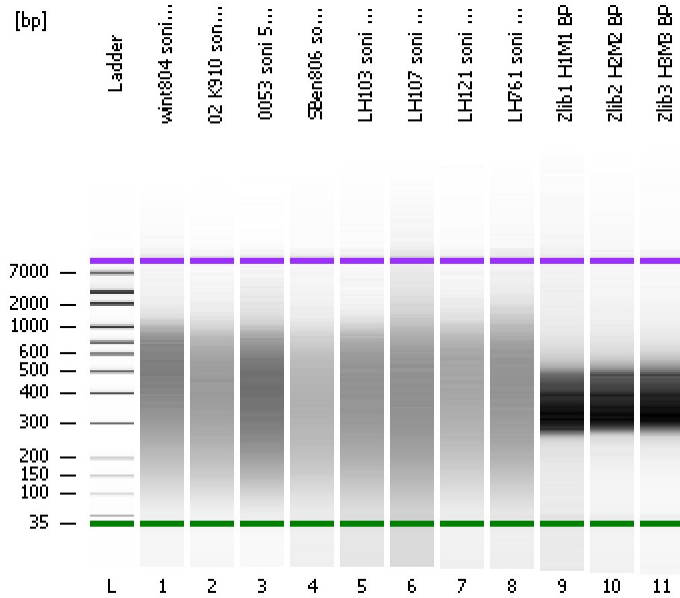


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
Modified: 9/23/2016 5:07:05 PM

**Electrophoresis File Run Summary**



Instrument Information:

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

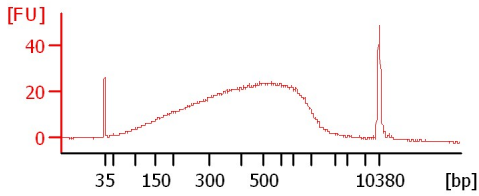
Assay Information:

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

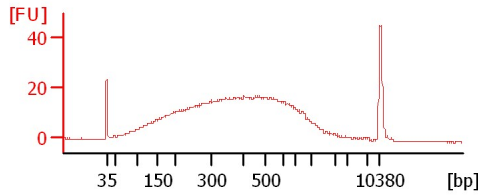
Chip Information:

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

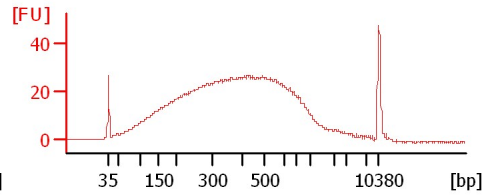
wint804 soni 40 sec



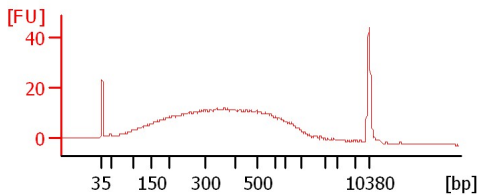
02 K910 soni 50 sec



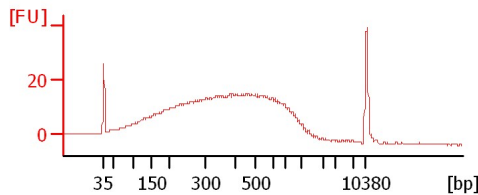
0053 soni 50 sec



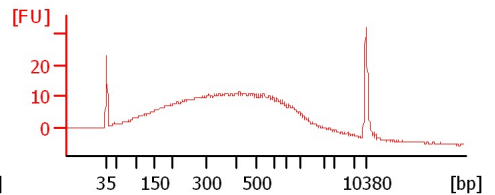
SBen806 soni 50 sec



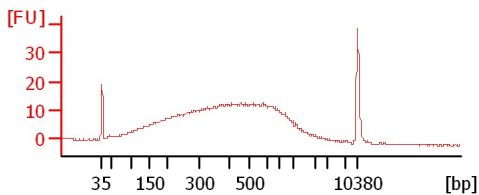
LH103 soni 50 sec



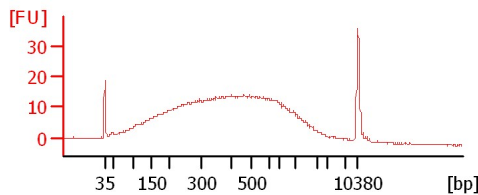
LH107 soni 50 sec



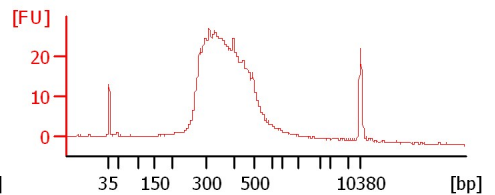
LH121 soni 50 sec



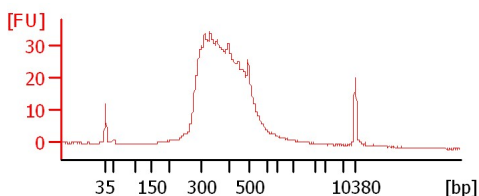
LH761 soni 50 sec



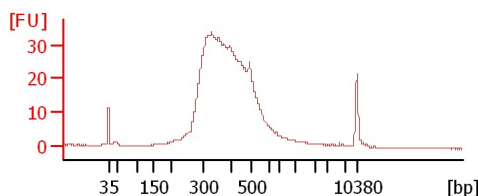
Zlib1 H1M1 BP



Zlib2 H2M2 BP



Zlib3 H3M3 BP



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
Modified: 9/23/2016 5:07:05 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
wint804 soni 40 sec		<input type="checkbox"/>	✓			
02 K910 soni 50 sec		<input type="checkbox"/>	✓			
0053 soni 50 sec		<input type="checkbox"/>	✓			
SBen806 soni 50 sec		<input type="checkbox"/>	✓			
LH103 soni 50 sec		<input type="checkbox"/>	✓			
LH107 soni 50 sec		<input type="checkbox"/>	✓			
LH121 soni 50 sec		<input type="checkbox"/>	✓			
LH761 soni 50 sec		<input type="checkbox"/>	✓			
Zlib1 H1M1 BP		<input type="checkbox"/>	✓			
Zlib2 H2M2 BP		<input type="checkbox"/>	✓			
Zlib3 H3M3 BP		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
Modified: 9/23/2016 5:07:05 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

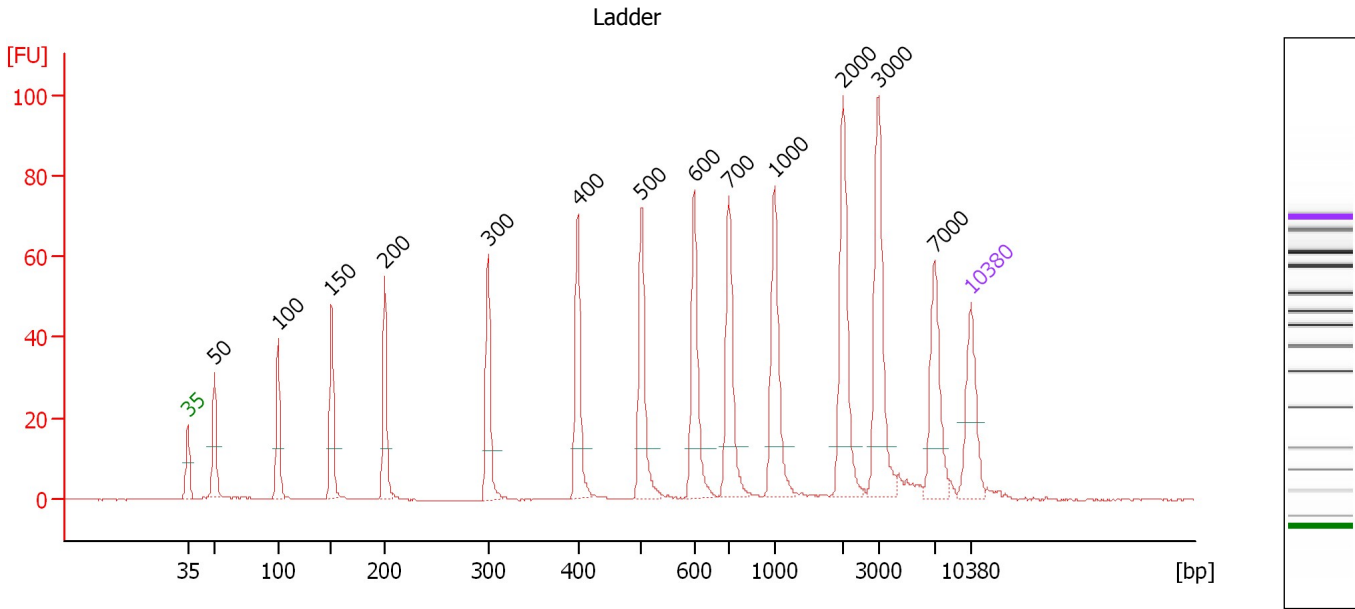
**Ladder**

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:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
 Modified: 9/23/2016 5:07:05 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

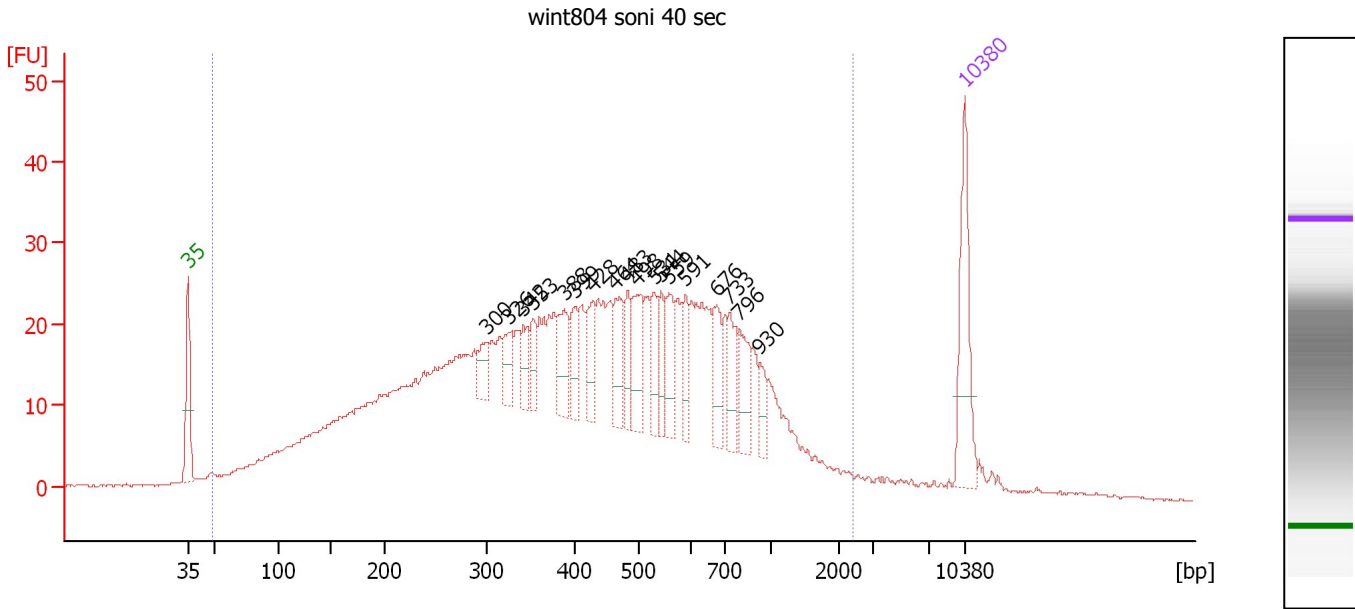
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	150.00	4,545.5	Ladder Peak	45.38
3	100	150.00	2,272.7	Ladder Peak	51.10
4	150	150.00	1,515.2	Ladder Peak	55.87
5	200	150.00	1,136.4	Ladder Peak	60.63
6	300	150.00	757.6	Ladder Peak	69.88
7	400	150.00	568.2	Ladder Peak	77.88
8	500	150.00	454.5	Ladder Peak	83.55
9	600	150.00	378.8	Ladder Peak	88.27
10	700	150.00	324.7	Ladder Peak	91.37
11	1,000	150.00	227.3	Ladder Peak	95.46
12	2,000	150.00	113.6	Ladder Peak	101.61
13	3,000	150.00	75.8	Ladder Peak	104.76
14	7,000	150.00	32.5	Ladder Peak	109.71
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
 Modified: 9/23/2016 5:07:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : wint804 soni 40 sec**

Number of peaks found: 18                      Corr. Area 1: 1,122.0  
 Noise: 0.2

**Peak table for sample 1 : wint804 soni 40 sec**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	300	29.56	149.1		69.90
3	326	32.87	153.0		71.92
4	342	29.88	132.5		73.22
5	353	25.90	111.3		74.08
6	388	47.45	185.3		76.92
7	399	33.44	127.1		77.78
8	428	41.88	148.3		79.47
9	464	47.09	153.6		81.53
10	483	33.11	103.9		82.59
11	498	59.04	179.5		83.45
12	531	32.93	94.1		84.99
13	544	32.25	89.9		85.61
14	559	44.02	119.3		86.34
15	591	30.31	77.8		87.82
16	676	38.34	86.0		90.61
17	733	39.50	81.7		91.81
18	796	41.01	78.1		92.68
19	930	17.68	28.8		94.50
20	10,380	75.00	10.9	Upper Marker	113.00

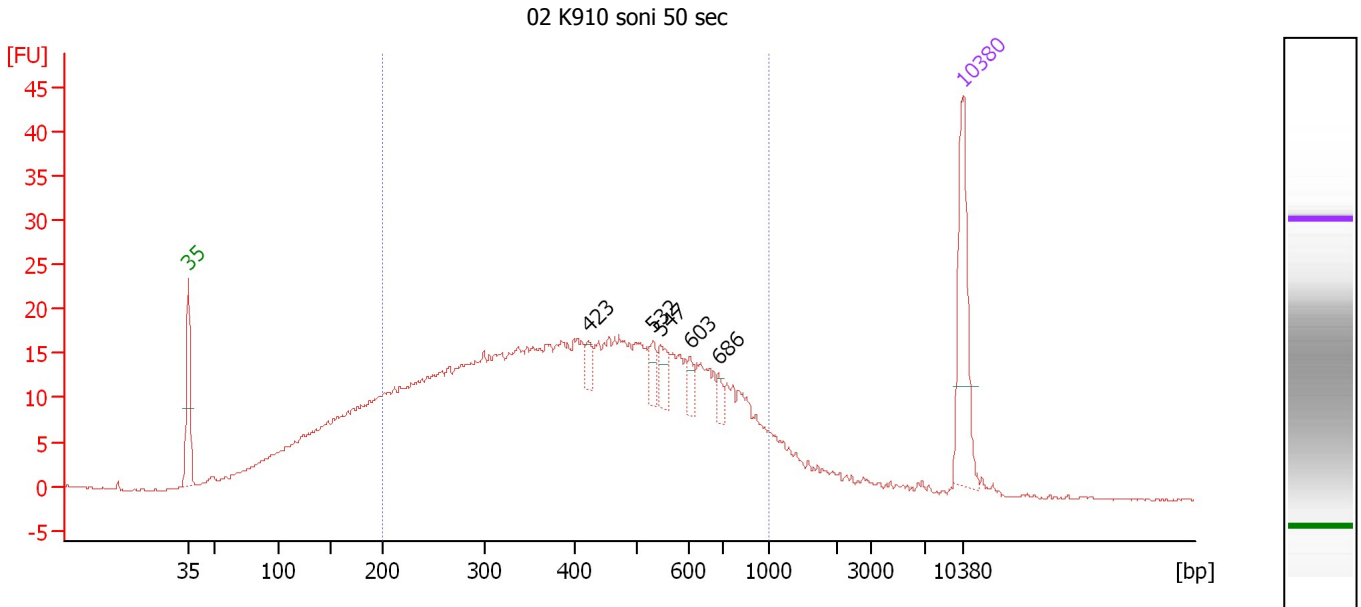
**Region table for sample 1 : wint804 soni 40 sec**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
49	2,435	483	1,122.0	17,589.2	3,196.89	97	64.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
 Modified: 9/23/2016 5:07:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 02 K910 soni 50 sec**

Number of peaks found: 5                      Corr. Area 1: 662.1  
 Noise: 0.1

**Peak table for sample 2 : 02 K910 soni 50 sec**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	423	11.86	42.4		79.21
3	532	15.20	43.3		85.04
4	547	21.29	59.0		85.76
5	603	11.51	28.9		88.37
6	686	9.26	20.5		90.92
7	10,380	75.00	10.9	Upper Marker	113.00

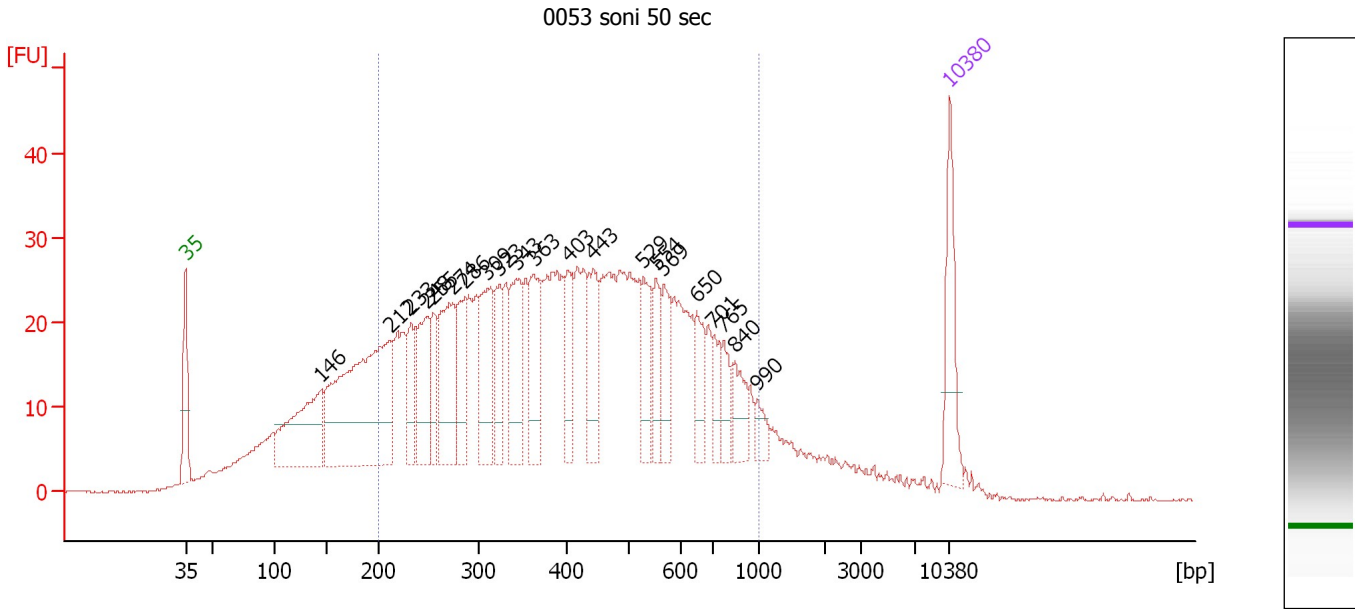
**Region table for sample 2 : 02 K910 soni 50 sec**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	441	662.1	7,810.8	1,848.45	77	39.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
 Modified: 9/23/2016 5:07:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 0053 soni 50 sec**

Number of peaks found: 21                      Corr. Area 1: 1,029.5  
 Noise: 0.2

**Peak table for sample 3 : 0053 soni 50 sec**


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	146	212.67	2,212.9		55.45
3	212	456.69	3,263.2		61.74
4	233	58.83	383.1		63.65
5	248	105.10	642.2		65.06
6	255	60.67	360.7		65.70
7	274	153.65	848.6		67.50
8	286	85.12	451.0		68.58
9	309	127.85	626.0		70.63
10	323	74.66	349.8		71.75
11	343	110.14	486.6		73.31
12	363	94.02	392.4		74.92
13	403	71.44	268.6		78.05
14	443	89.18	304.7		80.34
15	529	67.12	192.1		84.93
16	554	53.78	147.1		86.10
17	569	53.68	143.0		86.79
18	650	52.62	122.7		89.81
19	701	32.53	70.3		91.38
20	765	35.74	70.8		92.25
21	840	43.40	78.3		93.28
22	990	20.92	32.0		95.33
23	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
Modified: 9/23/2016 5:07:05 PM

**Electropherogram Summary Continued ...**

... Region table for sample 3 : 0053 soni 50 sec

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/ $\mu$ l]	% of Total	Size distribution in CV [%]
200	1,000	437	1,029.5	13,694.9	 3,216.75	75	39.4

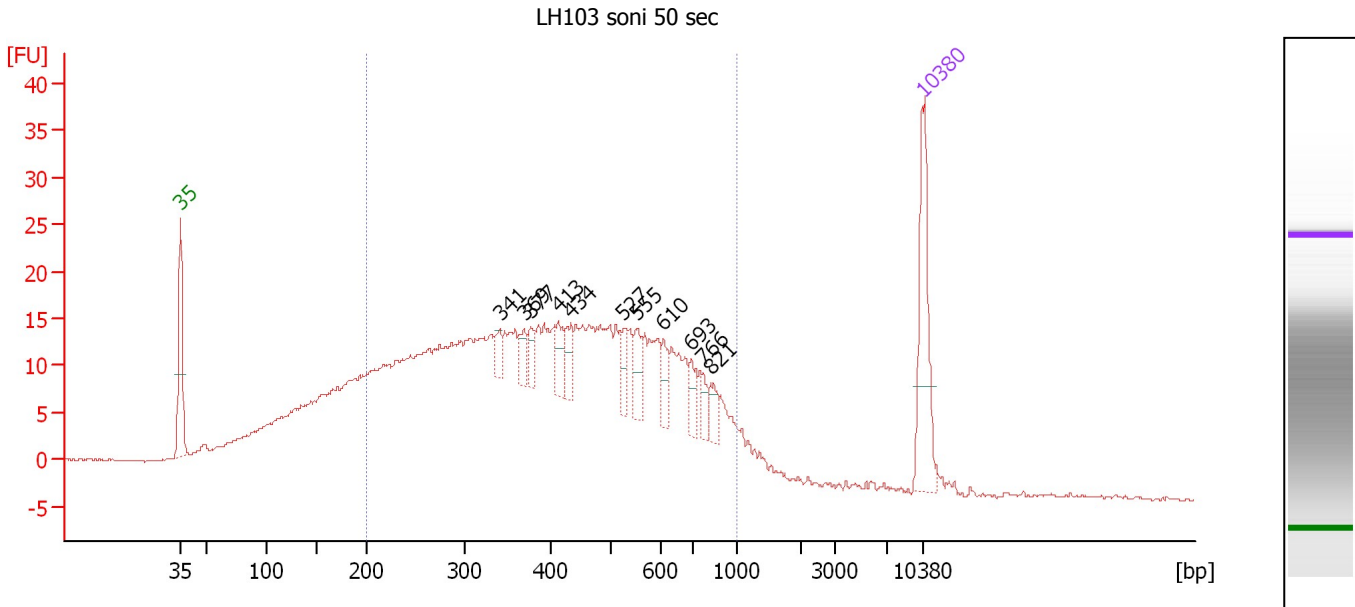




Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
 Modified: 9/23/2016 5:07:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : LH103 soni 50 sec**

