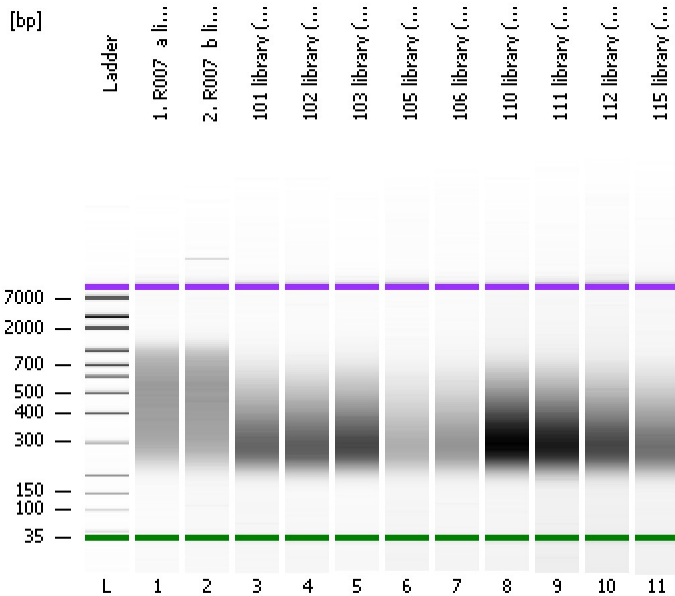


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
Modified: 7/13/2017 12:48:50 PM

Electrophoresis File Run Summary



Instrument Information:

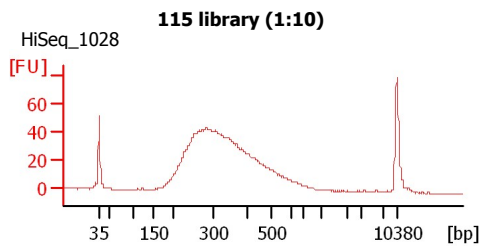
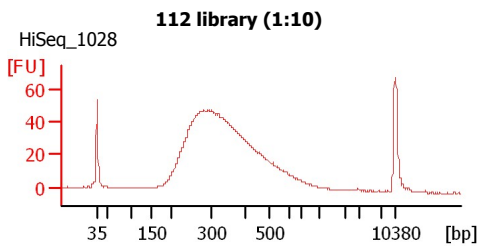
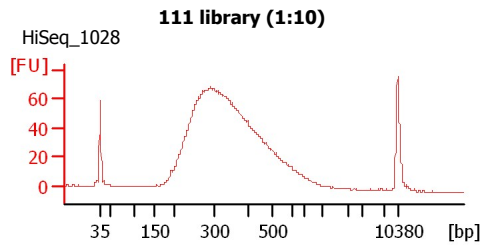
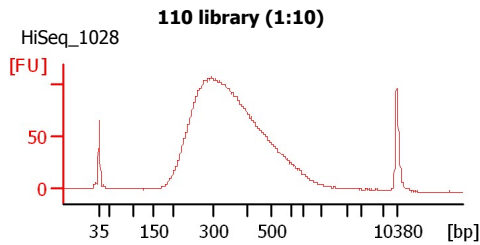
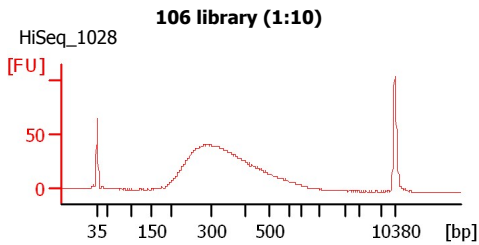
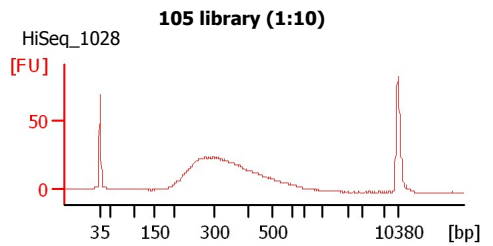
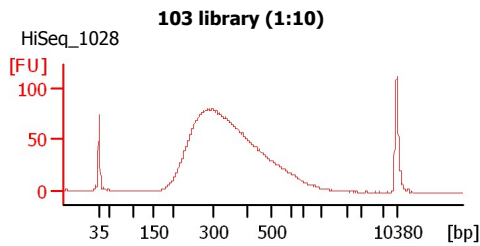
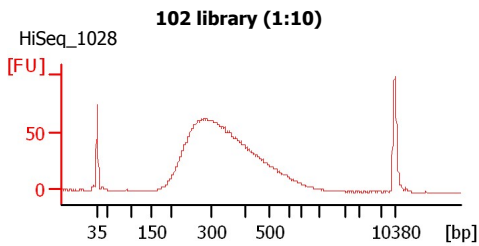
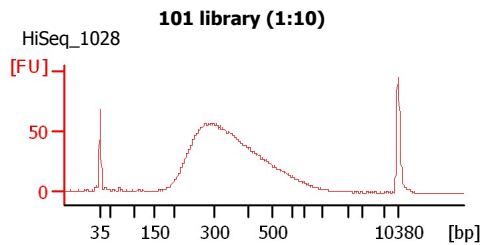
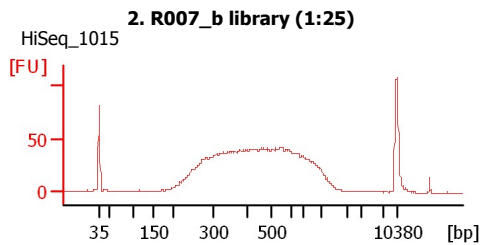
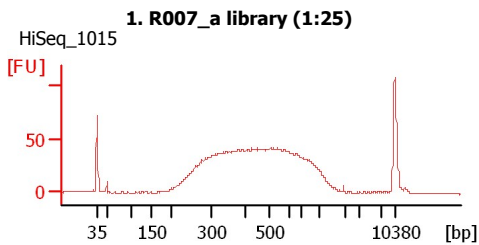
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
Modified: 7/13/2017 12:48:50 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
1. R007_a library (1:25)	HiSeq_1015	<input type="checkbox"/>	✓			
2. R007_b library (1:25)	HiSeq_1015	<input type="checkbox"/>	✓			
101 library (1:10)	HiSeq_1028	<input type="checkbox"/>	✓			
102 library (1:10)	HiSeq_1028	<input type="checkbox"/>	✓			
103 library (1:10)	HiSeq_1028	<input type="checkbox"/>	✓			
105 library (1:10)	HiSeq_1028	<input type="checkbox"/>	✓			
106 library (1:10)	HiSeq_1028	<input type="checkbox"/>	✓			
110 library (1:10)	HiSeq_1028	<input type="checkbox"/>	✓			
111 library (1:10)	HiSeq_1028	<input type="checkbox"/>	✓			
112 library (1:10)	HiSeq_1028	<input type="checkbox"/>	✓			
115 library (1:10)	HiSeq_1028	<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\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
Modified: 7/13/2017 12:48:50 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/ μ l] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/ μ l] : 125
Upper Marker Concentration [pg/ μ l] : 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

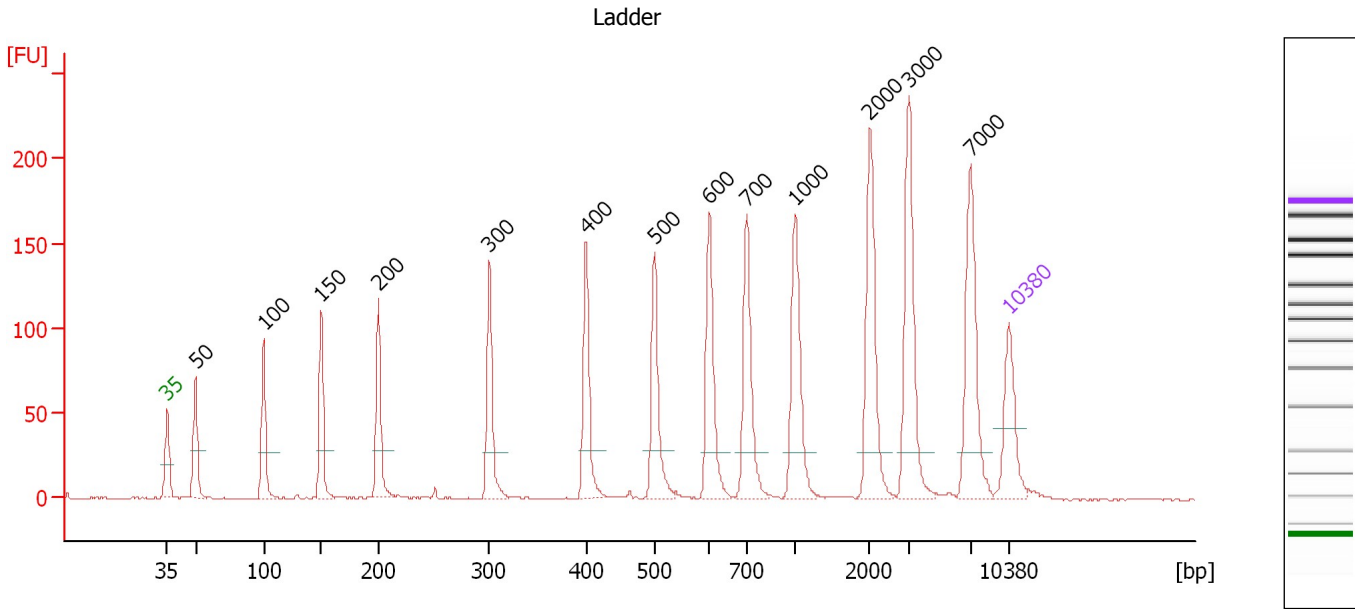
Ladder

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\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
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Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

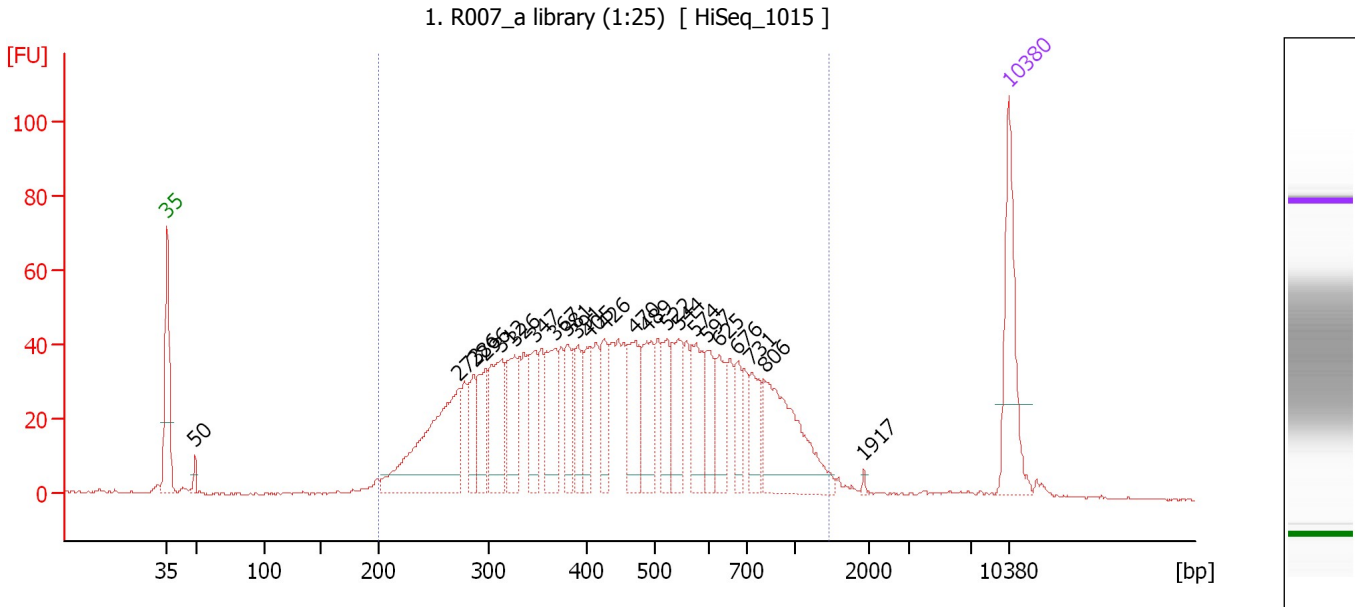
Peak table for Ladder

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	45.35
3	100	150.00	2,272.7	Ladder Peak	51.00
4	150	150.00	1,515.2	Ladder Peak	55.80
5	200	150.00	1,136.4	Ladder Peak	60.55
6	300	150.00	757.6	Ladder Peak	69.80
7	400	150.00	568.2	Ladder Peak	77.85
8	500	150.00	454.5	Ladder Peak	83.55
9	600	150.00	378.8	Ladder Peak	88.10
10	700	150.00	324.7	Ladder Peak	91.20
11	1,000	150.00	227.3	Ladder Peak	95.25
12	2,000	150.00	113.6	Ladder Peak	101.45
13	3,000	150.00	75.8	Ladder Peak	104.70
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\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
 Modified: 7/13/2017 12:48:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 1. R007 a library (1:25)

Number of peaks found: 23 Corr. Area 1: 1,486.1
 Noise: 0.2

Peak table for sample 1 : 1. R007 a library (1:25)

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	9.95	303.8		45.29
3	273	203.76	1,131.7		67.28
4	286	40.23	213.1		68.51
5	296	54.31	277.6		69.47
6	312	92.35	447.9		70.80
7	326	73.23	340.7		71.87
8	347	52.86	230.7		73.60
9	367	67.15	276.9		75.23
10	381	41.20	164.0		76.29
11	391	43.08	167.0		77.11
12	405	39.11	146.4		78.13
13	426	43.08	153.1		79.35
14	470	62.05	200.0		81.84
15	489	64.09	198.6		82.91
16	522	42.40	123.1		84.54
17	544	57.52	160.2		85.56
18	574	55.22	145.7		86.93
19	597	35.09	89.1		87.95
20	625	38.01	92.2		88.87
21	676	28.03	62.9		90.45
22	731	36.63	75.9		91.62
23	806	124.04	233.1		92.64
24	1,917	1.56	1.2		100.93
25	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
Modified: 7/13/2017 12:48:50 PM

Electropherogram Summary Continued ...

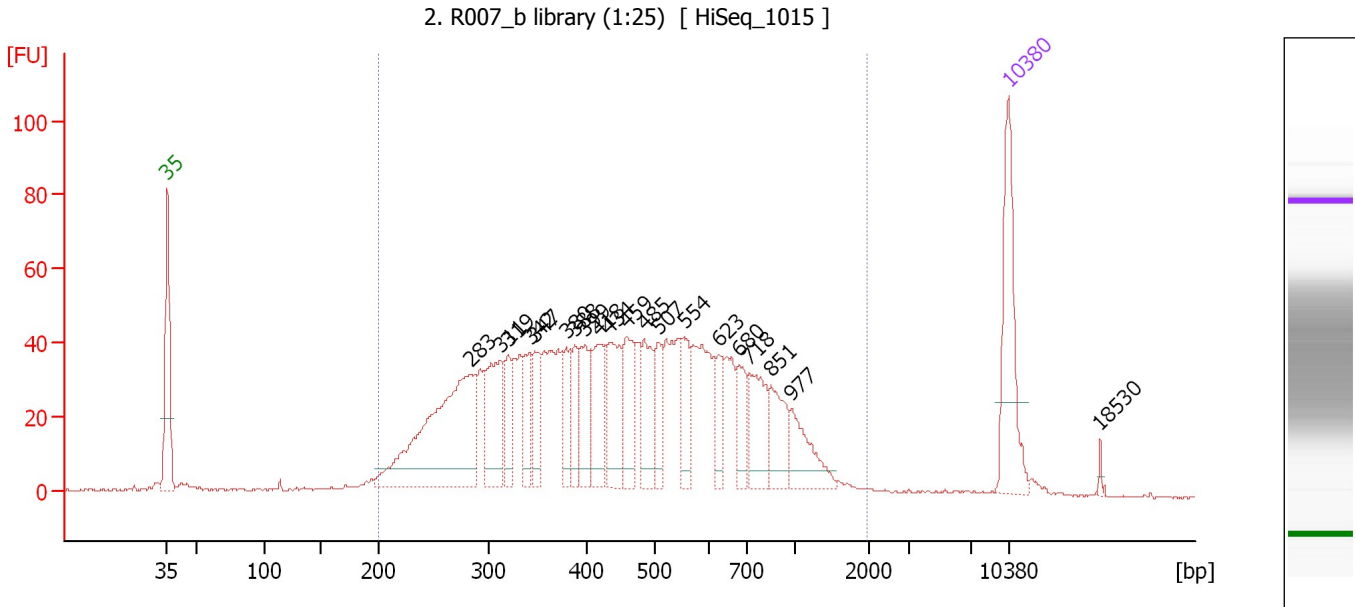
... Region table for sample 1 : 1. R007 a library (1:25)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,448	493	1,486.1	6,686.2	1,756.21	97	43.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
 Modified: 7/13/2017 12:48:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 2. R007 b library (1:25)

Number of peaks found: 20 Corr. Area 1: 1,510.9
 Noise: 0.2

Peak table for sample 2 : 2. R007 b library (1:25)

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	283	255.21	1,367.9		68.20
3	311	88.25	430.4		70.66
4	319	38.12	181.1		71.33
5	342	37.26	165.1		73.18
6	347	37.47	163.6		73.59
7	380	35.51	141.8		76.20
8	388	35.25	137.5		76.92
9	399	47.90	181.7		77.79
10	418	58.22	211.1		78.87
11	434	68.64	239.5		79.80
12	459	55.95	184.5		81.23
13	485	50.48	157.8		82.67
14	507	34.78	104.0		83.85
15	554	40.64	111.1		86.01
16	623	26.06	63.3		88.83
17	680	33.10	73.8		90.57
18	718	52.98	111.8		91.45
19	851	41.12	73.2		93.24
20	977	42.07	65.3		94.94
21	10,380	75.00	10.9	Upper Marker	113.00
22	18,530	0.00	0.0		120.60

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
Modified: 7/13/2017 12:48:50 PM

Electropherogram Summary Continued ...

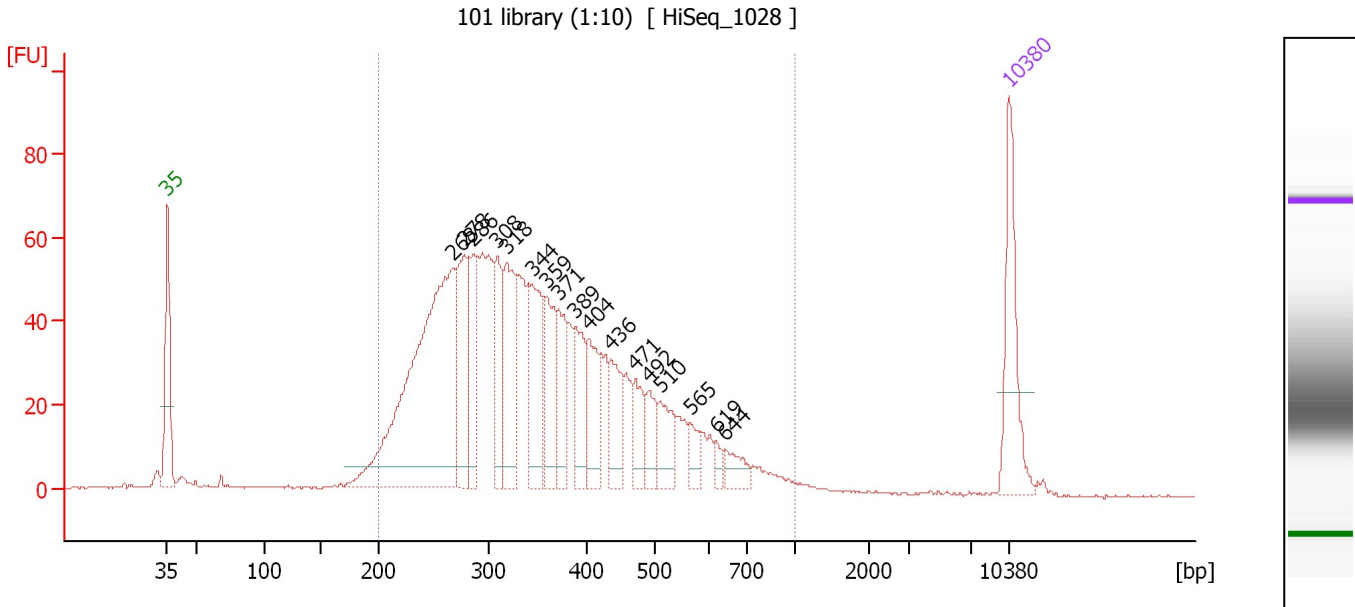
... Region table for sample 2 : 2. R007 b library (1:25)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,957	500	1,510.9	6,238.7	■ 1,625.38	96	47.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
 Modified: 7/13/2017 12:48:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 101 library (1:10)

