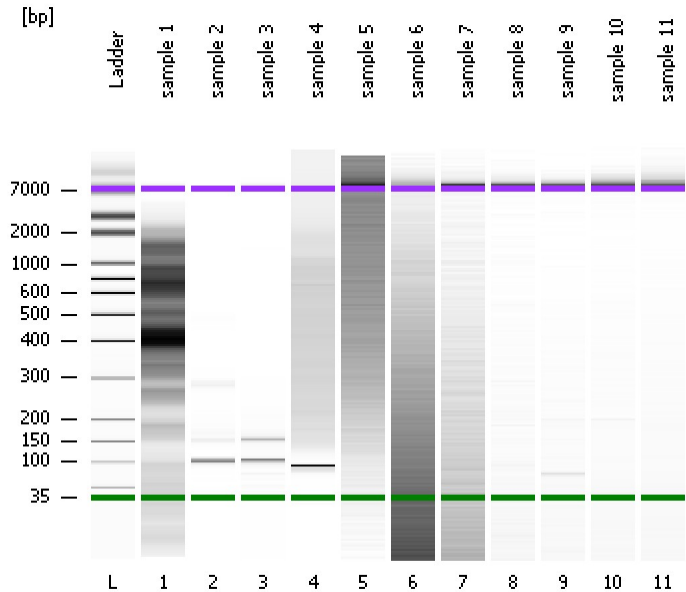


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad

Created: 8/30/2013 4:10:20 PM  
Modified: 8/30/2013 5:28:07 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

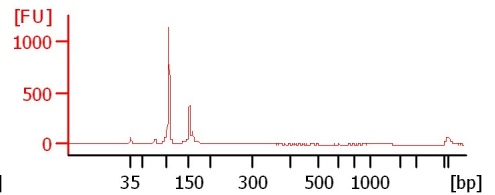
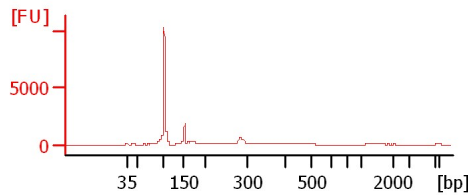
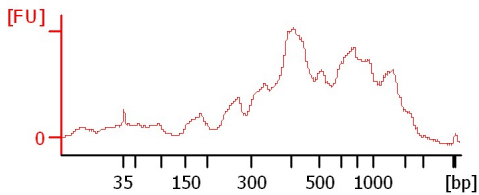
#### Chip Information:

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

sample 1

sample 2

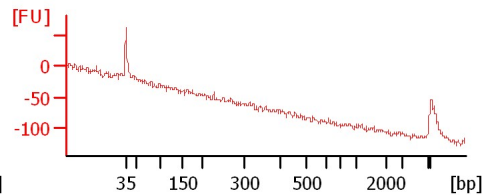
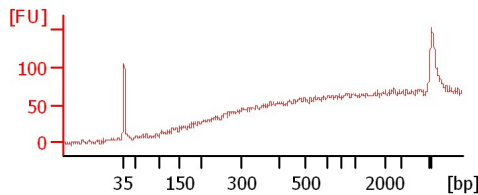
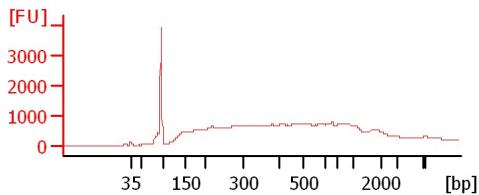
sample 3



sample 4

sample 5

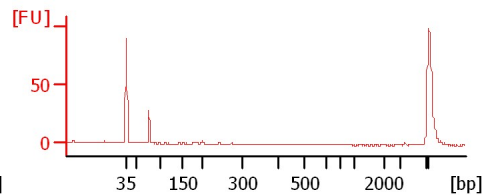
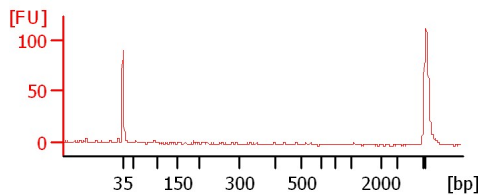
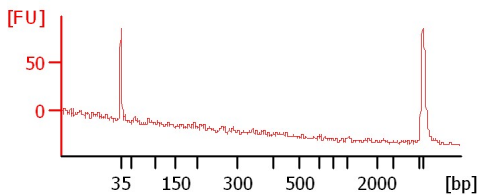
sample 6



sample 7

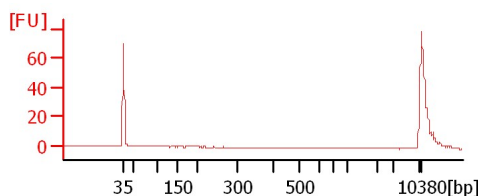
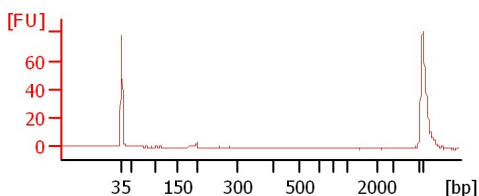
sample 8

sample 9



sample 10

sample 11



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad

Created: 8/30/2013 4:10:20 PM  
 Modified: 8/30/2013 5:28:07 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\2013-08-30\2013-08-30\_003.xad

Created: 8/30/2013 4:10:20 PM  
Modified: 8/30/2013 5:28:07 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

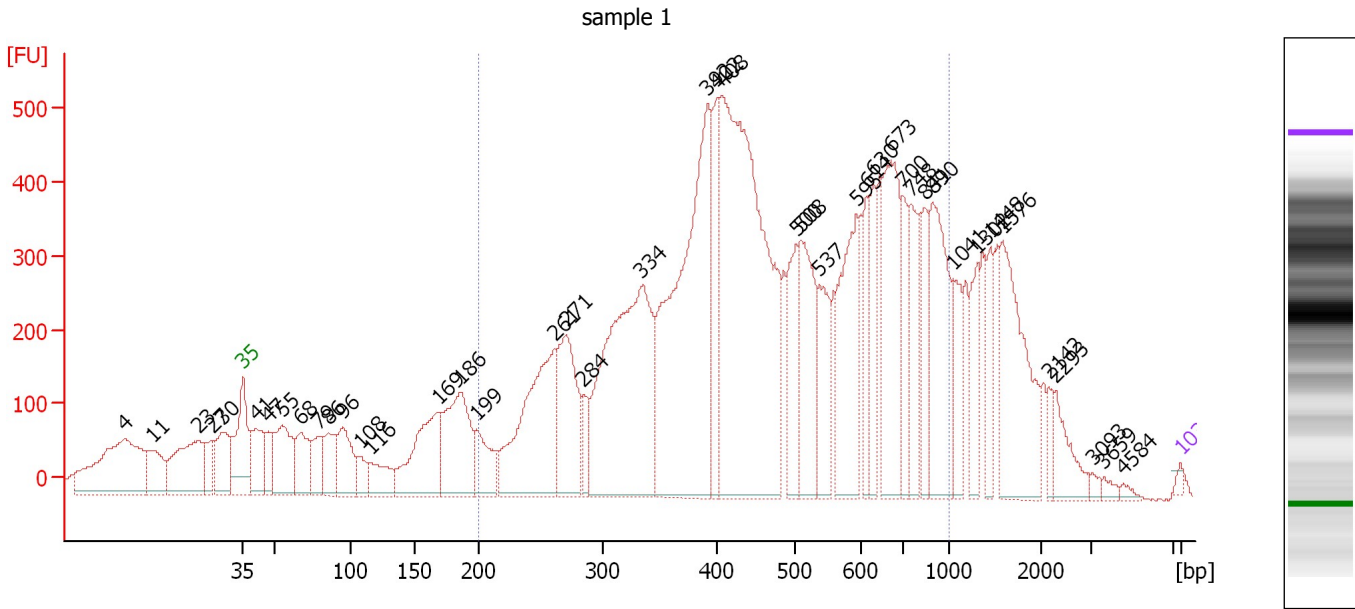
**Ladder**

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\2013-08-30\2013-08-30\_003.xad

Created: 8/30/2013 4:10:20 PM  
 Modified: 8/30/2013 5:28:07 PM

**Electropherogram Summary**



**Overall Results for sample 1 : sample 1**

Number of peaks found: 44                      Corr. Area 1: 12,680.9  
 Noise: 3.2

**Peak table for sample 1 : sample 1**


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	4	0.00	0.0	
2	11	0.00	0.0	
3	23	0.00	0.0	
4	27	0.00	0.0	
5	30	0.00	0.0	
6	35	125.00	5,411.3	Lower Marker
7	41	2,214.64	81,808.5	
8	47	915.42	29,647.5	
9	55	2,849.36	78,937.7	
10	68	1,879.54	42,178.3	
11	79	1,159.15	22,254.4	
12	86	1,570.67	27,772.8	
13	96	2,107.05	33,371.8	
14	108	749.89	10,540.1	
15	116	1,274.96	16,582.6	
16	169	3,817.76	34,261.1	
17	186	3,957.00	32,167.2	
18	199	1,501.47	11,412.6	
19	261	6,105.74	35,440.6	
20	271	3,654.73	20,447.0	
21	284	774.49	4,125.6	
22	334	10,204.56	46,337.1	
23	392	11,639.00	44,972.3	
24	402	2,455.29	9,264.7	
25	408	15,328.79	56,983.7	
26	500	2,026.60	6,138.6	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad


Created: 8/30/2013 4:10:20 PM  
 Modified: 8/30/2013 5:28:07 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 1 : sample 1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	508	3,254.97	9,698.7	
28	537	1,869.09	5,277.1	
29	595	3,618.53	9,220.4	
30	614	1,262.35	3,113.6	
31	630	1,325.39	3,185.3	
32	673	3,986.38	8,979.0	
33	700	1,286.96	2,785.6	
34	748	1,774.08	3,592.3	
35	841	1,406.58	2,533.1	
36	890	3,535.09	6,020.9	
37	1,041	1,133.66	1,650.7	
38	1,302	1,120.49	1,303.5	
39	1,448	944.74	988.7	
40	1,576	3,478.77	3,344.8	
41	2,142	330.13	233.6	
42	2,293	837.51	553.4	
43	3,093	130.47	63.9	
44	3,659	125.12	51.8	
45	4,584	96.64	31.9	
46	 10,380	75.00	10.9	Upper Marker

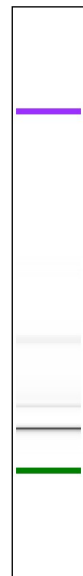
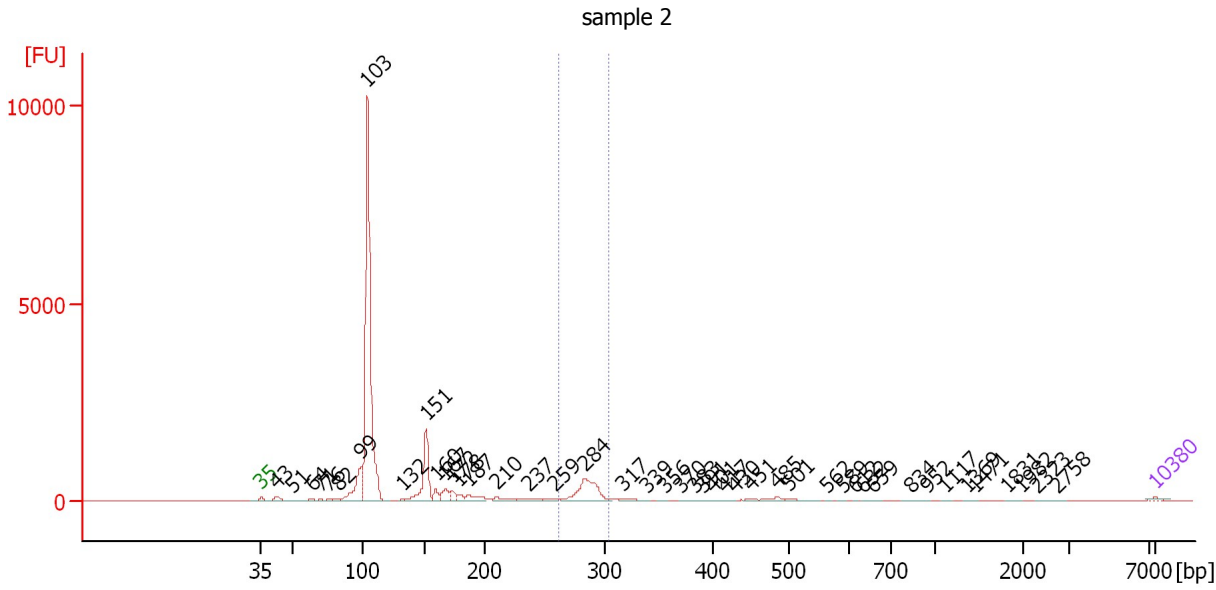
**Region table for sample 1 : sample 1**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	497	266,477.4	72,885.65	12,680.9	71	36.0	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad

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 Modified: 8/30/2013 5:28:07 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : sample 2**

Number of peaks found: 45                      Corr. Area 1: 1,515.0  
 Noise: 0.8

**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	43	306.62	10,863.7	
3	51	58.54	1,747.7	
4	64	136.65	3,235.5	
5	71	76.63	1,644.3	
6	76	95.01	1,900.1	
7	82	123.71	2,275.3	
8	99	2,363.49	36,332.4	
9	103	17,106.06	250,515.5	
10	132	51.57	591.5	
11	151	2,779.82	27,829.5	
12	160	430.12	4,084.8	
13	167	557.89	5,052.4	
14	172	381.26	3,349.2	
15	178	269.53	2,293.1	
16	187	518.58	4,208.2	
17	210	323.92	2,339.9	
18	237	224.64	1,438.9	
19	259	154.02	901.2	
20	284	2,185.41	11,677.5	
21	317	152.42	727.8	
22	339	30.66	136.9	
23	356	52.96	225.3	
24	370	51.28	210.1	
25	383	35.96	142.1	
26	391	25.65	99.3	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad

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 Modified: 8/30/2013 5:28:07 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 2 : sample 2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	401	46.80	176.7	
28	417	23.18	84.2	
29	430	37.94	133.7	
30	451	72.40	243.4	
31	485	201.98	630.7	
32	501	133.82	404.3	
33	562	13.76	37.1	
34	589	15.04	38.7	
35	612	11.77	29.1	
36	632	10.99	26.4	
37	659	26.24	60.4	
38	834	21.94	39.8	
39	952	34.79	55.4	
40	1,117	24.10	32.7	
41	1,369	17.95	19.9	
42	1,471	15.47	15.9	
43	1,831	19.83	16.4	
44	1,982	15.36	11.7	
45	2,323	26.11	17.0	
46	2,758	9.35	5.1	
47	 10,380	75.00	10.9	Upper Marker

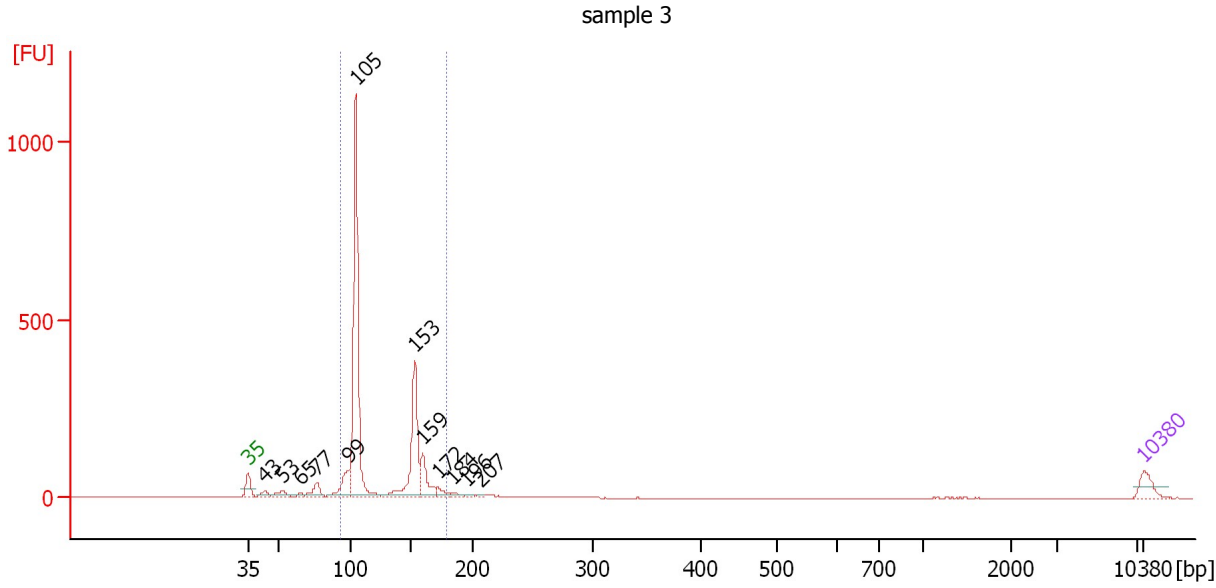
**Region table for sample 2 : sample 2**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
262	305	285	11,386.3	2,142.33	1,515.0	9	2.8	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad

Created: 8/30/2013 4:10:20 PM  
 Modified: 8/30/2013 5:28:07 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 3**

Number of peaks found: 12                      Corr. Area 1: 1,726.6  
 Noise: 0.3

**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	43	62.13	2,171.5	
3	53	92.34	2,631.9	
4	65	32.79	759.6	
5	77	128.72	2,536.3	
6	99	262.73	4,030.2	
7	105	1,969.90	28,532.7	
8	153	782.74	7,756.4	
9	159	244.93	2,327.8	
10	172	63.72	562.6	
11	184	33.33	274.1	
12	196	20.35	157.7	
13	207	14.06	103.1	
14	10,380	75.00	10.9	Upper Marker

**Region table for sample 3 : sample 3**

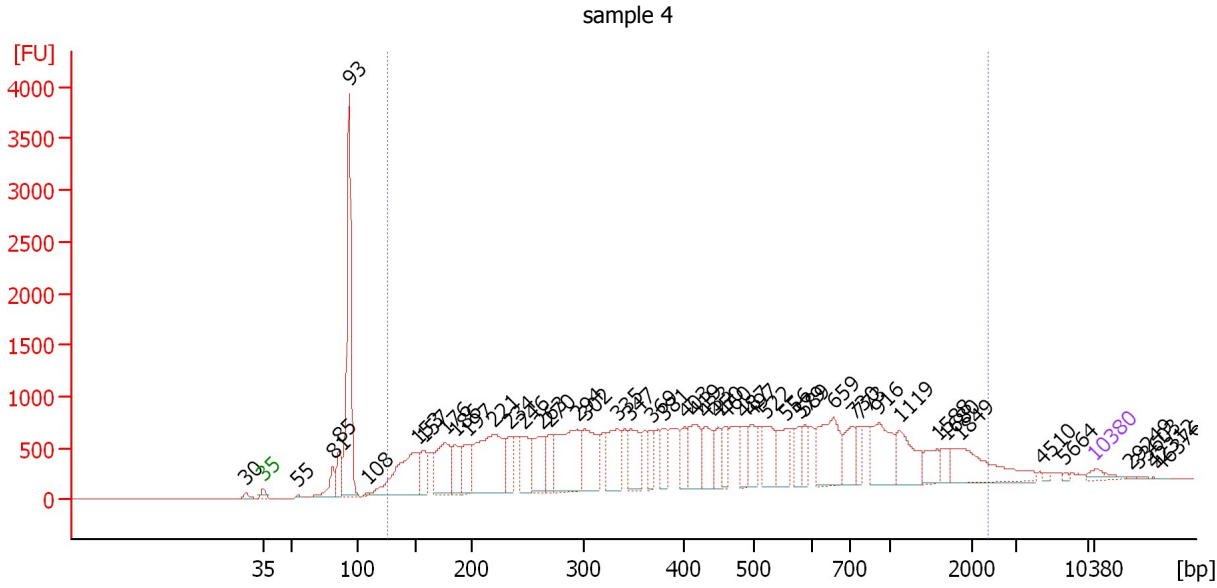
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
93	179	123	42,343.1	3,303.44	1,726.6	82	20.1	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad

Created: 8/30/2013 4:10:20 PM  
 Modified: 8/30/2013 5:28:07 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : sample 4**

Number of peaks found: 47                      Corr. Area 1: 32,251.6  
 Noise: 0.3

**Peak table for sample 4 : sample 4**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	30	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	55	16.15	444.6	
4	81	266.80	4,989.9	
5	85	364.62	6,468.5	
6	93	2,610.97	42,357.9	
7	108	20.08	281.4	
8	153	1,219.61	12,101.5	
9	157	411.73	3,975.5	
10	176	868.13	7,468.3	
11	186	413.56	3,369.6	
12	197	497.54	3,822.7	
13	221	1,579.17	10,849.6	
14	234	369.49	2,388.7	
15	246	546.53	3,368.7	
16	263	568.80	3,276.9	
17	270	367.64	2,061.9	
18	294	1,153.43	5,934.5	
19	302	779.59	3,913.6	
20	335	605.56	2,742.2	
21	347	502.24	2,191.3	
22	369	264.08	1,084.5	
23	381	283.95	1,130.5	
24	403	274.45	1,031.4	
25	419	483.07	1,746.9	
26	433	385.46	1,350.3	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad


Created: 8/30/2013 4:10:20 PM  
 Modified: 8/30/2013 5:28:07 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 4 : sample 4**

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
27	450	242.28	816.1	
28	460	226.01	743.9	
29	487	241.40	751.5	
30	497	292.53	891.4	
31	522	418.37	1,215.2	
32	556	337.01	918.4	
33	579	192.06	502.4	
34	589	192.58	495.0	
35	659	750.96	1,725.7	
36	730	347.08	720.2	
37	773	177.89	348.8	
38	916	595.92	986.1	
39	1,119	438.97	594.6	
40	1,588	190.57	181.8	
41	1,680	119.31	107.6	
42	1,849	599.69	491.4	
43	4,510	18.75	6.3	
44	5,664	17.87	4.8	
45	10,380	75.00	10.9	Upper Marker
46	29,249	0.00	0.0	
47	33,603	0.00	0.0	
48	42,312	0.00	0.0	
49	46,376	0.00	0.0	

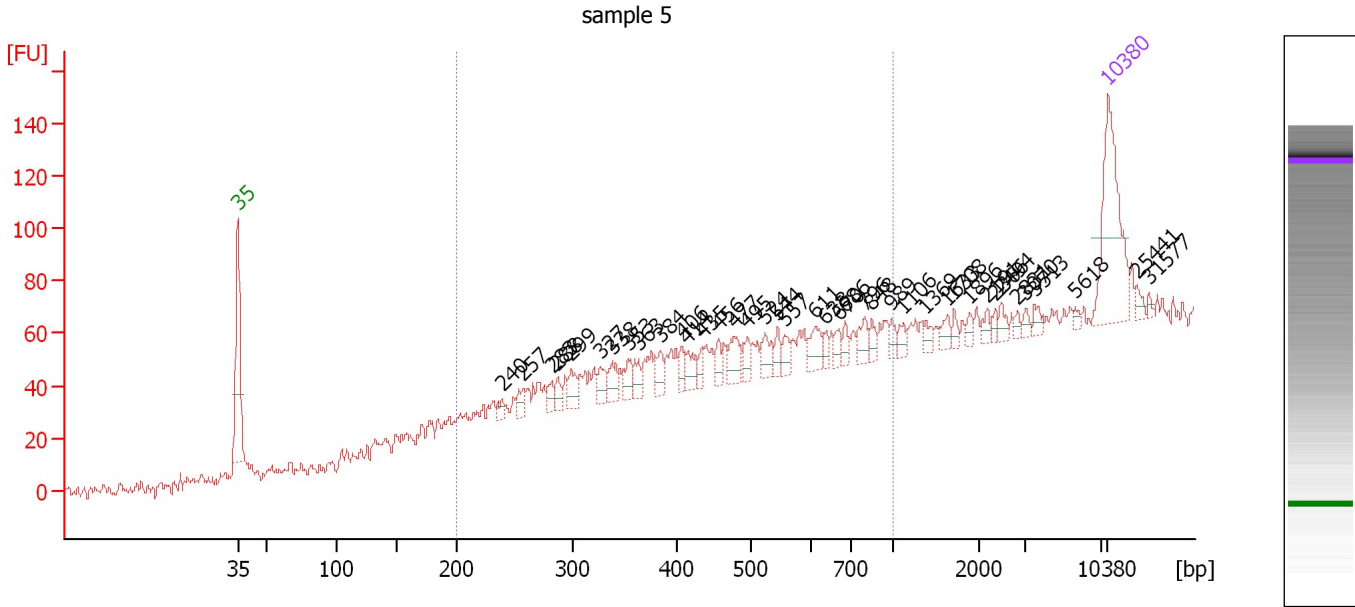
**Region table for sample 4 : sample 4**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
126	2,384	539	94,254.8	19,105.99	32,251.6	87	77.7	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 5**

Number of peaks found: 40                      Corr. Area 1: 711.1  
 Noise: 3.1

**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	240	8.22	51.9	
3	257	11.91	70.1	
4	283	10.38	55.7	
5	288	9.28	48.9	
6	299	15.81	80.1	
7	327	13.81	63.9	
8	338	17.60	78.9	
9	353	13.22	56.7	
10	363	11.62	48.5	
11	384	14.25	56.2	
12	406	10.16	37.9	
13	414	13.17	48.2	
14	435	9.43	32.9	
15	456	10.34	34.3	
16	477	18.91	60.0	
17	495	11.10	34.0	
18	524	15.78	45.7	
19	544	9.68	27.0	
20	557	9.51	25.9	
21	611	16.91	41.9	
22	638	7.01	16.6	
23	670	8.02	18.1	
24	686	7.87	17.4	
25	796	12.69	24.2	
26	848	7.42	13.3	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad


Created: 8/30/2013 4:10:20 PM  
 Modified: 8/30/2013 5:28:07 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 5 : sample 5**

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
27	989	6.48	9.9	
28	1,106	6.82	9.3	
29	1,369	5.94	6.6	
30	1,633	7.24	6.7	
31	1,708	5.05	4.5	
32	1,896	4.62	3.7	
33	2,191	5.49	3.8	
34	2,366	3.86	2.5	
35	2,494	5.90	3.6	
36	2,831	3.05	1.6	
37	3,070	3.97	2.0	
38	3,513	5.26	2.3	
39	5,618	2.63	0.7	
40	 10,380	75.00	10.9	Upper Marker
41	25,441	0.00	0.0	
42	31,577	0.00	0.0	

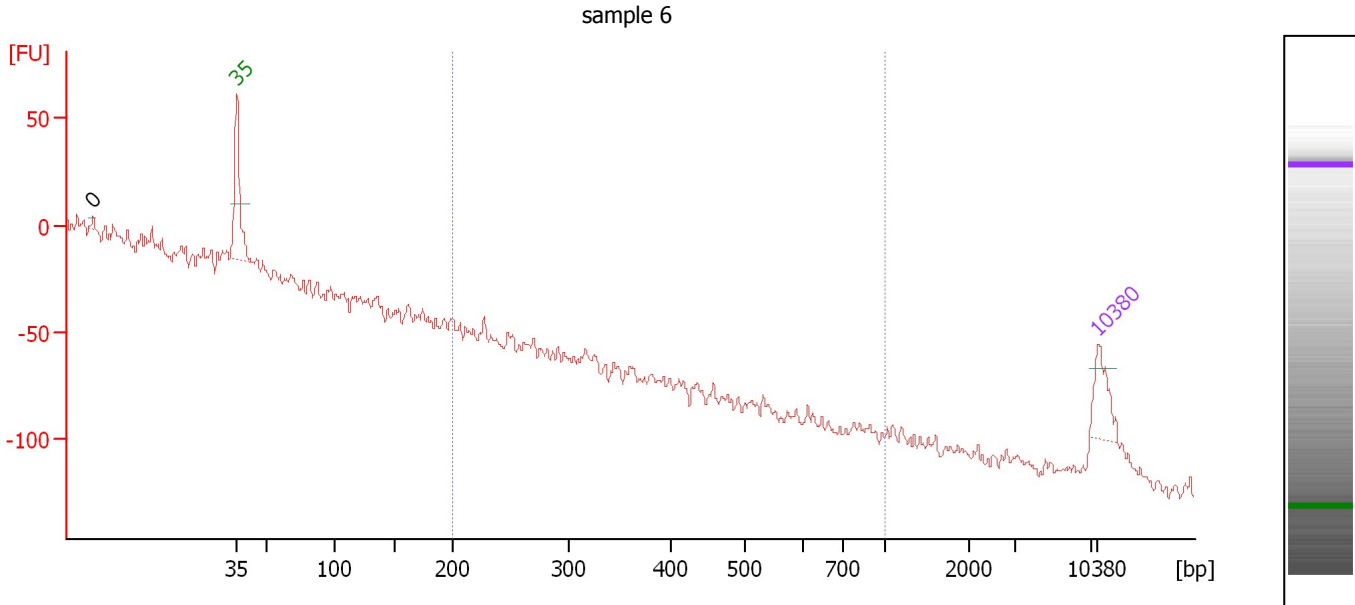
**Region table for sample 5 : sample 5**

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	470	2,634.2	665.51	711.1	71	38.9	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad

Created: 8/30/2013 4:10:20 PM  
 Modified: 8/30/2013 5:28:07 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : sample 6**

Number of peaks found: 1                      Corr. Area 1: 0.1  
 Noise: 3.3

**Peak table for sample 6 : sample 6**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	10,380	75.00	10.9	Upper Marker

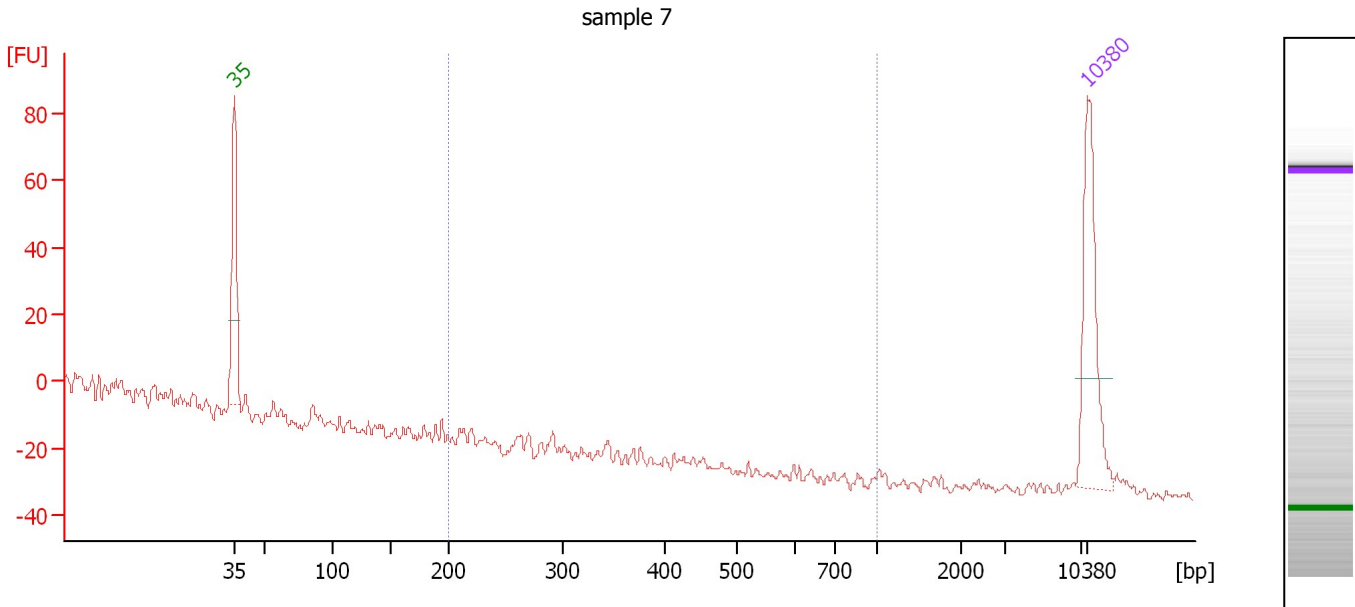
**Region table for sample 6 : sample 6**

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	227	1.1	0.17	0.1	0	0.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad

Created: 8/30/2013 4:10:20 PM  
 Modified: 8/30/2013 5:28:07 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : sample 7**

Number of peaks found: 0                      Corr. Area 1: 0.0  
 Noise: 1.5

**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	10,380	75.00	10.9	Upper Marker

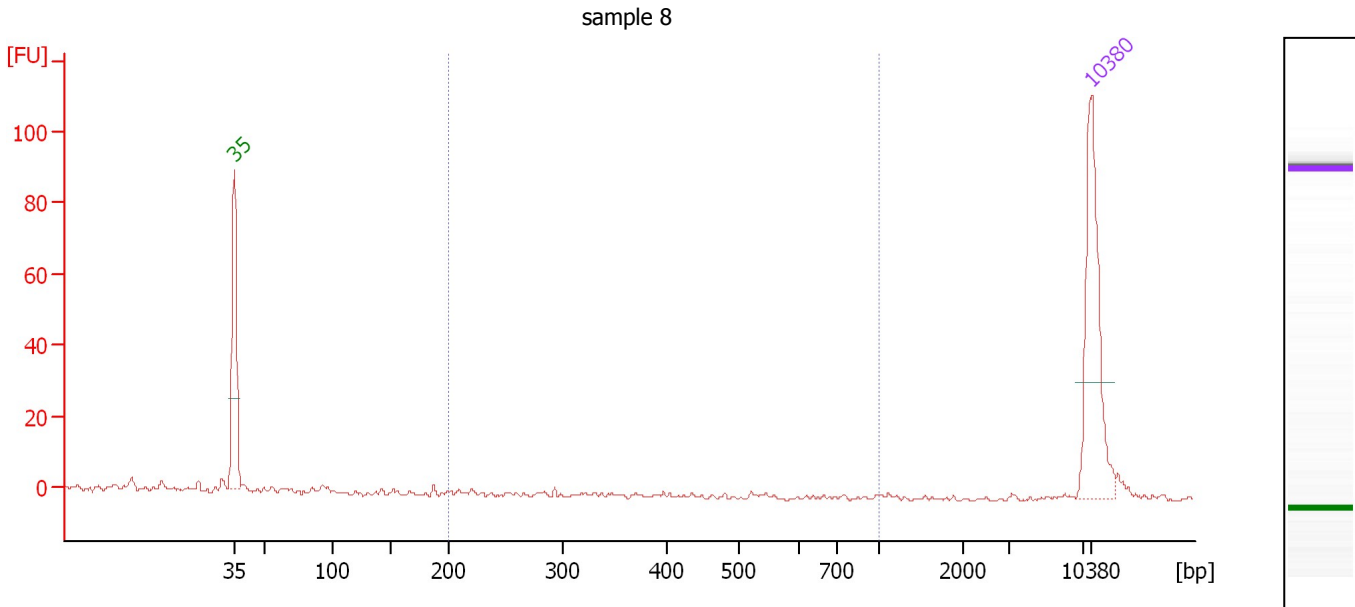
**Region table for sample 7 : sample 7**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	0	0.0	0.00	0.0	0	0.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad

Created: 8/30/2013 4:10:20 PM  
 Modified: 8/30/2013 5:28:07 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : sample 8**

Number of peaks found: 0                      Corr. Area 1: 0.5  
 Noise: 0.5

**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	10,380	75.00	10.9	Upper Marker

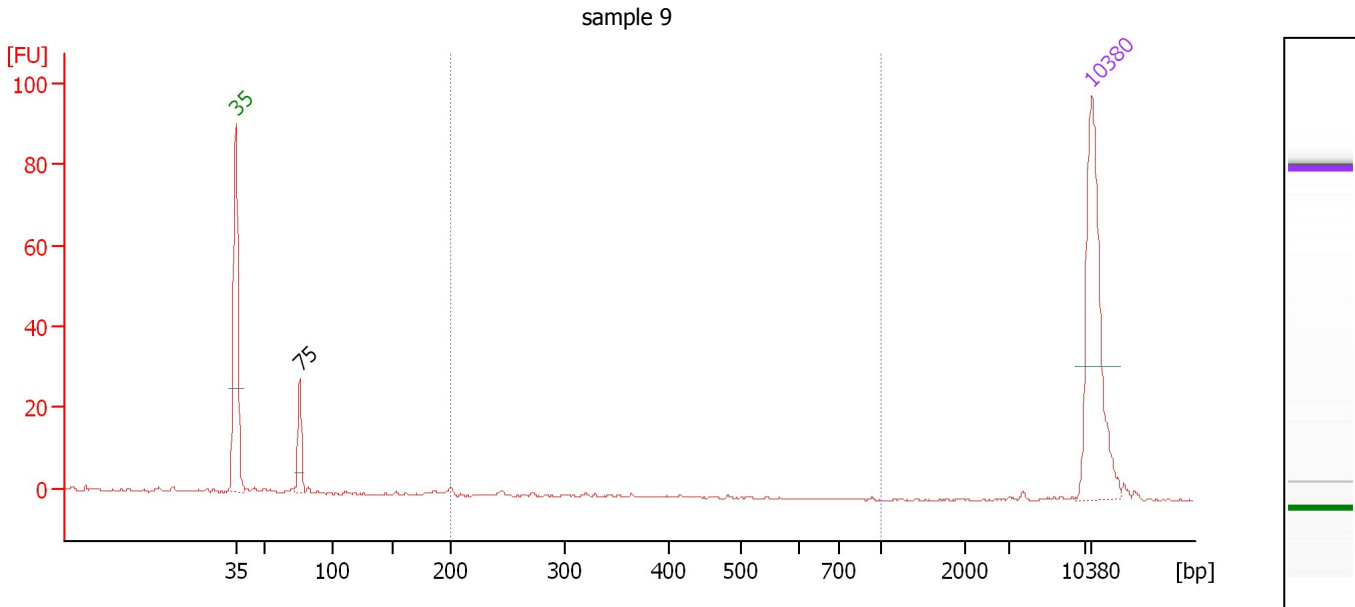
**Region table for sample 8 : sample 8**

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	358	2.3	0.45	0.5	3	43.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad

Created: 8/30/2013 4:10:20 PM  
 Modified: 8/30/2013 5:28:07 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : sample 9**

Number of peaks found: 1                      Corr. Area 1: 0.8  
 Noise: 0.2

**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	75	26.72	536.4	
3	10,380	75.00	10.9	Upper Marker

**Region table for sample 9 : sample 9**

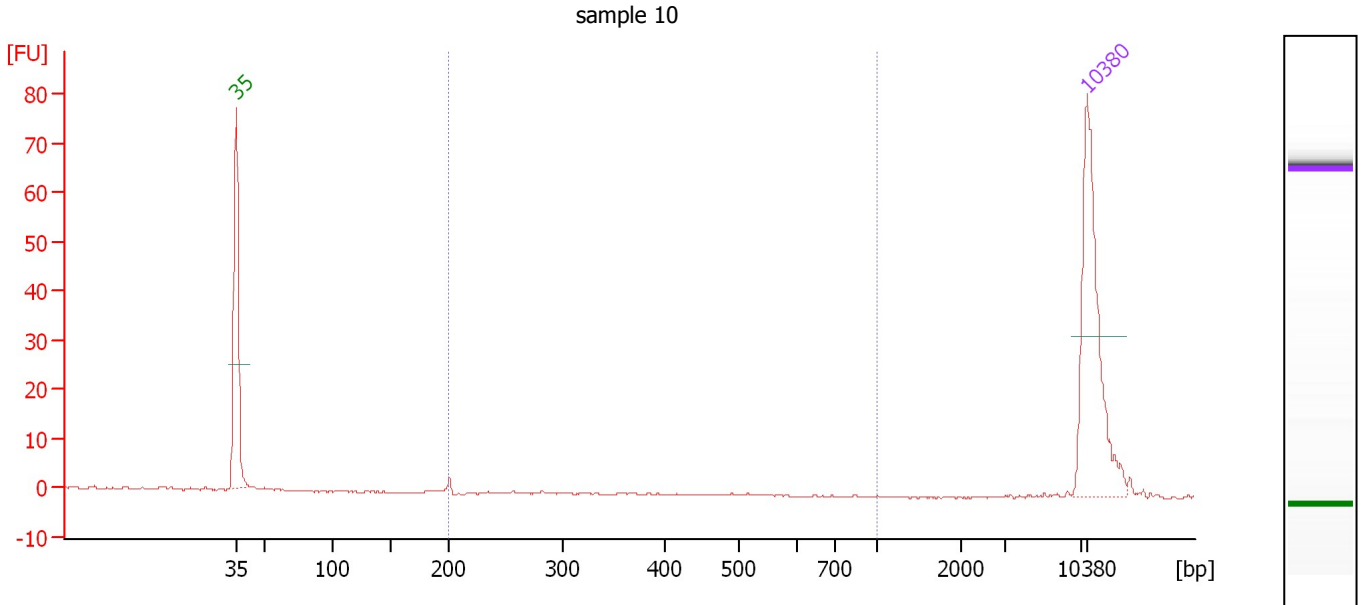
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	213	6.1	0.84	0.8	3	12.9	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad

Created: 8/30/2013 4:10:20 PM  
 Modified: 8/30/2013 5:28:07 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample 10**

Number of peaks found: 0                      Corr. Area 1: 0.8  
 Noise: 0.1

**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	10,380	75.00	10.9	Upper Marker

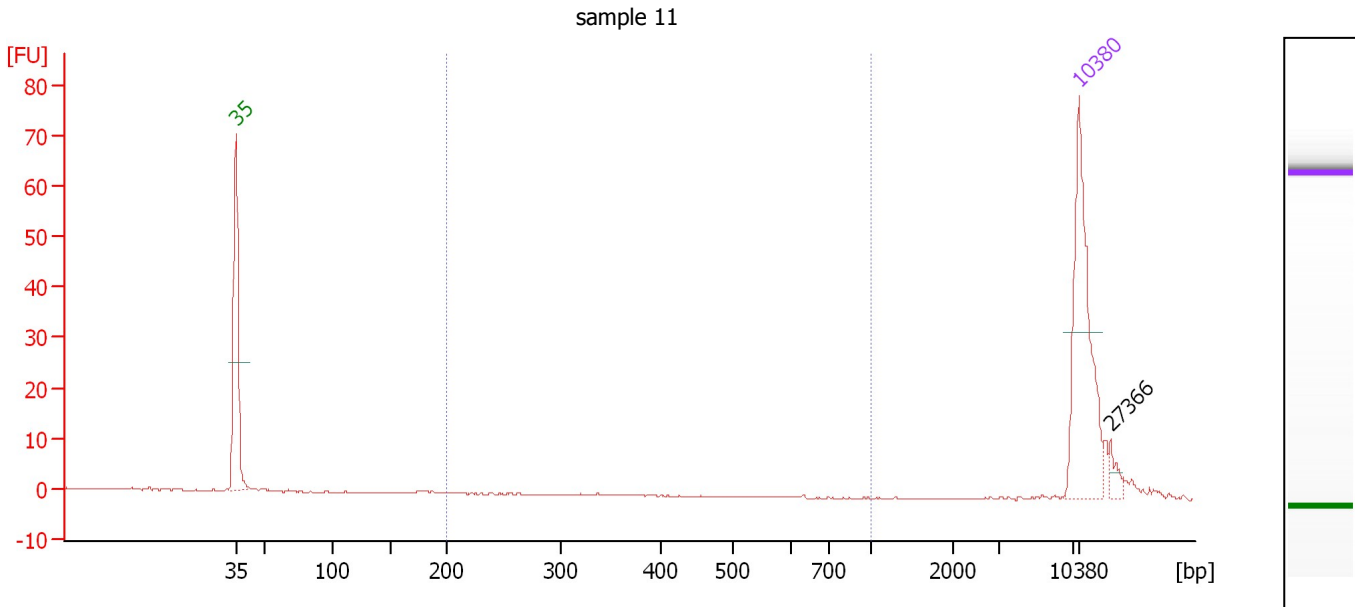
**Region table for sample 10 : sample 10**

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	203	7.1	0.95	0.8	16	6.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-30\2013-08-30\_003.xad

Created: 8/30/2013 4:10:20 PM  
 Modified: 8/30/2013 5:28:07 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : sample 11**

Number of peaks found: 1                      Corr. Area 1: 0.0  
 Noise: 0.1

**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	10,380	75.00	10.9	Upper Marker
3	27,366	0.00	0.0	

**Region table for sample 11 : sample 11**

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	0	0.0	0.00	0.0	0	0.0	Blue