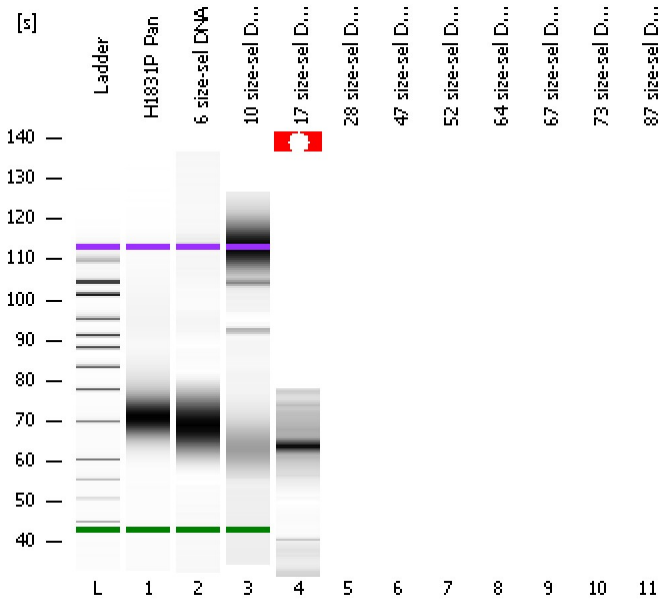


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-23\2019-05-23_002.xad

Created: 5/23/2019 11:01:54 AM
Modified: 5/23/2019 11:22:26 AM

Electrophoresis File Run Summary



Instrument Information:

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

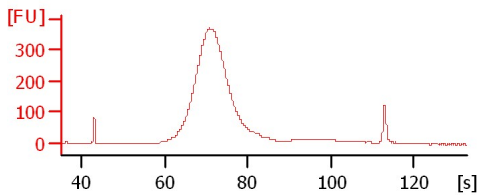
Assay Information:

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

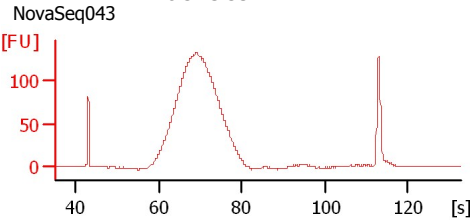
Chip Information:

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

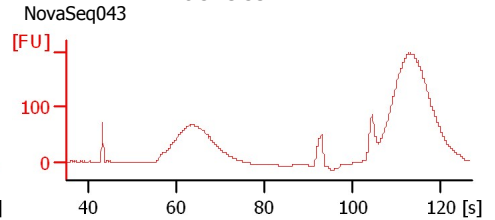
H1831P_Pan



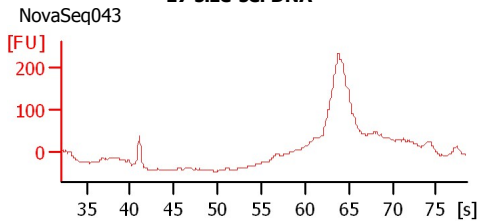
6 size-sel DNA



10 size-sel DNA



17 size-sel DNA



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-23\2019-05-23_002.xad

Created: 5/23/2019 11:01:54 AM
Modified: 5/23/2019 11:22:26 AM

Electrophoresis File Run Summary (Chip Summary)

| Sample Name | Sample Comment | Rest. Digest | Status | Observation | Result Label | Result Color |
|-----------------|----------------|--------------------------|--------|-------------|--------------|--------------|
| H1831P_Pan | | <input type="checkbox"/> | ✓ | | | |
| 6 size-sel DNA | NovaSeq043 | <input type="checkbox"/> | ✓ | | | |
| 10 size-sel DNA | NovaSeq043 | <input type="checkbox"/> | ✓ | | | |
| 17 size-sel DNA | NovaSeq043 | <input type="checkbox"/> | ✗ | | | |
| 28 size-sel DNA | NovaSeq043 | <input type="checkbox"/> | ✗ | | | |
| 47 size-sel DNA | NovaSeq043 | <input type="checkbox"/> | ✗ | | | |
| 52 size-sel DNA | NovaSeq043 | <input type="checkbox"/> | ✗ | | | |
| 64 size-sel DNA | NovaSeq043 | <input type="checkbox"/> | ✗ | | | |
| 67 size-sel DNA | NovaSeq043 | <input type="checkbox"/> | ✗ | | | |
| 73 size-sel DNA | NovaSeq043 | <input type="checkbox"/> | ✗ | | | |
| 87 size-sel DNA | NovaSeq043 | <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\2019-05-23\2019-05-23_002.xad

Created: 5/23/2019 11:01:54 AM
Modified: 5/23/2019 11:22:26 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

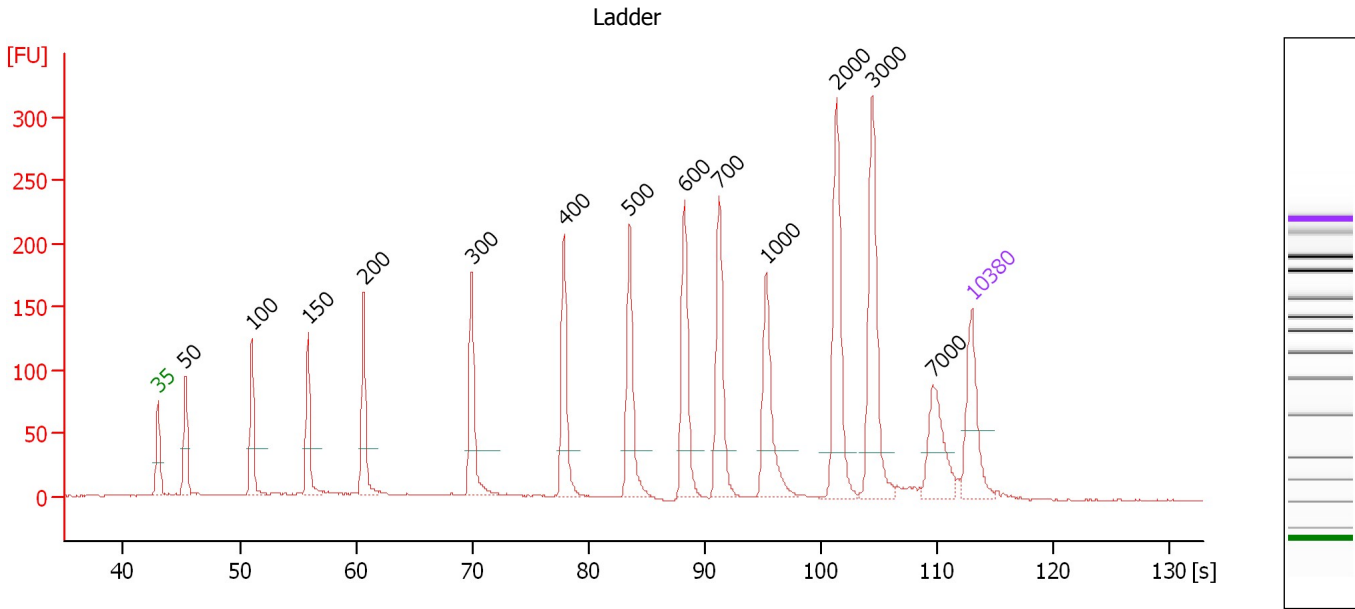
Ladder

| 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\2019-05-23\2019-05-23_002.xad

Created: 5/23/2019 11:01:54 AM
 Modified: 5/23/2019 11:22:26 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.6

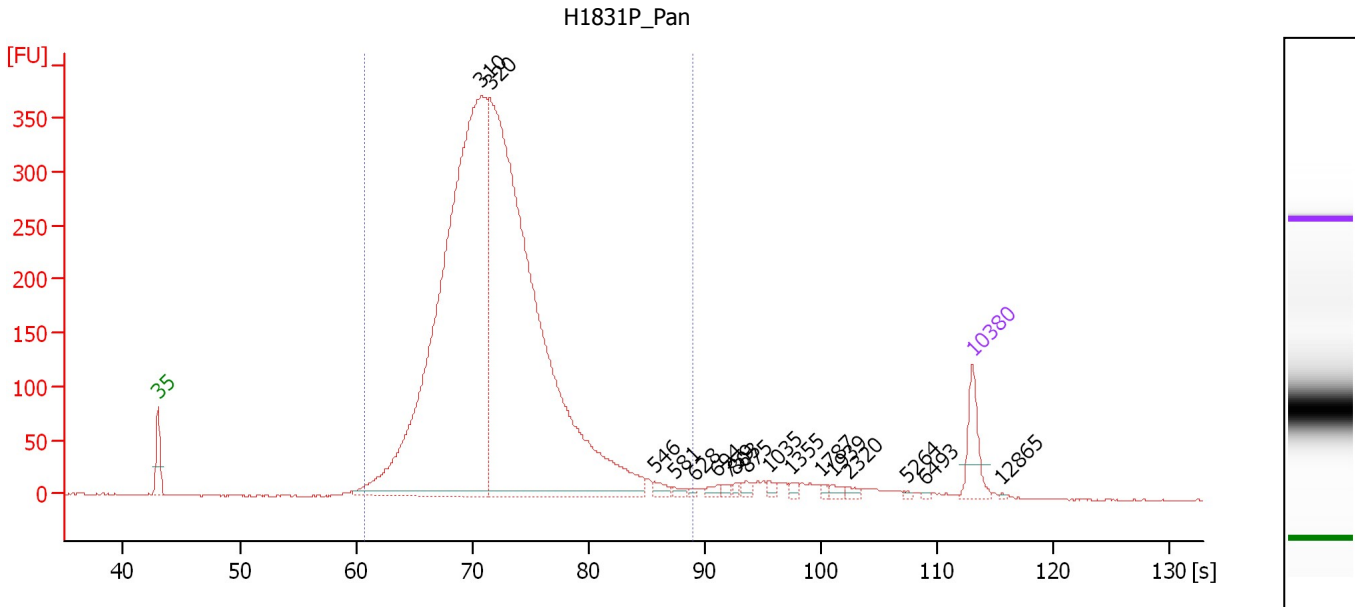
Peak table for Ladder

| 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 | 45.32 |
| 3 | 100 | 150.00 | 2,272.7 | Ladder Peak | 51.06 |
| 4 | 150 | 150.00 | 1,515.2 | Ladder Peak | 55.89 |
| 5 | 200 | 150.00 | 1,136.4 | Ladder Peak | 60.68 |
| 6 | 300 | 150.00 | 757.6 | Ladder Peak | 69.97 |
| 7 | 400 | 150.00 | 568.2 | Ladder Peak | 77.88 |
| 8 | 500 | 150.00 | 454.5 | Ladder Peak | 83.52 |
| 9 | 600 | 150.00 | 378.8 | Ladder Peak | 88.26 |
| 10 | 700 | 150.00 | 324.7 | Ladder Peak | 91.25 |
| 11 | 1,000 | 150.00 | 227.3 | Ladder Peak | 95.27 |
| 12 | 2,000 | 150.00 | 113.6 | Ladder Peak | 101.34 |
| 13 | 3,000 | 150.00 | 75.8 | Ladder Peak | 104.42 |
| 14 | 7,000 | 150.00 | 32.5 | Ladder Peak | 109.64 |
| 15 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-23\2019-05-23_002.xad

Created: 5/23/2019 11:01:54 AM
 Modified: 5/23/2019 11:22:26 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : H1831P Pan

Number of peaks found: 17 Corr. Area 1: 5,114.1
 Noise: 0.5

Peak table for sample 1 : H1831P Pan

| 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 | 310 | 2,590.48 | 12,641.6 | | 70.80 |
| 3 | 320 | 2,679.24 | 12,698.7 | | 71.52 |
| 4 | 546 | 19.71 | 54.7 | | 85.69 |
| 5 | 581 | 10.42 | 27.2 | | 87.34 |
| 6 | 628 | 5.21 | 12.6 | | 89.08 |
| 7 | 694 | 13.65 | 29.8 | | 91.07 |
| 8 | 759 | 9.99 | 19.9 | | 92.04 |
| 9 | 803 | 8.43 | 15.9 | | 92.63 |
| 10 | 875 | 13.83 | 23.9 | | 93.60 |
| 11 | 1,035 | 10.59 | 15.5 | | 95.49 |
| 12 | 1,355 | 8.78 | 9.8 | | 97.43 |
| 13 | 1,787 | 5.50 | 4.7 | | 100.05 |
| 14 | 1,939 | 11.33 | 8.9 | | 100.97 |
| 15 | 2,320 | 8.79 | 5.7 | | 102.33 |
| 16 | 5,264 | 3.12 | 0.9 | | 107.37 |
| 17 | 6,493 | 3.33 | 0.8 | | 108.97 |
| 18 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |
| 19 | 12,865 | 0.00 | 0.0 | | 115.47 |

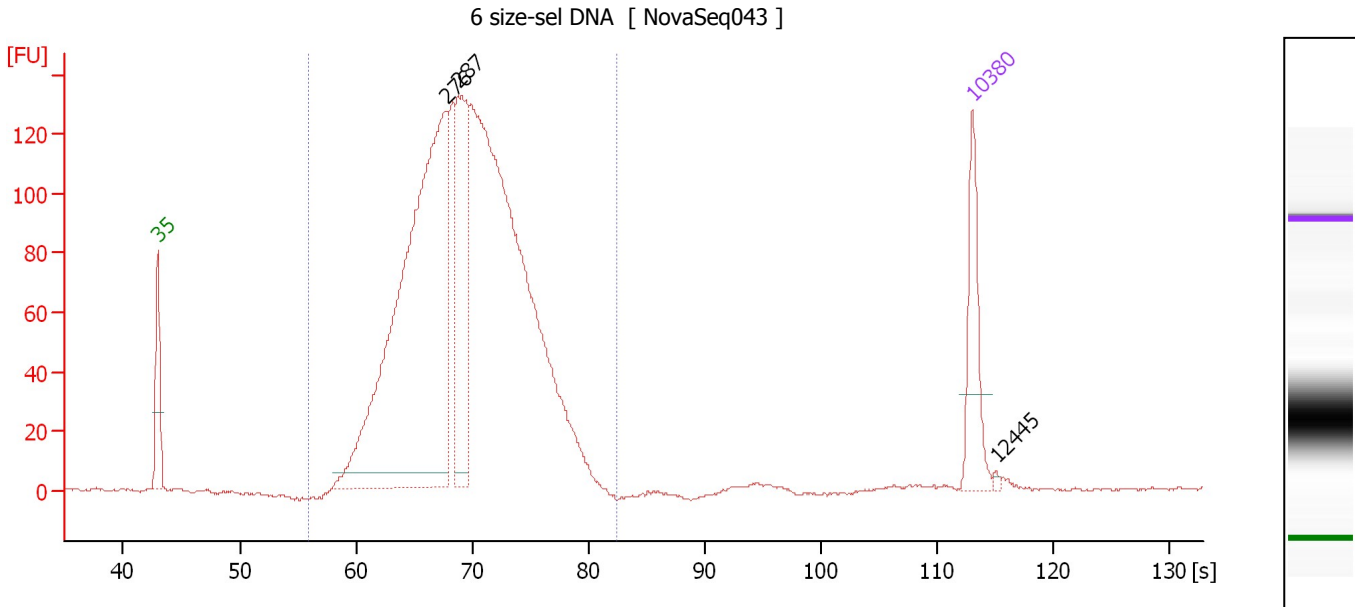
Region table for sample 1 : H1831P Pan

| From [bp] | To [bp] | Average Size [bp] | Conc. [pg/μl] | Corr. Area | Molarity [pmol/l] | Co % of Ior Total | Size distribution in CV [%] |
|-----------|---------|-------------------|---------------|------------|-------------------|-------------------|-----------------------------|
| 200 | 623 | 329 | 5,255.13 | 5,114.1 | 25,162.7 | 95 | 18.1 |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-23\2019-05-23_002.xad

Created: 5/23/2019 11:01:54 AM
 Modified: 5/23/2019 11:22:26 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 6 size-sel DNA

Number of peaks found: 3 Corr. Area 1: 2,280.5
 Noise: 0.5

Peak table for sample 2 : 6 size-sel DNA

| 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 | 276 | 941.47 | 5,162.0 | | 67.77 |
| 3 | 287 | 263.60 | 1,392.2 | | 68.75 |
| 4 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |
| 5 | 12,445 | 0.00 | 0.0 | | 115.06 |

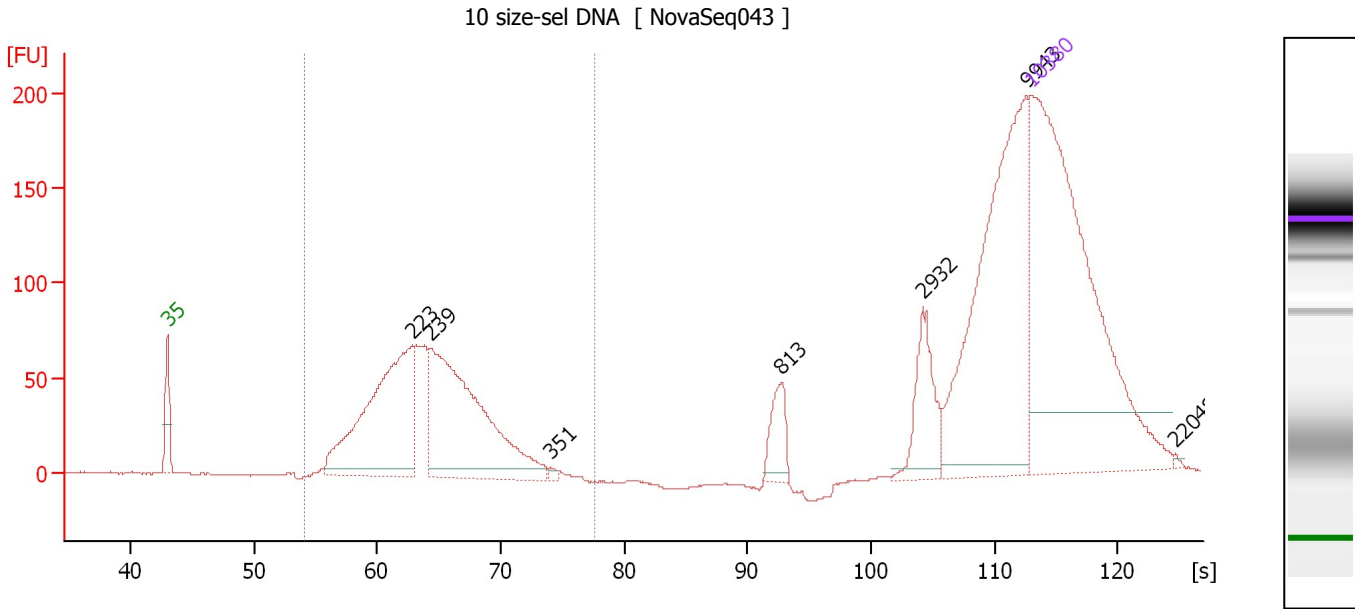
Region table for sample 2 : 6 size-sel DNA

| From [bp] | To [bp] | Average Size [bp] | Conc. [pg/μl] | Corr. Area | Molarity [pmol/l] | Co % of lor Total | Size distribution in CV [%] |
|-----------|---------|-------------------|---------------|------------|-------------------|-------------------|-----------------------------|
| 150 | 481 | 297 | 2,405.01 | 2,280.5 | 12,730.3 | 99 | 17.2 |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-23\2019-05-23_002.xad

Created: 5/23/2019 11:01:54 AM
 Modified: 5/23/2019 11:22:26 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 10 size-sel DNA

Number of peaks found: 7 Corr. Area 1: 1,133.1
 Noise: 0.4

Peak table for sample 3 : 10 size-sel DNA

| 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 | 223 | 64.84 | 440.0 | | 62.84 |
| 3 | 239 | 71.90 | 456.3 | | 64.27 |
| 4 | 351 | 0.81 | 3.5 | | 74.02 |
| 5 | 813 | 7.60 | 14.2 | | 92.77 |
| 6 | 2,932 | 11.79 | 6.1 | | 104.21 |
| 7 | 9,943 | 59.77 | 9.1 | | 112.56 |
| 8 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |
| 9 | 22,048 | 0.00 | 0.0 | | 124.62 |

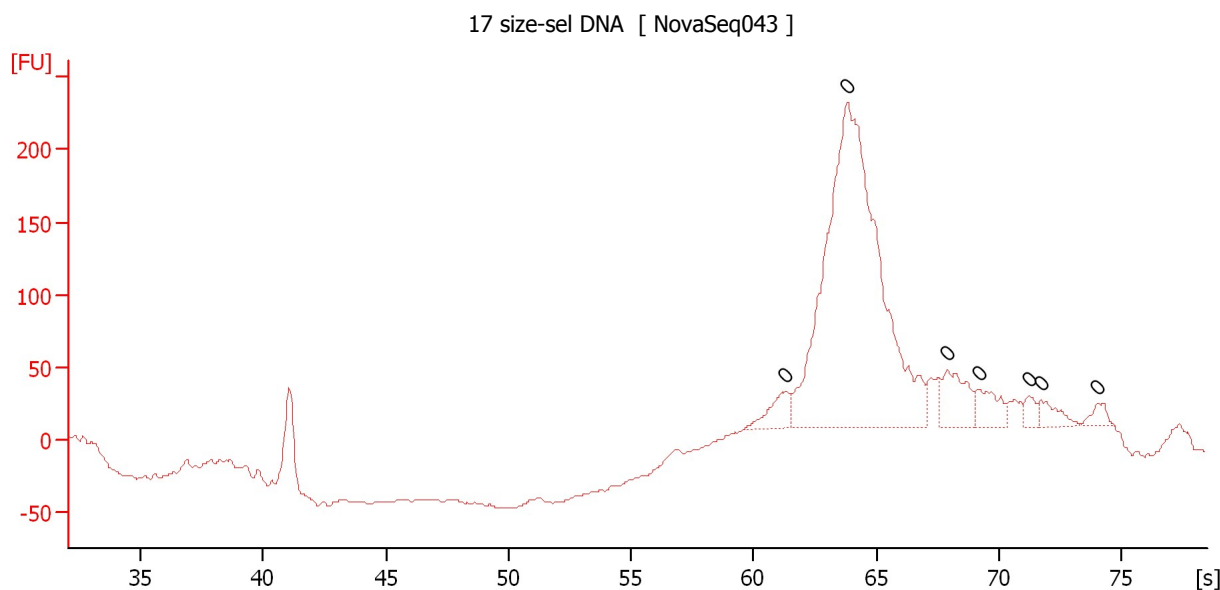
Region table for sample 3 : 10 size-sel DNA

| From [bp] | To [bp] | Average Size [bp] | Conc. [pg/μl] | Corr. Area | Molarity [pmol/l] | Co % of lor Total | Size distribution in CV [%] |
|-----------|---------|-------------------|---------------|------------|-------------------|-------------------|-----------------------------|
| 132 | 397 | 235 | 140.39 | 1,133.1 | 935.4 | 53 | 17.0 |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-23\2019-05-23_002.xad

Created: 5/23/2019 11:01:54 AM
 Modified: 5/23/2019 11:22:26 AM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 4 : 17 size-sel DNA

End Analysis Time Range [s] : 78.45

Overall Results for sample 4 : 17 size-sel DNA

Number of peaks found: 0 Noise: 1.6

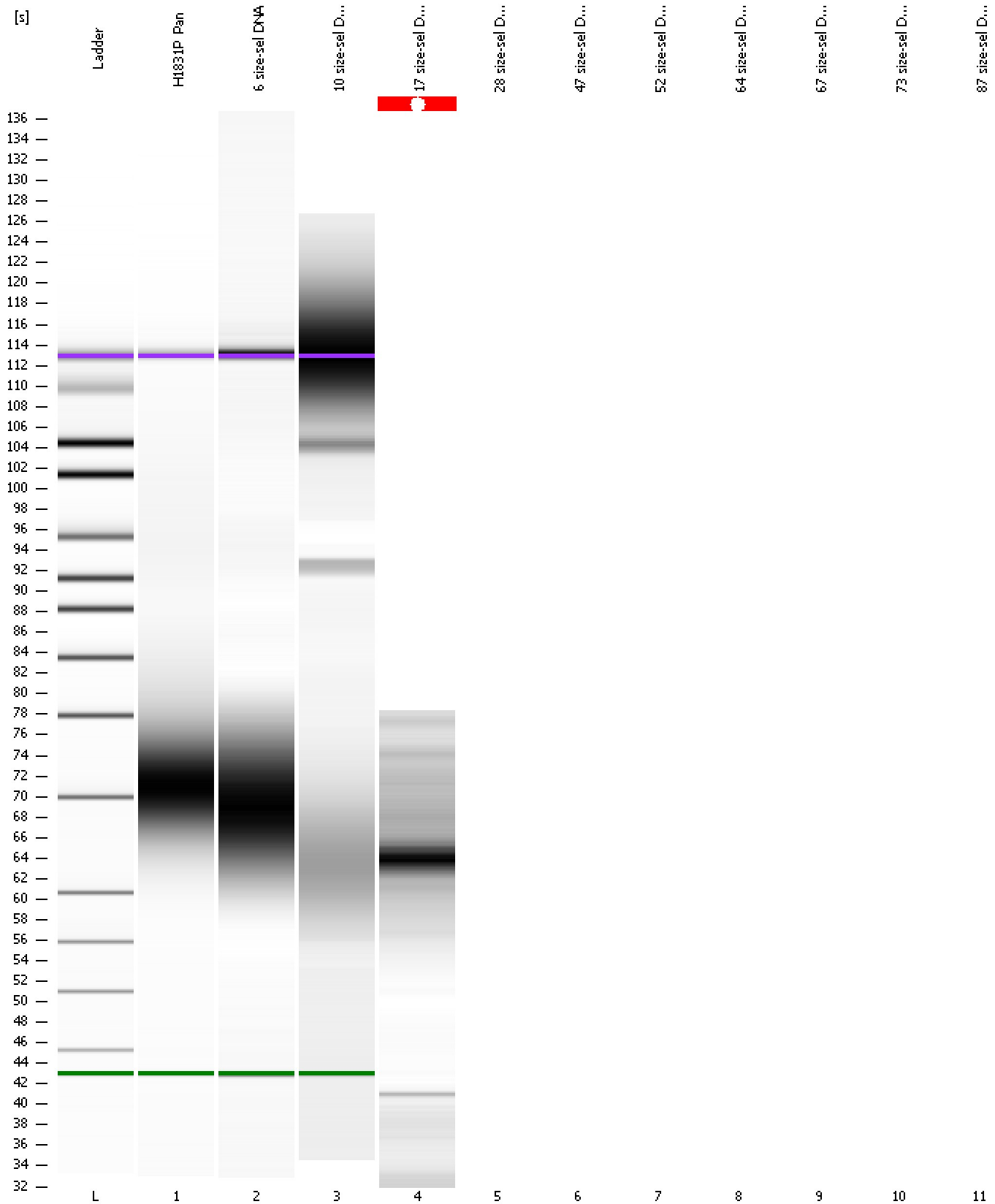
Peak table for sample 4 : 17 size-sel DNA

| Pea k | Size [bp] | Conc. [pg/ μ l] | Molarity [pmol/l] | Observations | Aligned Migration Time [s] |
|----------|-----------|---------------------|-------------------|--------------|----------------------------|
| 1 | 0 | 0.00 | 0.0 | | 61.25 |
| 2 | 0 | 0.00 | 0.0 | | 63.80 |
| 3 | 0 | 0.00 | 0.0 | | 67.90 |
| 4 | 0 | 0.00 | 0.0 | | 69.15 |
| 5 | 0 | 0.00 | 0.0 | | 71.25 |
| 6 | 0 | 0.00 | 0.0 | | 71.75 |
| 7 | 0 | 0.00 | 0.0 | | 74.00 |

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-23\2019-05-23_002.xad

Created: 5/23/2019 11:01:54 AM
Modified: 5/23/2019 11:22:26 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-23\2019-05-23_002.xad

Created: 5/23/2019 11:01:54 AM
Modified: 5/23/2019 11:22:26 AM

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
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-23\2019-05-23_002.xad

Created: 5/23/2019 11:01:54 AM
 Modified: 5/23/2019 11:22:26 AM

Run Logbook

| Description | Number | Source | Category | Sub Category | Time | Time Zone | User | Host |
|--|--------|------------|----------|--------------|-----------------------|-------------------------------------|----------|----------|
| Run aborted on port 1 | | Instrument | Run | | 5/23/2019 11:22:25 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\2019-05-23\2019-05-23_002.xad) | | Instrument | Run | | 5/23/2019 11:01:59 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938C | | Instrument | Run | | 5/23/2019 11:01:59 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name : | | Instrument | Run | | 5/23/2019 11:01:59 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies | | Instrument | Run | | 5/23/2019 11:01:59 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE34903152 | | Instrument | Run | | 5/23/2019 11:01:59 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069 | | Instrument | Run | | 5/23/2019 11:01:59 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode | | Instrument | Run | | 5/23/2019 11:01:59 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |