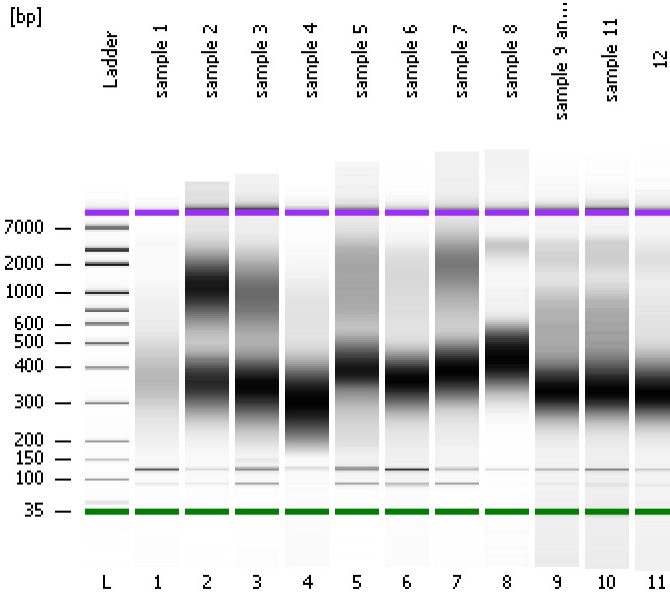


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-22\2013-10-22_002.xad

Created: 10/22/2013 11:36:03 AM
Modified: 10/22/2013 12:19:47 PM

Electrophoresis File Run Summary



Instrument Information:

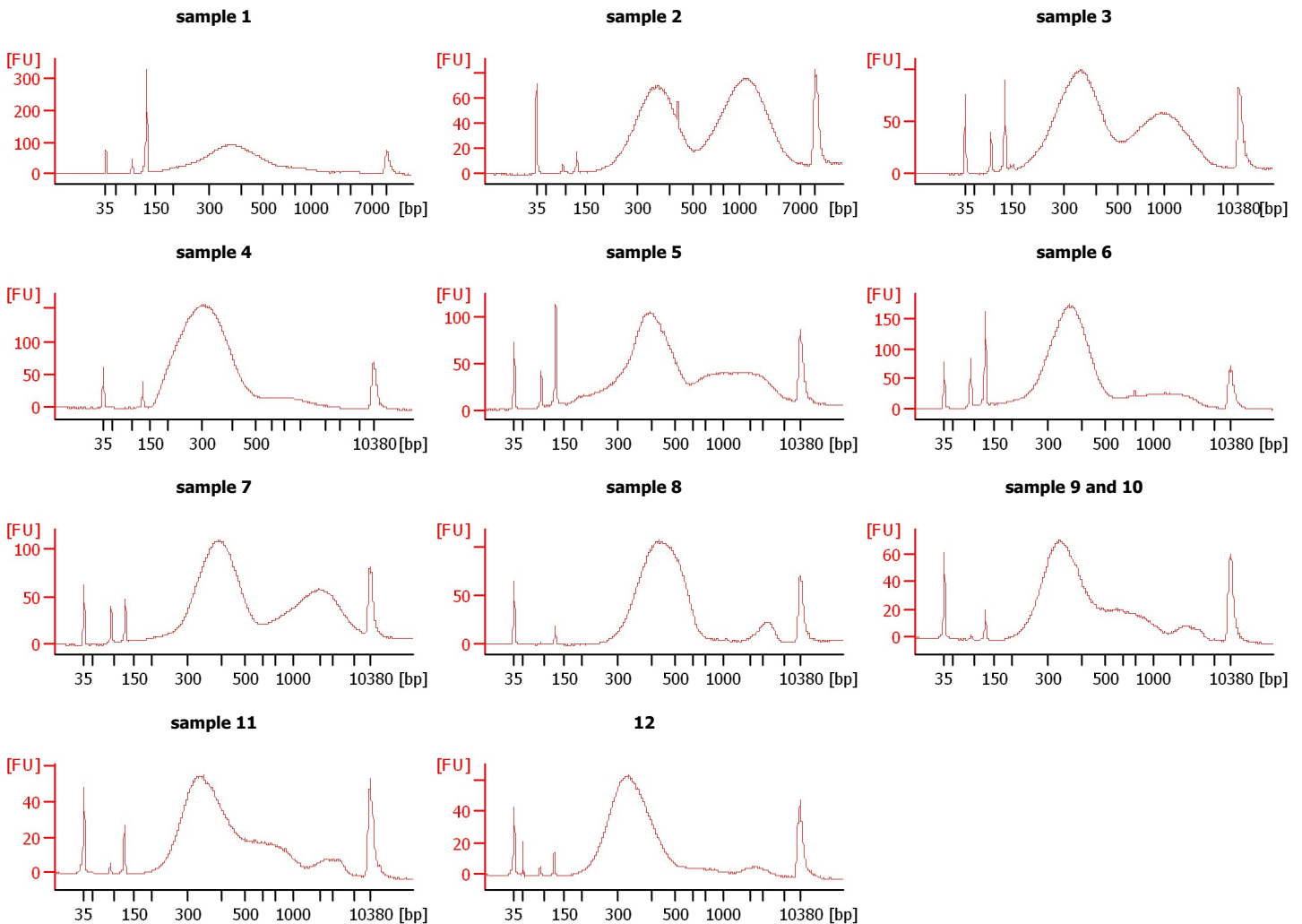
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:\...ents and Settings\Bioanalyzer\2013-10-22\2013-10-22_002.xad

Created: 10/22/2013 11:36:03 AM
Modified: 10/22/2013 12:19:47 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 and 10		<input type="checkbox"/>	✓			
sample 11		<input type="checkbox"/>	✓			
12		<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\2013-10-22\2013-10-22_002.xad

Created: 10/22/2013 11:36:03 AM
Modified: 10/22/2013 12:19:47 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

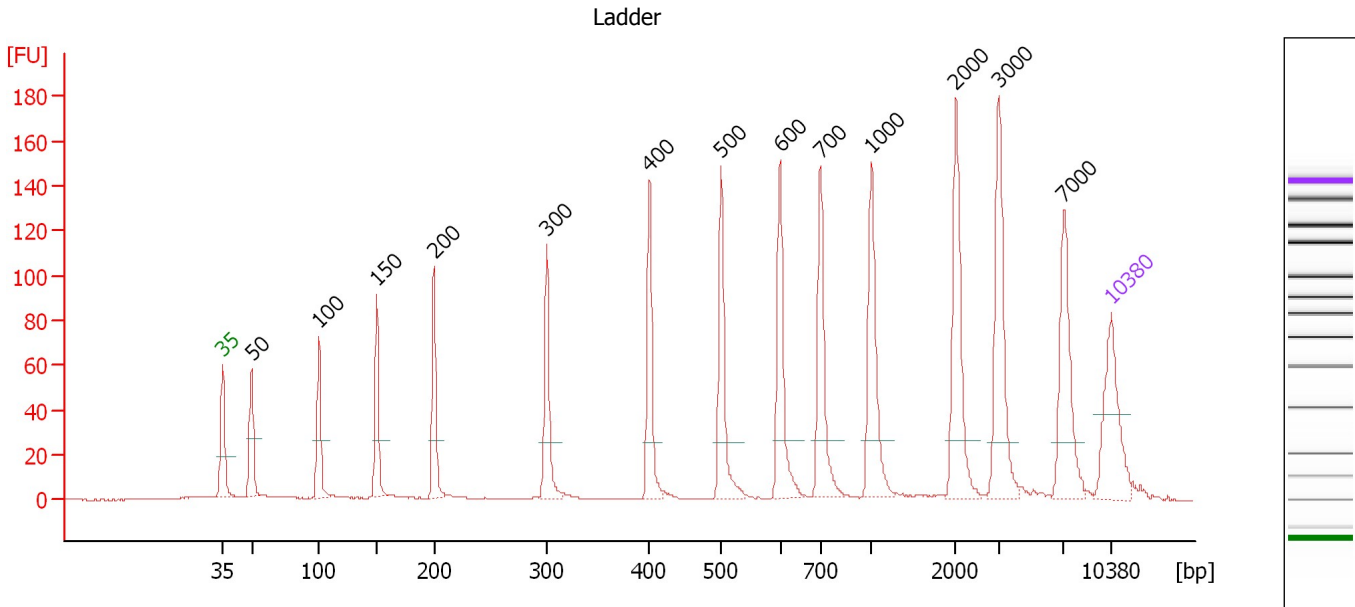
Ladder

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\2013-10-22\2013-10-22_002.xad

Created: 10/22/2013 11:36:03 AM
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Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

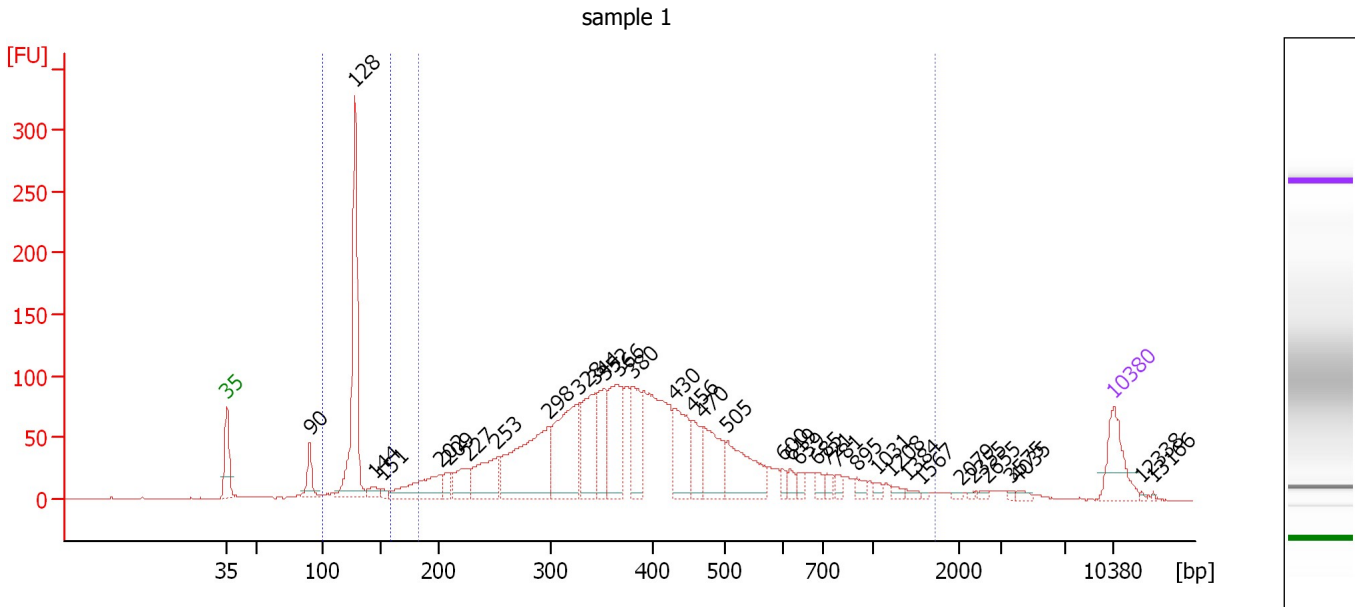
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
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\2013-10-22\2013-10-22_002.xad

Created: 10/22/2013 11:36:03 AM
 Modified: 10/22/2013 12:19:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 36 Corr. Area 1: 2,417.8
 Noise: 0.2 Corr. Area 2: 360.7

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	90	70.44	1,182.9	
3	128	480.46	5,696.7	
4	144	25.33	266.8	
5	151	10.86	108.8	
6	202	121.88	912.6	
7	209	31.66	229.1	
8	227	69.40	462.4	
9	253	137.60	824.3	
10	298	335.94	1,706.2	
11	328	267.41	1,235.6	
12	344	179.09	789.8	
13	352	115.20	495.2	
14	366	176.32	729.9	
15	380	121.39	483.9	
16	430	137.84	486.1	
17	456	72.27	239.9	
18	470	129.65	418.2	
19	505	160.30	481.2	
20	600	15.09	38.1	
21	619	19.01	46.5	
22	639	14.86	35.2	
23	685	19.81	43.8	
24	721	16.62	34.9	
25	781	16.44	31.9	
26	895	17.41	29.5	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-22\2013-10-22_002.xad



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Electropherogram Summary Continued ...

... Peak table for sample 1 : sample 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	1,031	9.80	14.4	
28	1,208	10.22	12.8	
29	1,384	8.01	8.8	
30	1,567	3.54	3.4	
31	2,079	4.27	3.1	
32	2,355	3.15	2.0	
33	2,655	5.06	2.9	
34	3,575	3.92	1.7	
35	4,035	6.45	2.4	
36	 10,380	75.00	10.9	Upper Marker
37	12,338	0.00	0.0	
38	13,166	0.00	0.0	

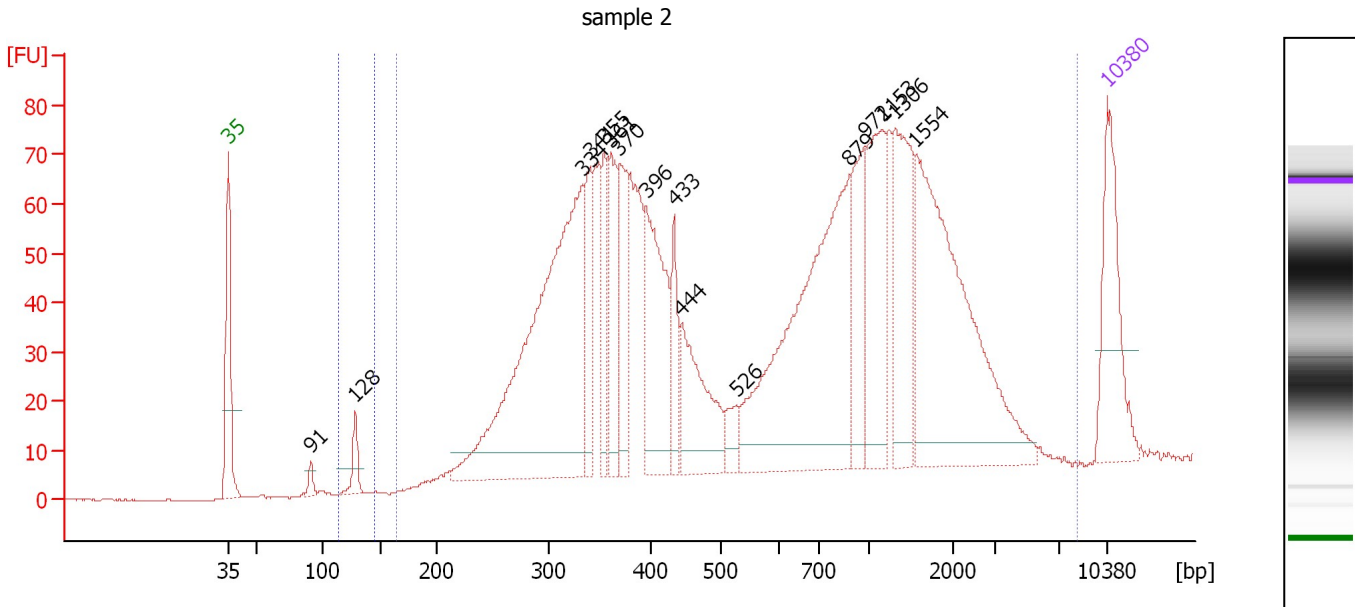
Region table for sample 1 : sample 1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
99	158	128	6,502.4	548.76	360.7	12	6.1	
184	1,735	430	11,672.7	2,733.36	2,417.8	82	47.5	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-22\2013-10-22_002.xad

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 Modified: 10/22/2013 12:19:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 16 Corr. Area 1: 2,154.0
 Noise: 0.2 Corr. Area 2: 12.2

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	91	10.30	172.0	
3	128	23.34	275.7	
4	334	474.13	2,150.9	
5	341	65.53	291.3	
6	355	57.70	246.6	
7	361	82.38	345.9	
8	370	74.84	306.6	
9	396	145.92	558.1	
10	433	39.36	137.6	
11	444	96.95	330.9	
12	526	18.86	54.3	
13	879	318.39	548.8	
14	972	72.30	112.7	
15	1,153	103.84	136.4	
16	1,306	104.96	121.8	
17	1,554	261.86	255.3	
18	10,380	75.00	10.9	Upper Marker

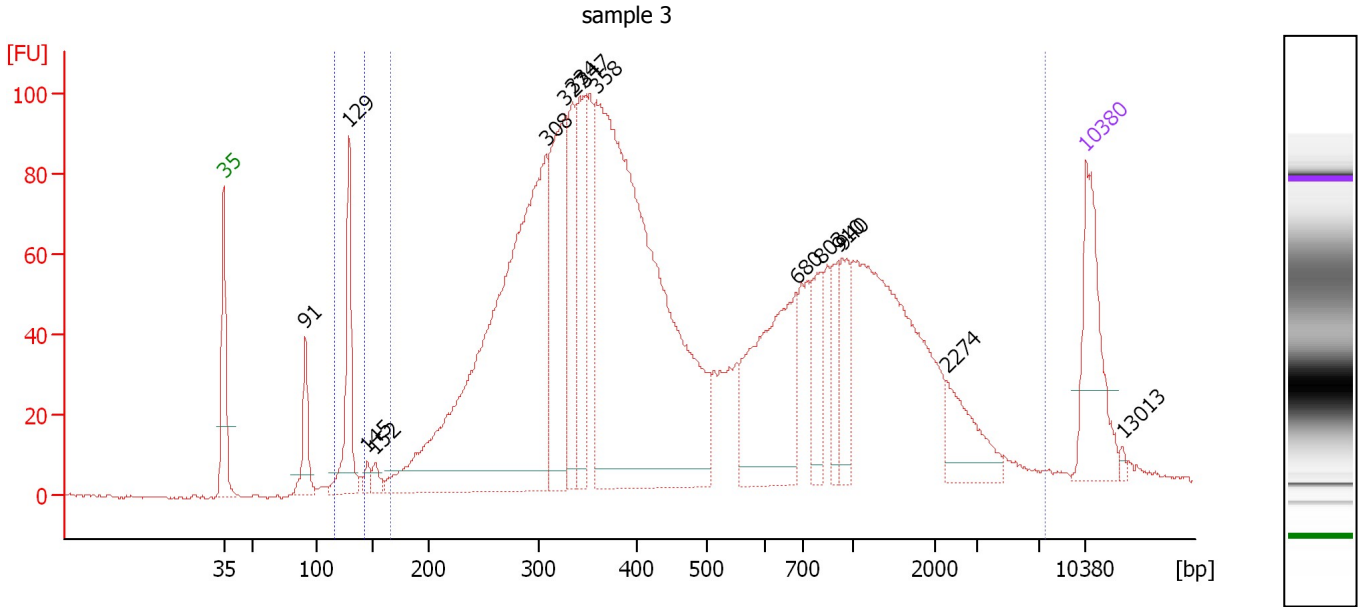
Region table for sample 2 : sample 2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
113	144	128	220.1	18.59	12.2	1	1.3	Blue
164	8,264	894	7,142.3	2,225.05	2,154.0	99	84.8	Dark Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-22\2013-10-22_002.xad

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Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 15 Corr. Area 1: 2,939.7
 Noise: 0.3 Corr. Area 2: 88.1

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	91	52.95	880.1	
3	129	114.28	1,346.8	
4	145	10.28	107.7	
5	152	11.16	111.4	
6	308	676.67	3,332.6	
7	327	192.48	891.9	
8	334	92.51	419.0	
9	347	114.72	501.1	
10	358	758.67	3,209.8	
11	680	181.45	404.0	
12	803	45.22	85.3	
13	910	32.60	54.3	
14	940	40.65	65.5	
15	2,274	46.85	31.2	
16	10,380	75.00	10.9	Upper Marker
17	13,013	0.00	0.0	

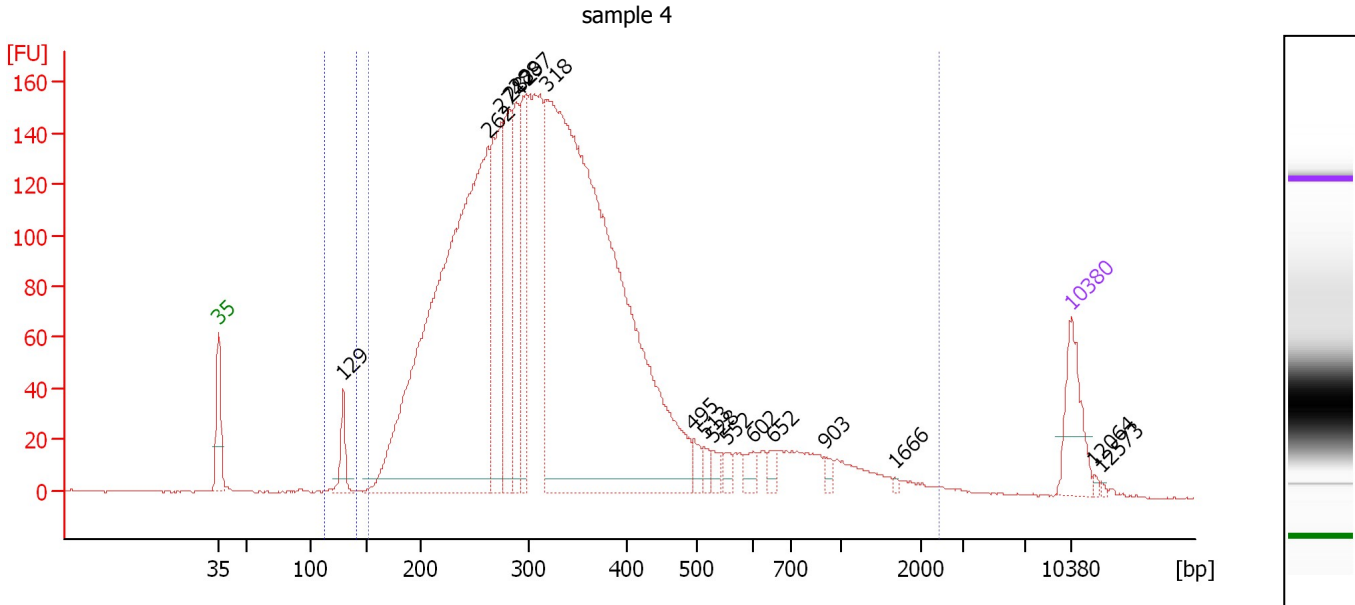
Region table for sample 3 : sample 3

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
115	143	128	1,315.6	111.32	88.1	3	3.1	Blue
166	7,422	699	10,237.0	2,652.79	2,939.7	95	100.0	Dark Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-22\2013-10-22_002.xad

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 Modified: 10/22/2013 12:19:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 17 Corr. Area 1: 3,971.4
 Noise: 0.3 Corr. Area 2: 37.0

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	129	56.94	667.0	
3	262	1,466.13	8,493.4	
4	274	306.44	1,692.5	
5	282	237.74	1,276.5	
6	288	173.58	914.5	
7	297	172.43	879.8	
8	318	1,980.07	9,423.8	
9	495	21.42	65.5	
10	513	15.54	45.9	
11	528	17.98	51.6	
12	552	15.05	41.3	
13	602	19.04	47.9	
14	652	14.92	34.7	
15	903	11.46	19.2	
16	1,666	2.76	2.5	
17	10,380	75.00	10.9	Upper Marker
18	12,064	0.00	0.0	
19	12,573	0.00	0.0	

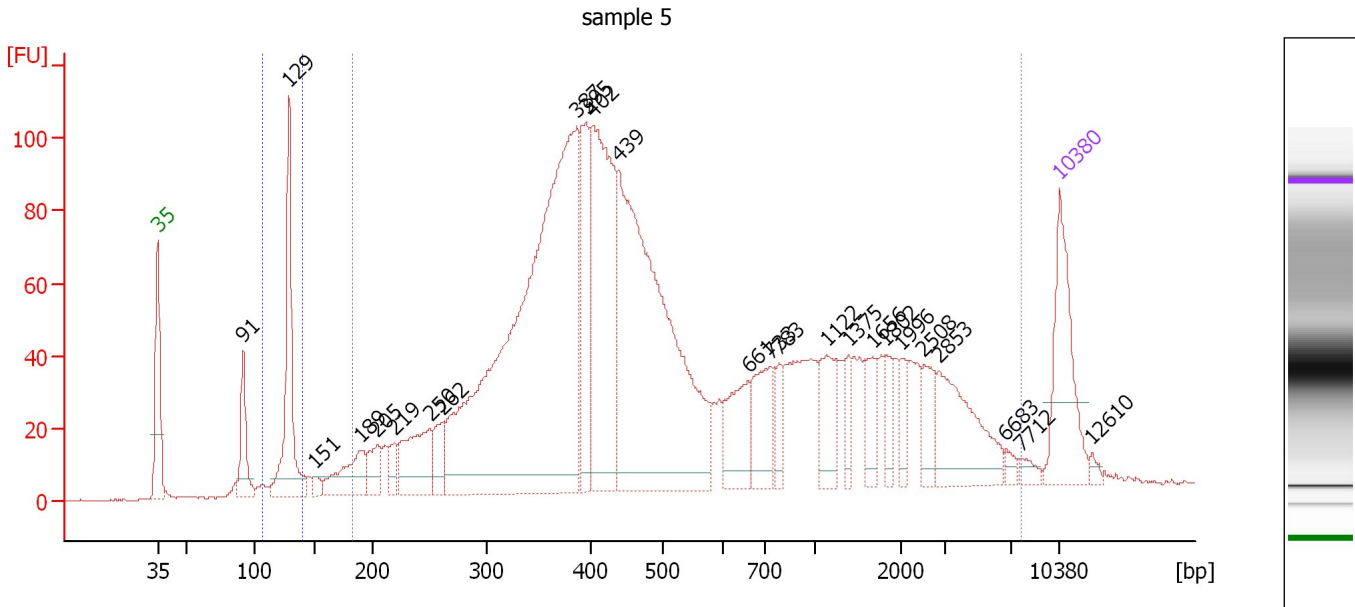
Region table for sample 4 : sample 4

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
112	142	129	706.0	59.90	37.0	1	2.8	Blue
153	2,399	361	25,773.3	5,051.83	3,971.4	98	59.6	Dark Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-22\2013-10-22_002.xad

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 Modified: 10/22/2013 12:19:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 25 Corr. Area 1: 2,570.6
 Noise: 0.2 Corr. Area 2: 120.2

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	91	58.67	974.0	
3	129	166.26	1,955.5	
4	151	8.88	89.0	
5	189	57.87	463.0	
6	205	31.00	229.3	
7	219	17.41	120.3	
8	250	78.63	476.0	
9	262	32.42	187.2	
10	387	747.62	2,930.6	
11	395	101.40	388.6	
12	402	255.66	963.5	
13	439	491.03	1,694.9	
14	661	62.31	142.9	
15	733	59.62	123.2	
16	783	21.35	41.3	
17	1,122	45.51	61.5	
18	1,375	17.16	18.9	
19	1,656	28.49	26.1	
20	1,802	19.56	16.4	
21	1,996	16.16	12.3	
22	2,508	25.32	15.3	
23	2,853	80.10	42.5	
24	6,683	6.51	1.5	
25	7,712	7.44	1.5	
26	10,380	75.00	10.9	Upper Marker



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-22\2013-10-22_002.xad

Created: 10/22/2013 11:36:03 AM
Modified: 10/22/2013 12:19:47 PM

Electropherogram Summary Continued ...**... Peak table for sample 5 : sample 5**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
27	12,610	0.00	0.0	

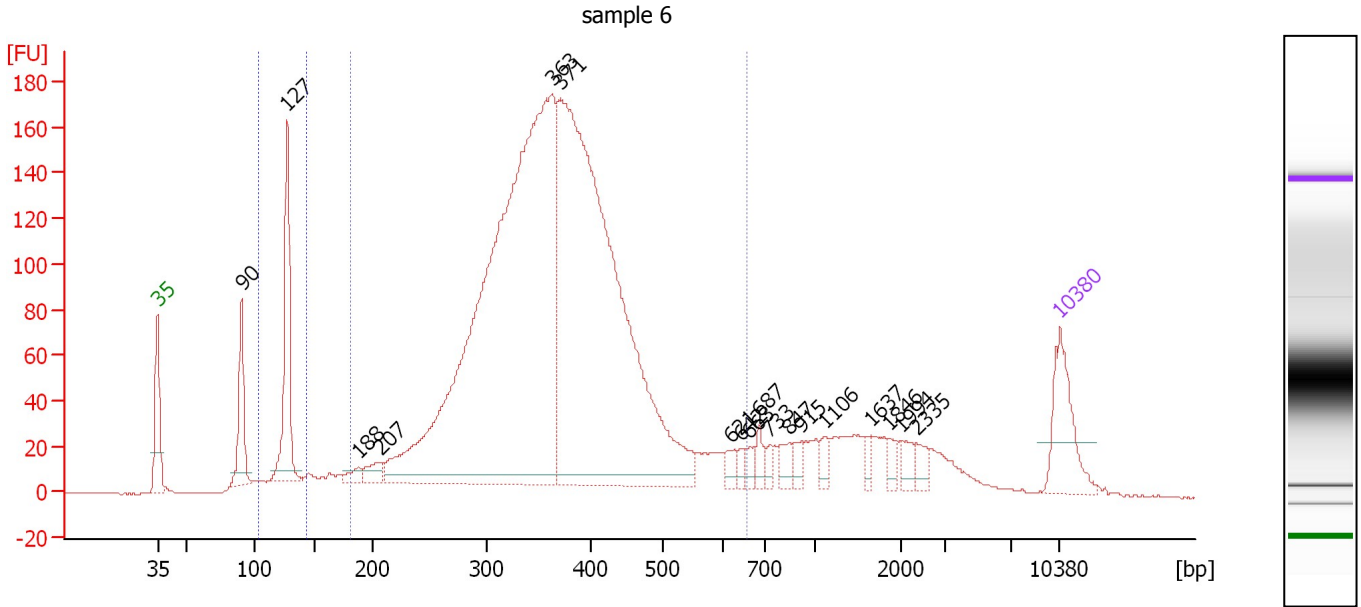
Region table for sample 5 : sample 5

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Corr. Area	% of Total	Size distribution in CV [%]	Color
107	141	128	1,981.3	167.00	120.2	4	4.2	
183	7,671	901	8,701.1	2,478.20	2,570.6	92	100.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-22\2013-10-22_002.xad

Created: 10/22/2013 11:36:03 AM
 Modified: 10/22/2013 12:19:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 18 Corr. Area 1: 3,029.8
 Noise: 0.3 Corr. Area 2: 187.8

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	90	107.38	1,805.8	
3	127	204.72	2,436.6	
4	188	15.67	126.1	
5	207	24.05	176.1	
6	363	1,493.62	6,231.8	
7	371	1,255.69	5,128.9	
8	621	16.92	41.3	
9	642	10.48	24.7	
10	663	13.54	30.9	
11	687	16.61	36.6	
12	733	11.16	23.1	
13	847	20.30	36.3	
14	915	14.58	24.1	
15	1,106	14.00	19.2	
16	1,637	10.76	10.0	
17	1,846	13.59	11.2	
18	1,994	17.51	13.3	
19	2,335	15.40	10.0	
20	10,380	75.00	10.9	Upper Marker

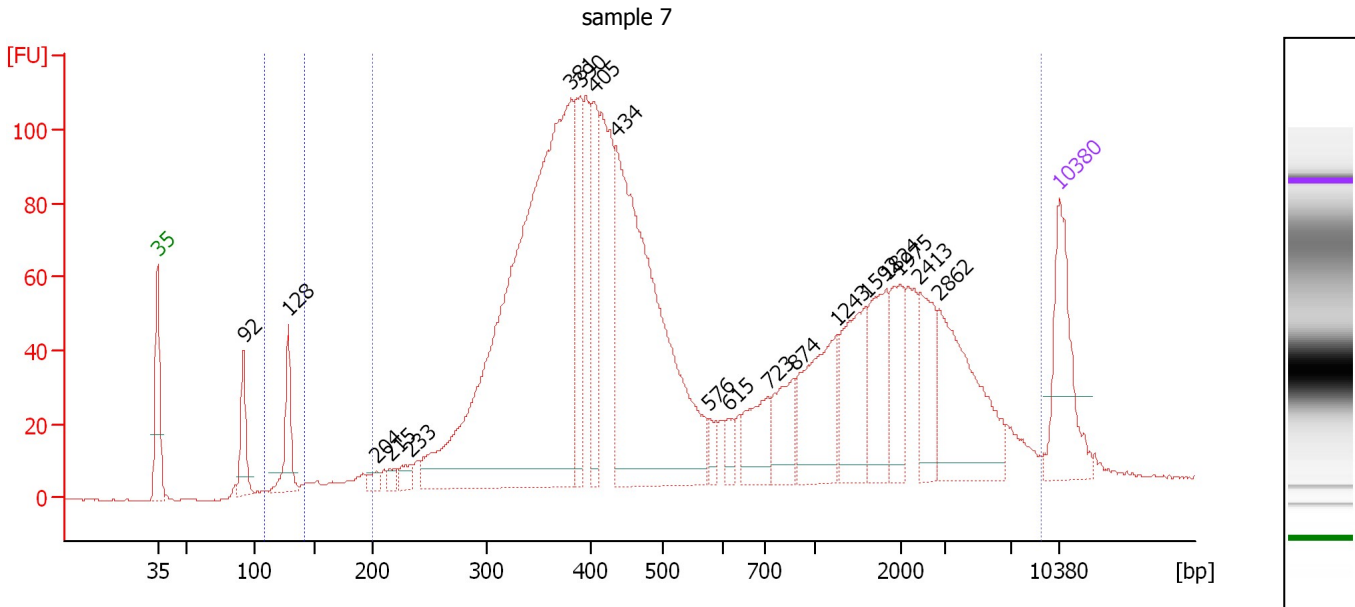
Region table for sample 6 : sample 6

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
104	144	126	3,129.3	260.68	187.8	5	5.0	Blue
181	660	370	13,766.6	3,148.28	3,029.8	79	21.6	Dark Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-22\2013-10-22_002.xad

Created: 10/22/2013 11:36:03 AM
 Modified: 10/22/2013 12:19:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 19 Corr. Area 1: 2,625.2
 Noise: 0.2 Corr. Area 2: 48.3

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	92	53.22	880.2	
3	128	62.46	738.0	
4	204	9.85	73.1	
5	215	8.33	58.6	
6	233	14.53	94.5	
7	381	810.39	3,221.3	
8	390	97.03	377.3	
9	405	92.66	346.9	
10	434	451.99	1,576.2	
11	576	11.33	29.8	
12	615	14.44	35.6	
13	723	50.86	106.5	
14	874	46.85	81.2	
15	1,243	93.99	114.6	
16	1,592	75.72	72.1	
17	1,824	64.69	53.7	
18	1,975	46.43	35.6	
19	2,413	50.63	31.8	
20	2,862	117.47	62.2	
21	10,380	75.00	10.9	Upper Marker

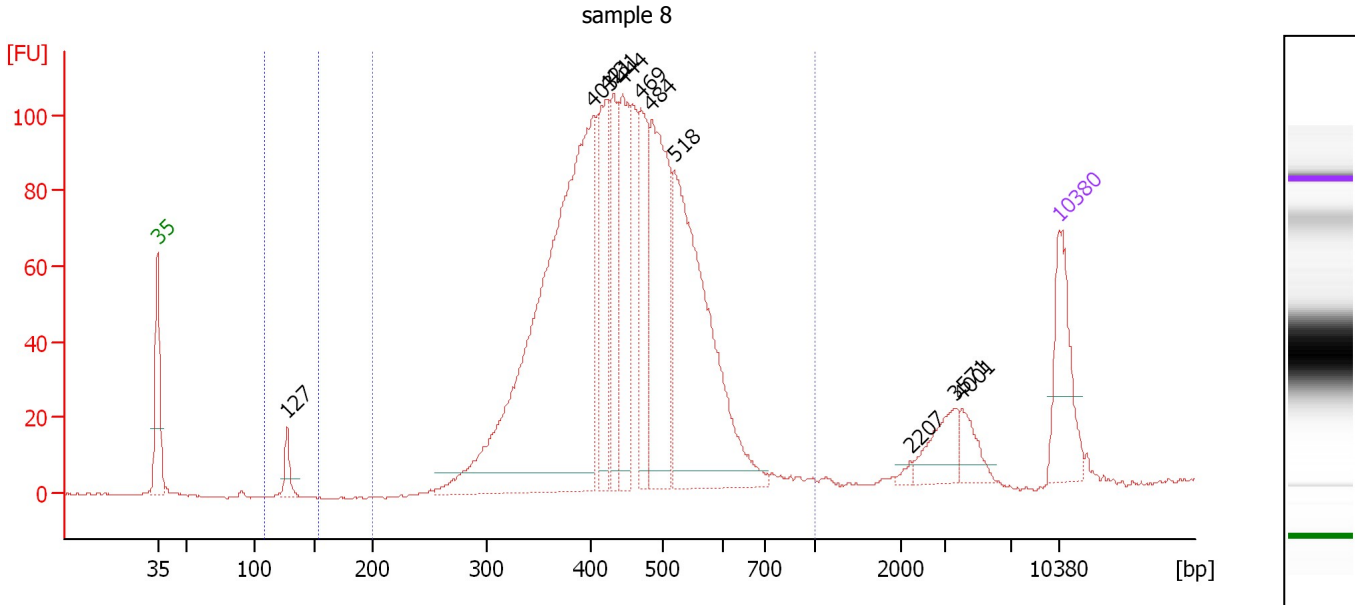
Region table for sample 7 : sample 7

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
109	142	128	803.1	67.63	48.3	2	3.6	Blue
200	9,042	1,116	8,119.3	2,496.73	2,625.2	95	100.0	Dark Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-22\2013-10-22_002.xad

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 Modified: 10/22/2013 12:19:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 11 Corr. Area 1: 1,707.6
 Noise: 0.3 Corr. Area 2: 12.1

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	127	27.85	331.7	
3	403	783.68	2,943.8	
4	421	149.56	538.0	
5	431	105.70	371.7	
6	444	140.79	480.6	
7	469	125.93	406.9	
8	484	244.18	765.2	
9	518	398.59	1,166.9	
10	2,207	4.59	3.2	
11	3,571	42.33	18.0	
12	4,001	26.79	10.1	
13	10,380	75.00	10.9	Upper Marker

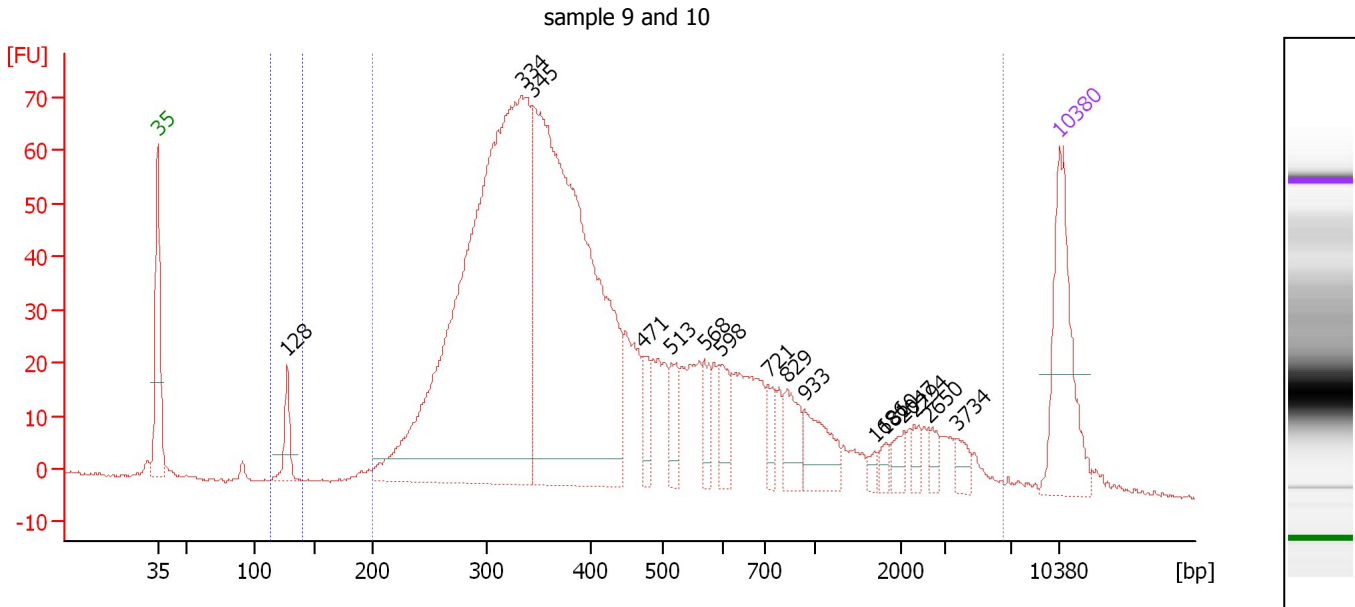
Region table for sample 8 : sample 8

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
108	154	127	250.7	21.07	12.1	1	1.2	Blue
200	1,000	448	7,445.3	2,106.75	1,707.6	94	18.6	Dark Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-22\2013-10-22_002.xad

Created: 10/22/2013 11:36:03 AM
 Modified: 10/22/2013 12:19:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9 and 10

Number of peaks found: 16 Corr. Area 1: 1,639.8
 Noise: 0.3 Corr. Area 2: 17.4

Peak table for sample 9 : sample 9 and 10

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	128	31.09	369.4	
3	334	753.47	3,419.8	
4	345	588.69	2,583.6	
5	471	21.93	70.5	
6	513	25.39	75.0	
7	568	19.81	52.9	
8	598	26.94	68.3	
9	721	16.54	34.7	
10	829	28.39	51.9	
11	933	36.12	58.7	
12	1,686	4.84	4.4	
13	1,810	6.13	5.1	
14	2,047	10.15	7.5	
15	2,294	7.88	5.2	
16	2,650	7.74	4.4	
17	3,734	9.95	4.0	
18	10,380	75.00	10.9	Upper Marker

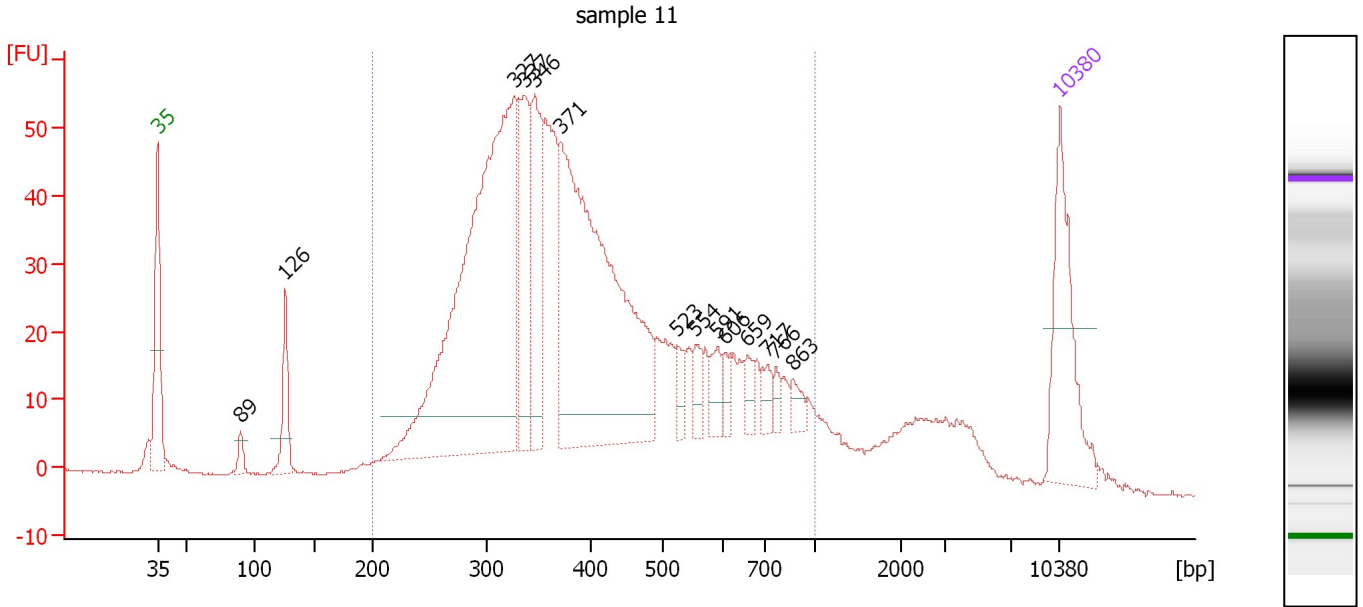
Region table for sample 9 : sample 9 and 10

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
112	140	127	327.9	27.50	17.4	1	1.7	Blue
200	6,571	630	7,455.9	1,874.12	1,639.8	97	100.0	Dark Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-22\2013-10-22_002.xad

Created: 10/22/2013 11:36:03 AM
 Modified: 10/22/2013 12:19:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 11

Number of peaks found: 14 Corr. Area 1: 1,244.4
 Noise: 0.2

Peak table for sample 10 : sample 11

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	89	11.58	196.3	
3	126	45.84	552.4	
4	327	501.67	2,324.8	
5	337	99.03	444.8	
6	346	99.42	435.5	
7	371	405.85	1,656.6	
8	523	12.97	37.6	
9	554	16.10	44.1	
10	591	17.59	45.1	
11	606	10.44	26.1	
12	659	12.68	29.1	
13	717	11.43	24.1	
14	766	7.31	14.5	
15	863	10.36	18.2	
16	10,380	75.00	10.9	Upper Marker

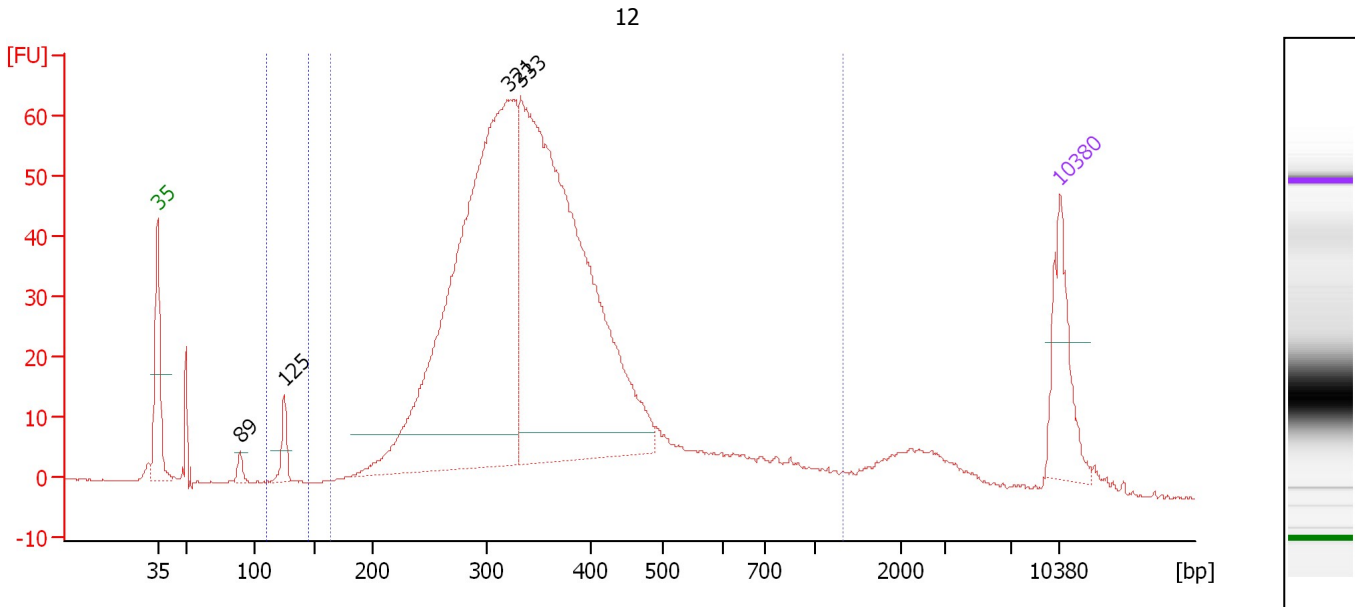
Region table for sample 10 : sample 11

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	422	7,358.3	1,782.18	1,244.4	88	36.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-22\2013-10-22_002.xad

Created: 10/22/2013 11:36:03 AM
 Modified: 10/22/2013 12:19:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 12

Number of peaks found: 4 Corr. Area 1: 1,176.7
 Noise: 0.1 Corr. Area 2: 12.9

Peak table for sample 11 : 12

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	89	12.18	207.3	
3	125	30.85	373.6	
4	321	929.84	4,385.7	
5	333	922.03	4,197.4	
6	10,380	75.00	10.9	Upper Marker

Region table for sample 11 : 12

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
110	146	125	390.3	32.12	12.9	1	2.3	Blue
164	1,313	370	10,088.9	2,220.02	1,176.7	92	35.8	Dark Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-22\2013-10-22_002.xad

Created: 10/22/2013 11:36:03 AM
Modified: 10/22/2013 12:19:47 PM

Gel Image

