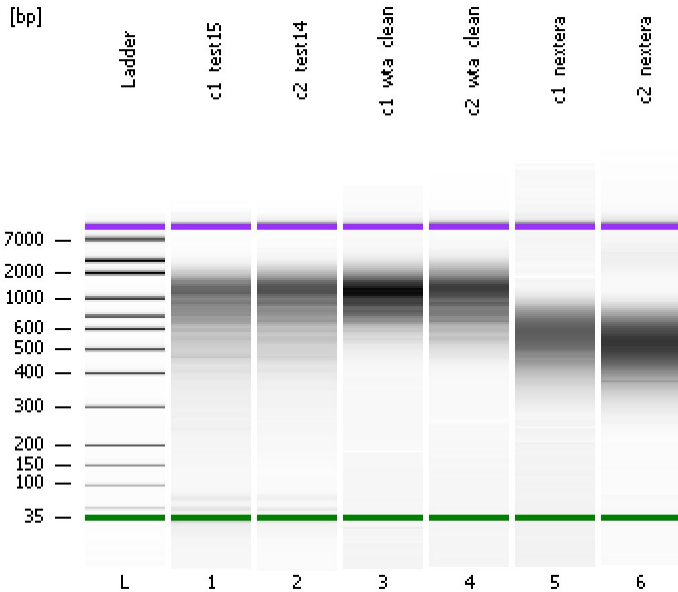


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nalyzer\2100 expert\data\2019-10-29\2019-10-29\_001\_DS13.xad

Created: 10/29/2019 10:39:09 AM  
Modified: 10/29/2019 11:11:18 AM

**Electrophoresis File Run Summary**



Instrument Information:

Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

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

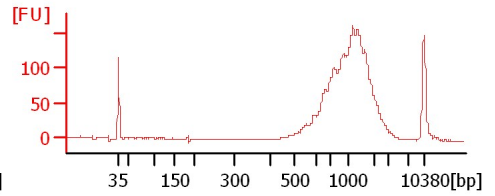
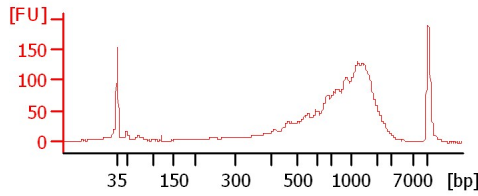
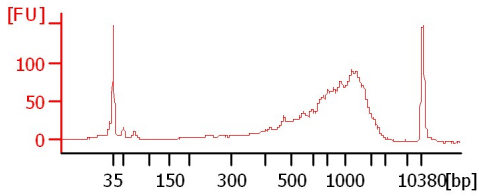
Chip Information:

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

**c1\_test15**

**c2\_test14**

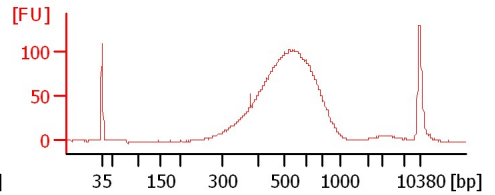
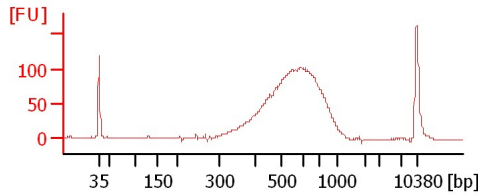
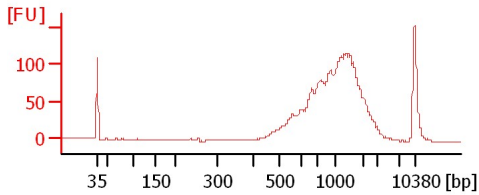
**c1\_wta\_clean**



**c2\_wta\_clean**

**c1\_nextera**

**c2\_nextera**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nalyzer\2100 expert\data\2019-10-29\2019-10-29\_001\_DS13.xad

Created: 10/29/2019 10:39:09 AM  
Modified: 10/29/2019 11:11:18 AM

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

| Sample Name  | Sample Comment | Rest. Digest             | Status | Observation | Result Label | Result Color |
|--------------|----------------|--------------------------|--------|-------------|--------------|--------------|
| c1_test15    |                | <input type="checkbox"/> | ✓      |             |              |              |
| c2_test14    |                | <input type="checkbox"/> | ✓      |             |              |              |
| c1_wta_clean |                | <input type="checkbox"/> | ✓      |             |              |              |
| c2_wta_clean |                | <input type="checkbox"/> | ✓      |             |              |              |
| c1_nextera   |                | <input type="checkbox"/> | ✓      |             |              |              |
| c2_nextera   |                | <input type="checkbox"/> | ✓      |             |              |              |
| Ladder       |                | <input type="checkbox"/> | ✓      |             |              |              |

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nalyzer\2100 expert\data\2019-10-29\2019-10-29\_001\_DS13.xad

Created: 10/29/2019 10:39:09 AM  
Modified: 10/29/2019 11:11:18 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

