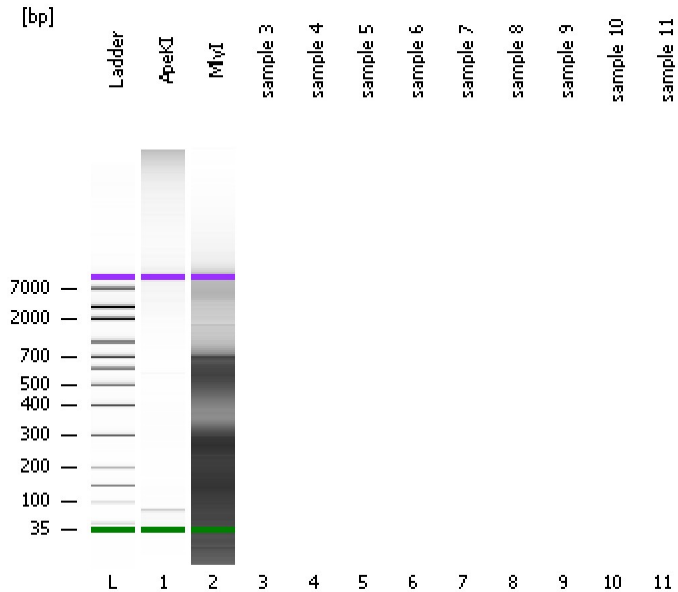


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-25\2016-10-25\_001.xad

Created: 10/25/2016 11:18:16 AM  
Modified: 10/25/2016 11:33:57 AM

**Electrophoresis File Run Summary**



Instrument Information:

Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

Assay Information:

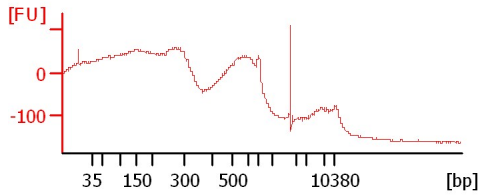
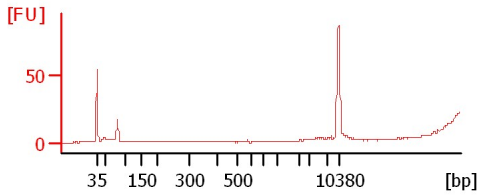
Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\dsDNA\High Sensitivity DNA.xsy  
Assay Class: High Sensitivity DNA Assay  
Version: 1.03  
Assay Comments: Copyright © 2003-2010 Agilent Technologies

Chip Information:

Chip Lot #:  
Reagent Kit Lot #:  
Chip Comments:

**ApeKI**

**MlyI**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-25\2016-10-25\_001.xad

Created: 10/25/2016 11:18:16 AM  
 Modified: 10/25/2016 11:33:57 AM

**Electrophoresis File Run Summary (Chip Summary)**

| Sample Name | Sample Comment | Rest. Digest             | Status | Observation | Result Label | Result Color |
|-------------|----------------|--------------------------|--------|-------------|--------------|--------------|
| ApeKI       |                | <input type="checkbox"/> | ✓      |             |              |              |
| MlyI        |                | <input type="checkbox"/> | ✓      |             |              |              |
| sample 3    |                | <input type="checkbox"/> |        |             |              |              |
| sample 4    |                | <input type="checkbox"/> |        |             |              |              |
| sample 5    |                | <input type="checkbox"/> |        |             |              |              |
| sample 6    |                | <input type="checkbox"/> |        |             |              |              |
| sample 7    |                | <input type="checkbox"/> |        |             |              |              |
| sample 8    |                | <input type="checkbox"/> |        |             |              |              |
| sample 9    |                | <input type="checkbox"/> |        |             |              |              |
| sample 10   |                | <input type="checkbox"/> |        |             |              |              |
| sample 11   |                | <input type="checkbox"/> |        |             |              |              |
| Ladder      |                | <input type="checkbox"/> | ✓      |             |              |              |

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-25\2016-10-25\_001.xad

Created: 10/25/2016 11:18:16 AM  
Modified: 10/25/2016 11:33:57 AM

**Electrophoresis Assay Details**

**General Analysis Settings**

Number of Available Sample and Ladder Wells (Max.) : 12  
Minimum Visible Range [s] : 32  
Maximum Visible Range [s] : 138  
Start Analysis Time Range [s] : 33  
End Analysis Time Range [s] : 137.5  
Ladder Concentration [pg/μl] : 1950  
Uses Standard Area for Ladder Fragments  
Lower Marker Concentration [pg/μl] : 125  
Upper Marker Concentration [pg/μl] : 75  
Used Upper Marker for Quantitation  
Standard Curve Fit is Point to Point  
Show Data Aligned to Lower and Upper Marker

**Integrator Settings**

Integration Start Time [s] : 33.05  
Integration End Time [s] : 137  
Slope Threshold : 0.8  
Height Threshold [FU] : 5  
Area Threshold : 0.1  
Width Threshold [s] : 0.6  
Baseline Plateau [s] : 0.5

**Filter Settings**

Filter Width [s] : 0.5  
Polynomial Order : 4

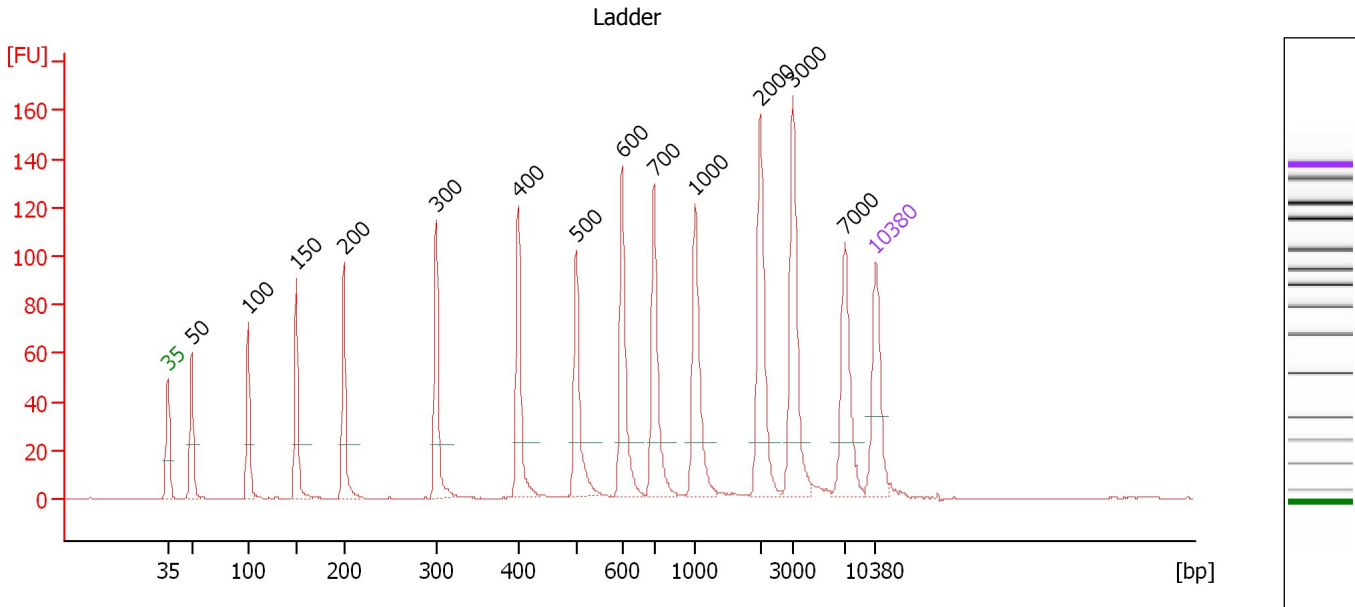
**Ladder**

| Ladder Peak | Size  | Area |
|-------------|-------|------|
| 1           | 35    | 160  |
| 2           | 50    | 210  |
| 3           | 100   | 208  |
| 4           | 150   | 221  |
| 5           | 200   | 242  |
| 6           | 300   | 270  |
| 7           | 400   | 305  |
| 8           | 500   | 306  |
| 9           | 600   | 336  |
| 10          | 700   | 321  |
| 11          | 1000  | 366  |
| 12          | 2000  | 413  |
| 13          | 3000  | 411  |
| 14          | 7000  | 400  |
| 15          | 10380 | 214  |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-25\2016-10-25\_001.xad

Created: 10/25/2016 11:18:16 AM  
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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

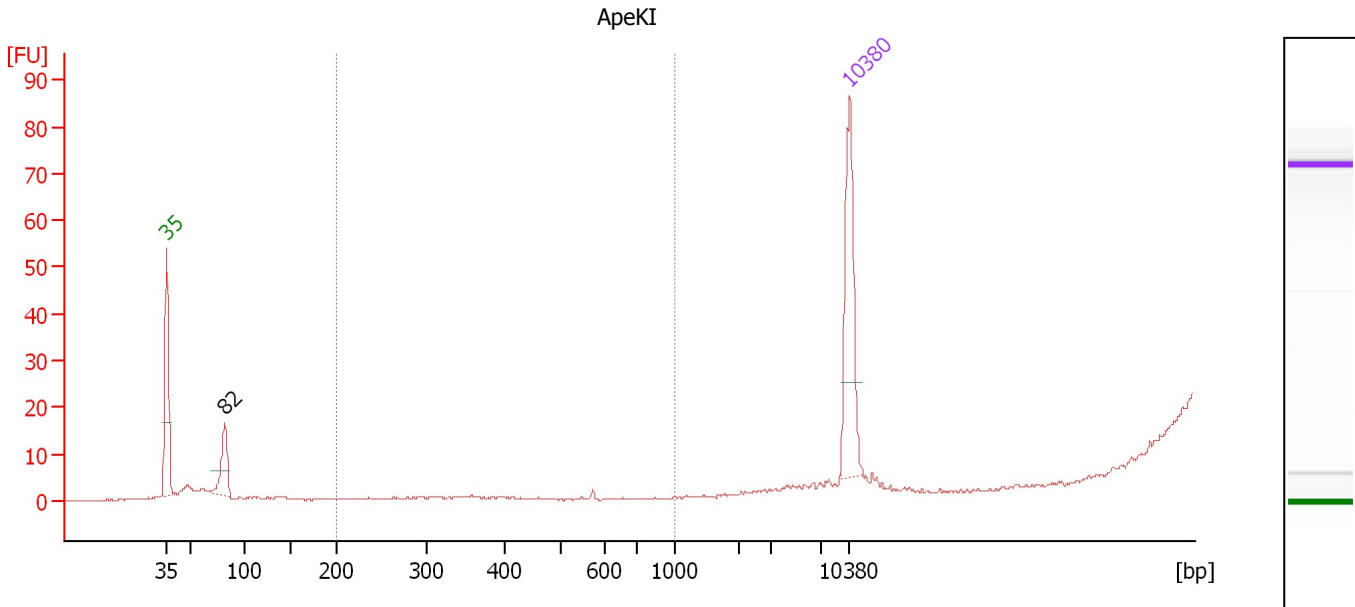
**Peak table for Ladder**

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 1    | 35        | 125.00        | 5,411.3           | Lower Marker | 43.00                      |
| 2    | 50        | 150.00        | 4,545.5           | Ladder Peak  | 45.37                      |
| 3    | 100       | 150.00        | 2,272.7           | Ladder Peak  | 50.97                      |
| 4    | 150       | 150.00        | 1,515.2           | Ladder Peak  | 55.71                      |
| 5    | 200       | 150.00        | 1,136.4           | Ladder Peak  | 60.41                      |
| 6    | 300       | 150.00        | 757.6             | Ladder Peak  | 69.53                      |
| 7    | 400       | 150.00        | 568.2             | Ladder Peak  | 77.66                      |
| 8    | 500       | 150.00        | 454.5             | Ladder Peak  | 83.41                      |
| 9    | 600       | 150.00        | 378.8             | Ladder Peak  | 87.94                      |
| 10   | 700       | 150.00        | 324.7             | Ladder Peak  | 91.11                      |
| 11   | 1,000     | 150.00        | 227.3             | Ladder Peak  | 95.17                      |
| 12   | 2,000     | 150.00        | 113.6             | Ladder Peak  | 101.61                     |
| 13   | 3,000     | 150.00        | 75.8              | Ladder Peak  | 104.82                     |
| 14   | 7,000     | 150.00        | 32.5              | Ladder Peak  | 109.99                     |
| 15   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-25\2016-10-25\_001.xad

Created: 10/25/2016 11:18:16 AM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : ApeKI**

Number of peaks found: 1                      Corr. Area 1: 0.0  
 Noise: 0.2

**Peak table for sample 1 : ApeKI**

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 1    | 35        | 125.00        | 5,411.3           | Lower Marker | 43.00                      |
| 2    | 82        | 45.41         | 838.6             |              | 48.96                      |
| 3    | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |

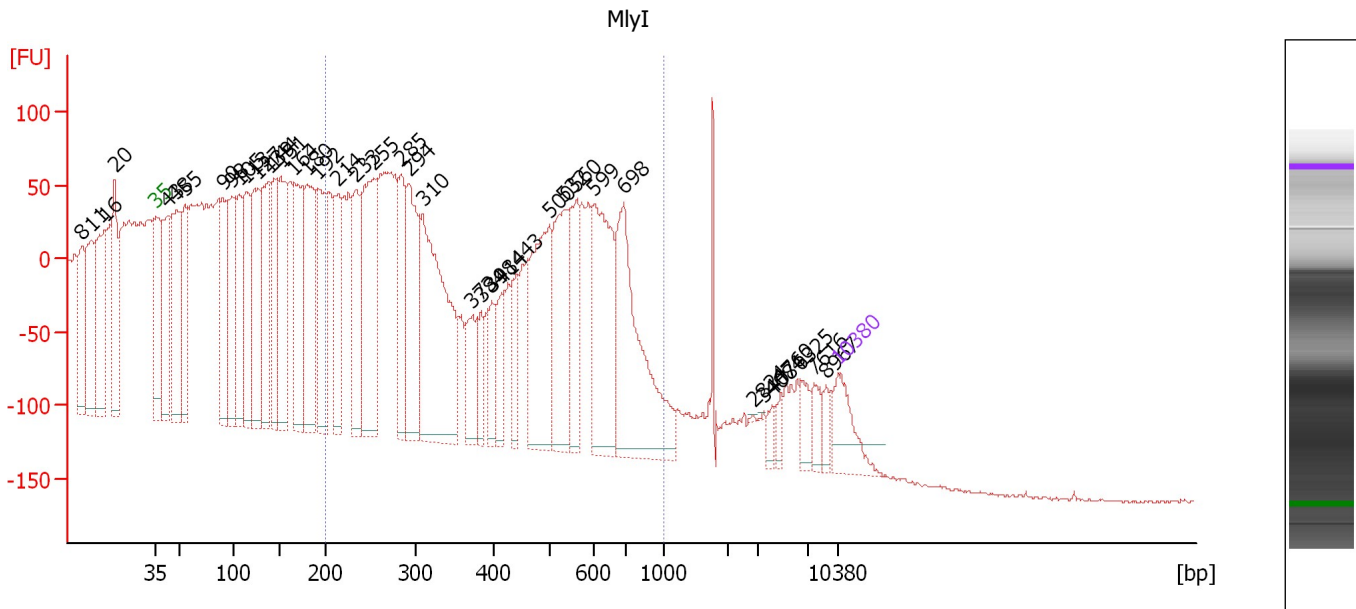
**Region table for sample 1 : ApeKI**

| From [bp] | To [bp] | Average Size [bp] | Corr. Area | Molarity [pmol/l] | Co Conc. lor [pg/μl] | % of Total | Size distribution in CV [%] |
|-----------|---------|-------------------|------------|-------------------|----------------------|------------|-----------------------------|
| 200       | 1,000   | 0                 | 0.0        | 0.0               | 0.00                 | 0          | 0.0                         |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-25\2016-10-25\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : MlyI**

Number of peaks found: 41                      Corr. Area 1: 3,116.4  
 Noise: 1.3

**Peak table for sample 2 : MlyI**

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 1    | 8         | 0.00          | 0.0               |              | 35.35                      |
| 2    | 11        | 0.00          | 0.0               |              | 36.28                      |
| 3    | 16        | 0.00          | 0.0               |              | 37.70                      |
| 4    | 20        | 0.00          | 0.0               |              | 38.74                      |
| 5    | 35        | 125.00        | 5,411.3           | Lower Marker | 43.00                      |
| 6    | 43        | 299.46        | 10,651.8          |              | 44.20                      |
| 7    | 48        | 348.85        | 11,063.2          |              | 45.02                      |
| 8    | 55        | 237.19        | 6,515.1           |              | 45.95                      |
| 9    | 90        | 267.35        | 4,508.2           |              | 49.83                      |
| 10   | 98        | 248.68        | 3,838.5           |              | 50.76                      |
| 11   | 105       | 228.37        | 3,285.5           |              | 51.47                      |
| 12   | 113       | 278.52        | 3,741.2           |              | 52.18                      |
| 13   | 127       | 306.41        | 3,666.9           |              | 53.49                      |
| 14   | 139       | 286.29        | 3,127.6           |              | 54.64                      |
| 15   | 144       | 220.83        | 2,325.6           |              | 55.13                      |
| 16   | 151       | 299.68        | 3,011.2           |              | 55.79                      |
| 17   | 164       | 344.59        | 3,180.2           |              | 57.04                      |
| 18   | 180       | 340.51        | 2,868.1           |              | 58.52                      |
| 19   | 192       | 266.92        | 2,111.6           |              | 59.61                      |
| 20   | 214       | 182.60        | 1,292.6           |              | 61.69                      |
| 21   | 233       | 201.66        | 1,310.2           |              | 63.44                      |
| 22   | 255       | 372.71        | 2,216.7           |              | 65.40                      |
| 23   | 285       | 166.02        | 883.6             |              | 68.14                      |
| 24   | 294       | 289.98        | 1,496.1           |              | 68.96                      |
| 25   | 310       | 533.45        | 2,604.1           |              | 70.38                      |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-25\2016-10-25\_001.xad

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**Electropherogram Summary Continued ...**

**... Peak table for sample 2 :**

MlyI

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 26   | 373       | 102.91        | 418.1             |              | 75.46                      |
| 27   | 384       | 65.80         | 259.4             |              | 76.39                      |
| 28   | 398       | 69.72         | 265.5             |              | 77.48                      |
| 29   | 414       | 82.94         | 303.5             |              | 78.46                      |
| 30   | 443       | 80.64         | 276.1             |              | 80.10                      |
| 31   | 500       | 299.49        | 908.3             |              | 83.38                      |
| 32   | 532       | 227.41        | 647.7             |              | 84.86                      |
| 33   | 560       | 155.02        | 419.7             |              | 86.11                      |
| 34   | 599       | 299.06        | 755.9             |              | 87.92                      |
| 35   | 698       | 390.12        | 847.3             |              | 91.03                      |
| 36   | 2,824     | 1.43          | 0.8               |              | 104.26                     |
| 37   | 3,407     | 1.18          | 0.5               |              | 105.35                     |
| 38   | 4,084     | 16.94         | 6.3               |              | 106.22                     |
| 39   | 4,760     | 18.52         | 5.9               |              | 107.10                     |
| 40   | 6,325     | 34.43         | 8.2               |              | 109.12                     |
| 41   | 7,616     | 33.99         | 6.8               |              | 110.54                     |
| 42   | 8,967     | 22.34         | 3.8               |              | 111.74                     |
| 43   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |

**Region table for sample 2 :**

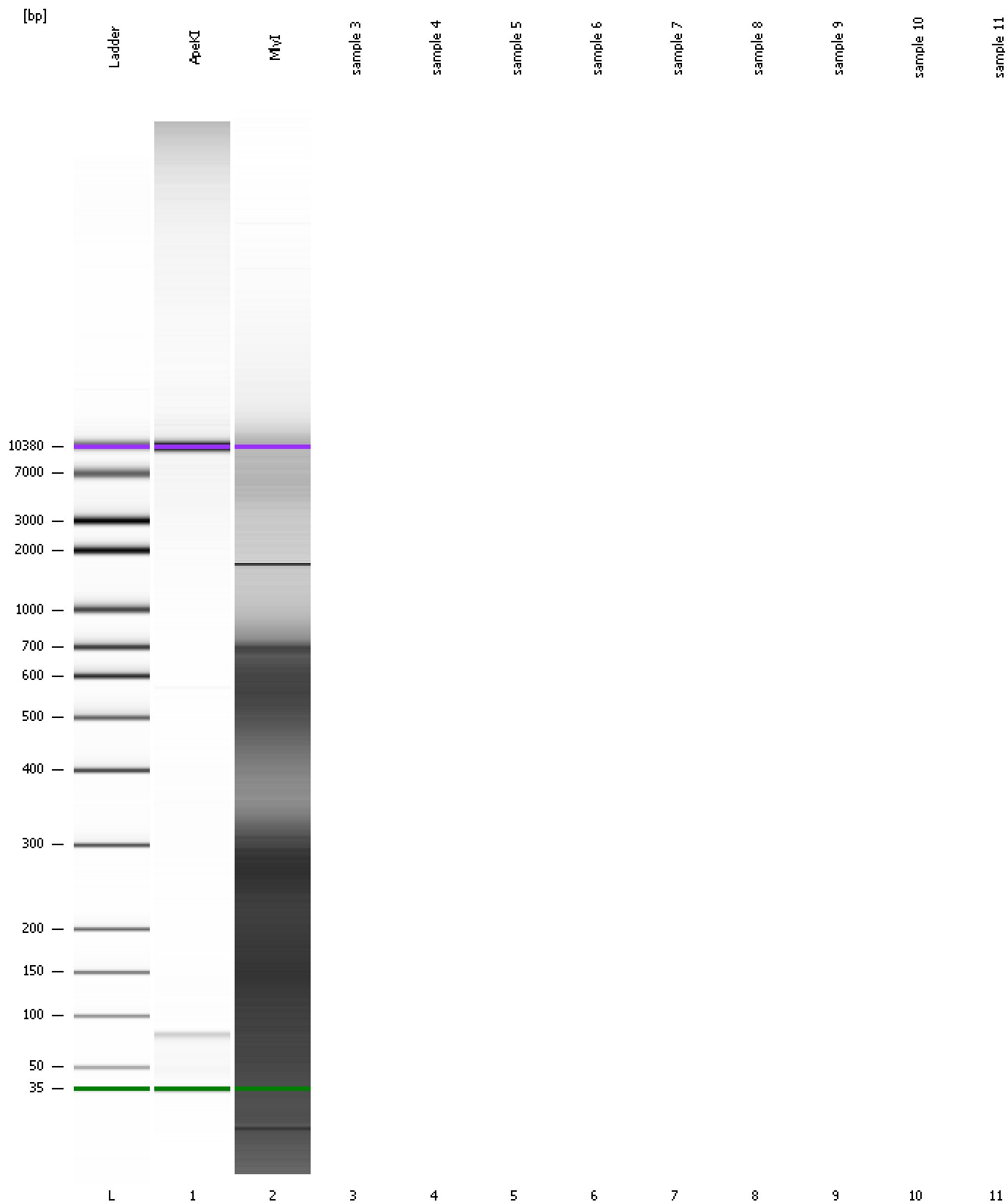
MlyI

| From [bp] | To [bp] | Average Size [bp] | Corr. Area | Molarity [pmol/l] | Co Conc. lor [pg/μl] | % of Total | Size distribution in CV [%] |
|-----------|---------|-------------------|------------|-------------------|----------------------|------------|-----------------------------|
| 200       | 1,000   | 430               | 3,116.4    | 10,969.7          | 2,461.09             | 54         | 38.8                        |

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-25\2016-10-25\_001.xad

Created: 10/25/2016 11:18:16 AM  
Modified: 10/25/2016 11:33:57 AM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-25\2016-10-25\_001.xad

Created: 10/25/2016 11:18:16 AM  
Modified: 10/25/2016 11:33:57 AM

**Invalid Samples**

- Sample 3 has not been run, no results available.
- Sample 4 has not been run, no results available.
- Sample 5 has not been run, no results available.
- Sample 6 has not been run, no results available.
- Sample 7 has not been run, no results available.
- Sample 8 has not been run, no results available.
- Sample 9 has not been run, no results available.
- Sample 10 has not been run, no results available.
- Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-25\2016-10-25\_001.xad

Created: 10/25/2016 11:18:16 AM  
 Modified: 10/25/2016 11:33:57 AM

**Run Logbook**

| Description  | Number | Source     | Category | Sub Category | Time                   | Time Zone                           | User     | Host     |
|--|--------|------------|----------|--------------|------------------------|-------------------------------------|----------|----------|
| Run ended on port 1 (Number of wells acquired: 3)  |        | Instrument | Run      |              | 10/25/2016 11:33:52 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-10-25\2016-10-25_001.xad) |        | Instrument | Run      |              | 10/25/2016 11:18:21 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B  |        | Instrument | Run      |              | 10/25/2016 11:18:21 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name :   |        | Instrument | Run      |              | 10/25/2016 11:18:21 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies  |        | Instrument | Run      |              | 10/25/2016 11:18:21 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086   |        | Instrument | Run      |              | 10/25/2016 11:18:21 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069  |        | Instrument | Run      |              | 10/25/2016 11:18:21 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode  |        | Instrument | Run      |              | 10/25/2016 11:18:21 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |