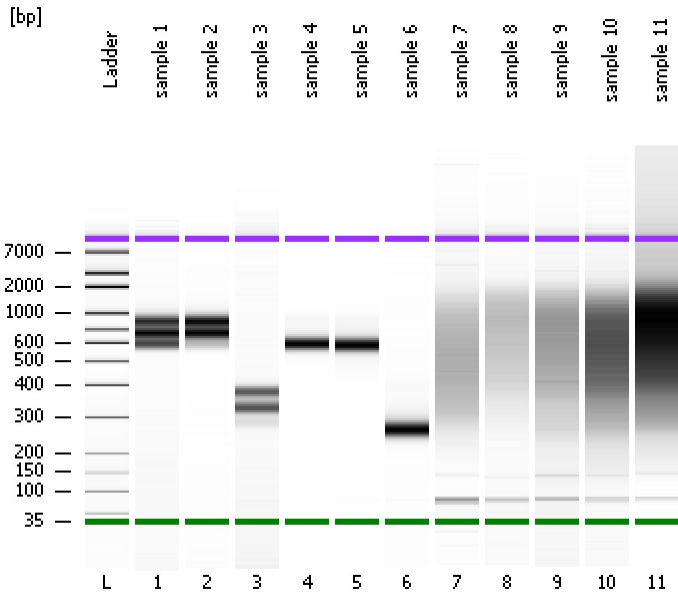


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
Modified: 11/9/2012 4:28:36 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

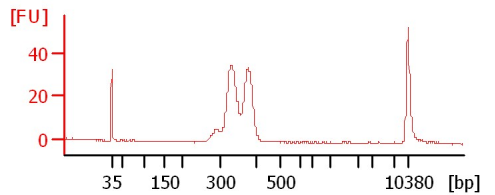
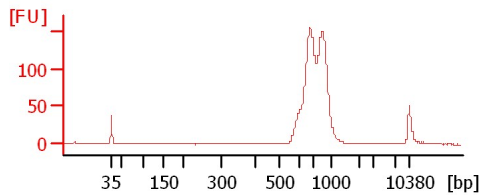
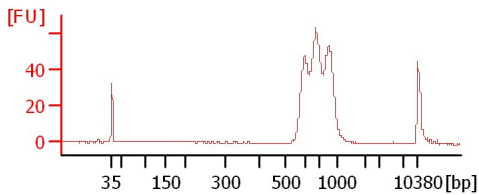
Chip Information:

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

sample 1

sample 2

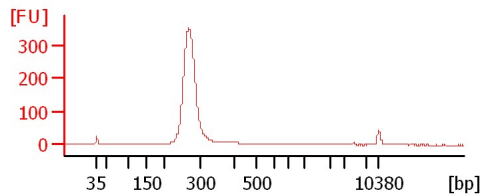
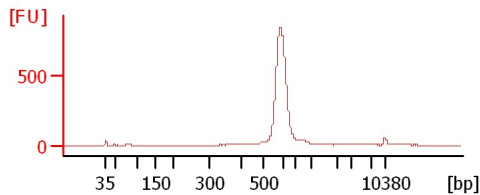
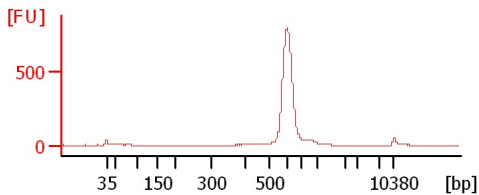
sample 3



sample 4

sample 5

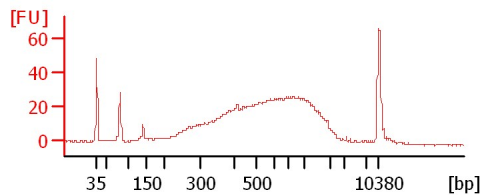
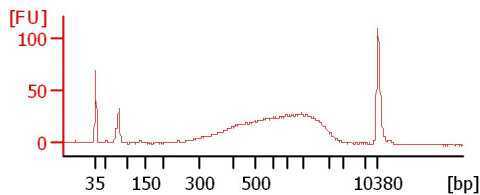
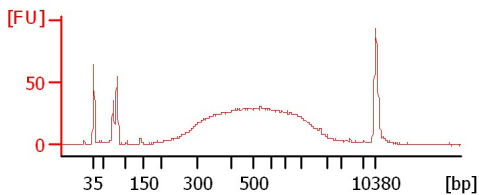
sample 6



sample 7

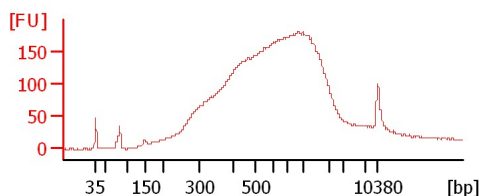
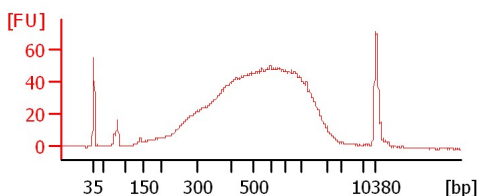
sample 8

sample 9



sample 10

sample 11



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
 Modified: 11/9/2012 4:28:36 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:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
Modified: 11/9/2012 4:28:36 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/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

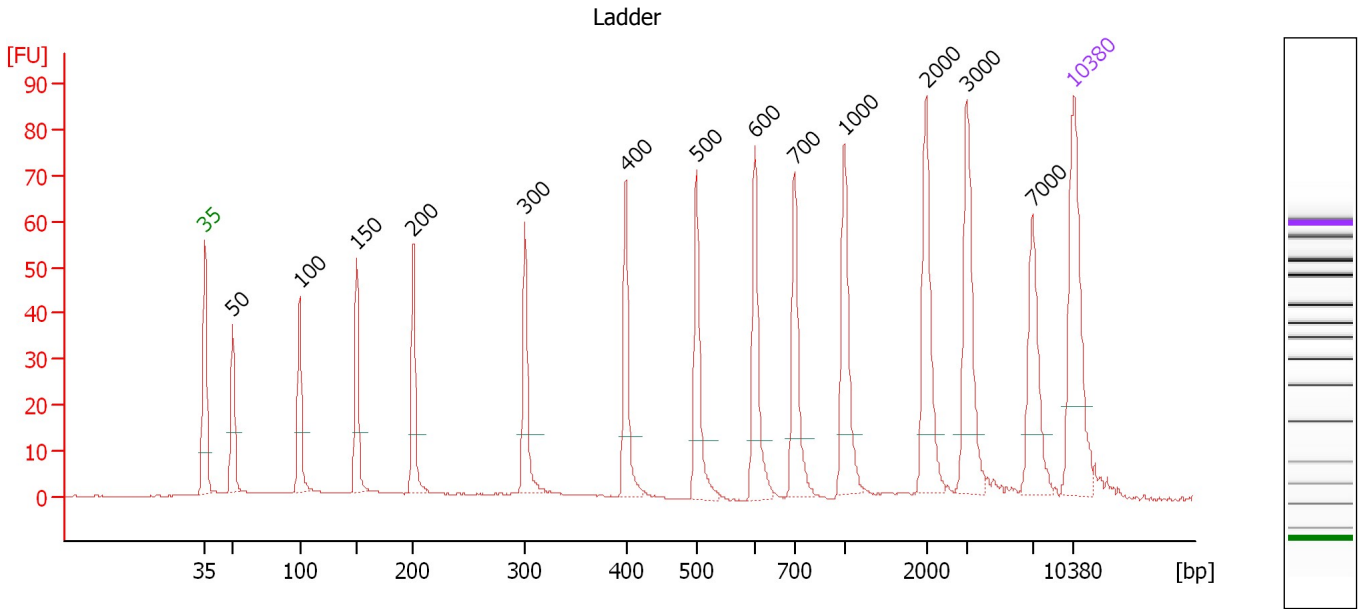
Ladder

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\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
 Modified: 11/9/2012 4:28:36 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

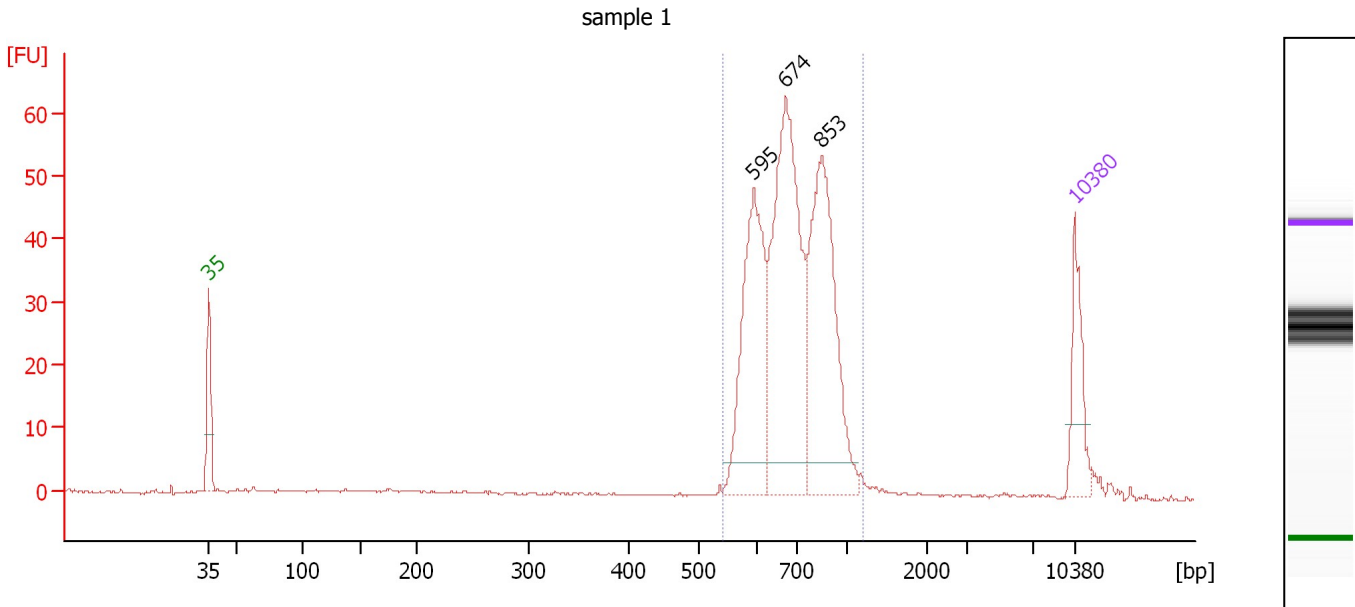
Peak table for Ladder

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\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
 Modified: 11/9/2012 4:28:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 3 Corr. Area 1: 446.4
 Noise: 0.1

Peak table for sample 1 : sample 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	595	308.82	786.6	
3	674	478.30	1,075.4	
4	853	361.28	641.7	
5	10,380	75.00	10.9	Upper Marker

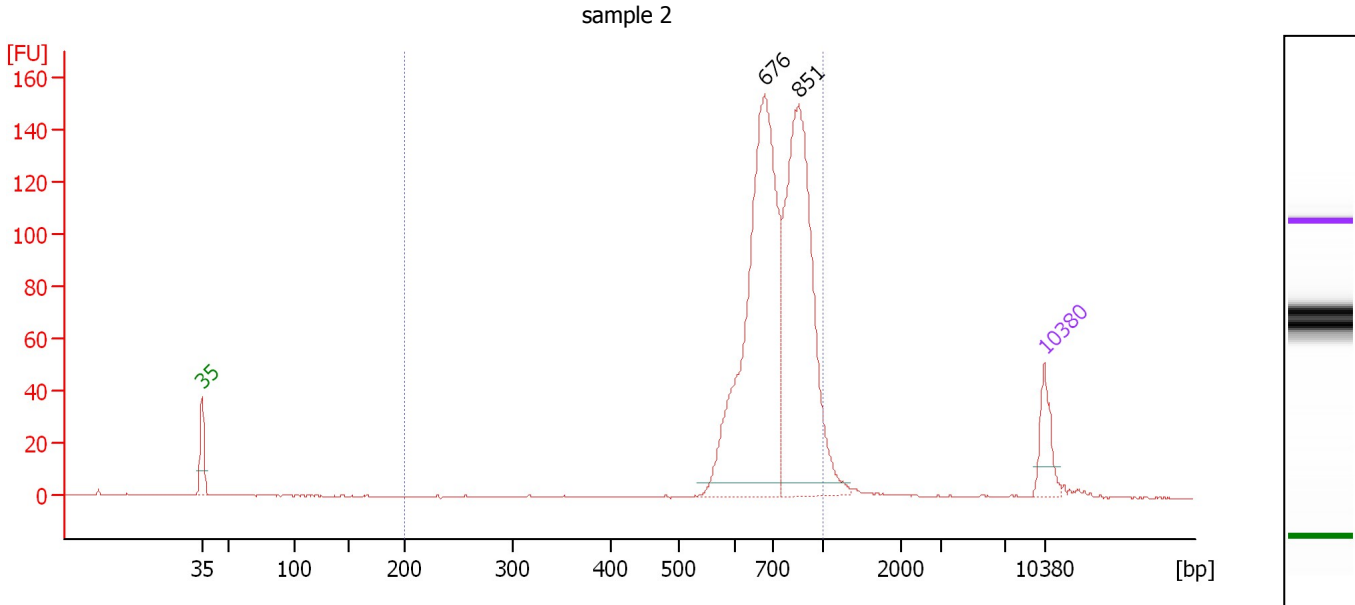
Region table for sample 1 : sample 1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
541	1,218	724	2,496.1	1,158.16	446.4	97	17.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
 Modified: 11/9/2012 4:28:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 2 Corr. Area 1: 971.9
 Noise: 0.1

Peak table for sample 2 : sample 2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	676	1,129.43	2,530.7	
3	851	903.63	1,608.4	
4	10,380	75.00	10.9	Upper Marker

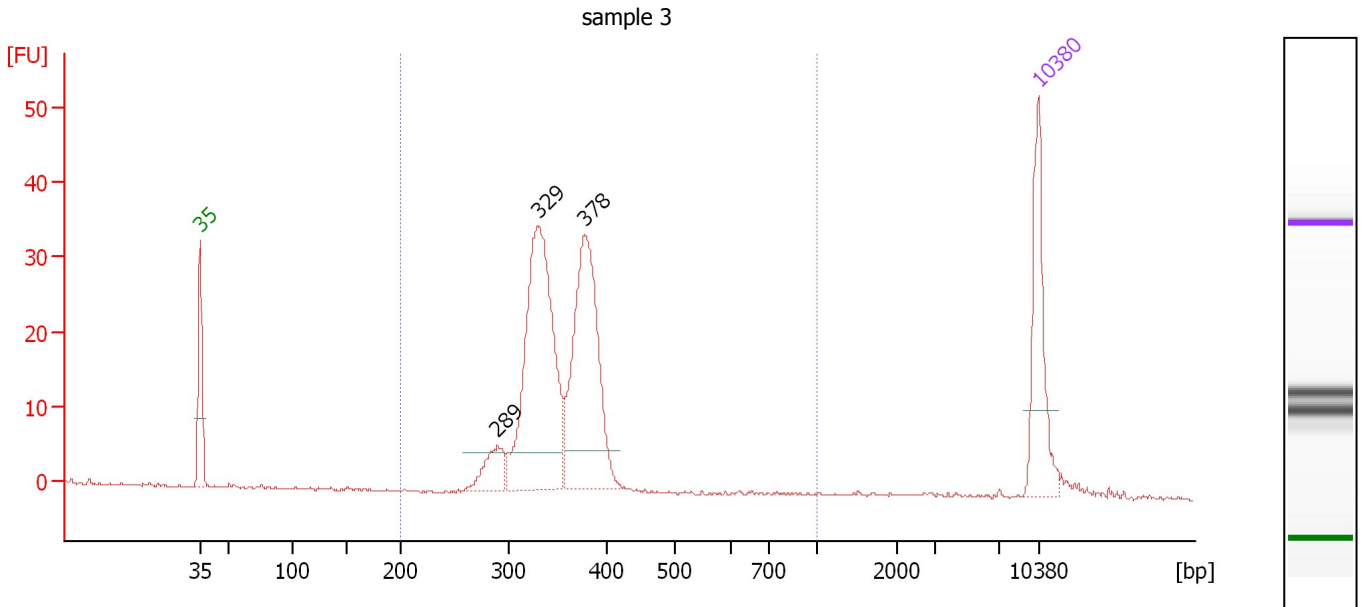
Region table for sample 2 : sample 2

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	748	4,117.6	1,981.37	971.9	94	15.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
 Modified: 11/9/2012 4:28:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 3 Corr. Area 1: 278.3
 Noise: 0.1

Peak table for sample 3 : sample 3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	289	42.00	220.3	
3	329	323.89	1,490.3	
4	378	242.08	971.4	
5	10,380	75.00	10.9	Upper Marker

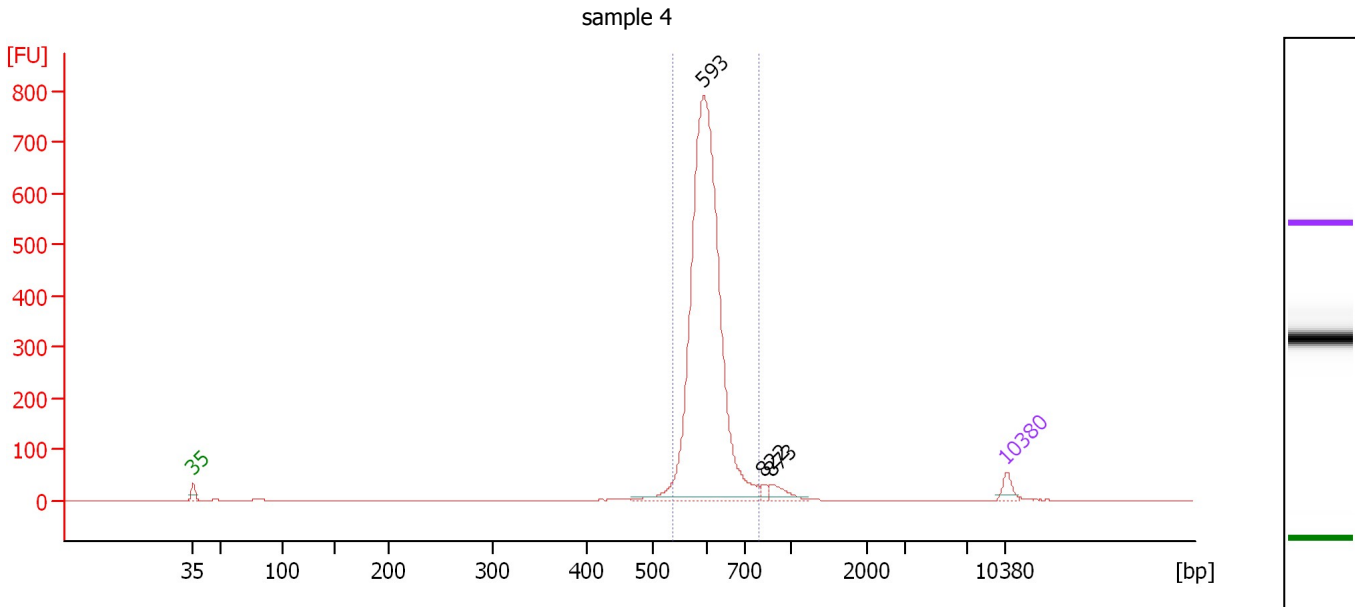
Region table for sample 3 : sample 3

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	350	2,689.6	616.81	278.3	97	10.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
 Modified: 11/9/2012 4:28:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 3 Corr. Area 1: 2,657.6
 Noise: 0.2

Peak table for sample 4 : sample 4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	593	5,446.03	13,917.8	
3	822	44.08	81.3	
4	873	118.46	205.6	
5	10,380	75.00	10.9	Upper Marker

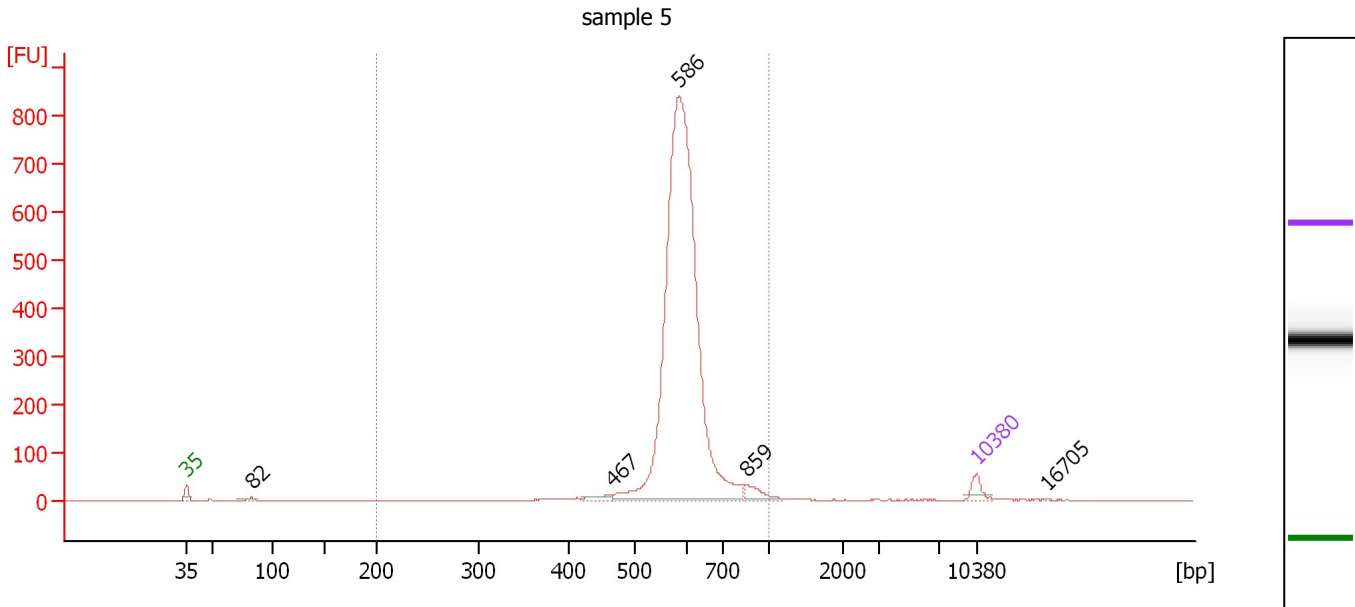
Region table for sample 4 : sample 4

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
536	788	603	13,611.3	5,403.52	2,657.6	93	5.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
 Modified: 11/9/2012 4:28:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 5 Corr. Area 1: 3,306.3
 Noise: 0.1

Peak table for sample 5 : sample 5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	82	27.23	500.3	
3	467	54.04	175.4	
4	586	5,834.69	15,097.1	
5	859	109.70	193.4	
6	10,380	75.00	10.9	Upper Marker
7	16,705	0.00	0.0	

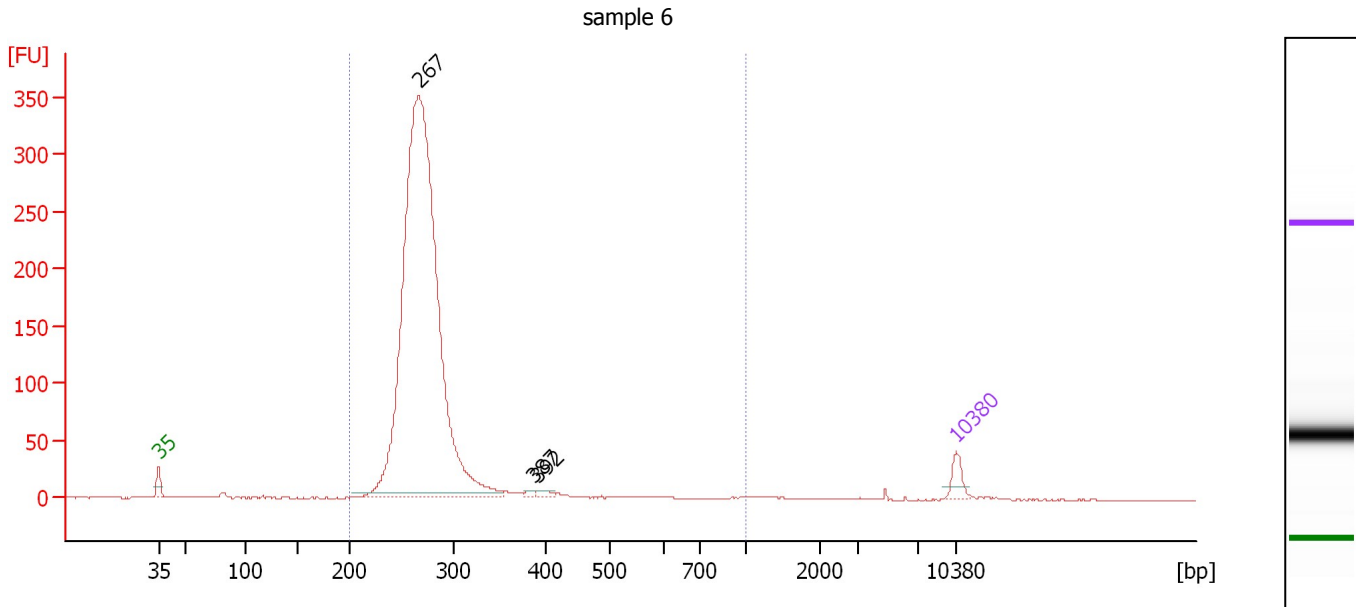
Region table for sample 5 : sample 5

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	598	15,841.4	6,153.74	3,306.3	97	11.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
 Modified: 11/9/2012 4:28:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 3 Corr. Area 1: 2,034.9
 Noise: 0.3

Peak table for sample 6 : sample 6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	267	6,234.10	35,375.7	
3	387	20.90	81.8	
4	392	30.33	117.3	
5	10,380	75.00	10.9	Upper Marker

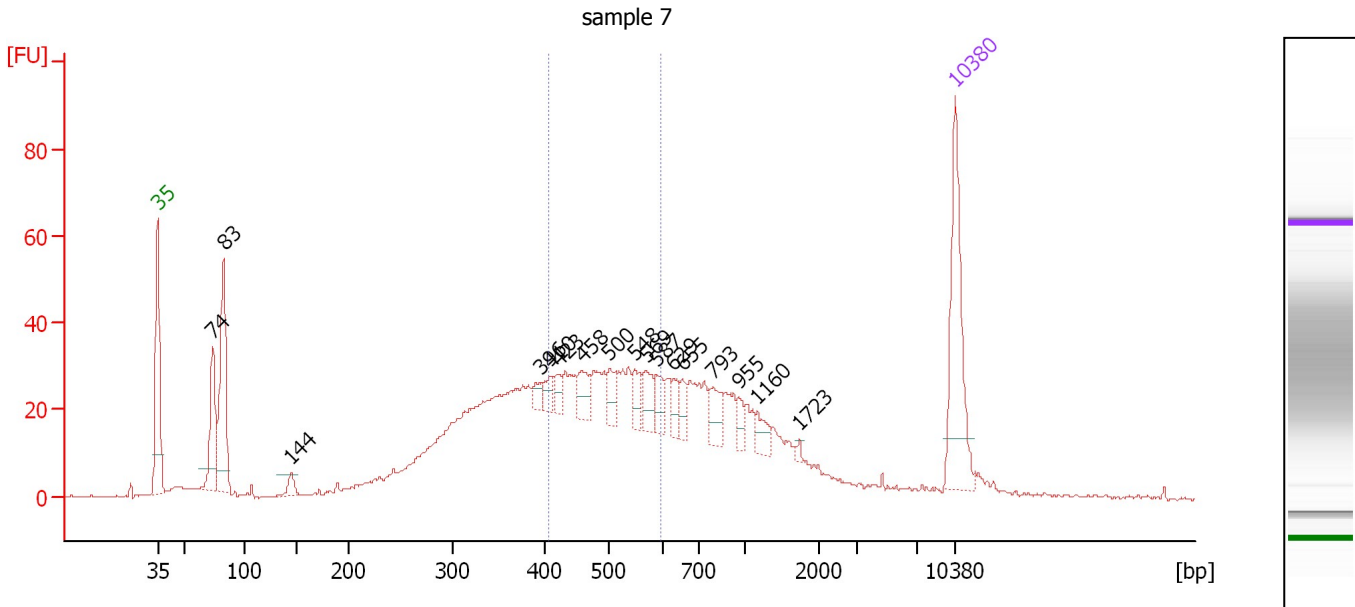
Region table for sample 6 : sample 6

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	280	35,658.6	6,432.10	2,034.9	98	19.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
 Modified: 11/9/2012 4:28:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 17 Corr. Area 1: 347.1
 Noise: 0.2

Peak table for sample 7 : sample 7

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	74	72.75	1,496.6	
3	83	121.30	2,221.9	
4	144	11.45	120.2	
5	396	8.67	33.2	
6	410	10.83	40.0	
7	423	9.85	35.3	
8	458	19.54	64.6	
9	500	18.34	55.6	
10	548	15.55	43.0	
11	569	19.90	53.0	
12	587	14.63	37.7	
13	629	11.89	28.7	
14	655	12.80	29.6	
15	793	18.69	35.7	
16	955	8.27	13.1	
17	1,160	11.79	15.4	
18	1,723	2.21	1.9	
19	10,380	75.00	10.9	Upper Marker

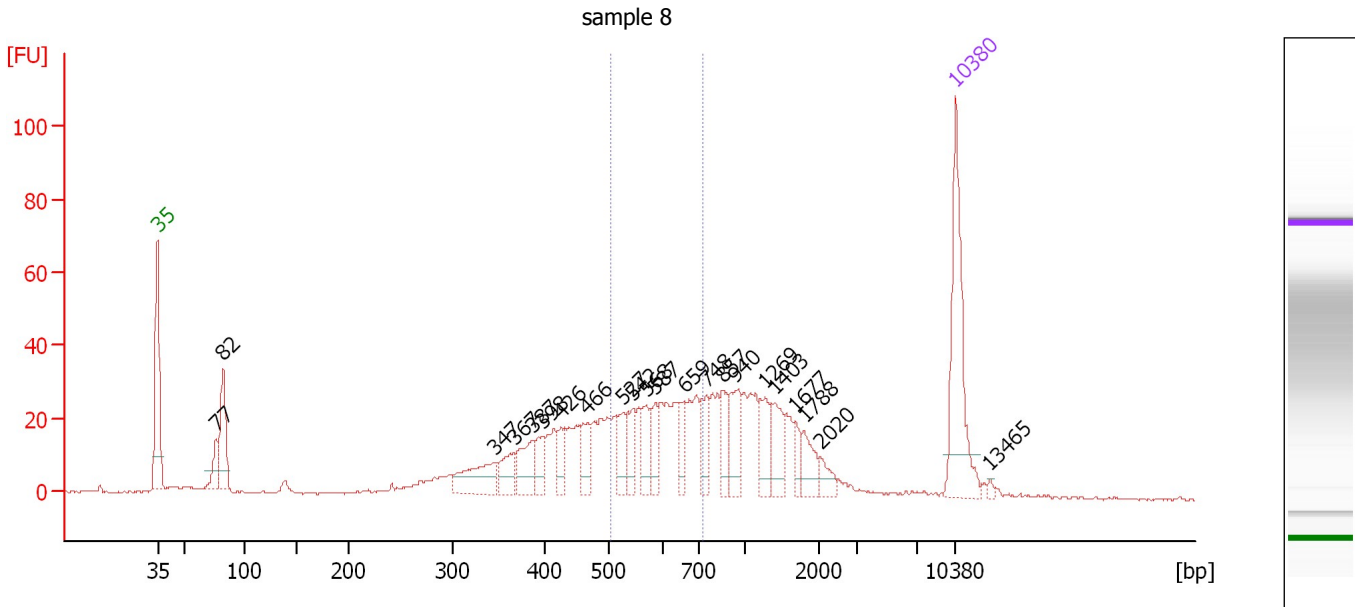
Region table for sample 7 : sample 7

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
408	597	497	1,305.0	421.95	347.1	28	11.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
 Modified: 11/9/2012 4:28:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 22 Corr. Area 1: 227.0
 Noise: 0.3

Peak table for sample 8 : sample 8

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	77	22.86	450.6	
3	82	60.26	1,109.3	
4	347	42.34	184.8	
5	367	22.52	93.0	
6	387	31.34	122.6	
7	398	19.13	72.8	
8	426	16.91	60.2	
9	466	22.62	73.6	
10	527	22.90	65.9	
11	542	21.74	60.7	
12	568	22.02	58.7	
13	587	19.03	49.1	
14	659	19.62	45.1	
15	748	22.83	46.3	
16	857	19.79	35.0	
17	940	32.56	52.5	
18	1,269	24.18	28.9	
19	1,403	23.87	25.8	
20	1,677	10.11	9.1	
21	1,788	17.99	15.2	
22	2,020	9.56	7.2	
23	10,380	75.00	10.9	Upper Marker
24	13,465	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
Modified: 11/9/2012 4:28:36 PM

Electropherogram Summary Continued ...

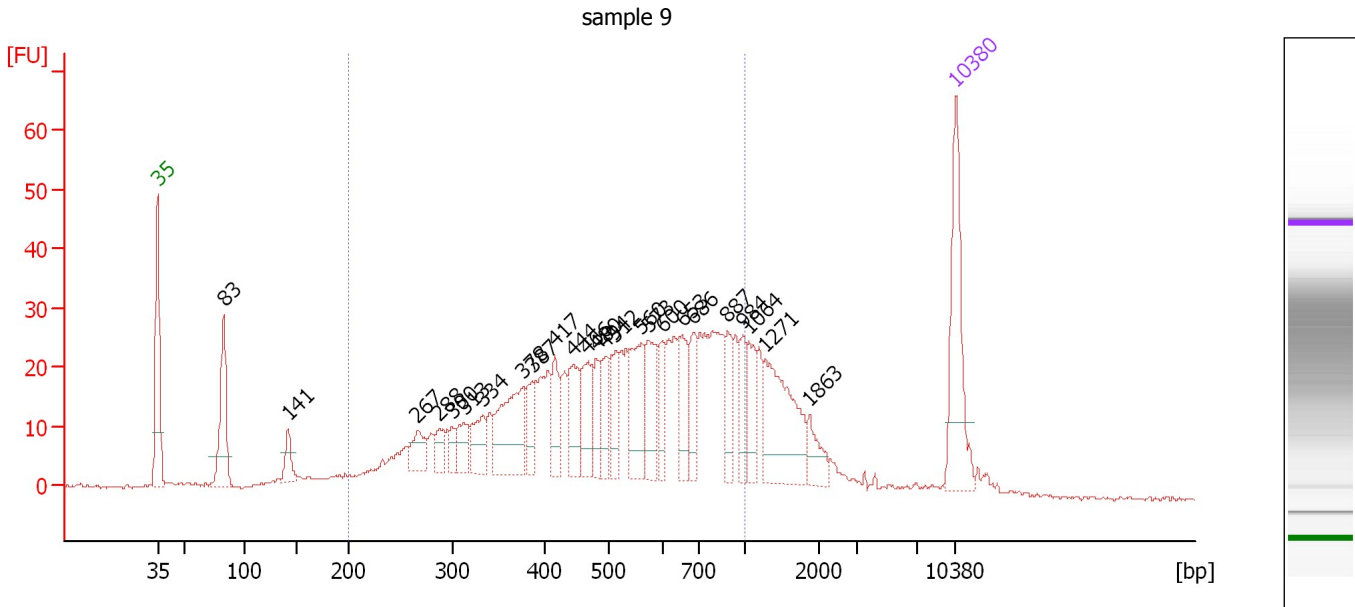
... Region table for sample 8 : sample 8

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Corr. Area	% of Total	Size distribution in CV [%]	Color
504	724	599	579.7	226.98	227.0	26	9.9	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
 Modified: 11/9/2012 4:28:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 25 Corr. Area 1: 750.5
 Noise: 0.3

Peak table for sample 9 : sample 9

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	83	91.71	1,679.9	
3	141	23.82	255.6	
4	267	26.96	153.1	
5	288	16.75	88.2	
6	300	13.29	67.1	
7	313	22.72	109.8	
8	334	30.70	139.3	
9	378	80.88	324.6	
10	387	26.20	102.5	
11	417	31.52	114.6	
12	444	44.45	151.7	
13	466	41.26	134.1	
14	480	25.99	82.1	
15	494	28.68	87.9	
16	512	33.45	99.1	
17	560	57.50	155.5	
18	573	41.67	110.2	
19	600	26.26	66.3	
20	653	37.70	87.4	
21	686	32.14	71.0	
22	887	25.49	43.6	
23	984	25.33	39.0	
24	1,064	27.02	38.5	
25	1,271	88.62	105.6	
26	1,863	19.25	15.6	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
Modified: 11/9/2012 4:28:36 PM

Electropherogram Summary Continued ...**... Peak table for sample 9 : sample 9**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
27	10,380	75.00	10.9	Upper Marker

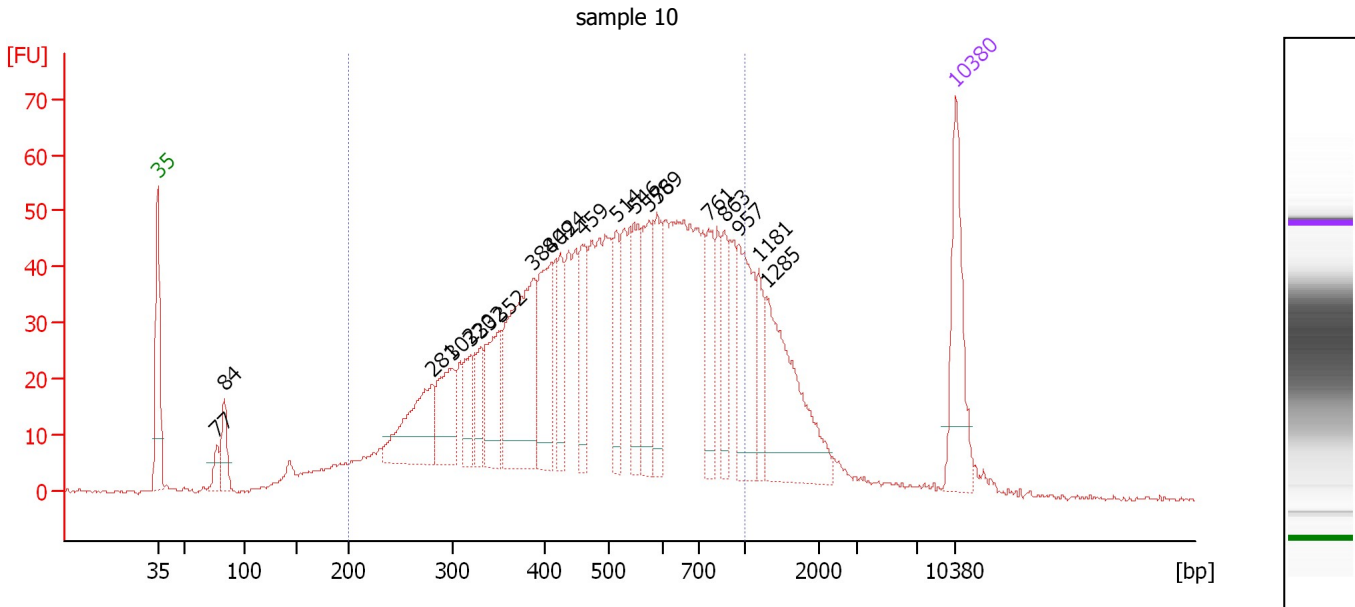
Region table for sample 9 : sample 9

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	532	4,382.7	1,268.56	750.5	76	35.7	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
 Modified: 11/9/2012 4:28:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 20 Corr. Area 1: 1,465.5
 Noise: 0.3

Peak table for sample 10 : sample 10

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	77	20.50	402.7	
3	84	42.74	775.4	
4	281	104.12	560.6	
5	302	72.57	364.5	
6	320	35.52	168.0	
7	332	39.49	180.3	
8	352	76.19	327.7	
9	388	185.82	725.8	
10	409	95.48	353.4	
11	424	46.58	166.5	
12	459	59.02	194.8	
13	514	48.23	142.2	
14	546	69.68	193.3	
15	576	78.29	206.1	
16	589	60.45	155.5	
17	761	52.60	104.8	
18	863	45.87	80.6	
19	957	91.55	144.9	
20	1,181	37.30	47.9	
21	1,285	132.66	156.4	
22	10,380	75.00	10.9	Upper Marker

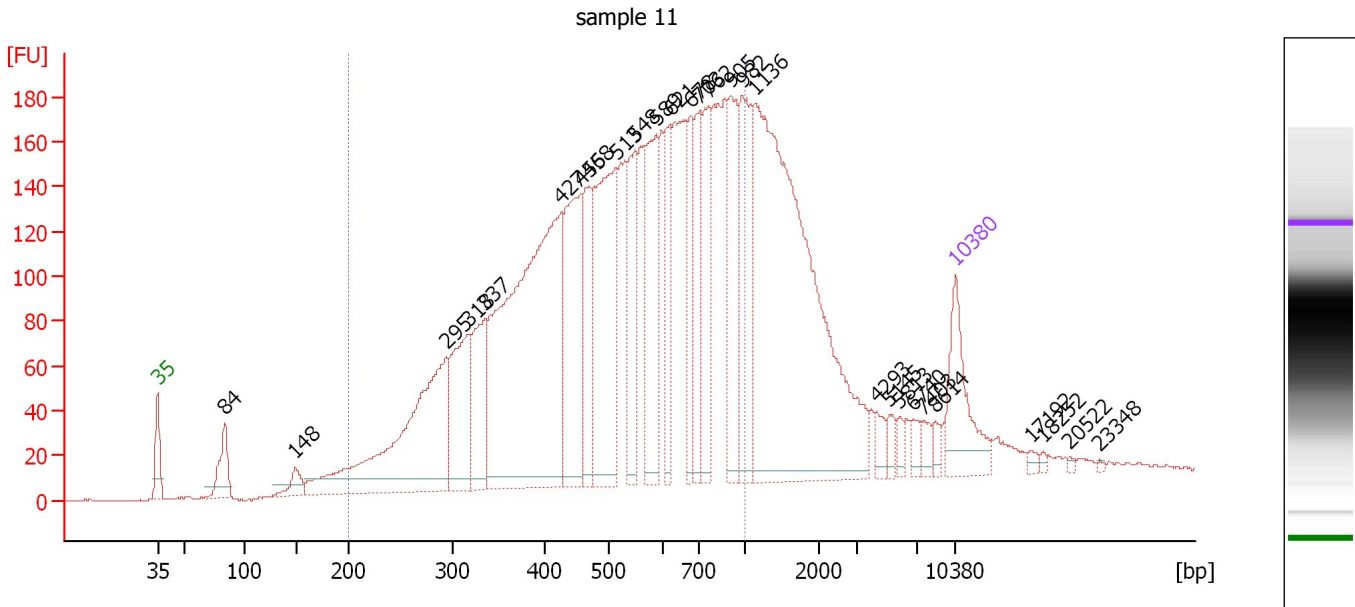
Region table for sample 10 : sample 10

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	520	7,727.9	2,199.07	1,465.5	82	35.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
 Modified: 11/9/2012 4:28:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found: 28 Corr. Area 1: 4,366.1
 Noise: 0.4

Peak table for sample 11 : sample 11

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	84	59.43	1,072.3	
3	148	25.76	263.0	
4	295	366.11	1,882.8	
5	318	142.66	680.3	
6	337	117.54	529.1	
7	427	619.87	2,201.7	
8	455	193.08	642.8	
9	468	114.59	370.9	
10	513	262.83	776.7	
11	548	109.29	302.4	
12	589	149.20	384.0	
13	621	79.30	193.6	
14	678	81.66	182.5	
15	703	82.64	178.1	
16	762	105.48	209.8	
17	905	116.90	195.7	
18	982	144.62	223.2	
19	1,136	630.12	840.6	
20	4,293	14.51	5.1	
21	5,145	11.20	3.3	
22	5,813	9.44	2.5	
23	6,740	12.28	2.8	
24	7,403	11.60	2.4	
25	8,614	8.70	1.5	
26	10,380	75.00	10.9	Upper Marker


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Electropherogram Summary Continued ...**... Peak table for sample 11 : sample 11**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
27	17,192	0.00	0.0	
28	18,252	0.00	0.0	
29	20,522	0.00	0.0	
30	23,348	0.00	0.0	

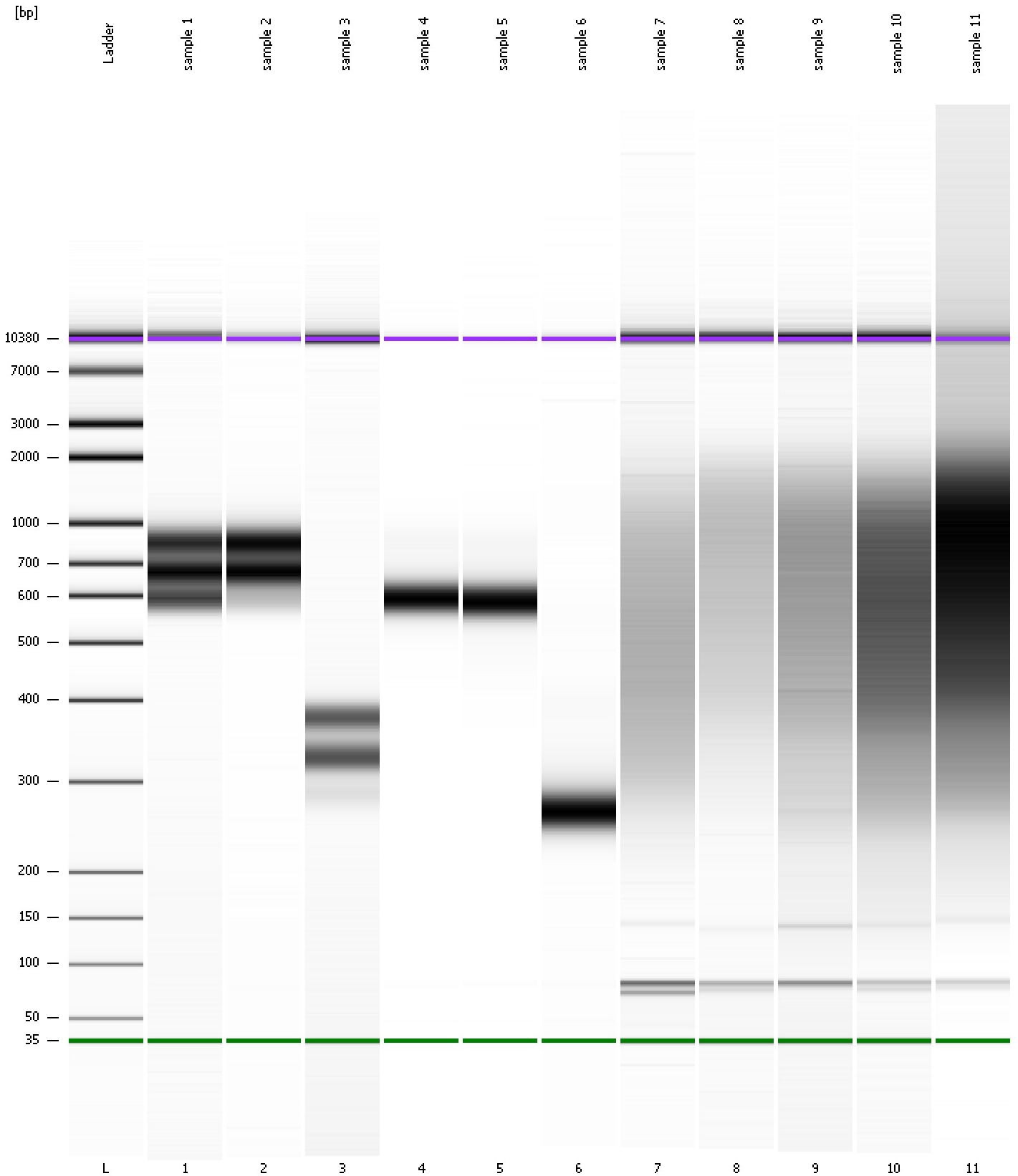
Region table for sample 11 : sample 11

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	543	10,803.7	3,220.60	4,366.1	74	35.0	

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Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad

Created: 11/9/2012 3:23:19 PM
 Modified: 11/9/2012 4:28:36 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		11/9/2012 4:04:37 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-11-09\2012-11-09_006.xad)		Instrument	Run		11/9/2012 3:23:24 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		11/9/2012 3:23:24 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/9/2012 3:23:24 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/9/2012 3:23:24 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		11/9/2012 3:23:24 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/9/2012 3:23:24 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/9/2012 3:23:24 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1