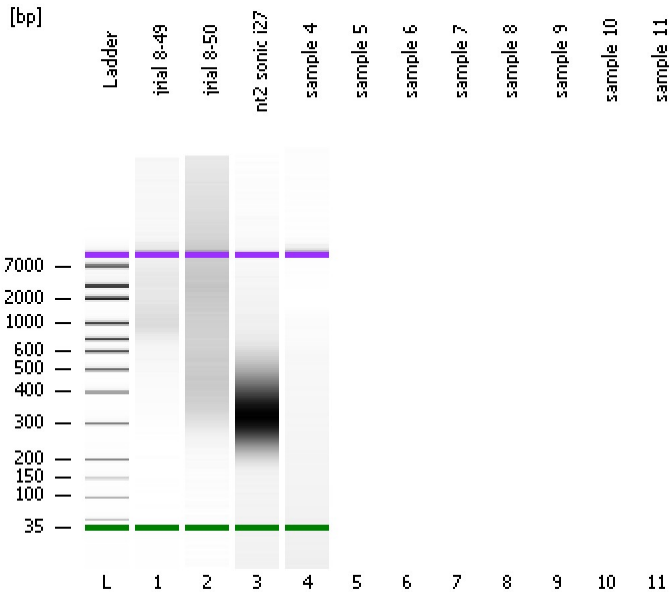


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-06\2016-06-06\_006.xad

Created: 6/6/2016 3:07:59 PM  
Modified: 6/6/2016 3:29:18 PM

**Electrophoresis File Run Summary**



Instrument Information:

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

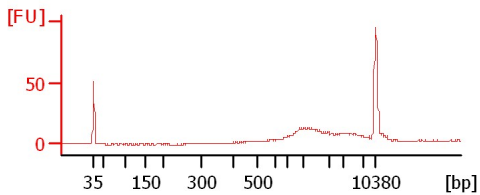
Assay Information:

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

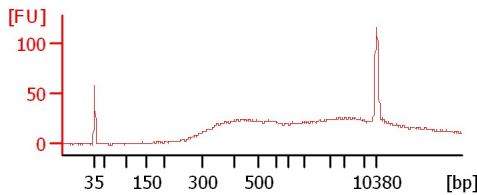
Chip Information:

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

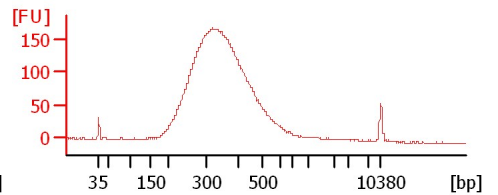
**jrial 8-49**



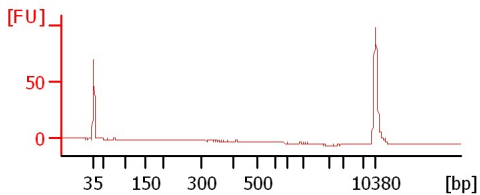
**jrial 8-50**



**nt2 sonic i27**



**sample 4**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-06\2016-06-06\_006.xad

Created: 6/6/2016 3:07:59 PM  
Modified: 6/6/2016 3:29:18 PM

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

| Sample Name   | Sample Comment | Rest. Digest             | Status | Observation | Result Label | Result Color |
|---------------|----------------|--------------------------|--------|-------------|--------------|--------------|
| jrial 8-49    |                | <input type="checkbox"/> | ✓      |             |              |              |
| jrial 8-50    |                | <input type="checkbox"/> | ✓      |             |              |              |
| nt2 sonic i27 |                | <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\2016-06-06\2016-06-06\_006.xad

