

Attachment 3:

Volume B:

**107 DNA Sequencing tracings with BLAST analyses
for genotyping**

Case #	Patient name Number	PCR + Type or Mixed	PCR -	Unsatisfactory	Digene+		Digene -	Unsatisfactory	Beta
					Hi	Low			
12	1143	HPV 31					neg		Pos
13	1144	HPV 45			High risk				Pos
16	1147	HPV 56			High risk				Pos
34	1167	HPV 16			High risk				Pos
48	1200	HPV 16					neg		Pos
51	1204	HPV 45					neg		Pos
78	1275	HPV 16					neg		Pos
79	1274	HPV 59			High risk				Pos
84	1267	HPV 56			High risk				Pos
85	1266	HPV 66			High risk				Pos
93	1293	HPV 16					neg		Pos
96	1296	HPV 6B					neg		Pos
108	1308	HPV 18			High risk				Pos
111	1311	HPV 59			High risk				Pos
129	1341	HPV 73					neg		Pos
144	1356	HPV 16			High risk				Pos
145	1357	HPV 16					neg		Pos
150	1412	HPV 56			High risk				Pos
155	1417	HPV 18			High risk				Pos
172	1450	HPV 16						unsatisfactory	Pos
177	1455	HPV 16			High risk				Pos
187	1468	HPV 16					neg		Pos
188	1469	HPV 35			High risk				Pos
203	1540	HPV 83					neg		Pos
210	1547	HPV 18			High risk				Pos
226	1585	HPV 52					neg		Pos
232	1673	HPV 66			High risk				Pos
241	1688	HPV 6B					neg		Pos
243	1690	HPV 39			High risk				Pos
249	1699	HPV 54					neg		Pos
253	CH06-3855	HPV 56			High risk				Pos
254	CH06-3860	HPV 31			High risk				Pos
255	CH06-3873	HPV 56			High risk				Pos
256	CH06-3900	HPV 33			High risk				Pos
259	CH06-3906	HPV 66			high risk				Pos
271	CH06-4069	HPV 16					neg		Pos

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Case #	Patient name	PCR +	PCR -	Unsatisfactory	Digene+		Digene -	Unsatisfactory	Beta
	Number	Type or Mixed	Hi		Low				
273	CH06-4071	HPV 58			high risk				Pos
275	CH06-4105	HPV 66			high risk				Pos
278	CH06-4157	HPV 6					neg		Pos
279	CH06-3801	HPV 40					neg		Pos
281	CM06- 40357	HPV 32					neg		Pos
285	CM06-41244	HPV 83			high risk				Pos
290	CM06-42499	HPV 66			high risk				Pos
297	MS06-12976	HPV 16			high risk				Pos
299	MS06-13073	HPV 18			high risk				Pos
300	MS06-13180	HPV 16					neg		Pos
301	MS06-13181	HPV 16 & 18			high risk				Pos
303	MS06-13367	HPV 58			high risk				Pos
305	NH06-1776	HPV 16 (mixed)			high risk				Pos
307	NH06-1823	HPV 6					neg		Pos
308	NH06-1826	HPV 16			high risk				Pos
310	SM06-4620	HPV 40					neg		Pos
312	SM06-4707	HPV 16					neg		Pos
323	SM06-4896	HPV 16			high risk				Pos
326	SM06-4920	HPV 16			high risk				Pos
327	SM06-4930	HPV 16					neg		Pos
335	SM06-4978	HPV 53			high risk				Pos
337	SM06-5010	HPV mixed (not 6,11,16,18)			high risk				Pos
346	VIN06-8917	HPV 54					neg		Pos
352	VIN06-9302	HPV 59			high risk				Pos
353	CM06-4016 (PLS)	HPV 31							Pos
354-1	VIN06-9248	HPV 68			high risk				Pos
357-4	VIN06-9330	HPV 16					neg		Pos
358-5	VIN06-9332	HPV 56			high risk				Pos
360-7	VIN06-9342	mixed(not 6,11,16,18)					neg		Pos
365-12	VIN06-9456	HPV 16			high risk				Pos
367-14	VIN06-9513	HPV 16			high risk				Pos
369-16	VIN06-9543	HPV 54			high risk				Pos
371-18	VIN06-9653	HPV 62					neg		Pos
373-20	SM06-5370	HPV 6			high risk				Pos
374-21	SM06-5371	HPV 59			high risk				Pos
375-22	SM06-5372	HPV 58					neg		Pos

Case #	Patient name	PCR +	PCR -	Unsatisfactory	Digene+		Digene -	Unsatisfactory	Beta
	Number	Type or Mixed	Hi		Low				
377-24	CY06-7920	HPV 39							Pos
378-25	CH06-4178	HPV 16					neg		Pos
379-26	CH06-4122	HPV 16					neg		Pos
382-29	CH06-4189	HPV 56			high risk				Pos
384-31	CH06-4200	HPV 83			high risk				Pos
386-33	CH06-4206	HPV 16					neg		Pos
389-36	CH06-4223	HPV 16					neg		Pos
391-38	CH06-4247	HPV 16					neg		Pos
402-49	CH06-4335	HPV 16			high risk				Pos
406-53	CM06-44151	HPV 52			high risk				Pos
410-57	CM06-45503	HPV 54					neg		Pos
414-61	MS06-13534	HPV 35					neg		Pos
415-62	MS06-13867	HPV 6			high risk				Pos
417-64	NH06-1865	HPV 58			high risk				Pos
418-65	NH06-1903	HPV 56			high risk				Pos
420-67	NH06-1940	HPV 32					neg		Pos
421-68	NH06-1941	HPV 58			high risk				Pos
425-72	VIN06-9075	HPV 54			high risk				Pos
427-74	SM06-5095	HPV 31			high risk				Pos
439-86	SM06-5249	HPV 66			high risk				Pos
440-87	SM06-5268	HPV45			high risk				Pos
441-88	SM06-5277	HPV 31			high risk				Pos
447-94	SM06-5286	HPV 18			high risk				Pos
449-96	SM06-5289	HPV 18			high risk				Pos
450-97	SM06-5336	mixed(not 6,11,16,18)					neg		Pos
452-99	SM06-5346	HPV 31			high risk				Pos
455-102	SM06-5352	HPV 16			high risk				Pos
457-104	SM06-5390	HPV 58			high risk				Pos
471-118	1914	HPV 56			High risk				Pos
473-120	1916	HPV 70				Low risk			Pos
475-122	1918	HPV 31			High risk				Pos
490-137	1961	HPV 16			High risk				Pos
491-138	1962	HPV 16					neg		Pos

S/N G:101 A:251 T:299 C:217

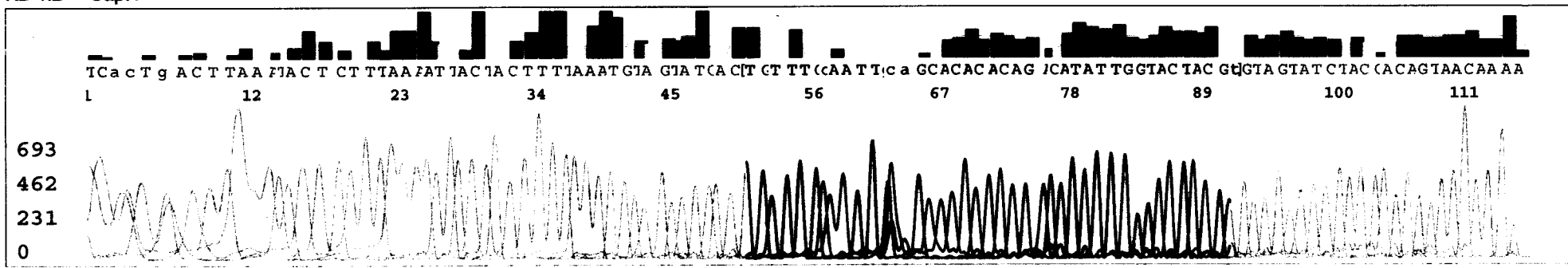
KB_3130_POP7_BDTv1.mob

KB.bcp

Pts 2018 to 3334 Pk1 Loc:2018

KB 1.2 Cap:1

Version 5.2.0 HISQV Bases: 68 12



SPECIMEN # 12
HPV TYPE
31

12.

>gi|66933451|gb|DQ057333.1| Human papillomavirus type 31 isolate
BR1692 L1 protein (L1) gene,
partial cds
Length=351

Score = 81.8 bits (41), Expect = 9e-14
Identities = 41/41 (100%), Gaps = 0/41 (0%)
Strand=Plus/Minus

```
Query 1  TGTTTGCAATTGCAGCACACACAGACATATTGGTACTACGT 41
          |||
Sbjct 56  TGTTTGCAATTGCAGCACACACAGACATATTGGTACTACGT 16
```

S/N G:65 A:106 T:142 C:90

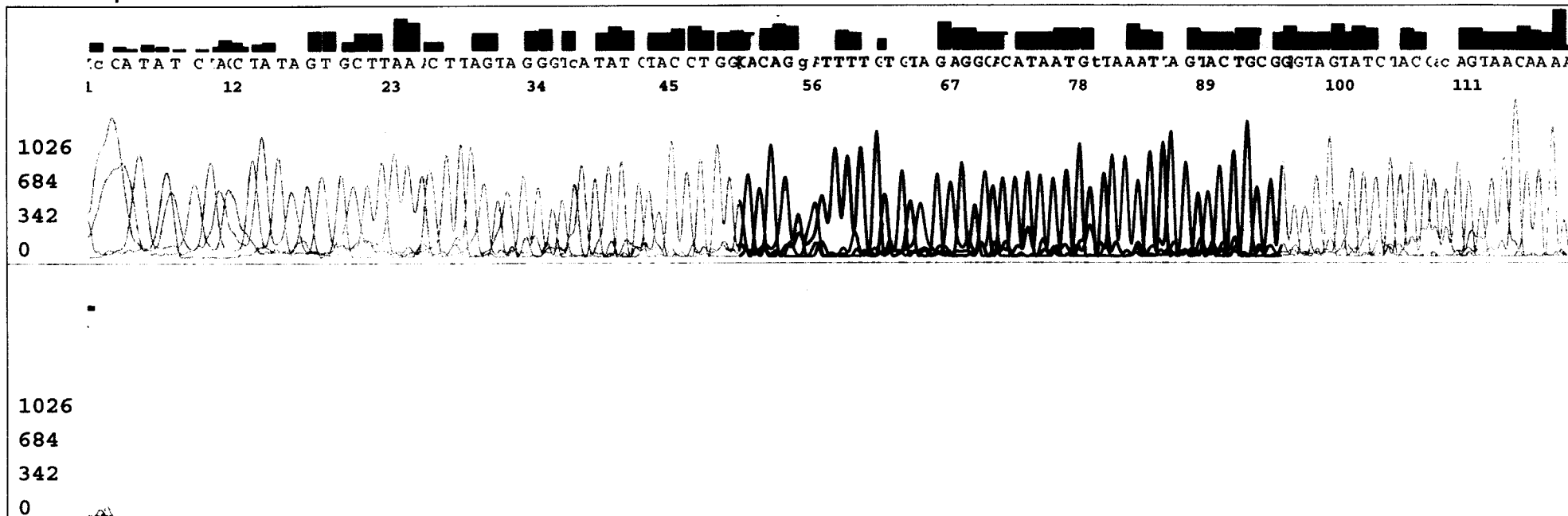
KB_3130_POP7_BDTv1.mob

Pts 2020 to 3390 Pk1 Loc:2020

Version 5.2.0 HISQV Bases: 73 13

KB.bcp

KB 1.2 Cap:2



SPECIMEN # 13
HPV TYPE
45

13.

>gi|68159733|gb|DQ080002.1| Human papillomavirus type 45 L2 (L2) and
L1 (L1) genes, complete

cds

Length=3057

Score = 91.7 bits (46), Expect = 1e-16
Identities = 46/46 (100%), Gaps = 0/46 (0%)
Strand=Plus/Minus

```
Query 1      CACAGGATTTTGTGTAGAGGCACATAATGTTAAATTAGTACTGCGG 46
            |||
Sbjct 2572   CACAGGATTTTGTGTAGAGGCACATAATGTTAAATTAGTACTGCGG 2527
```

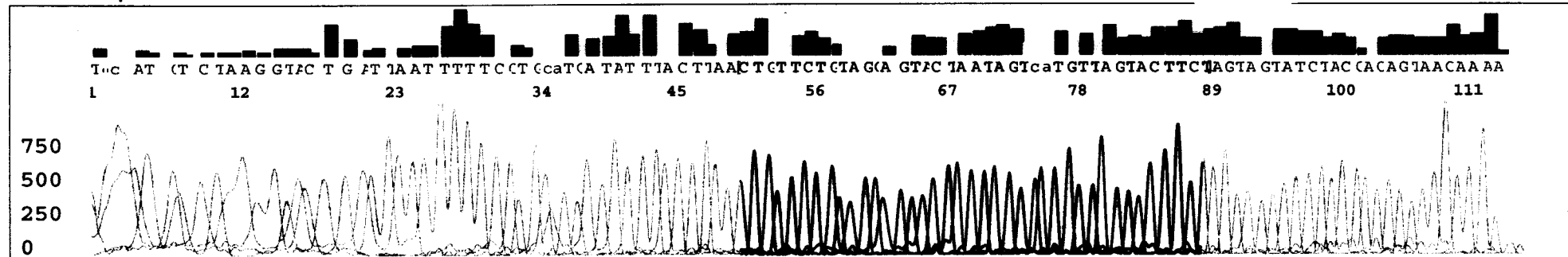

SPECIMEN # 16
HPV TYPE

56

S/N G:38 A:73 T:119 C:66

KB.bcp

KB 1.2 Cap:3



SPECIMEN # 16
HPV TYPE
56

16.

>gi|70698531|gb|DQ007187.1| Human papillomavirus type 56 isolate
BR5868 L1 (L1) gene, partial
cds
Length=391

Score = 77.8 bits (39), Expect = 4e-14
Identities = 39/39 (100%), Gaps = 0/39 (0%)
Strand=Plus/Minus

```
Query 1 CTGTTCTGTAGCAGTACTAATAGTCATGTTAGTACTTCT 39
      |||
Sbjct 44 CTGTTCTGTAGCAGTACTAATAGTCATGTTAGTACTTCT 6
```

S/N G:60 A:90 T:126 C:78

4
KB_3130_POP7_BDTv1.mob

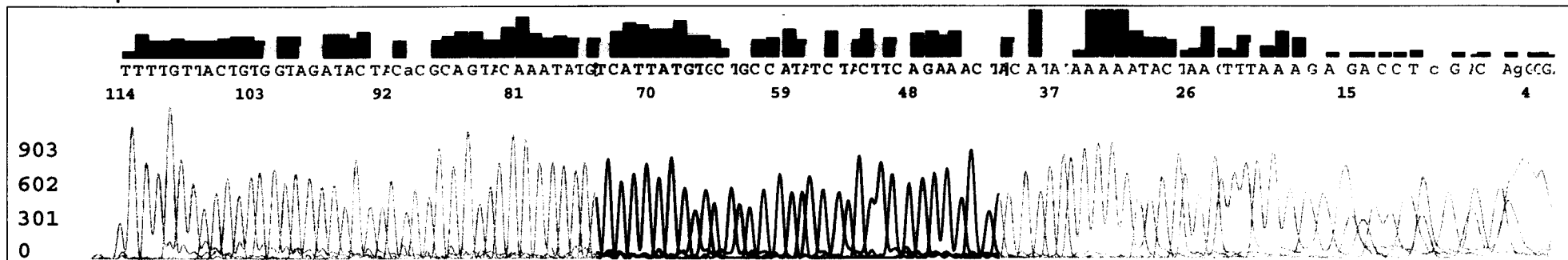
16

KB.bcp

Pts 2030 to 3362 Pk1 Loc:2030

KB 1.2 Cap:4

Version 5.2.0 HiSQV Bases: 68 34



SPECIMEN # 34
HPV TYPE

16

34.

>gi|93278076|gb|DQ469930.1| Human papillomavirus type 16 from Germany
L1 gene, complete cds
Length=1518

Score = 67.9 bits (34), Expect = 3e-11
Identities = 34/34 (100%), Gaps = 0/34 (0%)
Strand=Plus/Plus

```
Query 1      TCATTATGTGCTGCCATATCTACTTCAGAAACTA 34
          |||
Sbjct 1027   TCATTATGTGCTGCCATATCTACTTCAGAAACTA 1060
```

S/N G:41 A:69 T:90 C:53

KB_3130_POP7_BDTv1.mob

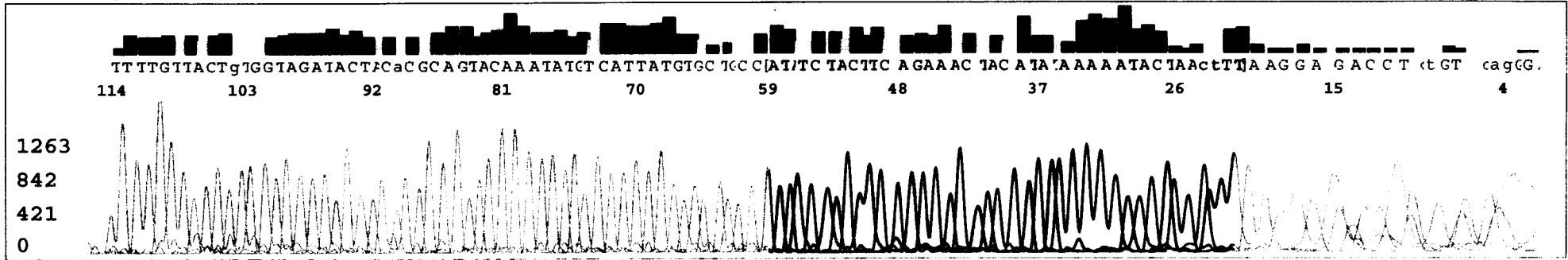
Pts 1979 to 3279 Pk1 Loc:1979

16

KB.bcp

Version 5.2.0 HISQV Bases: 65 48

KB 1.2 Cap:1



SPECIMEN # 48
HPV TYPE

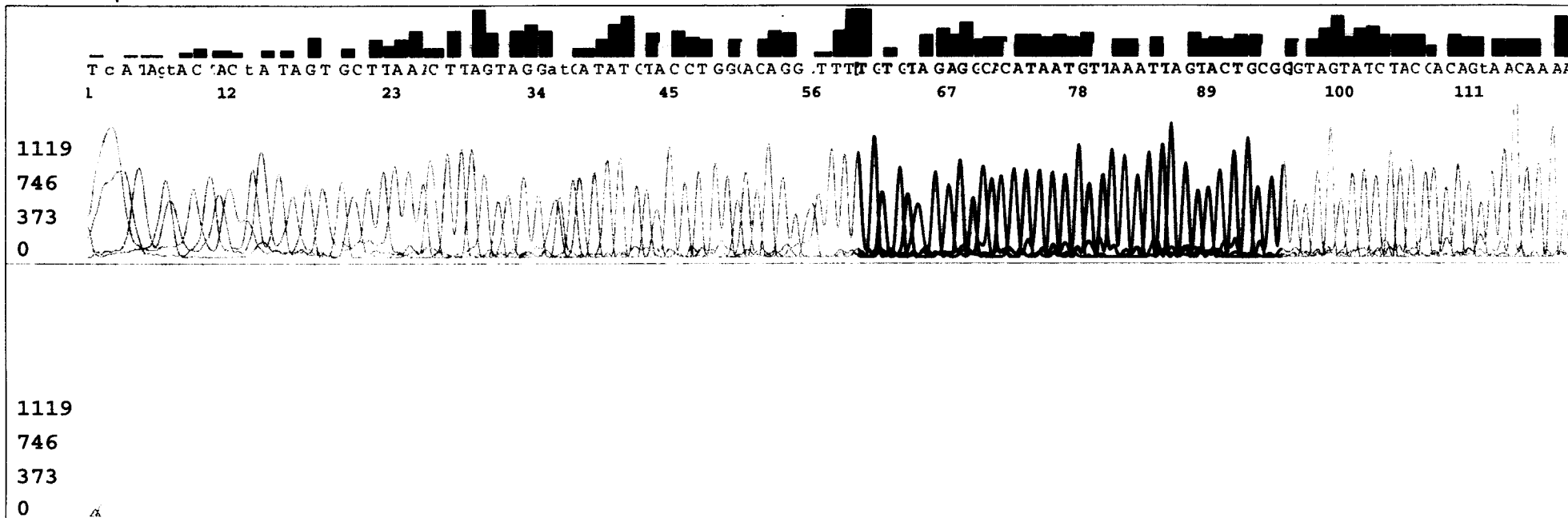
16

48.

>gi|93278209|gb|DQ440541.1| Human papillomavirus type 16 isolate 83 L1
capsid protein gene,
partial cds
Length=348

Score = 77.8 bits (39), Expect = 4e-14
Identities = 39/39 (100%), Gaps = 0/39 (0%)
Strand=Plus/Plus

```
Query 1  ATATCTACTTCAGAACTACATATAAAAATACTAAGTTT 39
          |||
Sbjct 1  ATATCTACTTCAGAACTACATATAAAAATACTAAGTTT 39
```



SPECIMEN # 51
HPV TYPE
45

51.

>gi|68159733|gb|DQ080002.1| Human papillomavirus type 45 L2 (L2) and
L1 (L1) genes, complete

cds

Length=3057

Score = 71.9 bits (36), Expect = 2e-12
Identities = 36/36 (100%), Gaps = 0/36 (0%)
Strand=Plus/Minus

Query	1	TGTGTAGAGGCACATAATGTTAAATTAGTACTGCGG	36
Sbjct	2562	TGTGTAGAGGCACATAATGTTAAATTAGTACTGCGG	2527

S/N G:76 A:129 T:165 C:96
KB.bcp
KB 1.2 Cap:3

HPV_2006-08-22_003

7

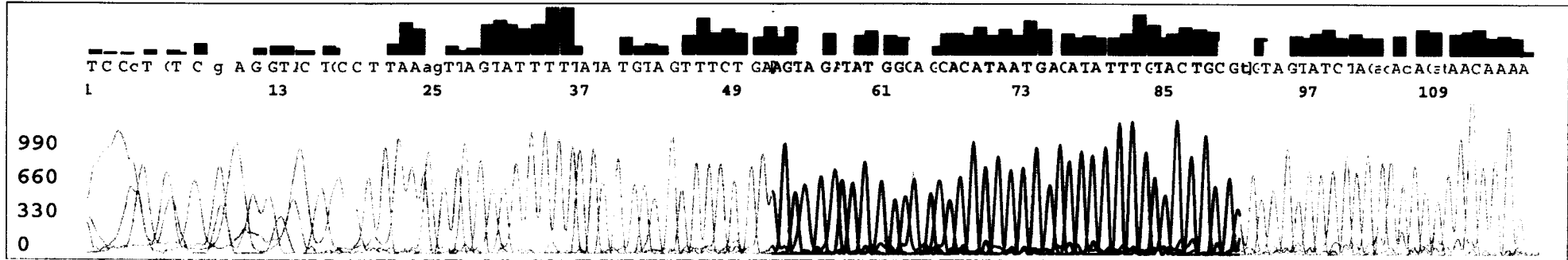
KB_3130_POP7_BDTv1.mob

Pts 1975 to 3282 Pk1 Loc:1975

Version 5.2.0 HISQV Bases: 69 78

SPECIMEN # 78
HPV TYPE

16



SPECIMEN # 78
HPV TYPE

16

78.

>gi|110555016|gb|DQ680078.1| Human papillomavirus type 16 strain Asian
American-C variant
major capsid protein (L1) gene, complete cds
Length=1596

Score = 79.8 bits (40), Expect = 1e-14
Identities = 40/40 (100%), Gaps = 0/40 (0%)
Strand=Plus/Minus

```
Query 1      AGTAGATATGGCAGCACATAATGACATATTTGTACTGCGT 40
          |||
Sbjct 1128   AGTAGATATGGCAGCACATAATGACATATTTGTACTGCGT 1089
```

SN G:71 A:113 T:121 C:92

KB_3130_POP7_BDTv1.mob

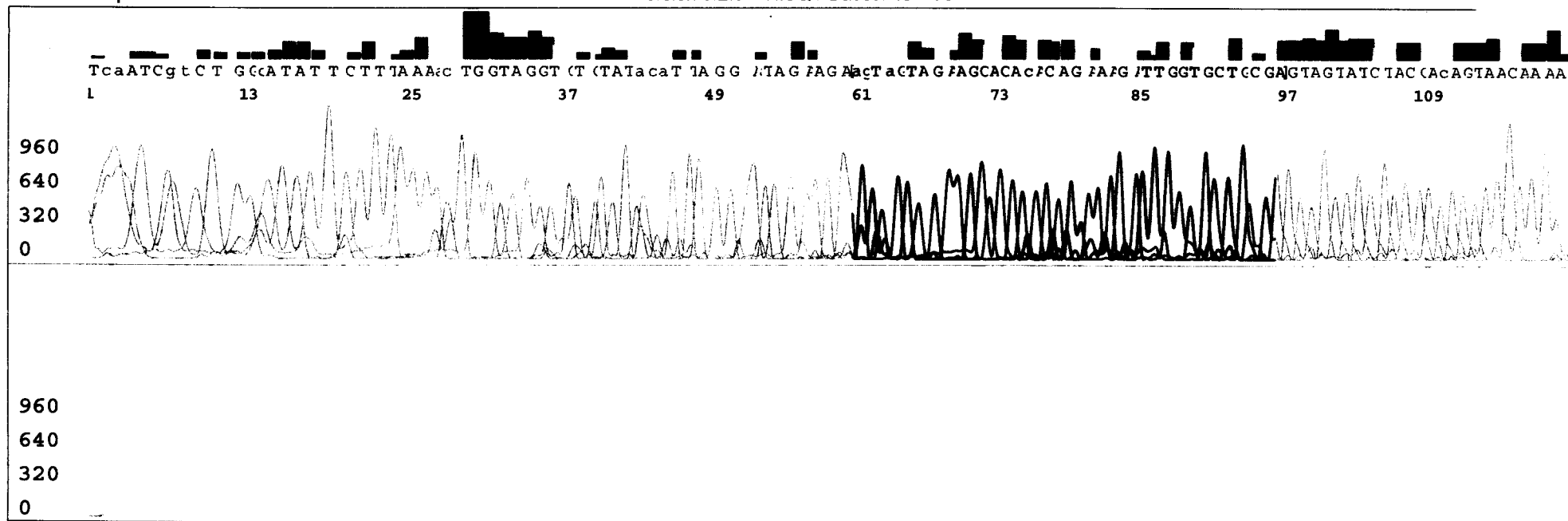
KB.bcp

Pts 1969 to 3303 Pk1 Loc:1969

KB 1.2 Cap:4

Version 5.2.0 HISQV Bases: 45 79

59



SPECIMEN # 79
HPV TYPE

59

79.

>gi|94490337|gb|DQ486471.1| Human papillomavirus type 59 isolate Bsb-
28 major capsid protein

L1 gene, partial cds

Length=455

Score = 73.8 bits (37), Expect = 5e-13
Identities = 37/37 (100%), Gaps = 0/37 (0%)
Strand=Plus/Minus

```
Query 1 AGTAGTAGAAGCACACACAGAAAGATTGGTGCTGCGA 37
        |||
Sbjct 102 AGTAGTAGAAGCACACACAGAAAGATTGGTGCTGCGA 66
```

S/N G:60 A:133 T:180 C:119

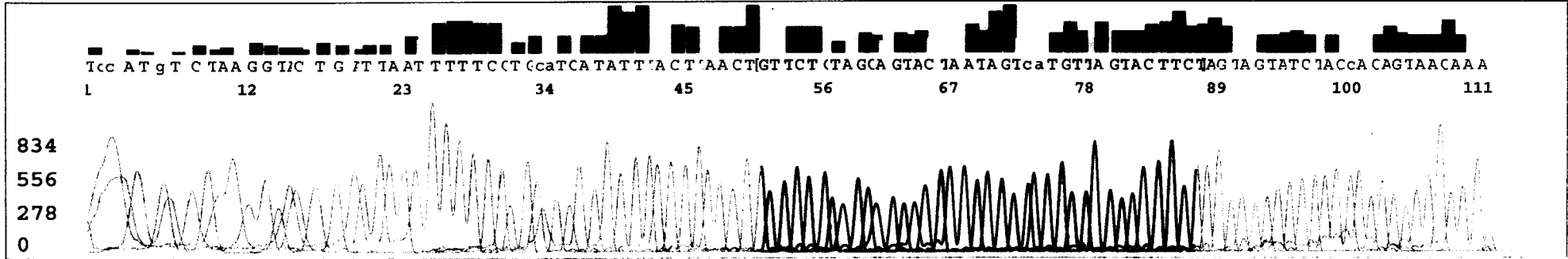
KB_3130_POP7_BDTv1.mob

Pts 1978 to 3255 Pk1 Loc:1978

Version 5.2.0 HISQV Bases: 60 84

KB.bcp

KB 1.2 Cap:1



SPECIMEN # 84
HPV TYPE
56

84.

>gi|70698531|gb|DQ007187.1| Human papillomavirus type 56 isolate
BR5868 L1 (L1) gene, partial
cds
Length=391

Score = 73.8 bits (37), Expect = 5e-13
Identities = 37/37 (100%), Gaps = 0/37 (0%)
Strand=Plus/Minus

```
Query 1 GTTCTGTAGCAGTACTAATAGTCATGTTAGTACTTCT 37
      |||
Sbjct 42 GTTCTGTAGCAGTACTAATAGTCATGTTAGTACTTCT 6
```

S/N G:109 A:163 T:238 C:148
KB.bcp
KB 1.2 Cap:2

HPV_2006-08-22_002

10

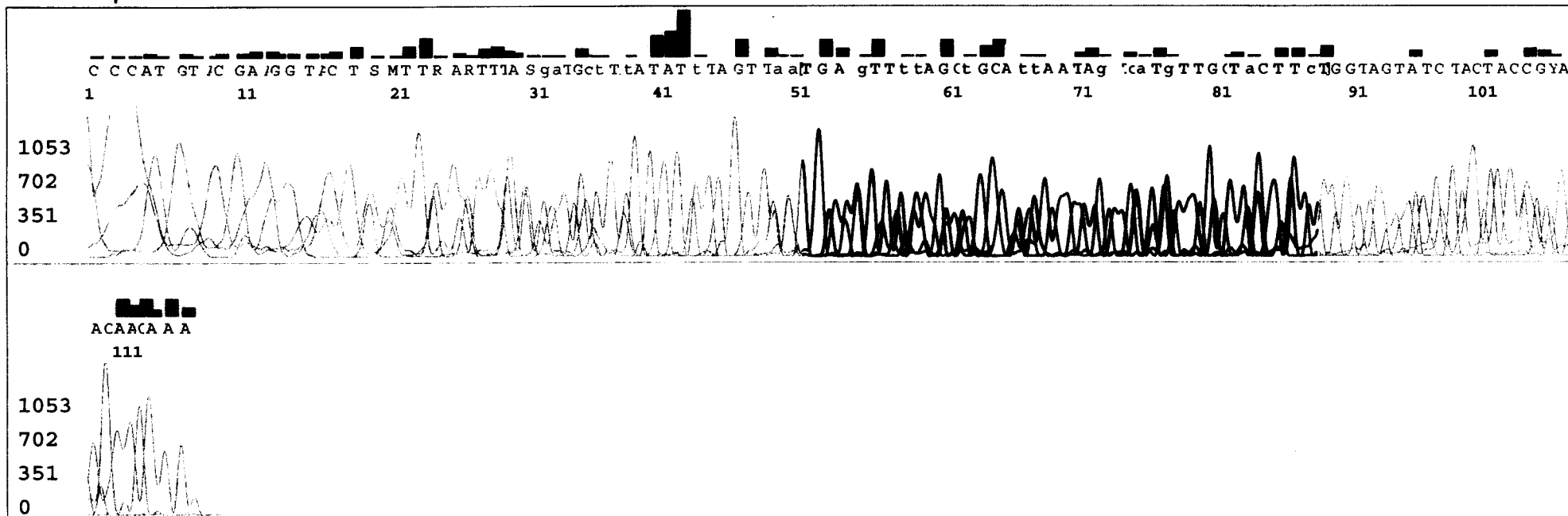
KB_3130_POP7_BDTv1.mob

Pts 1949 to 3243 Pk1 Loc:1949

Version 5.2.0 HISQV Bases: 14 85

SPECIMEN # 85
HPV TYPE

66



SPECIMEN # 85
HPV TYPE

66

85.

>gi|94490343|gb|DQ486474.1| Human papillomavirus type 66 isolate Bsb-107 major capsid protein

L1 gene, partial cds

Length=449

Score = 67.9 bits (34), Expect = 4e-11
Identities = 34/34 (100%), Gaps = 0/34 (0%)
Strand=Plus/Minus

```
Query 5   TTTTAGCTGCATTAATAGTCATGTTGGTACTTCT 38
          |||
Sbjct 100 TTTTAGCTGCATTAATAGTCATGTTGGTACTTCT 67
```


S/N G:91 A:155 T:220 C:128

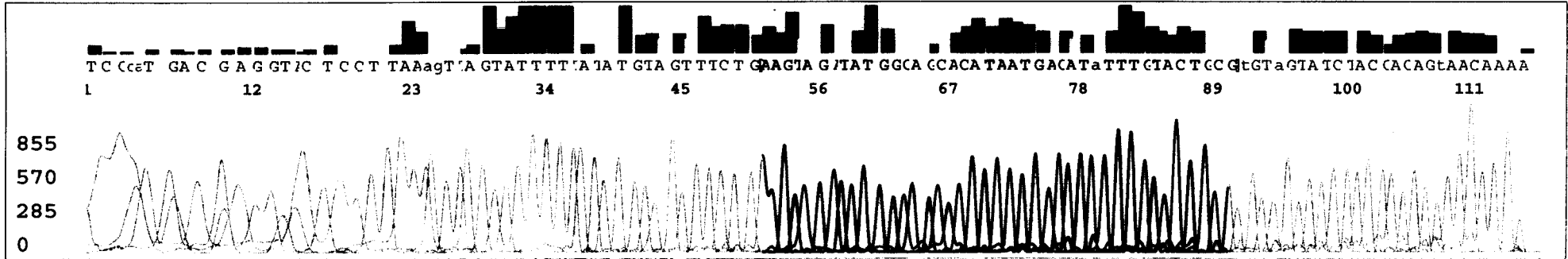
KB_3130_POP7_BDTv1.mob

Pts 1952 to 3249 Pk1 Loc:1952

Version 5.2.0 HISQV Bases: 61 89

KB.bcp

KB 1.2 Cap:3



SPECIMEN # 93
HPV TYPE

16

93.

>gi|110555016|gb|DQ680078.1| Human papillomavirus type 16 strain Asian
American-C variant

major capsid protein (L1) gene, complete cds

Length=1596

Score = 79.8 bits (40), Expect = 1e-14

Identities = 40/40 (100%), Gaps = 0/40 (0%)

Strand=Plus/Minus

```
Query 1      AAGTAGATATGGCAGCACATAATGACATATTTGTACTGCG 40
          |||
Sbjct 1129   AAGTAGATATGGCAGCACATAATGACATATTTGTACTGCG 1090
```

S/N G:185 A:247 T:395 C:237

KB_3130_POP7_BDTv1.mob

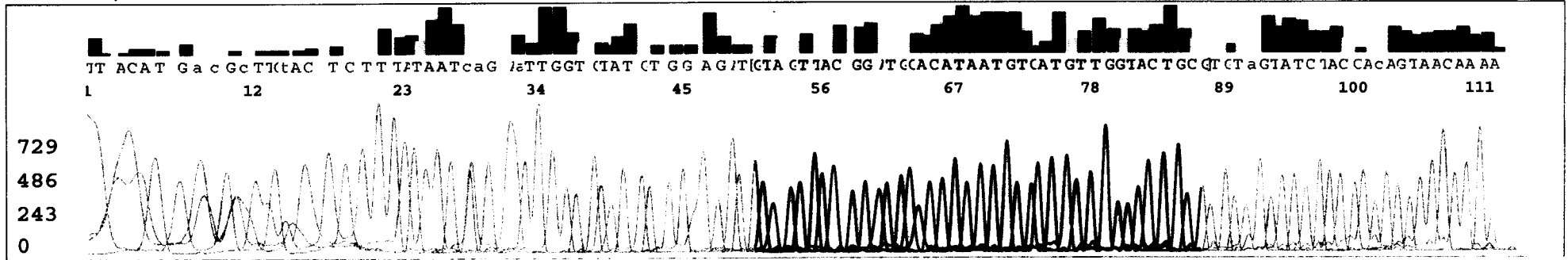
Pts 1940 to 3207 Pk1 Loc:1940

6

KB.bcp

Version 5.2.0 HISQV Bases: 58 91

KB 1.2 Cap:4



SPECIMEN # 96
HPV TYPE

6

96.

>gi|25272068|gb|AF548810.1| ■ Human papillomavirus type 6 isolate 1 L1
(L1) gene, partial cds
Length=138

Score = 75.8 bits (38), Expect = 1e-13
Identities = 38/38 (100%), Gaps = 0/38 (0%)
Strand=Plus/Minus

```
Query 1   GTAGTTACGGATGCACATAATGTCATGTTGGTACTGCG 38
          |||
Sbjct 62   GTAGTTACGGATGCACATAATGTCATGTTGGTACTGCG 25
```

S/N G:102 A:163 T:196 C:144

KB_3130_POP7_BDTv1.mob

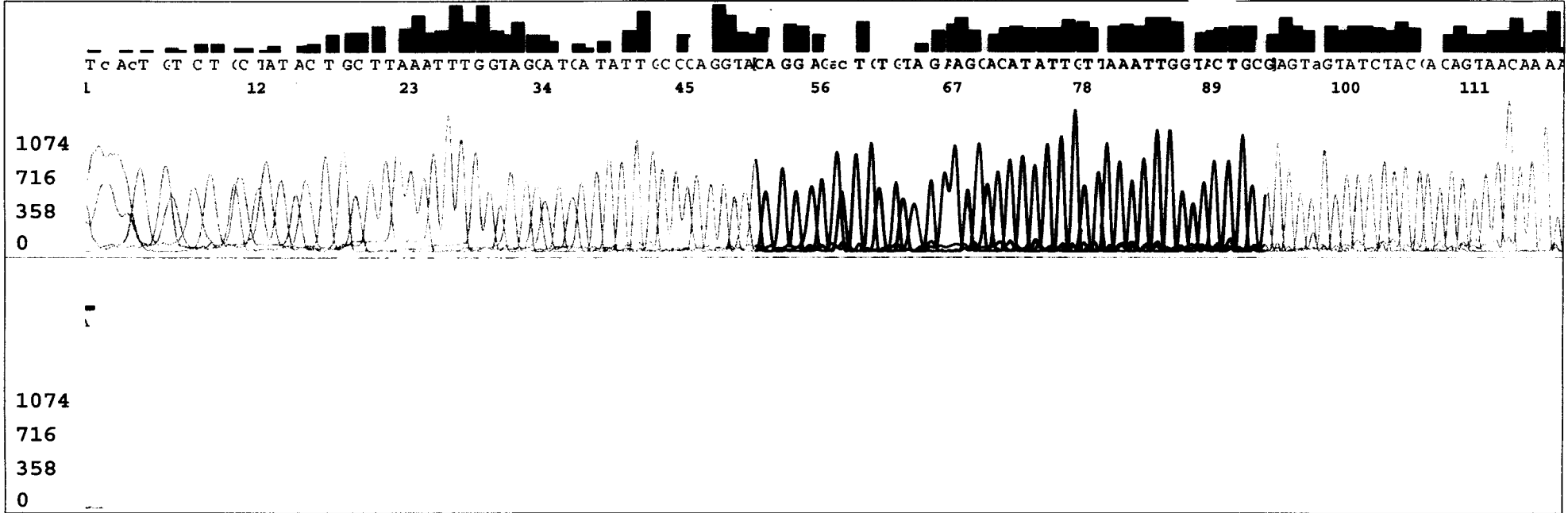
KB.bcp

Pts 1936 to 3270 Pk1 Loc:1936

KB 1.2 Cap:1

Version 5.2.0 HISQV Bases: 76 # 65

18



SPECIMEN # 108
HPV TYPE
18

108.

>gi|94490339|gb|DQ486472.1| Human papillomavirus type 18 isolate Bsb-
48 major capsid protein
L1 gene, partial cds
Length=455

Score = 85.7 bits (43), Expect = 2e-16
Identities = 43/43 (100%), Gaps = 0/43 (0%)
Strand=Plus/Minus

```
Query 1 CAGGAGACTGTGTAGAGAAGCACATATTGTTAAATTGGTACTGCG 43
      |||
Sbjct 109 CAGGAGACTGTGTAGAGAAGCACATATTGTTAAATTGGTACTGCG 67
```

S/N G:39 A:65 T:62 C:58

KB.bcp

KB 1.2 Cap:4

HPV_2006-10-02_004

8

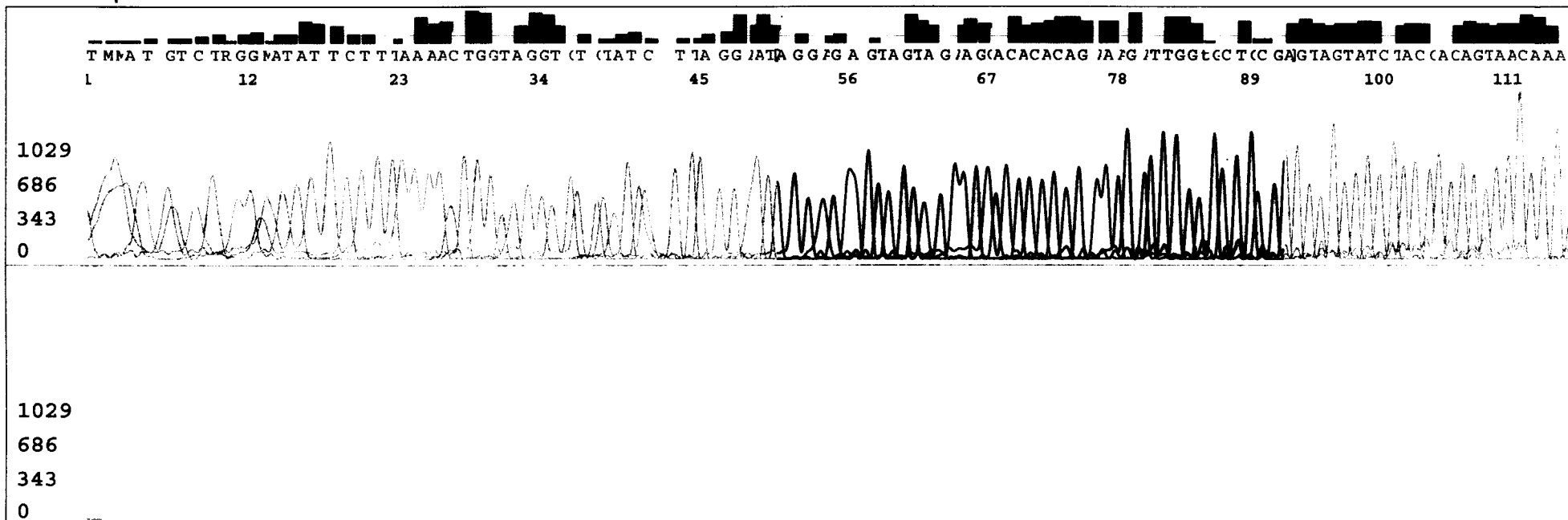
KB_3130_POP7_BDTv1.mob

Pts 1936 to 3255 Pk1 Loc:1936

Version 5.2.0 HiSQV Bases: 57

SPECIMEN # 111
HPV TYPE

59



SPECIMEN # 111
HPV TYPE

59

>gi|1209186|gb|U45930.1|HPU45930 Human papillomavirus type 59, isolate
C29, major capsid protein
L1 (L1) gene, partial cds
Length=455

Score = 75.8 bits (38), Expect = 2e-13
Identities = 38/38 (100%), Gaps = 0/38 (0%)
Strand=Plus/Minus

```
Query 5 GAGTAGTAGAAGCACACACAGAAAGATTGGTGCTGCGA 42
      |||
Sbjct 103 GAGTAGTAGAAGCACACACAGAAAGATTGGTGCTGCGA 66
```


S/N G:10 A:16 T:24 C:17

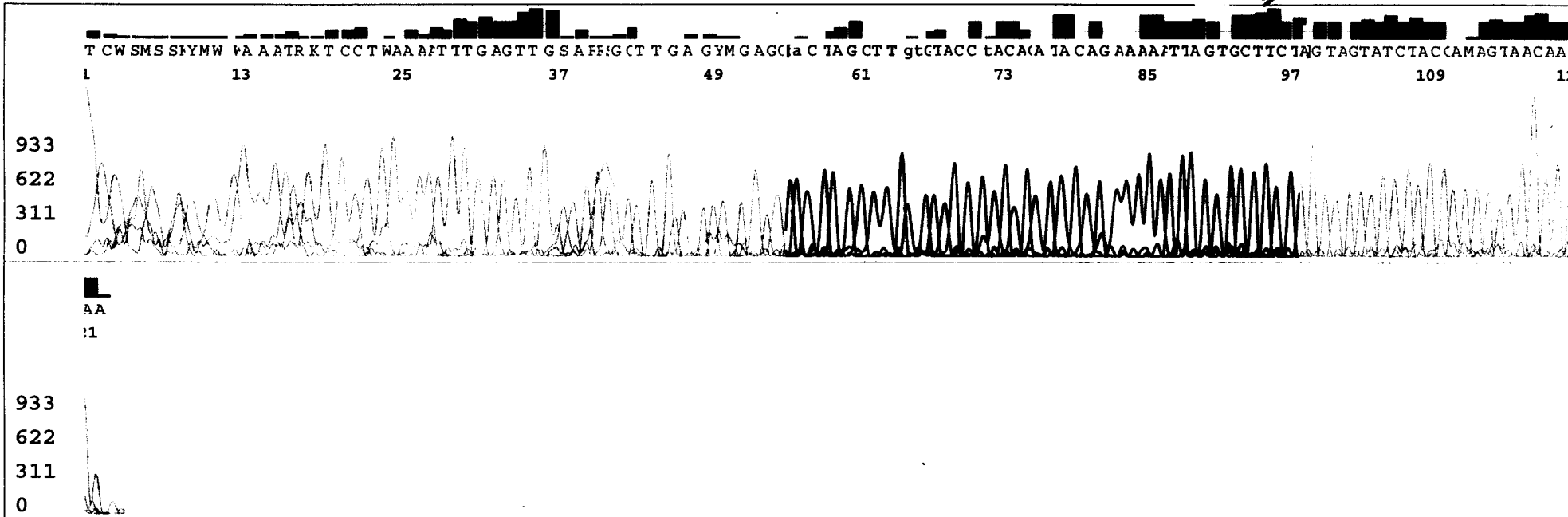
KB.bcp

KB 1.2 Cap:2

KB_3130_POP7_BDTv1.mob

Pts 1897 to 3270 Pk1 Loc:1897

Version 5.2.0 HISQV Bases: 50

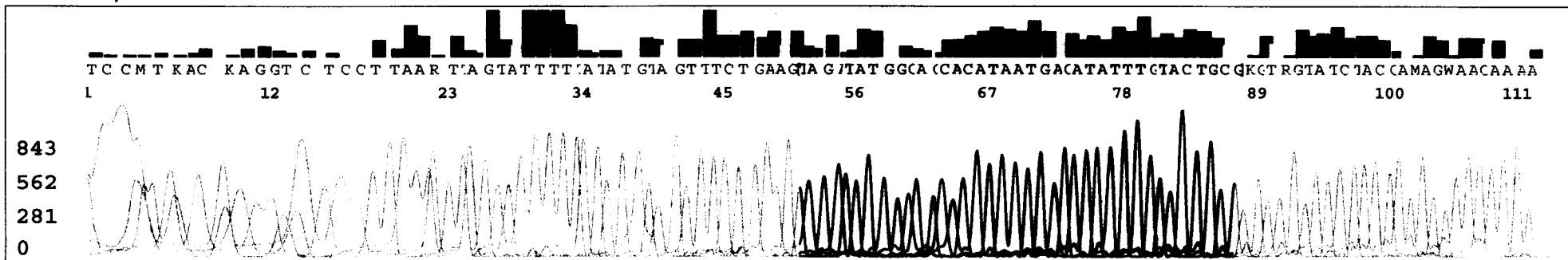


SPECIMEN # 129
HPV TYPE
73

>gi|2995157|emb|Y12222.1|HPVL1503 Human papillomavirus type 73 L1
gene, partial, isolate han HV503
Length=102

Score = 85.7 bits (43), Expect = 2e-16
Identities = 43/43 (100%), Gaps = 0/43 (0%)
Strand=Plus/Minus

```
Query 1 TACTAGCTTGTGTACCTACACATACAGAAAAATTAGTGCTTCT 43
      |||
Sbjct 43 TACTAGCTTGTGTACCTACACATACAGAAAAATTAGTGCTTCT 1
```



SPECIMEN # 144
HPV TYPE
16

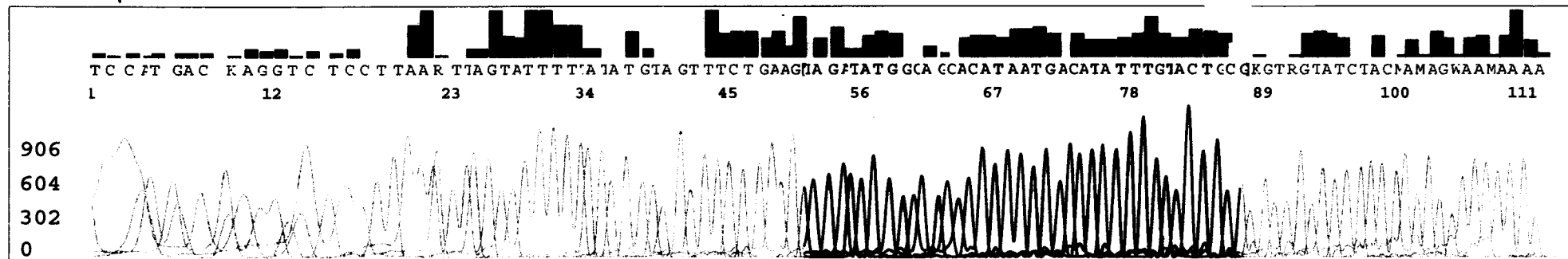
144.

>gi|93278076|gb|DQ469930.1| Human papillomavirus type 16 from Germany
L1 gene, complete cds
Length=1518

Score = 73.8 bits (37), Expect = 2e-11
Identities = 37/37 (100%), Gaps = 0/37 (0%)
Strand=Plus/Minus

```
Query 1 TAGATATGGCAGCACATAATGACATATTGACTGCG 37
      |||
Sbjct 1048 TAGATATGGCAGCACATAATGACATATTGACTGCG 1012
```

SPECIMEN # 145
16



SPECIMEN # 145
HPV TYPE
16

145.
>gi|110555016|gb|DQ680078.1| Human papillomavirus type 16 strain Asian
American-C variant
major capsid protein (L1) gene, complete cds
Length=1596

Score = 73.8 bits (37), Expect = 2e-11
Identities = 37/37 (100%), Gaps = 0/37 (0%)
Strand=Plus/Minus

```
Query 1 TAGATATGGCAGCACATAATGACATATTGTTACTGCG 37
      |||
Sbjct 1126 TAGATATGGCAGCACATAATGACATATTGTTACTGCG 1090
```

S/N G:16 A:42 T:37 C:37
KB.bcp
KB 1.2 Cap:1

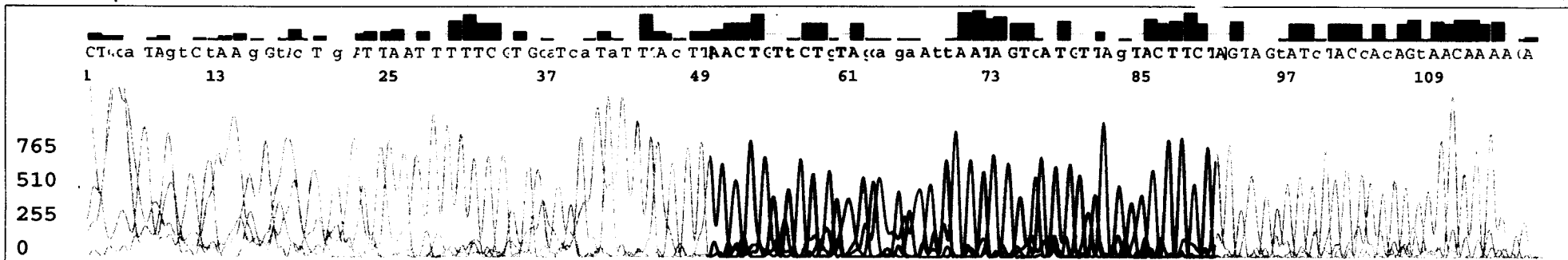
HPV_2006-09-15_001

1

KB_3130_POP7_BDTv1.mob
Pts 1778 to 2973 Pk1 Loc:1778
Version 5.2.0 HISQV Bases: 41

SPECIMEN # 150
HPV TYPE

56



SPECIMEN # 150
HPV TYPE
56

150.

>gi|70698531|gb|DQ007187.1| Human papillomavirus type 56 isolate
BR5868 L1 (L1) gene, partial

cds

Length=391

Score = 67.9 bits (34), Expect = 4e-11
Identities = 40/42 (95%), Gaps = 0/42 (0%)
Strand=Plus/Minus

```
Query 1  AACTGTTCTGTAGCAGAATTAATAGTCATGTTAGTACTTCTA 42
          |||
Sbjct 46  AACTGTTCTGTAGCAGTACTAATAGTCATGTTAGTACTTCTA 5
```


S/N G:69 A:117 T:151 C:98

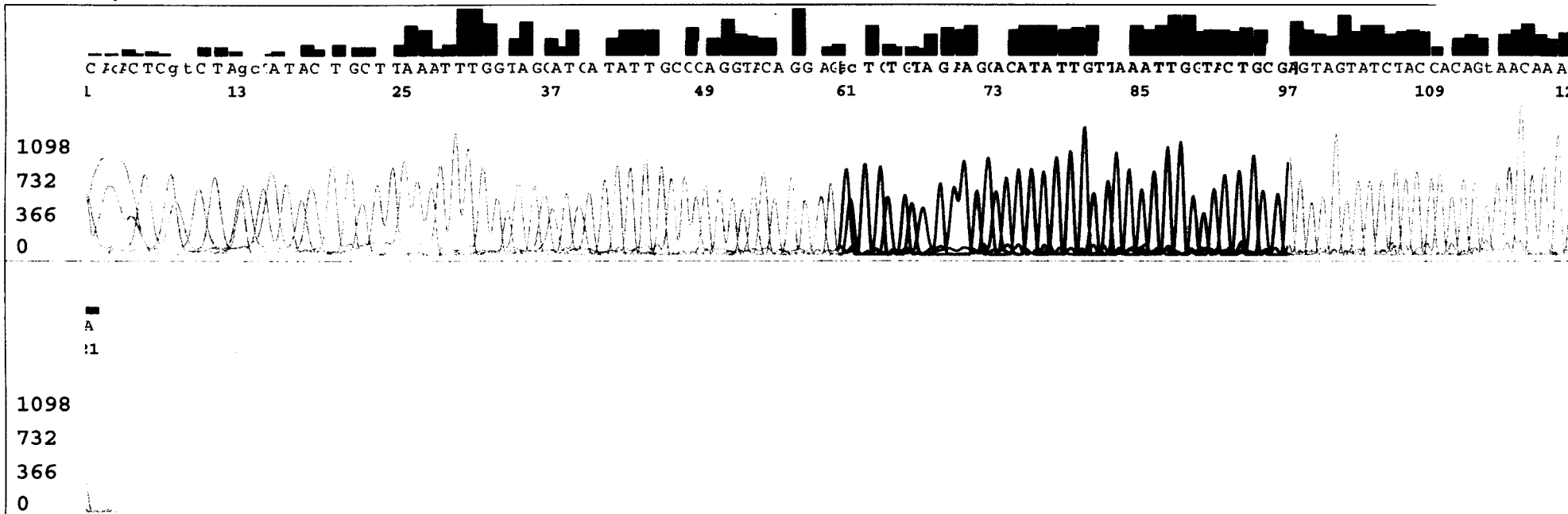
KB.bcp

KB 1.2 Cap:4

KB_3130_POP7_BDTv1.mob

Pts 2015 to 3386 Pk1 Loc:2015

Version 5.2.0 HISQV Bases: 66 #29



SPECIMEN # 155
HPV TYPE
18

155.

>gi|94490339|gb|DQ486472.1| Human papillomavirus type 18 isolate Bsb-
48 major capsid protein
L1 gene, partial cds
Length=455

Score = 75.8 bits (38), Expect = 1e-13
Identities = 38/38 (100%), Gaps = 0/38 (0%)
Strand=Plus/Minus

```
Query 1 ACTGTGTAGAAGCACATATTGTTAAATTGGTACTGCGA 38
      |||
Sbjct 103 ACTGTGTAGAAGCACATATTGTTAAATTGGTACTGCGA 66
```

S/N G:258 A:394 T:771 C:338

KB_3130_POP7_BDTv1.mob

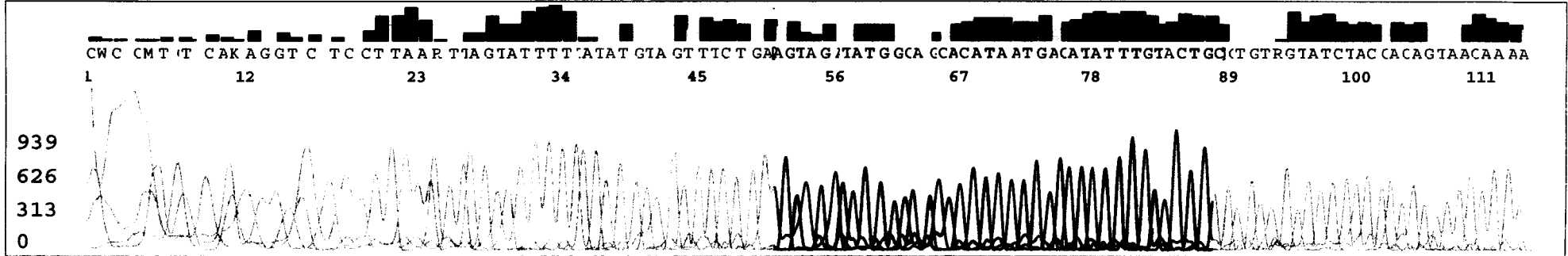
KB.bcp

Pts 1842 to 3090 Pk1 Loc:1842

KB 1.2 Cap:3

Version 5.2.0 HISQV Bases: 62

16



SPECIMEN # 172
HPV TYPE

16

172.

>gi|110555016|gb|DQ680078.1| Human papillomavirus type 16 strain Asian
American-C variant

major capsid protein (L1) gene, complete cds

Length=1596

Score = 75.8 bits (38), Expect = 5e-12
Identities = 38/38 (100%), Gaps = 0/38 (0%)
Strand=Plus/Minus

```
Query 1      AGTAGATATGGCAGCACATAATGACATATTTGTACTGC 38
          |||
Sbjct 1128   AGTAGATATGGCAGCACATAATGACATATTTGTACTGC 1091
```

S/N G:493 A:784 T:1243 C:658

KB.bcp

KB 1.2 Cap:4

HPV_2006-08-11_004

4

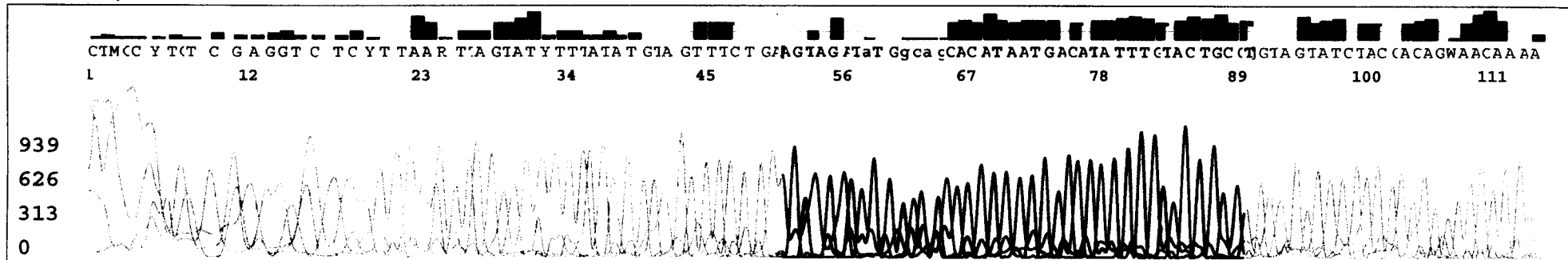
KB_3130_POP7_BDTv1.mob

Pts 1844 to 3093 Pk1 Loc:1844

Version 5.2.0 HISQV Bases: 47

SPECIMEN # 177
HPV TYPE

16



SPECIMEN # 177
HPV TYPE

16

177.

>gi|110555016|gb|DQ680078.1| Human papillomavirus type 16 strain Asian
American-C variant
major capsid protein (L1) gene, complete cds
Length=1596

Score = 79.8 bits (40), Expect = 4e-13
Identities = 40/40 (100%), Gaps = 0/40 (0%)
Strand=Plus/Minus

```
Query 1      AGTAGATATGGCAGCACATAATGACATATTTGTACTGCGT 40
          |||
Sbjct 1128   AGTAGATATGGCAGCACATAATGACATATTTGTACTGCGT 1089
```

SPECIMEN # 187
HPV TYPE
16

S/N G:124 A:218 T:332 C:169

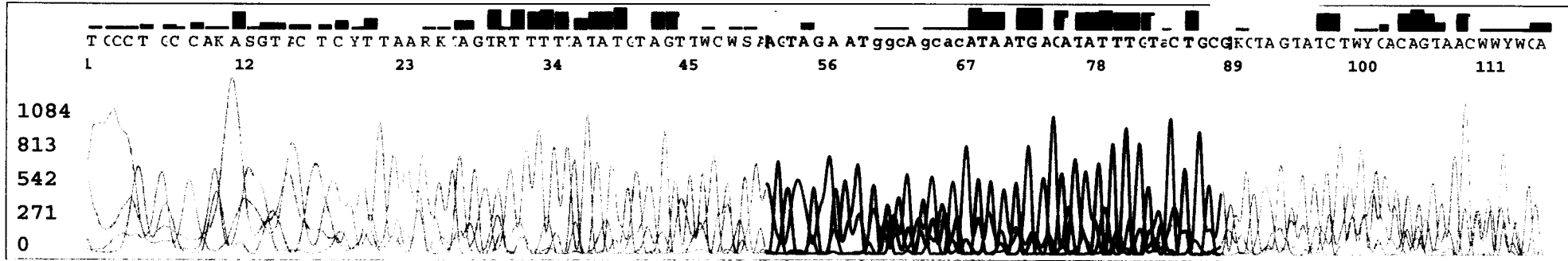
KB.bcp

KB 1.2 Cap:2

KB_3130_POP7_BDTv1.mob

Pts 1927 to 3207 Pk1 Loc:1927

Version 5.2.0 HISQV Bases: 35



SPECIMEN # 187
HPV TYPE
16

187.

>gi|110555016|gb|DQ680078.1| Human papillomavirus type 16 strain Asian
American-C variant
major capsid protein (L1) gene, complete cds
Length=1596

Score = 63.9 bits (32), Expect = 2e-08
Identities = 32/32 (100%), Gaps = 0/32 (0%)
Strand=Plus/Minus

```
Query 7 ATGGCAGCACATAATGACATATTTGACTGCG 38
      |||
Sbjct 1121 ATGGCAGCACATAATGACATATTTGACTGCG 1090
```


S/N G:28 A:75 T:96 C:46

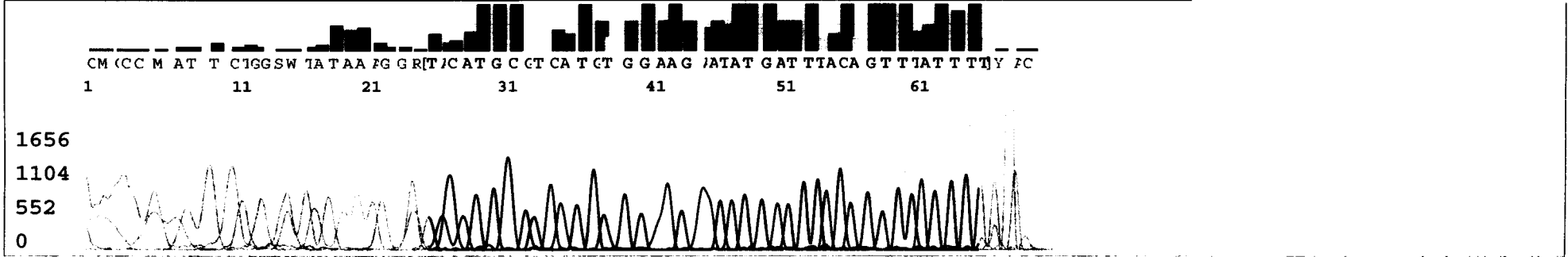
KB_3130_POP7_BDTv1.mob

KB.bcp

Pts 1989 to 2709 Pk1 Loc:1989

KB 1.2 Cap:1

Version 5.2.0 HISQV Bases: 36



SPECIMEN # 188
HPV TYPE 35

>gi|66933463|gb|DQ057339.1| Human papillomavirus type 35 isolate
SA1505 L1 protein (L1) gene,
partial cds
Length=351

Score = 52.0 bits (26), Expect = 2e-06
Identities = 26/26 (100%), Gaps = 0/26 (0%)
Strand=Plus/Plus

Query	16	GAAGAATATGATTTACAGTTTATTTT	41
Sbjct	97	GAAGAATATGATTTACAGTTTATTTT	122

S/N G:30 A:48 T:46 C:49
KB.bcp
KB 1.2 Cap:4

HPV_2006-09-15_004

12

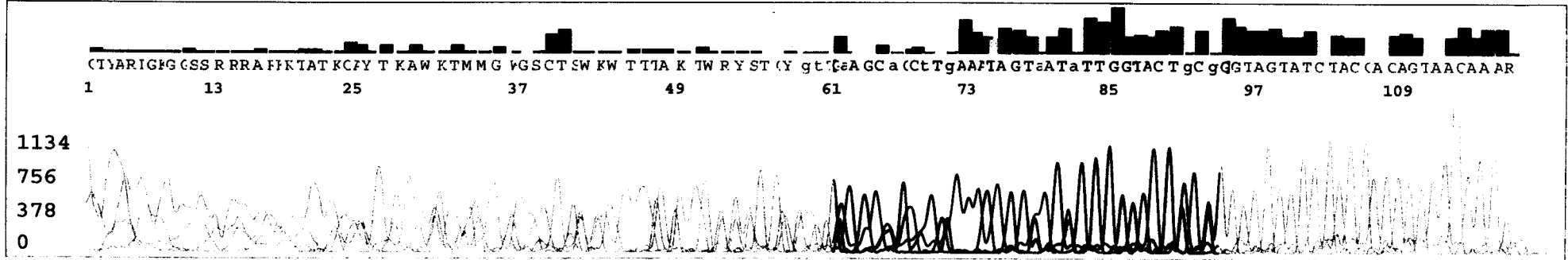
KB_3130_POP7_BDTv1.mob

Pts 1701 to 2859 Pk1 Loc:1701

Version 5.2.0 HISQV Bases: 42

SPECIMEN # 203
HPV TYPE

83



SPECIMEN # 203
HPV TYPE

83

203.

>gi|5059324|gb|AF151983.1|AF151983 Human papillomavirus type 83,
complete genome
Length=8104

Score = 50.1 bits (25), Expect = 7e-06
Identities = 25/25 (100%), Gaps = 0/25 (0%)
Strand=Plus/Minus

Query	10	TGAAATAGTAATATTGGTACTGCGG	34
Sbjct	6782	TGAAATAGTAATATTGGTACTGCGG	6758

S/N G:38 A:73 T:75 C:64

KB.bcp

KB 1.2 Cap:2

HPV_2006-10-08_002

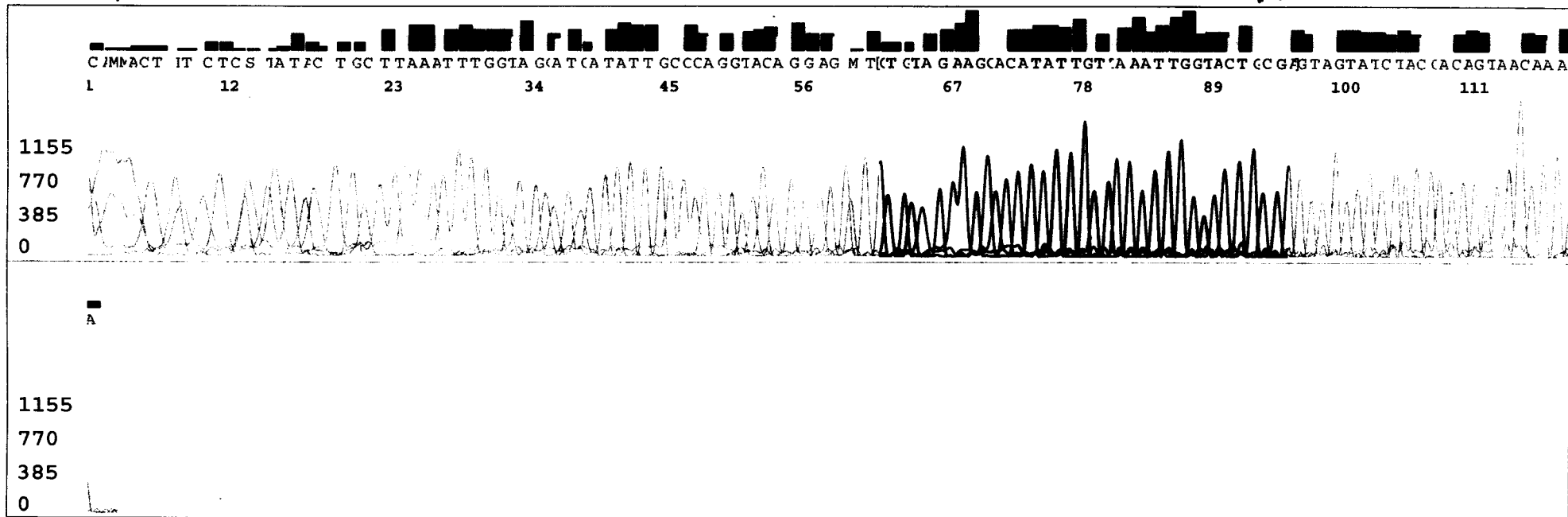
26

KB_3130_POP7_BDTv1.mob

Pts 1956 to 3330 Pk1 Loc:1956

Version 5.2.0 HISQV Bases: 65

SPECIMEN # 210
HPV TYPE 18



SPECIMEN # 210
HPV TYPE

18

>gi|94490339|gb|DQ486472.1| Human papillomavirus type 18 isolate Bsb-
48 major capsid protein
L1 gene, partial cds
Length=455

Score = 69.9 bits (35), Expect = 8e-12
Identities = 35/35 (100%), Gaps = 0/35 (0%)
Strand=Plus/Minus

```
Query 1 GTGTAGAAGCACATATTGTTAAATTGGTACTGCGA 35
      |||
Sbjct 100 GTGTAGAAGCACATATTGTTAAATTGGTACTGCGA 66
```

S/N G:343 A:772 T:902 C:785

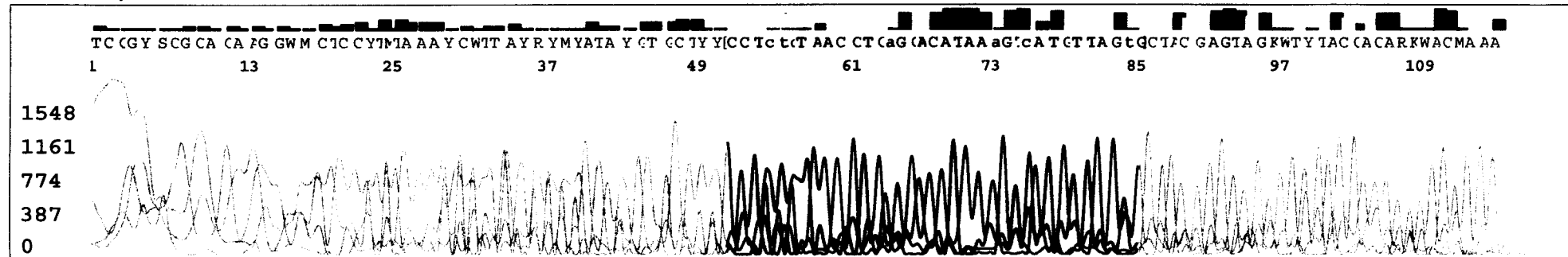
KB_3130_POP7_BDTv1.mob

KB.bcp

Pts 1839 to 3051 Pk1 Loc:1839

KB 1.2 Cap:2

Version 5.2.0 HISQV Bases: 21



SPECIMEN # 226
HPV TYPE
52

226.

>gi|66933425|gb|DQ057320.1| Human papillomavirus type 52 isolate
BR0258 L1 protein (L1) gene,
partial cds
Length=421

Score = 58.0 bits (29), Expect = 1e-06
Identities = 29/29 (100%), Gaps = 0/29 (0%)
Strand=Plus/Minus

Query	7	TAACCTCAGCACATAAAAGTCATGTTAGTG	35
Sbjct	103	TAACCTCAGCACATAAAAGTCATGTTAGTG	75

S/N G:35 A:74 T:74 C:63
KB.bcp
KB 1.2 Cap:2

HPV_2006-09-18_002

2

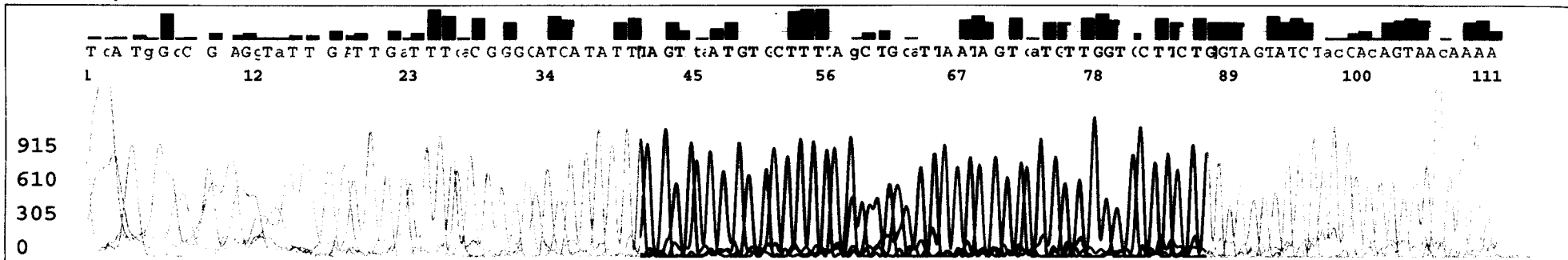
KB_3130_POP7_BDTv1.mob

Pts 1951 to 3238 Pk1 Loc:1951

Version 5.2.0 HISQV Bases: 44

SPECIMEN # 232
HPV TYPE

66



SPECIMEN # 232
HPV TYPE

66

232.

>gi|70698456|gb|DQ007161.1| Human papillomavirus type 66 isolate
ED2204 L1 (L1) gene, partial
cds
Length=391

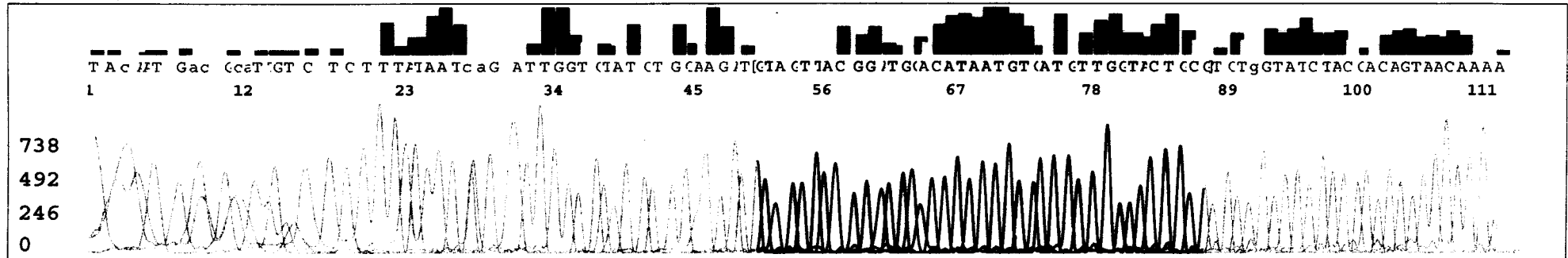
Score = 93.7 bits (47), Expect = 9e-19
Identities = 47/47 (100%), Gaps = 0/47 (0%)
Strand=Plus/Minus

```
Query 1 TAGTTAATGTGCTTTTAGCTGCATTAATAGTCATGTTGGTGCTTCTG 47
      |||
Sbjct 101 TAGTTAATGTGCTTTTAGCTGCATTAATAGTCATGTTGGTGCTTCTG 55
```

S/N G:60 A:86 T:118 C:77

KB.bcp

KB 1.2 Cap:4



SPECIMEN # 241
HPV TYPE

6

241.

>gi|25272068|gb|AF548810.1| ■ Human papillomavirus type 6 isolate 1 L1
(L1) gene, partial cds
Length=138

Score = 75.8 bits (38), Expect = 1e-13
Identities = 38/38 (100%), Gaps = 0/38 (0%)
Strand=Plus/Minus

```
Query 1   GTAGTTACGGATGCACATAATGTCATGTTGGTACTGCG 38
          |||
Sbjct 62   GTAGTTACGGATGCACATAATGTCATGTTGGTACTGCG 25
```

S/N G:21 A:55 T:49 C:34

KB_3130_POP7_BDTv1.mob

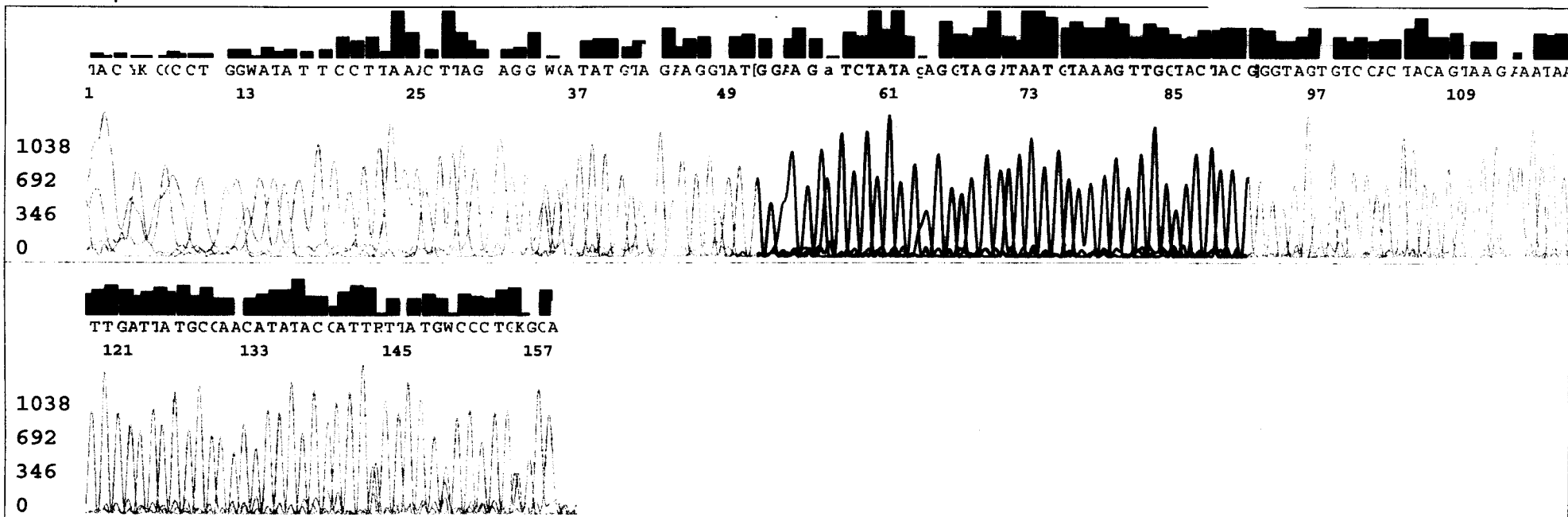
KB.bcp

Pts 1887 to 3699 Pk1 Loc:1887

KB 1.2 Cap:3

Version 5.2.0 HiSQV Bases: 111

39



S/N G:5 A:7 T:6 C:7

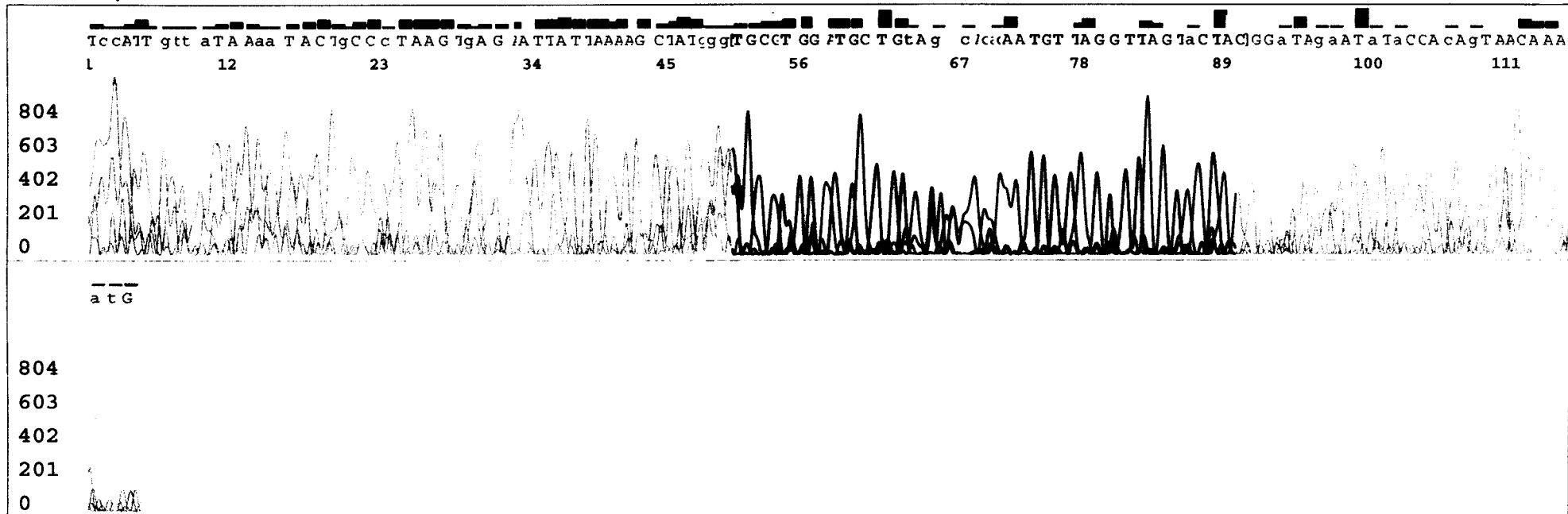
KB.bcp

KB 1.2 Cap:1

KB_3130_POP7_BDTv1.mob

Pts 1777 to 8532 Pk1 Loc:1777

Version 5.2.0 HISQV Bases: 5



SPECIMEN # 249
HPV TYPE

54

249.

>gi|1017782|gb|U37488.1|HPU37488 ■ Human papillomavirus type 54,
complete genome
Length=7759

Score = 79.8 bits (40), Expect = 1e-14
Identities = 40/40 (100%), Gaps = 0/40 (0%)
Strand=Plus/Minus

```
Query 1      TCGGTGGATGCTGTAGCACACAATGTTAGGTTAGTACTAC 40
           |||
Sbjct 6647   TCGGTGGATGCTGTAGCACACAATGTTAGGTTAGTACTAC 6608
```


S/N G:6 A:13 T:13 C:12

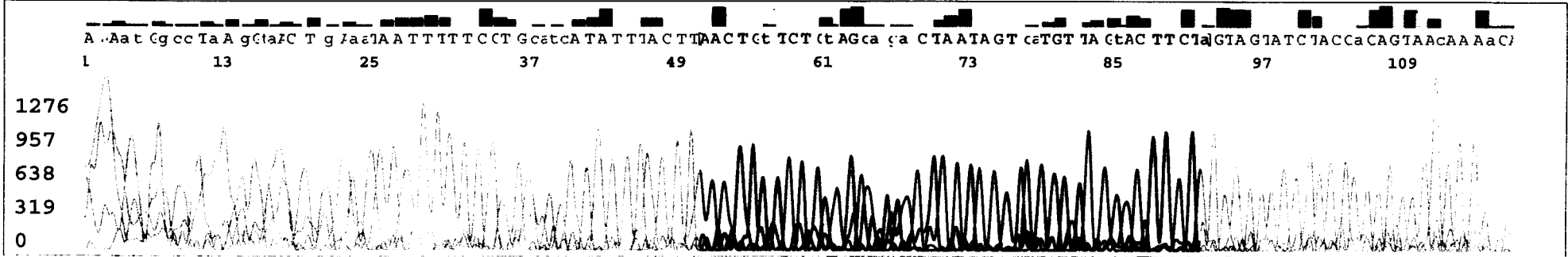
KB.bcp

KB 1.2 Cap:3

KB_3130_POP7_BDTv1.mob

Pts 1794 to 2973 Pk1 Loc:1794

Version 5.2.0 HISQV Bases: 19



S/N G:9 A:20 T:20 C:19

KB_3130_POP7_BDTv1.mob

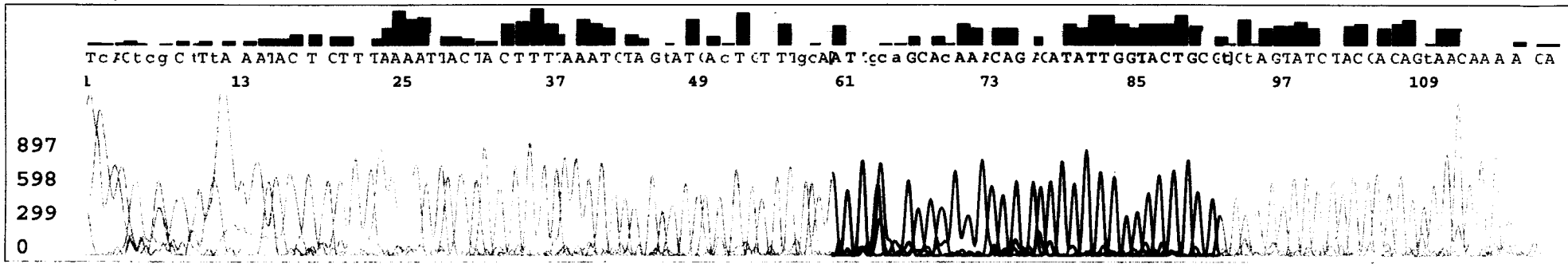
KB.bcp

Pts 1782 to 3006 Pk1 Loc:1782

KB 1.2 Cap:2

Version 5.2.0 HISQV Bases: 46

31



SPECIMEN # 254
HPV TYPE

31

254.

>gi|83267689|gb|DQ241373.1| Human papillomavirus type 31 L1 protein
gene, partial cds
Length=392

Score = 65.9 bits (33), Expect = 1e-10
Identities = 33/33 (100%), Gaps = 0/33 (0%)
Strand=Plus/Minus

Query	1	ATTGCAGCACAAACAGACATATTGGTACTGCGT	33
Sbjct	58	ATTGCAGCACAAACAGACATATTGGTACTGCGT	26

SPECIMEN # 255
HPV TYPE

S/N G:37 A:88 T:88 C:79

KB_3130_POP7_BDTv1.mob

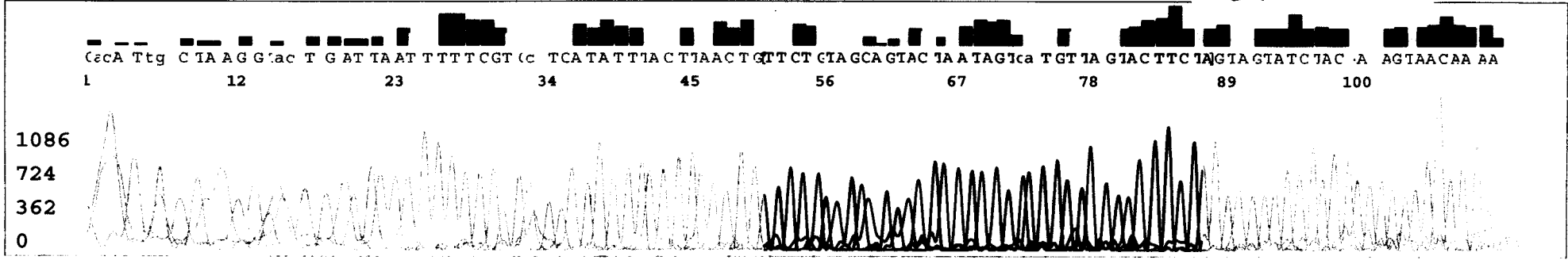
KB.bcp

Pts 1731 to 2904 Pk1 Loc:1731

KB 1.2 Cap:1

Version 5.2.0 HISQV Bases: 56

56



SPECIMEN # 255
HPV TYPE
56

255.

>[gi|70698531|gb|DQ007187.1|](#) Human papillomavirus type 56 isolate
BR5868 L1 (L1) gene, partial

cds

Length=391

Score = 73.8 bits (37), Expect = 5e-13
Identities = 37/37 (100%), Gaps = 0/37 (0%)
Strand=Plus/Minus

```
Query 1 TTCTGTAGCAGTACTAATAGTCATGTTAGTACTTCTA 37
      |||
Sbjct 41 TTCTGTAGCAGTACTAATAGTCATGTTAGTACTTCTA 5
```

S/N G:116 A:231 T:363 C:214

KB_3130_POP7_BDTv1.mob

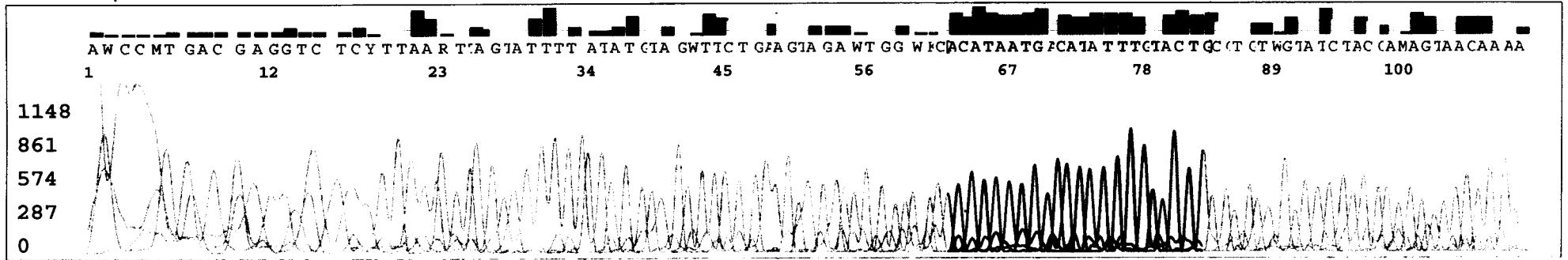
KB.bcp

Pts 1766 to 3027 Pk1 Loc:1766

KB 1.2 Cap:3

Version 5.2.0 HISQV Bases: 40

33



SPECIMEN # 256
HPV TYPE

33

256.

>gi|91178206|gb|DQ448214.1| Human papillomavirus type 33 isolate IR-
ESO-HPV-33/2 L1 (L1)
gene, partial cds
Length=103

Score = 44.1 bits (22), Expect = 0.004
Identities = 22/22 (100%), Gaps = 0/22 (0%)
Strand=Plus/Minus

```
Query 1 ACATAATGACATATTTGTACTG 22
      |||
Sbjct 50 ACATAATGACATATTTGTACTG 29
```


S/N G:38 A:81 T:77 C:74

KB.bcp

KB 1.2 Cap:1

HPV_2006-09-18_001

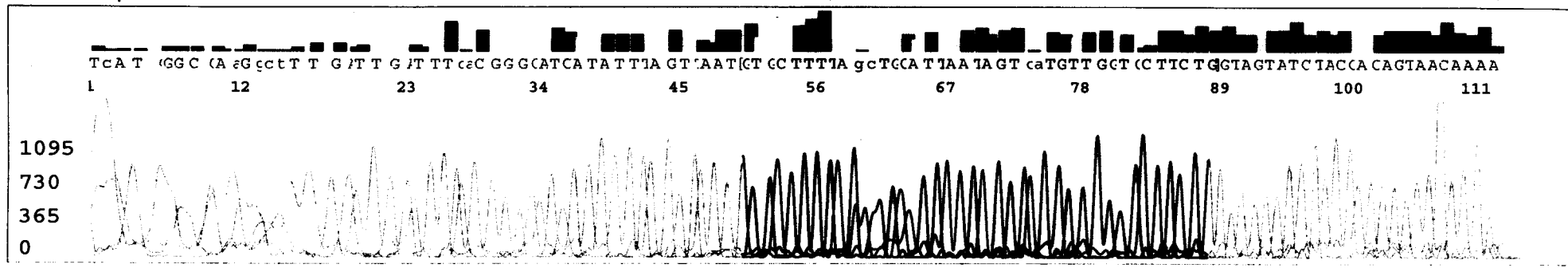
5

KB_3130_POP7_BDTv1.mob

Pts 1872 to 3120 Pk1 Loc:1872

Version 5.2.0 HISQV Bases: 56

SPECIMEN # 259
HPV TYPE
66



SPECIMEN # 259
HPV TYPE

66

259.

>gi|70698456|gb|DQ007161.1| Human papillomavirus type 66 isolate
ED2204 L1 (L1) gene, partial
cds
Length=391

Score = 77.8 bits (39), Expect = 4e-14
Identities = 39/39 (100%), Gaps = 0/39 (0%)
Strand=Plus/Minus

```
Query 1   GTGCTTTTAGCTGCATTAATAGTCATGTTGGTGCTTCTG 39
          |||
Sbjct 93   GTGCTTTTAGCTGCATTAATAGTCATGTTGGTGCTTCTG 55
```

S/N G:108 A:194 T:274 C:168
KB.bcp
KB 1.2 Cap:4

HPV_2006-08-16_004

4

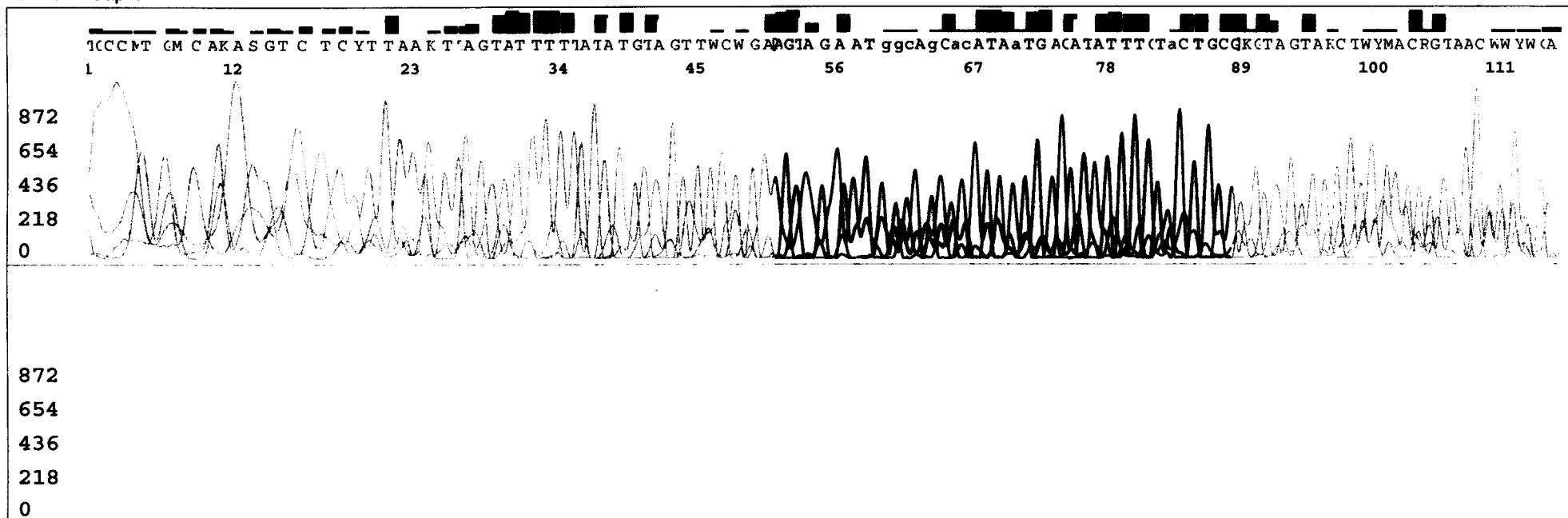
KB_3130_POP7_BDTv1.mob

Pts 1929 to 3213 Pk1 Loc:1929

Version 5.2.0 HISQV Bases: 37

SPECIMEN # 271
HPV TYPE

16



SPECIMEN # 271
HPV TYPE

16

271.

>gi|110555016|gb|DQ680078.1| Human papillomavirus type 16 strain Asian
American-C variant
major capsid protein (L1) gene, complete cds
Length=1596

Score = 63.9 bits (32), Expect = 2e-08
Identities = 32/32 (100%), Gaps = 0/32 (0%)
Strand=Plus/Minus

```
Query 7 ATGGCAGCACATAATGACATATTTGTTACTGCG 38
      |||
Sbjct 1121 ATGGCAGCACATAATGACATATTTGTTACTGCG 1090
```

S/N G:14 A:41 T:44 C:31

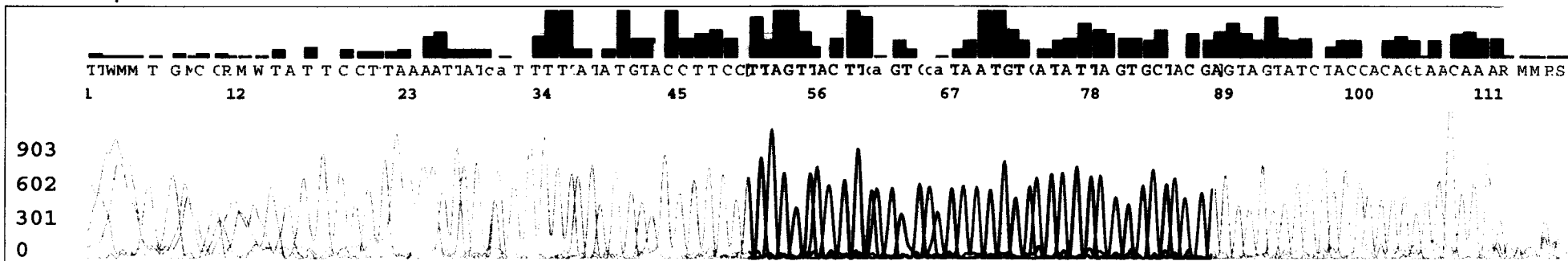
KB.bcp

KB 1.2 Cap:3

KB_3130_POP7_BDTv1.mob

Pts 1729 to 2919 Pk1 Loc:1729

Version 5.2.0 HiSQV Bases: 59



SPECIMEN # 273
HPV TYPE
58

273.

>gi|90109956|gb|DQ431189.1| Human papillomavirus type 58 isolate DF03
major capsid protein
L1 gene, partial cds
Length=409

Score = 77.8 bits (39), Expect = 4e-14
Identities = 39/39 (100%), Gaps = 0/39 (0%)
Strand=Plus/Minus

```
Query 1  TTAGTTACTTCAGTGCATAATGTCATATTAGTGCTACGA 39
          |||
Sbjct 84  TTAGTTACTTCAGTGCATAATGTCATATTAGTGCTACGA 46
```

S/N G:23 A:46 T:54 C:43

KB.bcp

KB 1.2 Cap:1

HPV_2006-10-20_001

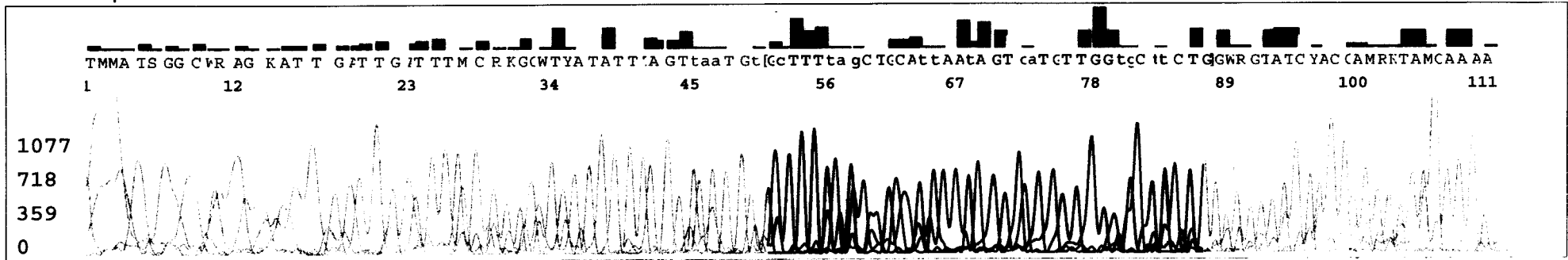
1673-A

KB_3130_POP7_BDTv1.mob

Pts 1860 to 3129 Pk1 Loc:1860

Version 5.2.0 HISQV Bases: 22

SPECIMEN # 275
HPV TYPE
66



SPECIMEN # 275
HPV TYPE
66

1673.

>gi|70698456|gb|DQ007161.1| Human papillomavirus type 66 isolate
ED2204 L1 (L1) gene, partial
cds
Length=391

Score = 73.8 bits (37), Expect = 6e-13
Identities = 37/37 (100%), Gaps = 0/37 (0%)
Strand=Plus/Minus

```
Query 1 GCTTTTAGCTGCATTAATAGTCATGTTGGTGCTTCTG 37
      |||
Sbjct 91 GCTTTTAGCTGCATTAATAGTCATGTTGGTGCTTCTG 55
```


6

S/N G:774 A:1030 T:1491 C:956

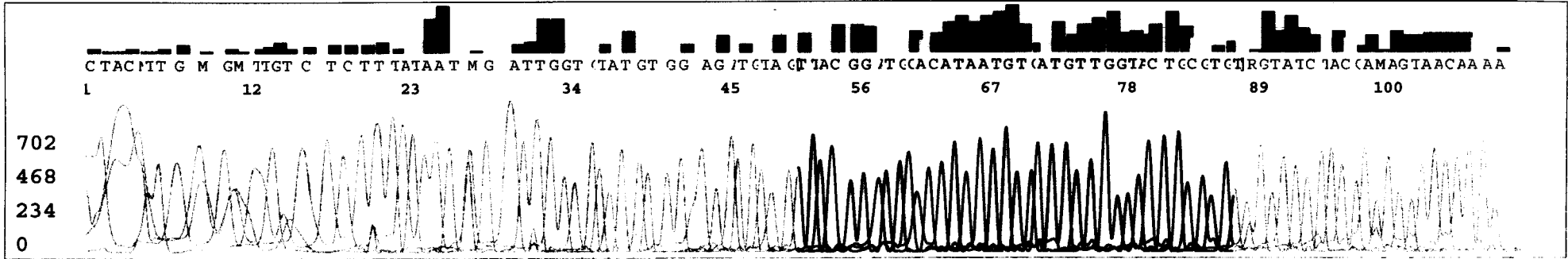
KB.bcp

KB 1.2 Cap:1

KB_3130_POP7_BDTv1.mob

Pts 1755 to 2937 Pk1 Loc:1755

Version 5.2.0 HISQV Bases: 48



SPECIMEN # 278
HPV TYPE

6

278.

>gi|25272068|gb|AF548810.1| ■ Human papillomavirus type 6 isolate 1 L1
(L1) gene, partial cds
Length=138

Score = 73.8 bits (37), Expect = 2e-11
Identities = 37/37 (100%), Gaps = 0/37 (0%)
Strand=Plus/Minus

```
Query 1 TTACGGATGCACATAATGTCATGTTGGTACTGCGTGT 37
      |||
Sbjct 58 TTACGGATGCACATAATGTCATGTTGGTACTGCGTGT 22
```

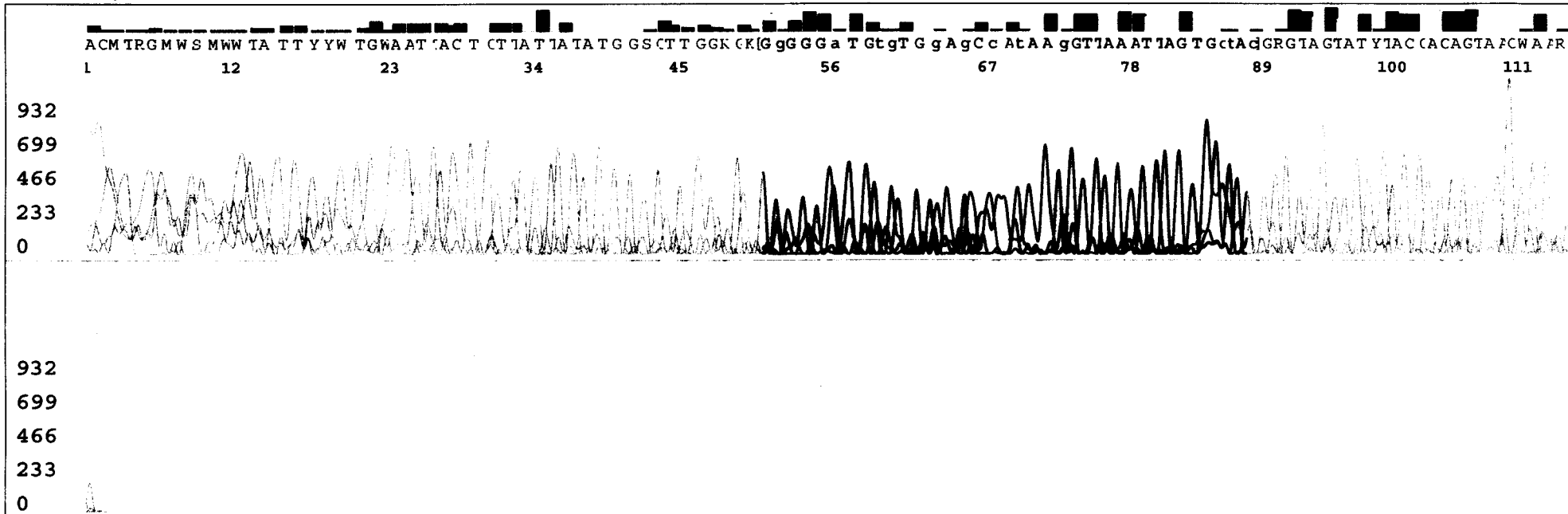
S/N G:10 A:13 T:14 C:12
KB.bcp
KB 1.2 Cap:2

HPV_2006-09-15_002

22

KB_3130_POP7_BDTv1.mob
Pts 1781 to 3036 Pk1 Loc:1781
Version 5.2.0 HISQV Bases: 24

SPECIMEN # 279
HPV TYPE
40



SPECIMEN # 279
HPV TYPE
40

279.

>gi|397014|emb|X74478.1|HPV40 Human papillomavirus type 40 genomic DNA
Length=7909

Score = 44.1 bits (22), Expect = 5e-04
Identities = 22/22 (100%), Gaps = 0/22 (0%)
Strand=Plus/Minus

```
Query 17 CATAAGGTTAAATTAGTGCTAC 38
          |||
Sbjct 6806 CATAAGGTTAAATTAGTGCTAC 6785
```

S/N G:11 A:18 T:16 C:17
KB.bcp
KB 1.2 Cap:4

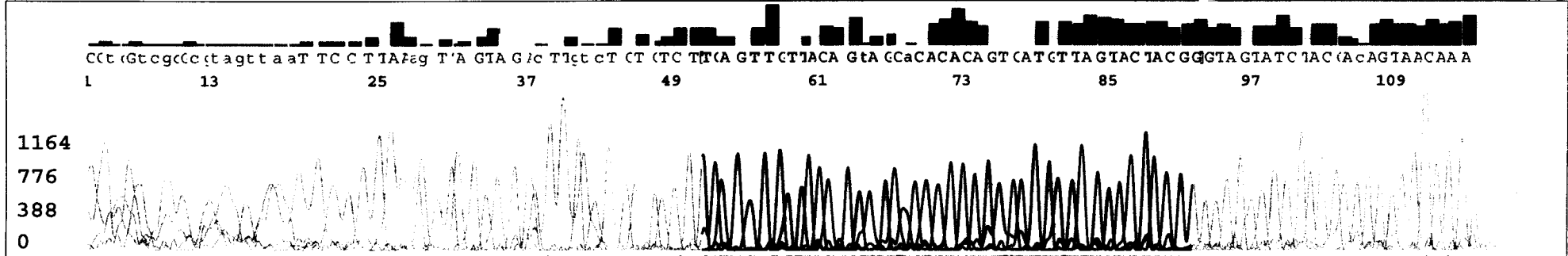
HPV_2006-09-18_004

4

KB_3130_POP7_BDTv1.mob
Pts 1951 to 3210 Pk1 Loc:1951
Version 5.2.0 HISQV Bases: 49

SPECIMEN # 281
HPV TYPE

32



SPECIMEN # 281
HPV TYPE

32

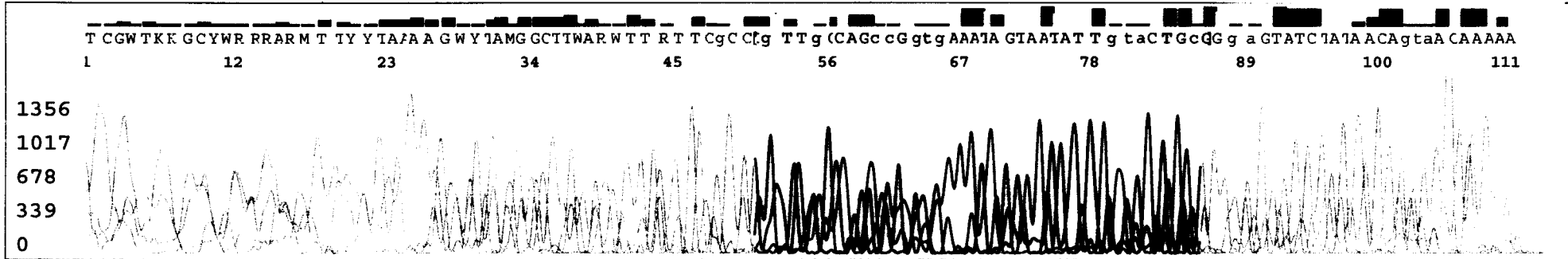
281.

>gi|251684|gb|S40236.1| L1 [human papillomavirus HPV, mucosotropic
type 32, cervical
smear, Genomic, 99 nt]
Length=99

Score = 83.8 bits (42), Expect = 7e-16
Identities = 42/42 (100%), Gaps = 0/42 (0%)
Strand=Plus/Minus

```
Query 1 TCAGTTGTTACAGTAGCACACACAGTCATGTTAGTACTACGG 42
      |||
Sbjct 45 TCAGTTGTTACAGTAGCACACACAGTCATGTTAGTACTACGG 4
```

SPECIMEN # 285
HPV TYPE
83



SPECIMEN # 285
HPV TYPE

83

>gi|5059324|gb|AF151983.1|AF151983 Human papillomavirus type 83,
complete genome
Length=8104

Score = 32.2 bits (16), Expect = 1.8
Identities = 16/16 (100%), Gaps = 0/16 (0%)
Strand=Plus/Minus

```
Query 14 TGAAATAGTAATATTG 29
      |||
Sbjct 6782 TGAAATAGTAATATTG 6767
```

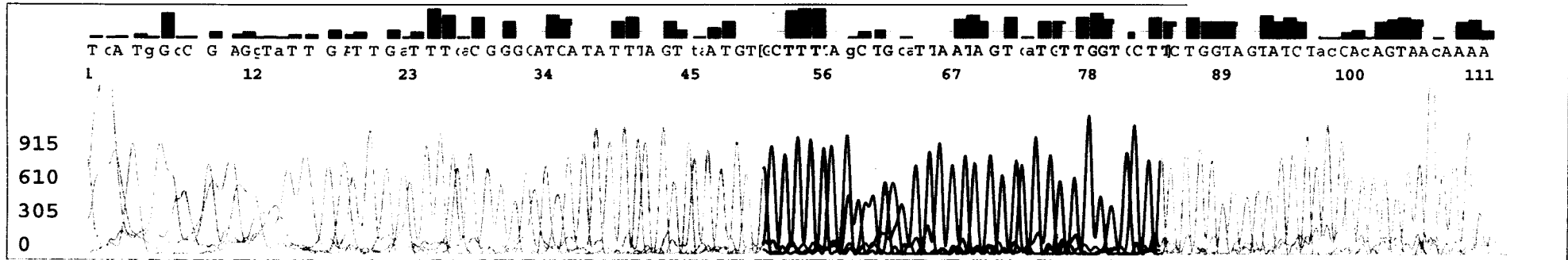

S/N G:35 A:74 T:74 C:63
KB.bcp
KB 1.2 Cap:2

HPV_2006-09-18_002

2

KB_3130_POP7_BDTv1.mob
Pts 1951 to 3238 Pk1 Loc:1951
Version 5.2.0 HiSQV Bases: 44

SPECIMEN # 290
HPV TYPE 66



SPECIMEN # 290
HPV TYPE 66

>gi|70698456|gb|DQ007161.1| Human papillomavirus type 66 isolate
ED2204 L1 (L1) gene, partial
cds
Length=391

Score = 67.9 bits (34), Expect = 3e-11
Identities = 34/34 (100%), Gaps = 0/34 (0%)
Strand=Plus/Minus

```
Query 1 GCTTTTAGCTGCATTAATAGTCATGTTGGTGCTT 34
      |||
Sbjct 91 GCTTTTAGCTGCATTAATAGTCATGTTGGTGCTT 58
```

S/N G:68 A:119 T:157 C:96

KB_3130_POP7_BDTv1.mob

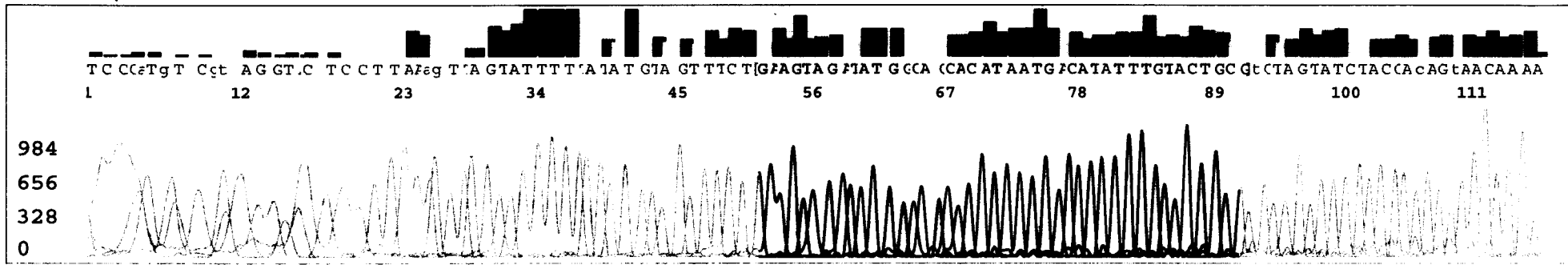
KB.bcp

Pts 1931 to 3228 Pk1 Loc:1931

KB 1.2 Cap:2

Version 5.2.0 HiSQV Bases: 71 # 82

16



SPECIMEN # 297
HPV TYPE

16

297.

>[gi|110555016|gb|DQ680078.1](#) Human papillomavirus type 16 strain Asian
American-C variant

major capsid protein (L1) gene, complete cds

Length=1596

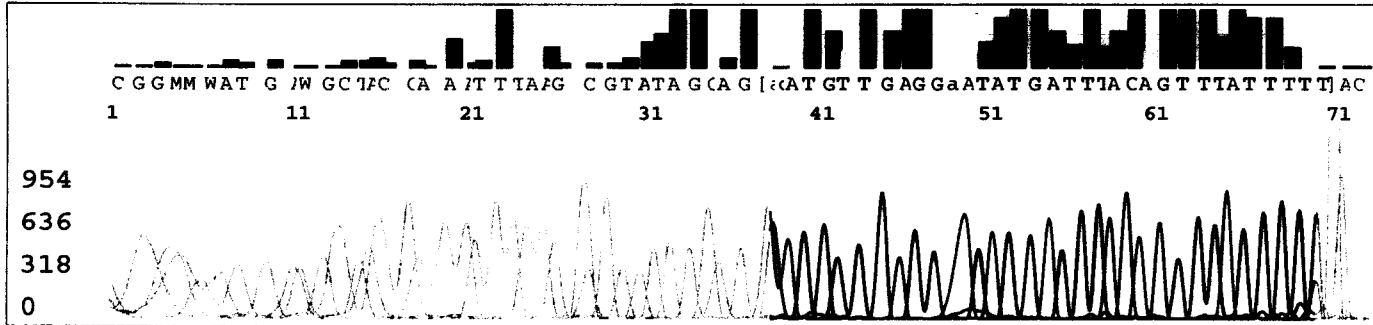
Score = 81.8 bits (41), Expect = 3e-15

Identities = 41/41 (100%), Gaps = 0/41 (0%)

Strand=Plus/Minus

```
Query 1      GAAGTAGATATGGCAGCACATAATGACATATTTGTACTGCG 41
          |||
Sbjct 1130   GAAGTAGATATGGCAGCACATAATGACATATTTGTACTGCG 1090
```

SPECIMEN # 299
HPV TYPE 18



SPECIMEN # 299
HPV TYPE

18

>gi|91178192|gb|DQ448207.1| Human papillomavirus type 18 isolate IR-
ESO-HPV-18/6 L1 (L1)
gene, partial cds
Length=146

Score = 67.9 bits (34), Expect = 3e-11
Identities = 34/34 (100%), Gaps = 0/34 (0%)
Strand=Plus/Plus

```
Query 1 ACATGTTGAGGAATATGATTTACAGTTTATTTTT 34
      |||
Sbjct 111 ACATGTTGAGGAATATGATTTACAGTTTATTTTT 144
```

S/N G:23 A:46 T:43 C:44

KB.bcp

KB 1.2 Cap:2

HPV_2006-09-15_002

10

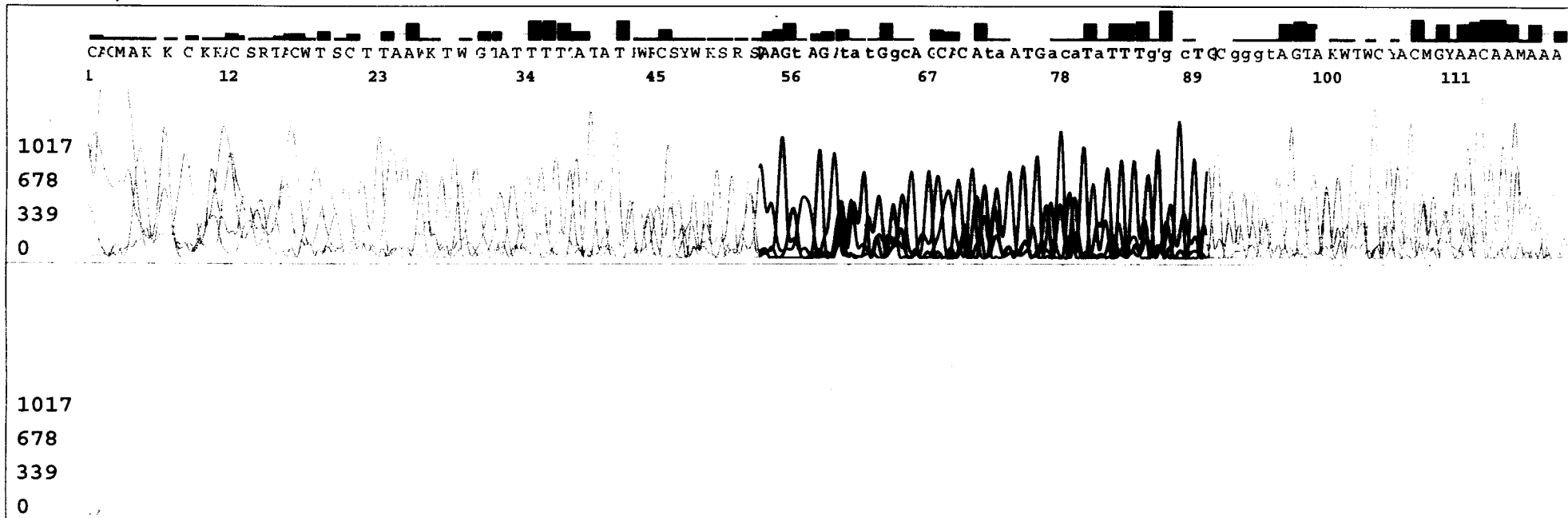
KB_3130_POP7_BDTv1.mob

Pts 1709 to 2916 Pk1 Loc:1709

Version 5.2.0 HiSQV Bases: 28

SPECIMEN # 300
HPV TYPE

16



SPECIMEN # 300
HPV TYPE

16

300.

>[gi|110555016|gb|DQ680078.1](#) Human papillomavirus type 16 strain Asian
American-C variant

major capsid protein (L1) gene, complete cds

Length=1596

Score = 67.9 bits (34), Expect = 4e-11

Identities = 34/34 (100%), Gaps = 0/34 (0%)

Strand=Plus/Minus

```
Query 1      AAGTAGATATGGCAGCACATAATGACATATTTGT 34
          |||
Sbjct 1129   AAGTAGATATGGCAGCACATAATGACATATTTGT 1096
```


S/N G:92 A:252 T:293 C:137

KB_3130_POP7_BDTv1.mob

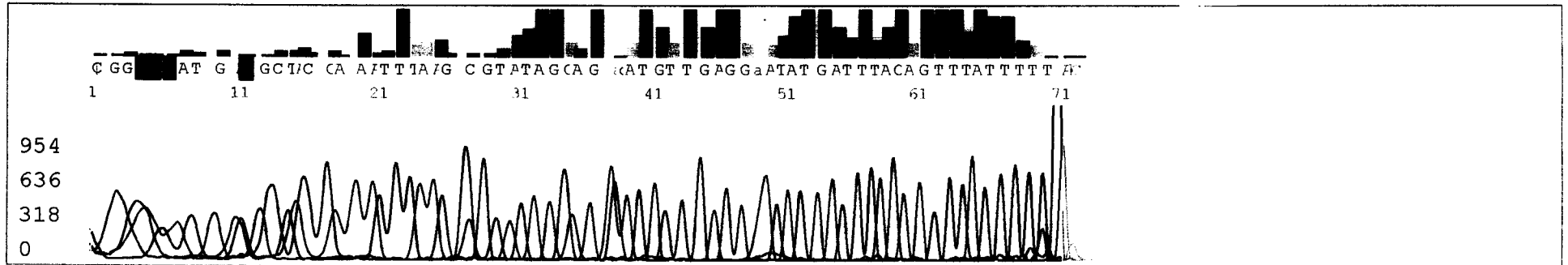
Pts 1922 to 2685 Pk1 Loc:1922

HPV TYPE 18

KB.bcp

Version 5.2 Patch2 HiSQV Bases: 32

KB 1.2 Cap:1

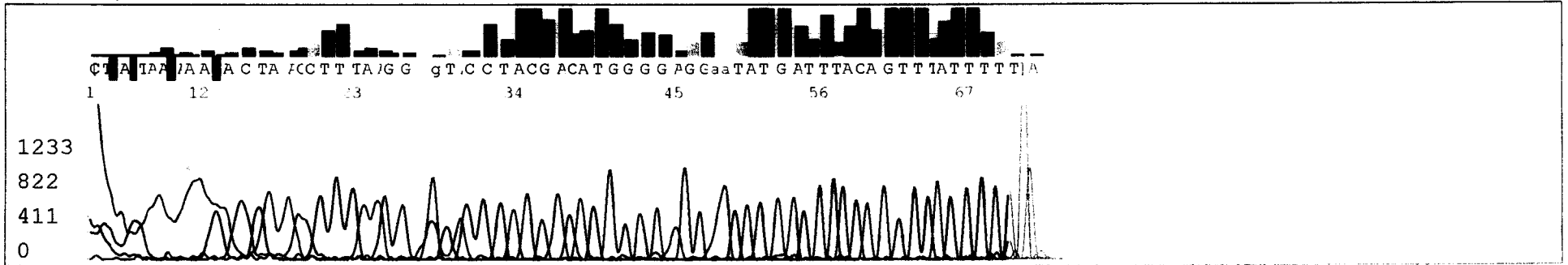


SPECIMEN # 301
HPV TYPE 18

>gi|91178192|gb|DQ448207.1| Human papillomavirus type 18 isolate IR-
ESO-HPV-18/6 L1 (L1)
gene, partial cds
Length=146

Score = 67.9 bits (34), Expect = 1e-09
Identities = 34/34 (100%), Gaps = 0/34 (0%)
Strand=Plus/Plus

```
Query 1 ACATGTTGAGGAATATGATTTACAGTTTATTTTT 34  
      |||  
Sbjct 111 ACATGTTGAGGAATATGATTTACAGTTTATTTTT 144
```



SPECIMEN # 301
HPV TYPE 16

>gi|110555016|gb|DQ680078.1| Human papillomavirus type 16 strain Asian
American-C variant
major capsid protein (L1) gene, complete cds
Length=1596

Score = 48.1 bits (24), Expect = 1e-05
Identities = 24/24 (100%), Gaps = 0/24 (0%)
Strand=Plus/Plus

```
Query 1      GAATATGATTTACAGTTTATTTTT 24
          |||
Sbjct 1183   GAATATGATTTACAGTTTATTTTT 1206
```