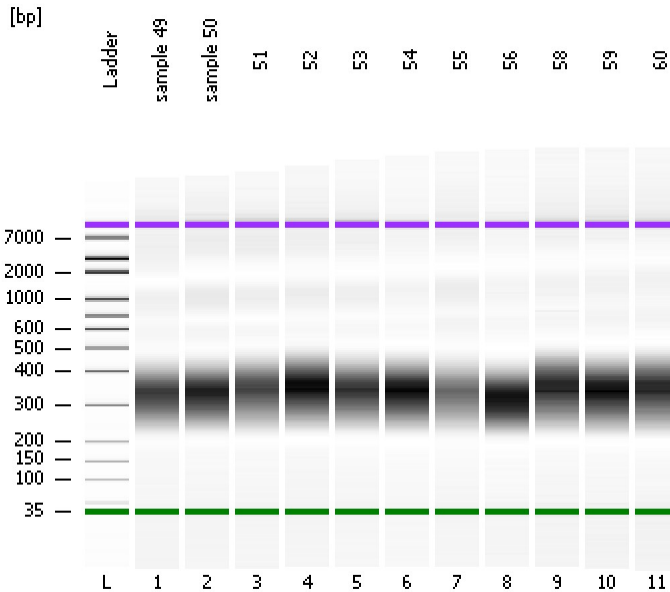


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
Modified: 4/4/2016 10:14:24 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

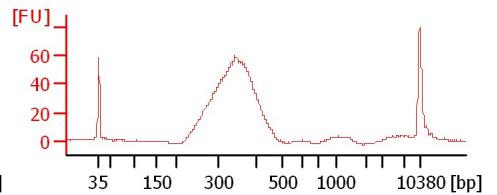
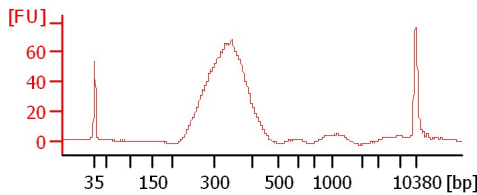
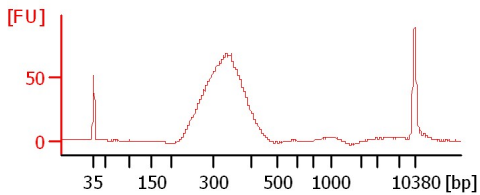
Chip Information:

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

sample 49

sample 50

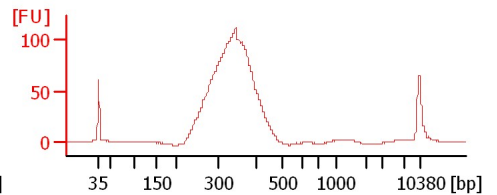
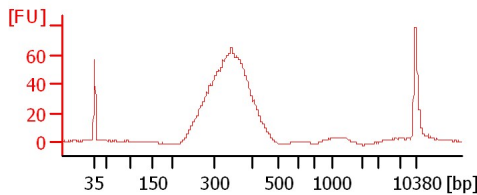
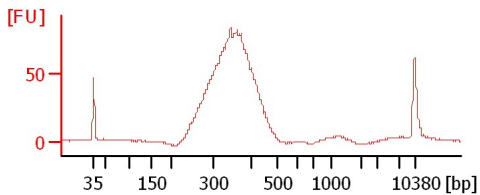
51



52

53

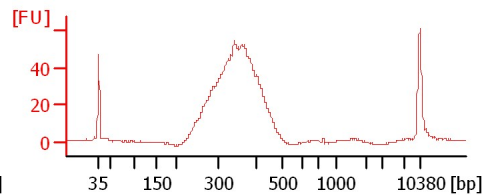
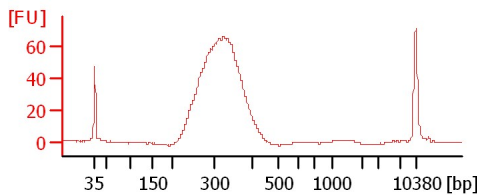
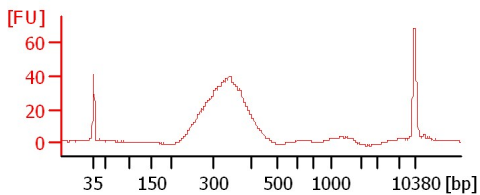
54



55

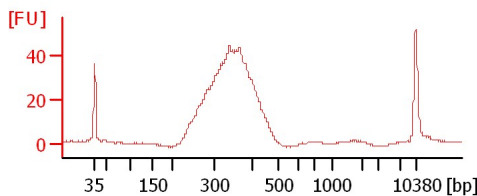
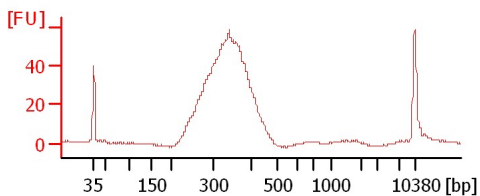
56

58



59

60



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
Modified: 4/4/2016 10:14:24 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 49		<input type="checkbox"/>	✓			
sample 50		<input type="checkbox"/>	✓			
51		<input type="checkbox"/>	✓			
52		<input type="checkbox"/>	✓			
53		<input type="checkbox"/>	✓			
54		<input type="checkbox"/>	✓			
55		<input type="checkbox"/>	✓			
56		<input type="checkbox"/>	✓			
58		<input type="checkbox"/>	✓			
59		<input type="checkbox"/>	✓			
60		<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\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
Modified: 4/4/2016 10:14:24 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

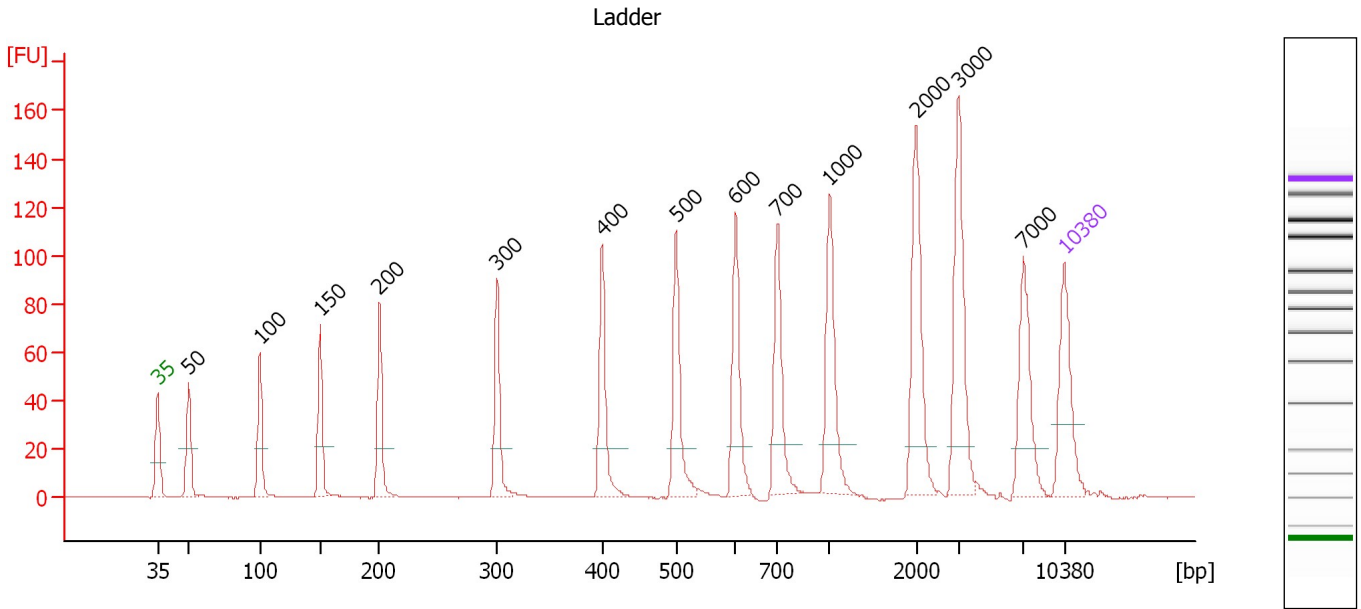
Ladder

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\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
 Modified: 4/4/2016 10:14:24 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

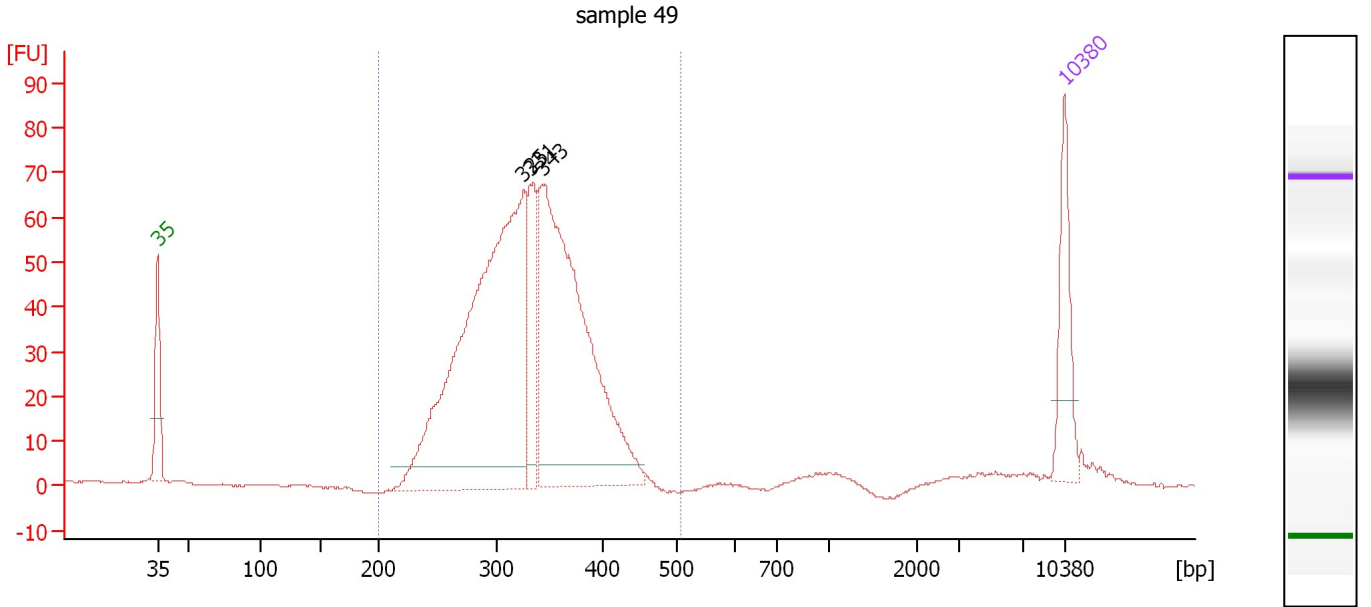
Peak table for Ladder

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	50.90
4	150	150.00	1,515.2	Ladder Peak	55.55
5	200	150.00	1,136.4	Ladder Peak	60.12
6	300	150.00	757.6	Ladder Peak	69.22
7	400	150.00	568.2	Ladder Peak	77.33
8	500	150.00	454.5	Ladder Peak	83.01
9	600	150.00	378.8	Ladder Peak	87.63
10	700	150.00	324.7	Ladder Peak	90.86
11	1,000	150.00	227.3	Ladder Peak	94.90
12	2,000	150.00	113.6	Ladder Peak	101.56
13	3,000	150.00	75.8	Ladder Peak	104.84
14	7,000	150.00	32.5	Ladder Peak	109.85
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
 Modified: 4/4/2016 10:14:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 49

Number of peaks found: 3 Corr. Area 1: 936.8
 Noise: 0.2

Peak table for sample 1 : sample 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	325	792.17	3,694.9		71.23
3	331	109.26	499.4		71.77
4	343	614.63	2,719.0		72.67
5	10,380	75.00	10.9	Upper Marker	113.00

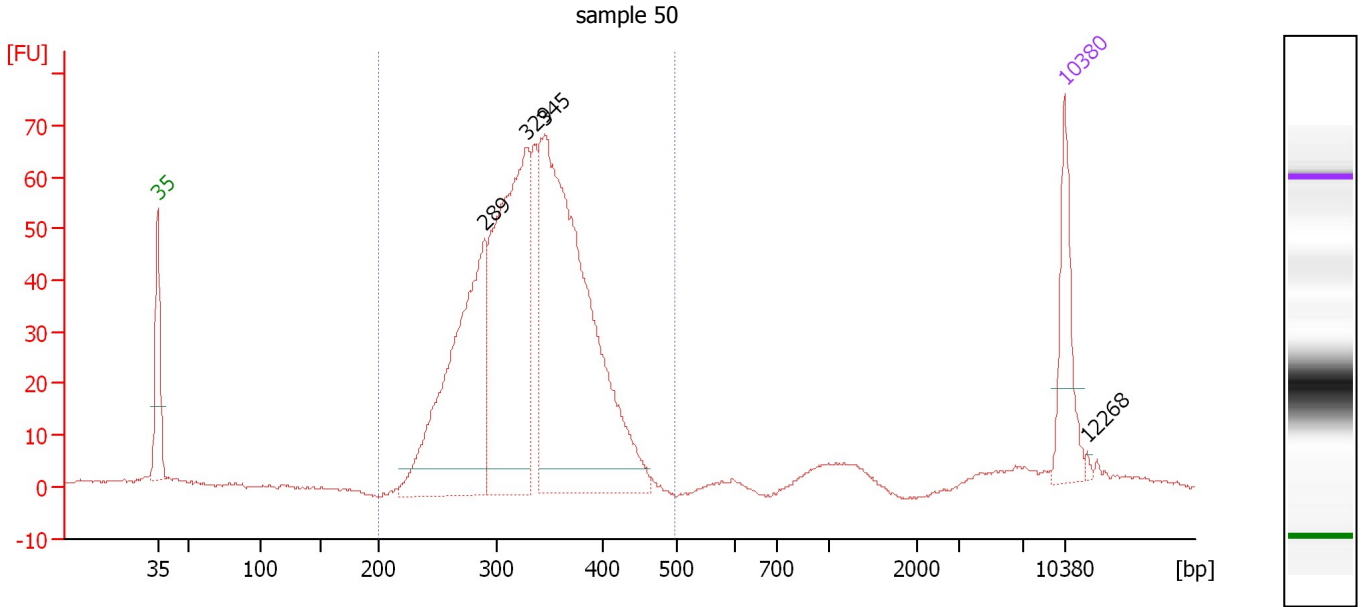
Region table for sample 1 : sample 49

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	508	328	936.8	7,201.2	1,520.87	95	13.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
 Modified: 4/4/2016 10:14:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 50

Number of peaks found: 4 Corr. Area 1: 935.3
 Noise: 0.3

Peak table for sample 2 : sample 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	289	430.53	2,253.6		68.26
3	329	476.29	2,195.1		71.55
4	345	717.35	3,146.6		72.90
5	10,380	75.00	10.9	Upper Marker	113.00
6	12,268	0.00	0.0		114.76

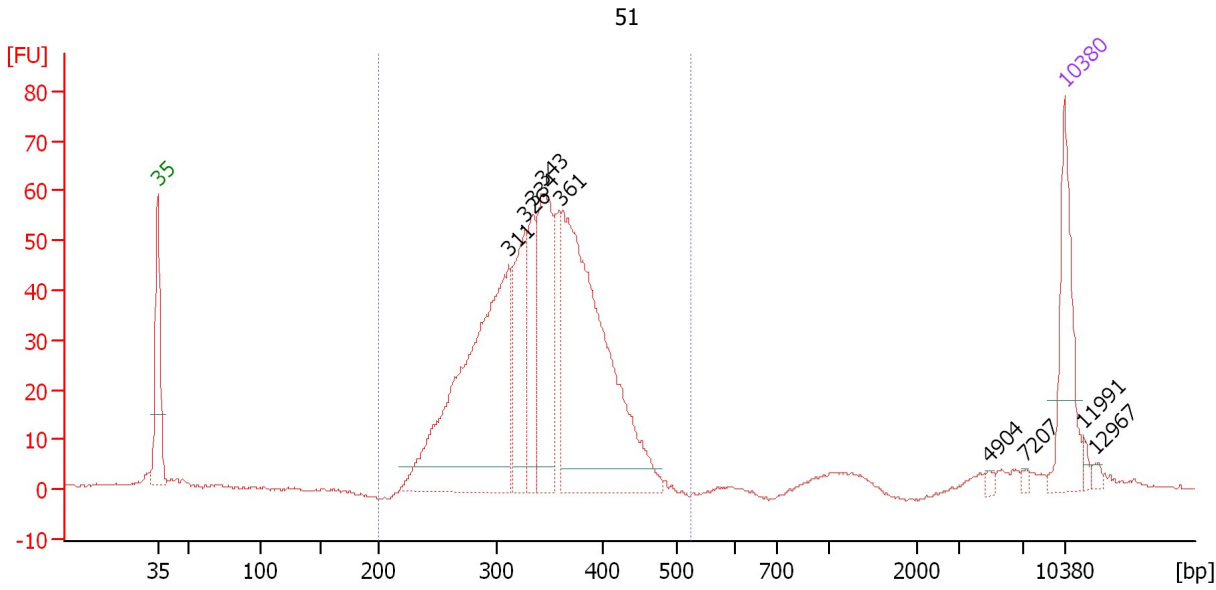
Region table for sample 2 : sample 50

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	499	331	935.3	7,629.3	1,625.33	93	14.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
 Modified: 4/4/2016 10:14:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 51

Number of peaks found: 9 Corr. Area 1: 831.8
 Noise: 0.2

Peak table for sample 3 : 51

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	311	436.93	2,128.8		70.11
3	326	127.09	590.5		71.34
4	334	74.77	339.2		71.97
5	343	166.57	736.0		72.70
6	361	454.68	1,909.1		74.16
7	4,904	3.43	1.1		107.22
8	7,207	3.17	0.7		110.04
9	10,380	75.00	10.9	Upper Marker	113.00
10	11,991	0.00	0.0		114.50
11	12,967	0.00	0.0		115.41

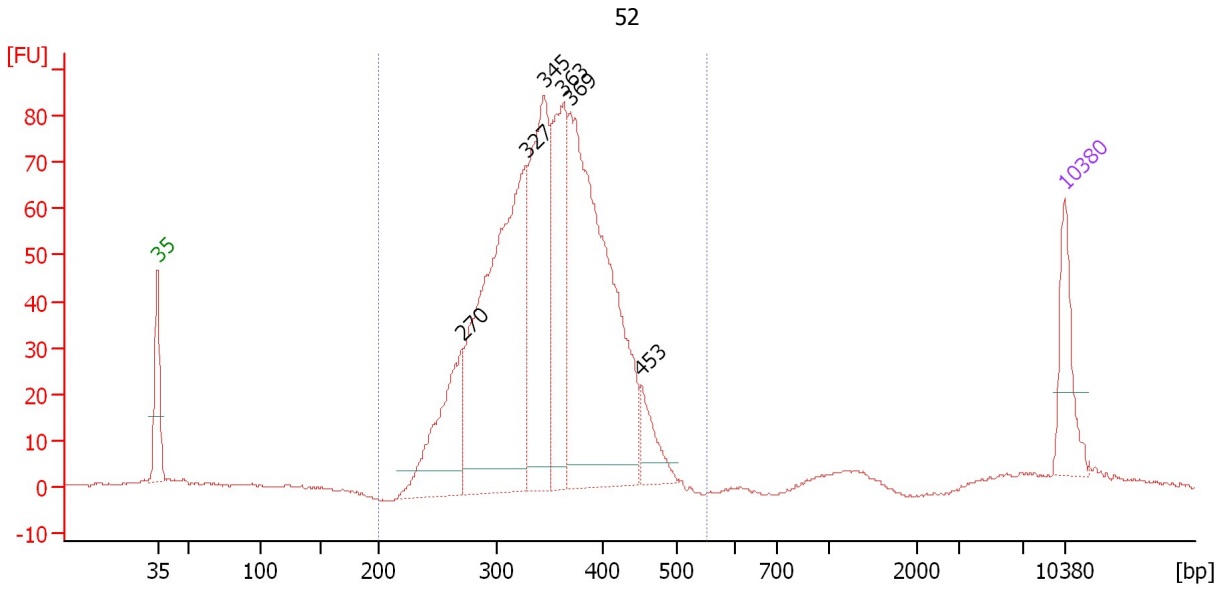
Region table for sample 3 : 51

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	524	341	831.8	5,852.4	1,277.81	94	14.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
 Modified: 4/4/2016 10:14:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 52

Number of peaks found: 6 Corr. Area 1: 1,200.1
 Noise: 0.3

Peak table for sample 4 : 52

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	270	228.90	1,282.2		66.53
3	327	710.46	3,290.0		71.42
4	345	375.37	1,649.4		72.85
5	363	267.95	1,118.4		74.33
6	369	736.37	3,021.5		74.84
7	453	64.61	216.2		80.33
8	10,380	75.00	10.9	Upper Marker	113.00

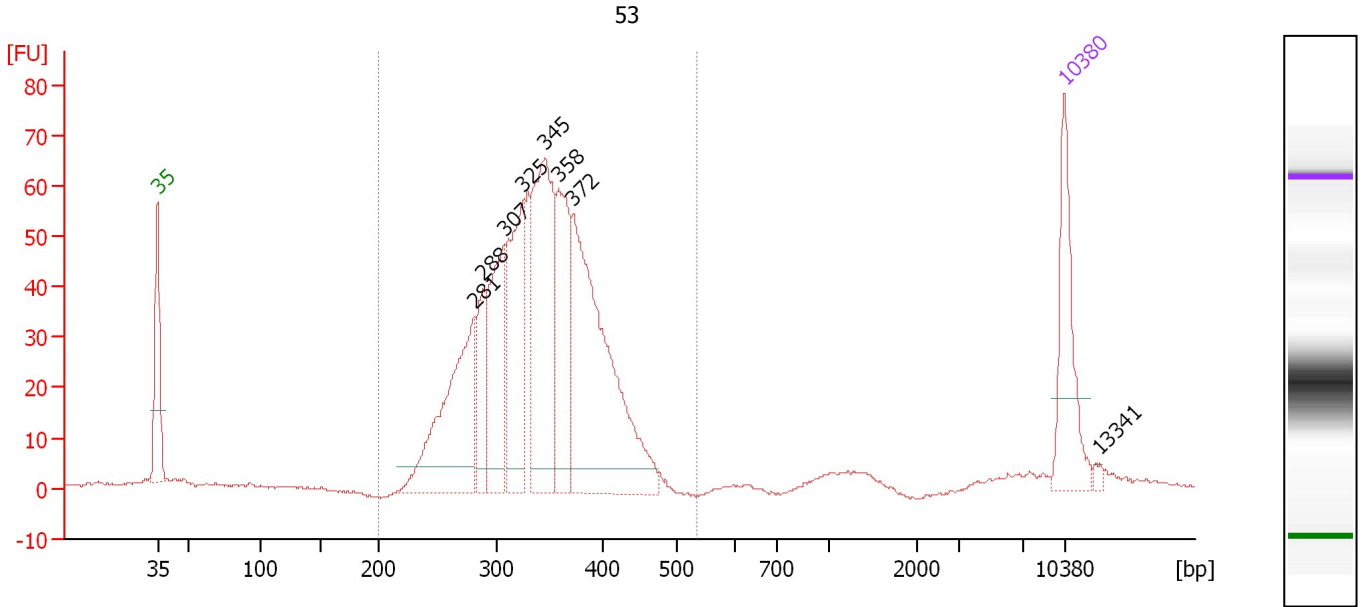
Region table for sample 4 : 52

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	551	350	1,200.1	10,473.7	2,343.05	96	15.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
 Modified: 4/4/2016 10:14:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 53

Number of peaks found: 8 Corr. Area 1: 890.5
 Noise: 0.3

Peak table for sample 5 : 53

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	281	210.89	1,138.6		67.46
3	288	68.53	360.1		68.16
4	307	135.14	668.0		69.75
5	325	152.32	710.2		71.24
6	345	230.20	1,010.6		72.88
7	358	130.16	551.2		73.91
8	372	326.52	1,329.2		75.08
9	10,380	75.00	10.9	Upper Marker	113.00
10	13,341	0.00	0.0		115.76

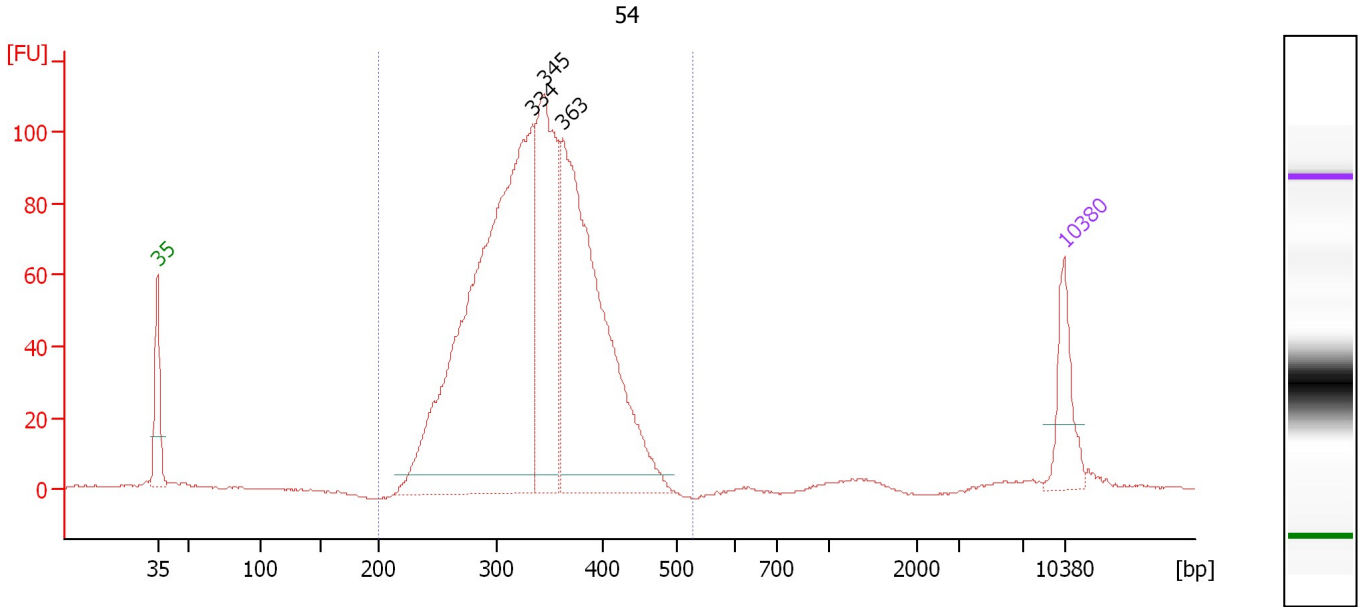
Region table for sample 5 : 53

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	534	339	890.5	5,929.3	1,290.07	93	14.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
 Modified: 4/4/2016 10:14:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 54

Number of peaks found: 3 Corr. Area 1: 1,513.9
 Noise: 0.3

Peak table for sample 6 : 54

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	334	1,238.13	5,623.7		71.94
3	345	420.21	1,847.5		72.84
4	363	776.55	3,244.7		74.30
5	10,380	75.00	10.9	Upper Marker	113.00

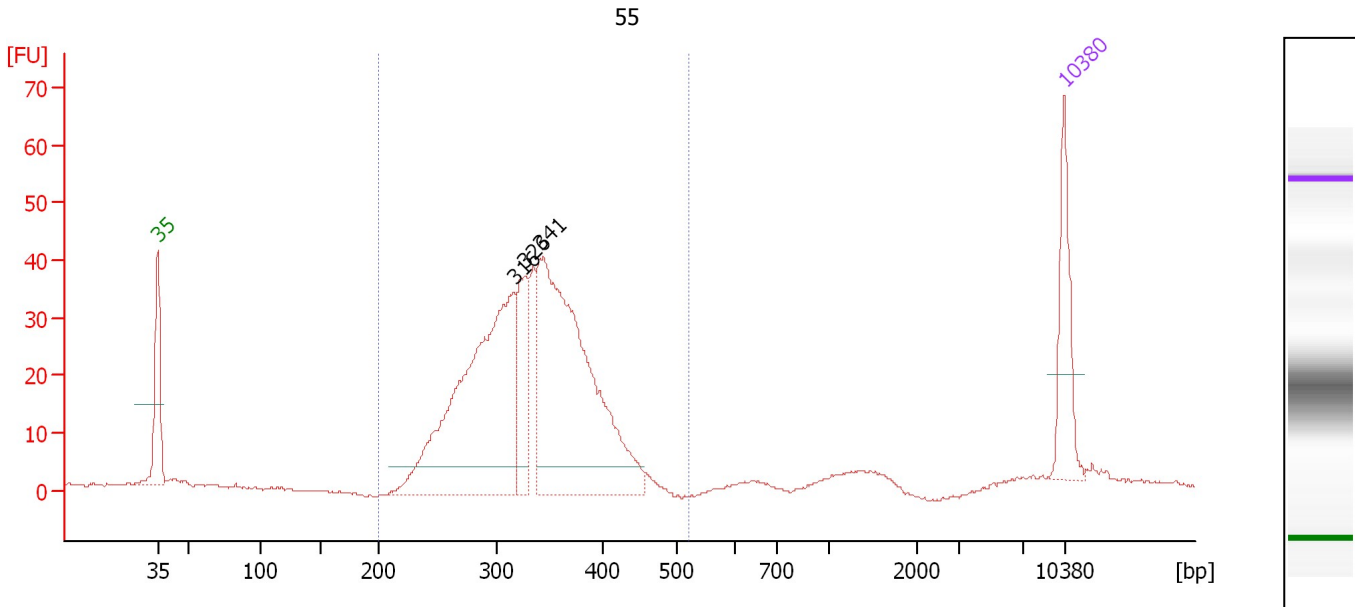
Region table for sample 6 : 54

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	337	1,513.9	11,355.9	2,455.63	98	14.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
 Modified: 4/4/2016 10:14:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 55

Number of peaks found: 3 Corr. Area 1: 534.9
 Noise: 0.3

Peak table for sample 7 : 55

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	316	522.66	2,505.4		70.52
3	326	109.73	509.8		71.33
4	341	561.36	2,495.7		72.53
5	10,380	75.00	10.9	Upper Marker	113.00

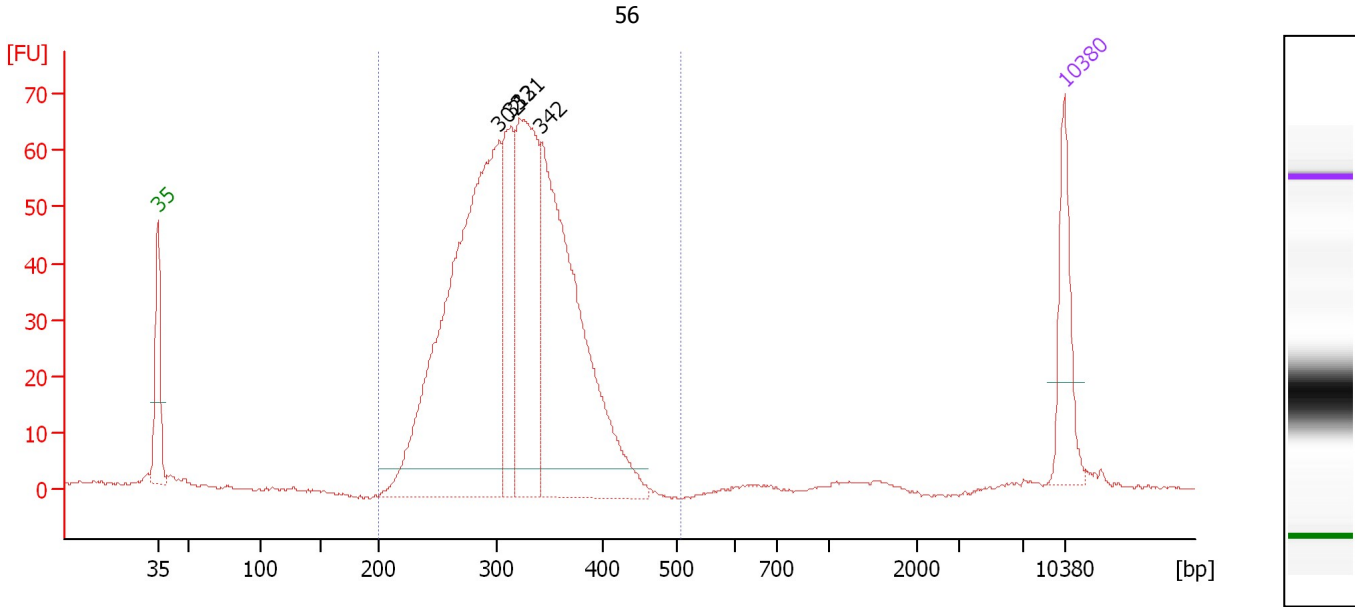
Region table for sample 7 : 55

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	520	332	534.9	5,548.5	1,182.65	93	14.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
 Modified: 4/4/2016 10:14:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 56

Number of peaks found: 4 Corr. Area 1: 941.7
 Noise: 0.3

Peak table for sample 8 : 56

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	302	816.84	4,096.7		69.39
3	313	167.25	810.3		70.25
4	321	339.71	1,603.4		70.92
5	342	547.50	2,423.4		72.65
6	10,380	75.00	10.9	Upper Marker	113.00

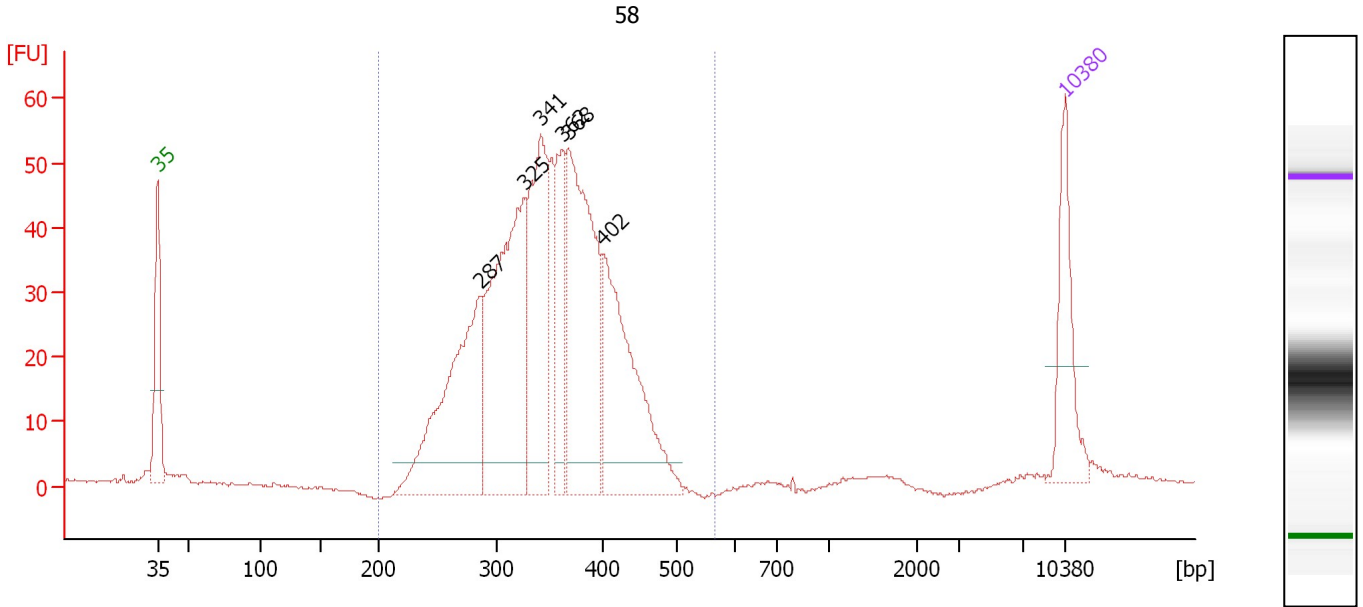
Region table for sample 8 : 56

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	507	317	941.7	8,826.4	1,799.21	97	14.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
 Modified: 4/4/2016 10:14:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 58

Number of peaks found: 6 Corr. Area 1: 783.0
 Noise: 0.2

Peak table for sample 9 : 58

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	287	293.87	1,553.9		67.99
3	325	354.64	1,651.2		71.28
4	341	221.07	980.8		72.59
5	362	102.39	428.8		74.23
6	368	313.53	1,291.9		74.71
7	402	245.11	925.0		77.42
8	10,380	75.00	10.9	Upper Marker	113.00

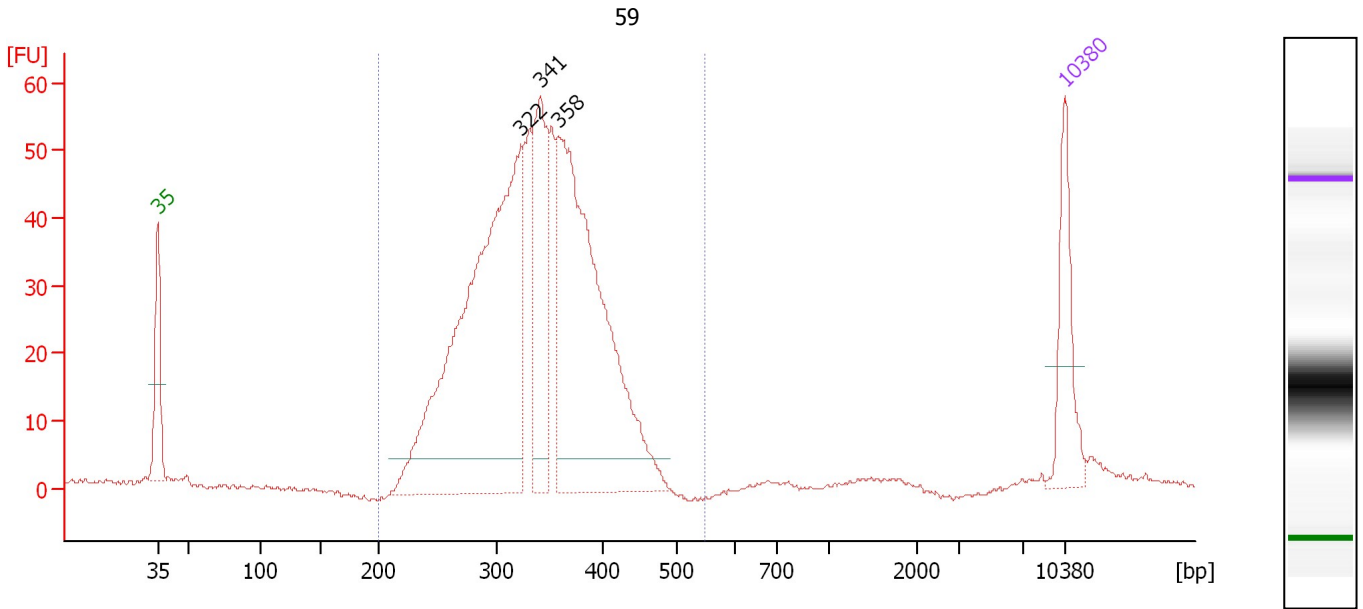
Region table for sample 9 : 58

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	564	348	783.0	6,871.9	1,526.88	97	15.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
 Modified: 4/4/2016 10:14:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 59

Number of peaks found: 3 Corr. Area 1: 796.6
 Noise: 0.3

Peak table for sample 10 : 59

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	322	747.41	3,515.9		71.01
3	341	197.43	878.2		72.51
4	358	573.77	2,428.6		73.92
5	10,380	75.00	10.9	Upper Marker	113.00

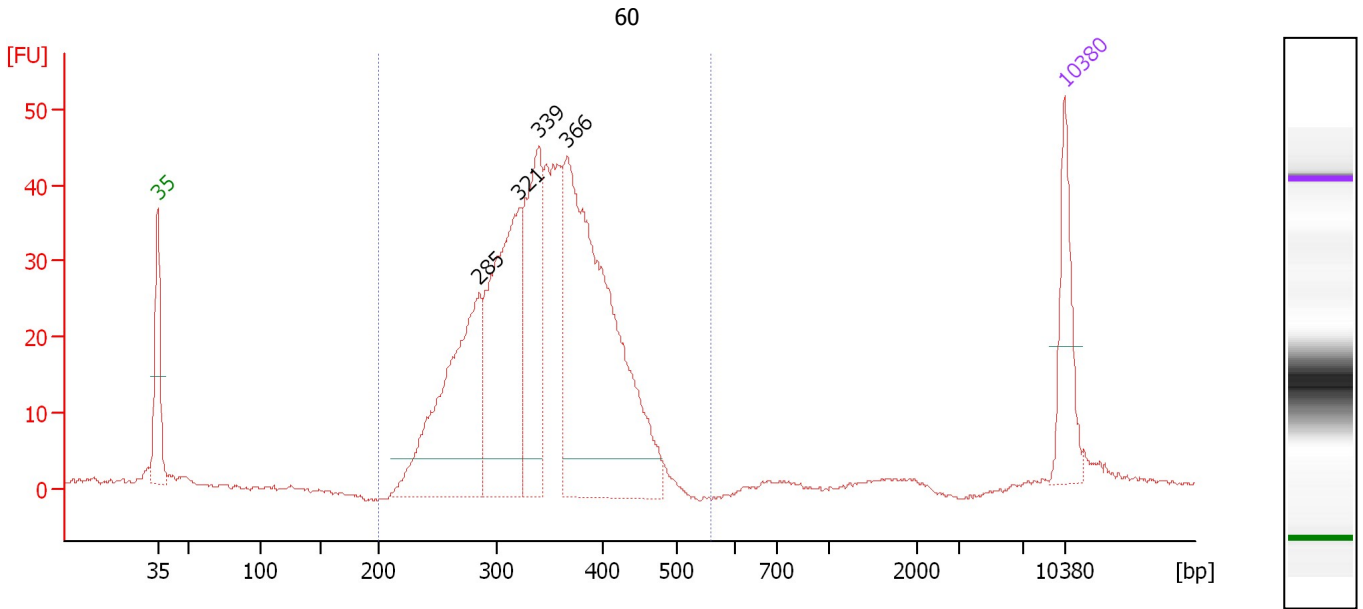
Region table for sample 10 : 59

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	548	336	796.6	7,795.0	1,677.92	95	15.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
 Modified: 4/4/2016 10:14:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 60

Number of peaks found: 4 Corr. Area 1: 652.3
 Noise: 0.3

Peak table for sample 11 : 60

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	285	354.74	1,888.7		67.82
3	321	350.11	1,654.4		70.89
4	339	237.86	1,062.2		72.41
5	366	618.11	2,556.2		74.61
6	10,380	75.00	10.9	Upper Marker	113.00

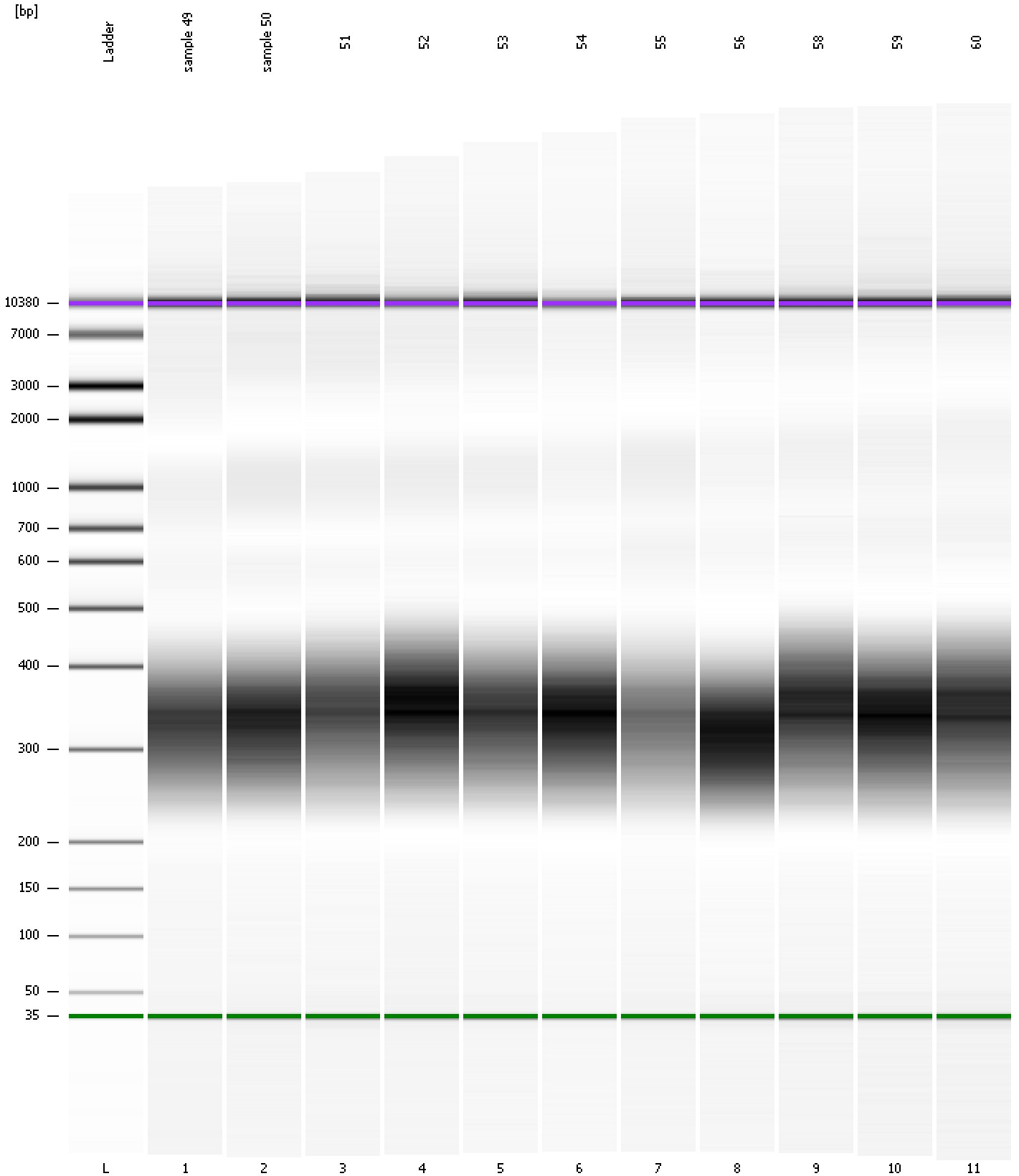
Region table for sample 11 : 60

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	558	344	652.3	7,530.6	1,652.09	95	15.7

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
Modified: 4/4/2016 10:14:24 AM

Gel Image

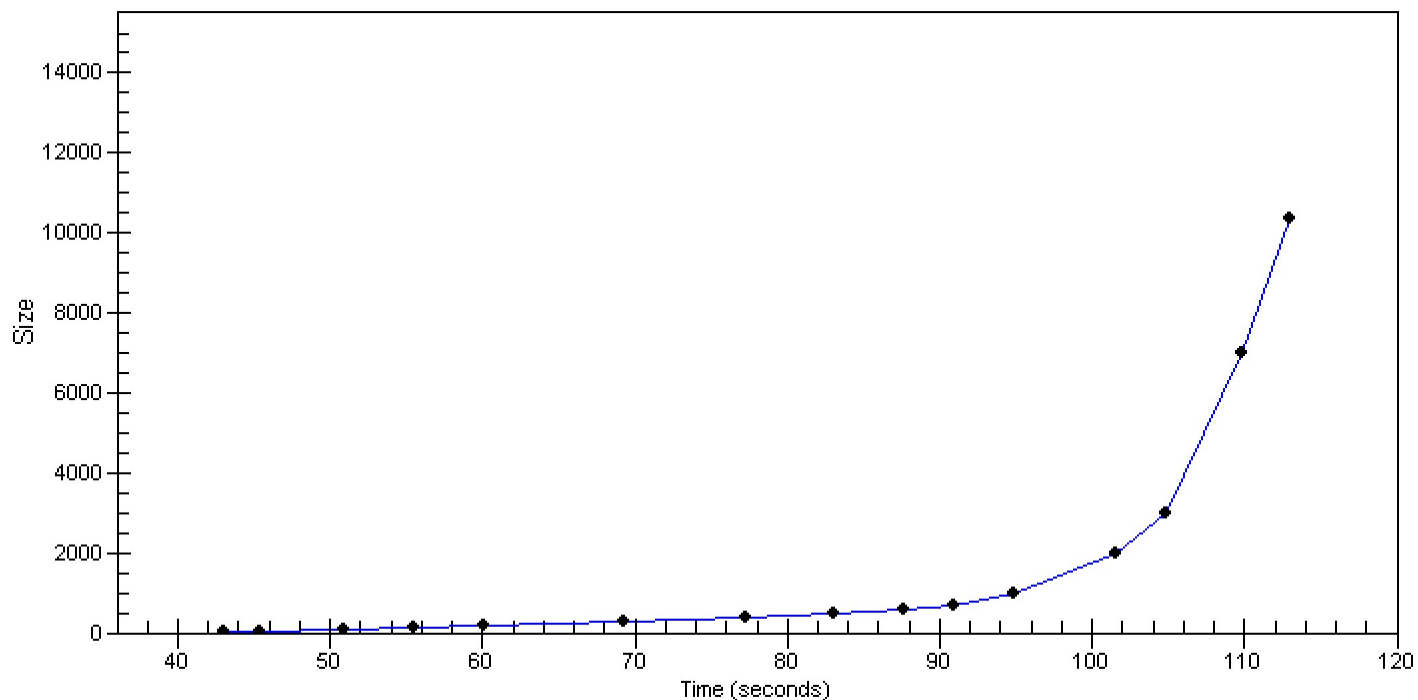


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
Modified: 4/4/2016 10:14:24 AM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-04\2016-04-04_001.xad

Created: 4/4/2016 9:32:16 AM
 Modified: 4/4/2016 10:14:24 AM

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		4/4/2016 10:13:34 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\2016-04-04\2016-04-04_001.xad)		Instrument	Run		4/4/2016 9:32:21 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/4/2016 9:32:21 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/4/2016 9:32:21 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/4/2016 9:32:21 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/4/2016 9:32:21 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/4/2016 9:32:21 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/4/2016 9:32:21 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1