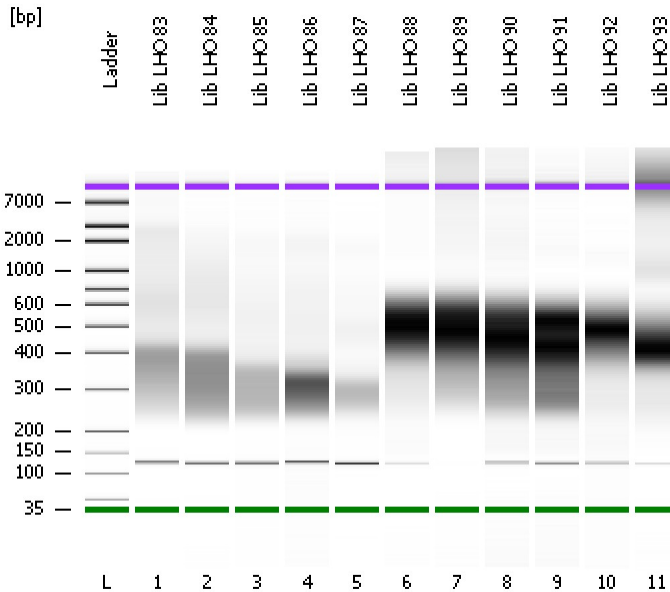


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
Modified: 11/1/2013 9:06:52 AM

**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

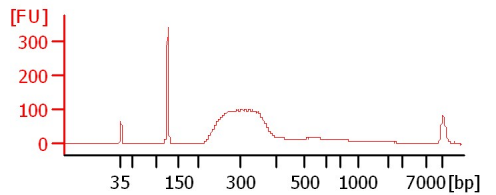
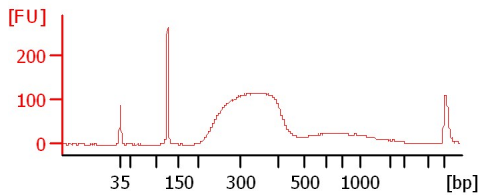
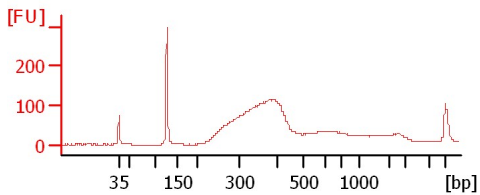
Chip Information:

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

Lib LHO 83

Lib LHO 84

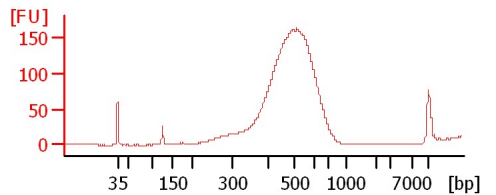
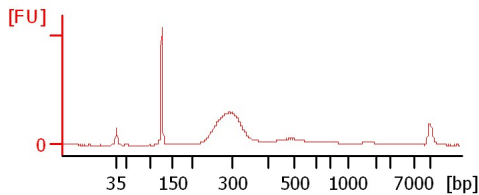
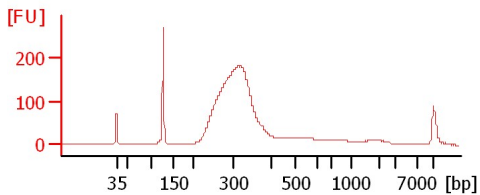
Lib LHO 85



Lib LHO 86

Lib LHO 87

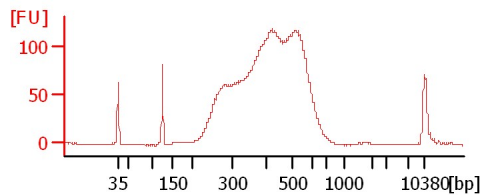
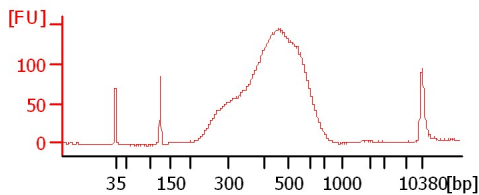
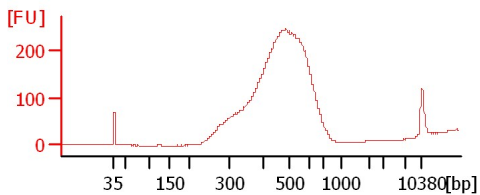
Lib LHO 88



Lib LHO 89

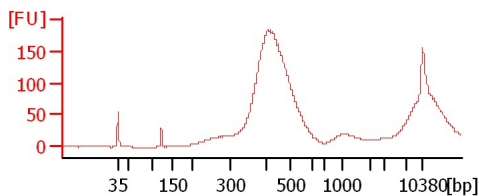
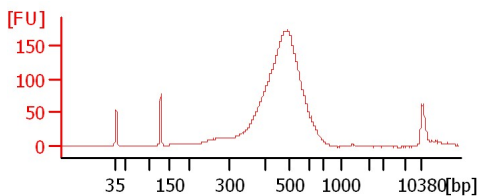
Lib LHO 90

Lib LHO 91



Lib LHO 92

Lib LHO 93



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
 Modified: 11/1/2013 9:06:52 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Lib LHO 83		<input type="checkbox"/>	✓			
Lib LHO 84		<input type="checkbox"/>	✓			
Lib LHO 85		<input type="checkbox"/>	✓			
Lib LHO 86		<input type="checkbox"/>	✓			
Lib LHO 87		<input type="checkbox"/>	✓			
Lib LHO 88		<input type="checkbox"/>	✓			
Lib LHO 89		<input type="checkbox"/>	✓			
Lib LHO 90		<input type="checkbox"/>	✓			
Lib LHO 91		<input type="checkbox"/>	✓			
Lib LHO 92		<input type="checkbox"/>	✓			
Lib LHO 93		<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\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
Modified: 11/1/2013 9:06:52 AM

**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

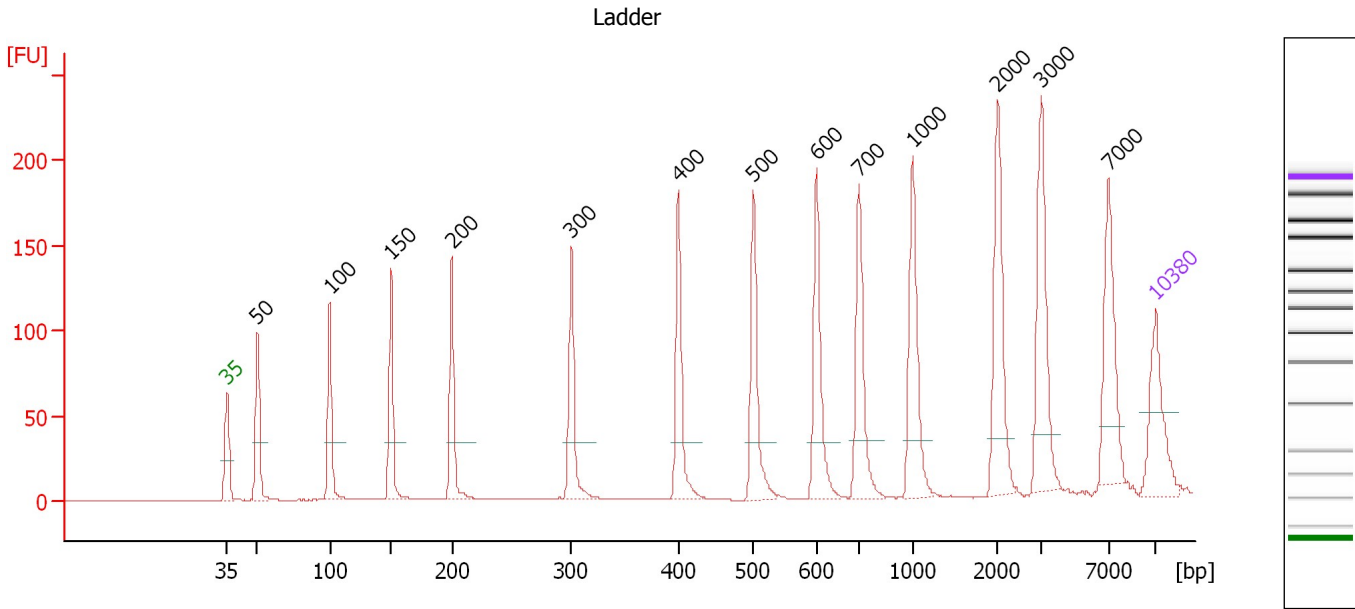
**Ladder**

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\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
 Modified: 11/1/2013 9:06:52 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

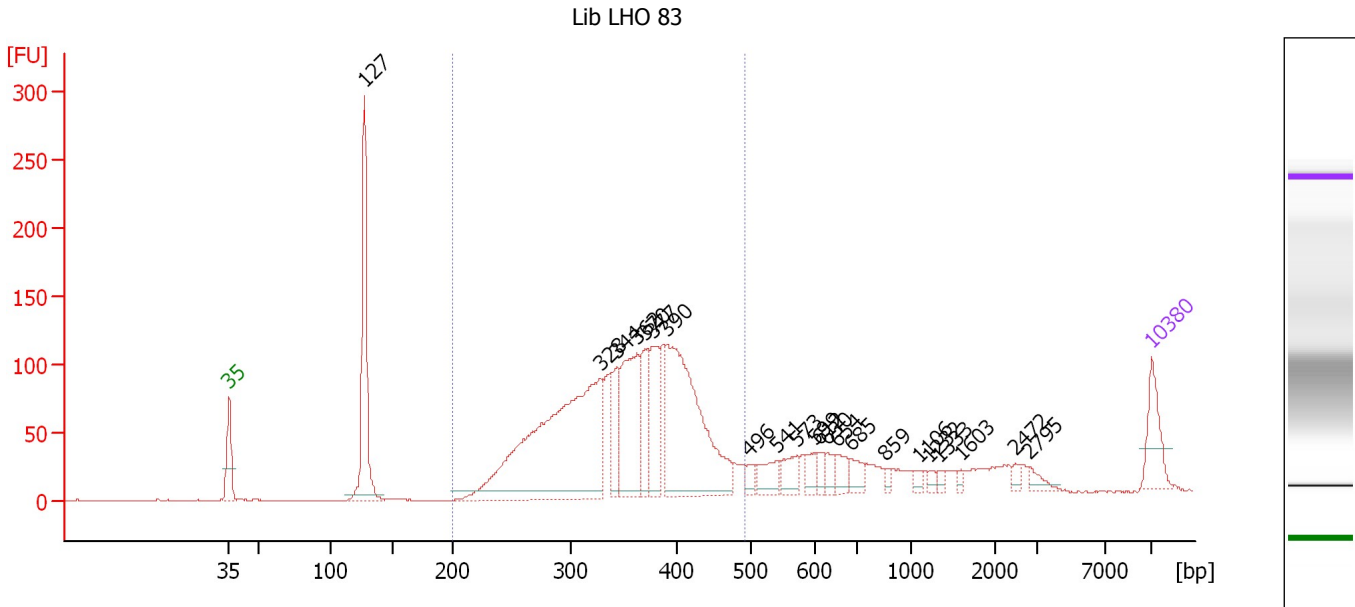
**Peak table for Ladder**

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\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
 Modified: 11/1/2013 9:06:52 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : Lib LHO 83**

Number of peaks found: 22                      Corr. Area 1: 1,918.9  
 Noise: 0.2

**Peak table for sample 1 : Lib LHO 83**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	127	440.62	5,244.9	
3	328	973.57	4,498.4	
4	344	122.54	540.5	
5	362	291.80	1,220.8	
6	370	132.91	544.0	
7	377	157.64	633.1	
8	390	589.16	2,289.8	
9	496	24.91	76.1	
10	541	57.43	160.8	
11	573	52.62	139.2	
12	599	33.51	84.8	
13	612	22.86	56.6	
14	630	28.63	68.8	
15	654	37.69	87.3	
16	685	40.17	88.9	
17	859	11.54	20.4	
18	1,106	15.00	20.5	
19	1,232	12.13	14.9	
20	1,333	9.27	10.5	
21	1,603	8.23	7.8	
22	2,472	11.59	7.1	
23	2,795	18.02	9.8	
24	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
Modified: 11/1/2013 9:06:52 AM

**Electropherogram Summary Continued ...**

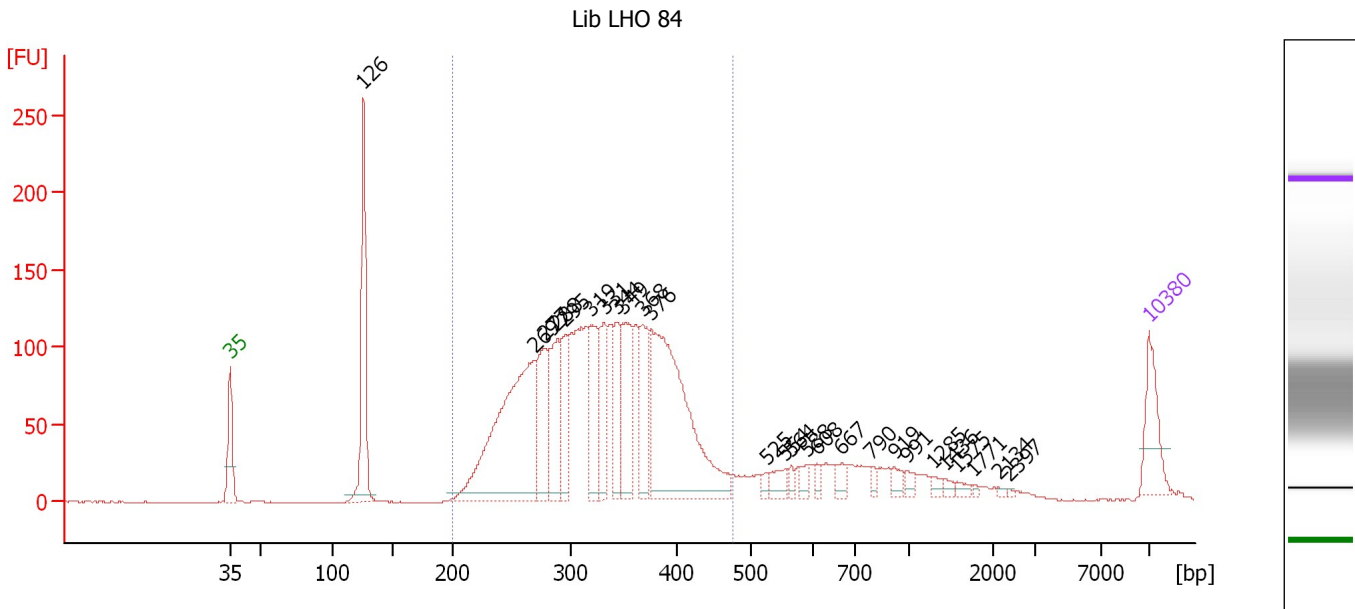
... Region table for sample 1 : Lib LHO 83

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	492	352	11,189.5	2,494.04	1,918.9	71	16.5	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
 Modified: 11/1/2013 9:06:52 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : Lib LHO 84**

Number of peaks found: 26      Corr. Area 1: 2,413.6  
 Noise: 0.3


**Peak table for sample 2 : Lib LHO 84**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	126	305.41	3,673.1	
3	269	579.11	3,257.9	
4	277	170.04	928.6	
5	288	174.75	918.4	
6	295	117.60	603.9	
7	319	156.33	742.0	
8	331	114.71	524.5	
9	344	97.14	427.8	
10	349	162.04	703.4	
11	368	131.47	541.7	
12	376	539.14	2,170.5	
13	525	10.93	31.5	
14	554	29.59	80.9	
15	564	12.42	33.3	
16	588	16.50	42.5	
17	608	13.15	32.8	
18	667	19.02	43.2	
19	790	11.24	21.6	
20	919	16.91	27.9	
21	991	13.34	20.4	
22	1,285	9.13	10.8	
23	1,436	7.61	8.0	
24	1,575	8.82	8.5	
25	1,771	3.23	2.8	
26	2,134	2.95	2.1	


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
Modified: 11/1/2013 9:06:52 AM

**Electropherogram Summary Continued ...****... Peak table for sample 2 : Lib LHO 84**

Peak	Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations
27	2,397	2.11	1.3	
28	 10,380	75.00	10.9	Upper Marker

**Region table for sample 2 : Lib LHO 84**

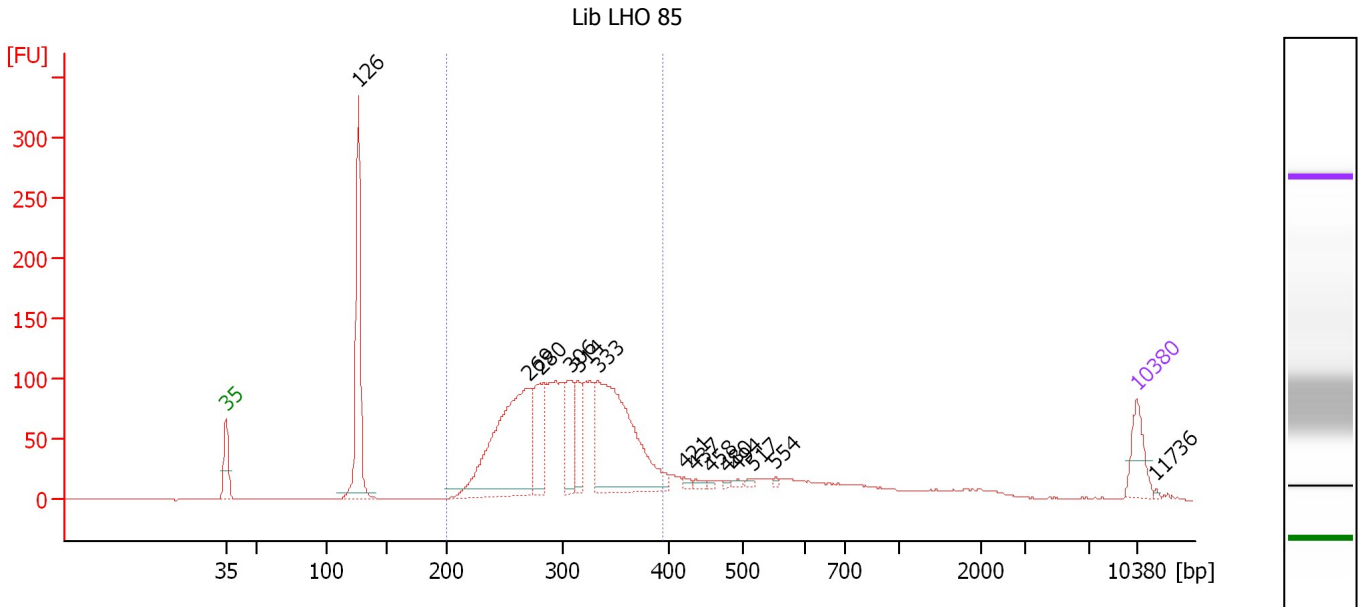
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ $\mu$ l]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	476	328	13,149.4	2,725.41	2,413.6	80	17.3	



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
 Modified: 11/1/2013 9:06:52 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : Lib LHO 85**

Number of peaks found: 14                      Corr. Area 1: 1,721.3  
 Noise: 0.2

**Peak table for sample 3 : Lib LHO 85**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	126	530.59	6,377.4	
3	269	743.73	4,184.2	
4	280	208.65	1,129.9	
5	306	164.85	815.1	
6	314	117.93	568.9	
7	333	675.21	3,072.7	
8	421	12.41	44.6	
9	437	13.11	45.4	
10	458	6.47	21.4	
11	480	6.87	21.7	
12	494	9.24	28.3	
13	517	8.26	24.2	
14	554	5.22	14.3	
15	10,380	75.00	10.9	Upper Marker
16	11,736	0.00	0.0	

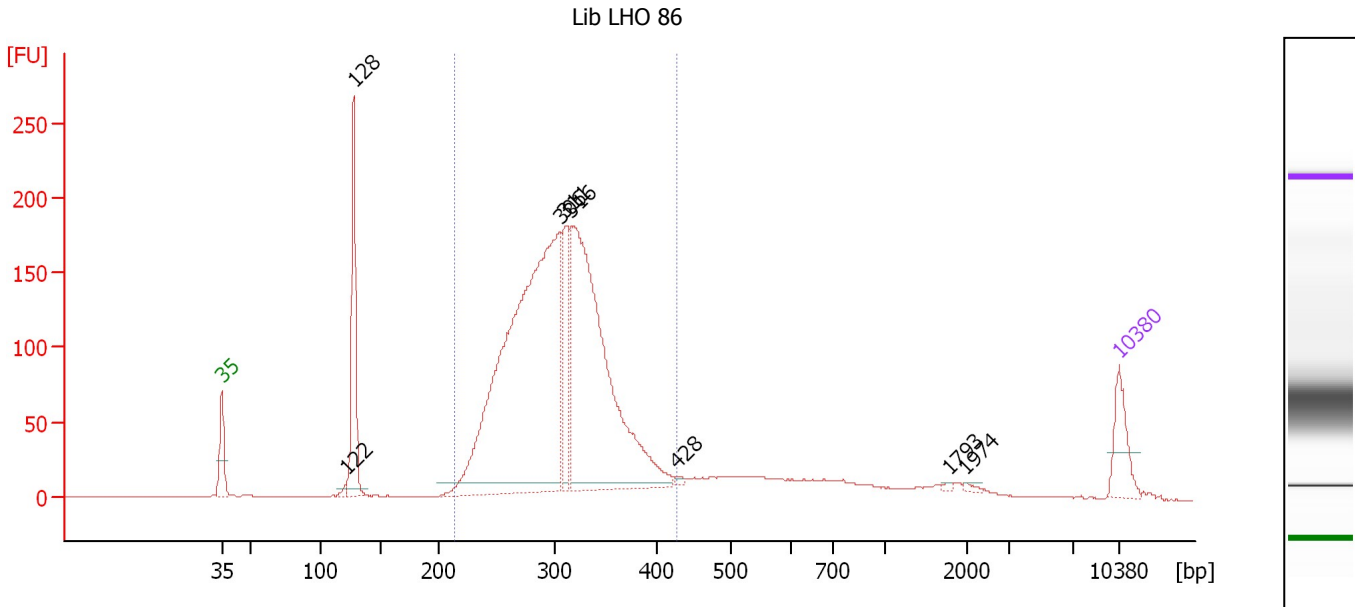
**Region table for sample 3 : Lib LHO 85**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	395	304	13,010.3	2,543.43	1,721.3	71	14.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
 Modified: 11/1/2013 9:06:52 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : Lib LHO 86**

Number of peaks found: 8                      Corr. Area 1: 2,466.3  
 Noise: 0.2

**Peak table for sample 4 : Lib LHO 86**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	122	12.73	158.3	
3	128	347.44	4,122.6	
4	306	1,638.98	8,125.2	
5	311	202.69	988.1	
6	316	1,098.63	5,259.4	
7	428	6.12	21.7	
8	1,793	3.70	3.1	
9	1,974	5.36	4.1	
10	10,380	75.00	10.9	Upper Marker

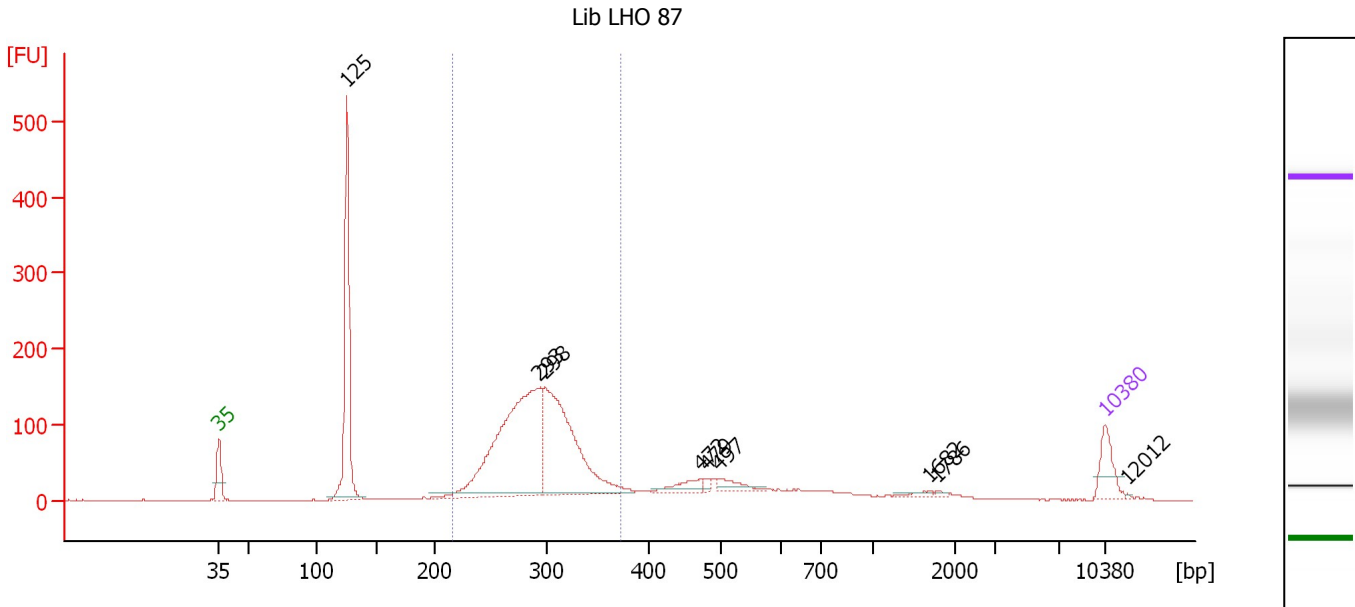
**Region table for sample 4 : Lib LHO 86**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
213	428	305	16,431.2	3,241.04	2,466.3	79	13.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
 Modified: 11/1/2013 9:06:52 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : Lib LHO 87**

Number of peaks found: 9                      Corr. Area 1: 1,621.3  
 Noise: 0.2

**Peak table for sample 5 : Lib LHO 87**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	125	664.40	8,024.0	
3	293	1,027.08	5,314.4	
4	298	747.73	3,802.1	
5	472	56.74	182.1	
6	479	13.31	42.1	
7	497	45.26	138.1	
8	1,682	10.07	9.1	
9	1,786	6.02	5.1	
10	10,380	75.00	10.9	Upper Marker
11	12,012	0.00	0.0	

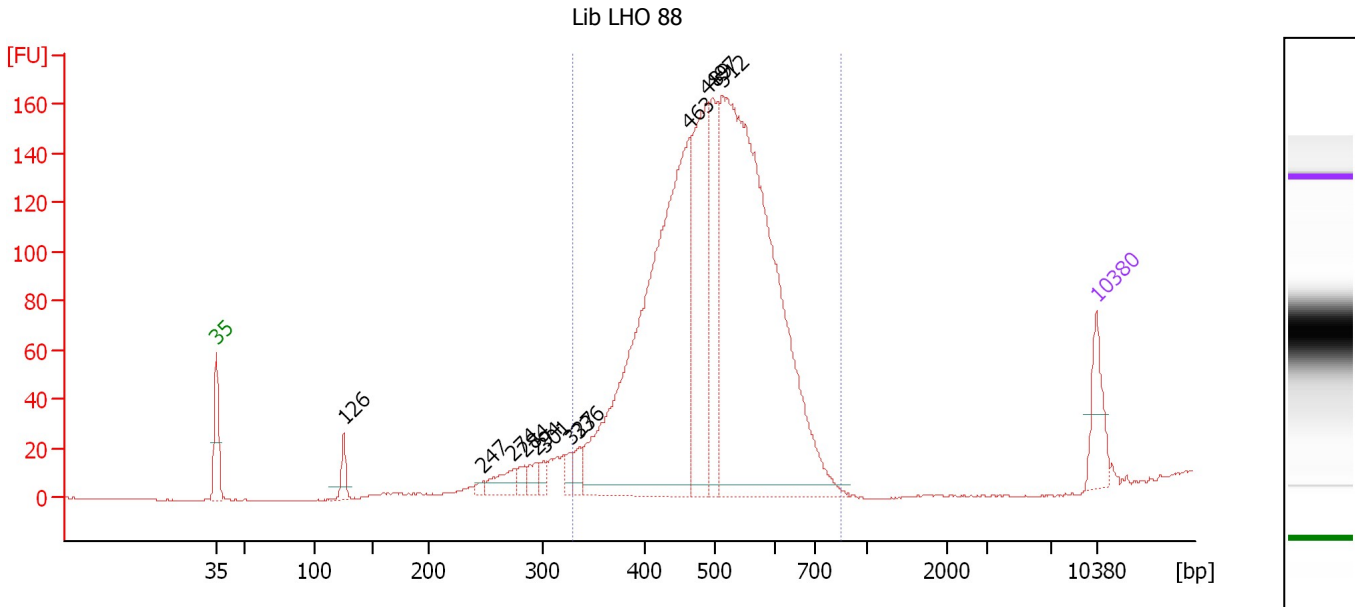
**Region table for sample 5 : Lib LHO 87**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
216	373	291	10,114.4	1,922.29	1,621.3	62	10.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
 Modified: 11/1/2013 9:06:52 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : Lib LHO 88**

Number of peaks found: 12                      Corr. Area 1: 2,189.1  
 Noise: 0.2

**Peak table for sample 6 : Lib LHO 88**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	126	50.76	611.7	
3	247	11.16	68.4	
4	274	57.65	318.8	
5	284	25.05	133.7	
6	294	29.98	154.6	
7	301	22.10	111.3	
8	327	26.36	122.2	
9	336	32.45	146.2	
10	463	1,339.90	4,384.7	
11	489	443.17	1,372.6	
12	497	250.57	763.2	
13	512	1,644.13	4,865.2	
14	10,380	75.00	10.9	Upper Marker

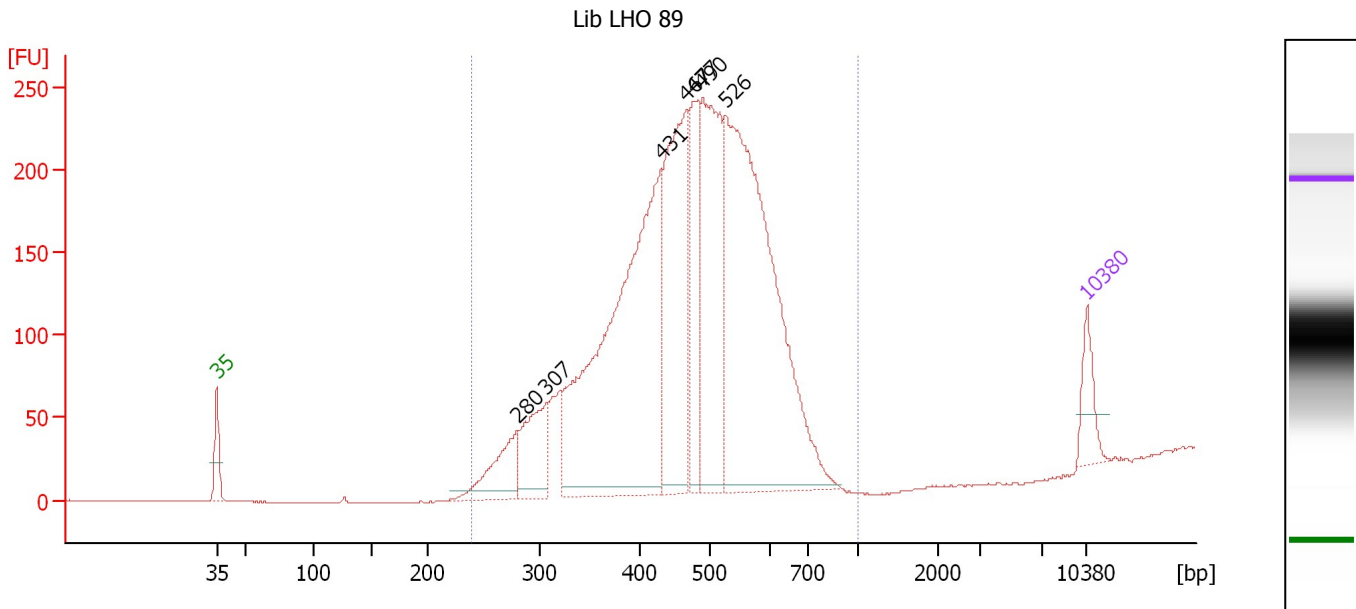
**Region table for sample 6 : Lib LHO 88**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
329	850	498	10,916.0	3,468.58	2,189.1	95	15.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
 Modified: 11/1/2013 9:06:52 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : Lib LHO 89**

Number of peaks found: 7                      Corr. Area 1: 3,911.9  
 Noise: 0.2

**Peak table for sample 7 : Lib LHO 89**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	280	200.85	1,086.7	
3	307	240.54	1,187.0	
4	431	1,469.91	5,167.5	
5	467	711.21	2,309.5	
6	477	306.45	973.0	
7	490	656.11	2,028.5	
8	526	1,501.86	4,326.7	
9	10,380	75.00	10.9	Upper Marker

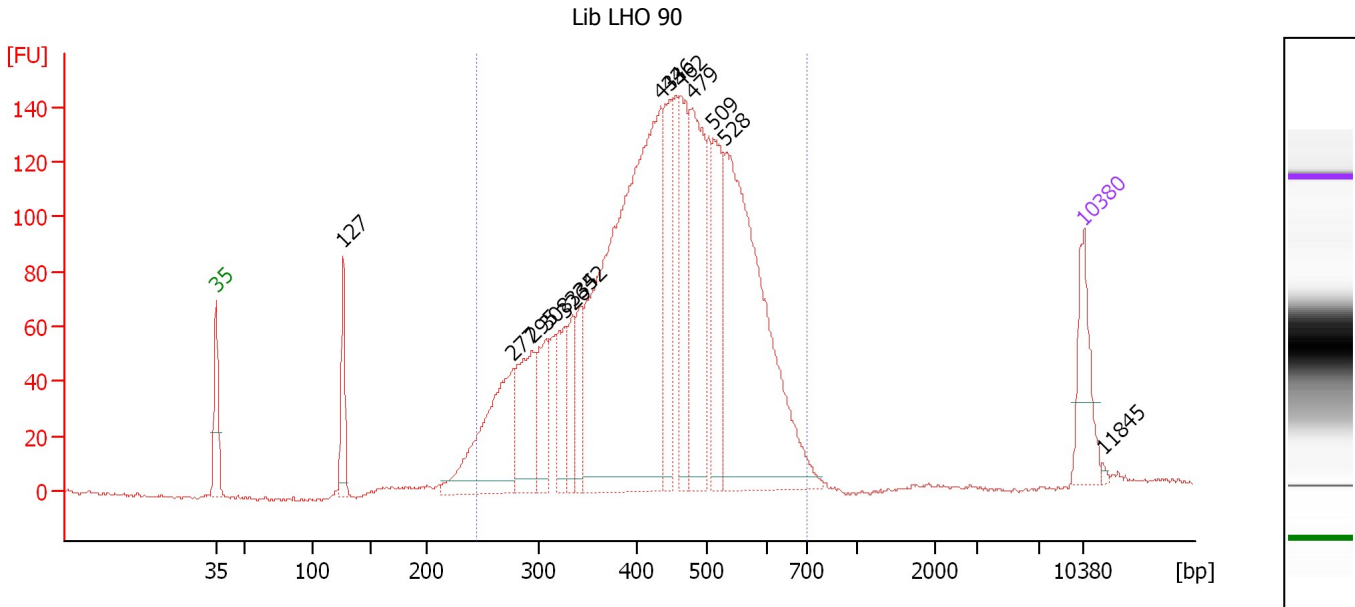
**Region table for sample 7 : Lib LHO 89**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
239	1,000	472	15,758.4	4,609.17	3,911.9	100	19.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
 Modified: 11/1/2013 9:06:52 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : Lib LHO 90**

Number of peaks found: 14      Corr. Area 1: 2,895.4  
 Noise: 0.6

**Peak table for sample 8 : Lib LHO 90**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	127	99.86	1,191.8	
3	277	278.78	1,524.6	
4	295	159.29	817.5	
5	308	100.00	491.9	
6	326	91.15	423.3	
7	335	75.77	342.3	
8	342	69.48	307.5	
9	433	979.12	3,426.7	
10	446	159.30	541.4	
11	462	175.23	574.9	
12	479	262.68	831.7	
13	509	164.39	489.6	
14	528	624.68	1,793.7	
15	10,380	75.00	10.9	Upper Marker
16	11,845	0.00	0.0	

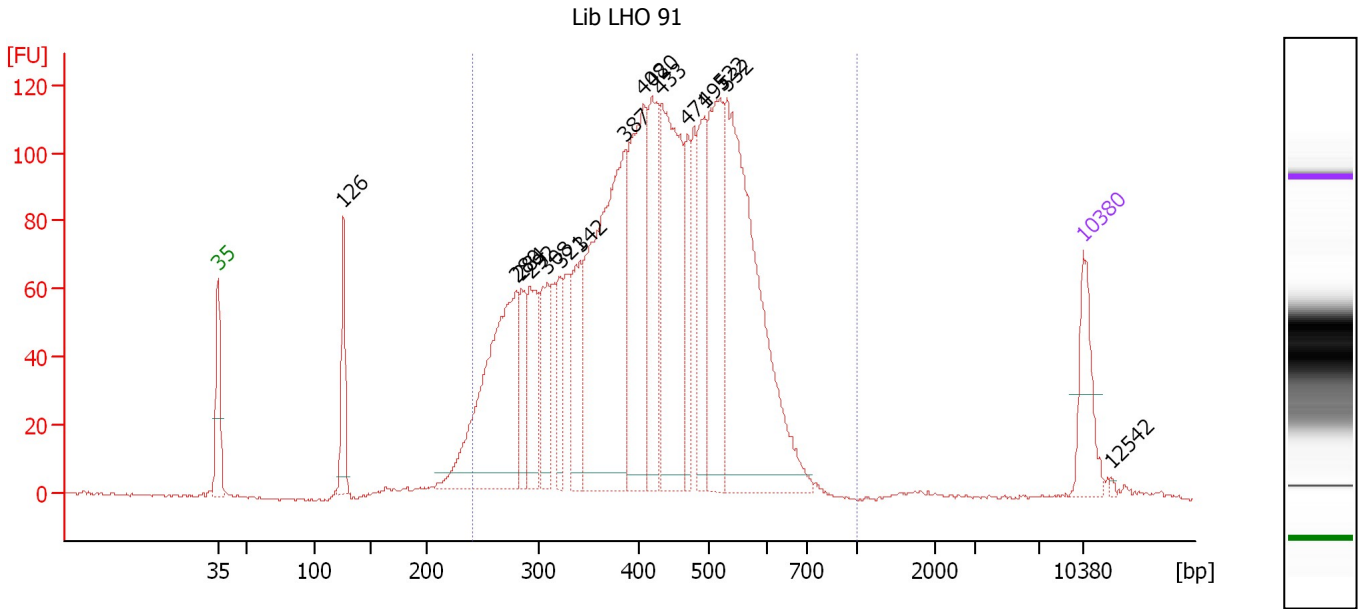
**Region table for sample 8 : Lib LHO 90**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
245	709	441	12,240.4	3,286.81	2,895.4	96	22.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
 Modified: 11/1/2013 9:06:52 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : Lib LHO 91**

Number of peaks found: 16                      Corr. Area 1: 2,760.8  
 Noise: 0.4

**Peak table for sample 9 : Lib LHO 91**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	126	118.23	1,423.8	
3	280	465.43	2,522.0	
4	284	86.63	461.5	
5	292	140.52	728.9	
6	308	113.60	558.2	
7	321	78.29	369.3	
8	342	139.22	617.5	
9	387	559.36	2,188.5	
10	408	336.20	1,249.0	
11	420	200.12	721.9	
12	433	382.45	1,338.4	
13	471	103.09	331.6	
14	495	154.77	474.1	
15	522	262.64	762.9	
16	532	607.84	1,732.5	
17	10,380	75.00	10.9	Upper Marker
18	12,542	0.00	0.0	

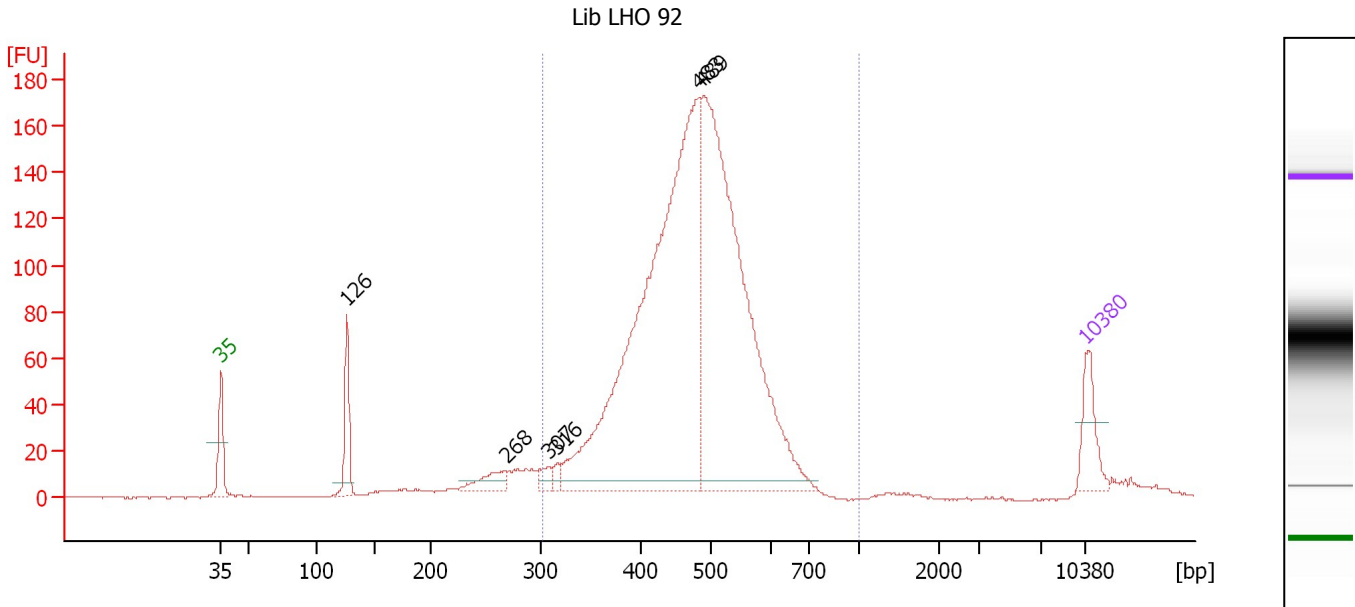
**Region table for sample 9 : Lib LHO 91**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
241	1,000	426	15,356.9	3,946.06	2,760.8	95	23.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
 Modified: 11/1/2013 9:06:52 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : Lib LHO 92**

Number of peaks found: 6                      Corr. Area 1: 2,050.9  
 Noise: 0.3

**Peak table for sample 10 : Lib LHO 92**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	126	138.90	1,665.5	
3	268	64.15	362.9	
4	307	29.36	144.7	
5	316	17.81	85.4	
6	483	1,685.70	5,289.1	
7	489	1,379.04	4,273.0	
8	10,380	75.00	10.9	Upper Marker

**Region table for sample 10 : Lib LHO 92**

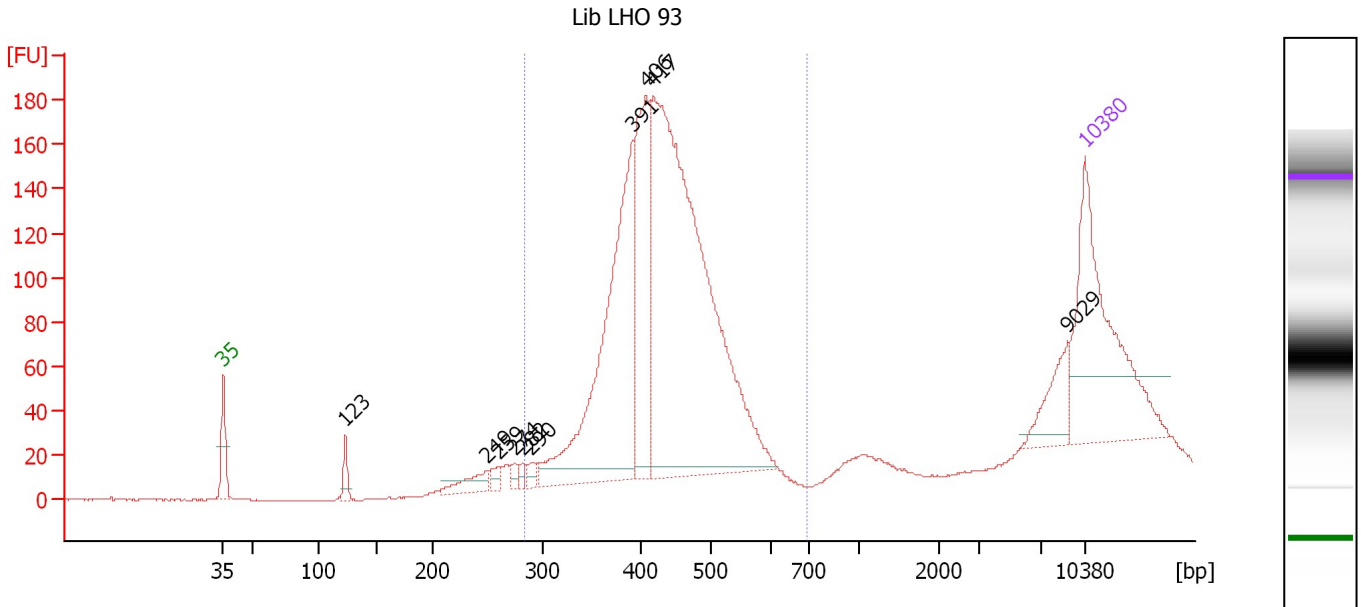
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
301	1,000	475	10,546.7	3,201.82	2,050.9	90	15.4	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
 Modified: 11/1/2013 9:06:52 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : Lib LHO 93**

Number of peaks found: 10                      Corr. Area 1: 1,950.5  
 Noise: 0.2

**Peak table for sample 11 : Lib LHO 93**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	123	9.73	119.5	
3	249	13.40	81.4	
4	259	5.24	30.6	
5	274	3.44	19.0	
6	282	3.34	18.0	
7	290	4.56	23.9	
8	391	170.90	661.4	
9	406	84.65	315.7	
10	417	344.28	1,251.0	
11	9,029	18.82	3.2	
12	10,380	75.00	10.9	Upper Marker

**Region table for sample 11 : Lib LHO 93**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
283	695	431	2,158.5	600.24	1,950.5	91	13.5	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-31\2013-10-31\_001.xad

Created: 10/31/2013 9:27:31 AM  
Modified: 11/1/2013 9:06:52 AM

**Gel Image**