Created: 6/6/2016 3:07:59 PM  
Modified: 6/6/2016 3:29:18 PM

**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

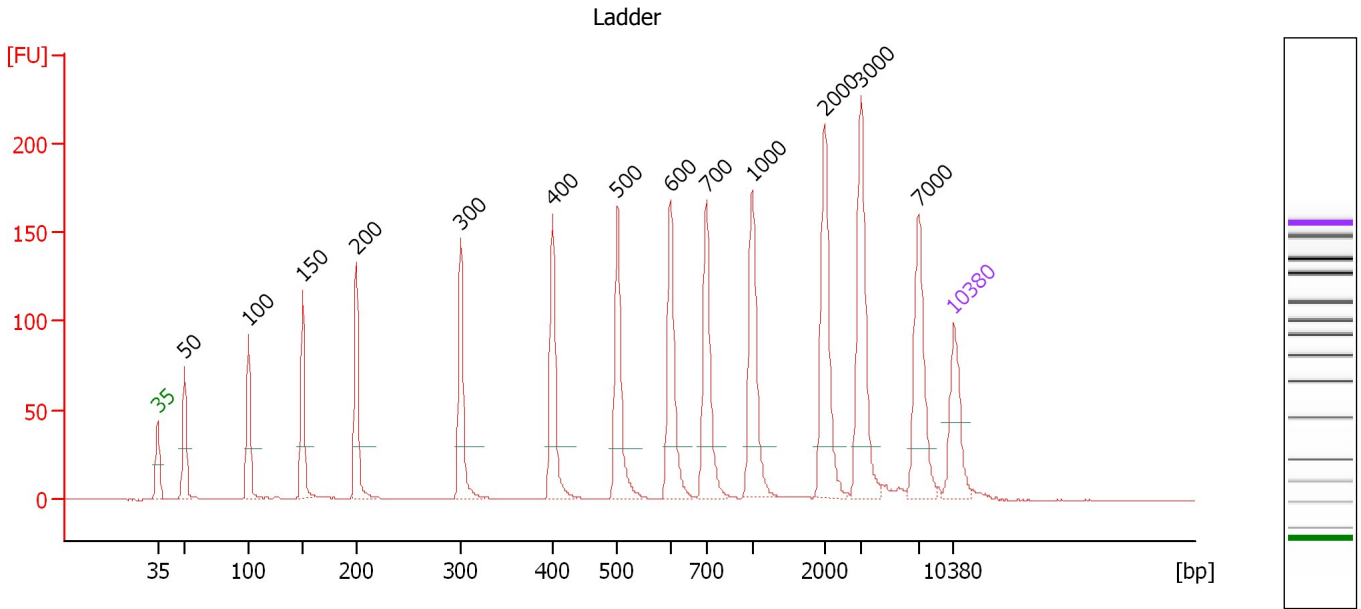
**Ladder**

| 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\2016-06-06\2016-06-06\_006.xad

Created: 6/6/2016 3:07:59 PM  
 Modified: 6/6/2016 3:29:18 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

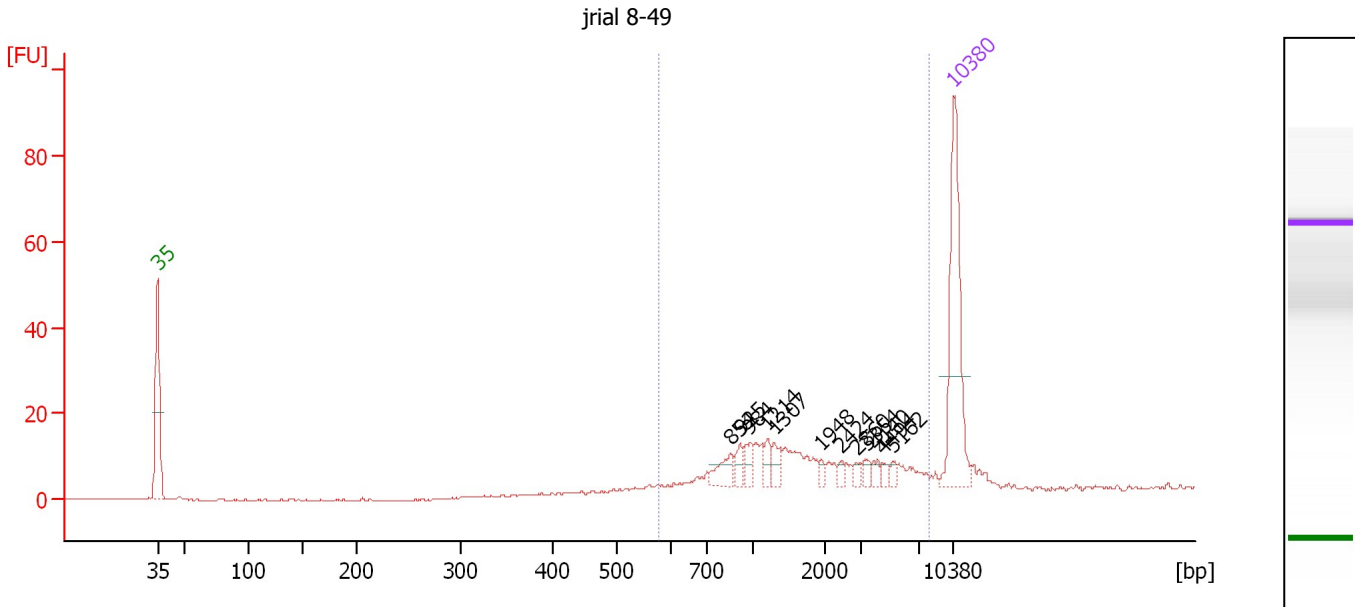
**Peak table for Ladder**

| 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  | 45.40                      |
| 3    | 100       | 150.00        | 2,272.7           | Ladder Peak  | 51.02                      |
| 4    | 150       | 150.00        | 1,515.2           | Ladder Peak  | 55.76                      |
| 5    | 200       | 150.00        | 1,136.4           | Ladder Peak  | 60.50                      |
| 6    | 300       | 150.00        | 757.6             | Ladder Peak  | 69.64                      |
| 7    | 400       | 150.00        | 568.2             | Ladder Peak  | 77.71                      |
| 8    | 500       | 150.00        | 454.5             | Ladder Peak  | 83.43                      |
| 9    | 600       | 150.00        | 378.8             | Ladder Peak  | 88.07                      |
| 10   | 700       | 150.00        | 324.7             | Ladder Peak  | 91.25                      |
| 11   | 1,000     | 150.00        | 227.3             | Ladder Peak  | 95.26                      |
| 12   | 2,000     | 150.00        | 113.6             | Ladder Peak  | 101.66                     |
| 13   | 3,000     | 150.00        | 75.8              | Ladder Peak  | 104.84                     |
| 14   | 7,000     | 150.00        | 32.5              | Ladder Peak  | 109.87                     |
| 15   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-06\2016-06-06\_006.xad

Created: 6/6/2016 3:07:59 PM  
 Modified: 6/6/2016 3:29:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : jrial 8-49**

Number of peaks found: 12                      Corr. Area 1: 156.9  
 Noise: 0.2

**Peak table for sample 1 : jrial 8-49**

| 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    | 854       | 13.46         | 23.9              |              | 93.31                      |
| 3    | 925       | 8.08          | 13.2              |              | 94.25                      |
| 4    | 984       | 9.37          | 14.4              |              | 95.04                      |
| 5    | 1,214     | 7.12          | 8.9               |              | 96.63                      |
| 6    | 1,307     | 8.86          | 10.3              |              | 97.22                      |
| 7    | 1,948     | 3.52          | 2.7               |              | 101.33                     |
| 8    | 2,424     | 3.25          | 2.0               |              | 103.01                     |
| 9    | 2,860     | 3.19          | 1.7               |              | 104.39                     |
| 10   | 3,354     | 4.26          | 1.9               |              | 105.28                     |
| 11   | 4,140     | 4.29          | 1.6               |              | 106.27                     |
| 12   | 4,494     | 3.13          | 1.1               |              | 106.72                     |
| 13   | 5,162     | 3.64          | 1.1               |              | 107.56                     |
| 14   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |

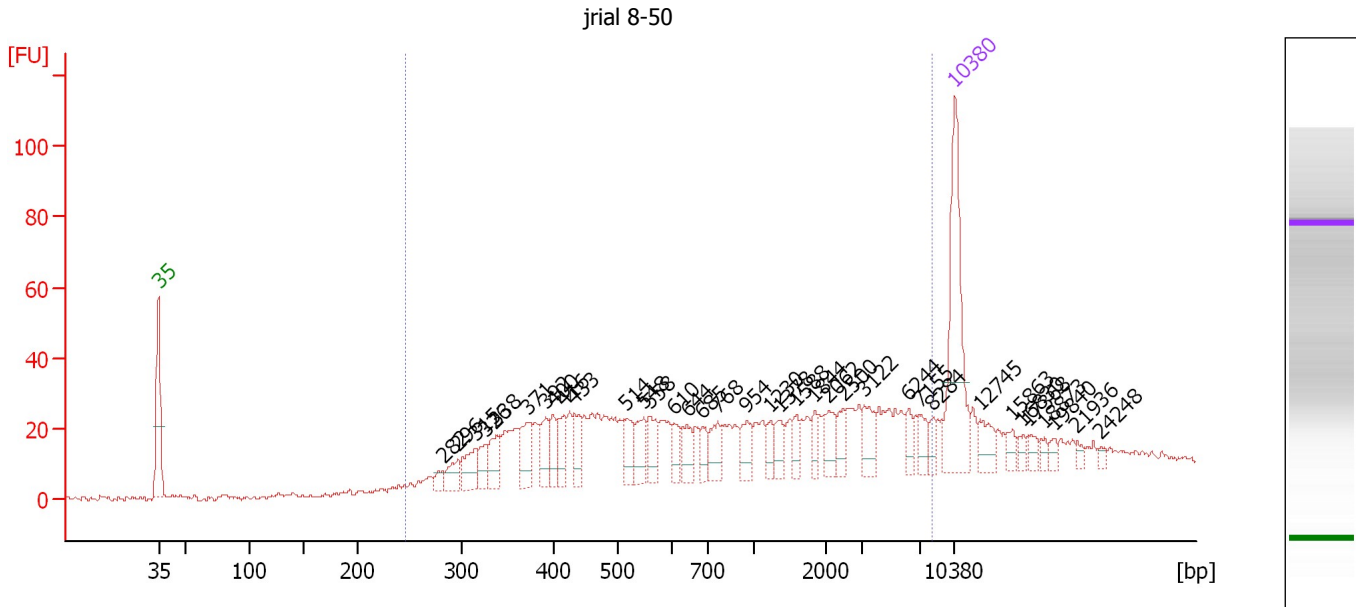
**Region table for sample 1 : jrial 8-49**

| From [bp] | To [bp] | Average Size [bp] | Corr. Area | Molarity [pmol/l] | Co Conc. lor [pg/μl] | % of Total | Size distribution in CV [%] |
|-----------|---------|-------------------|------------|-------------------|----------------------|------------|-----------------------------|
| 577       | 8,070   | 2,203             | 156.9      | 183.7             | 162.83               | 90         | 79.0                        |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-06\2016-06-06\_006.xad

Created: 6/6/2016 3:07:59 PM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : jrial 8-50**

Number of peaks found: 36                      Corr. Area 1: 777.5  
 Noise: 0.7

**Peak table for sample 2 : jrial 8-50**

| 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    | 282       | 7.44          | 39.9              |              | 68.02                      |
| 3    | 296       | 14.91         | 76.2              |              | 69.32                      |
| 4    | 315       | 21.34         | 102.8             |              | 70.81                      |
| 5    | 326       | 14.25         | 66.2              |              | 71.76                      |
| 6    | 338       | 20.18         | 90.5              |              | 72.70                      |
| 7    | 371       | 23.67         | 96.6              |              | 75.39                      |
| 8    | 392       | 21.55         | 83.4              |              | 77.03                      |
| 9    | 400       | 15.92         | 60.4              |              | 77.68                      |
| 10   | 416       | 20.59         | 75.0              |              | 78.62                      |
| 11   | 433       | 17.06         | 59.8              |              | 79.57                      |
| 12   | 514       | 19.51         | 57.5              |              | 84.09                      |
| 13   | 548       | 20.13         | 55.7              |              | 85.64                      |
| 14   | 558       | 19.23         | 52.2              |              | 86.13                      |
| 15   | 610       | 11.43         | 28.4              |              | 88.37                      |
| 16   | 644       | 16.21         | 38.1              |              | 89.47                      |
| 17   | 685       | 10.54         | 23.3              |              | 90.76                      |
| 18   | 768       | 16.35         | 32.3              |              | 92.15                      |
| 19   | 954       | 15.20         | 24.1              |              | 94.64                      |
| 20   | 1,230     | 8.39          | 10.3              |              | 96.73                      |
| 21   | 1,378     | 12.04         | 13.2              |              | 97.68                      |
| 22   | 1,588     | 9.16          | 8.7               |              | 99.02                      |
| 23   | 1,844     | 8.45          | 6.9               |              | 100.66                     |
| 24   | 2,062     | 15.34         | 11.3              |              | 101.86                     |
| 25   | 2,500     | 10.95         | 6.6               |              | 103.25                     |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-06\2016-06-06\_006.xad

Created: 6/6/2016 3:07:59 PM  
 Modified: 6/6/2016 3:29:18 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 2 : trial 8-50**

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 26   | 3,122     | 14.98         | 7.3               |              | 104.99                     |
| 27   | 6,244     | 8.27          | 2.0               |              | 108.92                     |
| 28   | 7,155     | 10.05         | 2.1               |              | 110.01                     |
| 29   | 8,284     | 6.52          | 1.2               |              | 111.06                     |
| 30   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |
| 31   | 12,745    | 0.00          | 0.0               |              | 115.19                     |
| 32   | 15,863    | 0.00          | 0.0               |              | 118.07                     |
| 33   | 16,830    | 0.00          | 0.0               |              | 118.97                     |
| 34   | 17,368    | 0.00          | 0.0               |              | 119.47                     |
| 35   | 18,873    | 0.00          | 0.0               |              | 120.86                     |
| 36   | 19,840    | 0.00          | 0.0               |              | 121.76                     |
| 37   | 21,936    | 0.00          | 0.0               |              | 123.70                     |
| 38   | 24,248    | 0.00          | 0.0               |              | 125.84                     |

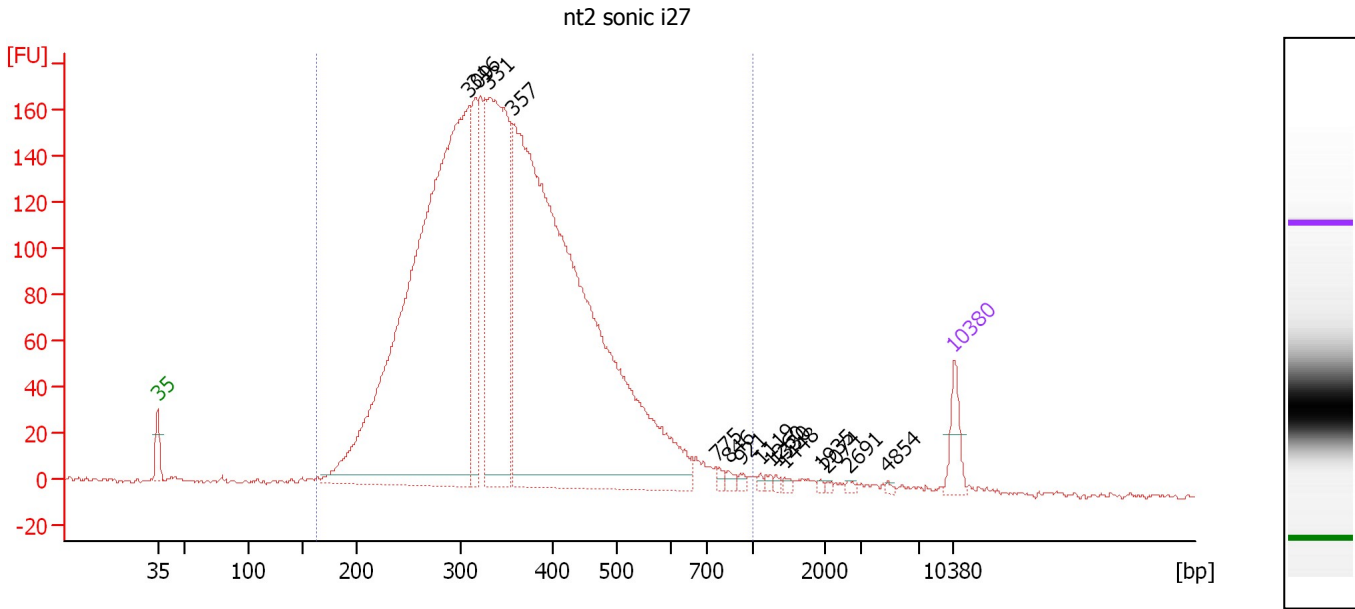
**Region table for sample 2 : trial 8-50**

| From [bp] | To [bp] | Average Size [bp] | Corr. Area | Molarity [pmol/l] | Co Conc. lor [pg/μl] | % of Total | Size distribution in CV [%] |
|-----------|---------|-------------------|------------|-------------------|----------------------|------------|-----------------------------|
| 245       | 8,272   | 1,578             | 777.5      | 1,810.2           | 688.63               | 86         | 100.0                       |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-06\2016-06-06\_006.xad

Created: 6/6/2016 3:07:59 PM  
 Modified: 6/6/2016 3:29:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : nt2 sonic i27**

Number of peaks found: 15                      Corr. Area 1: 3,840.1  
 Noise: 1.0

**Peak table for sample 3 : nt2 sonic i27**

| 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    | 309       | 3,403.87      | 16,677.2          |              | 70.39                      |
| 3    | 316       | 404.40        | 1,938.4           |              | 70.94                      |
| 4    | 331       | 1,324.03      | 6,059.8           |              | 72.15                      |
| 5    | 357       | 3,660.90      | 15,527.7          |              | 74.26                      |
| 6    | 775       | 15.88         | 31.1              |              | 92.25                      |
| 7    | 846       | 15.59         | 27.9              |              | 93.20                      |
| 8    | 921       | 12.00         | 19.7              |              | 94.21                      |
| 9    | 1,119     | 8.61          | 11.7              |              | 96.02                      |
| 10   | 1,260     | 10.04         | 12.1              |              | 96.92                      |
| 11   | 1,330     | 8.10          | 9.2               |              | 97.37                      |
| 12   | 1,448     | 9.72          | 10.2              |              | 98.13                      |
| 13   | 1,935     | 5.53          | 4.3               |              | 101.24                     |
| 14   | 2,074     | 5.23          | 3.8               |              | 101.89                     |
| 15   | 2,691     | 7.52          | 4.2               |              | 103.85                     |
| 16   | 4,854     | 5.72          | 1.8               |              | 107.17                     |
| 17   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |

**Region table for sample 3 : nt2 sonic i27**

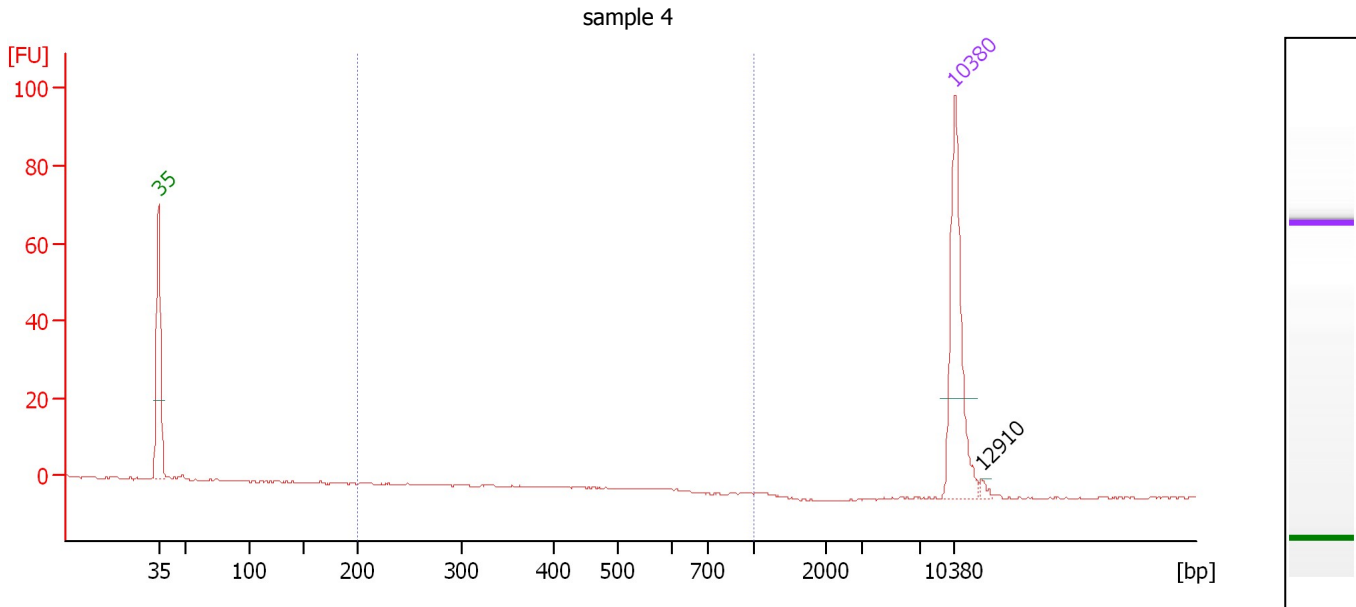
| From [bp] | To [bp] | Average Size [bp] | Corr. Area | Molarity [pmol/l] | Co Conc. [pg/μl] | % of Total | Size distribution in CV [%] |
|-----------|---------|-------------------|------------|-------------------|------------------|------------|-----------------------------|
| 162       | 1,000   | 360               | 3,840.1    | 42,437.5          | 9,137.86         | 98         | 28.7                        |



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-06\2016-06-06\_006.xad

Created: 6/6/2016 3:07:59 PM  
 Modified: 6/6/2016 3:29:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : sample 4**

Number of peaks found: 1                      Corr. Area 1: 0.0  
 Noise: 0.1

**Peak table for sample 4 : sample 4**

| 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    | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |
| 3    | 12,910    | 0.00          | 0.0               |              | 115.34                     |

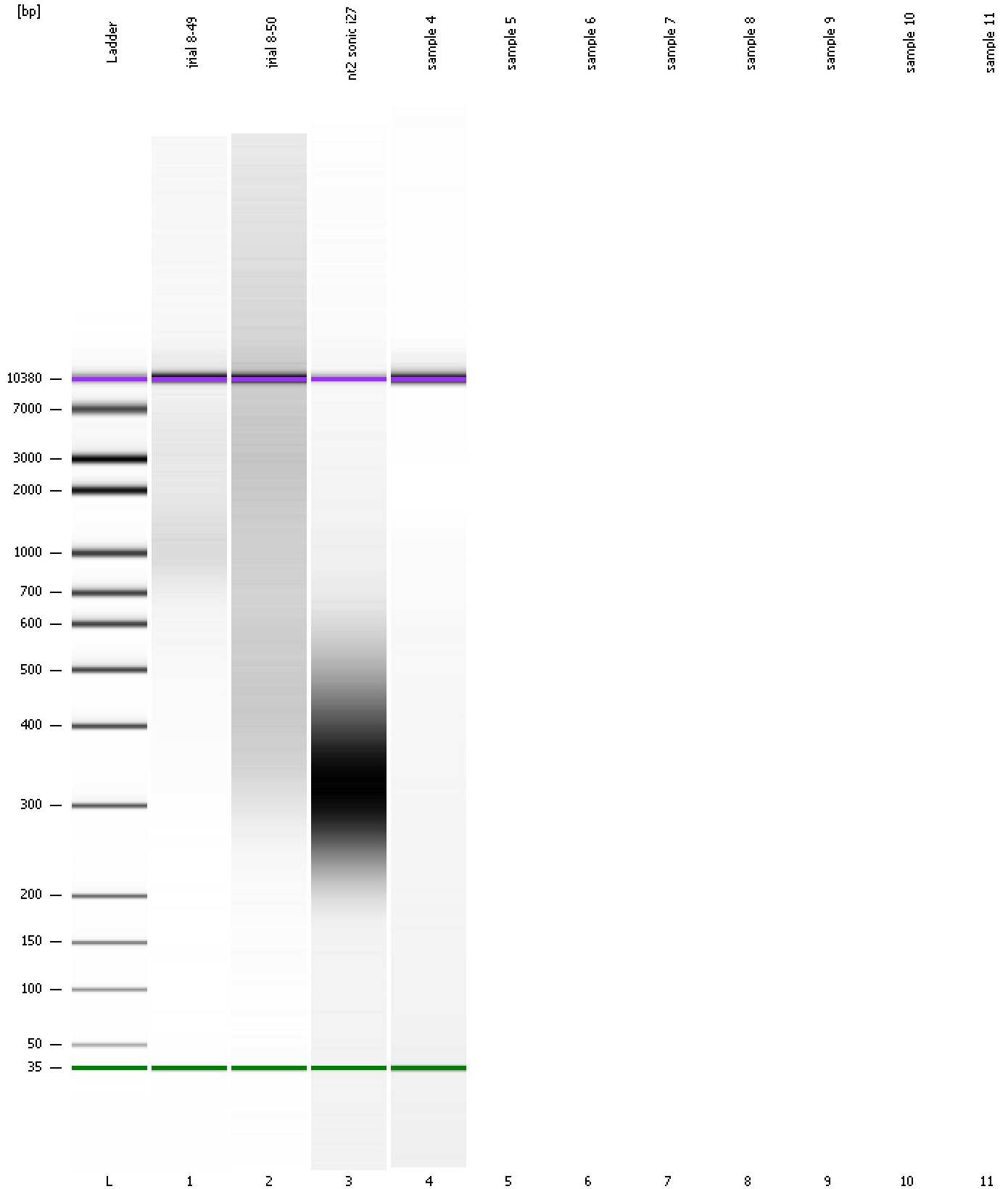
**Region table for sample 4 : sample 4**

| 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\2016-06-06\2016-06-06\_006.xad

Created: 6/6/2016 3:07:59 PM  
Modified: 6/6/2016 3:29:18 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-06\2016-06-06\_006.xad

Created: 6/6/2016 3:07:59 PM  
Modified: 6/6/2016 3:29:18 PM

**Invalid Samples**

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 Created: 6/6/2016 3:07:59 PM  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-06\2016-06-06\_006.xad Modified: 6/6/2016 3:29:18 PM

**Run Logbook**

| Description  | Number | Source     | Category | Sub Category | Time                | Time Zone                           | User     | Host     |
|--|--------|------------|----------|--------------|---------------------|-------------------------------------|----------|----------|
| Run ended on port 1 (Number of wells acquired: 5)  |        | Instrument | Run      |              | 6/6/2016 3:29:17 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-06-06\2016-06-06_006.xad) |        | Instrument | Run      |              | 6/6/2016 3:08:05 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B  |        | Instrument | Run      |              | 6/6/2016 3:08:05 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name :   |        | Instrument | Run      |              | 6/6/2016 3:08:05 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies  |        | Instrument | Run      |              | 6/6/2016 3:08:05 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086   |        | Instrument | Run      |              | 6/6/2016 3:08:05 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069  |        | Instrument | Run      |              | 6/6/2016 3:08:05 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode  |        | Instrument | Run      |              | 6/6/2016 3:08:05 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |