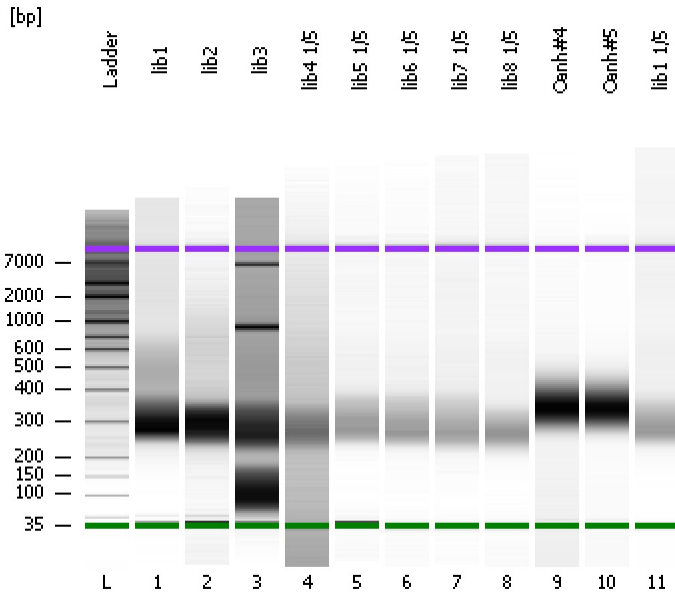


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
Modified: 8/14/2012 2:08:33 PM

### Electrophoresis File Run Summary



#### Instrument Information:

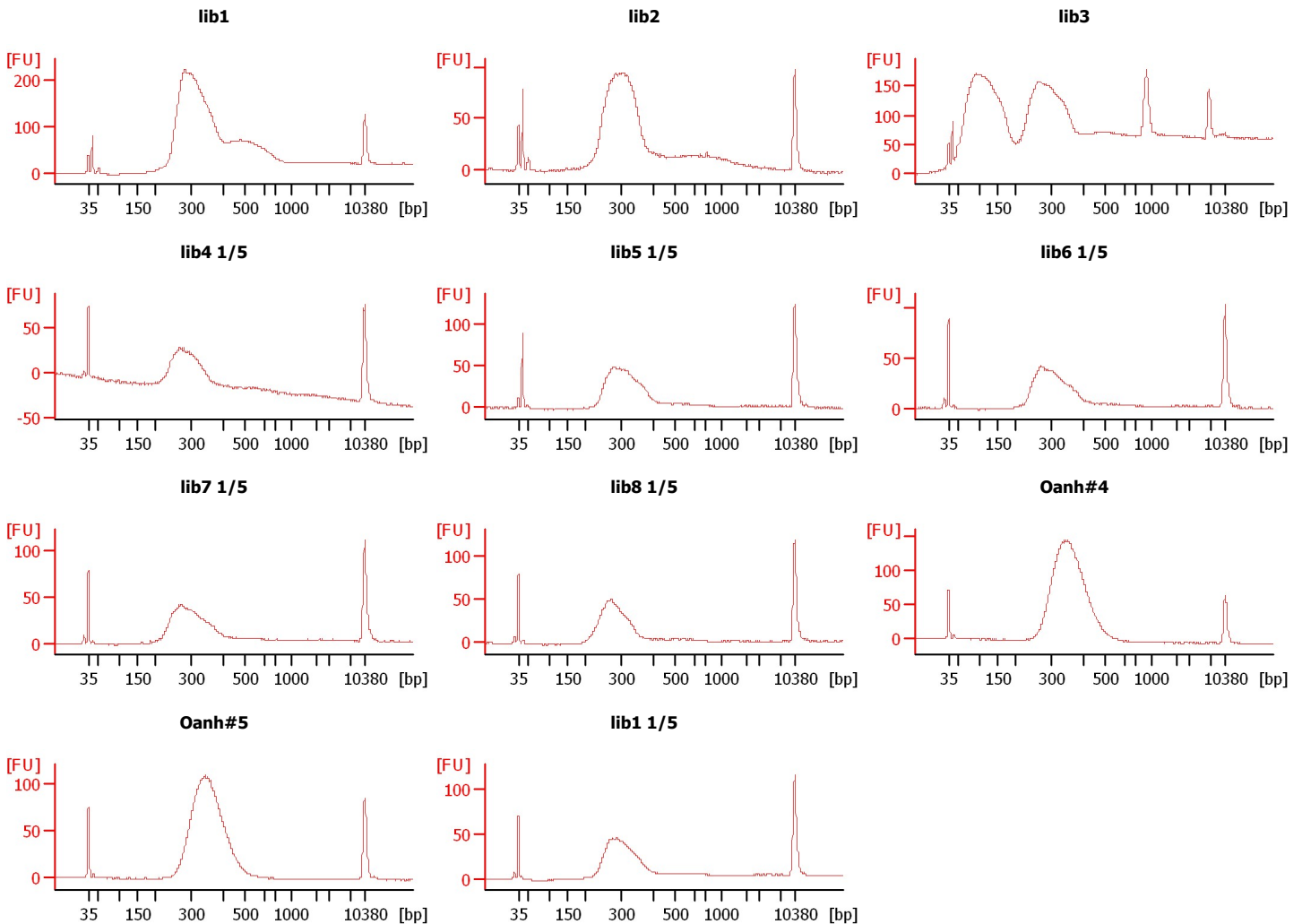
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
 Modified: 8/14/2012 2:08:33 PM

**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
lib1		<input type="checkbox"/>	✓			
lib2		<input type="checkbox"/>	✓			
lib3		<input type="checkbox"/>	✓			
lib4 1/5		<input type="checkbox"/>	✓			
lib5 1/5		<input type="checkbox"/>	✓			
lib6 1/5		<input type="checkbox"/>	✓			
lib7 1/5		<input type="checkbox"/>	✓			
lib8 1/5		<input type="checkbox"/>	✓			
Oanh#4		<input type="checkbox"/>	✓			
Oanh#5		<input type="checkbox"/>	✓			
lib1 1/5		<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\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
Modified: 8/14/2012 2:08:33 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

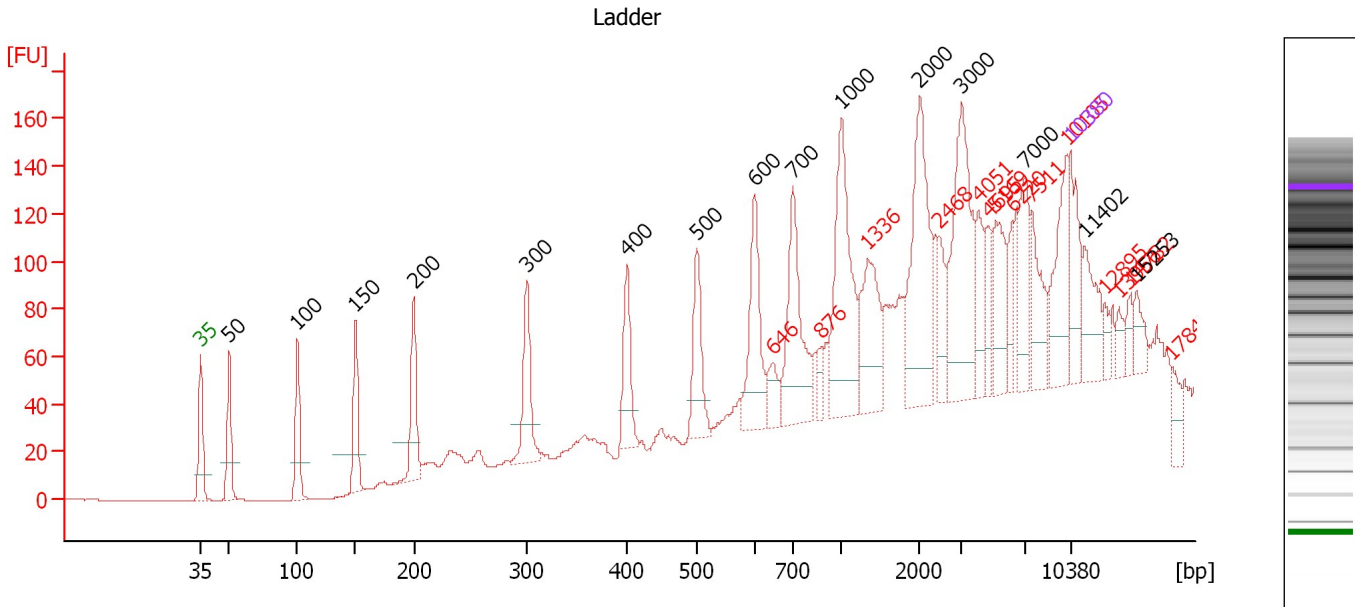
**Ladder**

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\2012-08-14\2012-08-14\_004.xad

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**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	646	0.00	0.0	excluded peak
11	700	150.00	324.7	Ladder Peak
12	876	0.00	0.0	excluded peak
13	1,000	150.00	227.3	Ladder Peak
14	1,336	0.00	0.0	excluded peak
15	2,000	150.00	113.6	Ladder Peak
16	2,468	0.00	0.0	excluded peak
17	3,000	150.00	75.8	Ladder Peak
18	4,051	0.00	0.0	excluded peak
19	4,695	0.00	0.0	excluded peak
20	5,169	0.00	0.0	excluded peak
21	6,220	0.00	0.0	excluded peak
22	7,000	150.00	32.5	Ladder Peak
23	7,511	0.00	0.0	excluded peak
24	10,105	0.00	0.0	excluded peak
25	10,380	75.00	10.9	Upper Marker
26	11,402	0.00	0.0	
27	12,895	0.00	0.0	excluded peak

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
Modified: 8/14/2012 2:08:33 PM

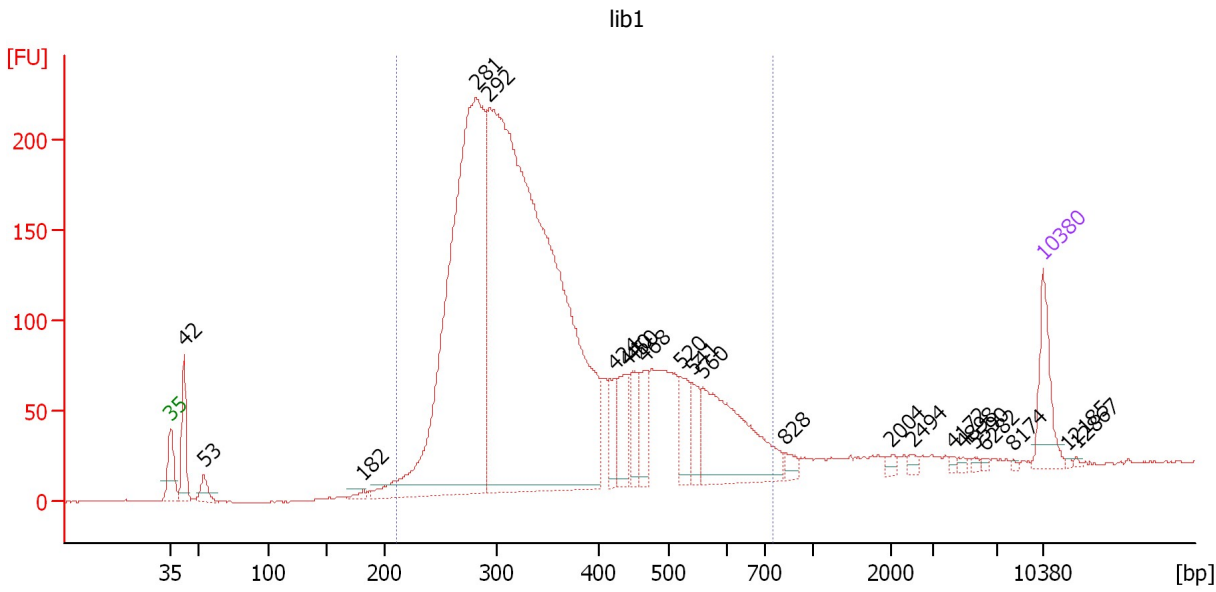
**Electropherogram Summary Continued ...****... Peak table for Ladder**

Peak		Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations
28		13,956	0.00	0.0	excluded peak
29		14,782	0.00	0.0	excluded peak
30		15,253	0.00	0.0	
31		17,847	0.00	0.0	excluded peak

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
 Modified: 8/14/2012 2:08:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : lib1**

Number of peaks found: 22                      Corr. Area 1: 3,917.1  
 Noise: 0.3

**Peak table for sample 1 : lib1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	131.93	4,767.2	
3	53	39.32	1,119.4	
4	182	10.55	87.9	
5	281	1,467.66	7,915.9	
6	292	2,446.56	12,674.4	
7	424	52.64	188.3	
8	440	83.88	288.9	
9	450	58.12	195.7	
10	468	65.31	211.5	
11	520	73.43	213.8	
12	541	48.27	135.2	
13	560	278.91	754.9	
14	828	16.16	29.6	
15	2,004	8.09	6.1	
16	2,494	7.71	4.7	
17	4,172	3.93	1.4	
18	4,898	4.65	1.4	
19	5,590	4.13	1.1	
20	6,282	3.07	0.7	
21	8,174	2.46	0.5	
22	10,380	75.00	10.9	Upper Marker
23	12,185	0.00	0.0	
24	12,867	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
Modified: 8/14/2012 2:08:33 PM

**Electropherogram Summary Continued ...**

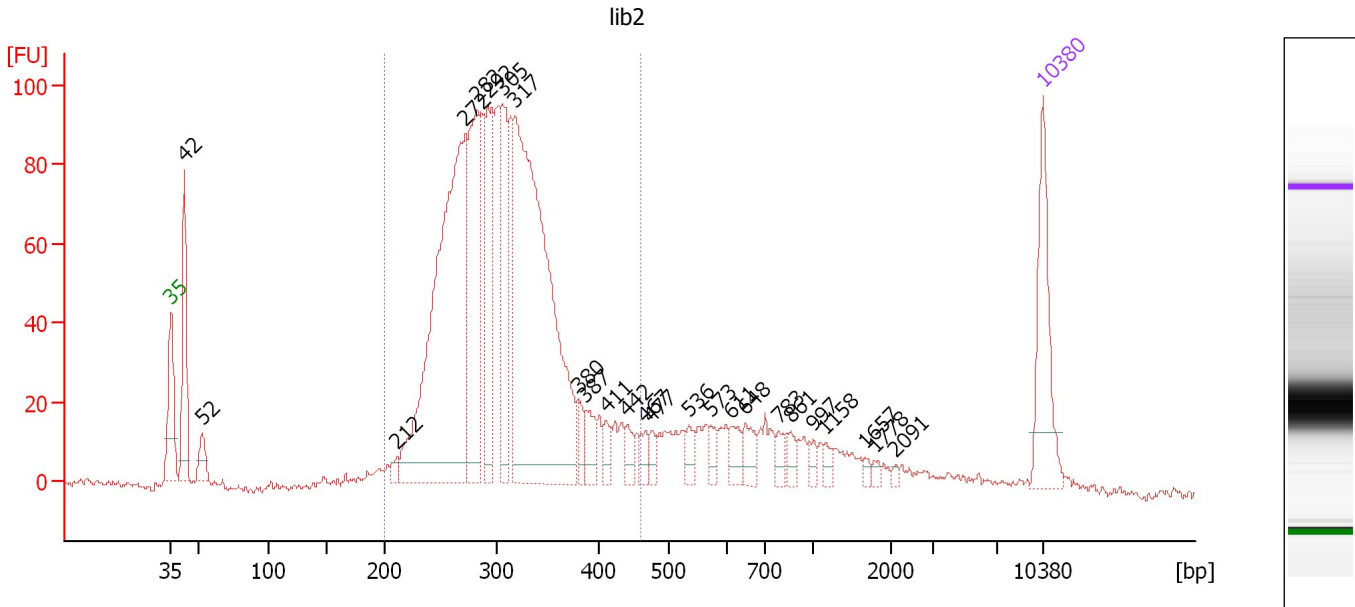
... Region table for sample 1 : lib1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
211	756	363	20,516.8	4,462.03	3,917.1	93	28.9	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
 Modified: 8/14/2012 2:08:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : lib2**

Number of peaks found: 25                      Corr. Area 1: 1,546.6  
 Noise: 0.8

**Peak table for sample 2 : lib2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	134.42	4,841.3	
3	52	28.04	816.0	
4	212	9.33	66.8	
5	272	557.84	3,113.0	
6	282	207.42	1,115.1	
7	292	121.31	630.2	
8	305	134.38	667.6	
9	317	576.81	2,755.7	
10	380	19.17	76.4	
11	387	25.97	101.6	
12	411	16.01	59.0	
13	442	16.12	55.3	
14	467	14.93	48.4	
15	477	12.15	38.6	
16	536	14.15	40.0	
17	573	11.20	29.6	
18	611	18.11	44.9	
19	648	22.56	52.8	
20	783	10.81	20.9	
21	861	11.33	19.9	
22	997	6.85	10.4	
23	1,158	7.98	10.4	
24	1,657	4.01	3.7	
25	1,778	4.34	3.7	
26	2,091	2.63	1.9	




Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
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**Electropherogram Summary Continued ...****... Peak table for sample 2 : lib2**

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

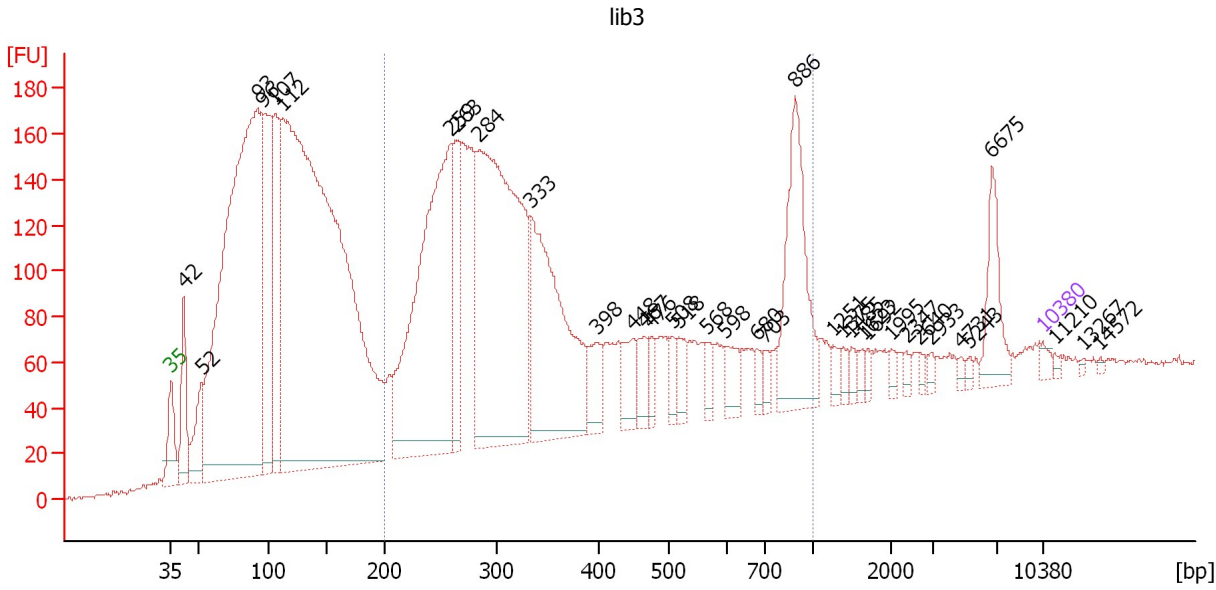
**Region table for sample 2 : lib2**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ $\mu$ l]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	460	307	10,149.7	1,994.03	1,546.6	77	15.9	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
 Modified: 8/14/2012 2:08:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : lib3**

Number of peaks found: 36                      Corr. Area 1: 3,405.3  
 Noise: 1.3

**Peak table for sample 3 : lib3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	1,165.36	42,206.9	
3	52	960.63	28,152.8	
4	93	14,002.63	229,176.1	
5	96	3,309.69	52,174.8	
6	107	2,346.61	33,380.8	
7	112	20,663.26	279,408.3	
8	259	6,394.38	37,466.6	
9	263	1,599.67	9,204.0	
10	284	7,311.52	39,042.6	
11	333	3,831.72	17,460.0	
12	398	523.28	1,993.1	
13	448	477.48	1,613.7	
14	467	388.88	1,262.4	
15	476	226.02	719.5	
16	508	213.09	635.5	
17	518	329.01	962.0	
18	568	212.32	566.3	
19	598	333.40	845.3	
20	680	147.93	329.7	
21	703	153.74	331.5	
22	886	1,910.43	3,265.6	
23	1,251	137.19	166.2	
24	1,375	106.81	117.7	
25	1,485	113.64	115.9	
26	1,623	82.19	76.7	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad


Created: 8/14/2012 1:26:14 PM  
 Modified: 8/14/2012 2:08:33 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 3 : lib3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	1,692	80.23	71.9	
28	1,995	98.04	74.5	
29	2,347	73.96	47.7	
30	2,640	59.99	34.4	
31	2,933	60.89	31.5	
32	4,731	48.61	15.6	
33	5,243	46.75	13.5	
34	6,675	619.48	140.6	
35	10,380	75.00	10.9	Upper Marker
36	11,210	0.00	0.0	
37	13,267	0.00	0.0	
38	14,572	0.00	0.0	

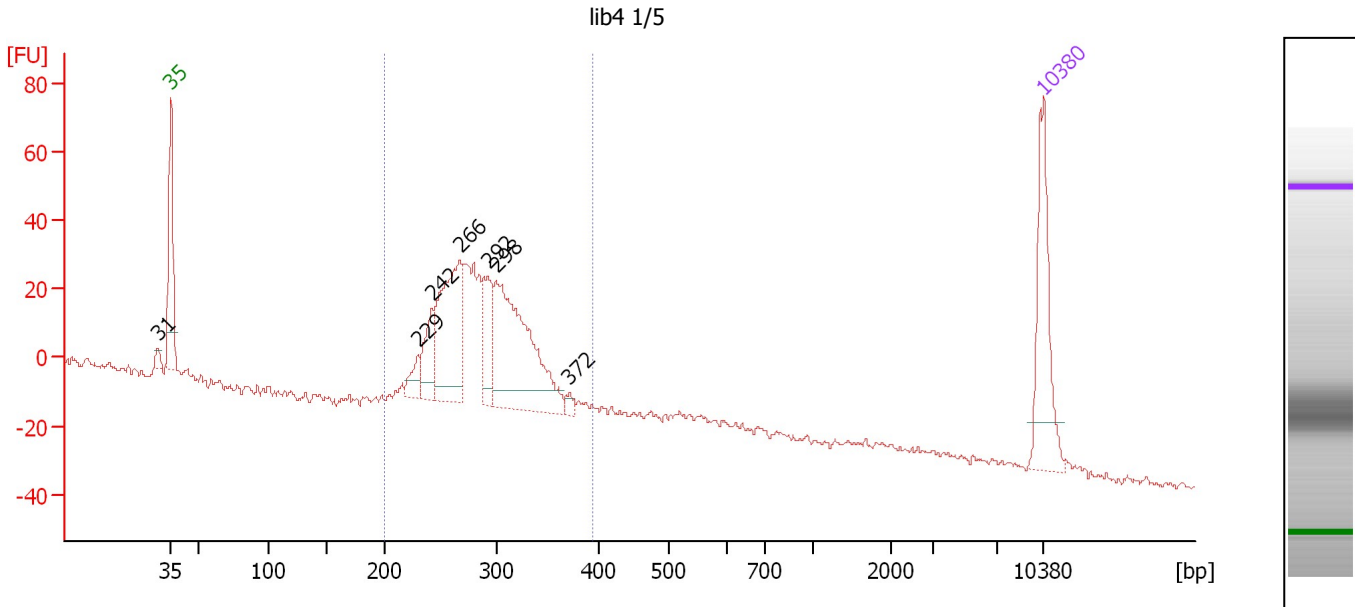
**Region table for sample 3 : lib3**

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	134,375.9	28,477.16	3,405.3	45	49.4	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
 Modified: 8/14/2012 2:08:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : lib4 1/5**

Number of peaks found: 7                      Corr. Area 1: 538.0  
 Noise: 1.3

**Peak table for sample 4 : lib4 1/5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	229	19.95	131.8	
4	242	44.91	281.2	
5	266	149.19	848.2	
6	292	51.65	268.4	
7	298	209.71	1,065.0	
8	372	6.85	27.9	
9	10,380	75.00	10.9	Upper Marker

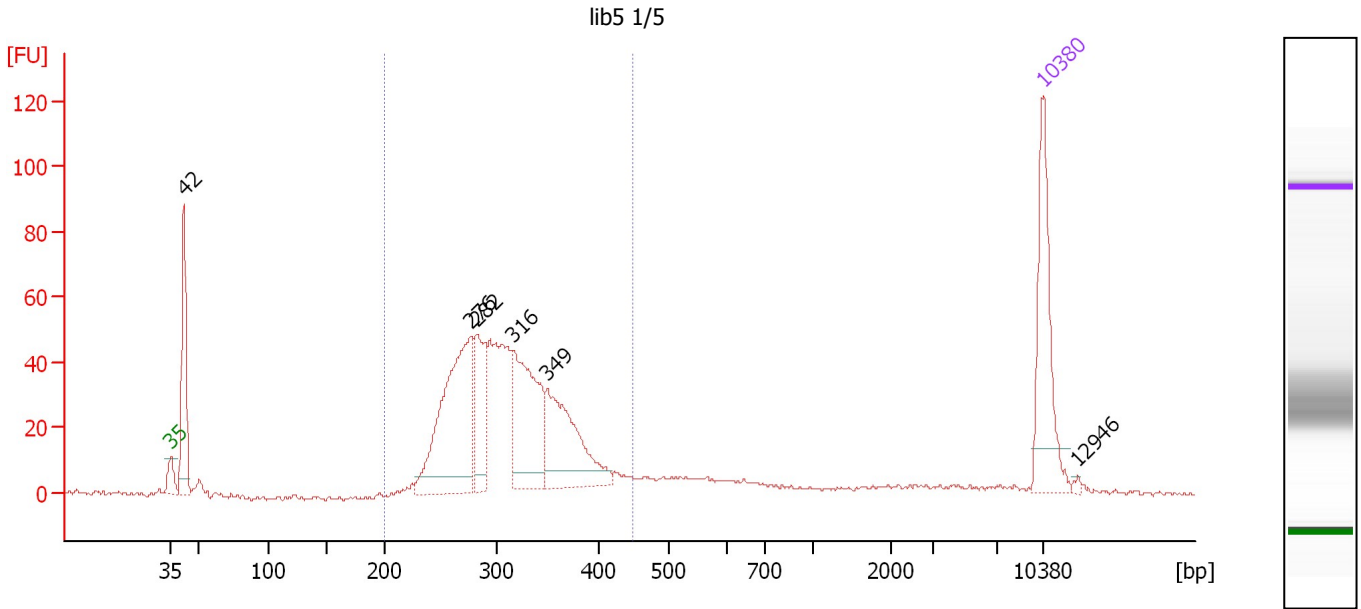
**Region table for sample 4 : lib4 1/5**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	394	289	3,304.7	618.79	538.0	82	12.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

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 Modified: 8/14/2012 2:08:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : lib5 1/5**

Number of peaks found: 6                      Corr. Area 1: 734.8  
 Noise: 0.6

**Peak table for sample 5 : lib5 1/5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	115.78	4,187.9	
3	276	205.08	1,126.3	
4	282	74.81	401.7	
5	316	130.35	625.4	
6	349	111.81	484.9	
7	10,380	75.00	10.9	Upper Marker
8	12,946	0.00	0.0	

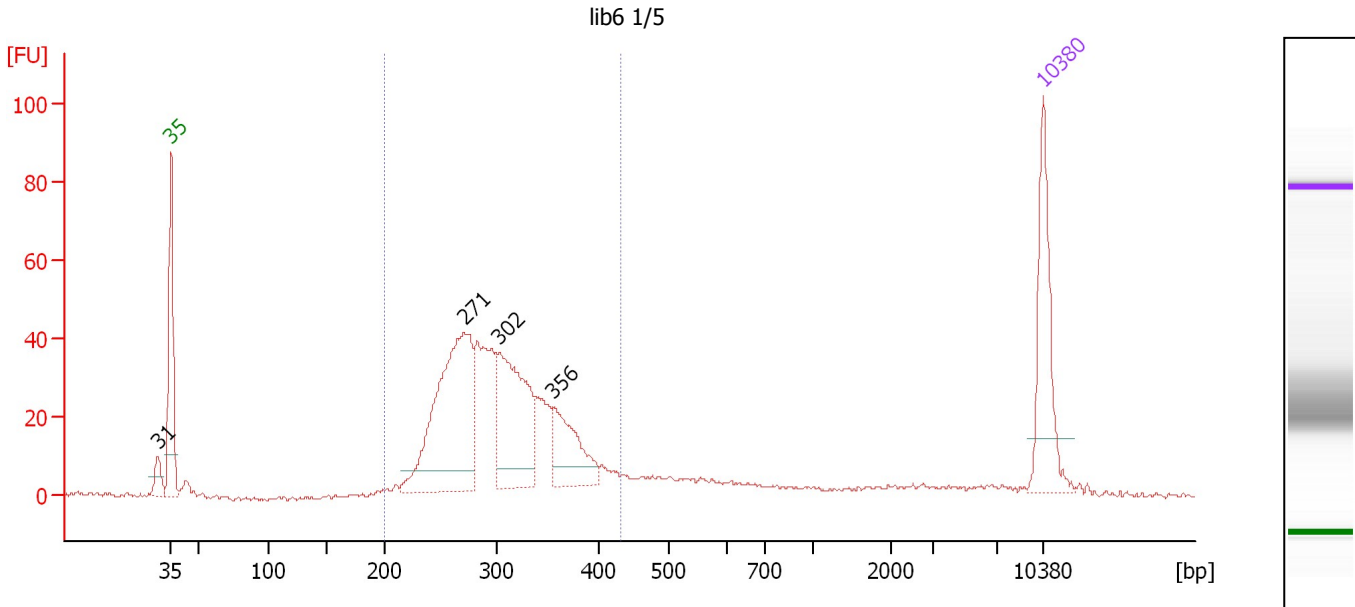
**Region table for sample 5 : lib5 1/5**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	448	311	3,494.8	699.39	734.8	76	14.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
 Modified: 8/14/2012 2:08:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : lib6 1/5**

Number of peaks found: 4                      Corr. Area 1: 623.9  
 Noise: 0.5

**Peak table for sample 6 : lib6 1/5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	271	259.66	1,454.2	
4	302	160.71	807.4	
5	356	71.44	304.4	
6	10,380	75.00	10.9	Upper Marker

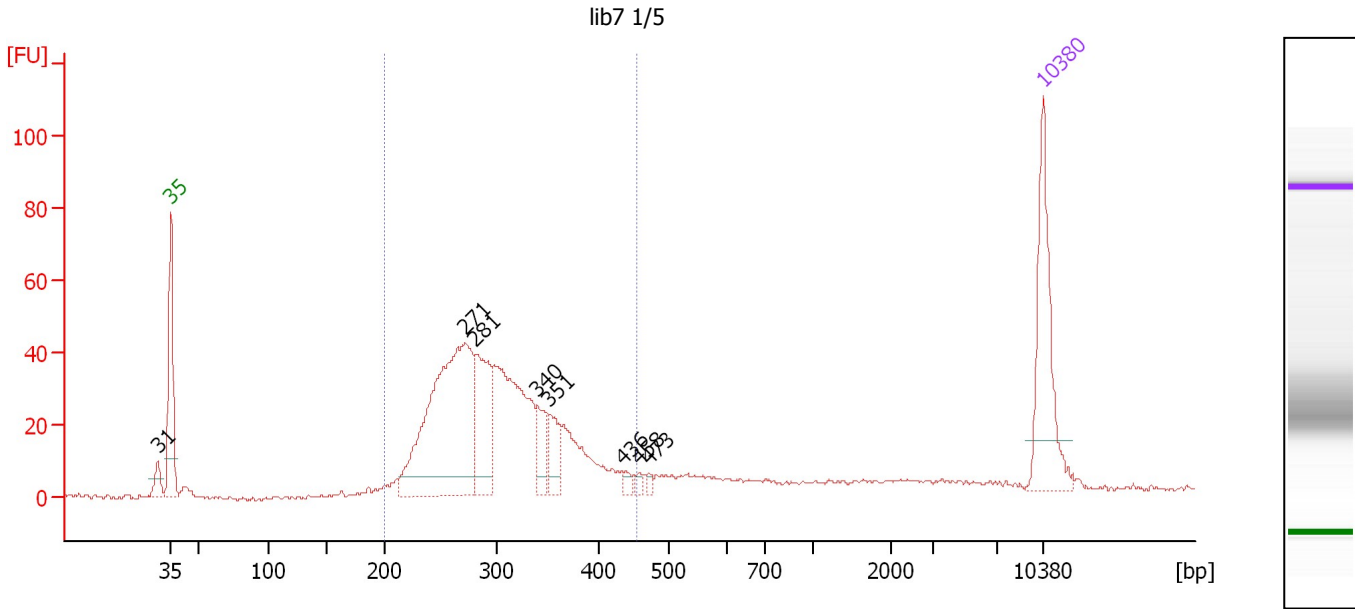
**Region table for sample 6 : lib6 1/5**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	433	304	3,806.8	742.88	623.9	78	15.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
 Modified: 8/14/2012 2:08:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : lib7 1/5**

Number of peaks found: 8                      Corr. Area 1: 647.7  
 Noise: 0.5

**Peak table for sample 7 : lib7 1/5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	271	282.87	1,578.8	
4	281	87.51	472.6	
5	340	27.89	124.4	
6	351	27.36	118.0	
7	436	5.21	18.1	
8	458	4.28	14.2	
9	473	4.01	12.8	
10	10,380	75.00	10.9	Upper Marker

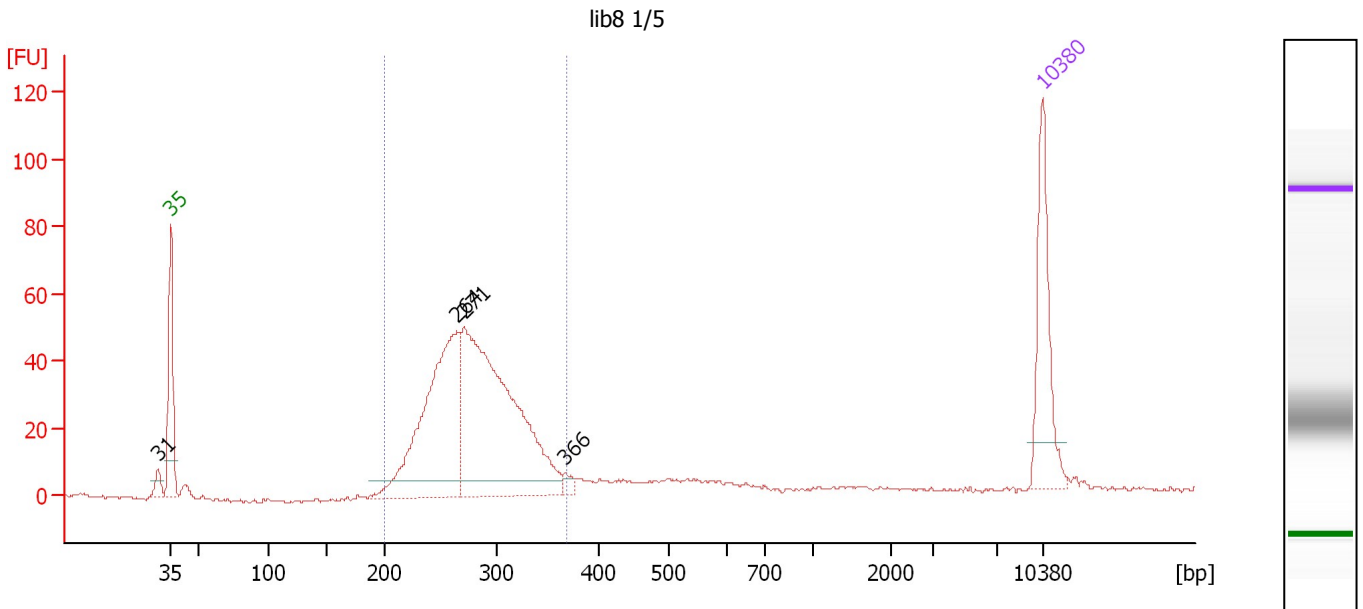
**Region table for sample 7 : lib7 1/5**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	456	302	3,565.4	686.61	647.7	80	17.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : lib8 1/5**

Number of peaks found: 4                      Corr. Area 1: 592.5  
 Noise: 0.5

**Peak table for sample 8 : lib8 1/5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	264	283.02	1,623.7	
4	271	404.86	2,267.0	
5	366	6.91	28.6	
6	10,380	75.00	10.9	Upper Marker

**Region table for sample 8 : lib8 1/5**

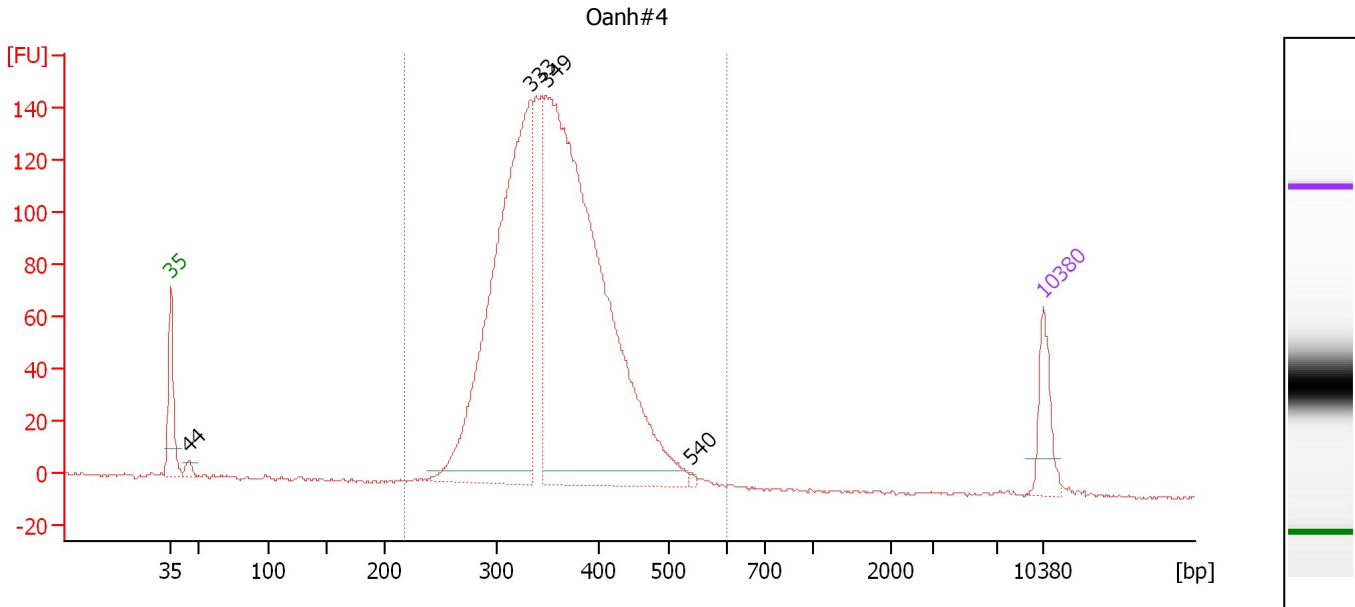
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	368	279	3,593.5	652.81	592.5	81	12.4	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
 Modified: 8/14/2012 2:08:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : Oanh#4**

Number of peaks found: 4                      Corr. Area 1: 2,001.0  
 Noise: 0.5

**Peak table for sample 9 : Oanh#4**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	44	21.65	737.6	
3	333	1,250.96	5,697.1	
4	349	1,856.05	8,066.0	
5	540	5.83	16.4	
6	10,380	75.00	10.9	Upper Marker

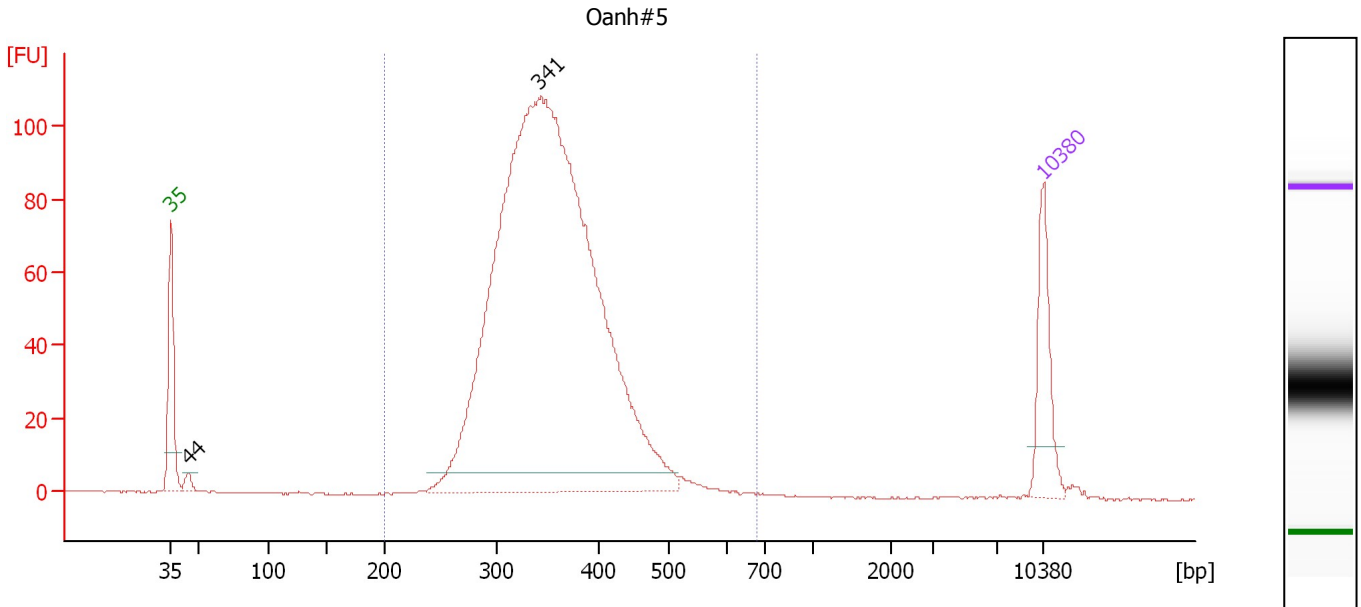
**Region table for sample 9 : Oanh#4**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
218	603	358	14,424.8	3,325.79	2,001.0	99	14.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
 Modified: 8/14/2012 2:08:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : Oanh#5**

Number of peaks found: 2                      Corr. Area 1: 1,439.1  
 Noise: 0.1

**Peak table for sample 10 : Oanh#5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	44	13.23	453.8	
3	341	1,875.67	8,334.1	
4	10,380	75.00	10.9	Upper Marker

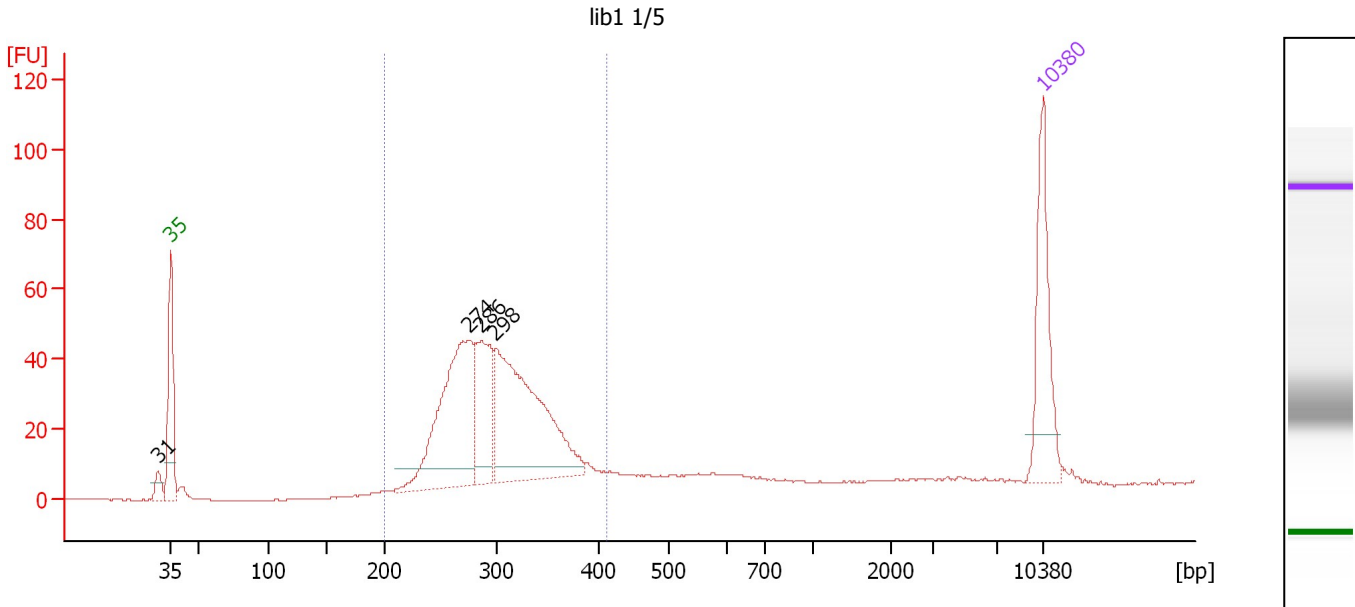
**Region table for sample 10 : Oanh#5**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	678	356	8,316.4	1,901.04	1,439.1	99	15.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
 Modified: 8/14/2012 2:08:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : lib1 1/5**

Number of peaks found: 4                      Corr. Area 1: 595.6  
 Noise: 0.1

**Peak table for sample 11 : lib1 1/5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	274	226.49	1,254.3	
4	286	102.48	543.4	
5	298	260.67	1,325.9	
6	10,380	75.00	10.9	Upper Marker

**Region table for sample 11 : lib1 1/5**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	414	301	3,440.5	668.73	595.5	80	13.7	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-08-14\2012-08-14\_004.xad

Created: 8/14/2012 1:26:14 PM  
Modified: 8/14/2012 2:08:33 PM

**Gel Image**

