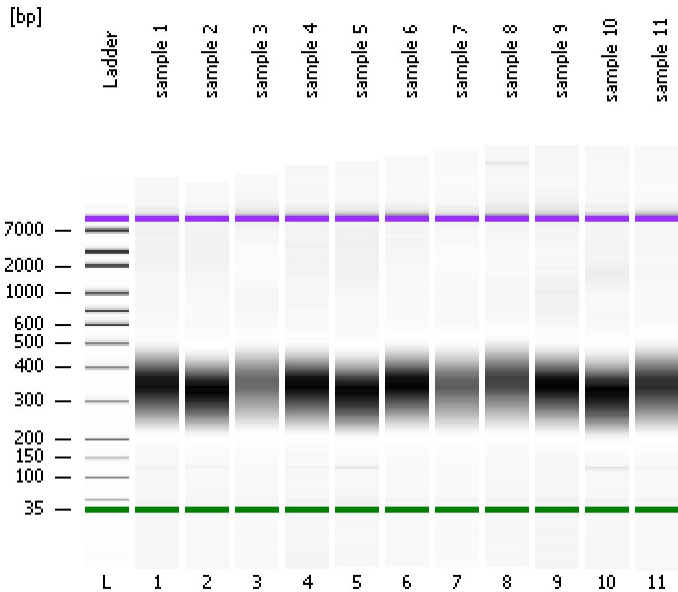


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
Modified: 1/27/2017 12:04:33 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

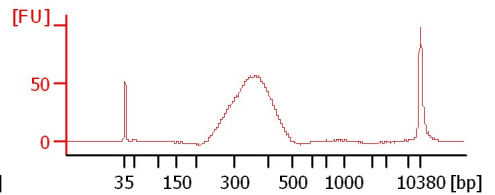
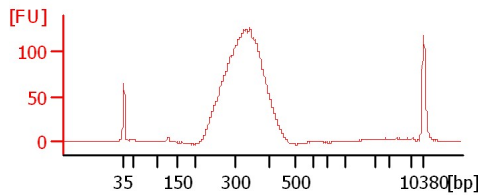
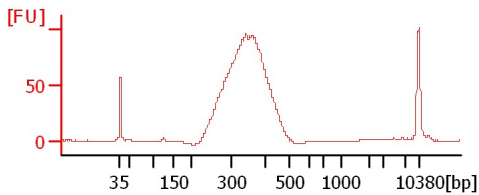
Chip Information:

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

sample 1

sample 2

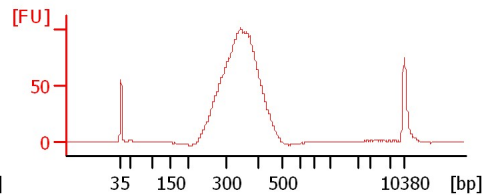
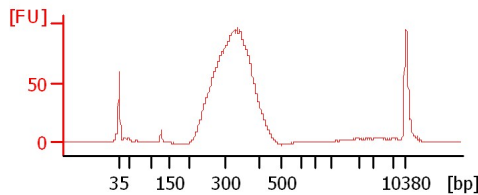
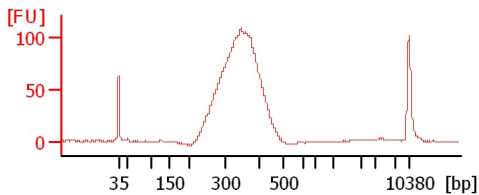
sample 3



sample 4

sample 5

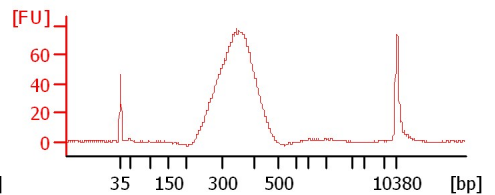
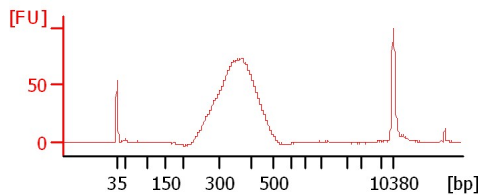
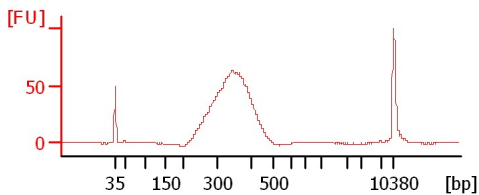
sample 6



sample 7

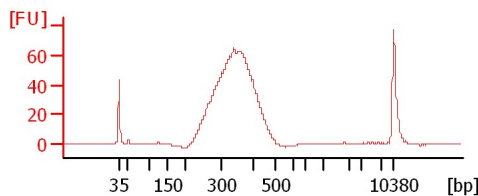
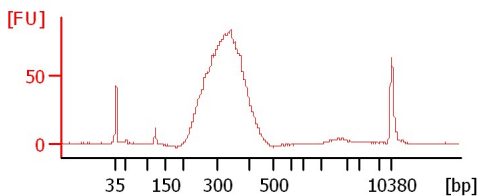
sample 8

sample 9



sample 10

sample 11



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
Modified: 1/27/2017 12:04:33 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1		<input type="checkbox"/>	✓			
sample 2		<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\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
Modified: 1/27/2017 12:04:33 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

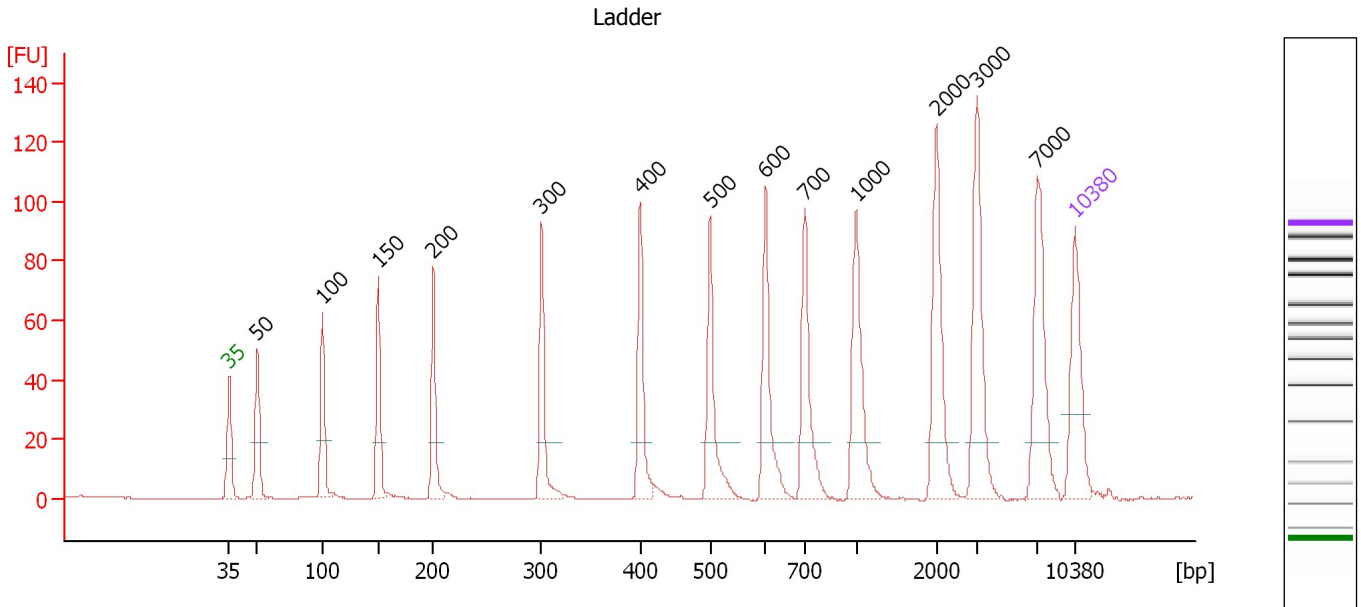
Ladder

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\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
 Modified: 1/27/2017 12:04:33 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

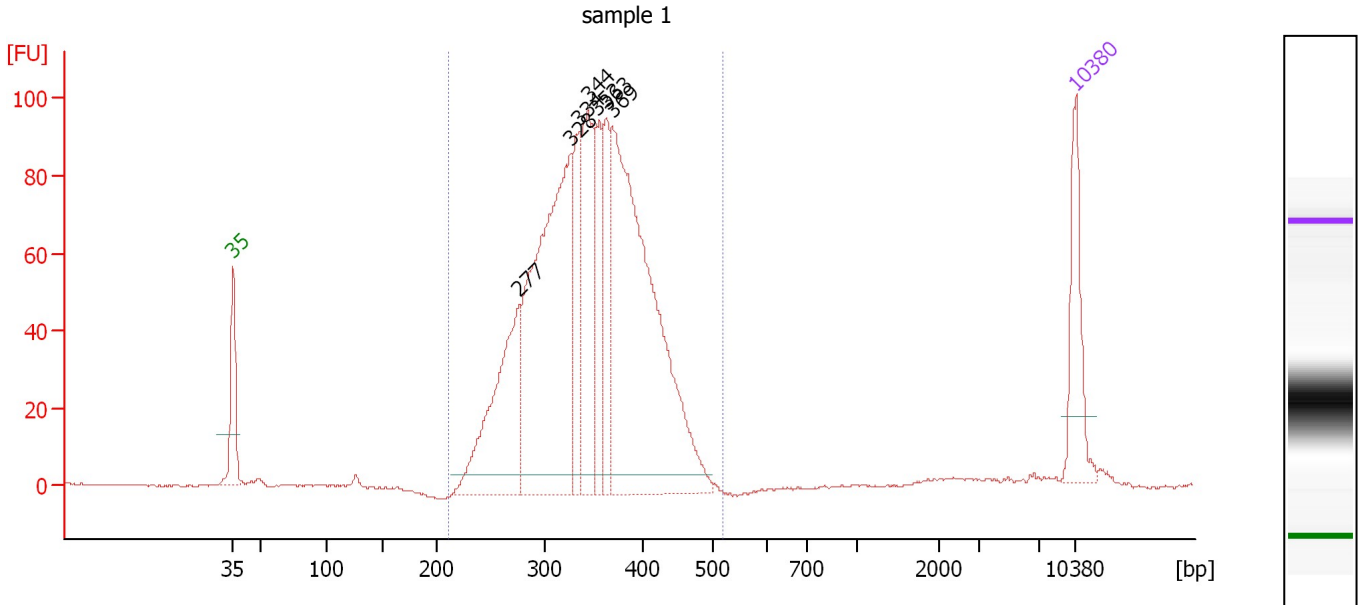
Peak table for Ladder

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	45.34
3	100	150.00	2,272.7	Ladder Peak	50.72
4	150	150.00	1,515.2	Ladder Peak	55.36
5	200	150.00	1,136.4	Ladder Peak	59.90
6	300	150.00	757.6	Ladder Peak	68.86
7	400	150.00	568.2	Ladder Peak	77.03
8	500	150.00	454.5	Ladder Peak	82.81
9	600	150.00	378.8	Ladder Peak	87.40
10	700	150.00	324.7	Ladder Peak	90.67
11	1,000	150.00	227.3	Ladder Peak	94.90
12	2,000	150.00	113.6	Ladder Peak	101.57
13	3,000	150.00	75.8	Ladder Peak	104.88
14	7,000	150.00	32.5	Ladder Peak	109.91
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
 Modified: 1/27/2017 12:04:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 7 Corr. Area 1: 1,475.0
 Noise: 0.2

Peak table for sample 1 : sample 1

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	277	267.20	1,463.1		66.78
3	328	552.74	2,556.6		71.12
4	334	119.37	541.4		71.65
5	344	197.86	870.5		72.49
6	353	111.08	476.7		73.20
7	363	101.91	425.6		73.99
8	369	653.42	2,684.6		74.48
9	10,380	75.00	10.9	Upper Marker	113.00

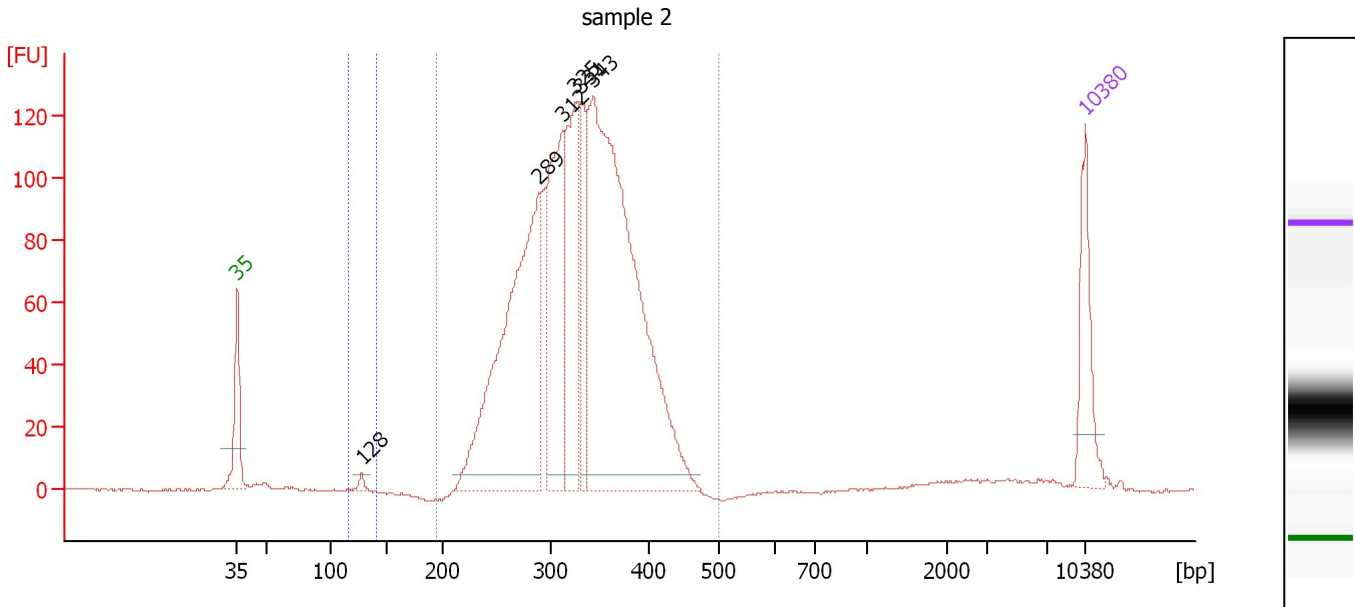
Region table for sample 1 : sample 1

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
211	519	346	1,475.0	8,635.2	1,911.87	98	15.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
 Modified: 1/27/2017 12:04:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 6 Corr. Area 1: 1,880.9
 Noise: 0.4 Corr. Area 2: 4.5

Peak table for sample 2 : sample 2

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	128	8.50	100.8		53.30
3	289	603.91	3,168.5		67.86
4	312	280.08	1,358.1		69.88
5	325	231.60	1,078.4		70.94
6	331	117.78	539.5		71.38
7	343	929.71	4,104.6		72.39
8	10,380	75.00	10.9	Upper Marker	113.00

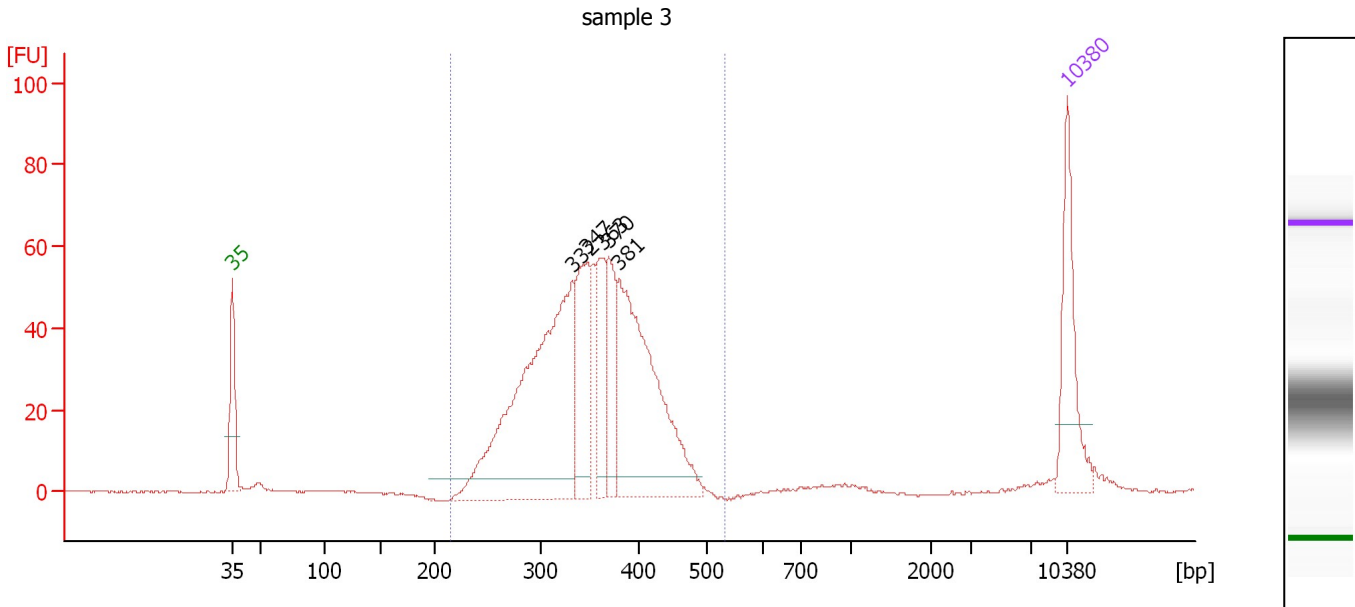
Region table for sample 2 : sample 2

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
116	141	127	4.5	82.5	6.93	0	1.7
195	500	328	1,880.9	10,657.6	2,239.85	97	14.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
 Modified: 1/27/2017 12:04:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 5 Corr. Area 1: 857.2
 Noise: 0.2

Peak table for sample 3 : sample 3

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	332	434.74	1,984.2		71.47
3	347	118.54	517.2		72.73
4	363	77.52	323.9		73.98
5	370	77.54	317.7		74.56
6	381	292.62	1,164.6		75.45
7	10,380	75.00	10.9	Upper Marker	113.00

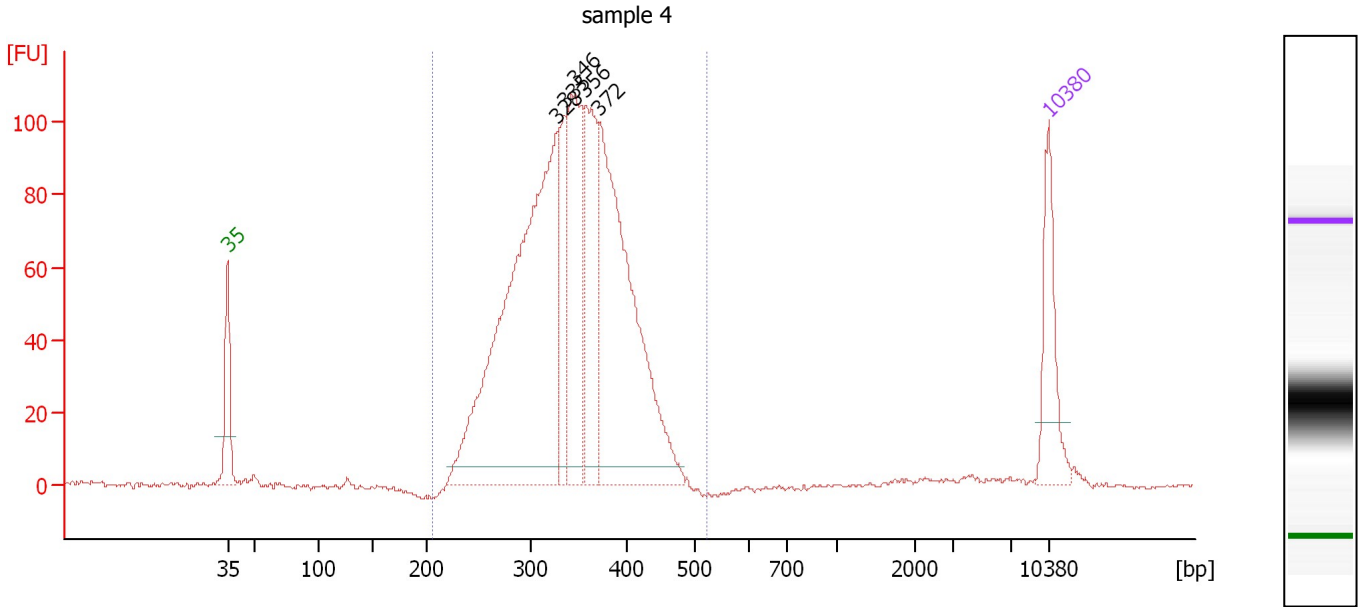
Region table for sample 3 : sample 3

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
216	534	351	857.2	4,518.0	1,014.36	97	14.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
 Modified: 1/27/2017 12:04:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 5 Corr. Area 1: 1,576.4
 Noise: 0.6

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	328	749.04	3,459.5		71.15
3	335	95.32	430.7		71.75
4	346	239.69	1,048.3		72.66
5	356	185.51	788.5		73.47
6	372	478.65	1,949.2		74.75
7	10,380	75.00	10.9	Upper Marker	113.00

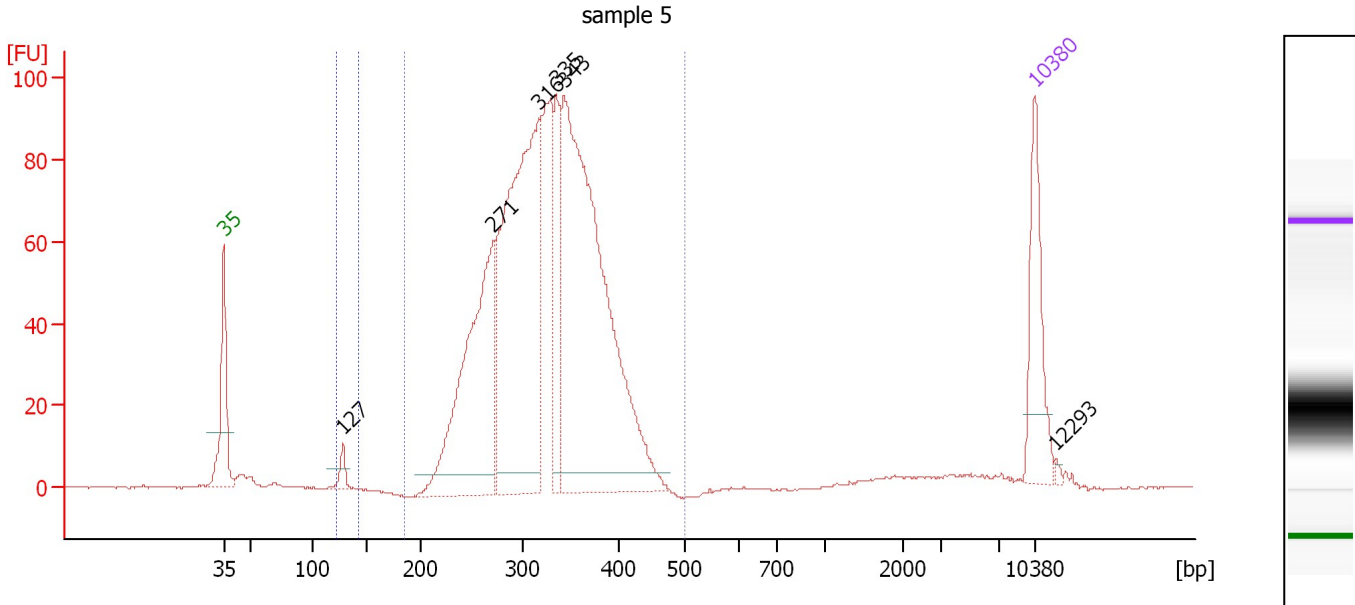
Region table for sample 4 : sample 4

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
207	523	342	1,576.4	8,313.7	1,820.89	98	14.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
 Modified: 1/27/2017 12:04:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 6 Corr. Area 1: 1,443.9
 Noise: 0.2 Corr. Area 2: 9.4

Peak table for sample 5 : sample 5

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	127	17.23	204.9		53.26
3	271	343.41	1,918.3		66.29
4	316	535.31	2,563.8		70.20
5	335	101.35	458.5		71.72
6	343	658.20	2,908.8		72.36
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,293	0.00	0.0		114.75

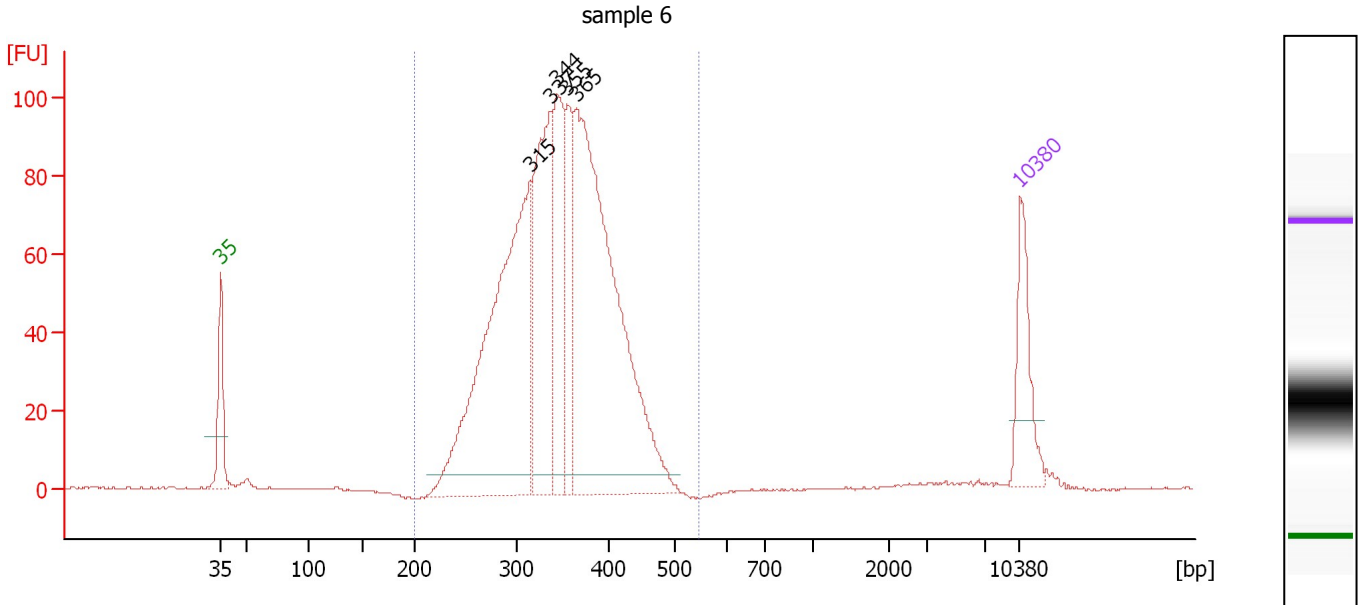
Region table for sample 5 : sample 5

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
121	142	127	9.4	174.7	14.67	1	1.7
186	499	324	1,443.9	8,387.4	1,742.60	96	14.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
 Modified: 1/27/2017 12:04:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 5 Corr. Area 1: 1,448.5
 Noise: 0.2

Peak table for sample 6 : sample 6

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	315	663.11	3,190.0		70.08
3	337	314.98	1,417.5		71.86
4	344	201.96	889.2		72.47
5	355	117.90	503.2		73.35
6	365	737.56	3,064.1		74.15
7	10,380	75.00	10.9	Upper Marker	113.00

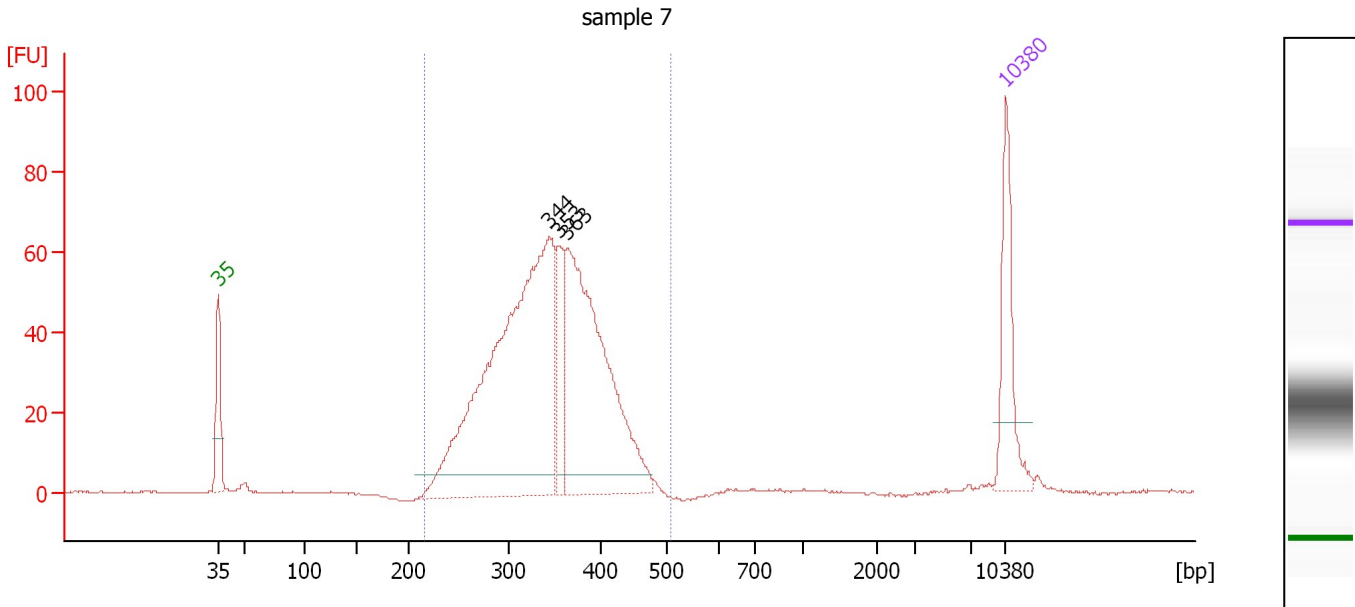
Region table for sample 6 : sample 6

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
201	544	346	1,448.5	8,996.6	1,994.53	99	14.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
 Modified: 1/27/2017 12:04:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 3 Corr. Area 1: 926.8
 Noise: 0.2

Peak table for sample 7 : sample 7

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	344	662.35	2,920.0		72.43
3	353	72.37	310.7		73.19
4	363	401.35	1,673.3		74.04
5	10,380	75.00	10.9	Upper Marker	113.00

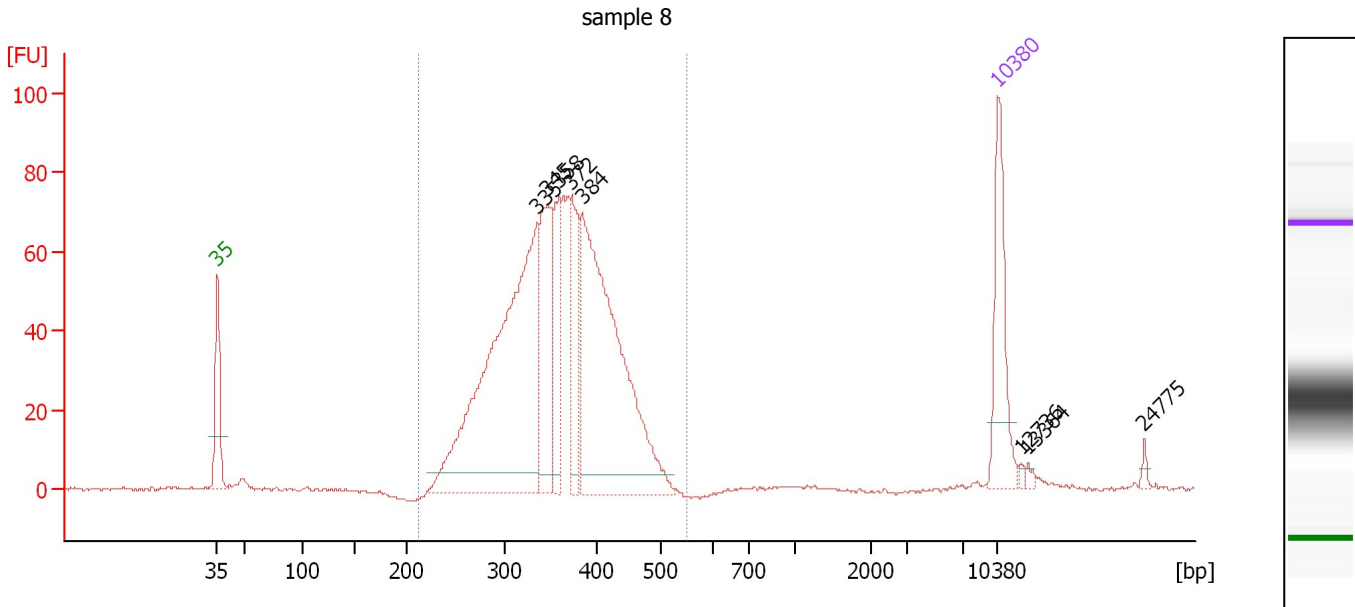
Region table for sample 7 : sample 7

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
215	508	342	926.8	5,299.5	1,159.94	98	15.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
 Modified: 1/27/2017 12:04:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 8 Corr. Area 1: 1,118.8
 Noise: 0.4

Peak table for sample 8 : sample 8

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	335	526.09	2,380.6		71.71
3	345	134.33	589.3		72.57
4	358	89.10	376.8		73.62
5	372	96.10	391.7		74.72
6	384	419.27	1,654.1		75.73
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,736	0.00	0.0		115.15
9	13,364	0.00	0.0		115.73
10	24,775	0.00	0.0		126.16

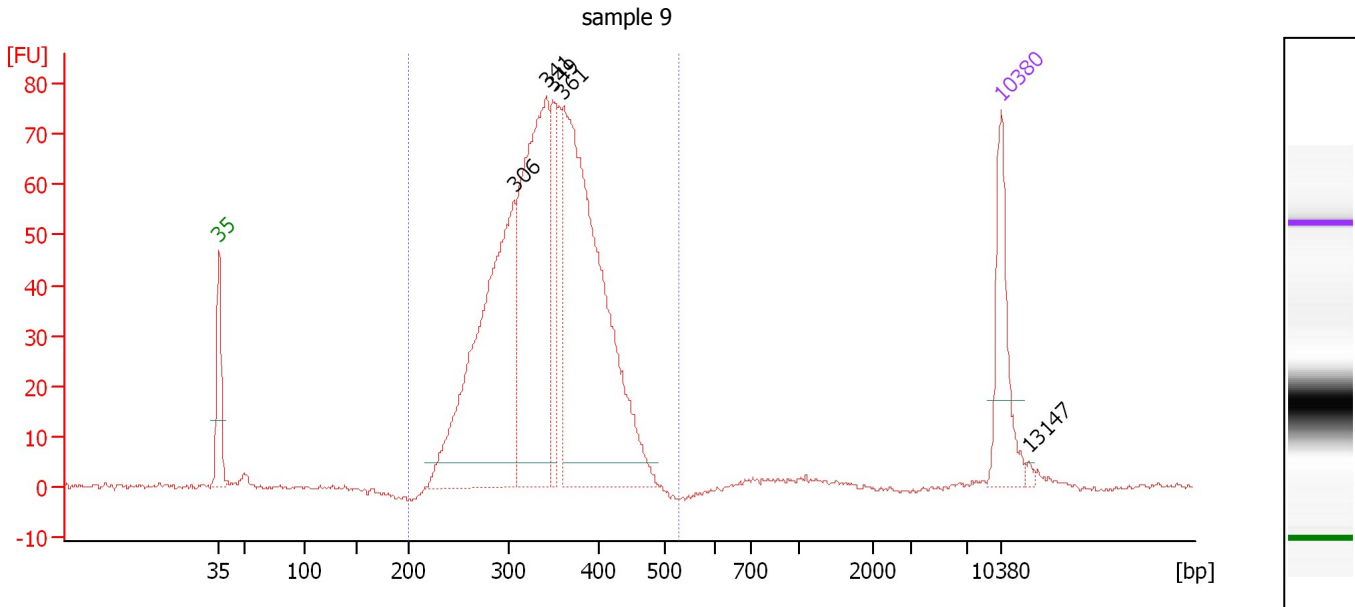
Region table for sample 8 : sample 8

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
212	552	357	1,118.8	5,920.7	1,350.26	97	15.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
 Modified: 1/27/2017 12:04:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 5 Corr. Area 1: 1,106.4
 Noise: 0.5

Peak table for sample 9 : sample 9

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	473.25	2,340.2		69.39
3	341	410.93	1,823.3		72.25
4	349	98.66	428.2		72.87
5	361	584.14	2,453.3		73.82
6	10,380	75.00	10.9	Upper Marker	113.00
7	13,147	0.00	0.0		115.53

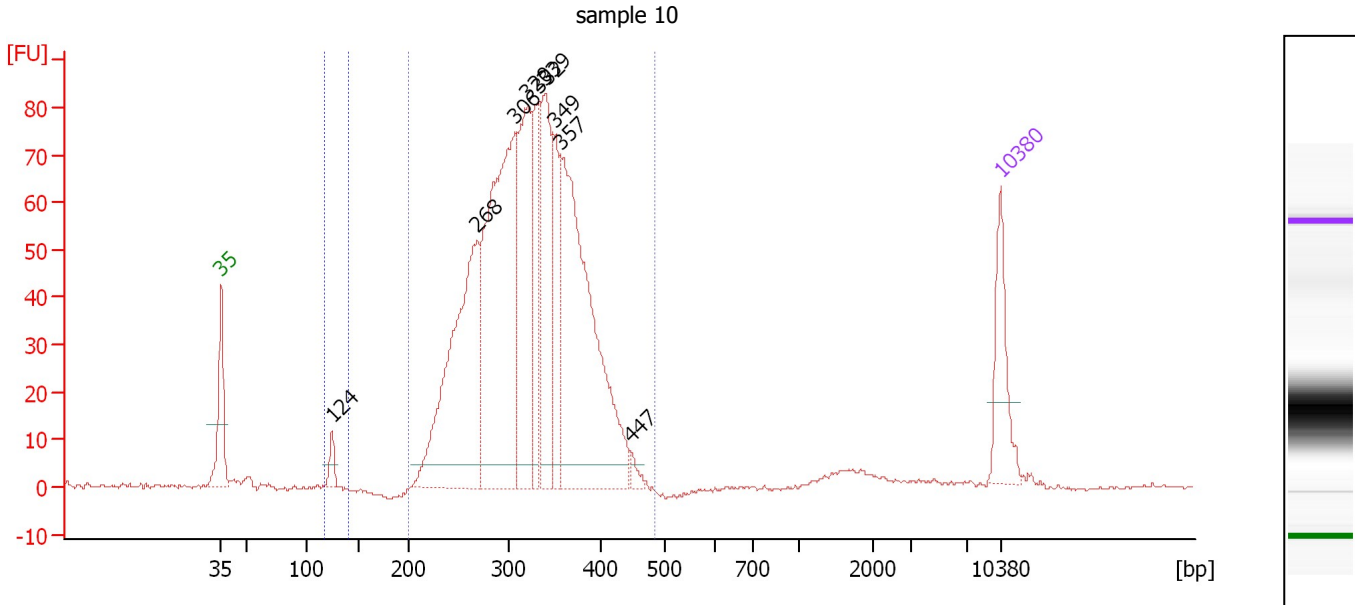
Region table for sample 9 : sample 9

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	528	343	1,106.4	7,400.4	1,624.98	97	14.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
 Modified: 1/27/2017 12:04:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 9 Corr. Area 1: 1,258.4
 Noise: 0.4 Corr. Area 2: 10.1

Peak table for sample 10 : sample 10

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	124	26.11	318.7		52.96
3	268	475.68	2,685.6		66.03
4	306	598.90	2,962.1		69.38
5	320	271.00	1,283.8		70.48
6	332	140.71	641.9		71.49
7	339	216.44	968.5		72.02
8	349	112.95	490.2		72.88
9	357	559.50	2,372.2		73.55
10	447	12.35	41.8		79.77
11	10,380	75.00	10.9	Upper Marker	113.00

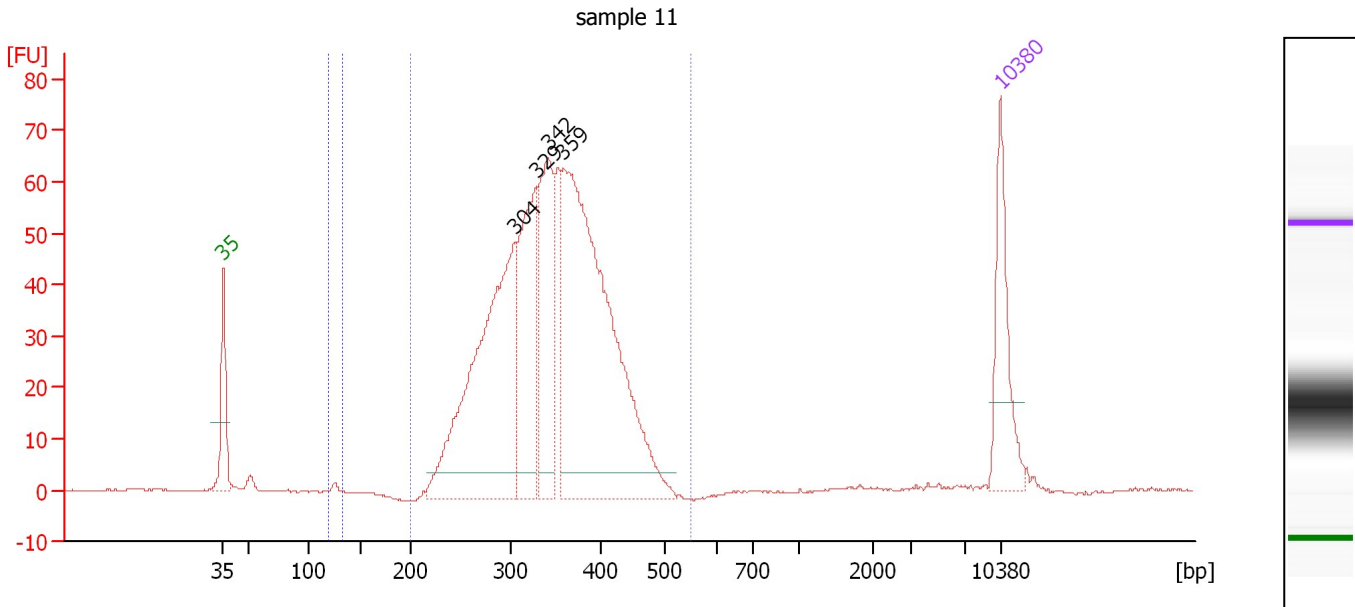
Region table for sample 10 : sample 10

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
118	140	124	10.1	308.4	25.20	1	1.7
200	485	322	1,258.4	11,857.1	2,442.31	96	15.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
 Modified: 1/27/2017 12:04:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found: 4 Corr. Area 1: 985.5
 Noise: 0.1 Corr. Area 2: 1.2

Peak table for sample 11 : sample 11

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	304	438.78	2,187.4		69.18
3	329	201.72	930.0		71.20
4	342	182.92	811.4		72.26
5	359	595.96	2,517.7		73.65
6	10,380	75.00	10.9	Upper Marker	113.00

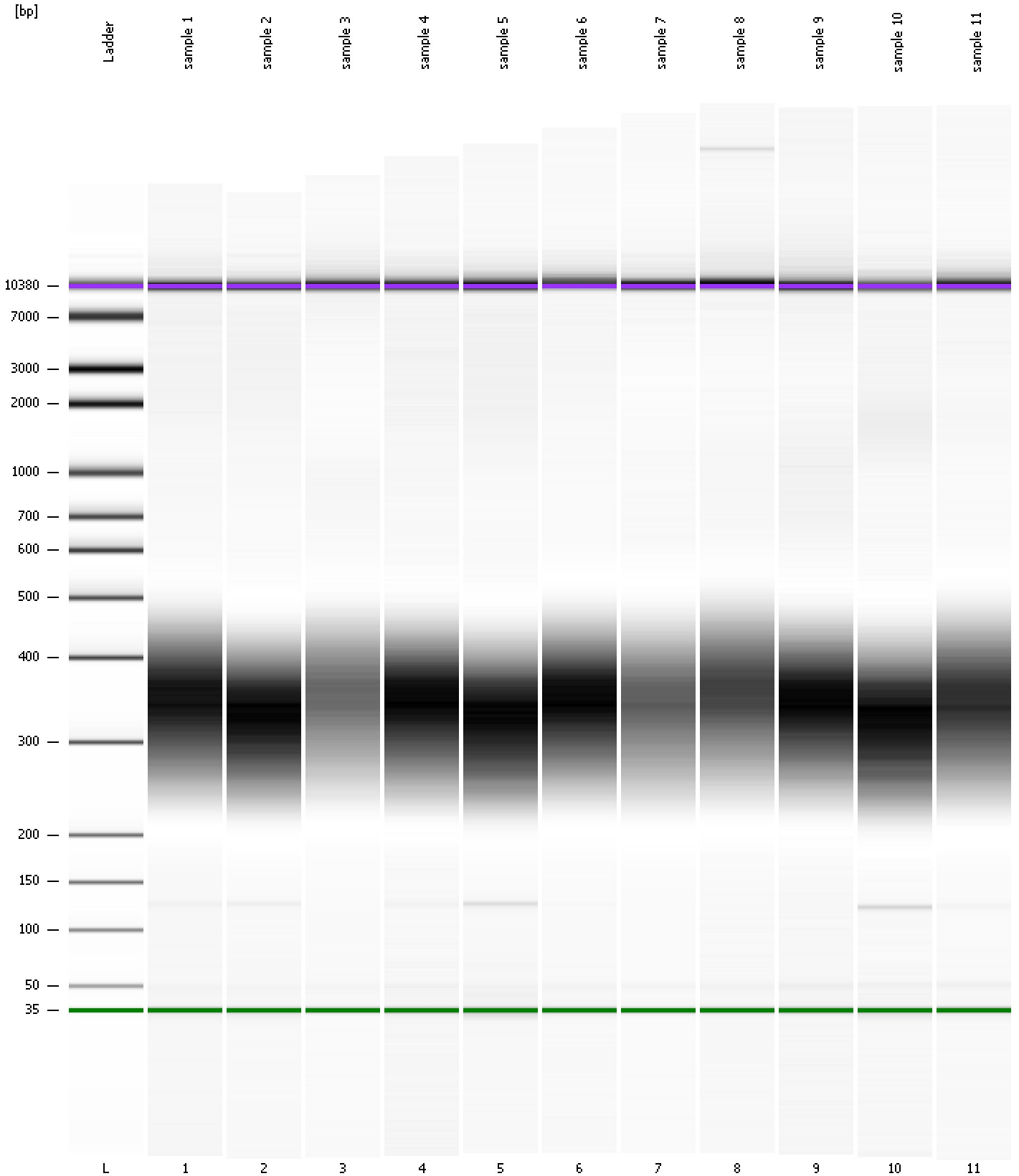
Region table for sample 11 : sample 11

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
119	134	125	1.2	27.8	2.29	0	1.3
200	551	345	985.5	6,449.6	1,417.63	98	15.8

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
Modified: 1/27/2017 12:04:33 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad

Created: 1/27/2017 11:15:15 AM
 Modified: 1/27/2017 12:04:33 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 12)		Instrument	Run		1/27/2017 11:56:34 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2017-01-27\2017-01-27_001.xad)		Instrument	Run		1/27/2017 11:15:21 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/27/2017 11:15:21 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/27/2017 11:15:21 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/27/2017 11:15:21 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/27/2017 11:15:21 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/27/2017 11:15:21 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/27/2017 11:15:21 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1