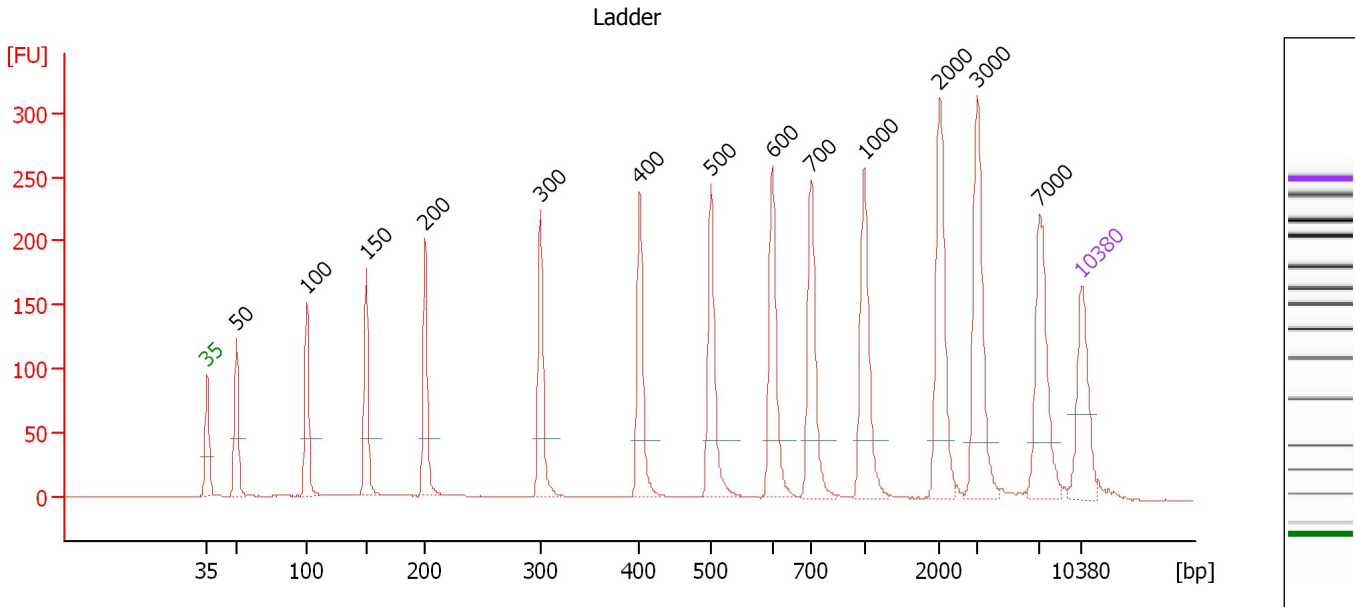
**Ladder**

| 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:\...analyzer\2100 expert\data\2019-10-29\2019-10-29\_001\_DS13.xad

Created: 10/29/2019 10:39:09 AM  
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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.3

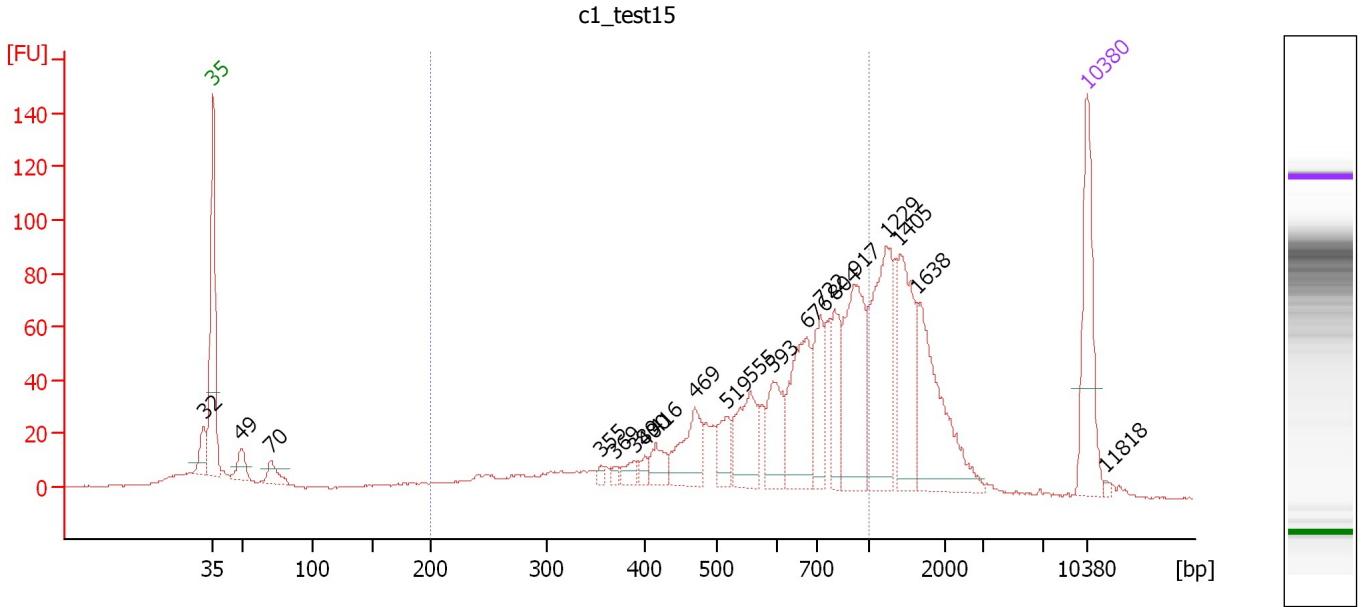
**Peak table for Ladder**

| 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  | 45.35                      |
| 3    | 100       | 150.00        | 2,272.7           | Ladder Peak  | 50.98                      |
| 4    | 150       | 150.00        | 1,515.2           | Ladder Peak  | 55.72                      |
| 5    | 200       | 150.00        | 1,136.4           | Ladder Peak  | 60.41                      |
| 6    | 300       | 150.00        | 757.6             | Ladder Peak  | 69.68                      |
| 7    | 400       | 150.00        | 568.2             | Ladder Peak  | 77.62                      |
| 8    | 500       | 150.00        | 454.5             | Ladder Peak  | 83.34                      |
| 9    | 600       | 150.00        | 378.8             | Ladder Peak  | 88.20                      |
| 10   | 700       | 150.00        | 324.7             | Ladder Peak  | 91.36                      |
| 11   | 1,000     | 150.00        | 227.3             | Ladder Peak  | 95.59                      |
| 12   | 2,000     | 150.00        | 113.6             | Ladder Peak  | 101.65                     |
| 13   | 3,000     | 150.00        | 75.8              | Ladder Peak  | 104.63                     |
| 14   | 7,000     | 150.00        | 32.5              | Ladder Peak  | 109.59                     |
| 15   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...nalyzer\2100 expert\data\2019-10-29\2019-10-29\_001\_DS13.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : c1\_test15**

Number of peaks found: 20                      Corr. Area 1: 1,018.0  
 Noise: 0.3

**Peak table for sample 1 : c1\_test15**

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 1    | 32        | 0.00          | 0.0               |              | 42.23                      |
| 2    | 35        | 125.00        | 5,411.3           | Lower Marker | 43.00                      |
| 3    | 49        | 25.16         | 770.6             |              | 45.26                      |
| 4    | 70        | 22.16         | 478.9             |              | 47.62                      |
| 5    | 355       | 4.08          | 17.4              |              | 74.07                      |
| 6    | 369       | 4.86          | 19.9              |              | 75.18                      |
| 7    | 389       | 11.30         | 44.1              |              | 76.72                      |
| 8    | 400       | 8.72          | 33.0              |              | 77.62                      |
| 9    | 416       | 22.51         | 82.1              |              | 78.51                      |
| 10   | 469       | 57.36         | 185.1             |              | 81.59                      |
| 11   | 519       | 28.51         | 83.3              |              | 84.24                      |
| 12   | 555       | 61.54         | 167.9             |              | 86.03                      |
| 13   | 593       | 52.24         | 133.4             |              | 87.87                      |
| 14   | 676       | 93.28         | 209.0             |              | 90.61                      |
| 15   | 722       | 51.39         | 107.8             |              | 91.68                      |
| 16   | 804       | 43.80         | 82.5              |              | 92.83                      |
| 17   | 917       | 108.33        | 179.1             |              | 94.41                      |
| 18   | 1,229     | 122.47        | 151.0             |              | 96.97                      |
| 19   | 1,405     | 87.08         | 93.9              |              | 98.04                      |
| 20   | 1,638     | 106.01        | 98.1              |              | 99.45                      |
| 21   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |
| 22   | 11,818    | 0.00          | 0.0               |              | 114.45                     |

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nalyzer\2100 expert\data\2019-10-29\2019-10-29\_001\_DS13.xad

Created: 10/29/2019 10:39:09 AM  
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**Electropherogram Summary Continued ...**

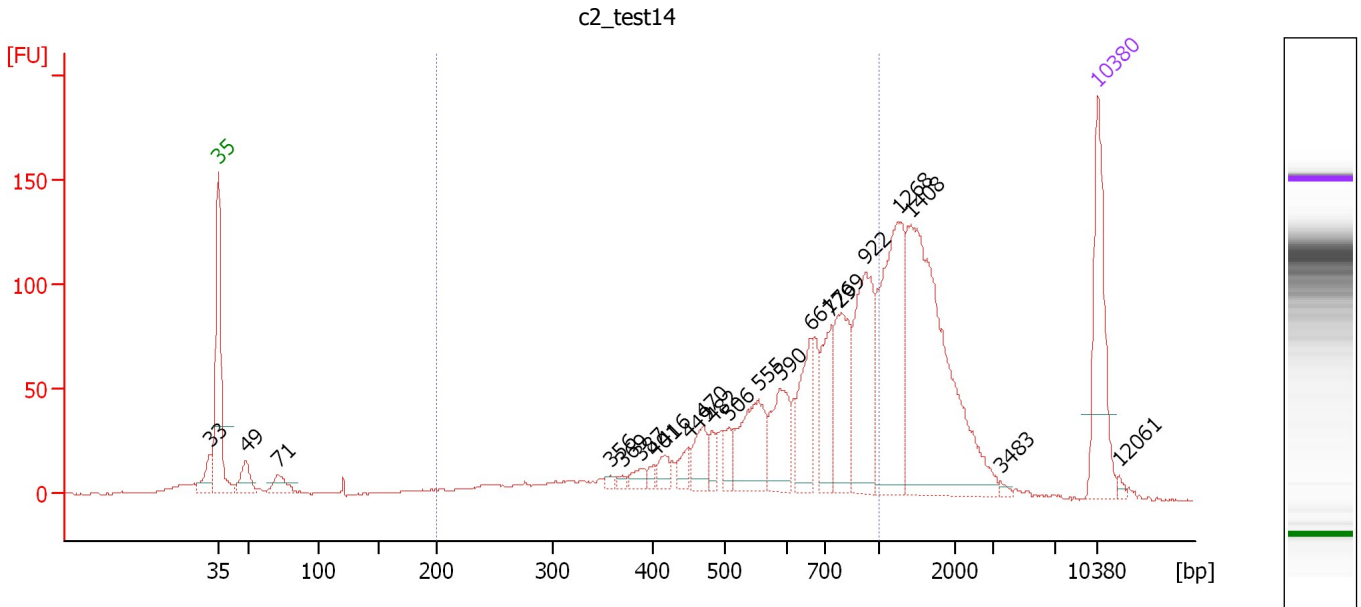
... Region table for sample 1 : c1\_test15

| From [bp] | To [bp] | Average Size [bp] | Conc. [pg/ $\mu$ l] | Corr. Area | Molarity [pmol/l] | Co % of lor Total  | Size distribution in CV [%] |
|-----------|---------|-------------------|---------------------|------------|-------------------|--|-----------------------------|
| 200       | 1,000   | 630               | 797.36              | 1,018.0    | 2,321.5           |  58 | 31.5                        |

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...analyzer\2100 expert\data\2019-10-29\2019-10-29\_001\_DS13.xad

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Electropherogram Summary Continued ...



Overall Results for sample 2 : c2\_test14

Number of peaks found: 22                                  Corr. Area 1: 1,249.3  
Noise: 0.3

Peak table for sample 2 : c2\_test14


| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|------|-----------|---------------|-------------------|--------------|----------------------------|
| 1    | 33        | 0.00          | 0.0               |              | 42.36                      |
| 2    | 35        | 125.00        | 5,411.3           | Lower Marker | 43.00                      |
| 3    | 49        | 27.99         | 868.6             |              | 45.16                      |
| 4    | 71        | 21.27         | 454.1             |              | 47.71                      |
| 5    | 356       | 4.06          | 17.2              |              | 74.16                      |
| 6    | 369       | 3.96          | 16.3              |              | 75.18                      |
| 7    | 387       | 10.01         | 39.1              |              | 76.62                      |
| 8    | 401       | 6.16          | 23.3              |              | 77.68                      |
| 9    | 416       | 13.78         | 50.2              |              | 78.53                      |
| 10   | 449       | 13.87         | 46.8              |              | 80.40                      |
| 11   | 470       | 28.59         | 92.1              |              | 81.63                      |
| 12   | 482       | 11.66         | 36.7              |              | 82.31                      |
| 13   | 506       | 15.74         | 47.1              |              | 83.62                      |
| 14   | 555       | 69.43         | 189.6             |              | 86.00                      |
| 15   | 590       | 53.71         | 138.0             |              | 87.70                      |
| 16   | 661       | 55.36         | 127.0             |              | 90.12                      |
| 17   | 729       | 52.83         | 109.7             |              | 91.78                      |
| 18   | 769       | 73.19         | 144.3             |              | 92.33                      |
| 19   | 922       | 103.81        | 170.5             |              | 94.49                      |
| 20   | 1,268     | 143.23        | 171.2             |              | 97.21                      |
| 21   | 1,408     | 246.15        | 264.9             |              | 98.06                      |
| 22   | 3,483     | 2.52          | 1.1               |              | 105.23                     |
| 23   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |
| 24   | 12,061    | 0.00          | 0.0               |              | 114.70                     |

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nalyzer\2100 expert\data\2019-10-29\2019-10-29\_001\_DS13.xad

Created: 10/29/2019 10:39:09 AM  
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**Electropherogram Summary Continued ...**

... Region table for sample 2 : c2\_test14

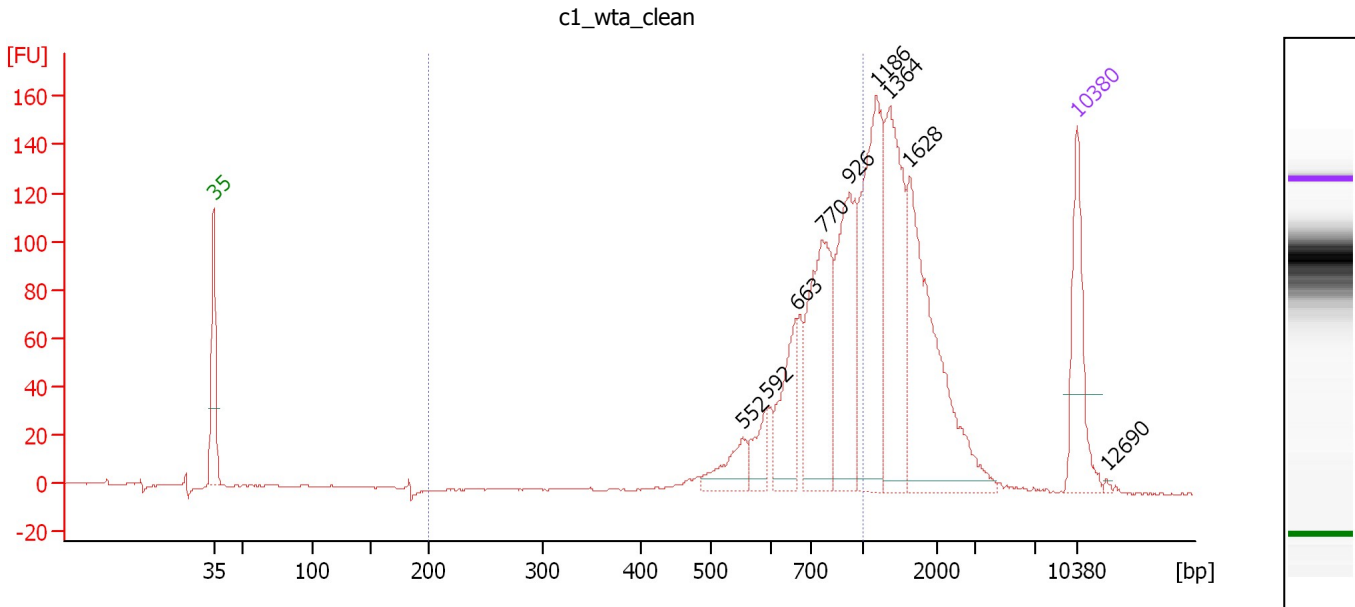
| From [bp] | To [bp] | Average Size [bp] | Conc. [pg/ $\mu$ l] | Corr. Area | Molarity [pmol/l] | Co % of lor Total  | Size distribution in CV [%] |
|-----------|---------|-------------------|---------------------|------------|-------------------|--|-----------------------------|
| 200       | 1,000   | 647               | 718.67              | 1,249.3    | 2,008.1           |  56 | 30.3                        |



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...analyzer\2100 expert\data\2019-10-29\2019-10-29\_001\_DS13.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : c1\_wta\_clean**

Number of peaks found: 9                      Corr. Area 1: 826.6  
 Noise: 0.3

**Peak table for sample 3 : c1\_wta\_clean**

| 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    | 552       | 42.64         | 117.0             |              | 85.86                      |
| 3    | 592       | 32.71         | 83.7              |              | 87.81                      |
| 4    | 663       | 80.78         | 184.7             |              | 90.19                      |
| 5    | 770       | 176.85        | 348.0             |              | 92.35                      |
| 6    | 926       | 153.42        | 250.9             |              | 94.55                      |
| 7    | 1,186     | 199.69        | 255.2             |              | 96.71                      |
| 8    | 1,364     | 167.15        | 185.7             |              | 97.79                      |
| 9    | 1,628     | 216.54        | 201.6             |              | 99.39                      |
| 10   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |
| 11   | 12,690    | 0.00          | 0.0               |              | 115.33                     |

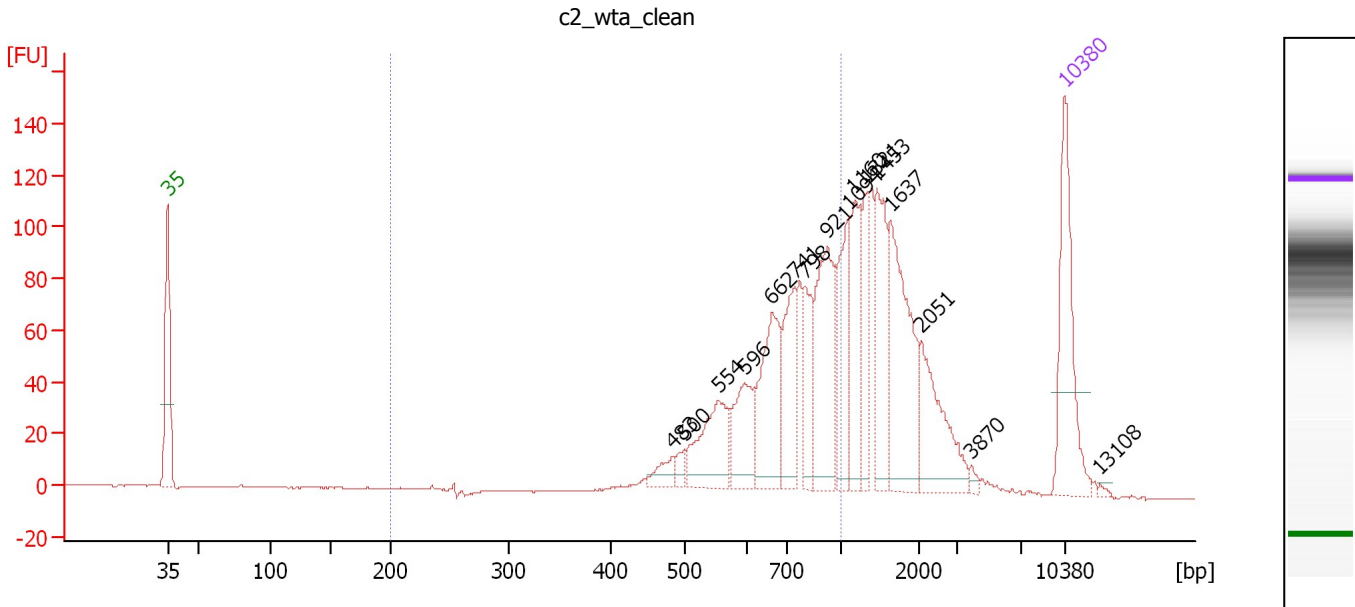
**Region table for sample 3 : c1\_wta\_clean**

| From [bp] | To [bp] | Average Size [bp] | Conc. [pg/μl] | Corr. Area | Molarity [pmol/l] | Co % of lor Total | Size distribution in CV [%] |
|-----------|---------|-------------------|---------------|------------|-------------------|-------------------|-----------------------------|
| 200       | 1,000   | 765               | 564.47        | 826.6      | 1,164.4           | 47                | 18.2                        |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...nalyzer\2100 expert\data\2019-10-29\2019-10-29\_001\_DS13.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : c2\_wta\_clean**

Number of peaks found: 16                      Corr. Area 1: 822.1  
 Noise: 0.2

**Peak table for sample 4 : c2\_wta\_clean**

| 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    | 483       | 14.55         | 45.6              |              | 82.38                      |
| 3    | 500       | 8.84          | 26.8              |              | 83.36                      |
| 4    | 554       | 64.97         | 177.6             |              | 85.98                      |
| 5    | 596       | 48.71         | 123.8             |              | 88.02                      |
| 6    | 662       | 84.10         | 192.5             |              | 90.16                      |
| 7    | 741       | 58.55         | 119.8             |              | 91.93                      |
| 8    | 798       | 41.64         | 79.1              |              | 92.73                      |
| 9    | 921       | 95.64         | 157.4             |              | 94.47                      |
| 10   | 1,094     | 61.10         | 84.6              |              | 96.16                      |
| 11   | 1,160     | 54.61         | 71.3              |              | 96.56                      |
| 12   | 1,321     | 37.27         | 42.7              |              | 97.53                      |
| 13   | 1,453     | 63.33         | 66.0              |              | 98.33                      |
| 14   | 1,637     | 103.94        | 96.2              |              | 99.44                      |
| 15   | 2,051     | 62.78         | 46.4              |              | 101.80                     |
| 16   | 3,870     | 3.38          | 1.3               |              | 105.71                     |
| 17   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |
| 18   | 13,108    | 0.00          | 0.0               |              | 115.76                     |

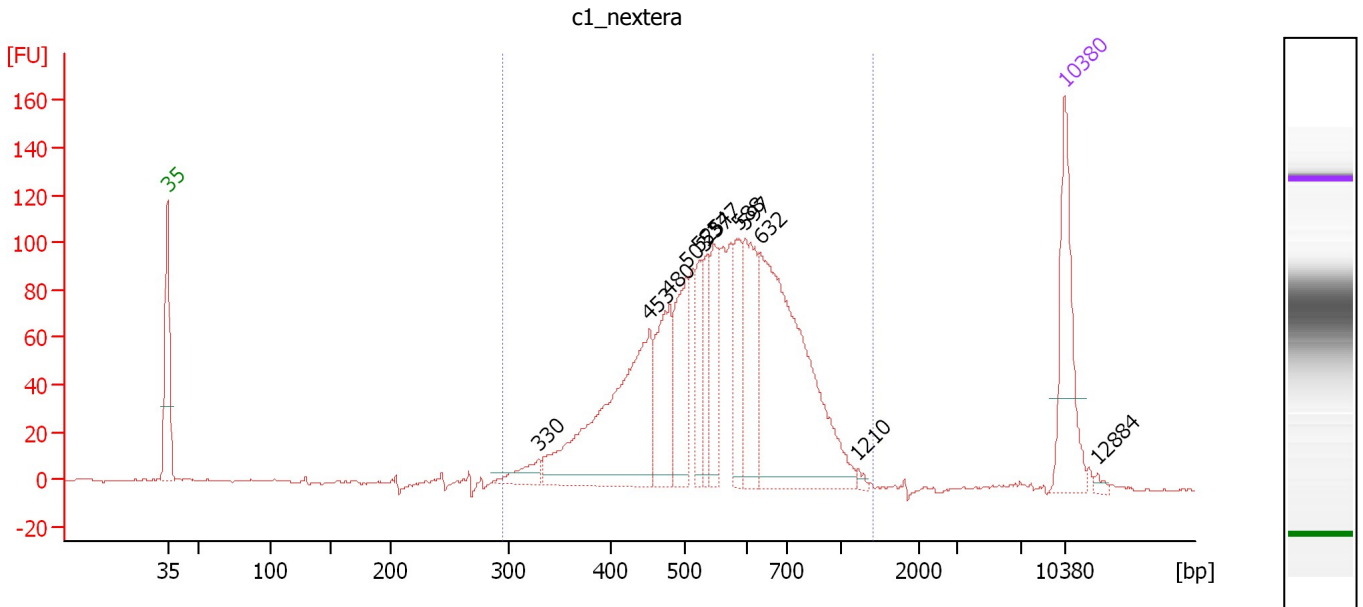
**Region table for sample 4 : c2\_wta\_clean**

| From [bp] | To [bp] | Average Size [bp] | Conc. [pg/μl] | Corr. Area | Molarity [pmol/l] | Co % of Ior Total | Size distribution in CV [%] |
|-----------|---------|-------------------|---------------|------------|-------------------|-------------------|-----------------------------|
| 200       | 1,000   | 720               | 510.12        | 822.1      | 1,149.1           | 50                | 21.5                        |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...analyzer\2100 expert\data\2019-10-29\2019-10-29\_001\_DS13.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : c1\_nextera**

Number of peaks found: 12                      Corr. Area 1: 1,827.5  
 Noise: 0.4

**Peak table for sample 5 : c1\_nextera**

| 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    | 330       | 21.76         | 100.1             |              | 72.02                      |
| 3    | 453       | 237.11        | 793.8             |              | 80.62                      |
| 4    | 480       | 84.22         | 265.9             |              | 82.19                      |
| 5    | 503       | 81.42         | 245.3             |              | 83.47                      |
| 6    | 525       | 46.71         | 134.9             |              | 84.53                      |
| 7    | 537       | 43.98         | 124.1             |              | 85.13                      |
| 8    | 547       | 51.74         | 143.3             |              | 85.63                      |
| 9    | 588       | 53.85         | 138.8             |              | 87.61                      |
| 10   | 597       | 84.61         | 214.6             |              | 88.07                      |
| 11   | 632       | 289.46        | 693.6             |              | 89.22                      |
| 12   | 1,210     | 3.10          | 3.9               |              | 96.86                      |
| 13   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |
| 14   | 12,884    | 0.00          | 0.0               |              | 115.53                     |

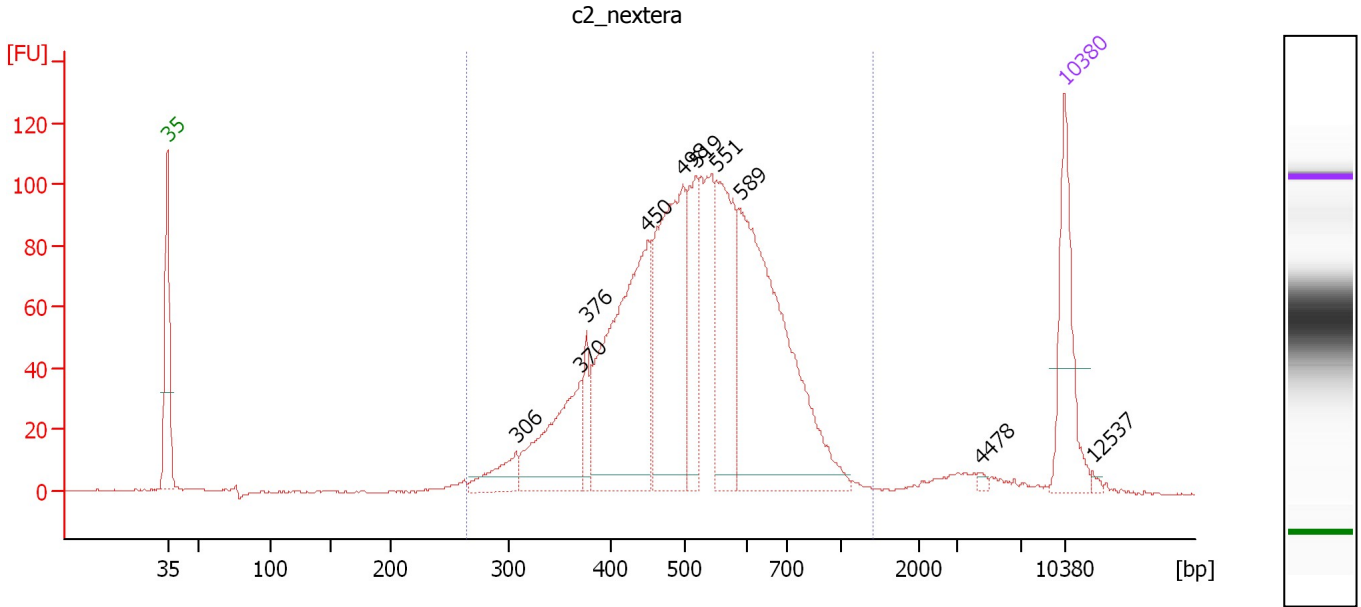
**Region table for sample 5 : c1\_nextera**

| From [bp] | To [bp] | Average Size [bp] | Conc. [pg/μl] | Corr. Area | Molarity [pmol/l] | Co % of Ior Total | Size distribution in CV [%] |
|-----------|---------|-------------------|---------------|------------|-------------------|-------------------|-----------------------------|
| 294       | 1,394   | 575               | 1,148.19      | 1,827.5    | 3,299.1           | 93                | 26.7                        |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...analyzer\2100 expert\data\2019-10-29\2019-10-29\_001\_DS13.xad

Created: 10/29/2019 10:39:09 AM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : c2\_nextera**

Number of peaks found: 10                      Corr. Area 1: 1,897.1  
 Noise: 0.3

**Peak table for sample 6 : c2\_nextera**

| 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    | 306       | 38.81         | 191.9             |              | 70.19                      |
| 3    | 370       | 128.49        | 525.8             |              | 75.25                      |
| 4    | 376       | 31.92         | 128.6             |              | 75.73                      |
| 5    | 450       | 296.09        | 997.4             |              | 80.46                      |
| 6    | 498       | 244.98        | 745.6             |              | 83.21                      |
| 7    | 519       | 91.38         | 266.8             |              | 84.25                      |
| 8    | 551       | 147.57        | 405.8             |              | 85.81                      |
| 9    | 589       | 350.86        | 902.7             |              | 87.66                      |
| 10   | 4,478     | 2.84          | 1.0               |              | 106.46                     |
| 11   | 10,380    | 75.00         | 10.9              | Upper Marker | 113.00                     |
| 12   | 12,537    | 0.00          | 0.0               |              | 115.18                     |

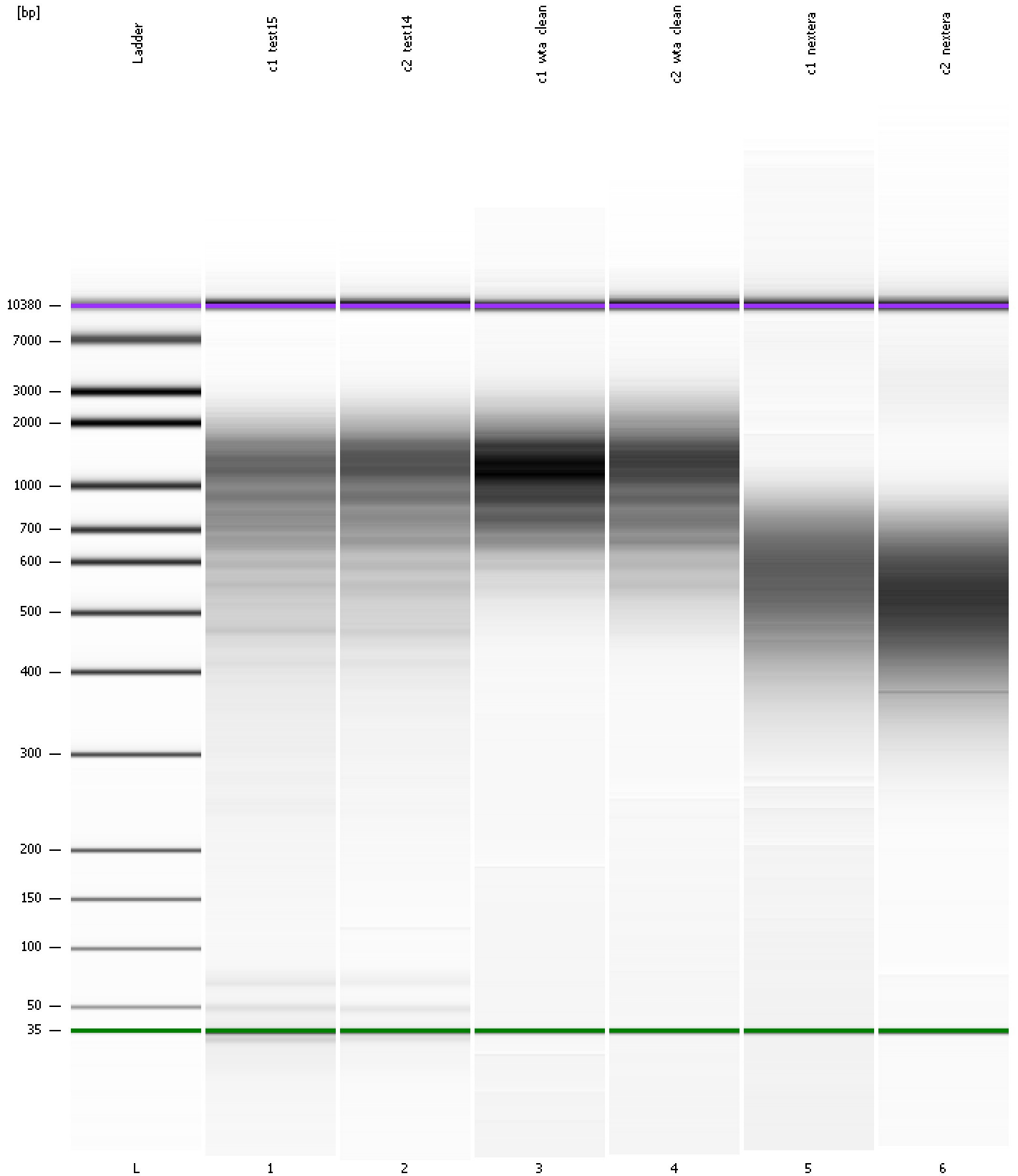
**Region table for sample 6 : c2\_nextera**

| From [bp] | To [bp] | Average Size [bp] | Conc. [pg/μl] | Corr. Area | Molarity [pmol/l] | Co % of lor Total | Size distribution in CV [%] |
|-----------|---------|-------------------|---------------|------------|-------------------|-------------------|-----------------------------|
| 263       | 1,416   | 527               | 1,504.62      | 1,897.1    | 4,703.9           | 95                | 25.8                        |

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...analyzer\2100 expert\data\2019-10-29\2019-10-29\_001\_DS13.xad

Created: 10/29/2019 10:39:09 AM  
Modified: 10/29/2019 11:11:18 AM

**Gel Image**

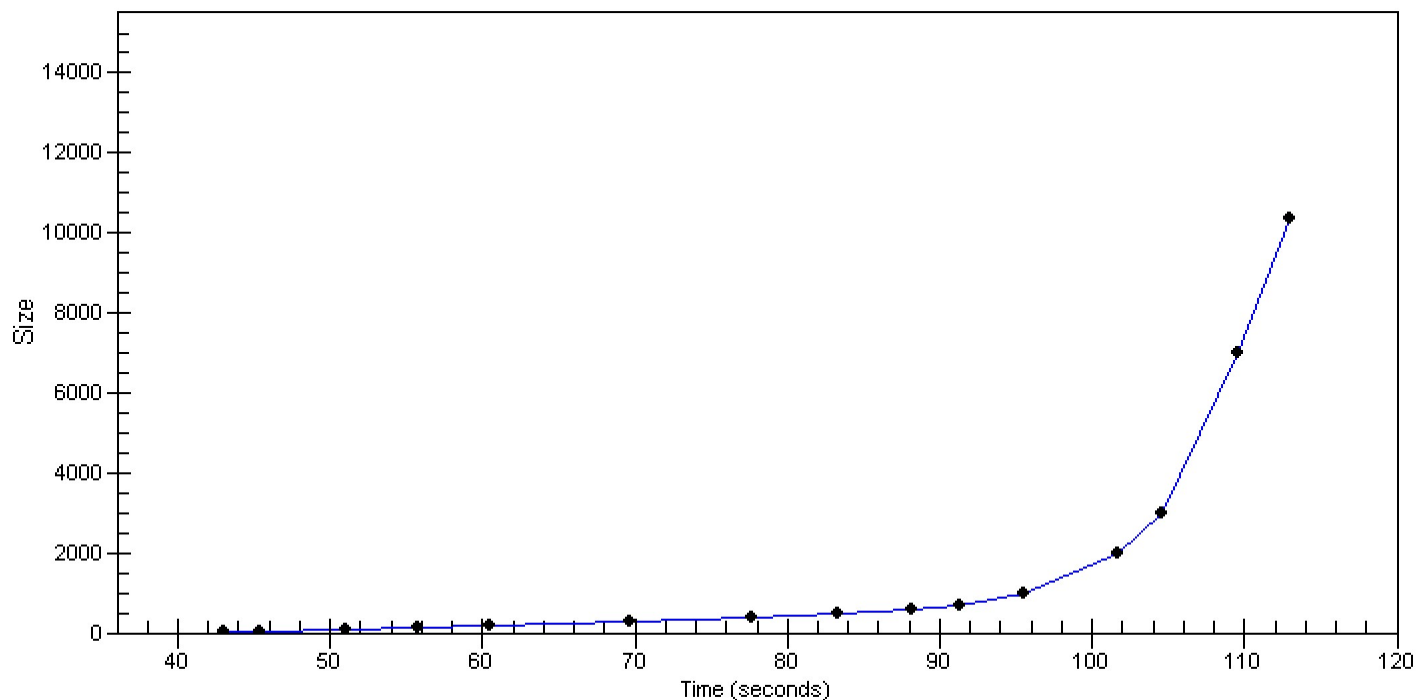


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nalyzer\2100 expert\data\2019-10-29\2019-10-29\_001\_DS13.xad

Created: 10/29/2019 10:39:09 AM  
Modified: 10/29/2019 11:11:18 AM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...nalyzer\2100 expert\data\2019-10-29\2019-10-29\_001\_DS13.xad

Created: 10/29/2019 10:39:09 AM  
 Modified: 10/29/2019 11:11:18 AM

**Run Logbook**

| Description  | Number | Source     | Category | Sub Category | Time                   | Time Zone                           | User     | Host     |
|--|--------|------------|----------|--------------|------------------------|-------------------------------------|----------|----------|
| Run aborted on port 1  |        | Instrument | Run      |              | 10/29/2019 11:07:07 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\2019-10-29\2019-10-29_001.xad) |        | Instrument | Run      |              | 10/29/2019 10:39:15 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938C  |        | Instrument | Run      |              | 10/29/2019 10:39:15 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name :   |        | Instrument | Run      |              | 10/29/2019 10:39:15 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies  |        | Instrument | Run      |              | 10/29/2019 10:39:15 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE34903152   |        | Instrument | Run      |              | 10/29/2019 10:39:15 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069  |        | Instrument | Run      |              | 10/29/2019 10:39:15 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode  |        | Instrument | Run      |              | 10/29/2019 10:39:15 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |