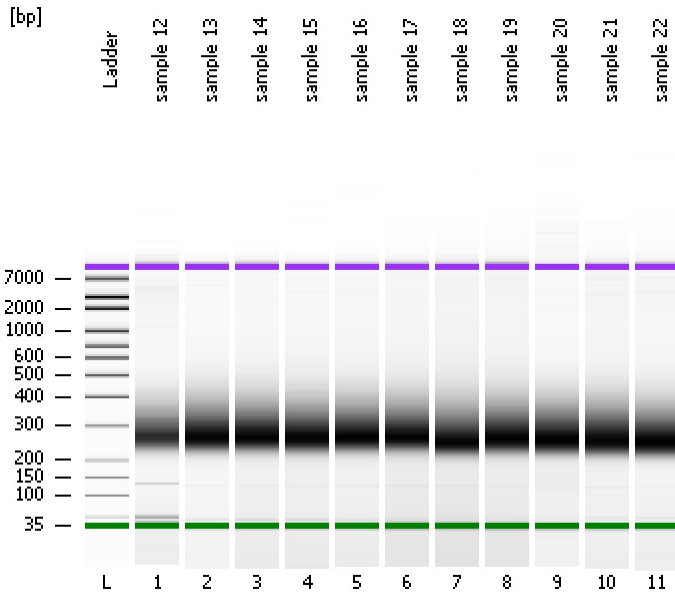


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
Modified: 1/18/2016 10:40:13 AM

Electrophoresis File Run Summary



Instrument Information:

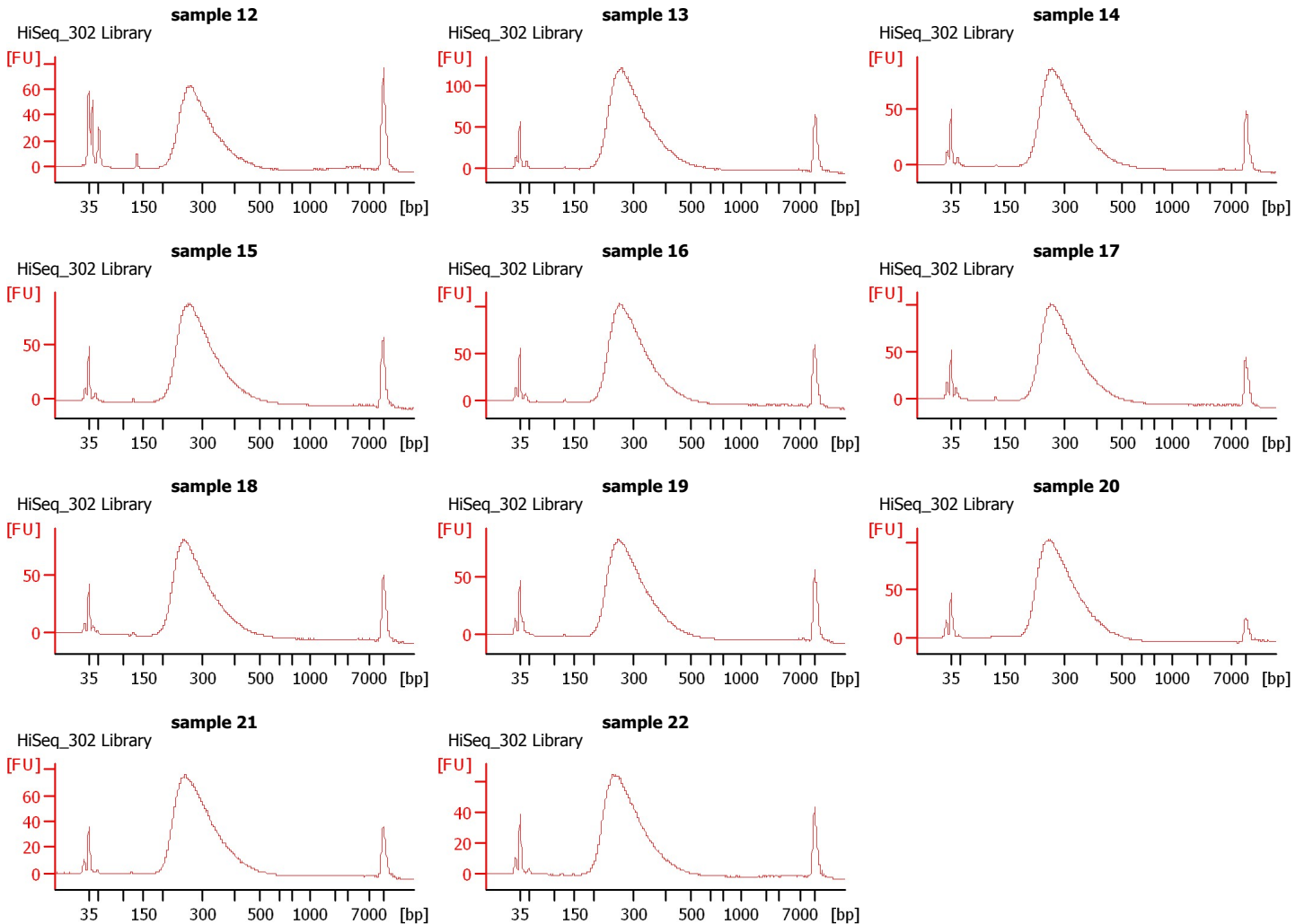
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
Modified: 1/18/2016 10:40:13 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 12	HiSeq_302 Library	<input type="checkbox"/>	✓			
sample 13	HiSeq_302 Library	<input type="checkbox"/>	✓			
sample 14	HiSeq_302 Library	<input type="checkbox"/>	✓			
sample 15	HiSeq_302 Library	<input type="checkbox"/>	✓			
sample 16	HiSeq_302 Library	<input type="checkbox"/>	✓			
sample 17	HiSeq_302 Library	<input type="checkbox"/>	✓			
sample 18	HiSeq_302 Library	<input type="checkbox"/>	✓			
sample 19	HiSeq_302 Library	<input type="checkbox"/>	✓			
sample 20	HiSeq_302 Library	<input type="checkbox"/>	✓			
sample 21	HiSeq_302 Library	<input type="checkbox"/>	✓			
sample 22	HiSeq_302 Library	<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
Modified: 1/18/2016 10:40:13 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

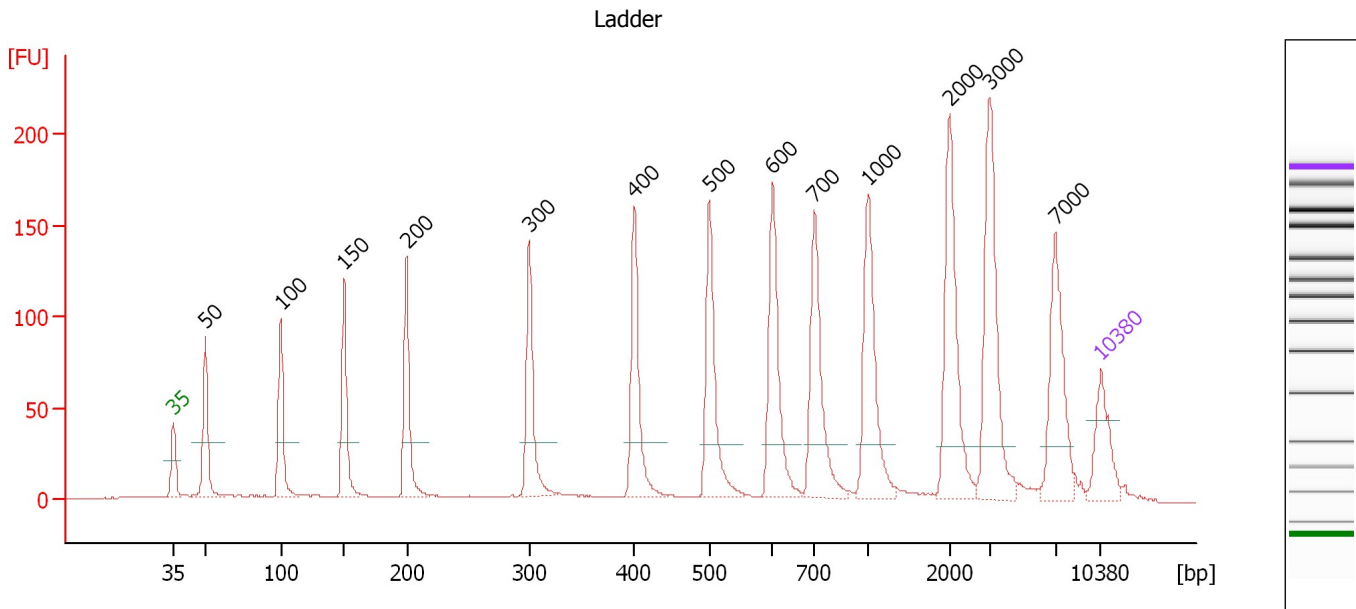
Ladder

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:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
 Modified: 1/18/2016 10:40:13 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

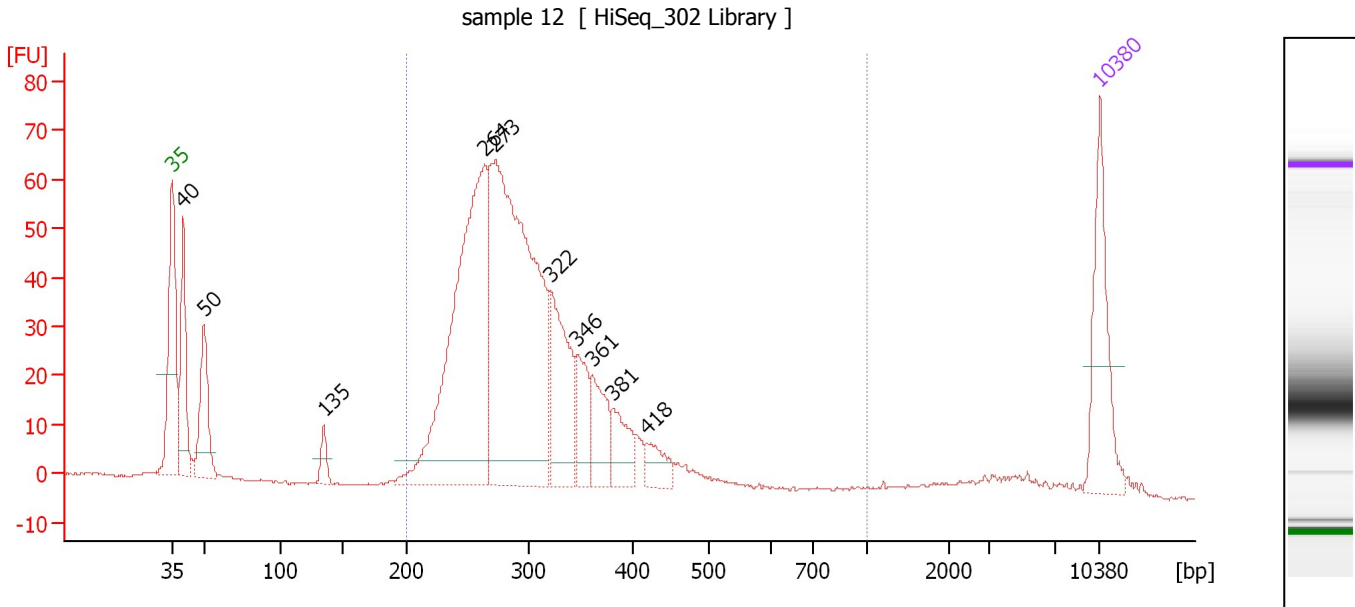
Peak table for Ladder

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	45.39
3	100	150.00	2,272.7	Ladder Peak	51.09
4	150	150.00	1,515.2	Ladder Peak	55.87
5	200	150.00	1,136.4	Ladder Peak	60.60
6	300	150.00	757.6	Ladder Peak	69.84
7	400	150.00	568.2	Ladder Peak	77.79
8	500	150.00	454.5	Ladder Peak	83.45
9	600	150.00	378.8	Ladder Peak	88.23
10	700	150.00	324.7	Ladder Peak	91.35
11	1,000	150.00	227.3	Ladder Peak	95.40
12	2,000	150.00	113.6	Ladder Peak	101.60
13	3,000	150.00	75.8	Ladder Peak	104.59
14	7,000	150.00	32.5	Ladder Peak	109.55
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
 Modified: 1/18/2016 10:40:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 12

Number of peaks found: 10 Corr. Area 1: 923.5
 Noise: 0.3

Peak table for sample 1 : sample 12

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	40	114.62	4,324.7		43.82
3	50	96.37	2,926.5		45.37
4	135	20.10	226.1		54.41
5	264	448.54	2,571.1		66.55
6	273	561.86	3,115.8		67.37
7	322	127.32	599.7		71.57
8	346	52.52	229.7		73.53
9	361	56.24	236.2		74.67
10	381	40.20	159.9		76.27
11	418	26.19	94.9		78.82
12	10,380	75.00	10.9	Upper Marker	113.00

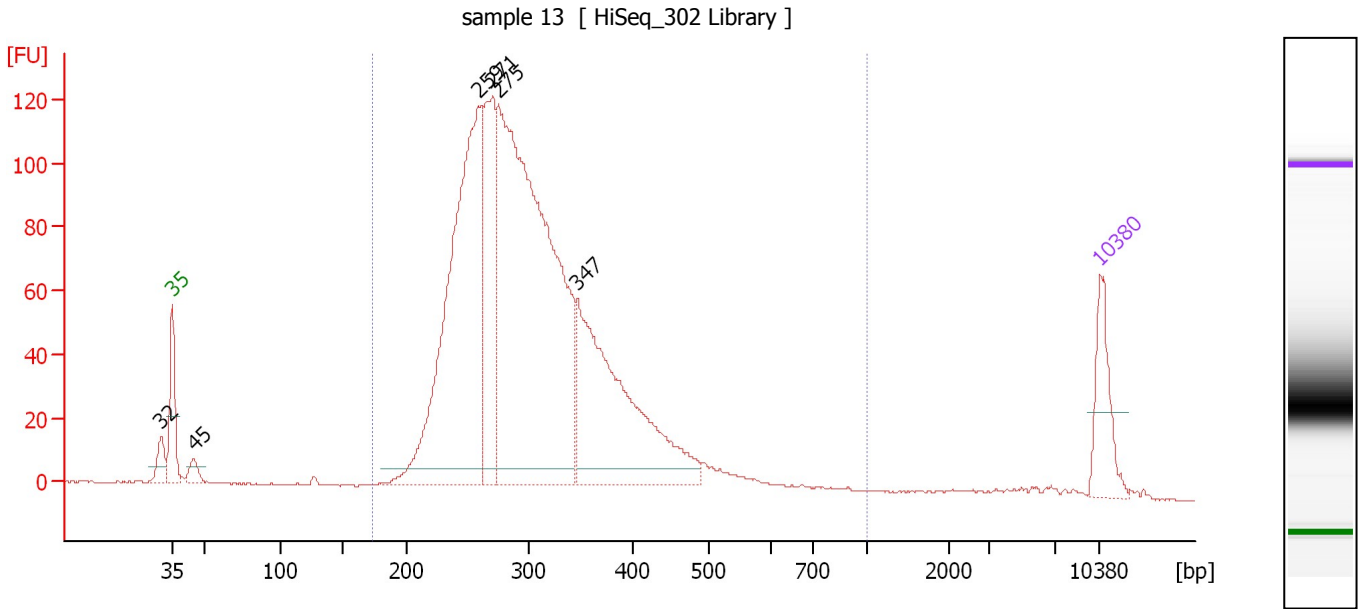
Region table for sample 1 : sample 12

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	302	923.5	6,884.7	1,317.84	85	19.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
 Modified: 1/18/2016 10:40:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 13

Number of peaks found: 6 Corr. Area 1: 1,937.0
 Noise: 0.2

Peak table for sample 2 : sample 13

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.12
2	35	125.00	5,411.3	Lower Marker	43.00
3	45	27.10	914.2		44.58
4	259	836.42	4,889.7		66.07
5	271	313.01	1,751.8		67.14
6	275	1,265.28	6,964.8		67.56
7	347	508.21	2,221.9		73.54
8	10,380	75.00	10.9	Upper Marker	113.00

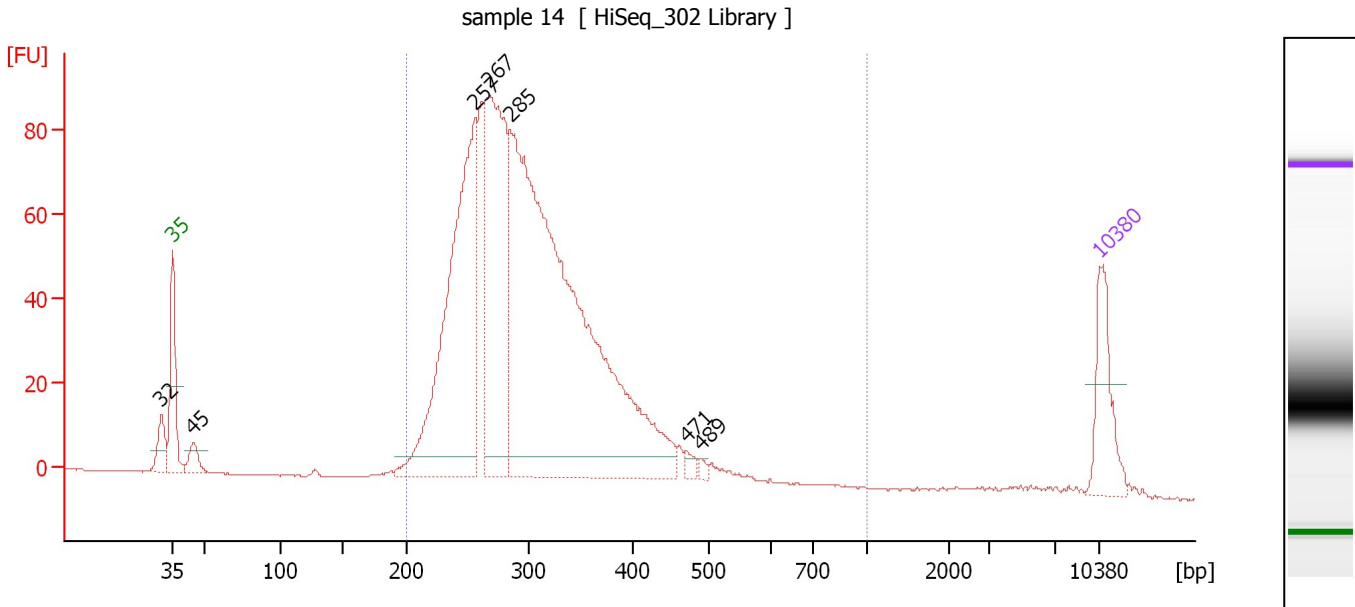
Region table for sample 2 : sample 13

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
173	1,000	311	1,937.0	15,564.2	3,008.70	96	25.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
 Modified: 1/18/2016 10:40:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 14

Number of peaks found: 7 Corr. Area 1: 1,371.5
 Noise: 0.2

Peak table for sample 3 : sample 14

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.15
2	35	125.00	5,411.3	Lower Marker	43.00
3	45	31.83	1,078.1		44.55
4	257	626.42	3,696.5		65.85
5	267	481.82	2,729.6		66.83
6	285	1,348.83	7,164.2		68.48
7	471	11.82	38.1		81.78
8	489	6.21	19.3		82.82
9	10,380	75.00	10.9	Upper Marker	113.00

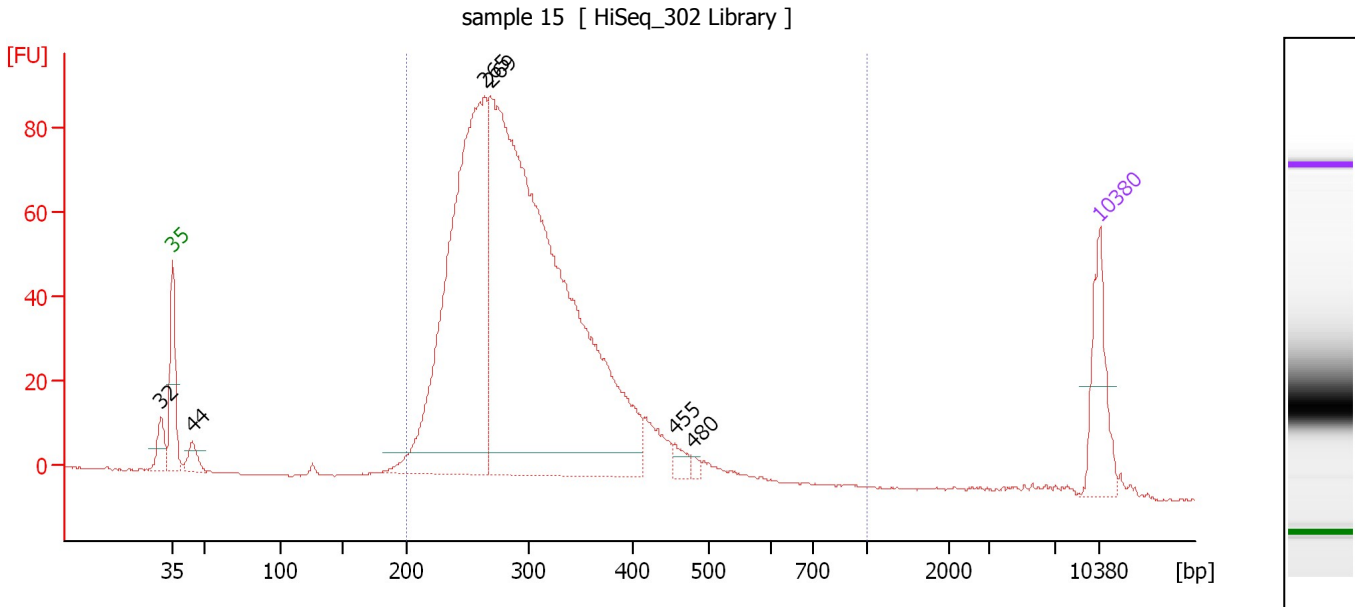
Region table for sample 3 : sample 14

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	307	1,371.5	13,226.2	2,552.19	97	21.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
 Modified: 1/18/2016 10:40:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 15

Number of peaks found: 6 Corr. Area 1: 1,378.3
 Noise: 0.2

Peak table for sample 4 : sample 15

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.14
2	35	125.00	5,411.3	Lower Marker	43.00
3	44	31.07	1,063.0		44.48
4	265	856.11	4,902.2		66.57
5	269	1,581.21	8,897.8		67.00
6	455	17.48	58.3		80.89
7	480	7.02	22.2		82.32
8	10,380	75.00	10.9	Upper Marker	113.00

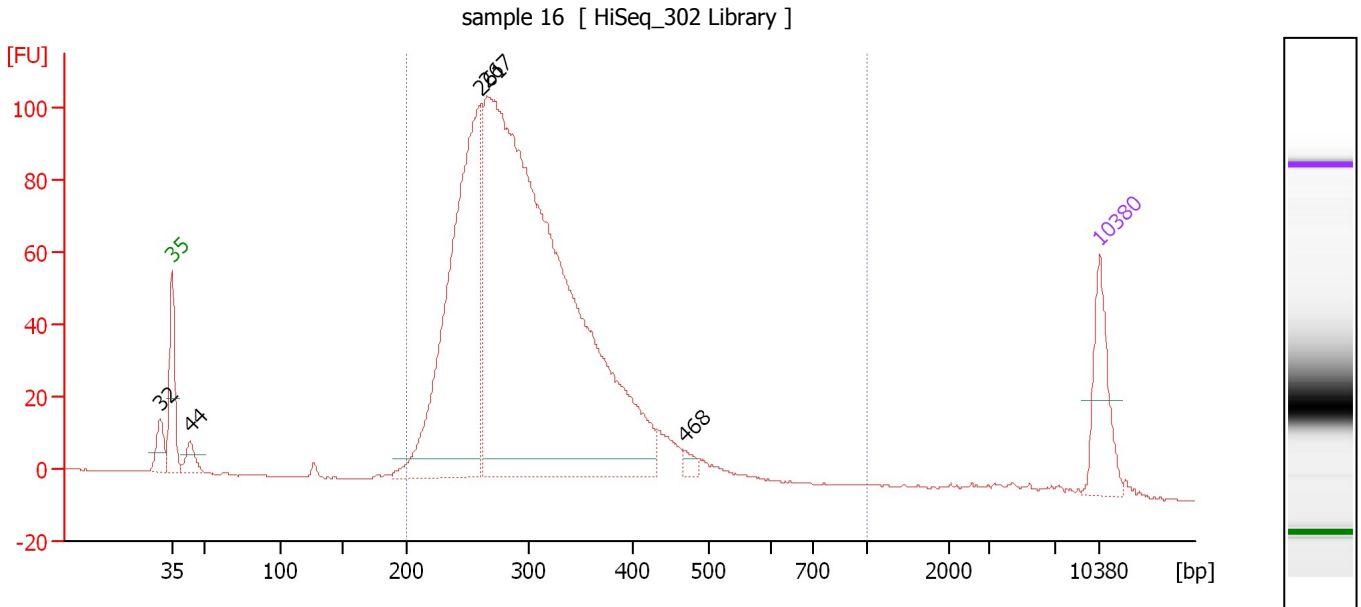
Region table for sample 4 : sample 15

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	304	1,378.3	12,858.6	2,454.81	97	21.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
 Modified: 1/18/2016 10:40:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 16

Number of peaks found: 5 Corr. Area 1: 1,597.3
 Noise: 0.2

Peak table for sample 5 : sample 16

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.07
2	35	125.00	5,411.3	Lower Marker	43.00
3	44	35.30	1,227.5		44.37
4	261	715.37	4,147.8		66.27
5	267	1,837.77	10,444.5		66.76
6	468	12.03	38.9		81.63
7	10,380	75.00	10.9	Upper Marker	113.00

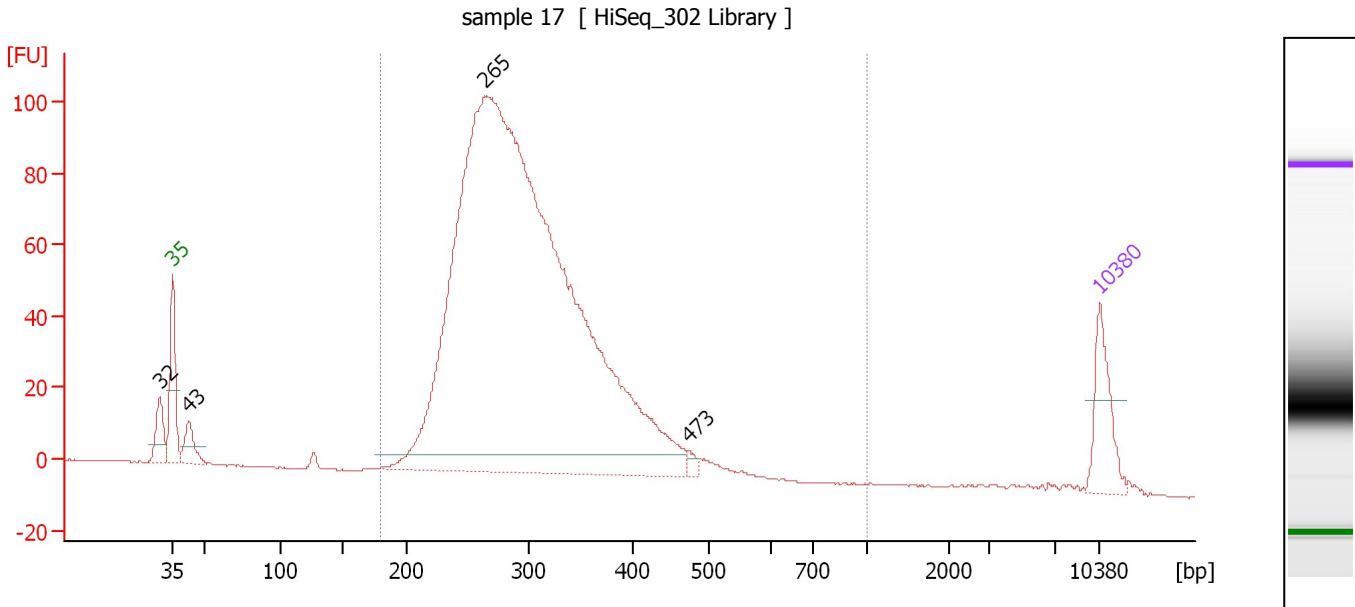
Region table for sample 5 : sample 16

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	307	1,597.3	13,162.1	2,537.11	96	22.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
 Modified: 1/18/2016 10:40:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 17

Number of peaks found: 4 Corr. Area 1: 1,554.6
 Noise: 0.1

Peak table for sample 6 : sample 17

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.05
2	35	125.00	5,411.3	Lower Marker	43.00
3	43	59.88	2,119.0		44.25
4	265	3,142.13	17,996.5		66.57
5	473	10.89	34.9		81.91
6	10,380	75.00	10.9	Upper Marker	113.00

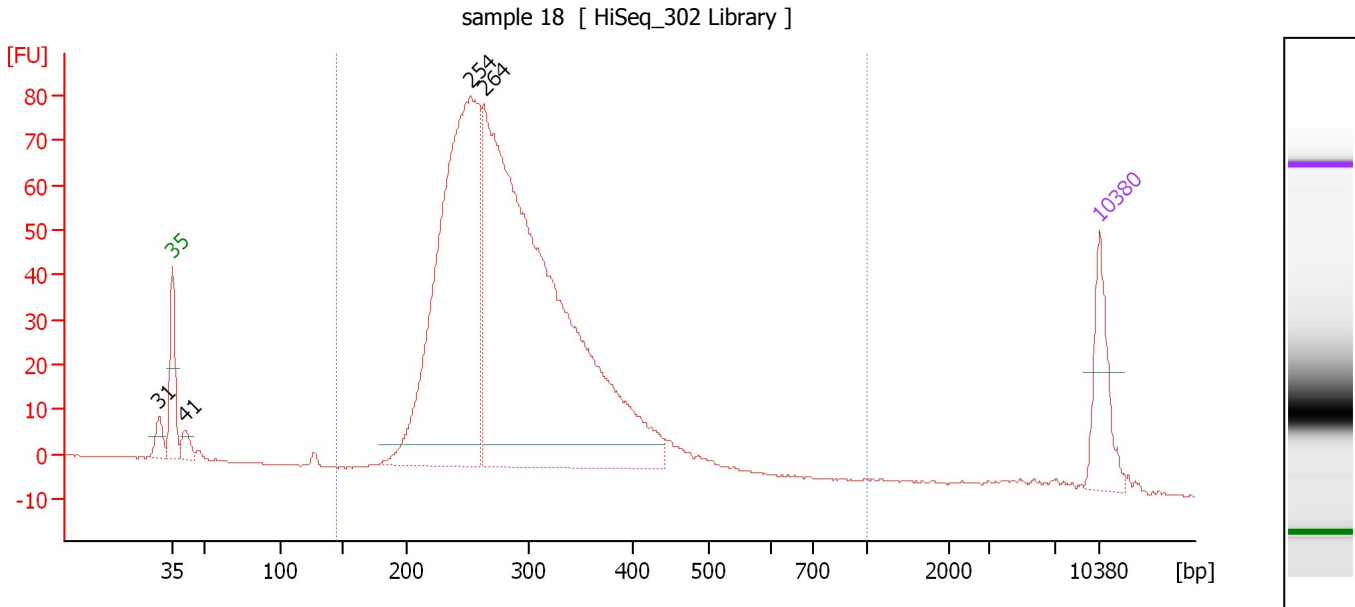
Region table for sample 6 : sample 17

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
180	1,000	304	1,554.6	15,550.0	2,986.83	96	20.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
 Modified: 1/18/2016 10:40:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 18

Number of peaks found: 4 Corr. Area 1: 1,217.2
 Noise: 0.1

Peak table for sample 7 : sample 18

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	31	0.00	0.0		41.98
2	35	125.00	5,411.3	Lower Marker	43.00
3	41	29.18	1,076.2		43.97
4	254	908.18	5,427.0		65.55
5	264	1,487.09	8,533.2		66.52
6	10,380	75.00	10.9	Upper Marker	113.00

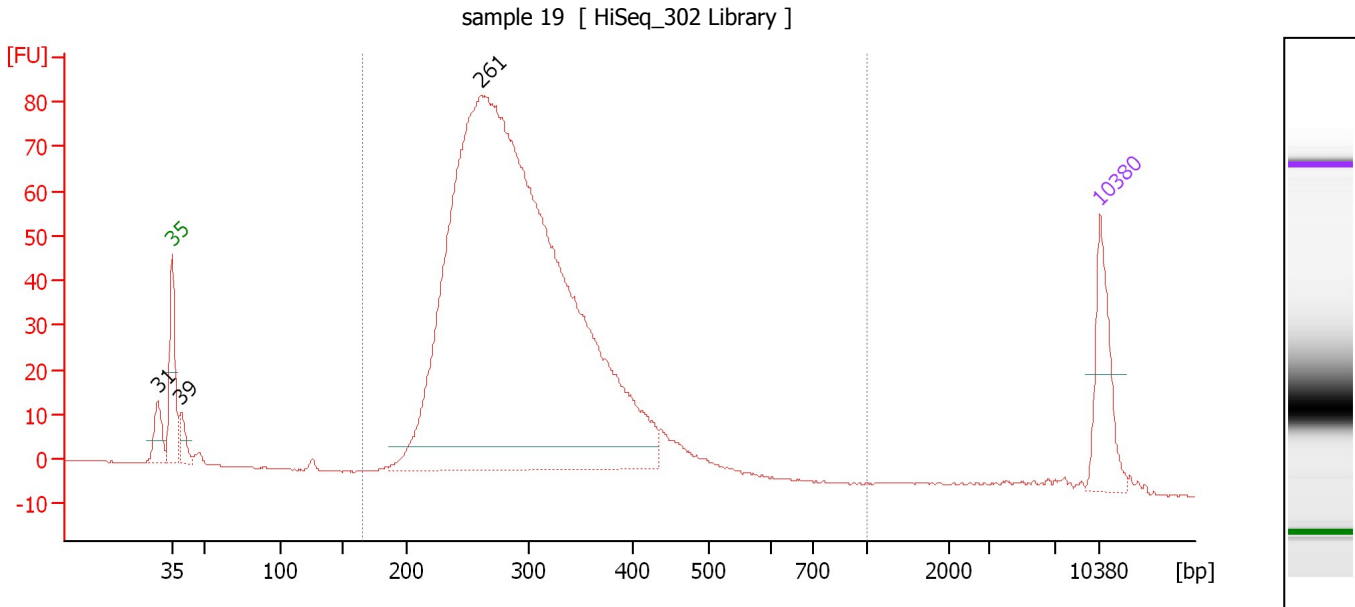
Region table for sample 7 : sample 18

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
144	1,000	293	1,217.2	12,947.7	2,389.49	97	21.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
 Modified: 1/18/2016 10:40:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 19

Number of peaks found: 3 Corr. Area 1: 1,254.0
 Noise: 0.1

Peak table for sample 8 : sample 19

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	31	0.00	0.0		41.90
2	35	125.00	5,411.3	Lower Marker	43.00
3	39	33.23	1,292.8		43.63
4	261	2,270.44	13,157.2		66.28
5	10,380	75.00	10.9	Upper Marker	113.00

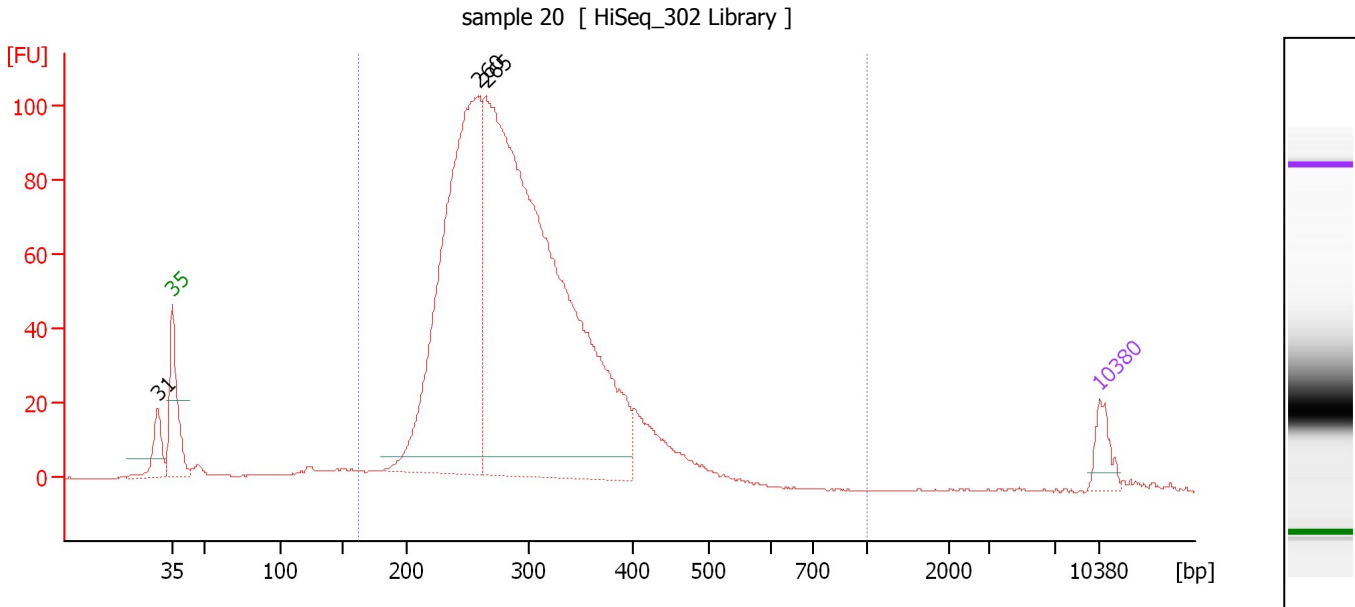
Region table for sample 8 : sample 19

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
165	1,000	300	1,254.0	11,731.5	2,223.85	96	20.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
 Modified: 1/18/2016 10:40:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 20

Number of peaks found: 3 Corr. Area 1: 1,595.1
 Noise: 0.2

Peak table for sample 9 : sample 20

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	31	0.00	0.0		41.88
2	35	125.00	5,411.3	Lower Marker	43.00
3	260	2,330.54	13,606.0		66.10
4	265	4,313.03	24,633.1		66.63
5	10,380	75.00	10.9	Upper Marker	113.00

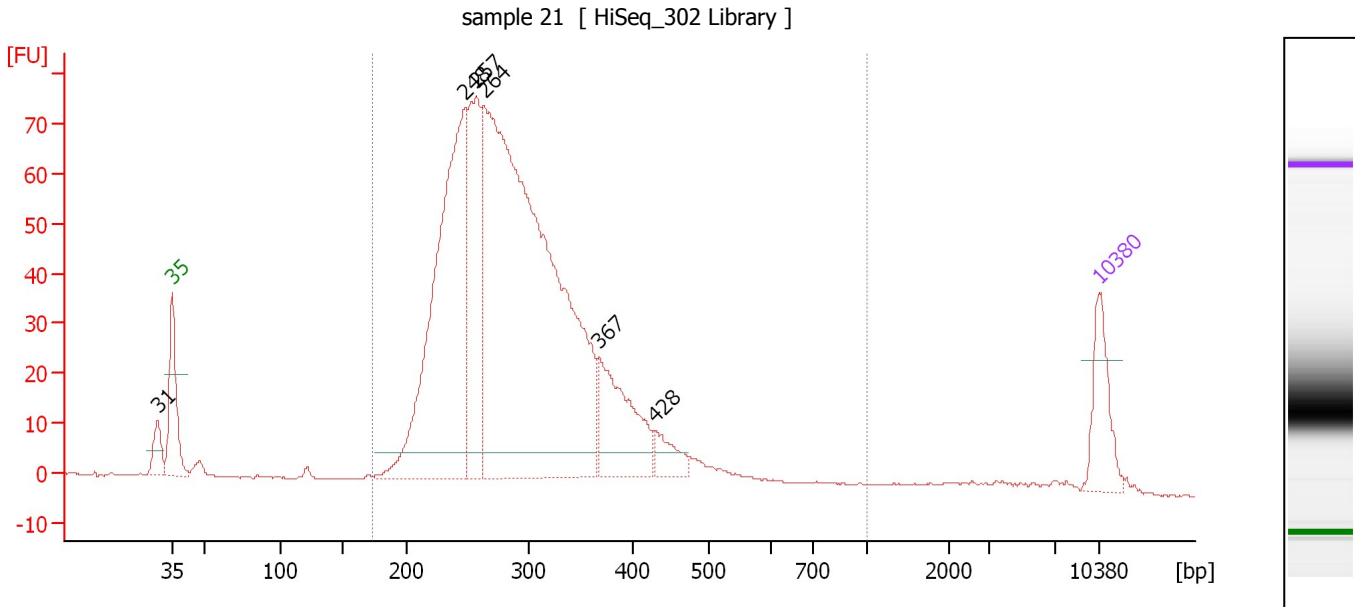
Region table for sample 9 : sample 20

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
162	1,000	297	1,595.1	37,714.4	7,024.48	94	21.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
 Modified: 1/18/2016 10:40:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 21

Number of peaks found: 6 Corr. Area 1: 1,179.8
 Noise: 0.1

Peak table for sample 10 : sample 21

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	31	0.00	0.0		41.87
2	35	125.00	5,411.3	Lower Marker	43.00
3	248	788.33	4,815.2		65.04
4	257	311.81	1,835.7		65.90
5	264	1,650.51	9,480.9		66.49
6	367	202.07	834.8		75.15
7	428	47.12	166.7		79.40
8	10,380	75.00	10.9	Upper Marker	113.00

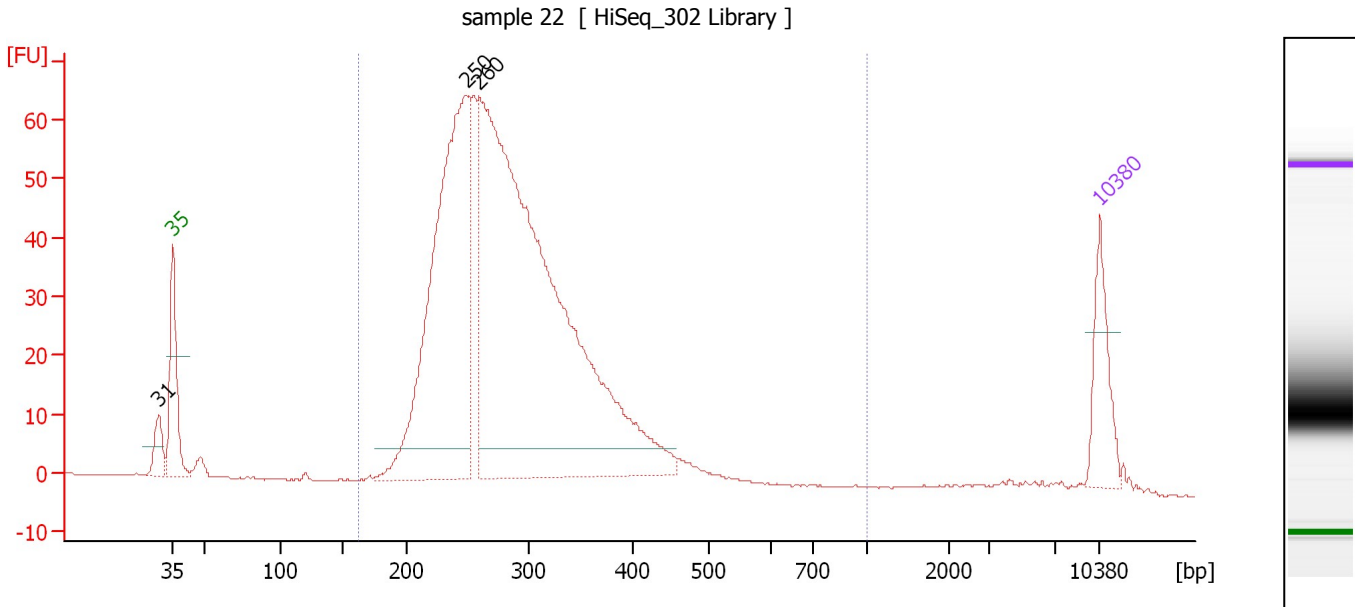
Region table for sample 10 : sample 21

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
173	1,000	300	1,179.8	16,220.3	3,028.20	96	24.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
 Modified: 1/18/2016 10:40:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 22

Number of peaks found: 3 Corr. Area 1: 964.5
 Noise: 0.1

Peak table for sample 11 : sample 22

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	31	0.00	0.0		41.92
2	35	125.00	5,411.3	Lower Marker	43.00
3	250	800.95	4,863.4		65.18
4	260	1,573.55	9,167.3		66.15
5	10,380	75.00	10.9	Upper Marker	113.00

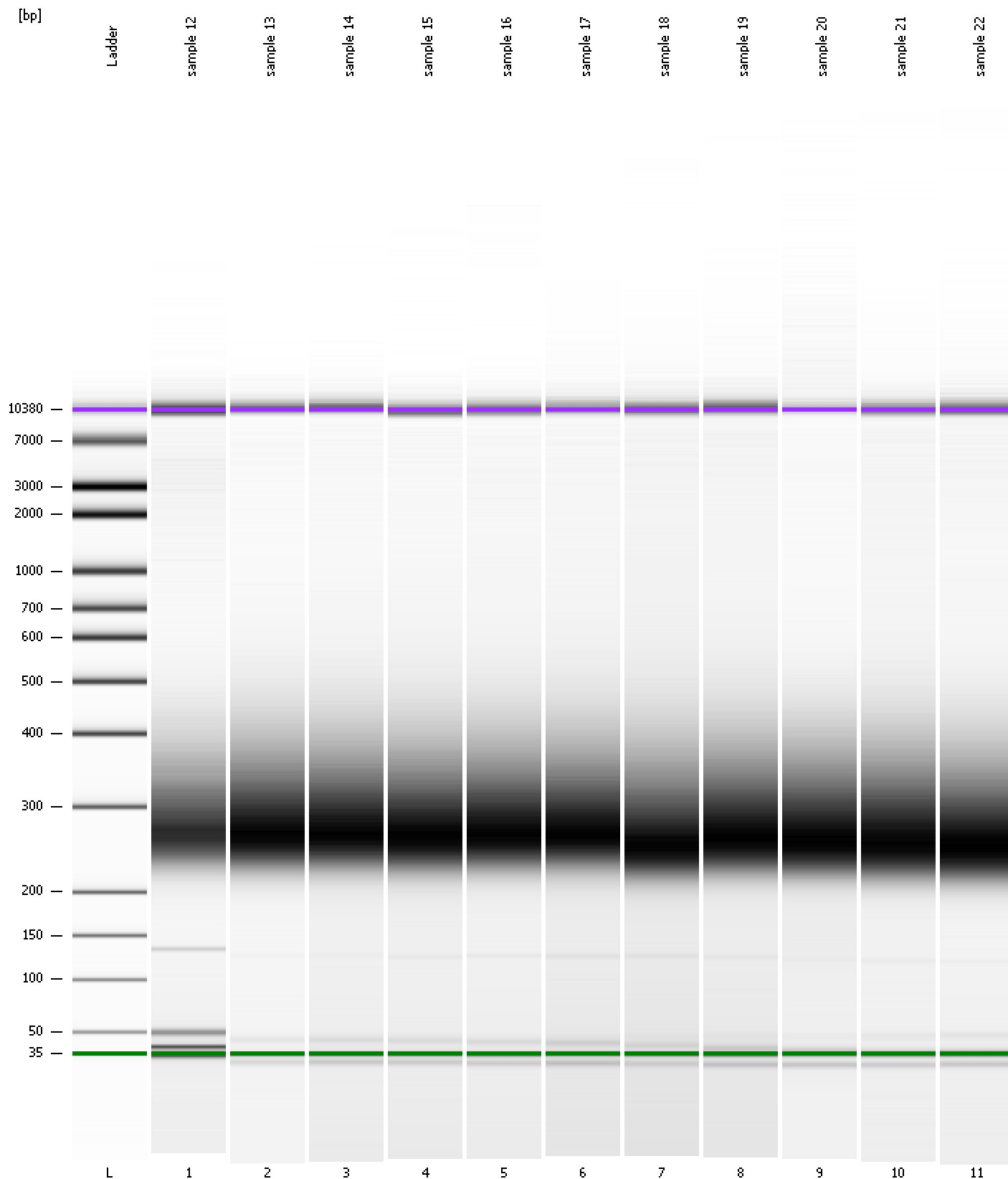
Region table for sample 11 : sample 22

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
162	1,000	290	964.5	13,602.1	2,485.66	96	21.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
Modified: 1/18/2016 10:40:13 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad

Created: 1/18/2016 8:17:27 AM
 Modified: 1/18/2016 10:40:13 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		1/18/2016 8:58:45 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2016-01-18\2016-01-18_001.xad)		Instrument	Run		1/18/2016 8:17:32 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/18/2016 8:17:32 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/18/2016 8:17:32 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/18/2016 8:17:32 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/18/2016 8:17:32 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/18/2016 8:17:32 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/18/2016 8:17:32 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1