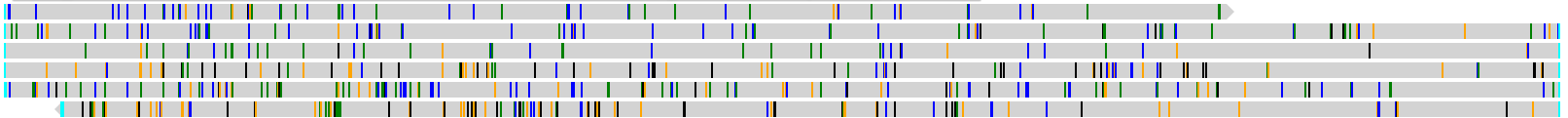HLA-A*02:01:177

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

0.0kb          1.0kb          2.0kb          3.0kb

HLA-A*02:01:177 (identity: 99.94%)

**Sample:** NA19819

**Locus:** HLA-A

**Resolution:** 4th field

**Full typing result:**

| HLA-A*68:01:01:02 | HLA-A*68:267N | HLA-A*68:01:01:09 |

| HLA-A*68:01:01:10 | HLA-A*68:01:02:01 | HLA-A*68:01:11 |

| HLA-A*68:01:38 | HLA-A*68:01:60 | HLA-A*68:114:02 |

| HLA-A*68:143 | HLA-A*68:154 | HLA-A*68:182N |

| HLA-A*68:196 | HLA-A*68:212 | HLA-A*68:231 |

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)

0.0kb          1.0kb          2.0kb          3.0kb
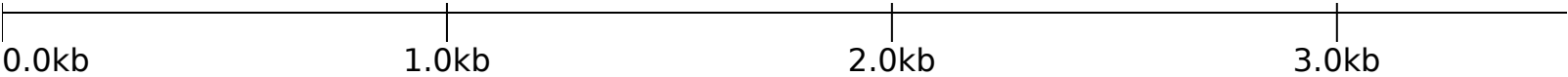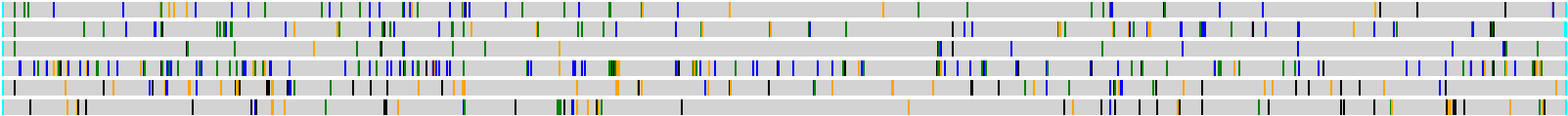
HLA-A*68:01:01:02 (identity: 100.00%)

HLA-A*68:267N (identity: 99.97%)

HLA-A*68:01:01:09 (identity: 99.97%)

HLA-A*68:01:01:10 (identity: 99.97%)

HLA-A*68:01:02:01 (identity: 99.97%)

HLA-A*68:01:11 (identity: 99.97%)

HLA-A*68:01:38 (identity: 99.97%)

HLA-A*68:01:60 (identity: 99.97%)

HLA-A*68:114:02 (identity: 99.97%)

HLA-A*68:143 (identity: 99.97%)

**Sample:** NA19819

**Locus:** HLA-B

**Resolution:** 4th field

**Full typing result:**
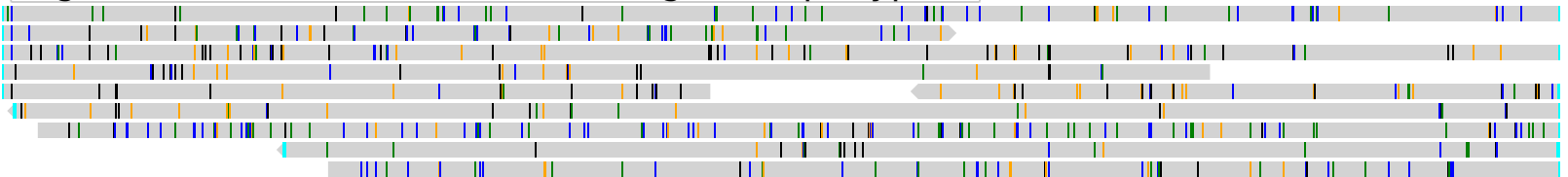
HLA-B*58:02:01:01

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)

0.0kb    1.0kb    2.0kb    3.0kb    4.0kb
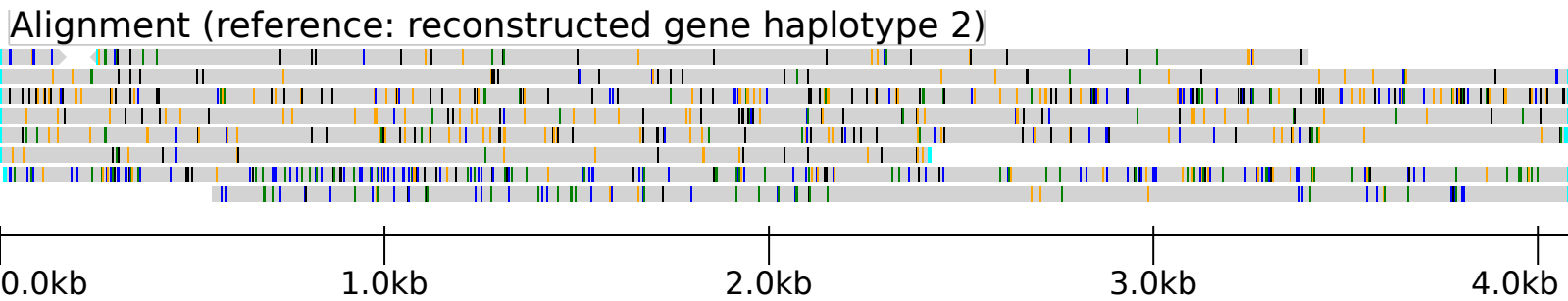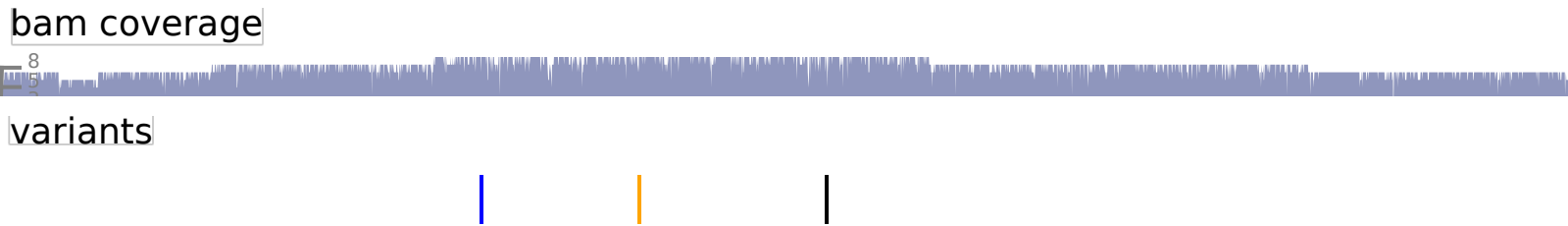
HLA-B*58:02:01:01 (identity: 99.98%)

**Sample:** NA19819

**Locus:** HLA-B

**Resolution:** 4th field

**Full typing result:**

| HLA-B*40:01:02:04 | HLA-B*40:01:02:40 | HLA-B*40:01:02:01 |

| HLA-B*40:01:02:31 | HLA-B*40:01:02:55 | HLA-B*40:01:02:62 |

| HLA-B*40:01:02:64 | HLA-B*40:01:70 | HLA-B*40:175 |

| HLA-B*40:168 |

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

HLA-B*40:01:02:04 (identity: 99.93%)

HLA-B*40:01:02:40 (identity: 99.93%)

HLA-B*40:01:02:01 (identity: 99.90%)

HLA-B*40:01:02:31 (identity: 99.90%)

HLA-B*40:01:02:55 (identity: 99.90%)

HLA-B*40:01:02:62 (identity: 99.90%)

HLA-B*40:01:02:64 (identity: 99.90%)

HLA-B*40:01:70 (identity: 99.90%)

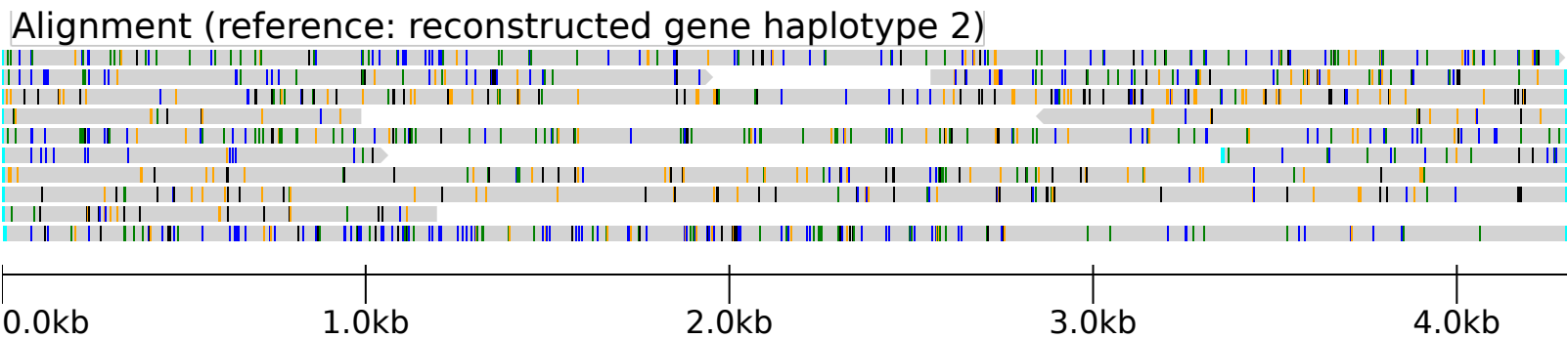HLA-B*40:175 (identity: 99.90%)
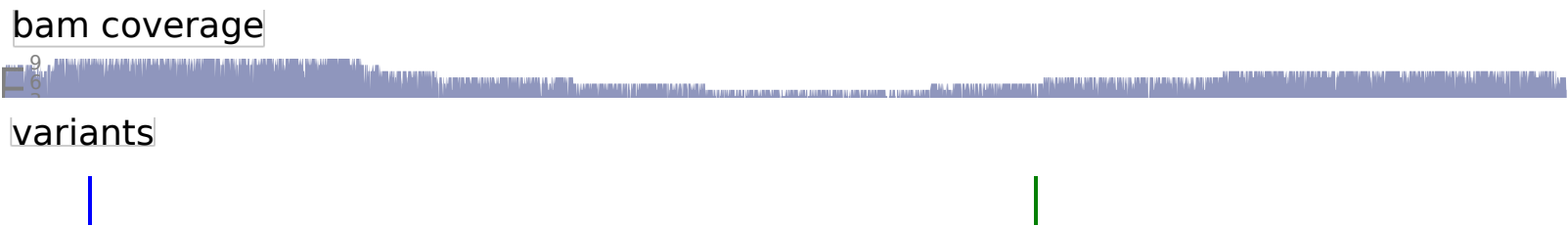
HLA-B*40:168 (identity: 99.90%)

*Sample:* **NA19819**

*Locus:* **HLA-C**

*Resolution:* **4th field**

*Full typing result:*

| HLA-C*06:02:01:95 | HLA-C*06:02:01:01 | HLA-C*06:150 |

| HLA-C*06:322:02 | HLA-C*06:02:29 | HLA-C*06:317 |

| HLA-C*06:02:01:93 | HLA-C*06:02:107 | HLA-C*06:375 |

| HLA-C*06:262 |

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)



HLA-C*06:02:01:95 (identity: 99.95%)

HLA-C*06:02:01:01 (identity: 99.93%)

HLA-C*06:150 (identity: 99.93%)

HLA-C*06:322:02 (identity: 99.93%)

HLA-C*06:02:29 (identity: 99.93%)

HLA-C*06:317 (identity: 99.93%)

HLA-C*06:02:01:93 (identity: 99.93%)

HLA-C*06:02:107 (identity: 99.93%)

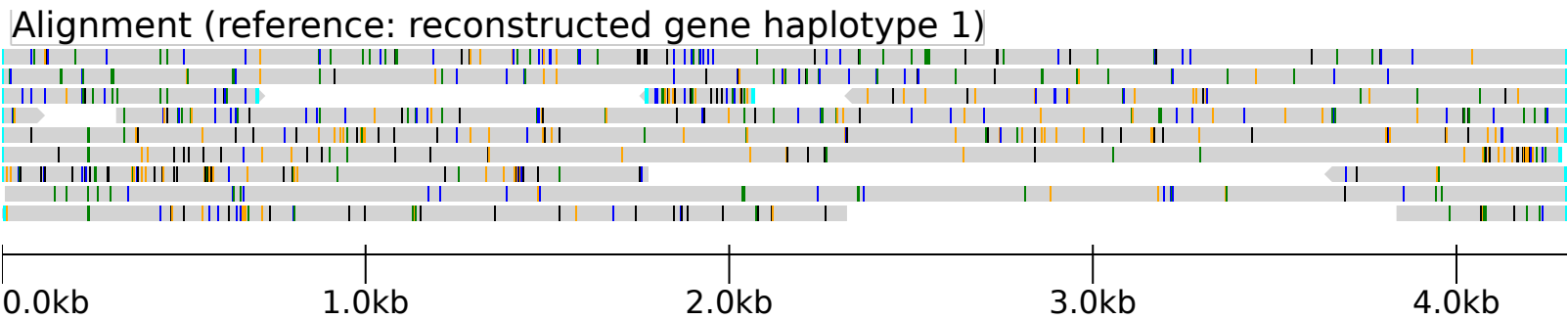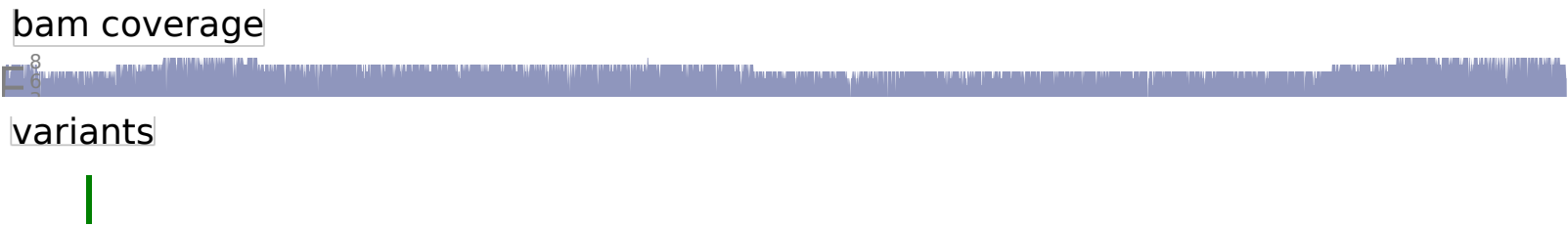HLA-C*06:375 (identity: 99.93%)

HLA-C*06:262 (identity: 99.93%)

*Sample:* **NA19819**

*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 1)

0.0kb    1.0kb    2.0kb    3.0kb    4.0kb

HLA-C*03:04:01:01 (identity: 99.95%)

HLA-C*03:04:01:02 (identity: 99.93%)

HLA-C*03:04:01:86 (identity: 99.93%)

HLA-C*03:04:01:88 (identity: 99.93%)

HLA-C*03:04:01:90Q (identity: 99.86%)

HLA-C*03:04:75 (identity: 99.93%)

HLA-C*03:605 (identity: 99.93%)

HLA-C*03:09 (identity: 99.93%)

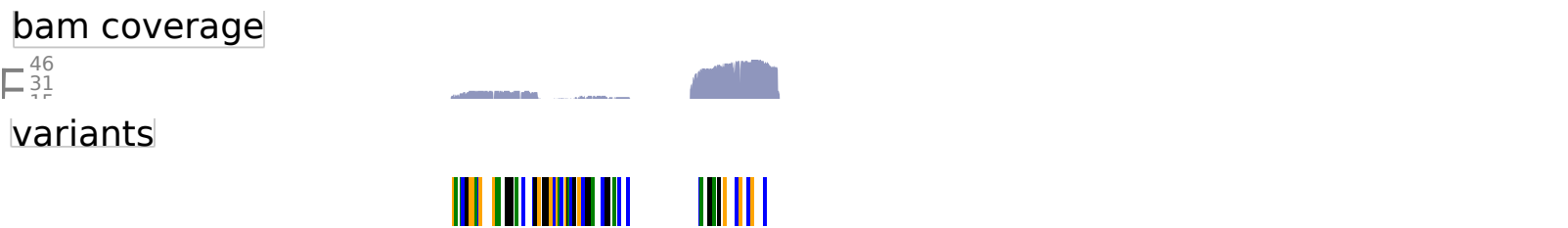HLA-C*03:04:05 (identity: 99.93%)

HLA-C*03:38:02 (identity: 99.93%)
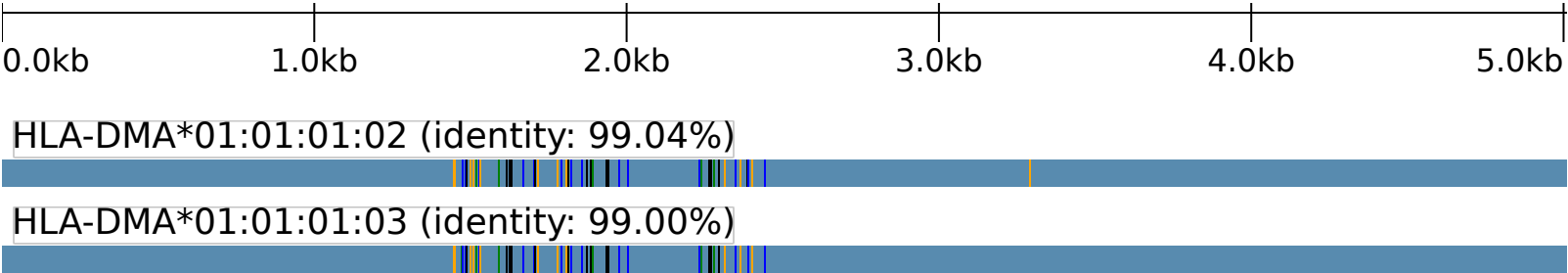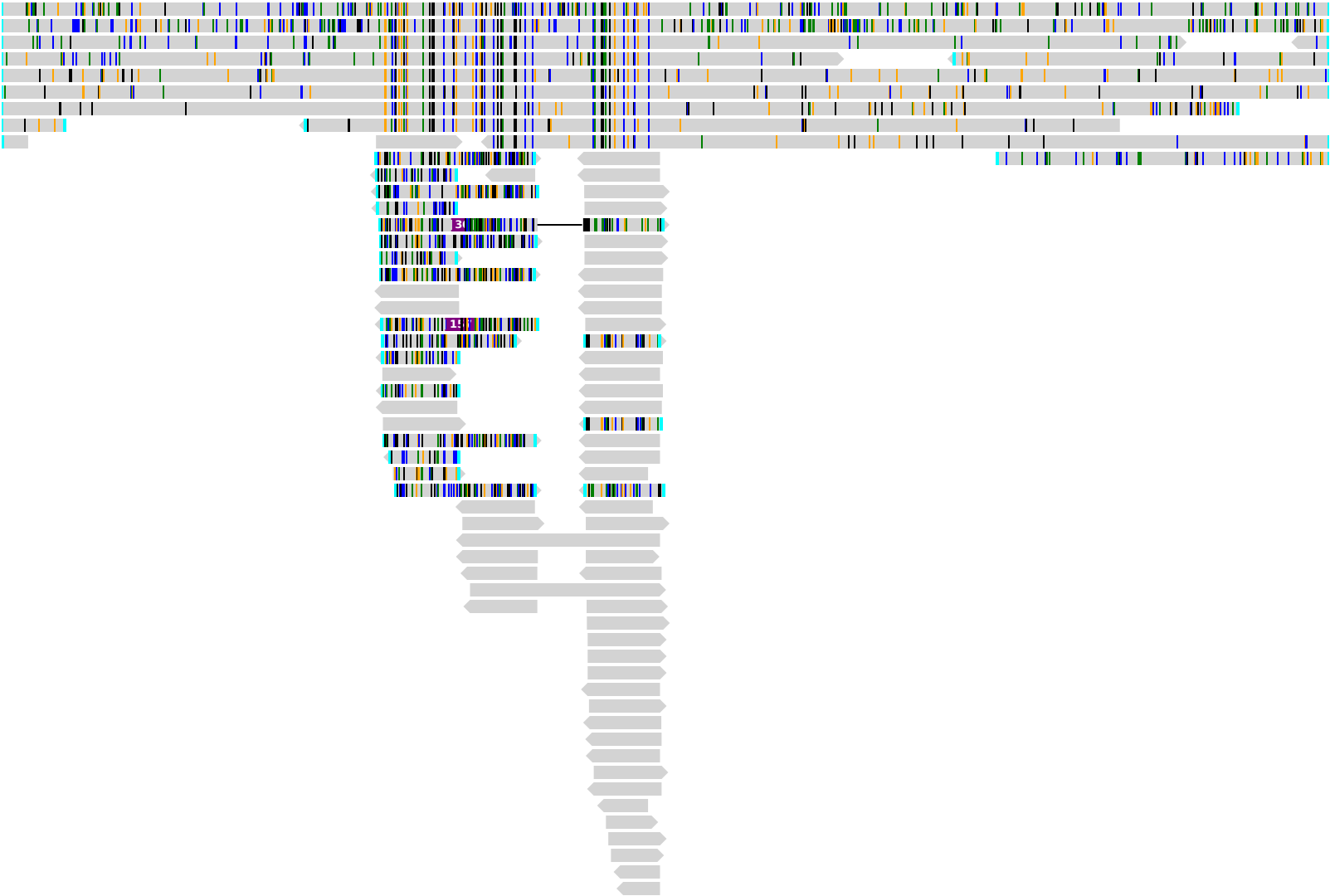
**Sample:** NA19819

**Locus:** HLA-DMA

**Resolution:** 4th field

**Full typing result:**

HLA-DMA*01:01:01:02   HLA-DMA*01:01:01:03

bam coverage

46
31
15

variants

Alignment (reference: reconstructed gene haplotype 2)

0.0kb    1.0kb    2.0kb    3.0kb    4.0kb    5.0kb

HLA-DMA*01:01:01:02 (identity: 99.04%)

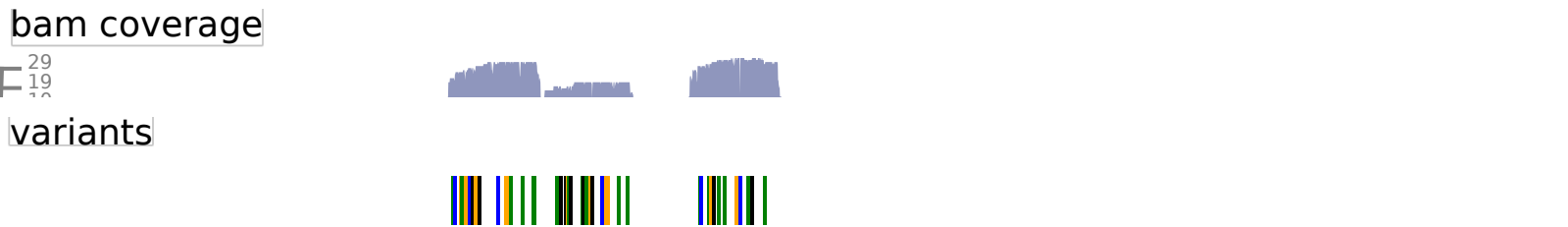HLA-DMA*01:01:01:03 (identity: 99.00%)

*Sample:* **NA19819**

*Locus:* **HLA-DMA**

*Resolution:* **4th field**

*Full typing result:*

HLA-DMA*01:01:01:03    HLA-DMA*01:01:01:02    HLA-DMA*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
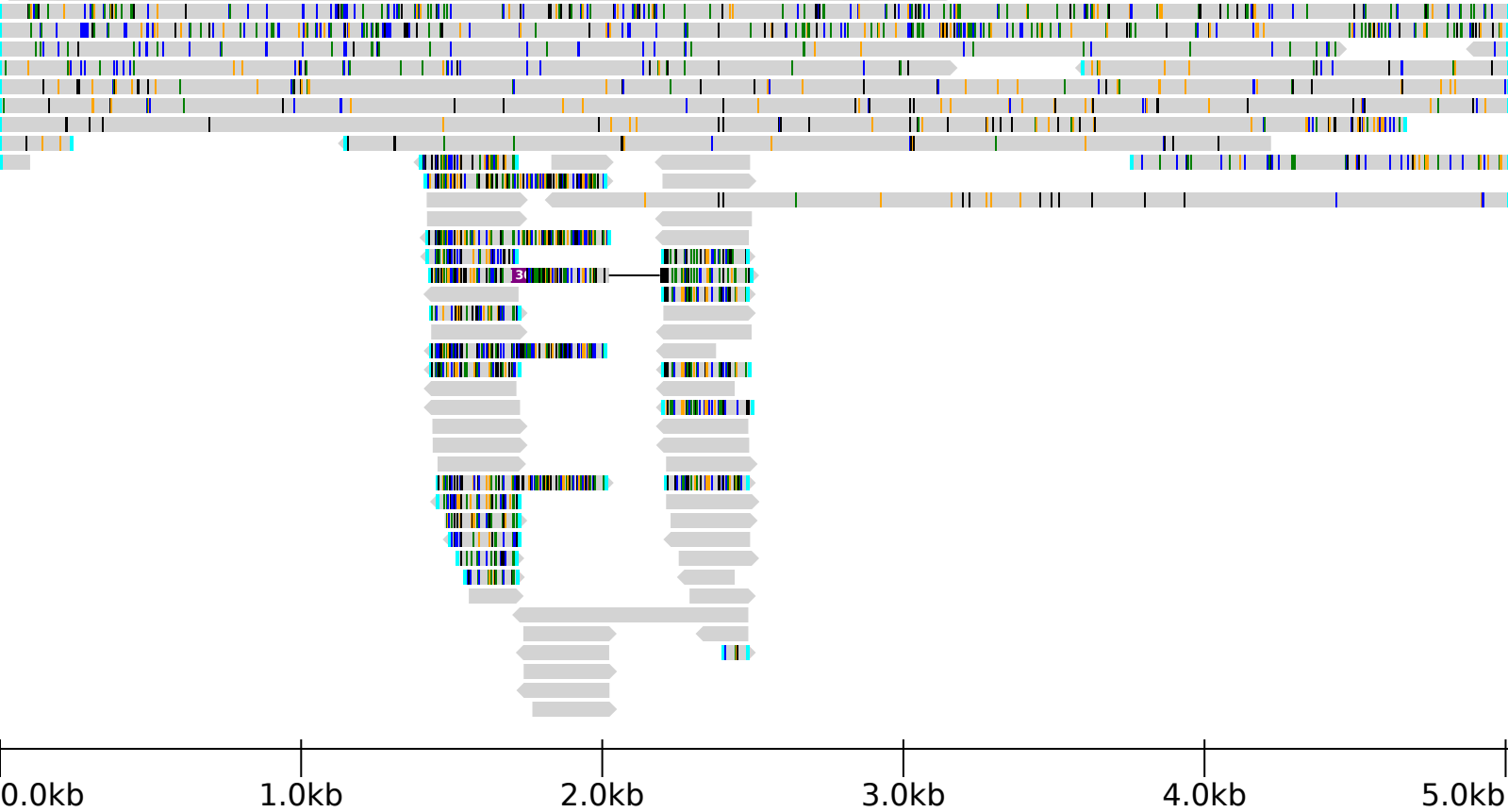
HLA-DMA*01:01:01:03 (identity: 99.90%)

HLA-DMA*01:01:01:02 (identity: 99.90%)

HLA-DMA*01:01:01:01 (identity: 99.92%)

**Sample:** NA19819

**Locus:** HLA-DMB

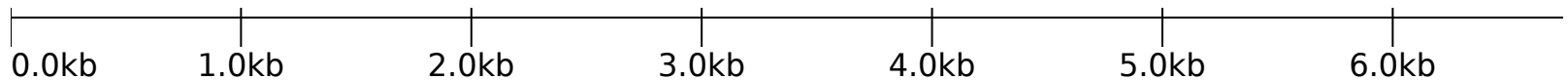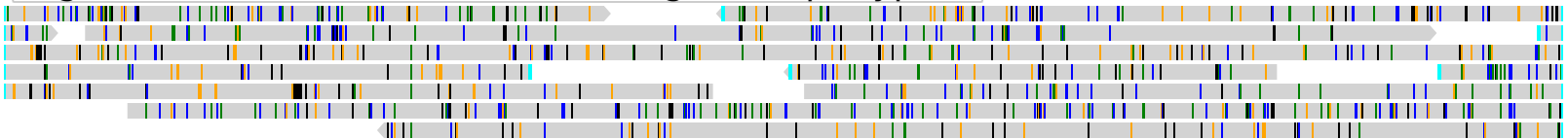**Resolution:** 4th field

**Full typing result:**

HLA-DMB*01:03:01:03

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)

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

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

**Sample:** NA19819

**Locus:** HLA-DMB

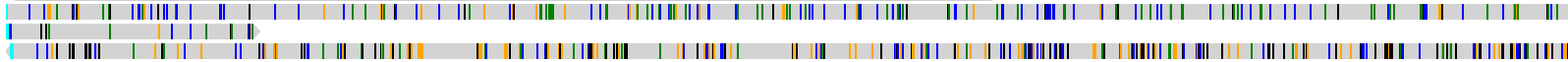**Resolution:** 4th field

**Full typing result:**

HLA-DMB*01:01:01:04

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

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

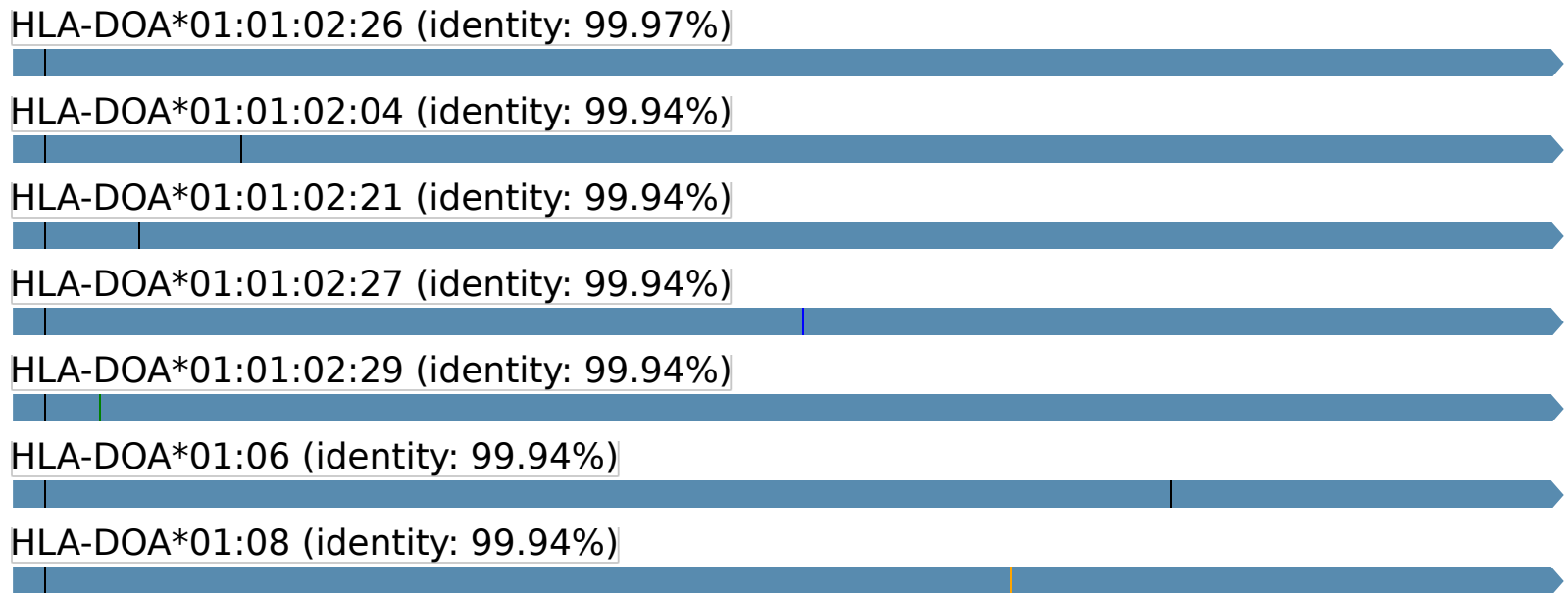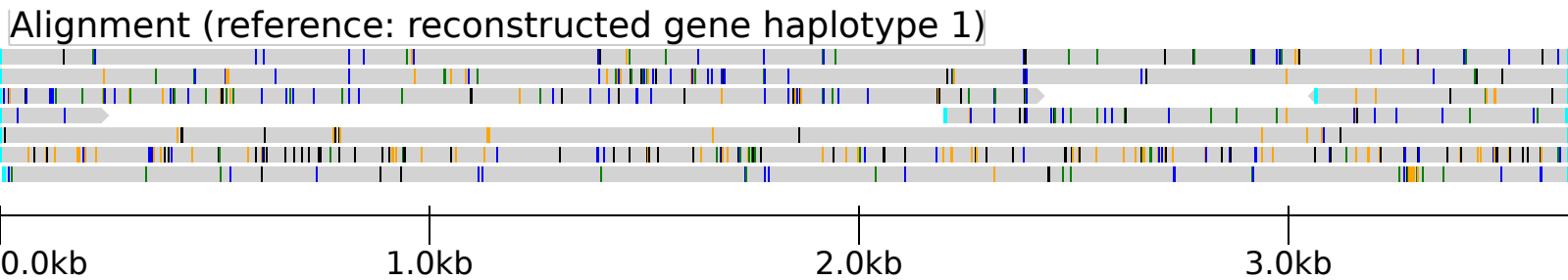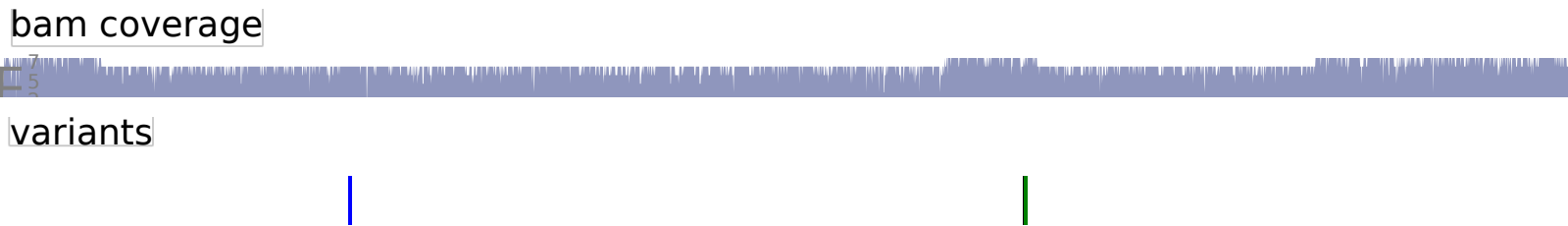HLA-DMB*01:01:01:04 (identity: 99.97%)

# Sample: NA19819

## Locus: HLA-DOA

**Resolution:** 4th field

**Full typing result:**

| HLA-DOA*01:01:02:26 | HLA-DOA*01:01:02:04 | HLA-DOA*01:01:02:21 |

| HLA-DOA*01:01:02:27 | HLA-DOA*01:01:02:29 | HLA-DOA*01:06 |

| HLA-DOA*01:08 |

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)

0.0kb    1.0kb    2.0kb    3.0kb

HLA-DOA*01:01:02:26 (identity: 99.97%)

HLA-DOA*01:01:02:04 (identity: 99.94%)

HLA-DOA*01:01:02:21 (identity: 99.94%)

HLA-DOA*01:01:02:27 (identity: 99.94%)

HLA-DOA*01:01:02:29 (identity: 99.94%)

HLA-DOA*01:06 (identity: 99.94%)

HLA-DOA*01:08 (identity: 99.94%)

# Sample: NA19819

**Locus:** HLA-DOA

**Resolution:** 4th field

**Full typing result:**

HLA-DOA*01:01:01:01

bam coverage



variants

Alignment (reference: reconstructed gene haplotype 2)



0.0kb  1.0kb  2.0kb  3.0kb
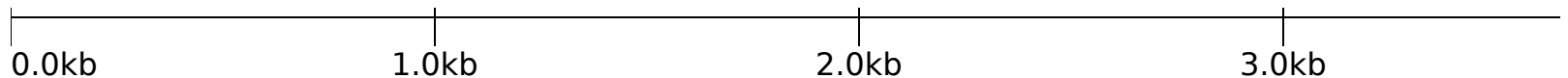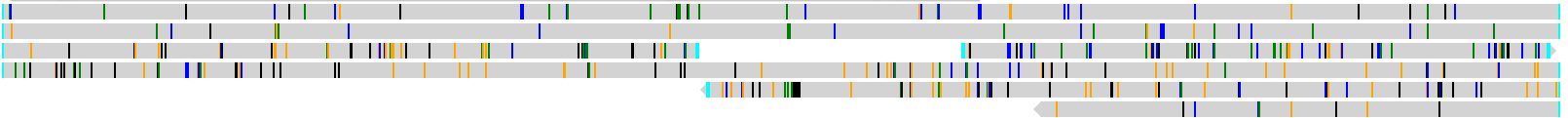
HLA-DOA*01:01:01:01 (identity: 99.97%)

**Sample:** NA19819

**Locus:** HLA-DOB

**Resolution:** 4th field

**Full typing result:**

HLA-DOB*01:02:01:01

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

0.0kb        1.0kb        2.0kb        3.0kb        4.0kb
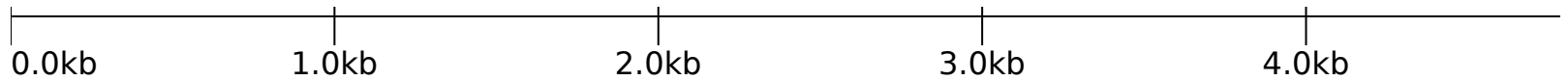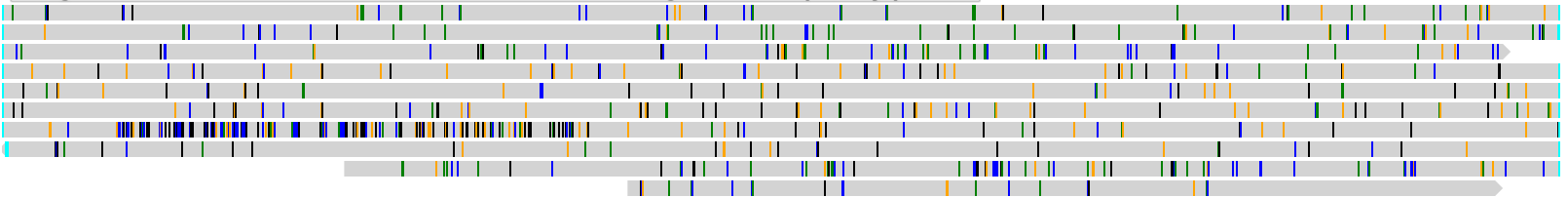
HLA-DOB*01:02:01:01 (identity: 99.98%)

**Sample:** NA19819

**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)

0.0kb          1.0kb          2.0kb          3.0kb          4.0kb
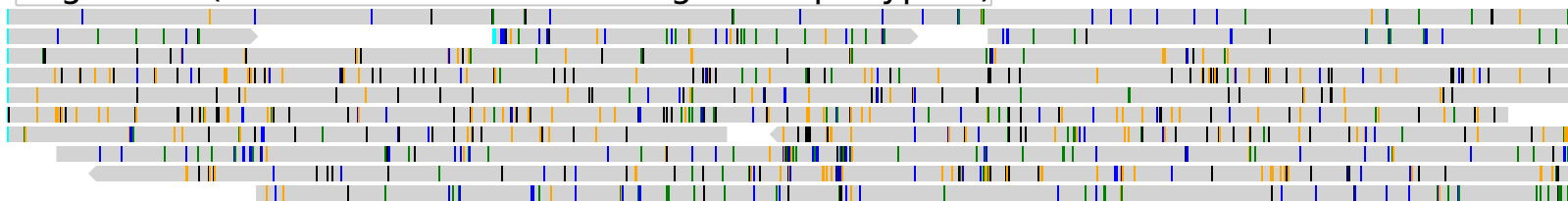
HLA-DOB*01:05 (identity: 99.96%)

HLA-DOB*01:01:01:04 (identity: 99.94%)
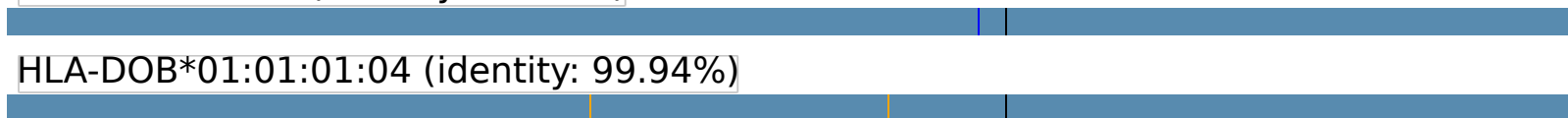
**Sample: NA19819**

**Locus: HLA-DPA1**
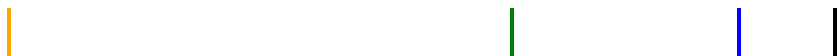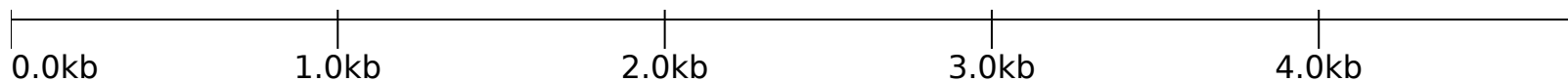
**Resolution: 4th field**

**Full typing result:**

HLA-DPA1*01:03:01:35



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

HLA-DPA1*01:03:01:35 (identity: 99.99%)

**Sample:** NA19819

**Locus:** HLA-DPA1

**Resolution:** 4th field

**Full typing result:**

HLA-DPA1*01:03:01:02

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

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

HLA-DPA1*01:03:01:02 (identity: 99.99%)

**Sample:** NA19819

**Locus:** HLA-DPA2

**Resolution:** 4th field

**Full typing result:**

HLA-DPA2*01:01:01:01



bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

HLA-DPA2*01:01:01:01 (identity: 99.99%)

*Locus:* **HLA-DPA2**

*Resolution:* **4th field**

*Full typing result:*

HLA-DPA2*01:01:01:03

bam coverage



variants

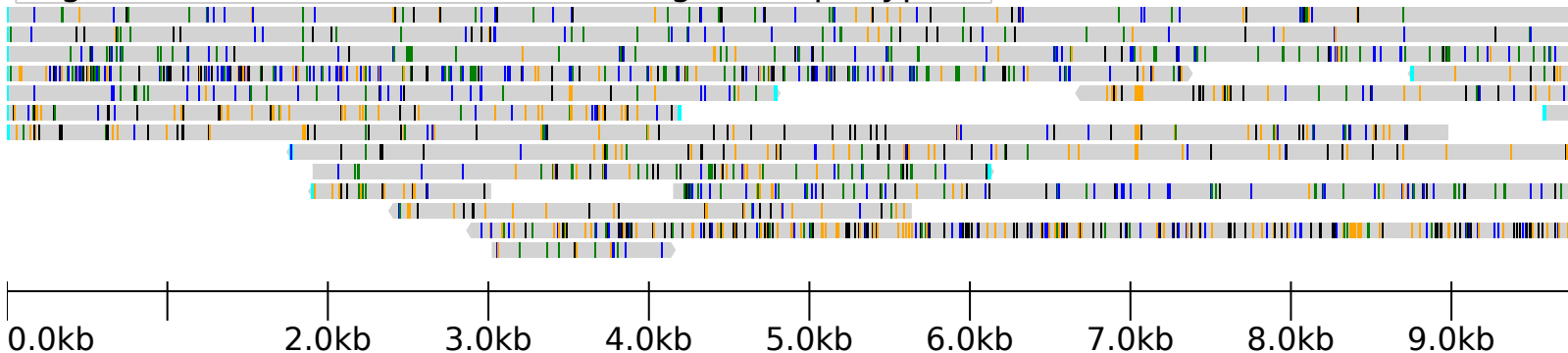Alignment (reference: reconstructed gene haplotype 1)
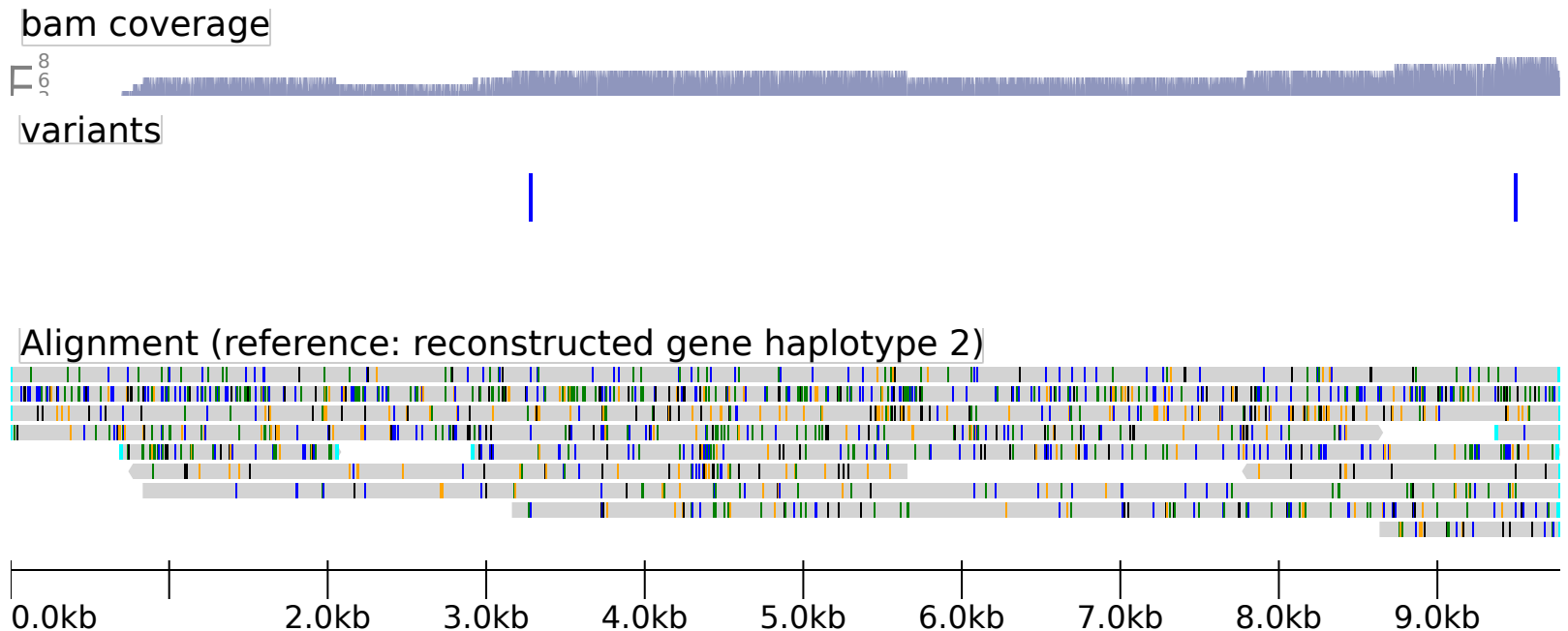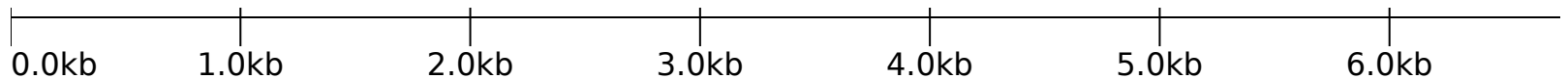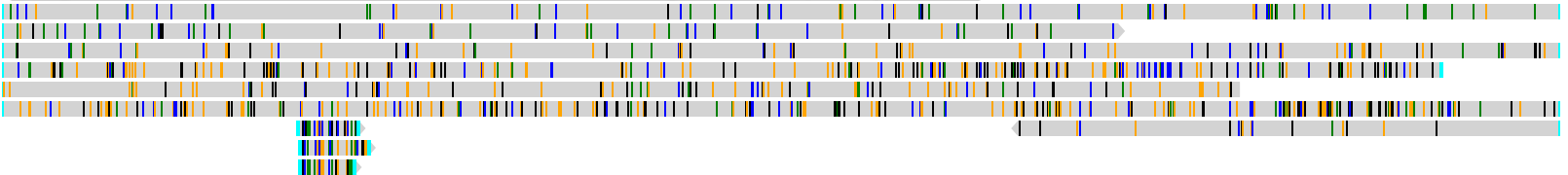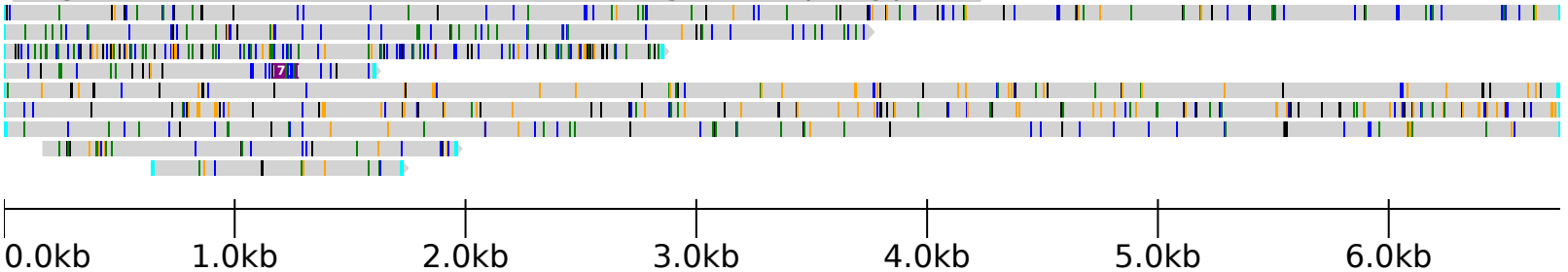


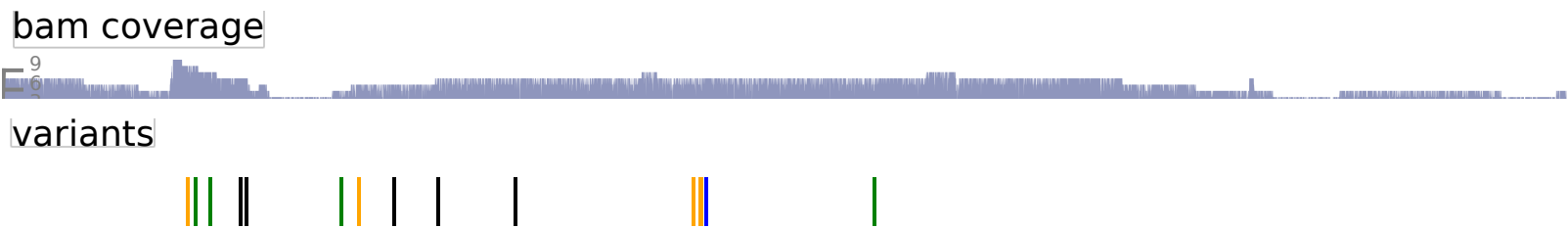HLA-DPA2*01:01:01:03 (identity: 99.97%)

**Sample: NA19819**

**Locus: HLA-DPB1**

**Resolution: 4th field**

**Full typing result:**

HLA-DPB1*02:01:02:90    HLA-DPB1*02:01:02:10    HLA-DPB1*02:01:02:34

HLA-DPB1*02:01:02:60    HLA-DPB1*02:01:02:75    HLA-DPB1*02:01:37

HLA-DPB1*1368:01    HLA-DPB1*1393:01    HLA-DPB1*02:01:02:01

HLA-DPB1*02:01:02:55    HLA-DPB1*1381:01    HLA-DPB1*105:01:01:16

HLA-DPB1*51:01:01:01    HLA-DPB1*02:01:02:05    HLA-DPB1*02:01:02:03

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)

0.0kb    2.5kb    3.75kb    5.0kb    6.25kb    7.5kb    8.75kb    10.0kb
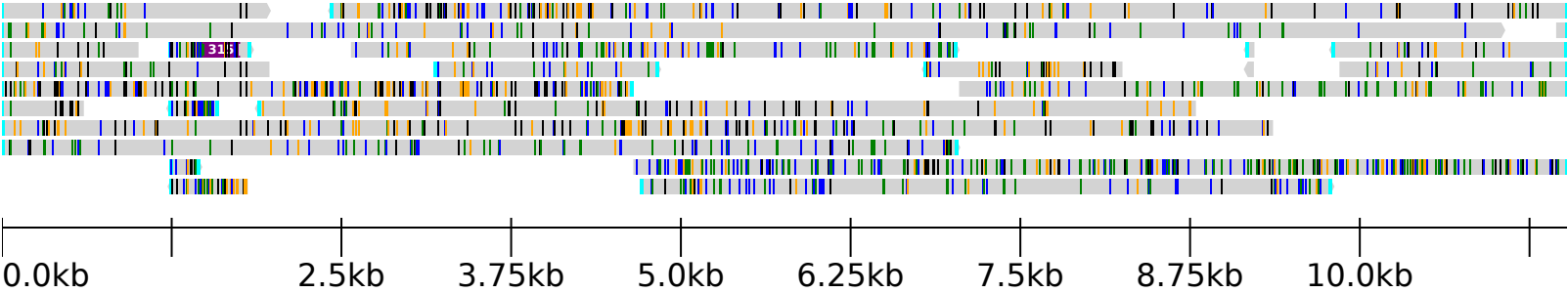
HLA-DPB1*02:01:02:90 (identity: 99.96%)

HLA-DPB1*02:01:02:10 (identity: 99.95%)

HLA-DPB1*02:01:02:34 (identity: 99.90%)

HLA-DPB1*02:01:02:60 (identity: 99.94%)

HLA-DPB1*02:01:02:75 (identity: 99.91%)

HLA-DPB1*02:01:37 (identity: 99.94%)

HLA-DPB1*1368:01 (identity: 99.94%)

HLA-DPB1*1393:01 (identity: 99.94%)

HLA-DPB1*02:01:02:01 (identity: 99.89%)

HLA-DPB1*02:01:02:55 (identity: 99.86%)

## Sample: NA19819

*Locus:* **HLA-DPB1**

*Resolution:* **4th field**

**Full typing result:**

| HLA-DPB1*04:01:01:65 | HLA-DPB1*04:01:01:01 | HLA-DPB1*04:01:01:121 |
| HLA-DPB1*04:01:01:30 | HLA-DPB1*04:01:01:35 | HLA-DPB1*04:01:01:06 |
| HLA-DPB1*1423:01N | HLA-DPB1*04:01:01:02 | HLA-DPB1*04:01:01:03 |
| HLA-DPB1*04:01:01:04 | HLA-DPB1*04:01:01:07 | HLA-DPB1*04:01:01:08 |
| HLA-DPB1*04:01:01:10 | HLA-DPB1*04:01:01:101 | HLA-DPB1*04:01:01:104 |

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

0.0kb   2.5kb   3.75kb   5.0kb   6.25kb   7.5kb   8.75kb   10.0kb
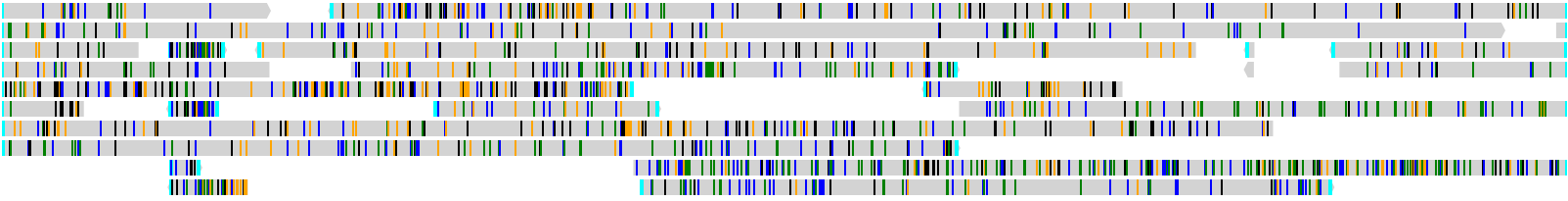
HLA-DPB1*04:01:01:65 (identity: 99.96%)

HLA-DPB1*04:01:01:01 (identity: 99.95%)

HLA-DPB1*04:01:01:121 (identity: 99.93%)

HLA-DPB1*04:01:01:30 (identity: 99.95%)

HLA-DPB1*04:01:01:35 (identity: 99.88%)

HLA-DPB1*04:01:01:06 (identity: 99.91%)

HLA-DPB1*1423:01N (identity: 99.91%)

HLA-DPB1*04:01:01:02 (identity: 99.88%)

HLA-DPB1*04:01:01:03 (identity: 99.81%)

HLA-DPB1*04:01:01:04 (identity: 99.91%)

**Sample: NA19819**

**Locus: HLA-DPB2**

**Resolution: 4th field**

**Full typing result:**

HLA-DPB2*03:01:01:01

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)

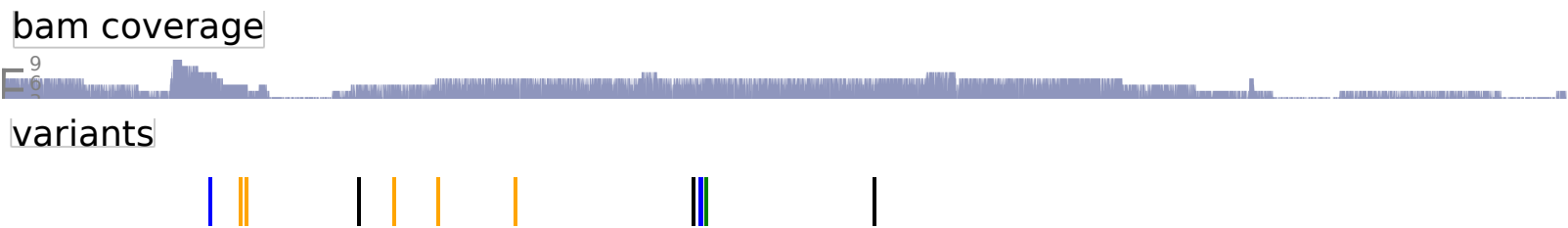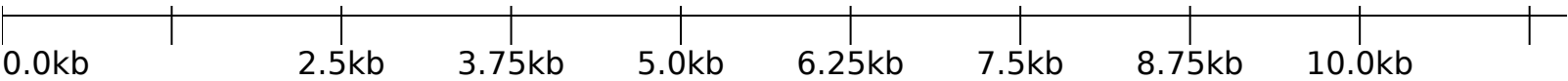HLA-DPB2*03:01:01:01 (identity: 99.94%)

*Sample:* **NA19819**

*Locus:* **HLA-DQA1**

*Resolution:* **4th field**

*Full typing result:*

**HLA-DQA1\*01:05:01:01**   **HLA-DQA1\*01:04:01:01**   **HLA-DQA1\*01:04:01:02**



bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

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

HLA-DQA1\*01:05:01:01 (identity: 99.74%)

HLA-DQA1\*01:04:01:01 (identity: 99.71%)

HLA-DQA1\*01:04:01:02 (identity: 99.72%)
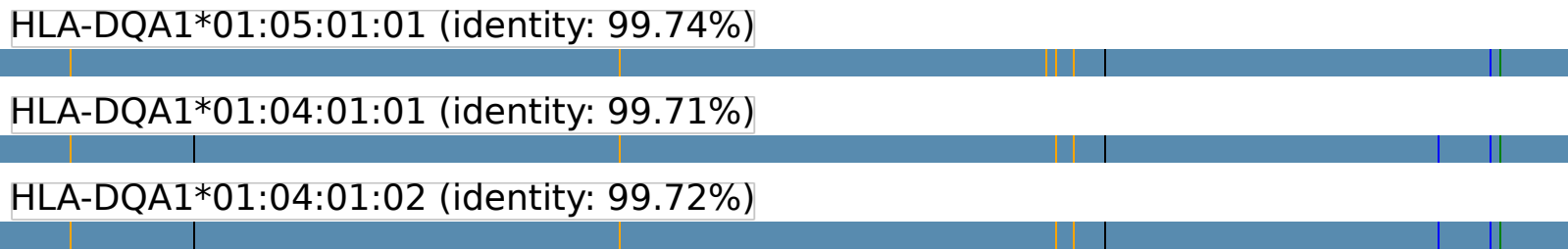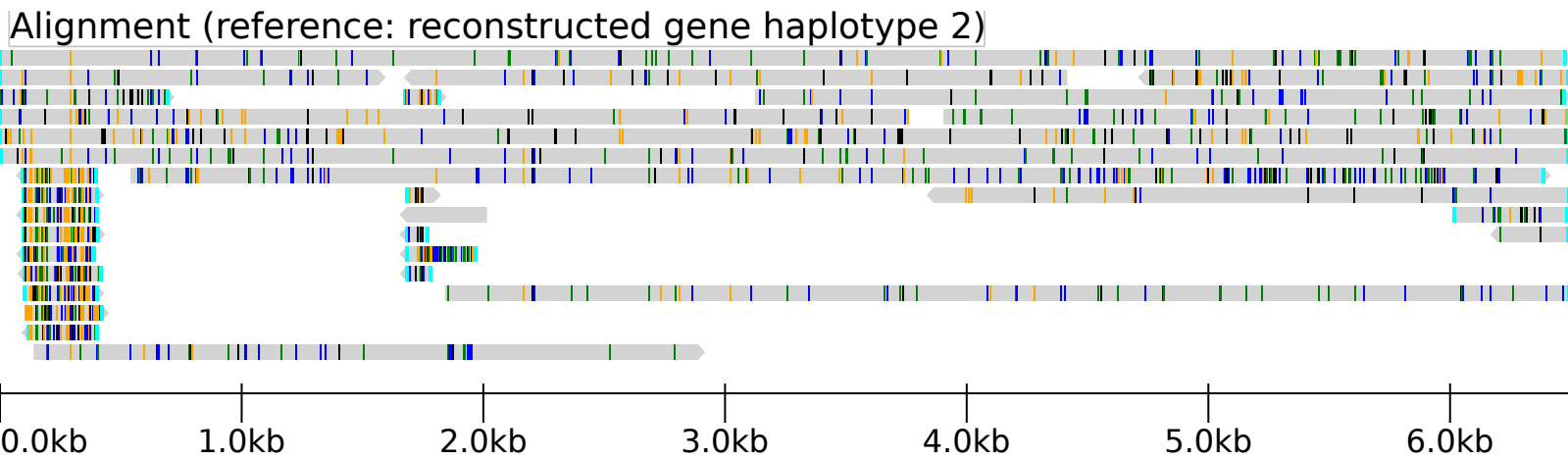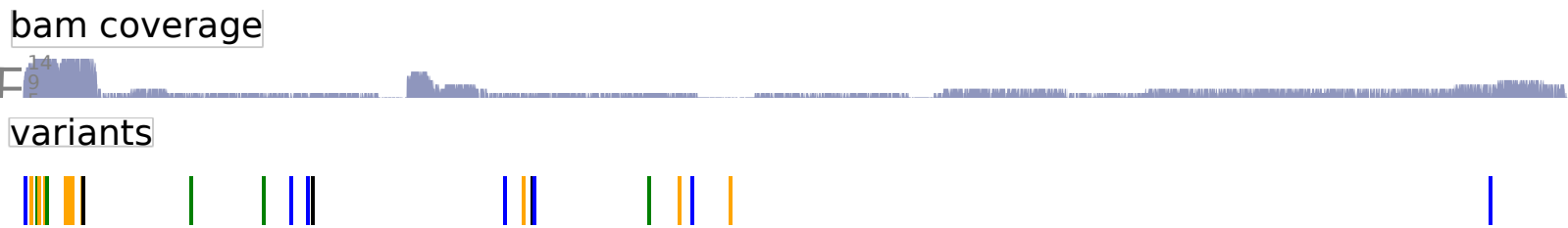
*Sample:* **NA19819**

*Locus:* **HLA-DQA1**

*Resolution:* **4th field**

*Full typing result:*

HLA-DQA1*01:01:01:01   HLA-DQA1*01:01:01:05

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)

0.0kb   1.0kb   2.0kb   3.0kb   4.0kb   5.0kb   6.0kb
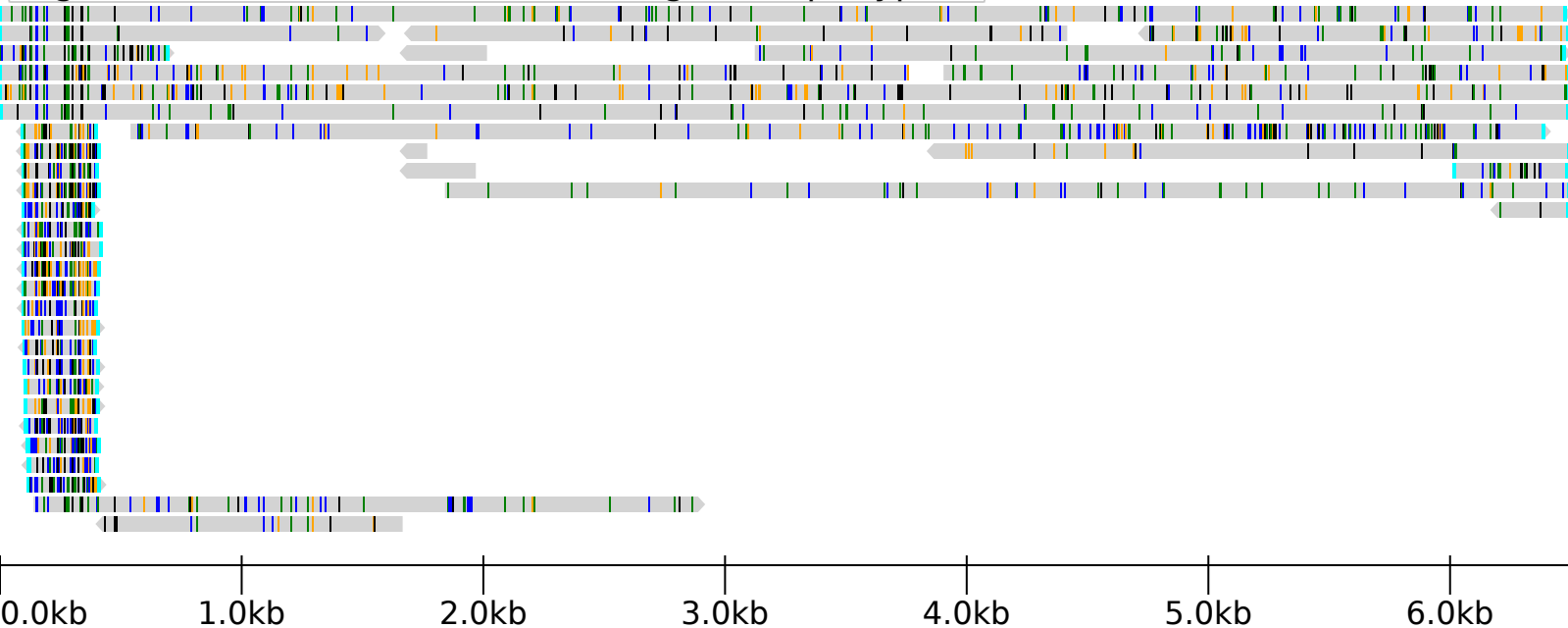
HLA-DQA1*01:01:01:01 (identity: 99.80%)

HLA-DQA1*01:01:01:05 (identity: 99.78%)

## Sample: NA19819

*Locus:* HLA-DQA2

*Resolution:* 4th field
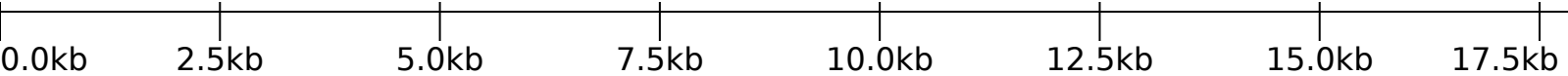
*Full typing result:*

HLA-DQA2*01:01:02:01

bam coverage

44
29
15

variants

Alignment (reference: reconstructed gene haplotype 1)

2550
2556
2582
2550
2500
2552
2548
2552
2541
2512
2541
2523
2543

0.0kb   5.0kb   7.5kb   10.0kb   12.5kb   15.0kb   17.5kb   20.0kb   22.5kb
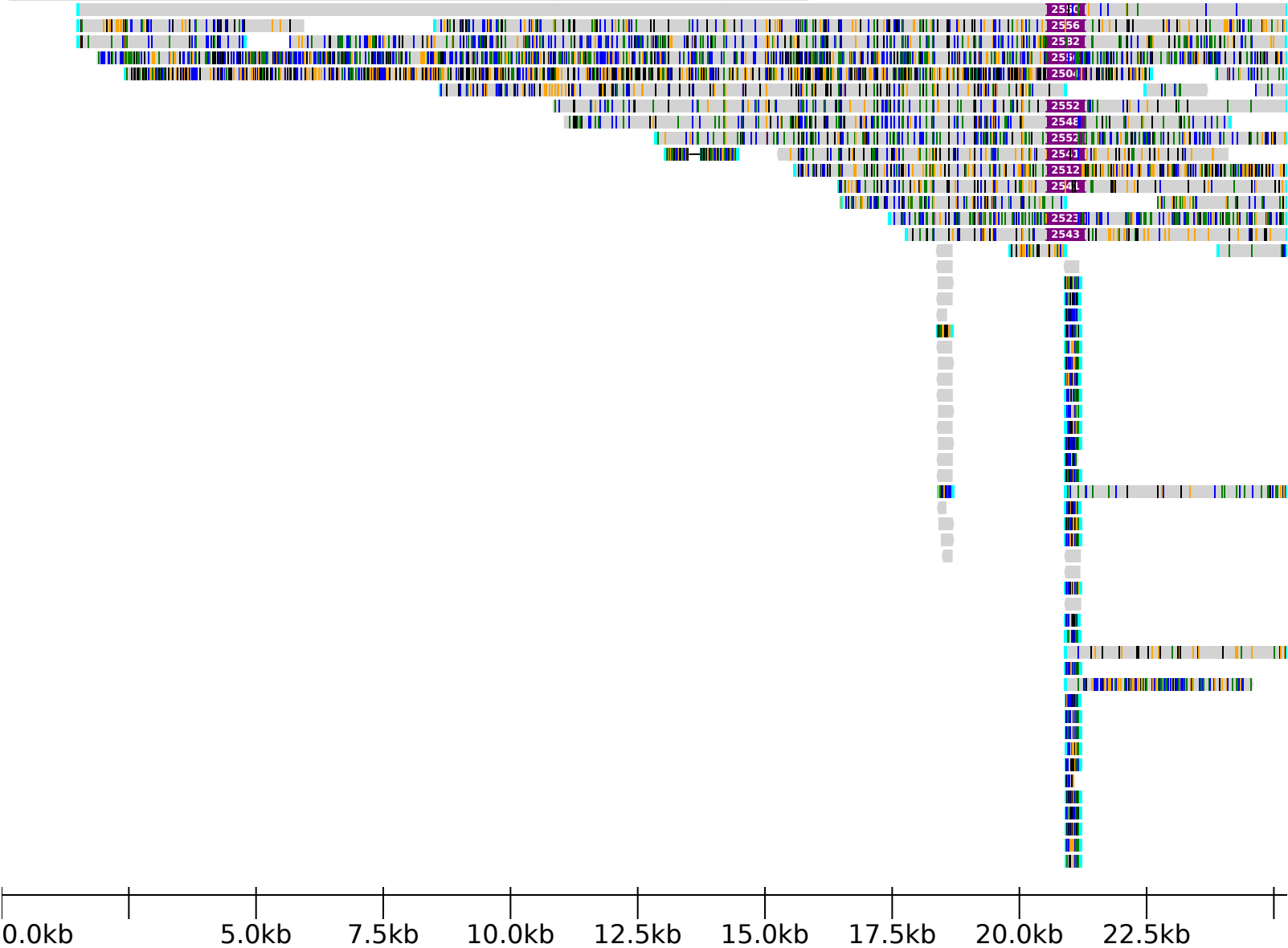
HLA-DQA2*01:01:02:01 (identity: 99.98%)

# Sample: NA19819

*Locus:* HLA-DQB1

*Resolution:* 4th field

*Full typing result:*

HLA-DQB1*05:01:01:02



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*05:01:01:02 (identity: 100.00%)

**Sample:** NA19819

**Locus:** HLA-DQB1

**Resolution:** 4th field

**Full typing result:**

HLA-DQB1*05:01:01:03

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

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

HLA-DQB1*05:01:01:03 (identity: 99.99%)

*Sample:* **NA19819**

*Locus:* **HLA-DQB2**

*Resolution:* **4th field**

*Full typing result:*

HLA-DQB2*01:01:01:01   HLA-DQB2*01:01:01:13   HLA-DQB2*01:04

HLA-DQB2*01:07:01:01   HLA-DQB2*01:07:01:02   HLA-DQB2*01:07:01:03

HLA-DQB2*01:07:01:04   HLA-DQB2*01:02:01:01   HLA-DQB2*01:02:01:02

HLA-DQB2*01:02:01:03   HLA-DQB2*01:02:01:04
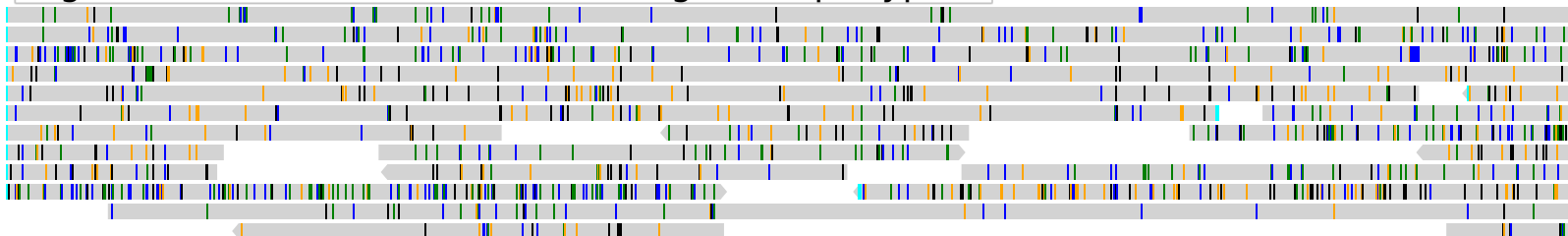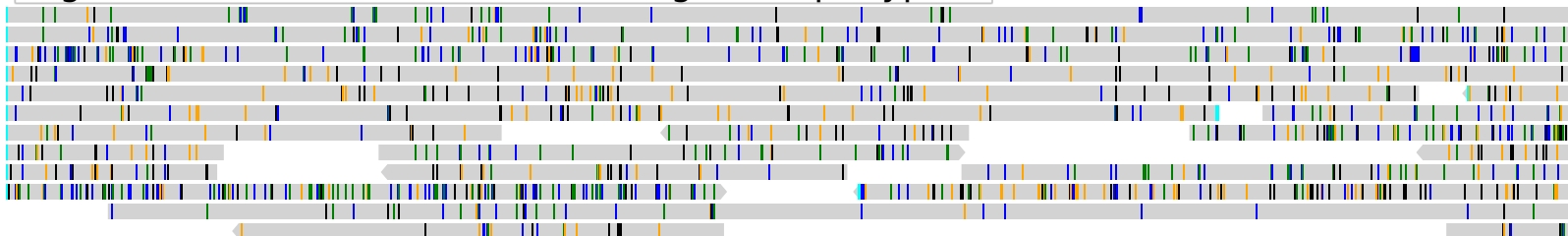
bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)

0.0kb    1.0kb    2.0kb    3.0kb    4.0kb    5.0kb    6.0kb    7.0kb
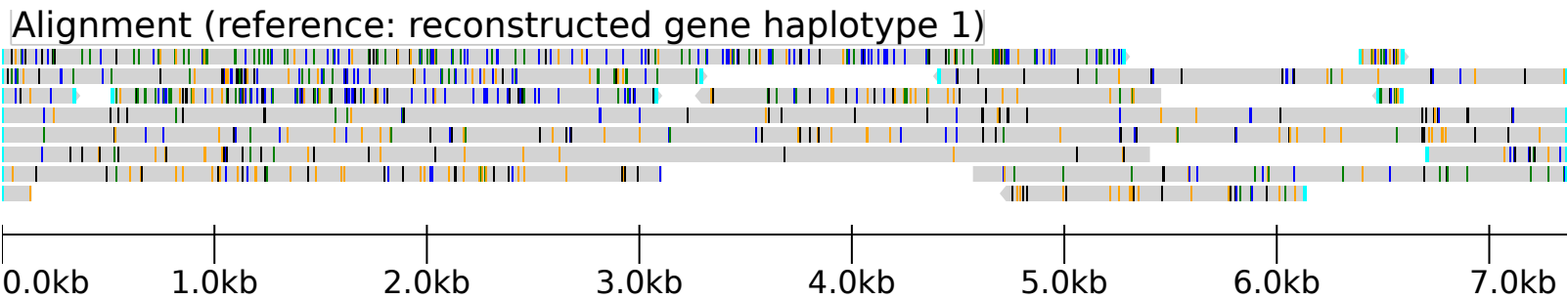
HLA-DQB2*01:01:01:01 (identity: 99.99%)

HLA-DQB2*01:01:01:13 (identity: 99.99%)

HLA-DQB2*01:04 (identity: 99.94%)

HLA-DQB2*01:07:01:01 (identity: 99.95%)

HLA-DQB2*01:07:01:02 (identity: 99.94%)

HLA-DQB2*01:07:01:03 (identity: 99.97%)

HLA-DQB2*01:07:01:04 (identity: 99.96%)

HLA-DQB2*01:02:01:01 (identity: 99.29%)

HLA-DQB2*01:02:01:02 (identity: 99.27%)

HLA-DQB2*01:02:01:03 (identity: 99.30%)

*Sample:* **NA19819**

*Locus:* **HLA-DQB2**

*Resolution:* **4th field**

*Full typing result:*

HLA-DQB2*01:01:01:15   HLA-DQB2*01:04   HLA-DQB2*01:07:01:01

HLA-DQB2*01:07:01:02   HLA-DQB2*01:07:01:03   HLA-DQB2*01:07:01:04

HLA-DQB2*01:10N   HLA-DQB2*01:02:04   HLA-DQB2*01:08

HLA-DQB2*01:02:01:01   HLA-DQB2*01:02:01:02   HLA-DQB2*01:02:01:03

HLA-DQB2*01:02:01:04   HLA-DQB2*01:01:01:03   HLA-DQB2*01:01:01:04

HLA-DQB2*01:01:01:06   HLA-DQB2*01:05   HLA-DQB2*01:01:01:09

HLA-DQB2*01:01:01:10   HLA-DQB2*01:01:01:11



bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

0.0kb   1.0kb   2.0kb   3.0kb   4.0kb   5.0kb   6.0kb   7.0kb
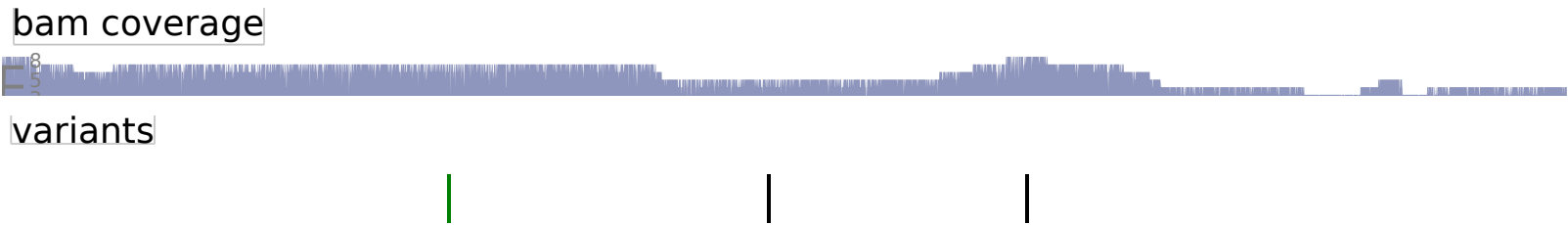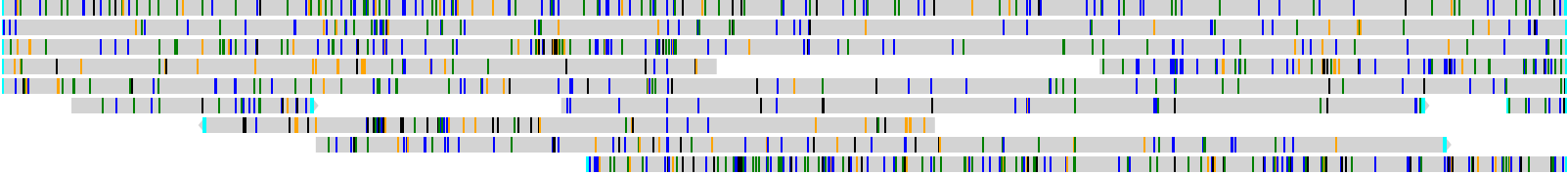
HLA-DQB2*01:01:01:15 (identity: 99.93%)

HLA-DQB2*01:04 (identity: 99.92%)

HLA-DQB2*01:07:01:01 (identity: 99.92%)

HLA-DQB2*01:07:01:02 (identity: 99.94%)

HLA-DQB2*01:07:01:03 (identity: 99.94%)

HLA-DQB2*01:07:01:04 (identity: 99.93%)

HLA-DQB2*01:10N (identity: 99.92%)

HLA-DQB2*01:02:04 (identity: 99.37%)

HLA-DQB2*01:08 (identity: 99.39%)

HLA-DQB2*01:02:01:01 (identity: 99.28%)

**Sample:** NA19819

**Locus:** HLA-DRA

**Resolution:** 4th field

**Full typing result:**

HLA-DRA*01:02:02:02

bam coverage

```
30
20
10
```

variants

Alignment (reference: reconstructed gene haplotype 1)

0.0kb   1.0kb   2.0kb   3.0kb   4.0kb   5.0kb

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

**Sample: NA19819**

**Locus: HLA-DRA**

**Resolution: 4th field**

**Full typing result:**
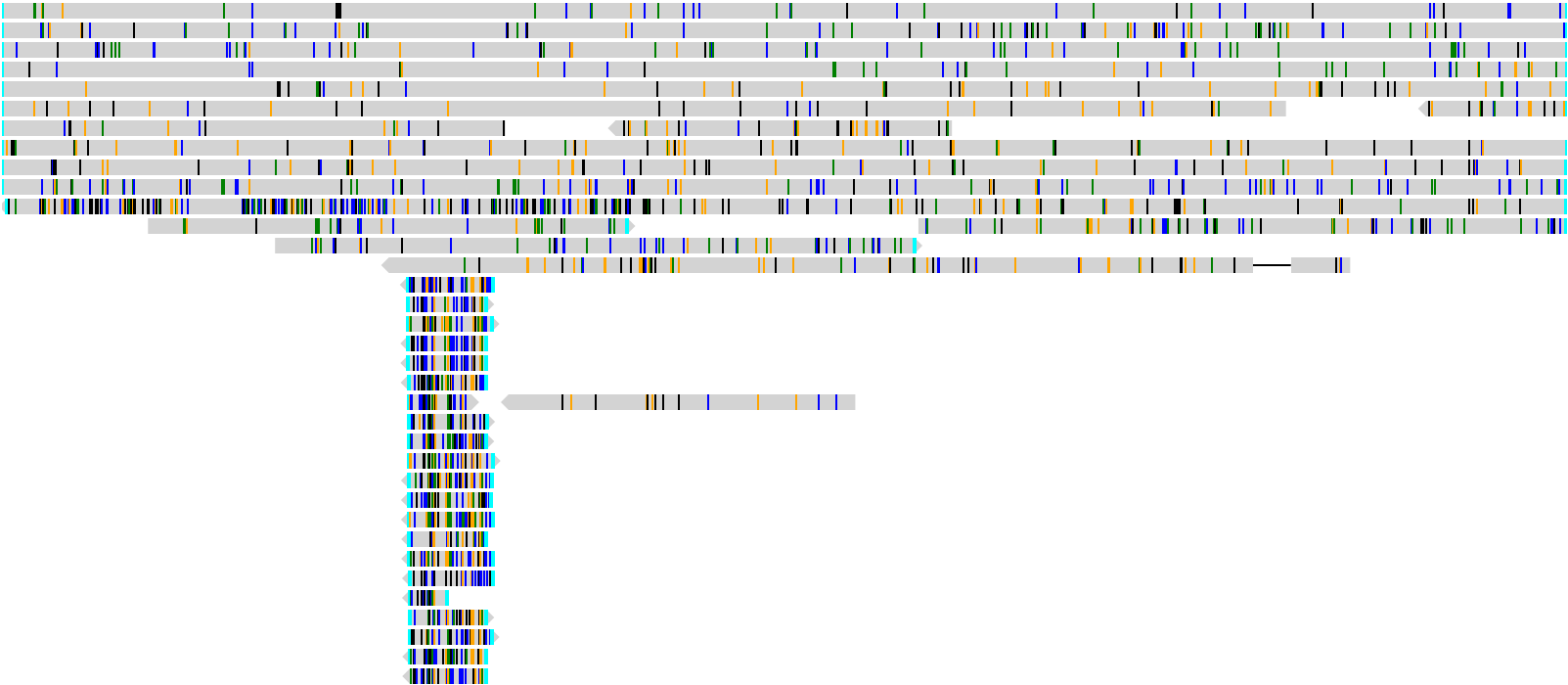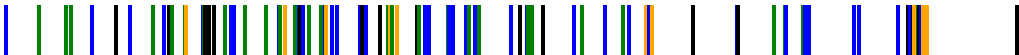
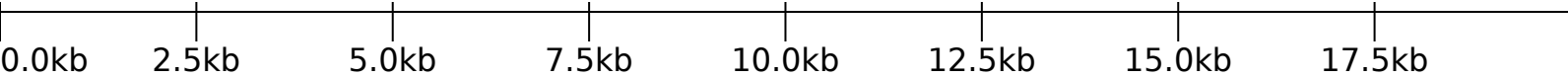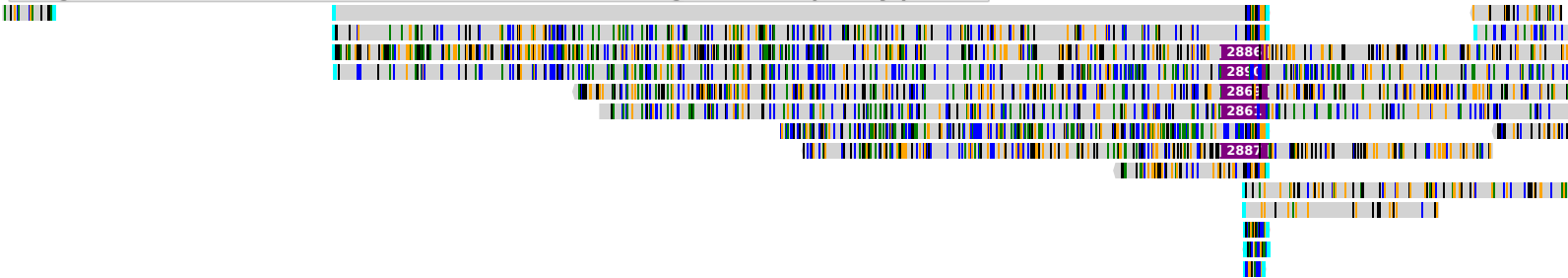HLA-DRA*01:01:01:04    HLA-DRA*01:01:01:05



bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

HLA-DRA*01:01:01:04 (identity: 100.00%)
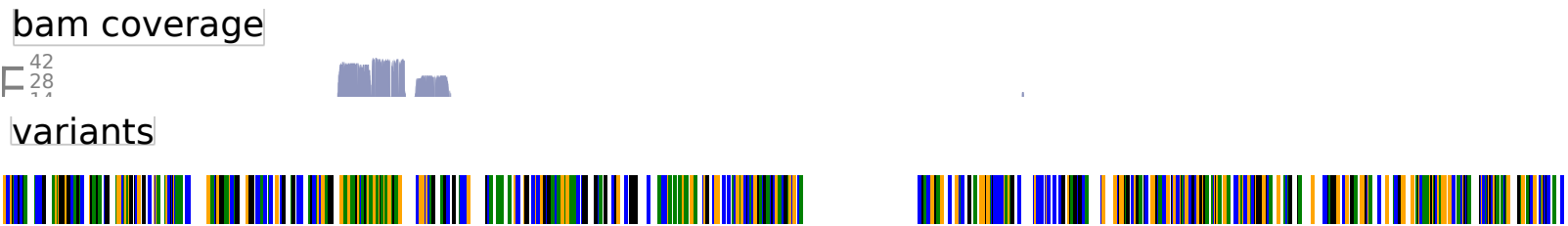
HLA-DRA*01:01:01:05 (identity: 100.00%)

*Sample:* **NA19819**

*Locus:* **HLA-DRB1**

*Resolution:* **4th field**

*Full typing result:*

HLA-DRB1*01:01:47   HLA-DRB1*01:01:01:01   HLA-DRB1*01:01:01:02

HLA-DRB1*01:01:01:04   HLA-DRB1*01:01:07   HLA-DRB1*01:82

HLA-DRB1*01:01:38   HLA-DRB1*01:01:39   HLA-DRB1*01:01:40

HLA-DRB1*01:117   HLA-DRB1*01:130   HLA-DRB1*01:131N

HLA-DRB1*01:132   HLA-DRB1*01:133   HLA-DRB1*01:134

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)



0.0kb    2.5kb    3.75kb    5.0kb    6.25kb    7.5kb    8.75kb    11.25kb

HLA-DRB1*01:01:47 (identity: 97.11%)

HLA-DRB1*01:01:01:01 (identity: 97.11%)

HLA-DRB1*01:01:01:02 (identity: 97.10%)

HLA-DRB1*01:01:01:04 (identity: 97.09%)

HLA-DRB1*01:01:07 (identity: 97.09%)

HLA-DRB1*01:82 (identity: 97.09%)

HLA-DRB1*01:01:38 (identity: 97.08%)

HLA-DRB1*01:01:39 (identity: 97.08%)

HLA-DRB1*01:01:40 (identity: 97.08%)

HLA-DRB1*01:117 (identity: 97.08%)

*Sample:* **NA19819**

*Locus:* **HLA-DRB1**

*Resolution:* **4th field**

*Full typing result:*

| | | |
|---|---|---|
| HLA-DRB1*12:02:01:01 | HLA-DRB1*12:01:01:04 | HLA-DRB1*12:01:01:05 |
| HLA-DRB1*12:01:01:06 | HLA-DRB1*12:02:01:02 | HLA-DRB1*12:01:01:15 |
| HLA-DRB1*12:01:01:03 | HLA-DRB1*12:01:01:10 | HLA-DRB1*12:02:01:03 |
| HLA-DRB1*12:02:01:04 | HLA-DRB1*12:02:01:10 | |

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)



HLA-DRB1*12:02:01:01 (identity: 99.62%)

HLA-DRB1*12:01:01:04 (identity: 99.47%)

HLA-DRB1*12:01:01:05 (identity: 99.49%)

HLA-DRB1*12:01:01:06 (identity: 99.51%)

HLA-DRB1*12:02:01:02 (identity: 99.61%)

HLA-DRB1*12:01:01:15 (identity: 99.52%)

HLA-DRB1*12:01:01:03 (identity: 99.50%)

HLA-DRB1*12:01:01:10 (identity: 99.50%)

HLA-DRB1*12:02:01:03 (identity: 99.56%)

HLA-DRB1*12:02:01:04 (identity: 99.54%)

**Sample:** NA19819

**Locus:** HLA-DRB3

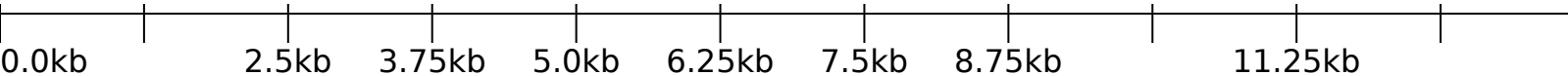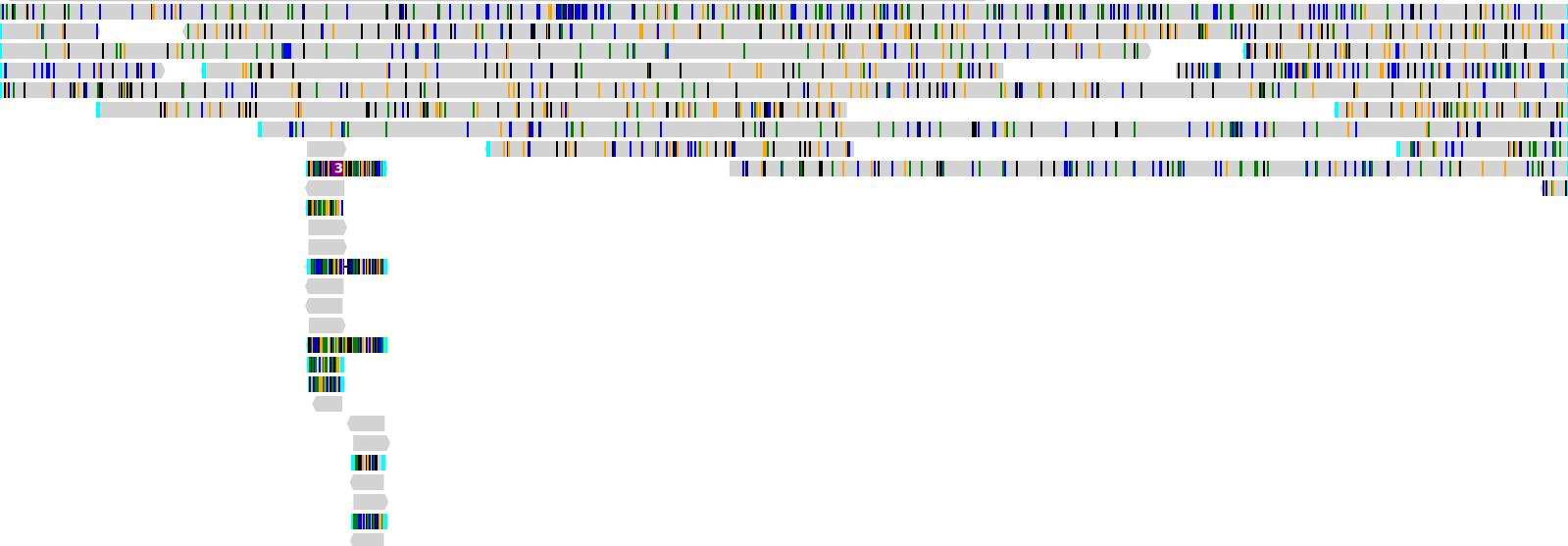**Resolution:** 4th field

**Full typing result:**

HLA-DRB3*02:02:01:02



bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)

0.0kb    2.5kb    3.75kb    5.0kb    6.25kb    7.5kb    8.75kb    11.25kb

HLA-DRB3*02:02:01:02 (identity: 99.96%)

*Sample:* **NA19819**

*Locus:* **HLA-DRB4**

*Resolution:* **4th field**

*Full typing result:*

HLA-DRB4*01:03:01:01   HLA-DRB4*01:03:01:03   HLA-DRB4*01:03:01:18

HLA-DRB4*01:03:01:02N   HLA-DRB4*01:152

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)
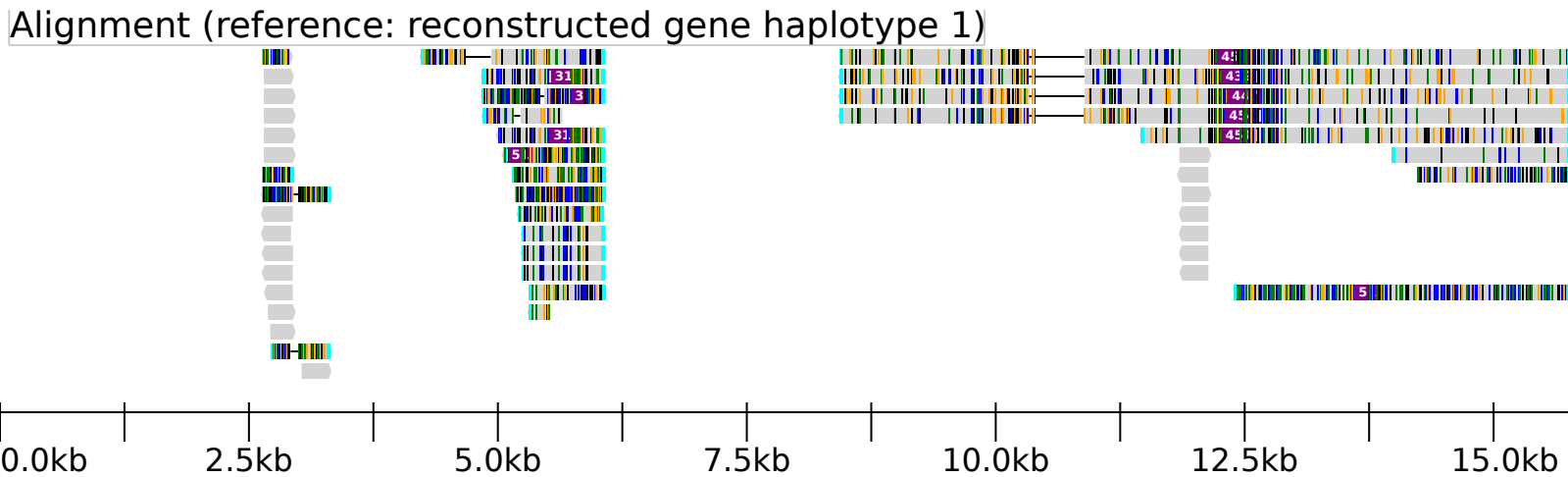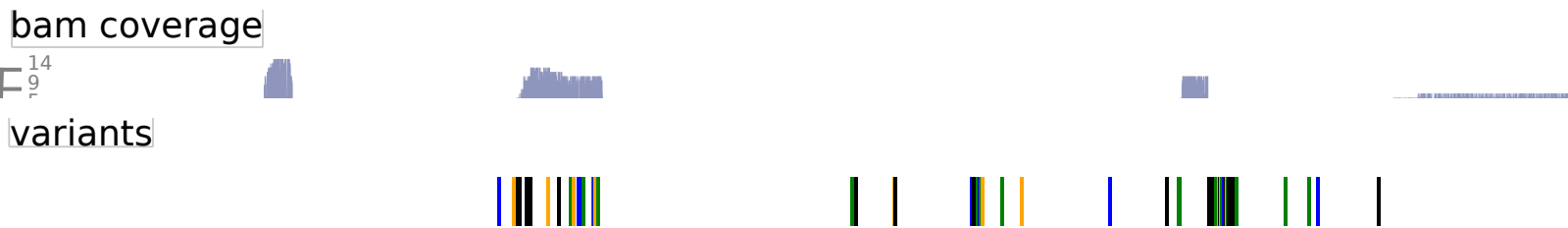


HLA-DRB4*01:03:01:01 (identity: 89.40%)

HLA-DRB4*01:03:01:03 (identity: 89.40%)

HLA-DRB4*01:03:01:18 (identity: 89.40%)

HLA-DRB4*01:03:01:02N (identity: 89.38%)

HLA-DRB4*01:152 (identity: 89.38%)

*Sample:* **NA19819**

*Locus:* **HLA-DRB4**

*Resolution:* **4th field**

*Full typing result:*

| HLA-DRB4*01:03:01:05 | HLA-DRB4*01:03:01:07 | HLA-DRB4*01:03:01:08 |

| HLA-DRB4*01:03:01:12 | HLA-DRB4*01:03:02:01 | HLA-DRB4*01:03:02:02 |

| HLA-DRB4*01:03:01:06 |

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

| 0.0kb | 2.5kb | 5.0kb | 7.5kb | 10.0kb | 12.5kb |

HLA-DRB4*01:03:01:05 (identity: 80.13%)

HLA-DRB4*01:03:01:07 (identity: 80.13%)

HLA-DRB4*01:03:01:08 (identity: 80.13%)

HLA-DRB4*01:03:01:12 (identity: 80.13%)

HLA-DRB4*01:03:02:01 (identity: 80.13%)

HLA-DRB4*01:03:02:02 (identity: 80.13%)

HLA-DRB4*01:03:01:06 (identity: 80.08%)

**Sample:** NA19819

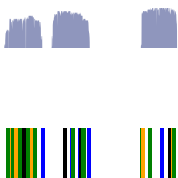**Locus:** HLA-DRB5
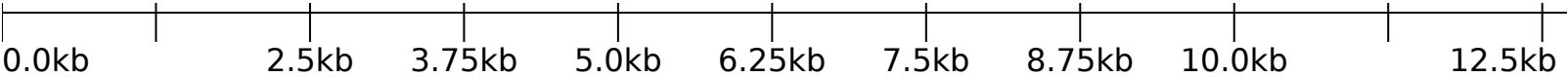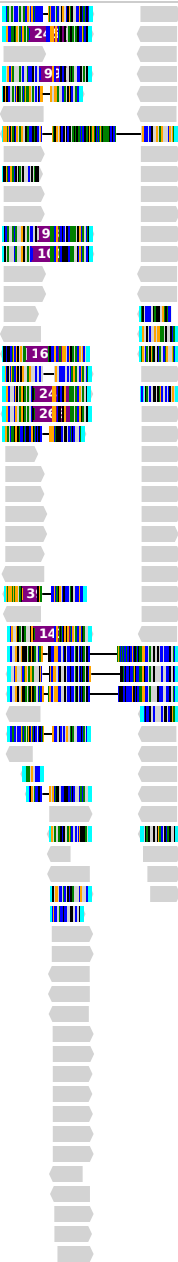
**Resolution:** 4th field

**Full typing result:**

HLA-DRB5*01:03

bam coverage

38
25
13

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

HLA-DRB5*01:03 (identity: 67.27%)

## Sample: NA19819

*Locus:* **HLA-E**

*Resolution:* **4th field**

*Full typing result:*

HLA-E*01:03:01:01

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)
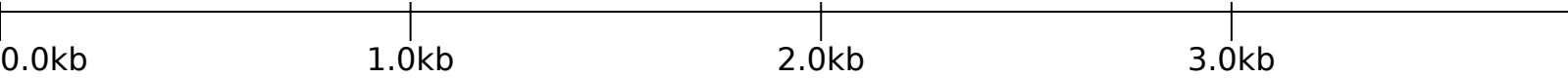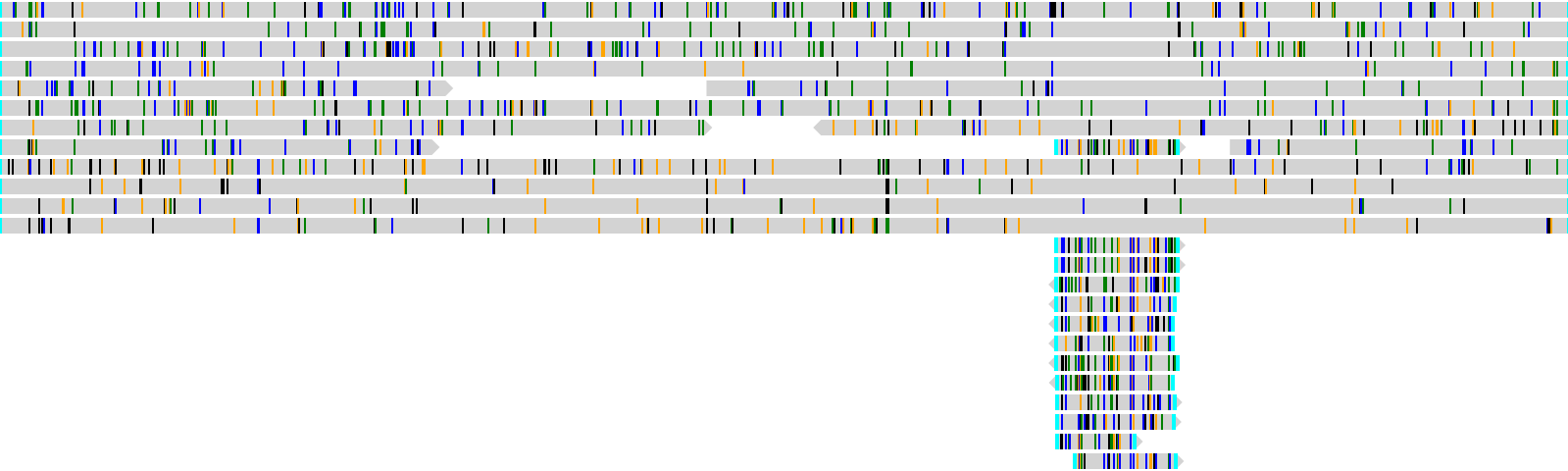
0.0kb    1.0kb    2.0kb    3.0kb

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

**Sample:** NA19819

**Locus:** HLA-F

**Resolution:** 4th field

**Full typing result:**
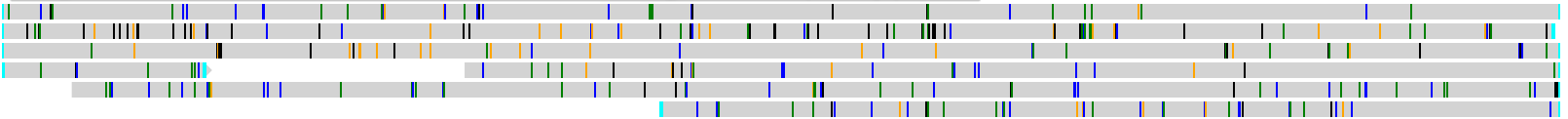
HLA-F*01:01:01:01

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

0.0kb          1.0kb          2.0kb          3.0kb

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

**Sample:** NA19819

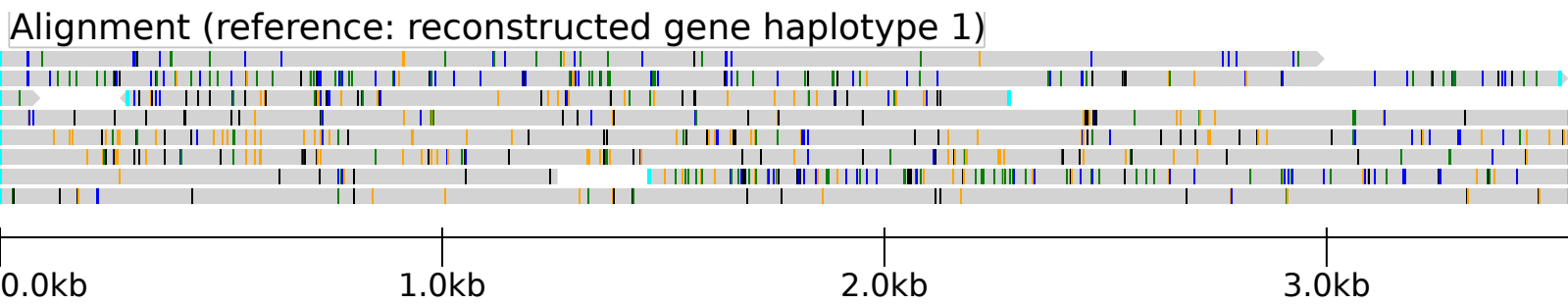**Locus:** HLA-F

**Resolution:** 4th field

**Full typing result:**

HLA-F*01:01:01:18   HLA-F*01:01:01:19   HLA-F*01:01:01:23

HLA-F*01:01:01:24

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)



0.0kb          1.0kb          2.0kb          3.0kb

HLA-F*01:01:01:18 (identity: 99.97%)

HLA-F*01:01:01:19 (identity: 99.86%)

HLA-F*01:01:01:23 (identity: 99.94%)

HLA-F*01:01:01:24 (identity: 99.94%)

**Sample:** NA19819
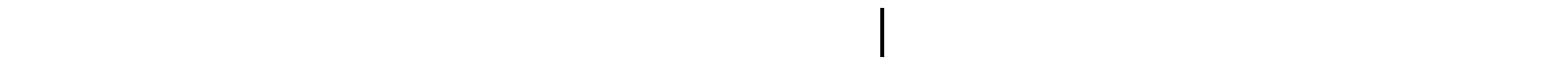
**Locus:** HLA-G

**Resolution:** 4th field

**Full typing result:**

HLA-G*01:01:01:01

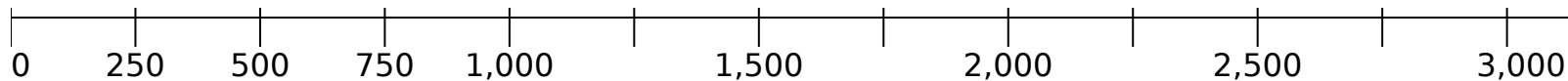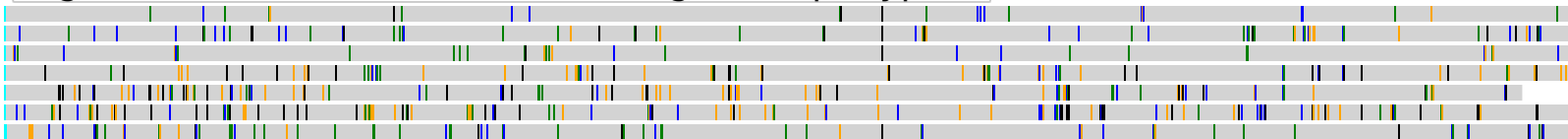bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)
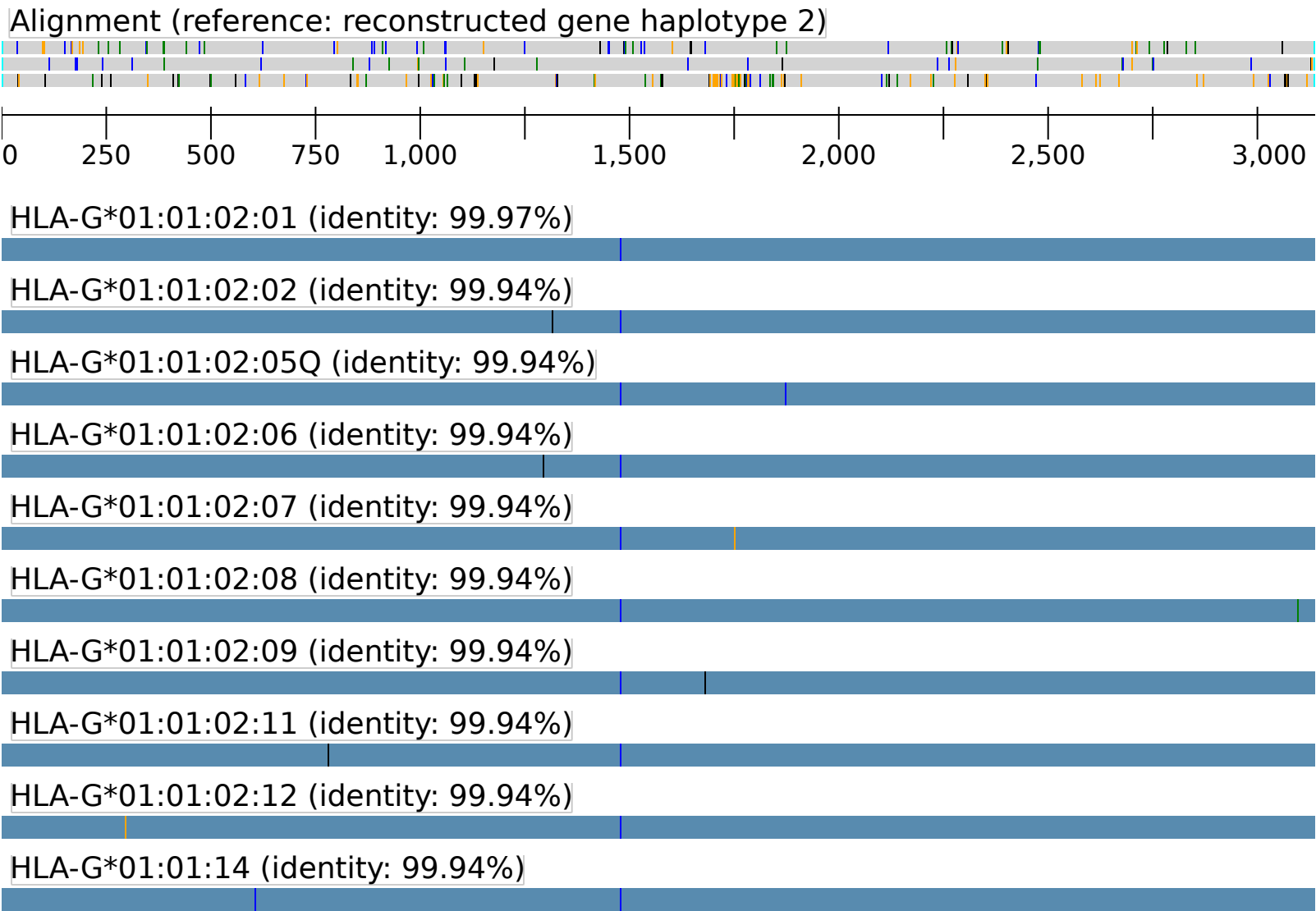
HLA-G*01:01:01:01 (identity: 99.97%)

**Sample: NA19819**

*Locus:* **HLA-G**

*Resolution:* **4th field**

*Full typing result:*

| HLA-G*01:01:02:01 | HLA-G*01:01:02:02 | HLA-G*01:01:02:05Q |

| HLA-G*01:01:02:06 | HLA-G*01:01:02:07 | HLA-G*01:01:02:08 |

| HLA-G*01:01:02:09 | HLA-G*01:01:02:11 | HLA-G*01:01:02:12 |

| HLA-G*01:01:14 | HLA-G*01:05:01N | HLA-G*01:06:01:01 |

| HLA-G*01:26 | HLA-G*01:44 | HLA-G*01:45 |

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

0    250    500    750    1,000    1,500    2,000    2,500    3,000

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

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

HLA-G*01:01:02:05Q (identity: 99.94%)

HLA-G*01:01:02:06 (identity: 99.94%)

HLA-G*01:01:02:07 (identity: 99.94%)

HLA-G*01:01:02:08 (identity: 99.94%)

HLA-G*01:01:02:09 (identity: 99.94%)

HLA-G*01:01:02:11 (identity: 99.94%)

HLA-G*01:01:02:12 (identity: 99.94%)

HLA-G*01:01:14 (identity: 99.94%)

*Sample:* **NA19819**

*Locus:* **HLA-H**

*Resolution:* **4th field**

*Full typing result:*

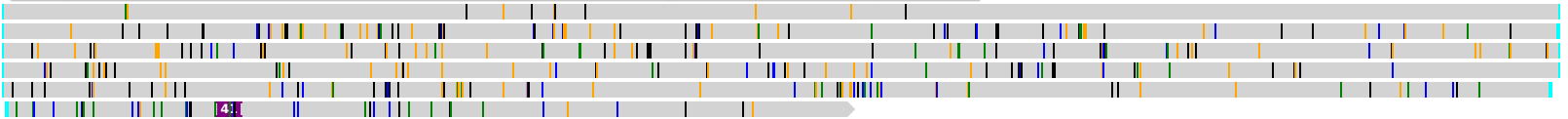HLA-H*01:01:01:01

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)

0.0kb          1.0kb          2.0kb          3.0kb

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

***Sample:* NA19819**

***Locus:* HLA-H**

***Resolution:* 4th field**
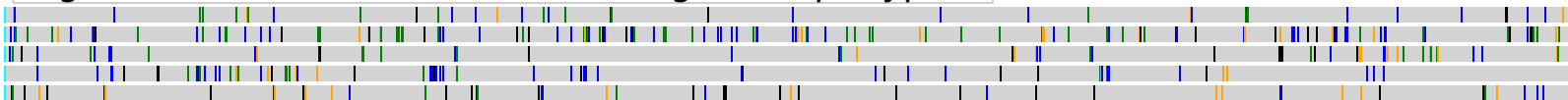
***Full typing result:***

HLA-H*02:05:01:01
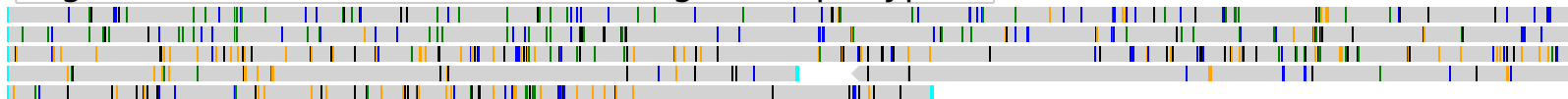
bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

0.0kb       1.0kb       2.0kb       3.0kb

HLA-H*02:05:01:01 (identity: 100.00%)

**Sample:** NA19819

**Locus:** HLA-J

**Resolution:** 4th field

**Full typing result:**

HLA-J*01:01:01:05

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)

0.0kb  1.0kb  2.0kb  3.0kb

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

**Sample:** NA19819

**Locus:** HLA-K

**Resolution:** 4th field

**Full typing result:**

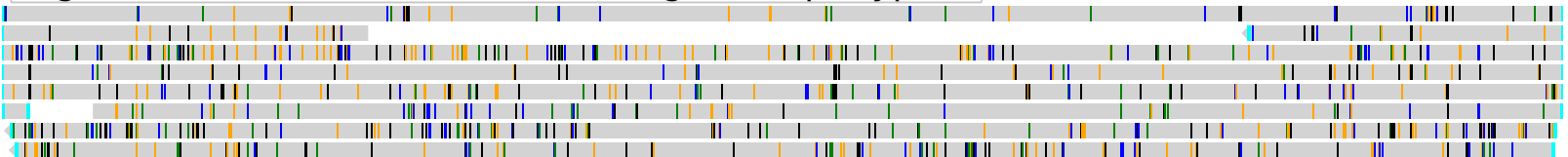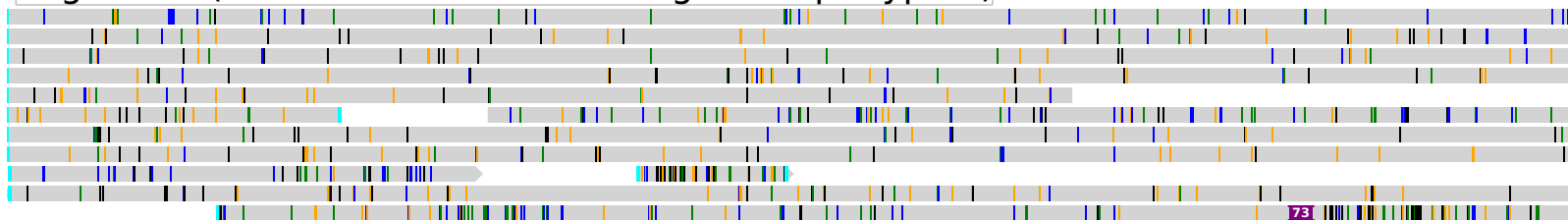HLA-K*01:02

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)

0.0kb       1.0kb       2.0kb       3.0kb

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

**Sample:** NA19819

**Locus:** HLA-L

**Resolution:** 4th field

**Full typing result:**

HLA-L*01:01:01:01

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)

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

0.0kb          1.0kb          2.0kb          3.0kb

*Sample:* **NA19819**

*Locus:* **HLA-N**

*Resolution:* **4th field**
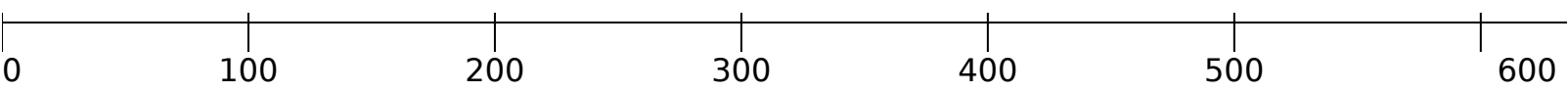
*Full typing result:*

HLA-N*01:01:01:03

bam coverage



variants

Alignment (reference: reconstructed gene haplotype 1)



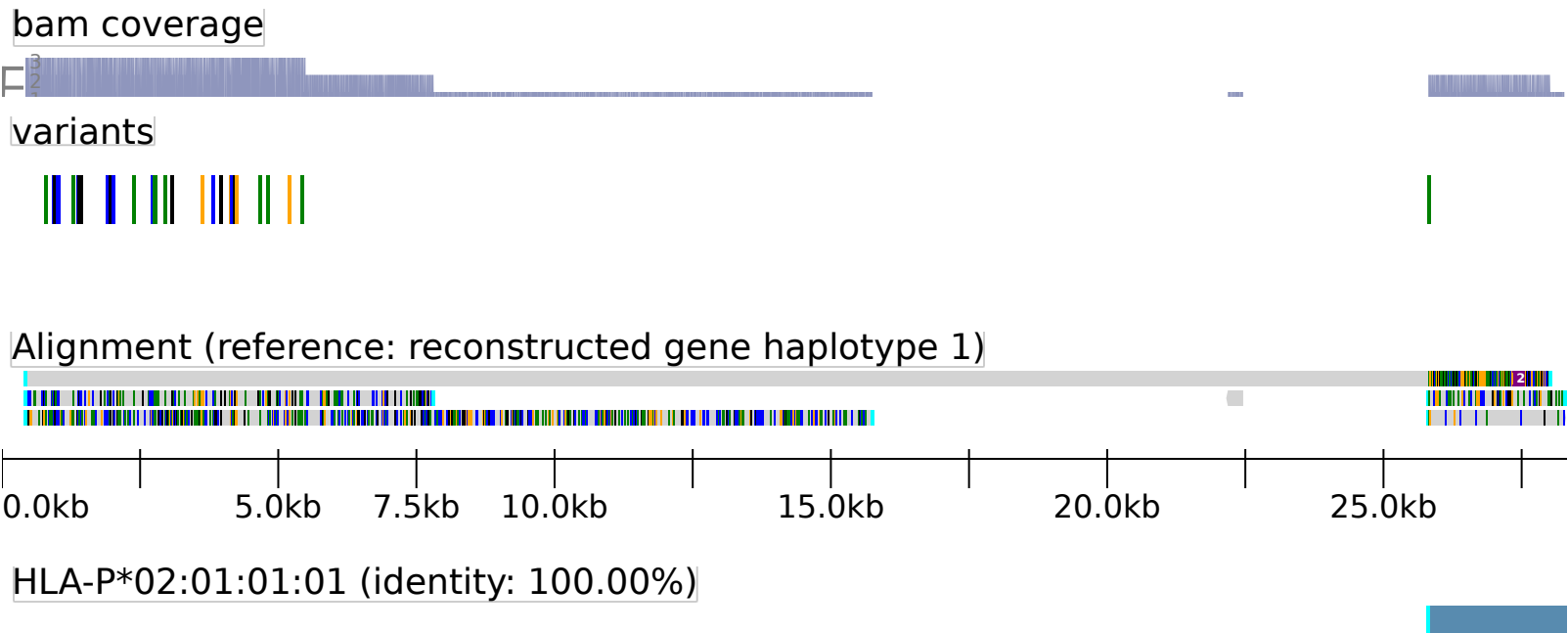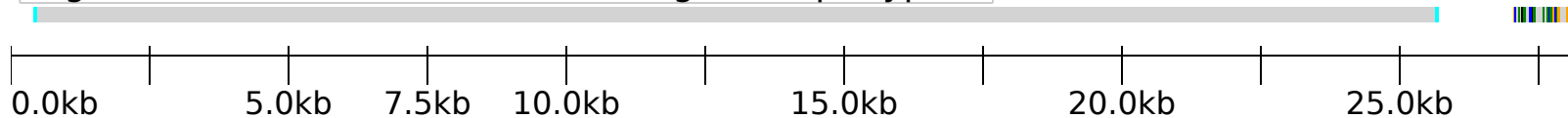HLA-N*01:01:01:03 (identity: 97.17%)

**Sample:** NA19819

**Locus:** HLA-P

**Resolution:** 4th field

**Full typing result:**

HLA-P*02:01:01:01

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)

0.0kb    5.0kb    7.5kb   10.0kb         15.0kb          20.0kb          25.0kb

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

***Sample:* NA19819**

***Locus:* HLA-P**

***Resolution:* 4th field**

***Full typing result:***

HLA-P*01:02     HLA-P*01:01:01:01

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

0.0kb          5.0kb     7.5kb     10.0kb          15.0kb          20.0kb          25.0kb

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

HLA-P*01:01:01:01 (identity: 99.96%)

**Sample:** NA19819

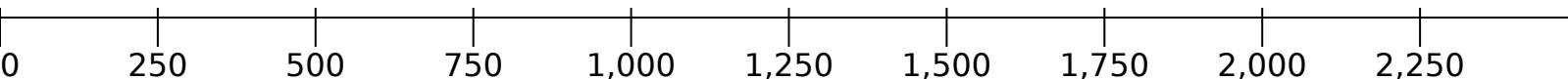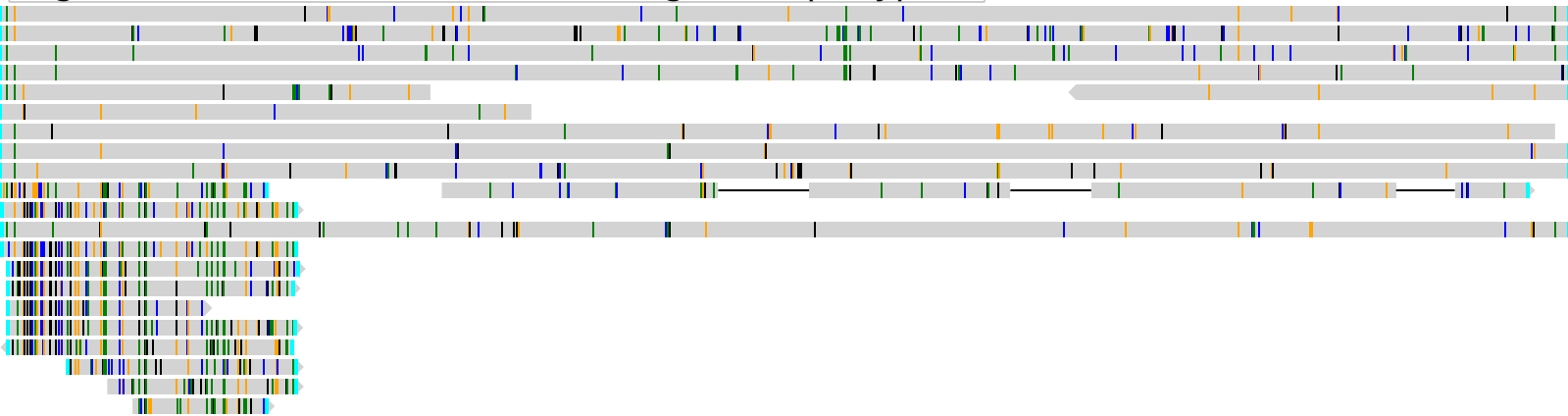**Locus:** HLA-T

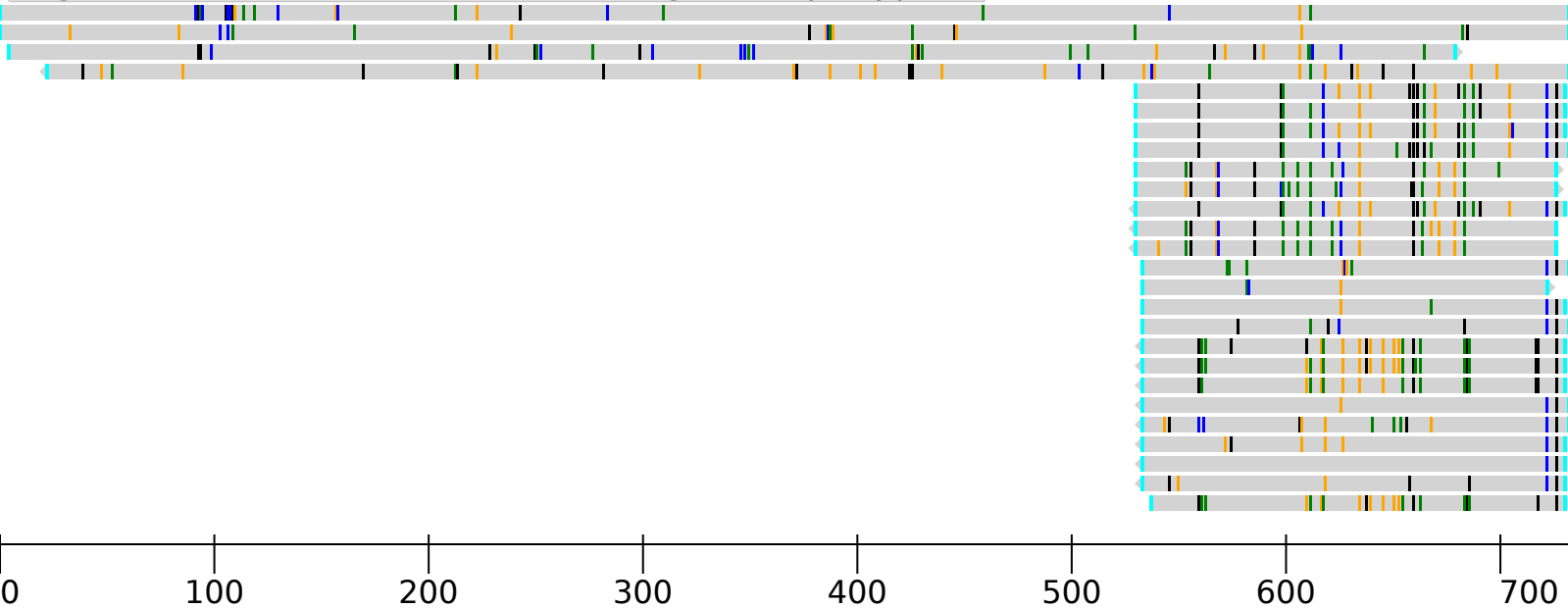**Resolution:** 4th field

**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: 99.96%)

*Sample:* **NA19819**

*Locus:* **HLA-U**

*Resolution:* **4th field**

*Full typing result:*

HLA-U*01:03

bam coverage

23
15
0

variants

Alignment (reference: reconstructed gene haplotype 1)



0    100    200    300    400    500    600    700

HLA-U*01:03 (identity: 99.73%)

**Sample:** NA19819

**Locus:** HLA-W

**Resolution:** 4th field

**Full typing result:**

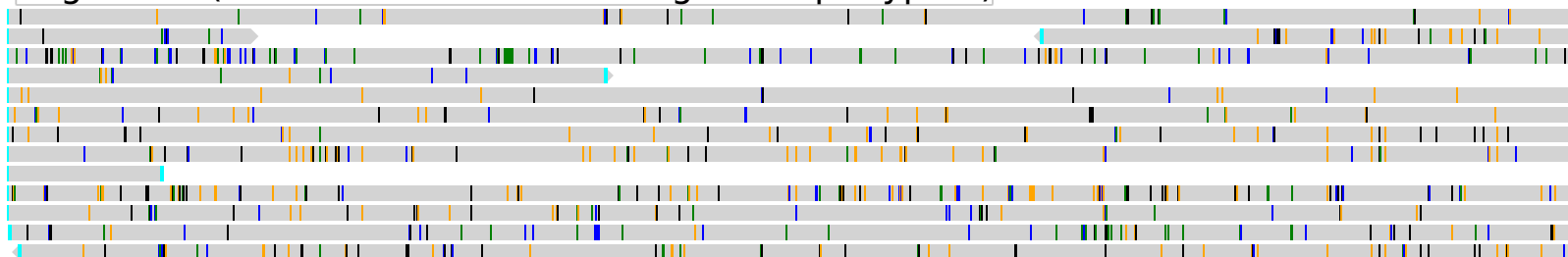| HLA-W*03:01:01:01 | HLA-W*03:01:01:02 |

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%)
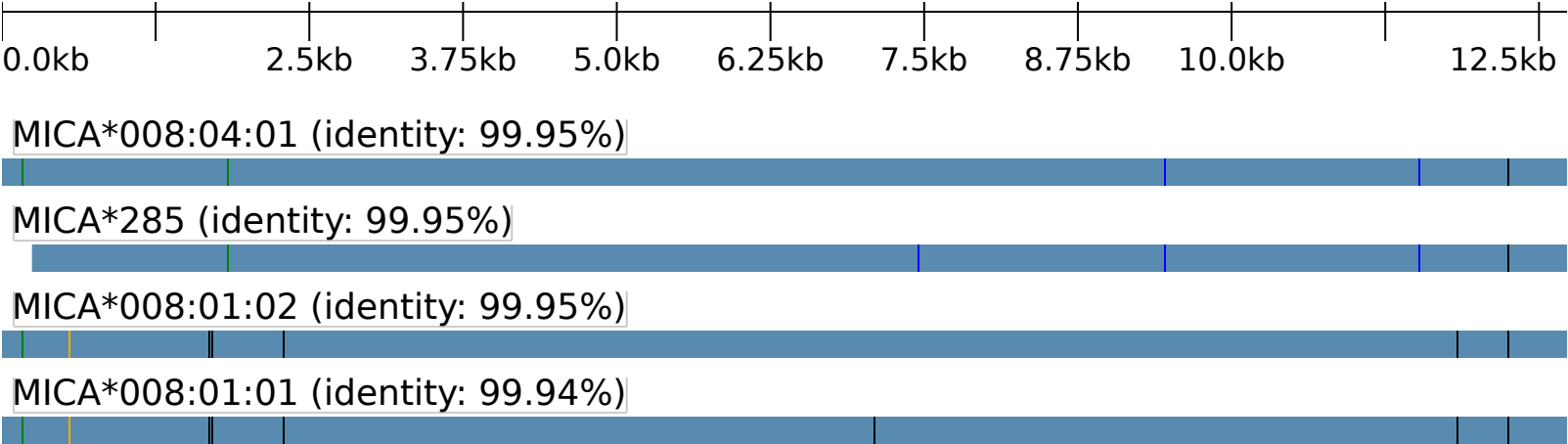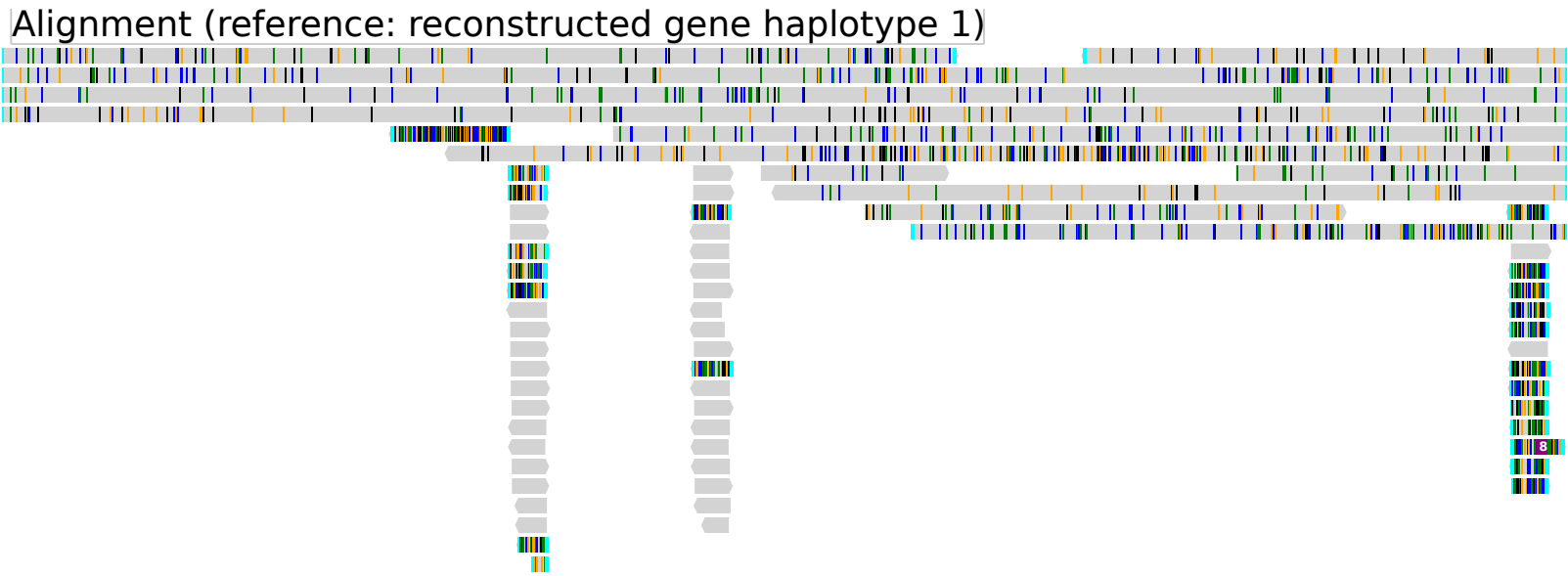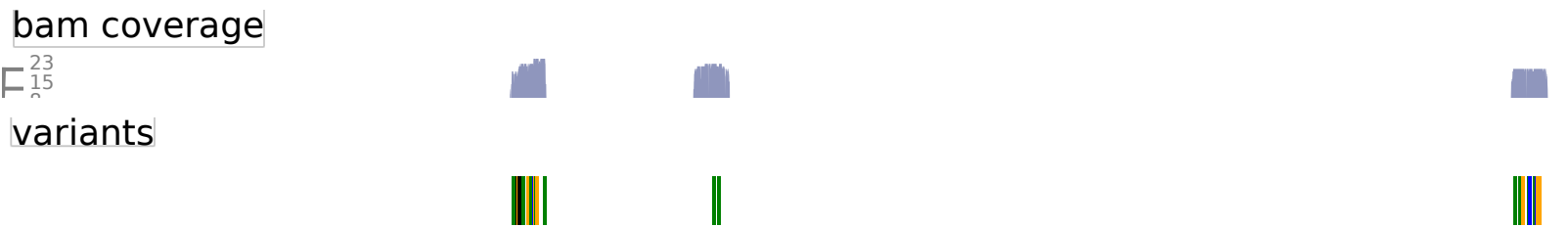
## Sample: NA19819

**Locus:** MICA

**Resolution:** 4th field

**Full typing result:**

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

| MICA*008:01:01 |



bam coverage

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*008:04:01 (identity: 99.95%)

MICA*285 (identity: 99.95%)

MICA*008:01:02 (identity: 99.95%)

MICA*008:01:01 (identity: 99.94%)

**Sample:** NA19819

**Locus:** MICA

**Resolution:** 4th field

**Full typing result:**

MICA*001:01

bam coverage

64
43

variants

Alignment (reference: reconstructed gene haplotype 2)

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

MICA*001:01 (identity: 98.73%)

**Sample:** NA19819

**Locus:** MICB

**Resolution:** 4th field

**Full typing result:**

MICB*002:01:01

bam coverage

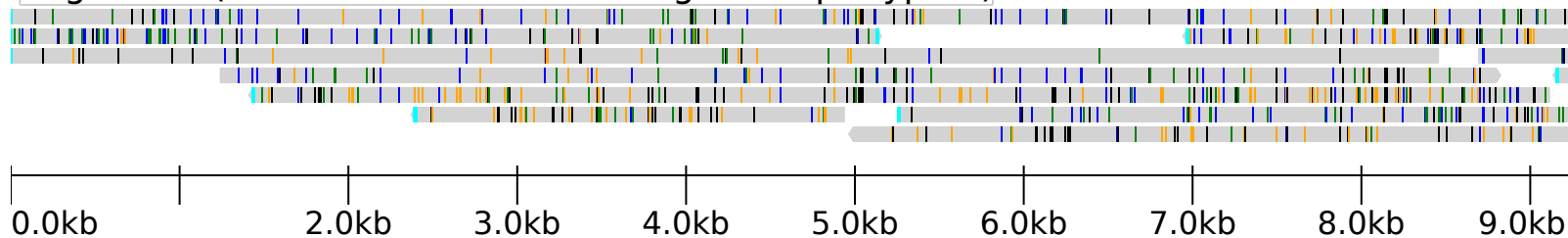variants
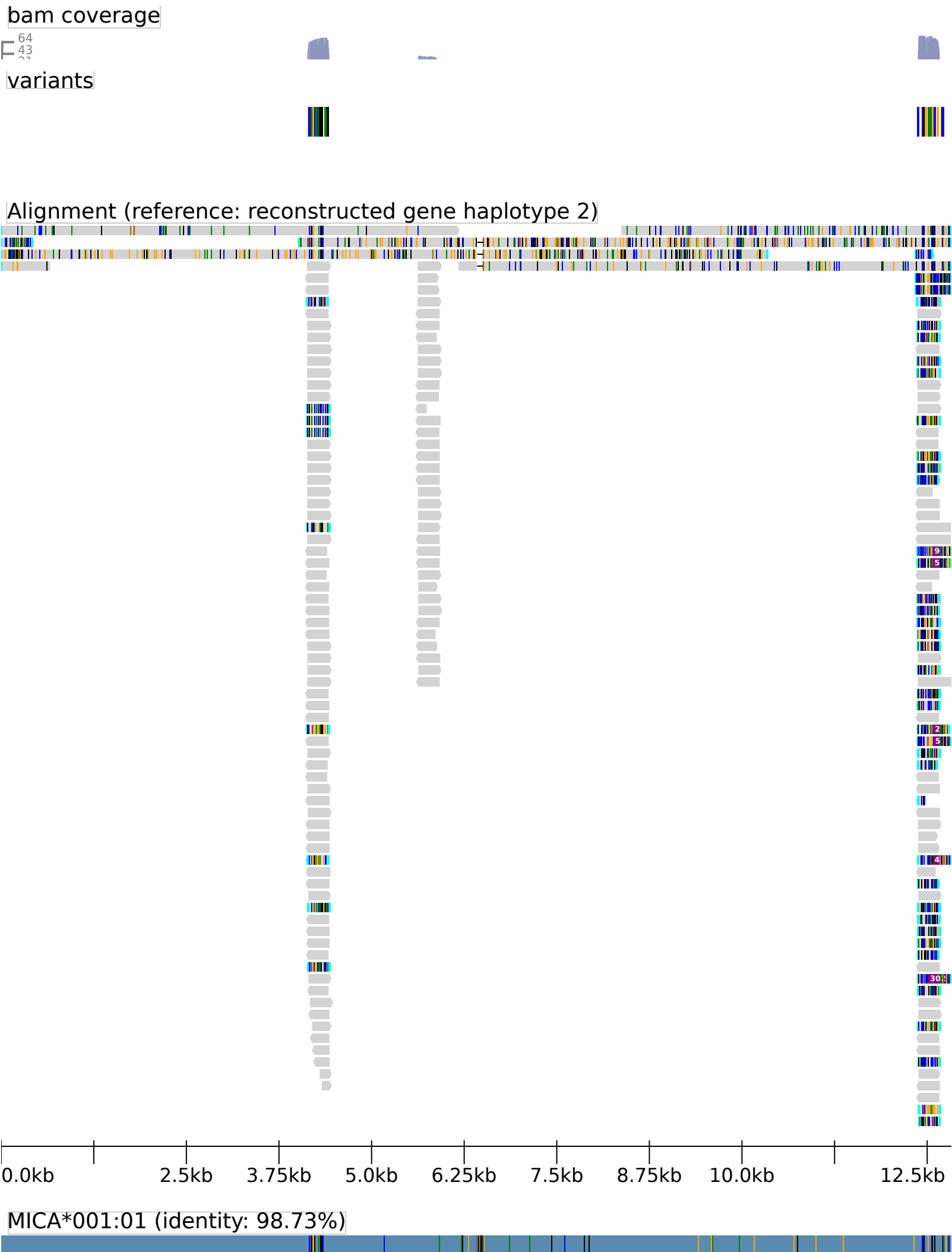
Alignment (reference: reconstructed gene haplotype 1)
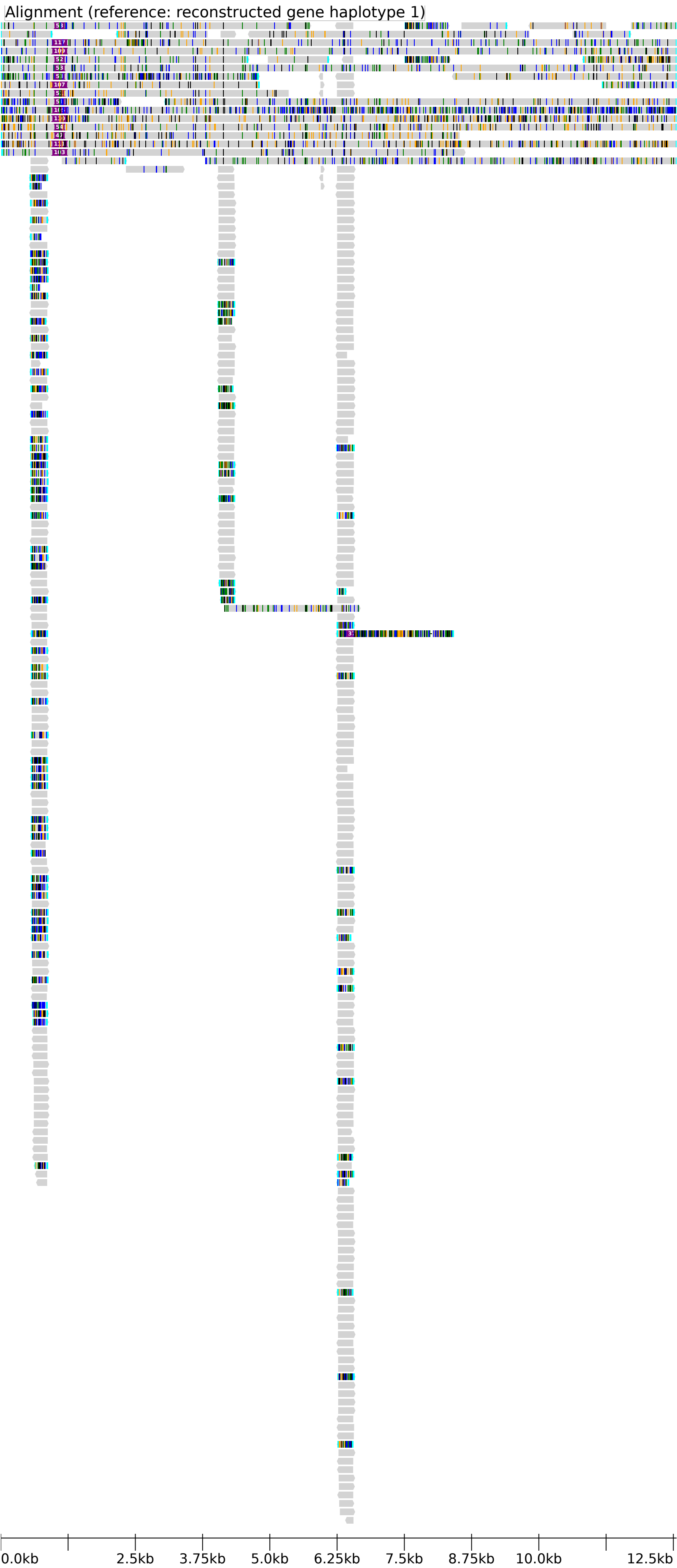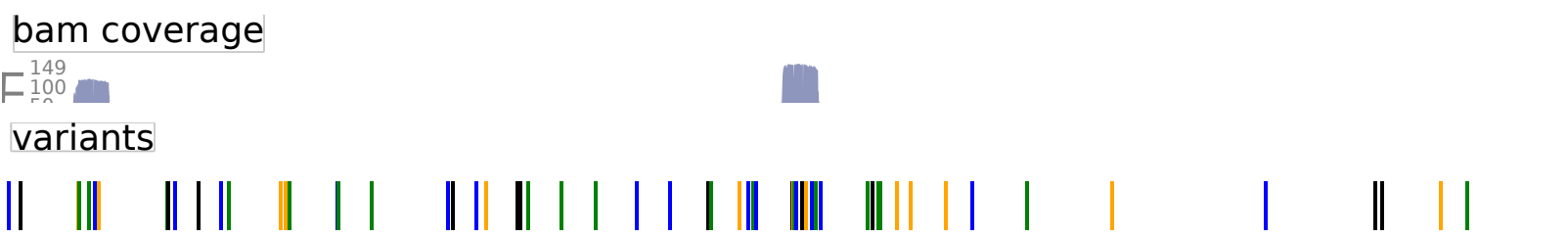
MICB*002:01:01 (identity: 98.91%)

**Sample:** NA19819

**Locus:** MICB

**Resolution:** 4th field

**Full typing result:**

MICB*005:02:01

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)



0.0kb   2.5kb   3.75kb   5.0kb   6.25kb   7.5kb   8.75kb   10.0kb   12.5kb
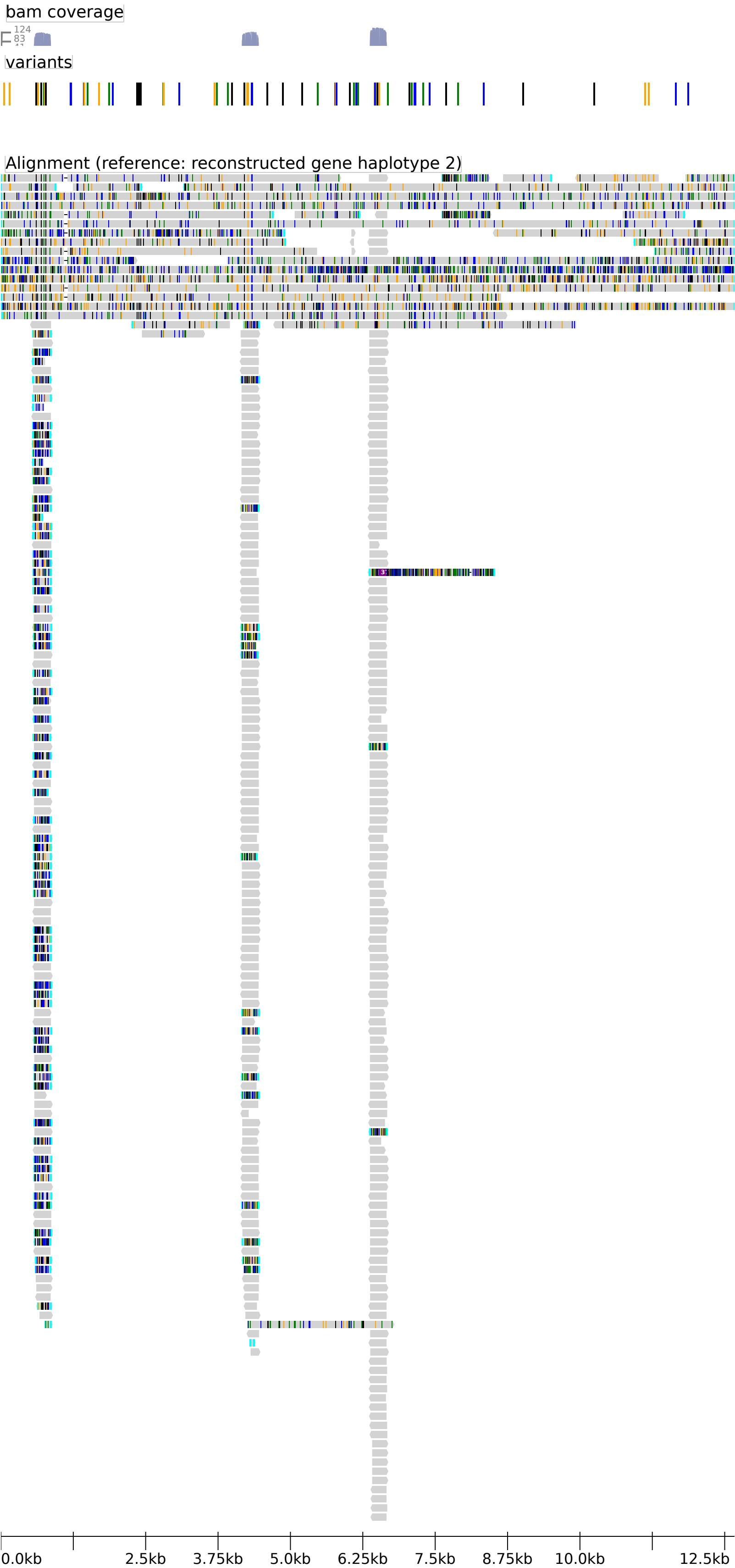
MICB*005:02:01 (identity: 99.63%)

**Sample: NA19819**

**Locus: TAP1**

**Resolution: 4th field**

**Full typing result:**

TAP1*01:01:01:05

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*01:01:01:05 (identity: 100.00%)

**Sample:** NA19819

**Locus:** TAP1

**Resolution:** 4th field

**Full typing result:**

TAP1*01:01:01:01



bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

0.0kb  2.0kb  3.0kb  4.0kb  5.0kb  6.0kb  7.0kb  8.0kb  9.0kb
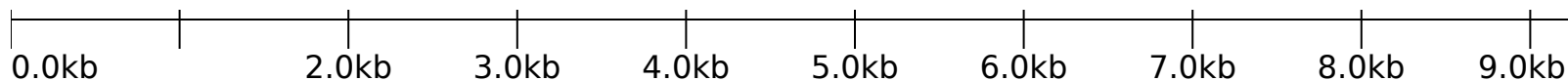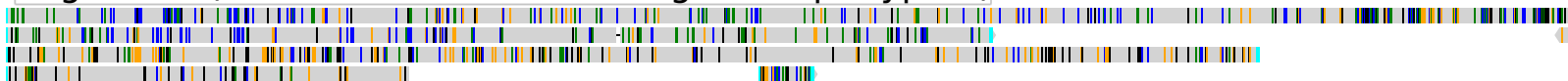
TAP1*01:01:01:01 (identity: 95.02%)

**Sample:** NA19819

**Locus:** TAP2

**Resolution:** 4th field

**Full typing result:**
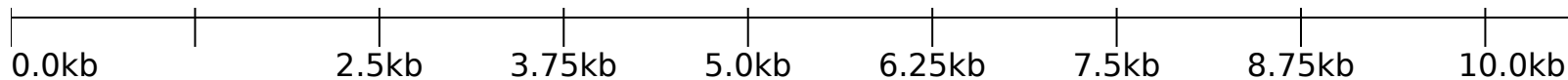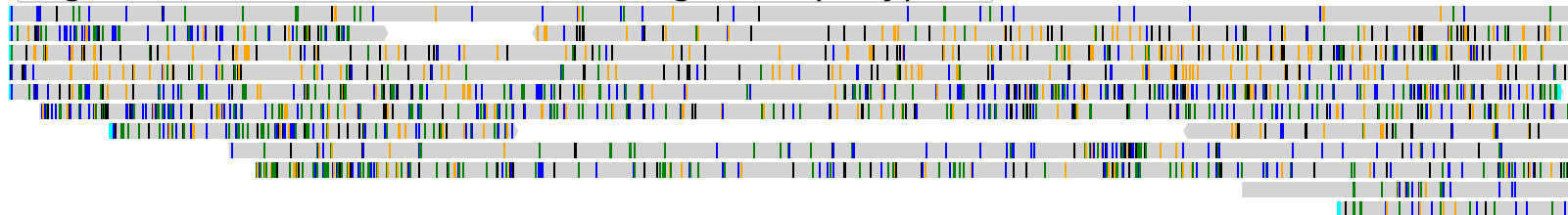
TAP2*01:01:02:01    TAP2*02:01:02:01

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 1)

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

TAP2*01:01:02:01 (identity: 99.70%)

TAP2*02:01:02:01 (identity: 99.78%)

**Sample:** NA19819

**Locus:** TAP2

**Resolution:** 4th field

**Full typing result:**
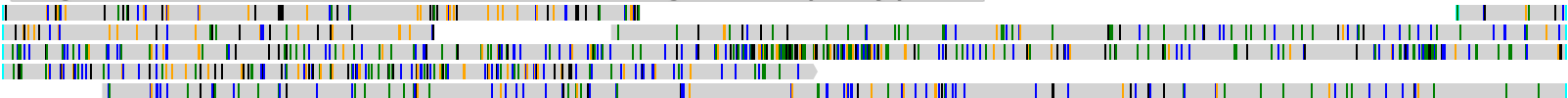
| TAP2*01:01:03:01 | TAP2*01:01:03:03 | TAP2*01:01:03:02 |

bam coverage

variants

Alignment (reference: reconstructed gene haplotype 2)

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

TAP2*01:01:03:01 (identity: 99.90%)

TAP2*01:01:03:03 (identity: 99.87%)

TAP2*01:01:03:02 (identity: 99.86%)