Number of peaks found: 17 Corr. Area 1: 1,454.3
 Noise: 0.2

Peak table for sample 3 : 101 library (1:10)

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	268	473.96	2,683.8		66.80
3	278	113.12	617.2		67.74
4	286	83.47	442.9		68.46
5	308	77.21	379.9		70.44
6	318	109.52	522.5		71.22
7	344	111.49	490.9		73.35
8	359	80.01	337.7		74.54
9	371	58.42	238.4		75.53
10	389	59.96	233.8		76.93
11	404	66.96	251.1		78.08
12	436	51.54	179.1		79.90
13	471	39.93	128.3		81.92
14	492	33.99	104.8		83.07
15	510	42.43	126.1		84.00
16	565	19.38	52.0		86.50
17	619	9.80	24.0		88.68
18	644	21.78	51.2		89.46
19	10,380	75.00	10.9	Upper Marker	113.00

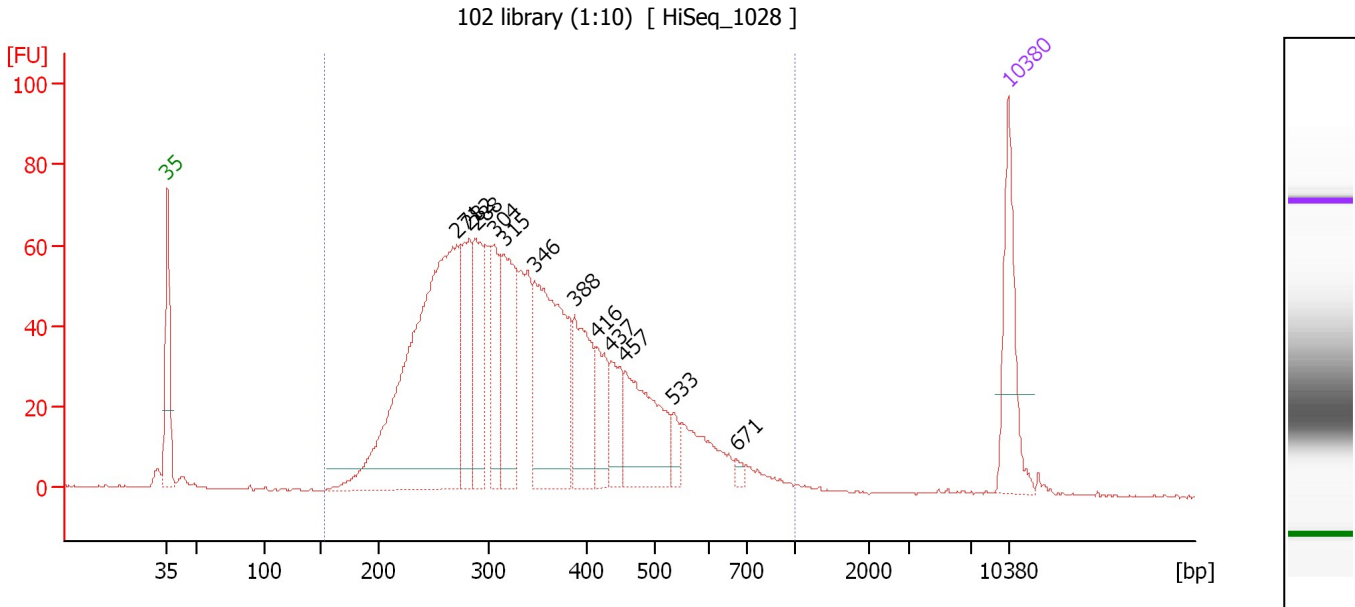
Region table for sample 3 : 101 library (1:10)

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	366	1,454.3	9,063.7	1,935.45	95	33.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
 Modified: 7/13/2017 12:48:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 102 library (1:10)

Number of peaks found: 12 Corr. Area 1: 1,610.6
 Noise: 0.2

Peak table for sample 4 : 102 library (1:10)

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	271	590.97	3,305.9		67.10
3	282	119.57	643.3		68.10
4	288	111.53	587.0		68.68
5	304	87.01	433.2		70.15
6	315	139.52	671.6		70.99
7	346	246.77	1,080.4		73.51
8	388	115.10	449.7		76.87
9	416	56.46	205.6		78.76
10	437	50.64	175.5		79.97
11	457	127.76	423.2		81.12
12	533	16.84	47.8		85.06
13	671	6.85	15.5		90.31
14	10,380	75.00	10.9	Upper Marker	113.00

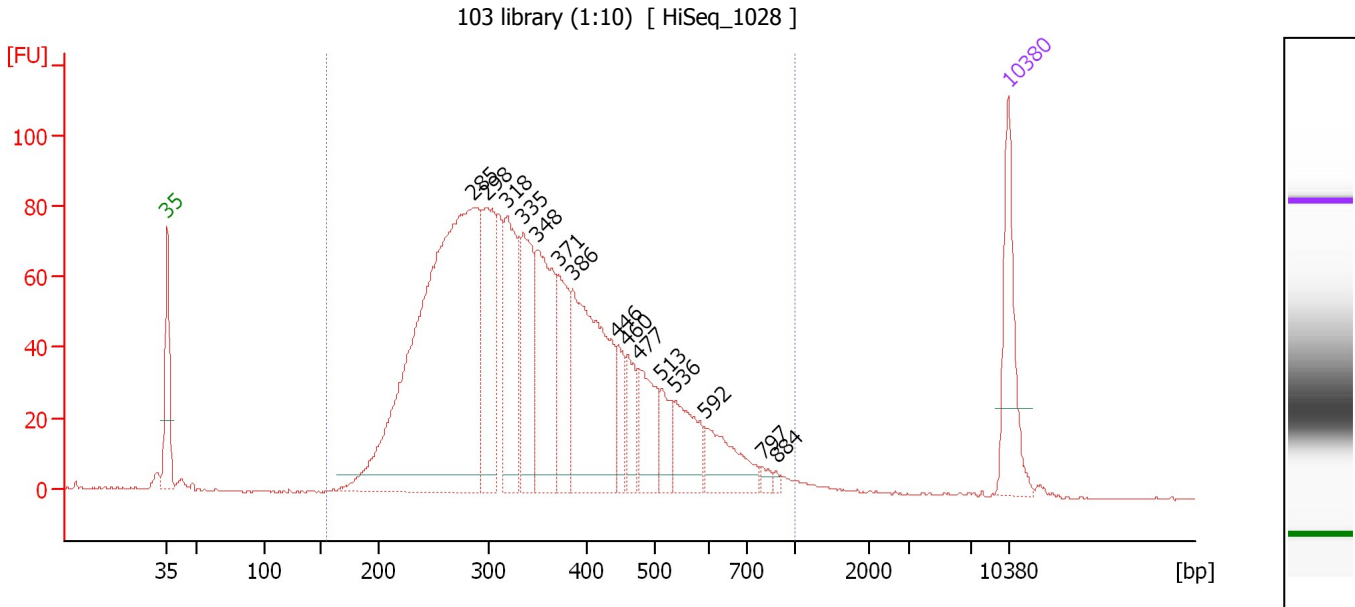
Region table for sample 4 : 102 library (1:10)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
153	1,000	355	1,610.6	9,808.3	2,029.36	97	33.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
 Modified: 7/13/2017 12:48:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 103 library (1:10)

