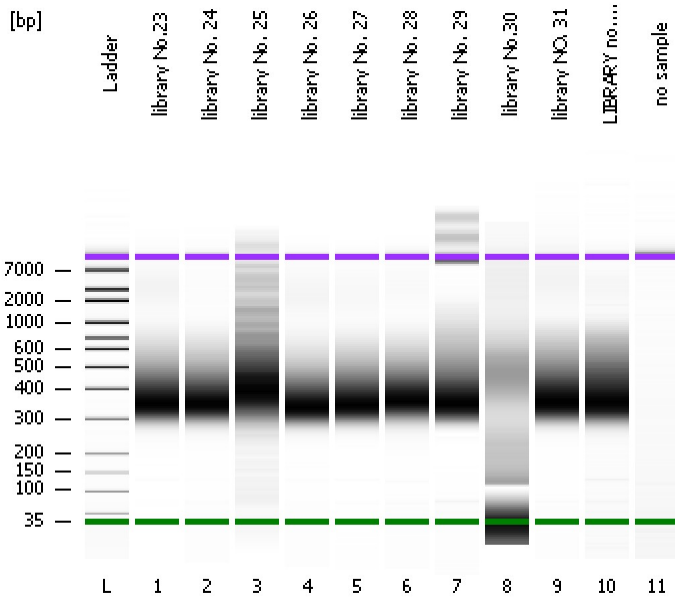


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
Modified: 8/9/2013 3:45:36 PM

Electrophoresis File Run Summary



Instrument Information:

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

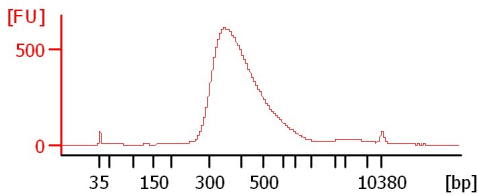
Assay Information:

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

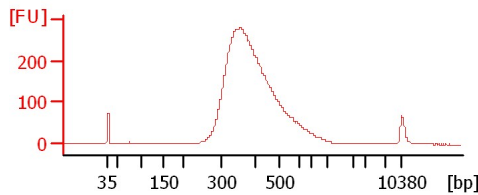
Chip Information:

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

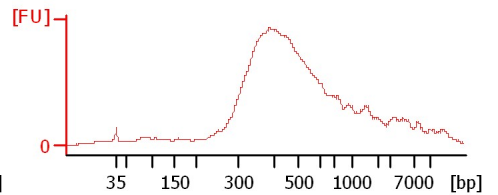
library No.23



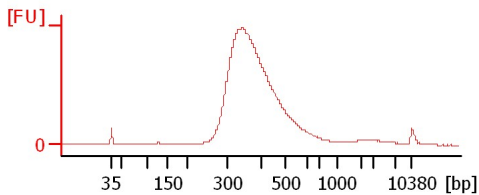
library No. 24



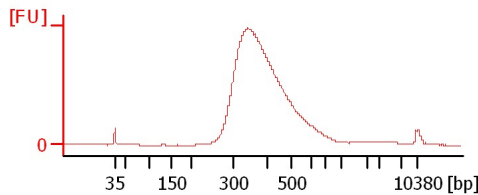
library No. 25



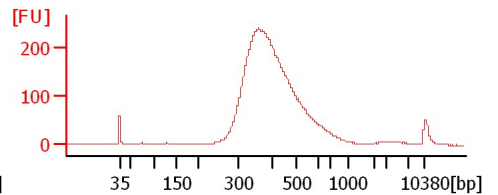
library No. 26



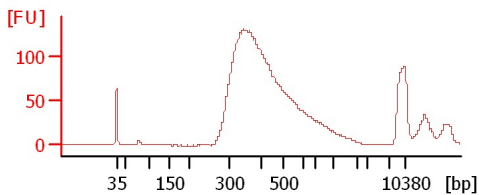
library No. 27



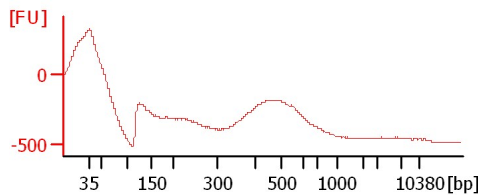
library No. 28



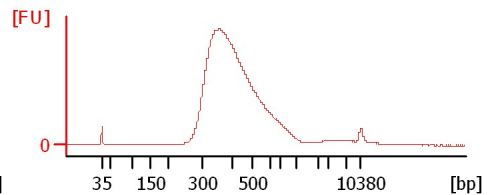
library No. 29



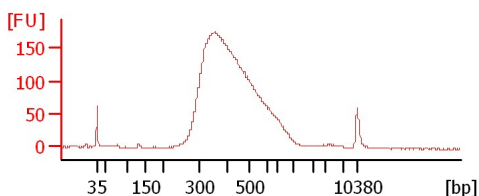
library No.30



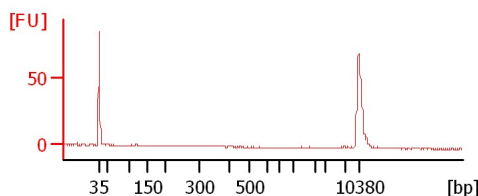
library NO. 31



LIBRARY no. 32



no sample



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
Modified: 8/9/2013 3:45:36 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
library No.23		<input type="checkbox"/>	✓			
library No. 24		<input type="checkbox"/>	✓			
library No. 25		<input type="checkbox"/>	✓			
library No. 26		<input type="checkbox"/>	✓			
library No. 27		<input type="checkbox"/>	✓			
library No. 28		<input type="checkbox"/>	✓			
library No. 29		<input type="checkbox"/>	✓			
library No.30		<input type="checkbox"/>	✓			
library NO. 31		<input type="checkbox"/>	✓			
LIBRARY no. 32		<input type="checkbox"/>	✓			
no sample		<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\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
Modified: 8/9/2013 3:45:36 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

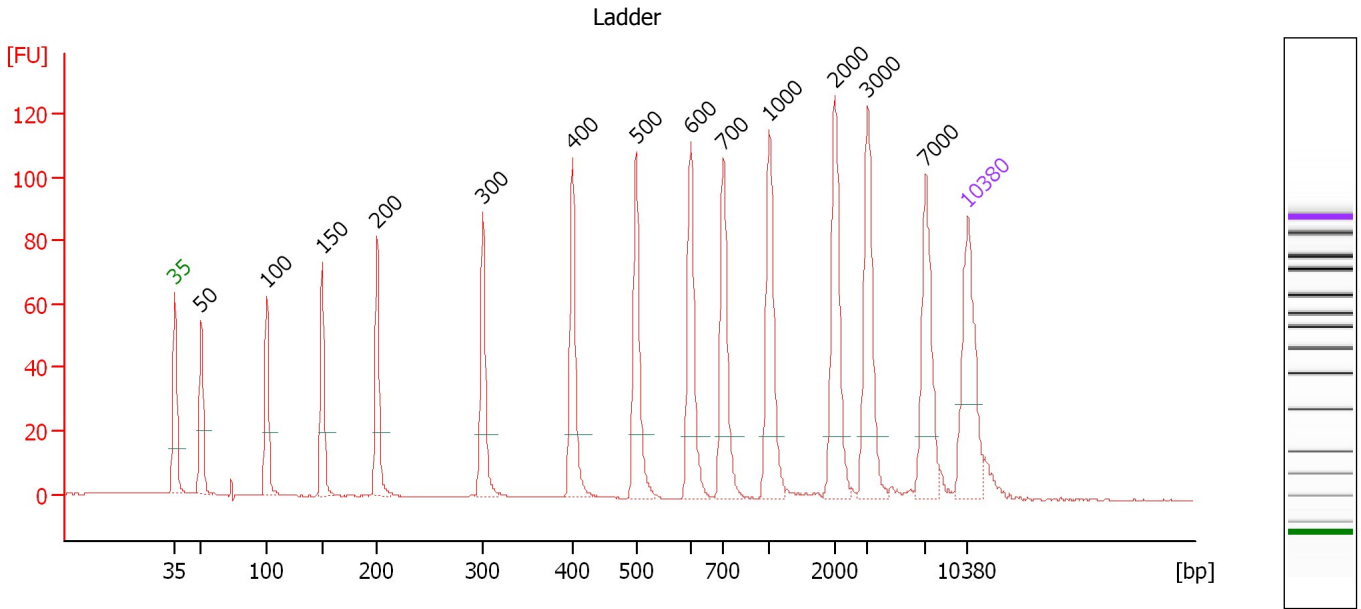
Ladder

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:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
 Modified: 8/9/2013 3:45:36 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

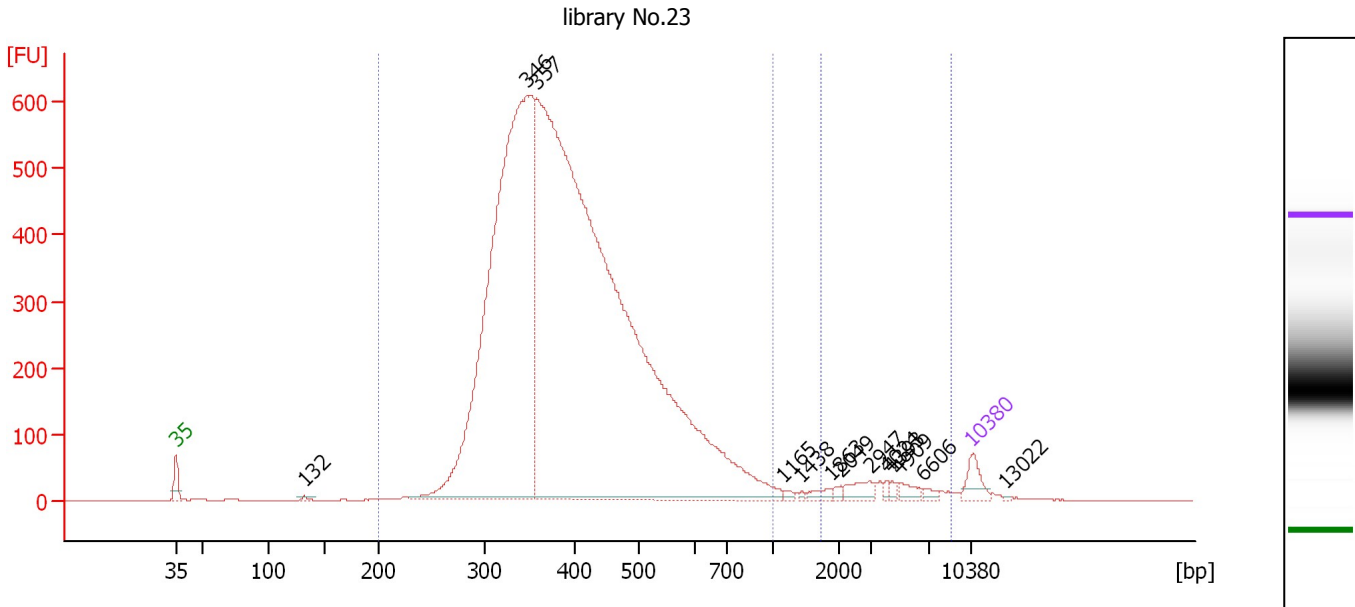
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
 Modified: 8/9/2013 3:45:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : library No.23

Number of peaks found: 13 Corr. Area 1: 10,685.9
 Noise: 0.2 Corr. Area 2: 252.2

Peak table for sample 1 : library No.23

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	132	13.09	150.0	
3	346	4,813.21	21,074.5	
4	357	8,991.02	38,125.9	
5	1,165	15.47	20.1	
6	1,438	7.27	7.7	
7	1,863	30.53	24.8	
8	2,049	15.74	11.6	
9	2,947	64.61	33.2	
10	4,024	14.65	5.5	
11	4,393	16.35	5.6	
12	4,909	37.77	11.7	
13	6,606	20.18	4.6	
14	10,380	75.00	10.9	Upper Marker
15	13,022	0.00	0.0	

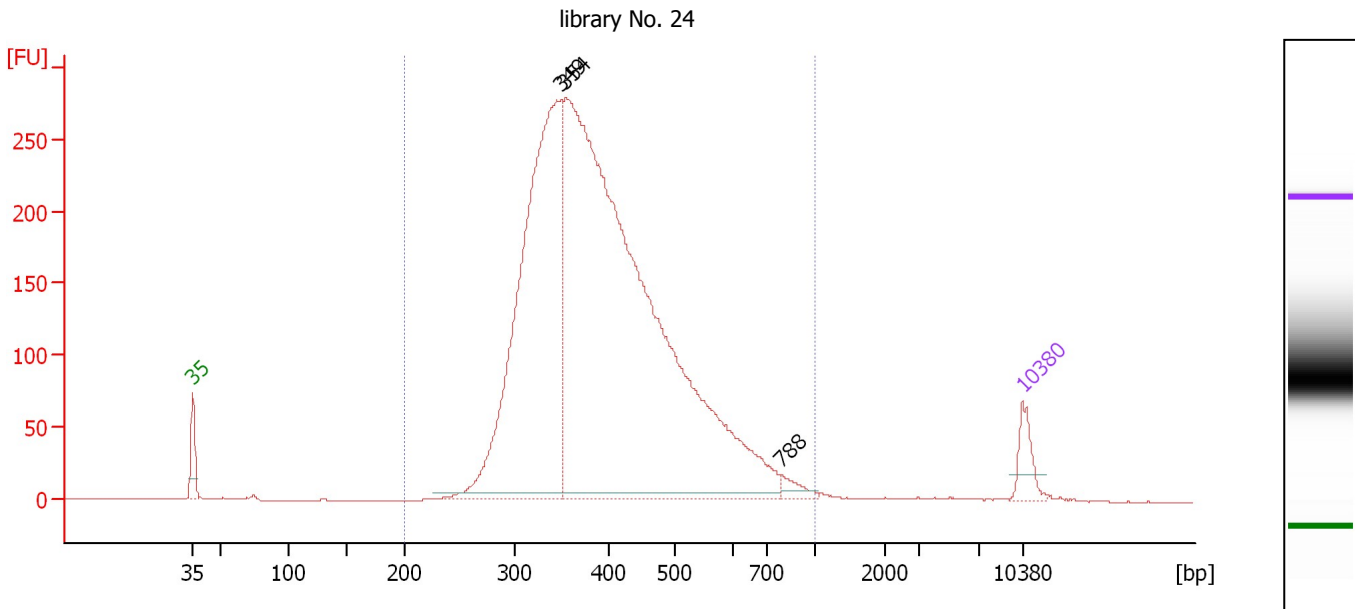
Region table for sample 1 : library No.23

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	410	52,006.6	13,130.45	10,685.9	96	25.6	Blue
1,722	8,678	4,115	100.4	224.10	252.2	2	46.5	Dark Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
 Modified: 8/9/2013 3:45:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : library No. 24

Number of peaks found: 3 Corr. Area 1: 4,728.4
 Noise: 0.2

Peak table for sample 2 : library No. 24

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	349	2,325.88	10,096.9	
3	354	4,570.81	19,587.1	
4	788	42.94	82.6	
5	10,380	75.00	10.9	Upper Marker

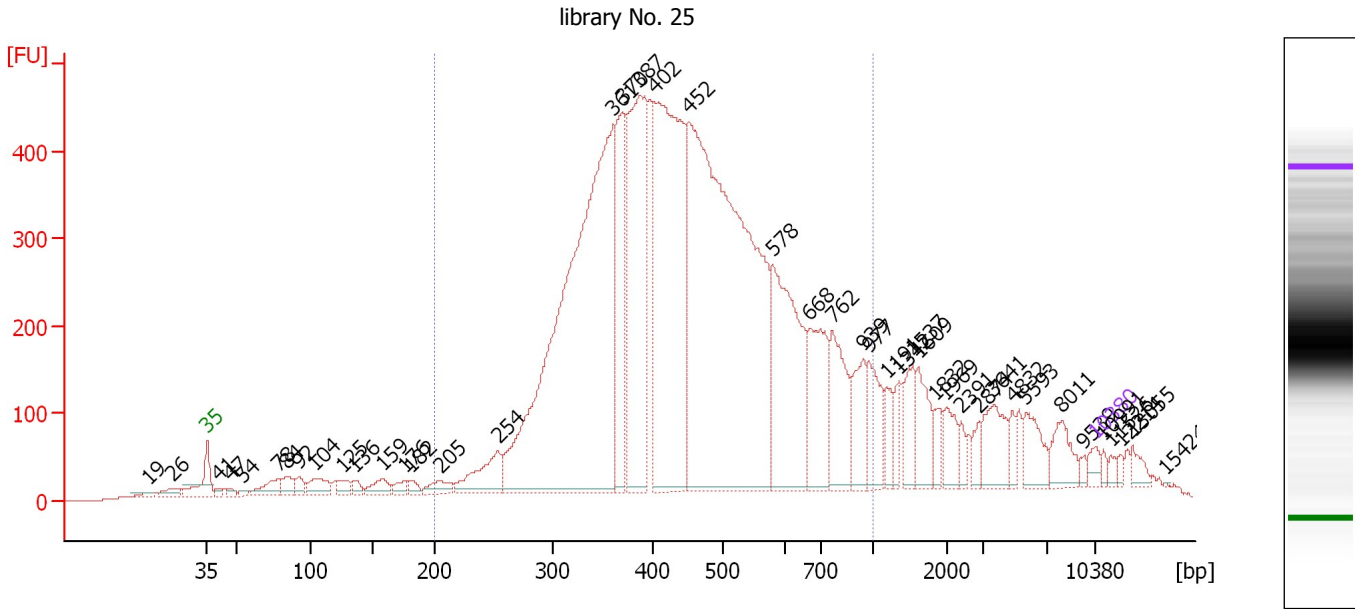
Region table for sample 2 : library No. 24

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	406	26,515.4	6,656.08	4,728.4	98	24.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
 Modified: 8/9/2013 3:45:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : library No. 25

Number of peaks found: 44 Corr. Area 1: 11,192.1
 Noise: 0.5

Peak table for sample 3 : library No. 25

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	19	0.00	0.0	
2	26	0.00	0.0	
3	35	125.00	5,411.3	Lower Marker
4	41	53.57	1,984.9	
5	47	54.17	1,744.2	
6	54	41.21	1,156.3	
7	78	238.06	4,605.3	
8	84	155.83	2,806.3	
9	92	127.42	2,095.7	
10	104	250.02	3,642.9	
11	125	107.33	1,300.6	
12	136	81.33	907.7	
13	159	161.91	1,546.8	
14	176	77.75	671.2	
15	182	78.90	658.4	
16	205	154.59	1,141.5	
17	254	502.61	2,999.2	
18	361	6,918.58	29,078.0	
19	370	1,214.61	4,972.9	
20	387	2,610.97	10,220.1	
21	402	3,673.77	13,845.6	
22	452	7,096.27	23,810.6	
23	578	1,733.56	4,540.9	
24	668	827.66	1,878.6	
25	762	692.77	1,377.9	
26	939	393.76	635.1	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad


Created: 8/9/2013 3:05:06 PM
 Modified: 8/9/2013 3:45:36 PM

Electropherogram Summary Continued ...

... Peak table for sample 3 : library No. 25

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	977	411.60	638.5	
28	1,191	166.09	211.3	
29	1,342	134.96	152.3	
30	1,537	293.77	289.6	
31	1,609	318.72	300.2	
32	1,832	110.33	91.2	
33	1,969	195.89	150.7	
34	2,391	80.35	50.9	
35	2,874	95.30	50.2	
36	3,641	339.33	141.2	
37	4,832	88.91	27.9	
38	5,593	253.96	68.8	
39	8,011	228.46	43.2	
40	9,539	33.05	5.3	
41	10,380	75.00	10.9	Upper Marker
42	10,991	0.00	0.0	
43	11,526	0.00	0.0	
44	12,214	0.00	0.0	
45	13,055	0.00	0.0	
46	15,424	0.00	0.0	

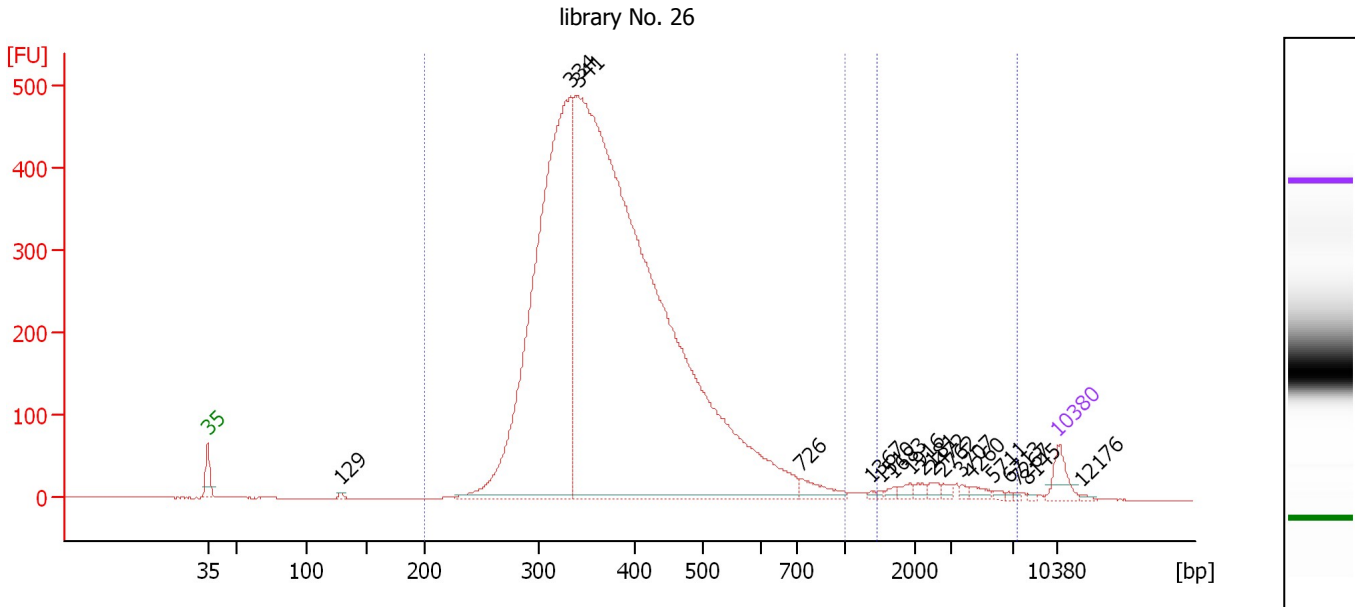
Region table for sample 3 : library No. 25

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	465	101,607.2	27,590.04	11,192.1	81	32.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
 Modified: 8/9/2013 3:45:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : library No. 26

Number of peaks found: 18 Corr. Area 1: 7,887.9
 Noise: 0.5 Corr. Area 2: 180.1

Peak table for sample 4 : library No. 26

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	129	10.89	127.9	
3	334	3,740.16	16,990.0	
4	341	8,088.19	35,904.4	
5	726	90.72	189.4	
6	1,367	8.53	9.5	
7	1,510	6.88	6.9	
8	1,683	13.52	12.2	
9	1,916	24.53	19.4	
10	2,181	19.76	13.7	
11	2,472	22.69	13.9	
12	2,762	18.87	10.4	
13	3,707	12.53	5.1	
14	4,260	25.10	8.9	
15	5,711	10.91	2.9	
16	6,713	5.48	1.2	
17	7,267	4.40	0.9	
18	8,145	5.16	1.0	
19	10,380	75.00	10.9	Upper Marker
20	12,176	0.00	0.0	

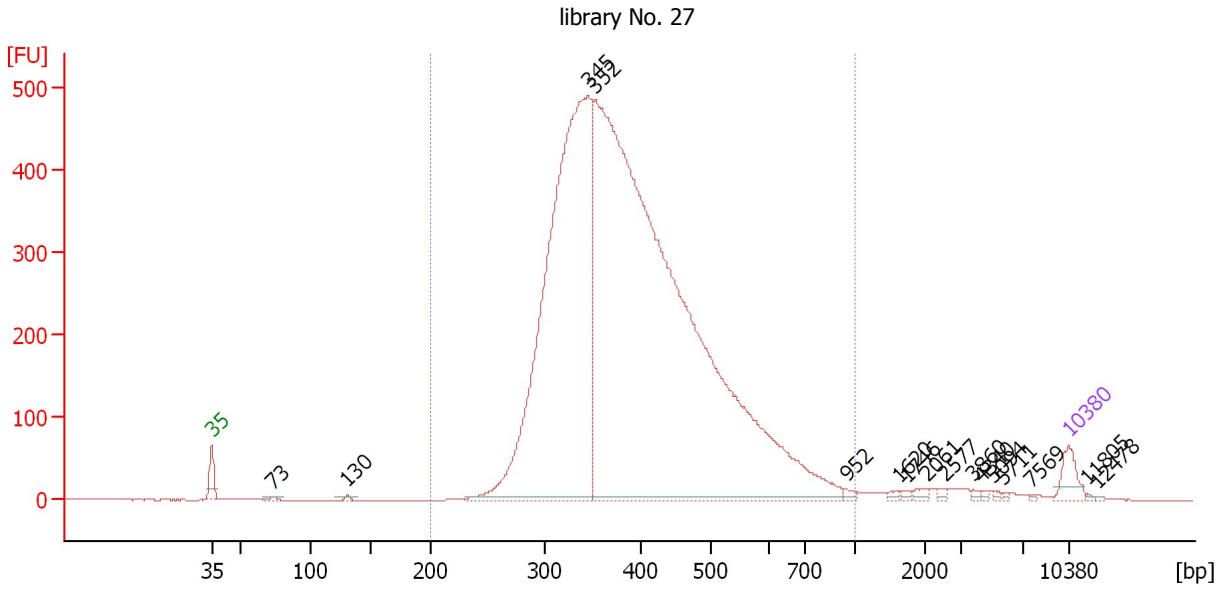
Region table for sample 4 : library No. 26

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	389	46,724.7	11,303.45	7,887.9	97	24.0	Blue
1,453	7,279	3,242	104.6	184.89	180.1	2	47.9	Dark Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
 Modified: 8/9/2013 3:45:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : library No. 27

Number of peaks found: 16 Corr. Area 1: 8,326.8
 Noise: 0.3

Peak table for sample 5 : library No. 27

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	73	16.80	347.2	
3	130	12.61	147.2	
4	345	3,953.65	17,345.3	
5	352	7,511.72	32,336.2	
6	952	15.02	23.9	
7	1,620	11.65	10.9	
8	1,746	10.65	9.2	
9	2,061	16.98	12.5	
10	2,577	12.27	7.2	
11	3,860	8.27	3.2	
12	4,340	8.27	2.9	
13	5,094	7.42	2.2	
14	5,711	5.03	1.3	
15	7,569	4.47	0.9	
16	10,380	75.00	10.9	Upper Marker
17	11,805	0.00	0.0	
18	12,478	0.00	0.0	

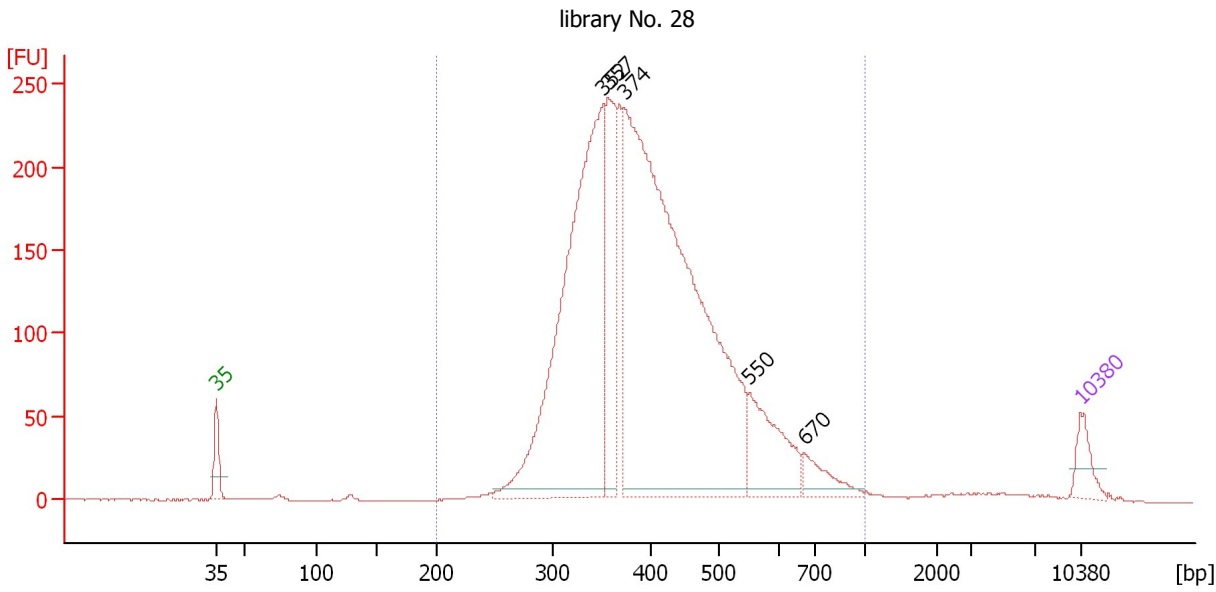
Region table for sample 5 : library No. 27

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	402	43,477.5	10,820.48	8,326.8	98	24.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
 Modified: 8/9/2013 3:45:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : library No. 28

Number of peaks found: 5 Corr. Area 1: 4,062.8
 Noise: 0.2

Peak table for sample 6 : library No. 28

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	352	2,199.51	9,472.3	
3	357	554.45	2,351.3	
4	374	3,468.79	14,065.3	
5	550	357.67	985.4	
6	670	107.79	243.6	
7	10,380	75.00	10.9	Upper Marker

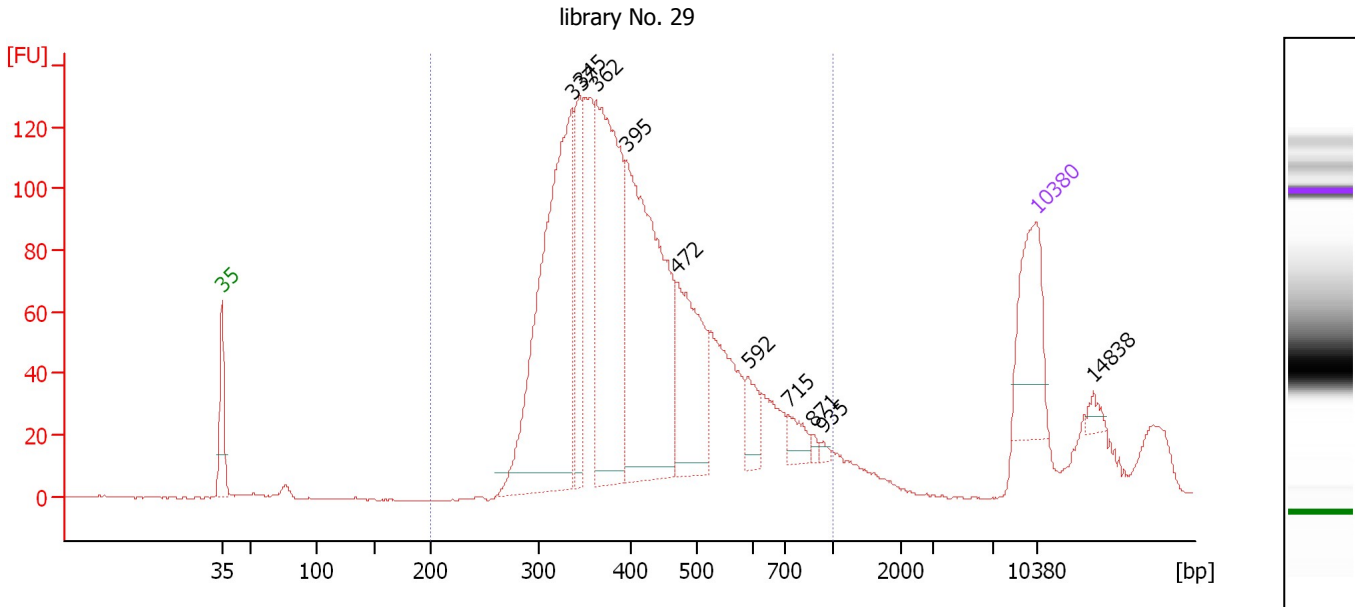
Region table for sample 6 : library No. 28

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	412	27,511.3	7,021.49	4,062.8	98	24.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
 Modified: 8/9/2013 3:45:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : library No. 29

Number of peaks found: 10 Corr. Area 1: 2,334.6
 Noise: 0.2

Peak table for sample 7 : library No. 29

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	337	425.67	1,915.1	
3	345	100.54	441.7	
4	362	307.55	1,286.2	
5	395	352.68	1,353.7	
6	472	143.54	460.8	
7	592	27.49	70.3	
8	715	20.67	43.8	
9	871	4.25	7.4	
10	935	3.61	5.9	
11	10,380	75.00	10.9	Upper Marker
12	14,838	0.00	0.0	

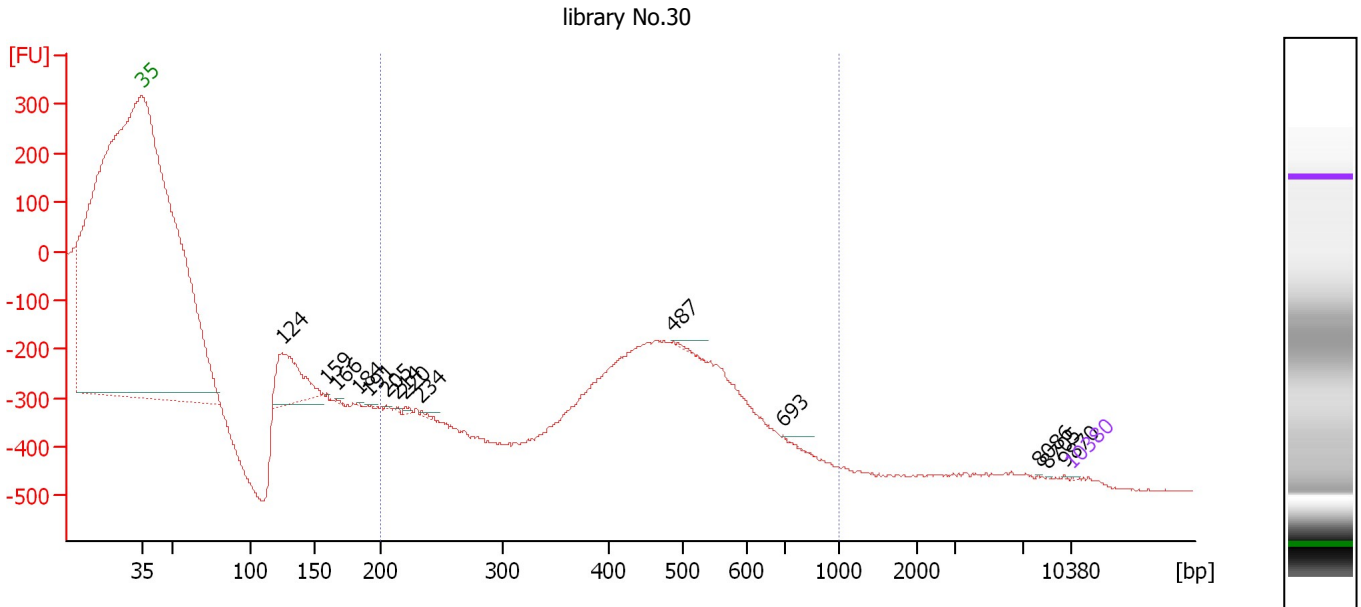
Region table for sample 7 : library No. 29

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	431	6,941.6	1,808.07	2,334.6	92	29.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
 Modified: 8/9/2013 3:45:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : library No.30

Number of peaks found: 14 Corr. Area 1: 623.2
 Noise: 1.8

Peak table for sample 8 : library No.30

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	124	21,641.16	263,473.4	
3	159	60.21	574.1	
4	166	198.92	1,816.3	
5	184	84.55	697.3	
6	191	81.25	644.1	
7	205	154.34	1,140.9	
8	214	208.17	1,473.9	
9	220	534.83	3,676.0	
10	234	426.90	2,766.9	
11	487	359.88	1,119.8	
12	693	81.90	179.0	
13	8,086	28.88	5.4	
14	8,705	36.03	6.3	
15	9,870	42.18	6.5	
16	10,380	75.00	10.9	Upper Marker

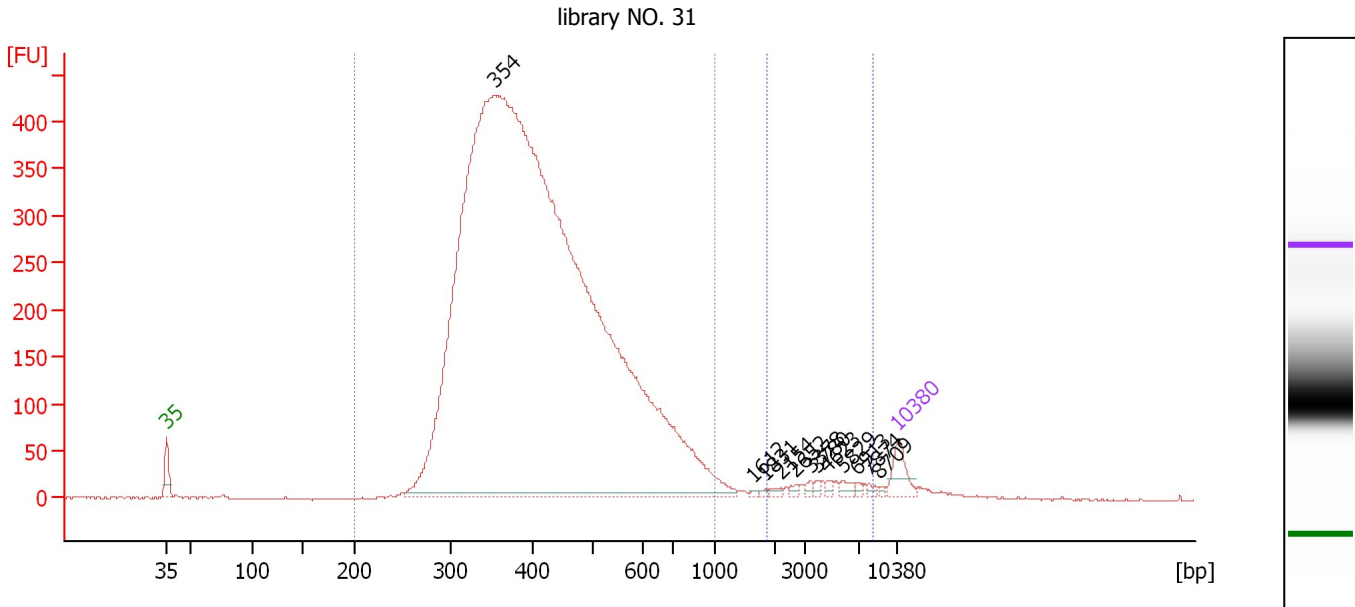
Region table for sample 8 : library No.30

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	491	52,972.2	17,060.58	623.2	100	8.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
 Modified: 8/9/2013 3:45:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : library NO. 31

Number of peaks found: 12 Corr. Area 1: 7,930.4
 Noise: 0.6 Corr. Area 2: 162.0

Peak table for sample 9 : library NO. 31

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	354	11,787.86	50,504.0	
3	1,612	5.47	5.1	
4	1,831	6.01	5.0	
5	2,154	10.69	7.5	
6	2,652	9.38	5.4	
7	3,378	11.29	5.1	
8	3,780	10.28	4.1	
9	4,623	11.96	3.9	
10	5,829	20.37	5.3	
11	6,913	8.63	1.9	
12	7,874	11.58	2.2	
13	8,709	6.79	1.2	
14	10,380	75.00	10.9	Upper Marker

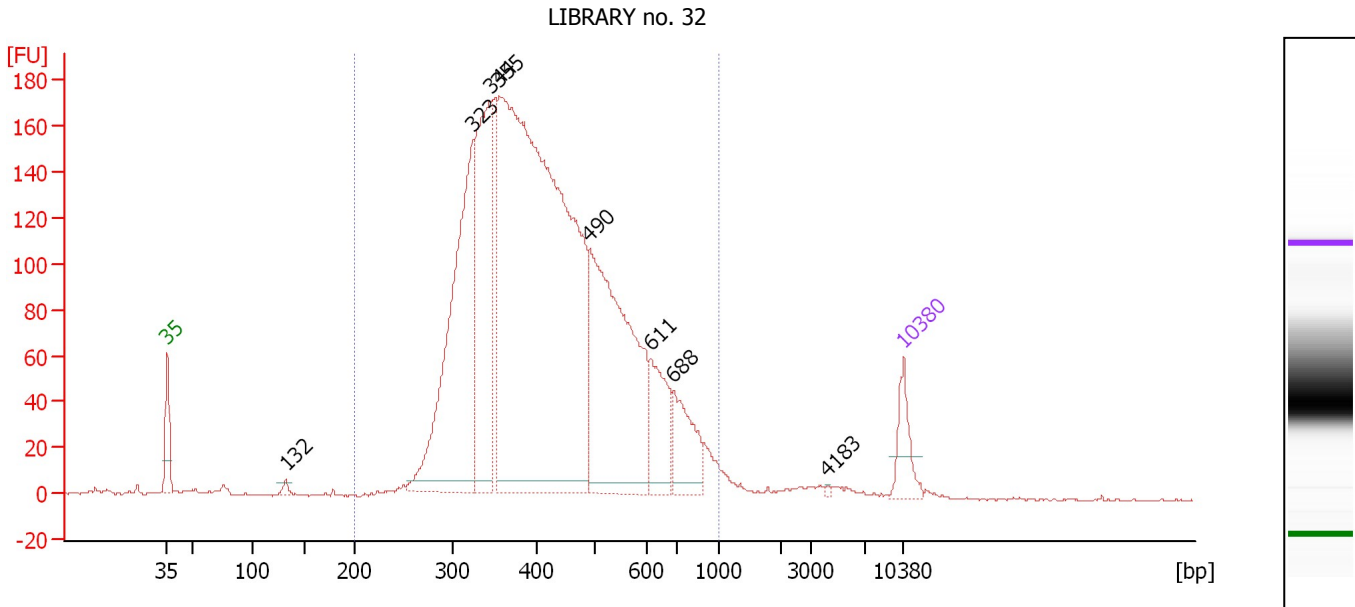
Region table for sample 9 : library NO. 31

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	427	42,351.9	11,009.34	7,930.4	96	27.4	Blue
1,845	8,257	4,562	64.4	164.18	162.0	2	41.0	Dark Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
 Modified: 8/9/2013 3:45:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : LIBRARY no. 32

Number of peaks found: 8 Corr. Area 1: 3,542.1
 Noise: 0.5

Peak table for sample 10 : LIBRARY no. 32

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	132	17.08	196.4	
3	323	972.59	4,559.4	
4	344	649.55	2,863.4	
5	355	2,907.86	12,424.5	
6	490	925.17	2,862.3	
7	611	187.31	464.8	
8	688	169.85	373.9	
9	4,183	3.60	1.3	
10	10,380	75.00	10.9	Upper Marker

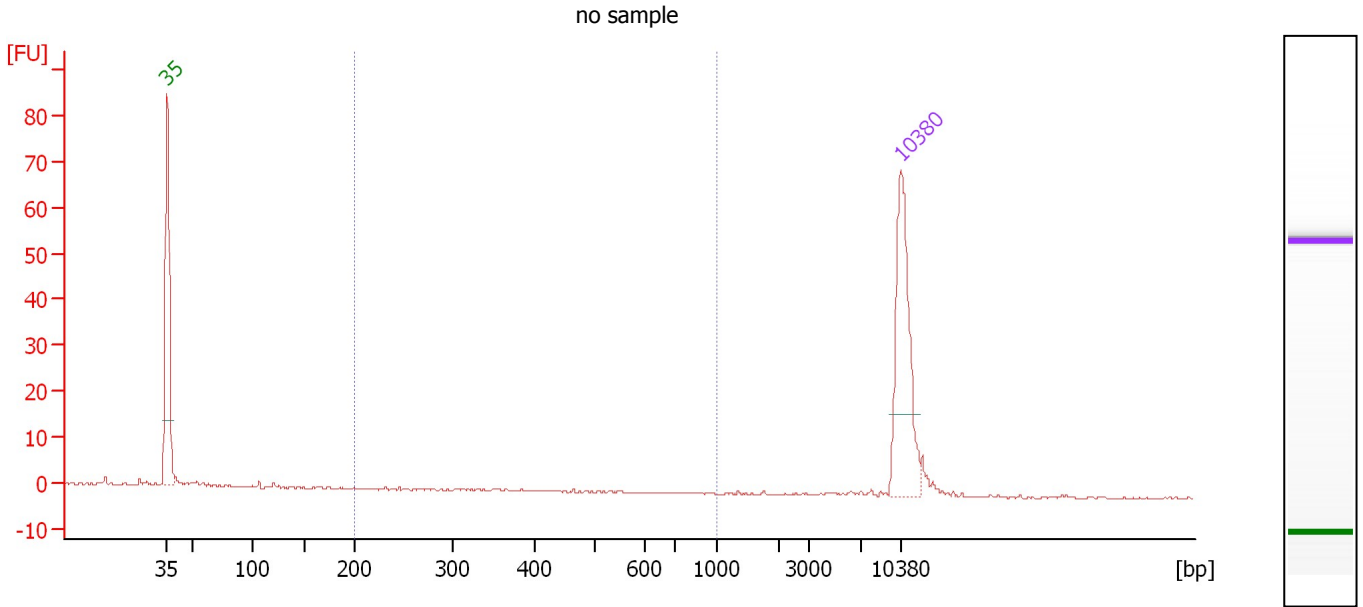
Region table for sample 10 : LIBRARY no. 32

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	436	22,416.4	5,885.92	3,542.1	97	28.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
 Modified: 8/9/2013 3:45:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : no sample

Number of peaks found: 0 Corr. Area 1: 0.1
 Noise: 0.2

Peak table for sample 11 : no sample

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker

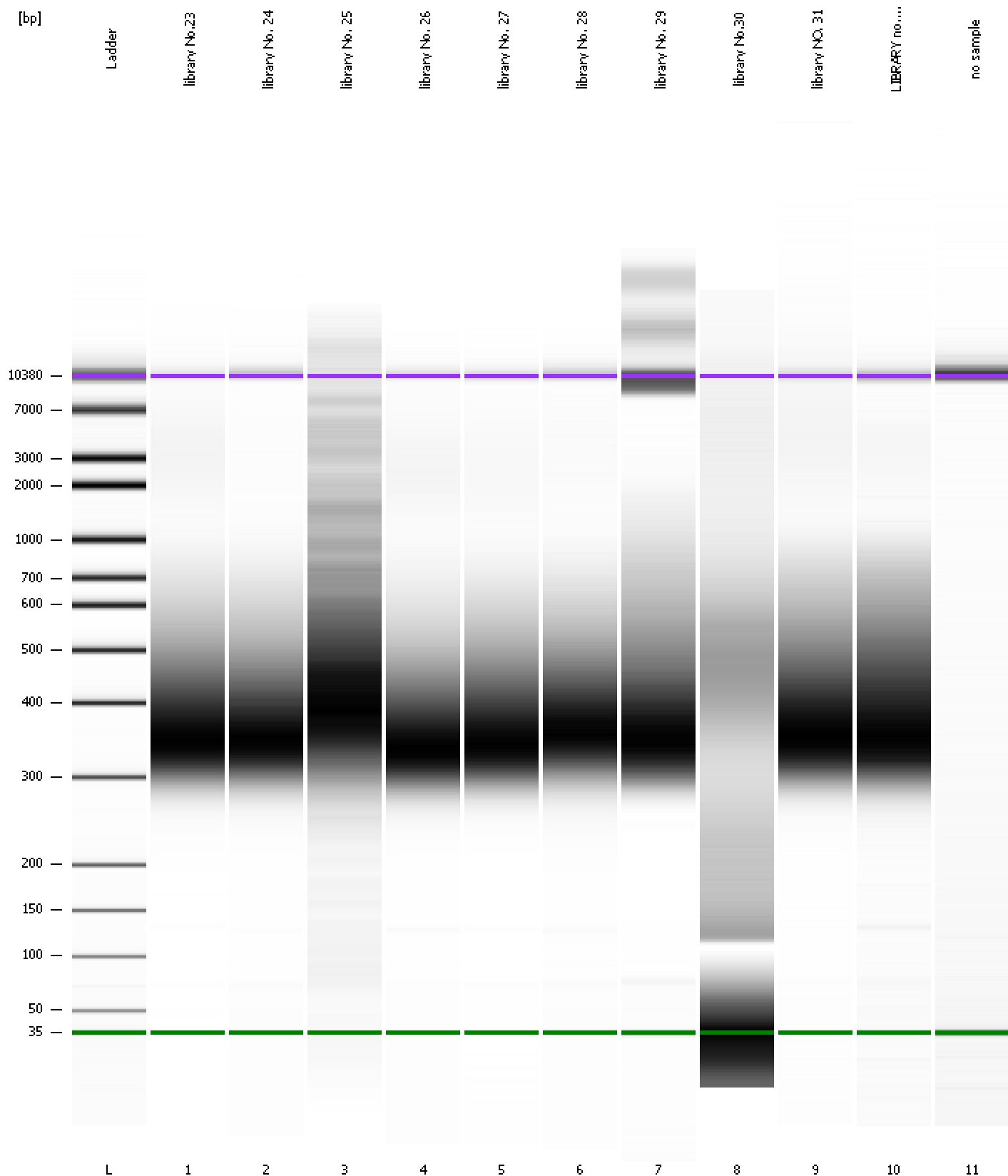
Region table for sample 11 : no sample

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	386	0.5	0.11	0.1	1	28.0	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad

Created: 8/9/2013 3:05:06 PM
Modified: 8/9/2013 3:45:36 PM

Gel Image



Assay Class: High Sensitivity DNA Assay Created: 8/9/2013 3:05:06 PM
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad Modified: 8/9/2013 3:45:36 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		8/9/2013 3:45:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-08-09\2013-08-09_008.xad)		Instrument	Run		8/9/2013 3:05:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		8/9/2013 3:05:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/9/2013 3:05:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/9/2013 3:05:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		8/9/2013 3:05:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/9/2013 3:05:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/9/2013 3:05:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1