Number of peaks found: 15 Corr. Area 1: 2,054.4
 Noise: 0.2

Peak table for sample 5 : 103 library (1:10)

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	285	832.38	4,423.8		68.42
3	298	169.25	861.3		69.59
4	318	157.55	749.6		71.29
5	335	132.16	597.8		72.61
6	348	168.52	733.4		73.67
7	371	88.48	361.2		75.53
8	386	250.77	983.4		76.75
9	446	35.24	119.7		80.47
10	460	44.15	145.4		81.26
11	477	71.71	227.9		82.22
12	513	33.18	98.1		84.13
13	536	67.87	191.8		85.19
14	592	63.42	162.3		87.74
15	797	7.28	13.8		92.51
16	884	3.74	6.4		93.68
17	10,380	75.00	10.9	Upper Marker	113.00

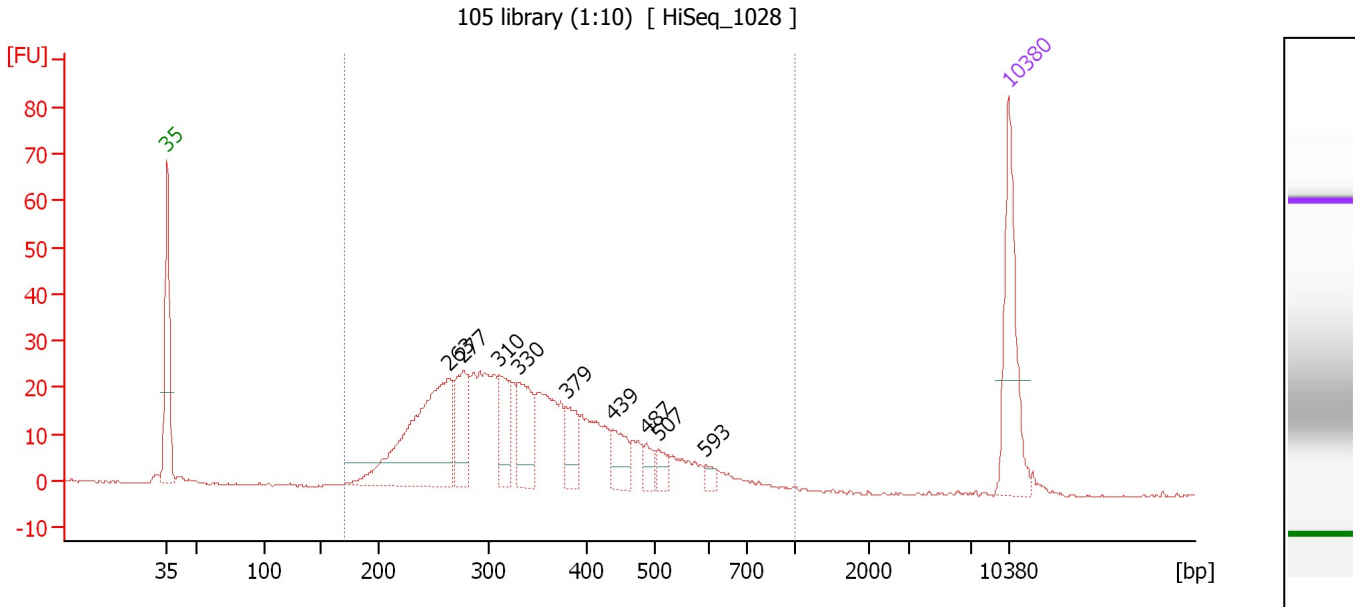
Region table for sample 5 : 103 library (1:10)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
155	1,000	362	2,054.4	10,825.1	2,283.10	98	33.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
 Modified: 7/13/2017 12:48:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 105 library (1:10)

Number of peaks found: 9 Corr. Area 1: 615.7
 Noise: 0.2

Peak table for sample 6 : 105 library (1:10)

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	263	213.24	1,227.1		66.40
3	277	64.79	354.9		67.63
4	310	45.79	223.6		70.63
5	330	60.60	278.1		72.23
6	379	32.72	130.7		76.18
7	439	32.50	112.1		80.08
8	487	14.37	44.7		82.81
9	507	13.04	38.9		83.88
10	593	7.06	18.0		87.78
11	10,380	75.00	10.9	Upper Marker	113.00

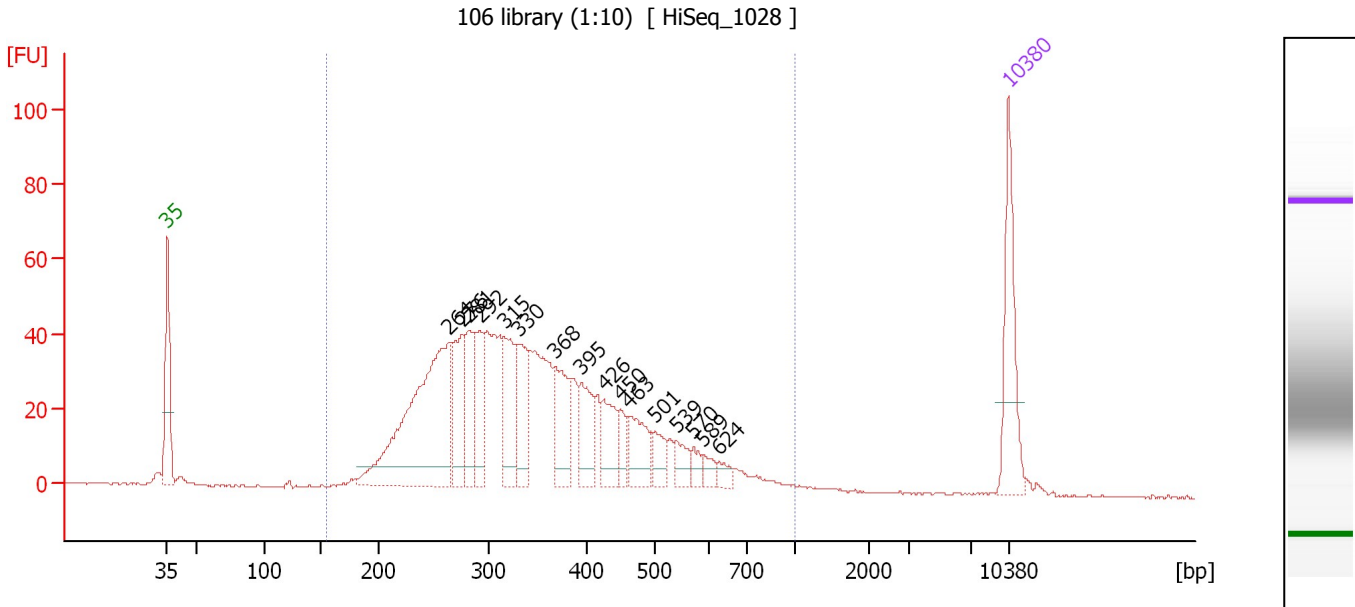
Region table for sample 6 : 105 library (1:10)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
170	1,000	355	615.7	4,179.3	869.18	96	32.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
 Modified: 7/13/2017 12:48:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 106 library (1:10)

Number of peaks found: 16 Corr. Area 1: 1,059.4
 Noise: 0.2

Peak table for sample 7 : 106 library (1:10)

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	264	326.35	1,875.2		66.44
3	276	85.51	469.5		67.58
4	281	64.97	350.1		68.06
5	292	68.02	353.3		69.03
6	315	77.09	370.4		71.03
7	330	71.47	328.1		72.22
8	368	64.33	264.6		75.30
9	395	52.07	199.6		77.46
10	426	46.10	163.8		79.35
11	450	22.99	77.4		80.70
12	463	47.66	155.9		81.46
13	501	23.16	70.0		83.62
14	539	20.16	56.6		85.35
15	570	12.42	33.0		86.75
16	589	11.38	29.3		87.61
17	624	10.50	25.5		88.86
18	10,380	75.00	10.9	Upper Marker	113.00

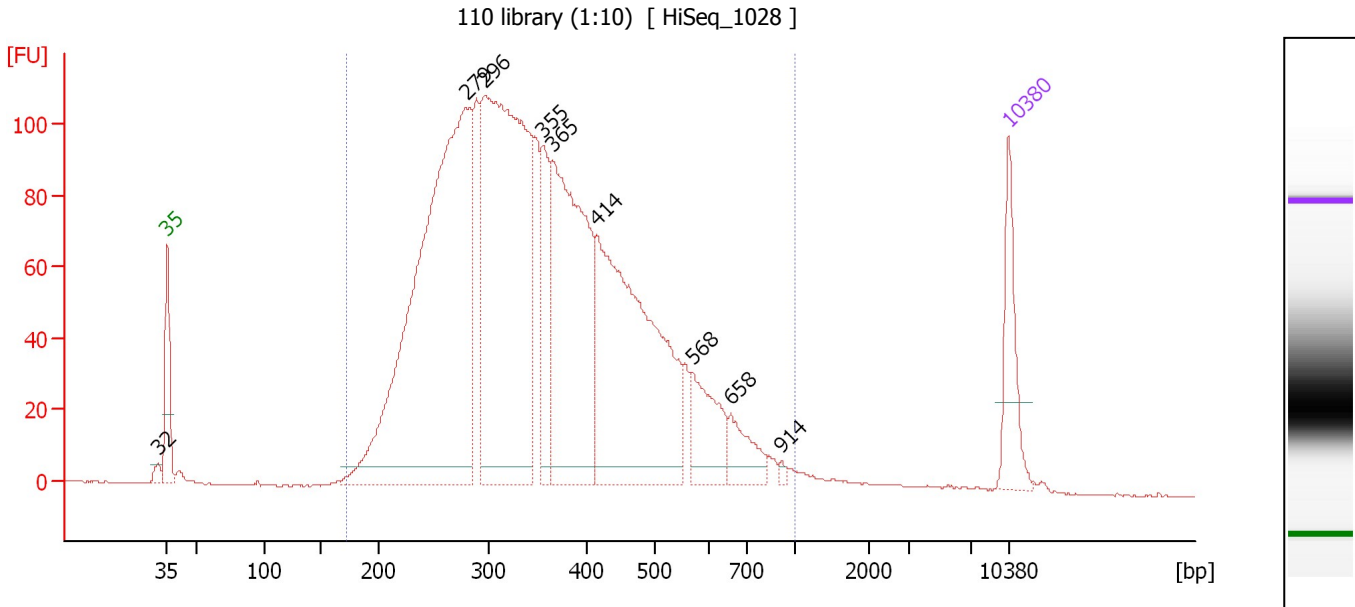
Region table for sample 7 : 106 library (1:10)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
155	1,000	359	1,059.4	6,845.0	1,435.08	98	32.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
 Modified: 7/13/2017 12:48:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 110 library (1:10)

Number of peaks found: 9 Corr. Area 1: 2,814.1
 Noise: 0.2

Peak table for sample 8 : 110 library (1:10)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.18
2	35	125.00	5,411.3	Lower Marker	43.00
3	279	1,077.48	5,843.7		67.89
4	296	854.26	4,375.4		69.41
5	355	116.34	496.2		74.25
6	365	461.81	1,918.4		75.01
7	414	545.69	1,996.7		78.65
8	568	99.29	264.9		86.64
9	658	52.24	120.3		89.90
10	914	4.29	7.1		94.09
11	10,380	75.00	10.9	Upper Marker	113.00

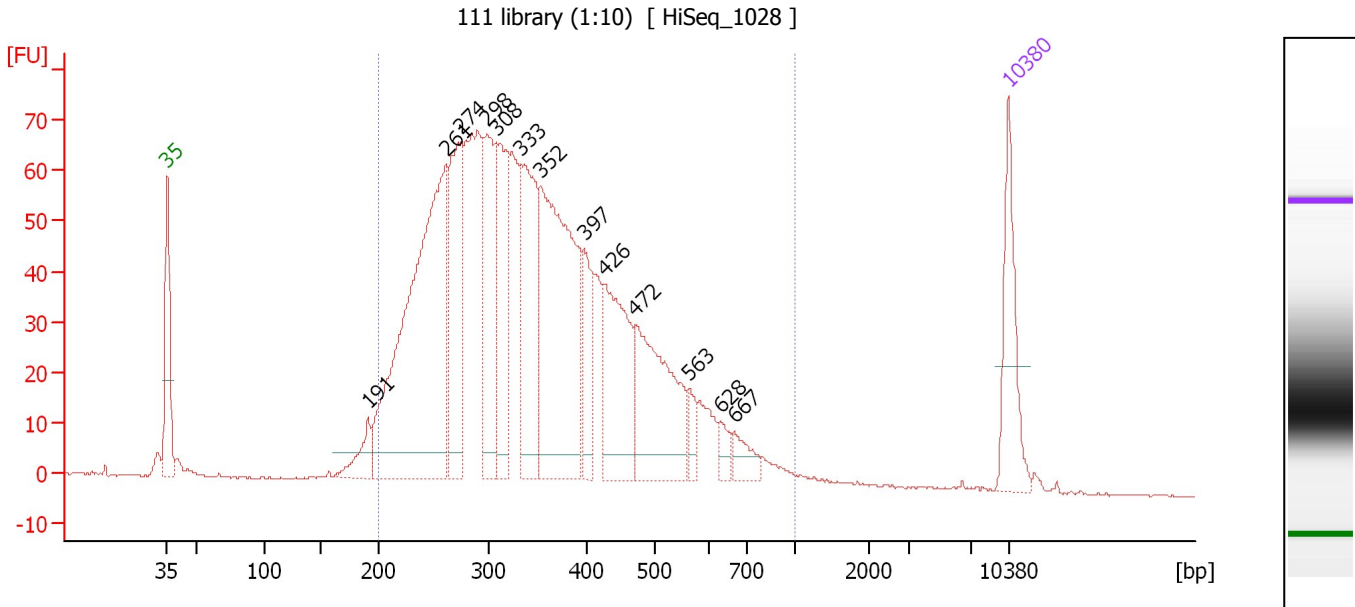
Region table for sample 8 : 110 library (1:10)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
173	1,000	367	2,814.1	16,651.2	3,558.84	98	33.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
 Modified: 7/13/2017 12:48:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 111 library (1:10)

Number of peaks found: 13 Corr. Area 1: 1,731.4
 Noise: 0.2

Peak table for sample 9 : 111 library (1:10)

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	191	40.84	324.4		59.67
3	261	577.59	3,351.1		66.21
4	274	171.65	948.8		67.40
5	298	160.17	813.7		69.64
6	308	152.23	748.5		70.46
7	333	188.19	855.8		72.47
8	352	370.74	1,595.2		74.00
9	397	65.03	247.9		77.65
10	426	158.61	564.1		79.33
11	472	176.88	567.9		81.95
12	563	21.34	57.4		86.42
13	628	16.40	39.5		88.98
14	667	24.67	56.0		90.18
15	10,380	75.00	10.9	Upper Marker	113.00

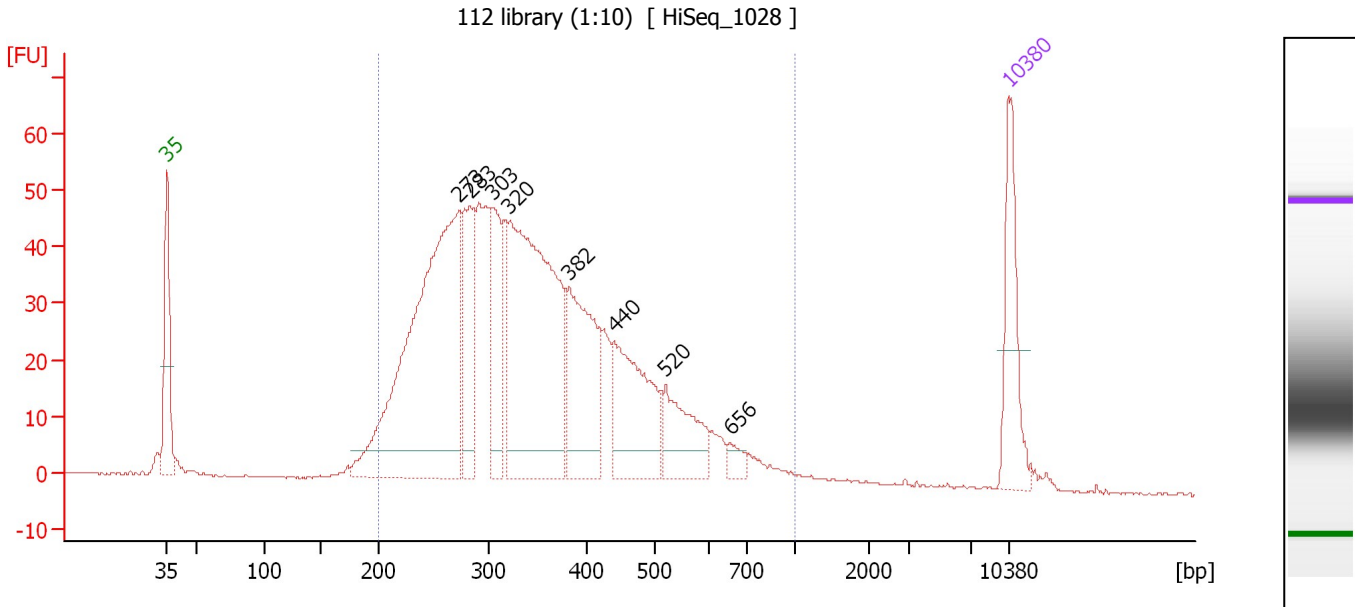
Region table for sample 9 : 111 library (1:10)

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	361	1,731.4	12,755.1	2,702.28	96	32.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
 Modified: 7/13/2017 12:48:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 112 library (1:10)

Number of peaks found: 8 Corr. Area 1: 1,193.4
 Noise: 0.1

Peak table for sample 10 : 112 library (1:10)

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	273	585.35	3,248.1		67.31
3	283	121.03	648.9		68.19
4	303	107.09	536.2		70.01
5	320	455.96	2,156.3		71.44
6	382	168.77	669.4		76.40
7	440	152.56	524.9		80.15
8	520	82.75	241.2		84.45
9	656	13.64	31.5		89.85
10	10,380	75.00	10.9	Upper Marker	113.00

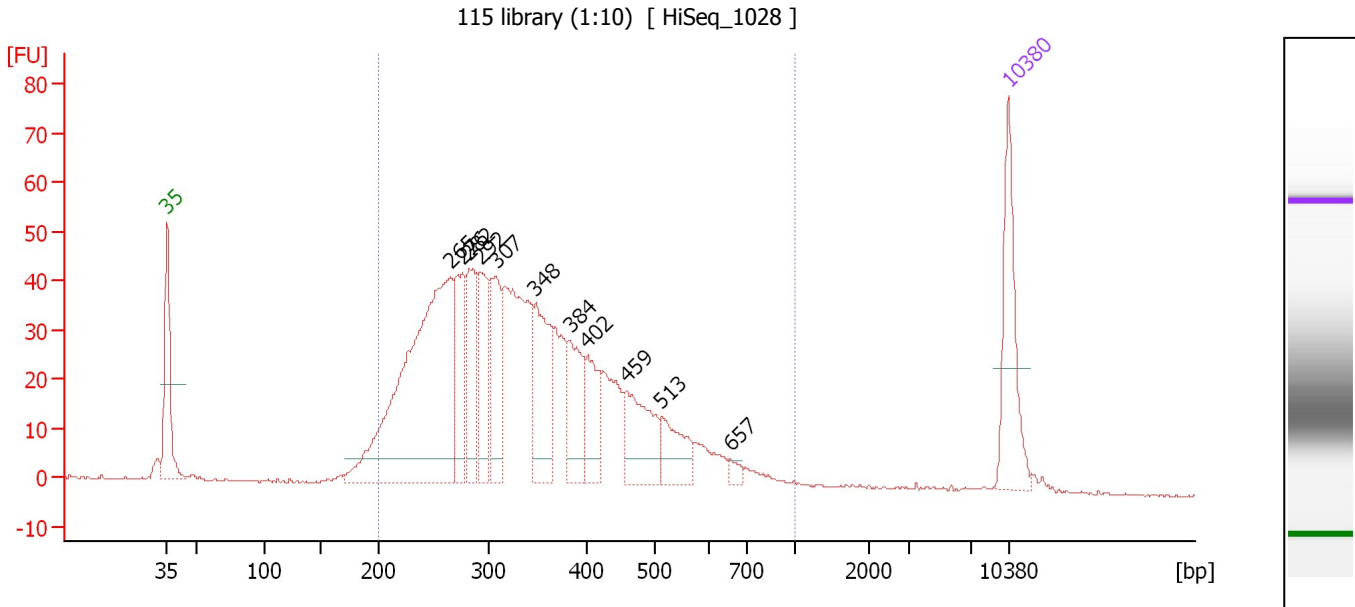
Region table for sample 10 : 112 library (1:10)

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	360	1,193.4	9,606.8	2,026.62	95	33.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

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 Modified: 7/13/2017 12:48:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 115 library (1:10)

Number of peaks found: 11 Corr. Area 1: 1,052.5
 Noise: 0.2

Peak table for sample 11 : 115 library (1:10)

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	265	463.15	2,644.8		66.59
3	276	92.30	506.5		67.59
4	282	87.60	470.5		68.15
5	292	84.01	435.4		69.09
6	307	78.85	389.1		70.37
7	348	107.33	467.7		73.64
8	384	69.27	273.6		76.53
9	402	54.47	205.2		77.97
10	459	80.18	264.9		81.19
11	513	47.87	141.4		84.13
12	657	7.49	17.3		89.85
13	10,380	75.00	10.9	Upper Marker	113.00

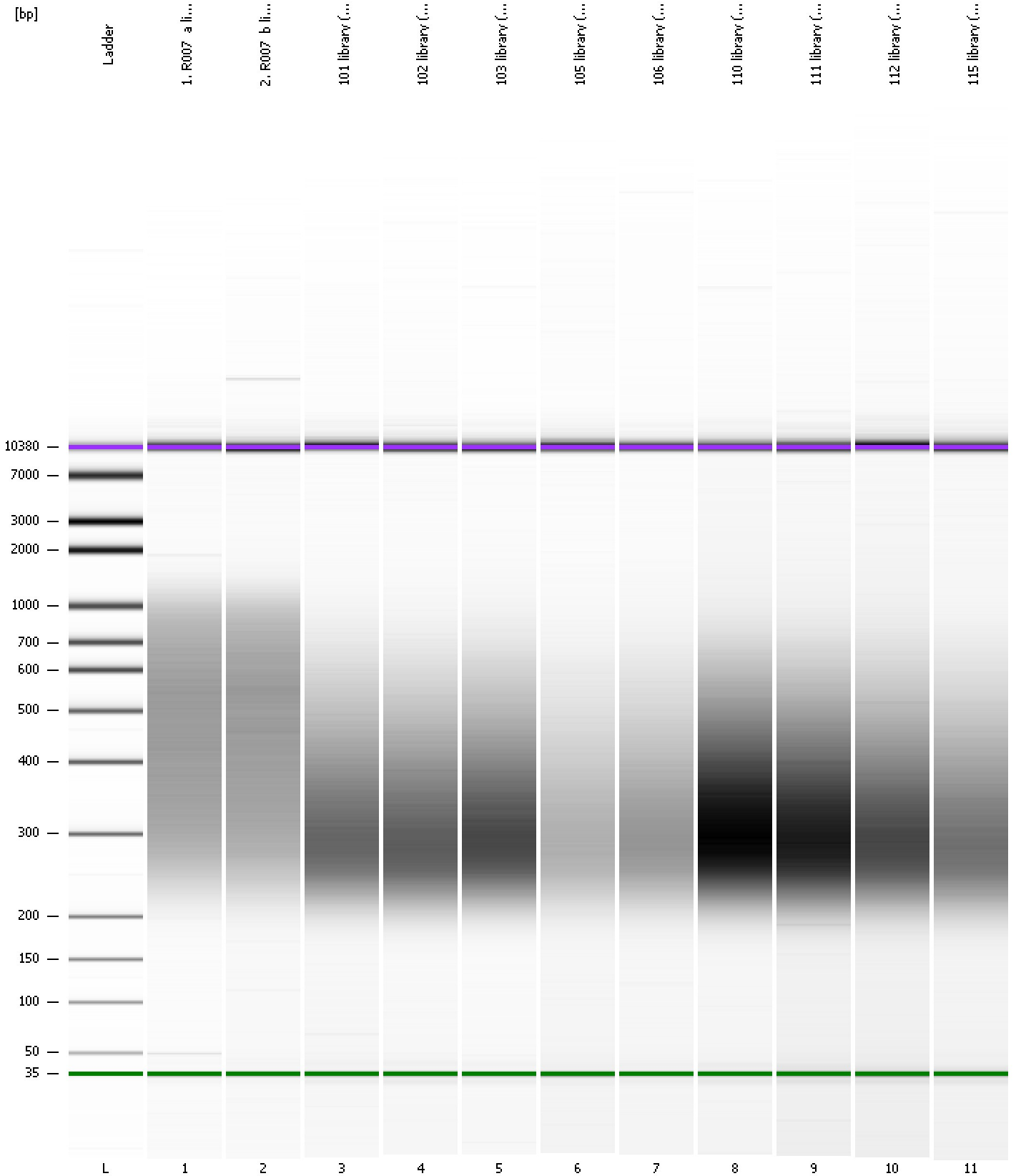
Region table for sample 11 : 115 library (1:10)

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	352	1,052.5	7,757.8	1,610.33	95	32.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
Modified: 7/13/2017 12:48:50 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-07-13\2017-07-13_001.xad

Created: 7/13/2017 12:07:29 PM
Modified: 7/13/2017 12:48:50 PM

Curves

Standard Curve