Number of peaks found: 11                      Corr. Area 1: 617.6  
 Noise: 0.1

**Peak table for sample 5 : LH103 soni 50 sec**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	341	14.36	63.8		73.14
3	369	17.97	73.8		75.41
4	377	15.67	62.9		76.06
5	413	23.18	85.0		78.63
6	434	22.19	77.6		79.79
7	527	21.40	61.6		84.82
8	555	23.89	65.3		86.13
9	610	18.49	45.9		88.59
10	693	17.08	37.3		91.16
11	766	13.31	26.3		92.27
12	821	14.74	27.2		93.02
13	10,380	75.00	10.9	Upper Marker	113.00

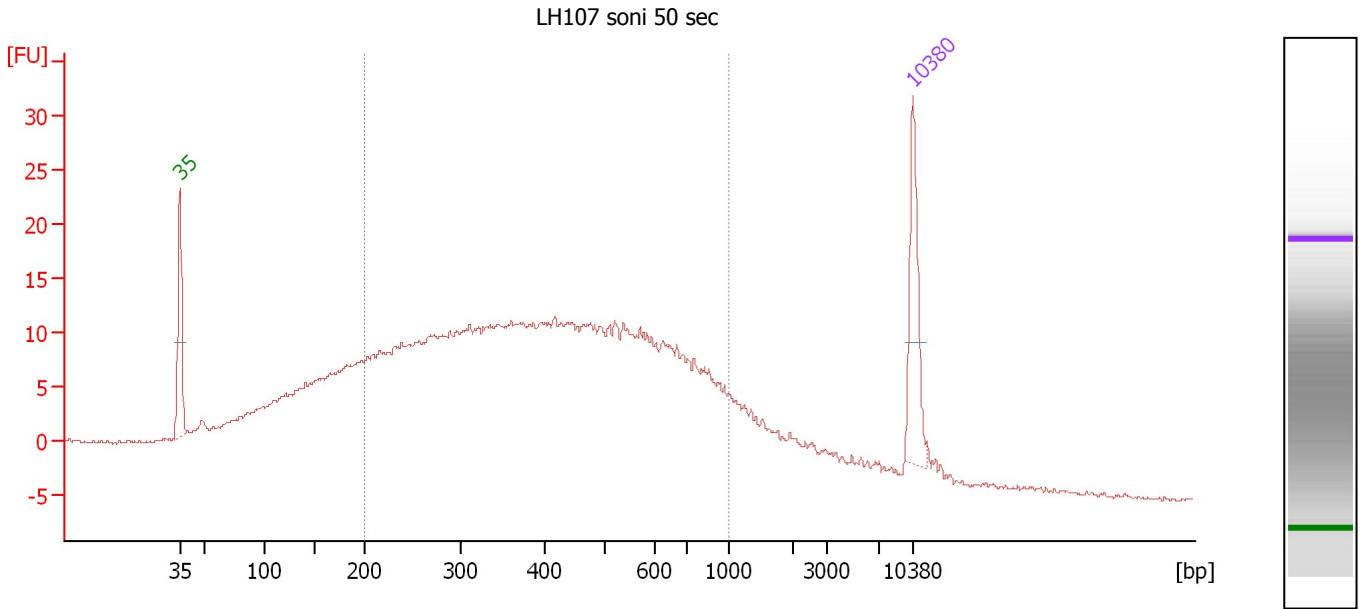
**Region table for sample 5 : LH103 soni 50 sec**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	441	617.6	7,991.6	1,889.43	77	39.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
 Modified: 9/23/2016 5:07:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : LH107 soni 50 sec**

Number of peaks found: 0                      Corr. Area 1: 522.2  
 Noise: 0.2

**Peak table for sample 6 : LH107 soni 50 sec**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	10,380	75.00	10.9	Upper Marker	113.00

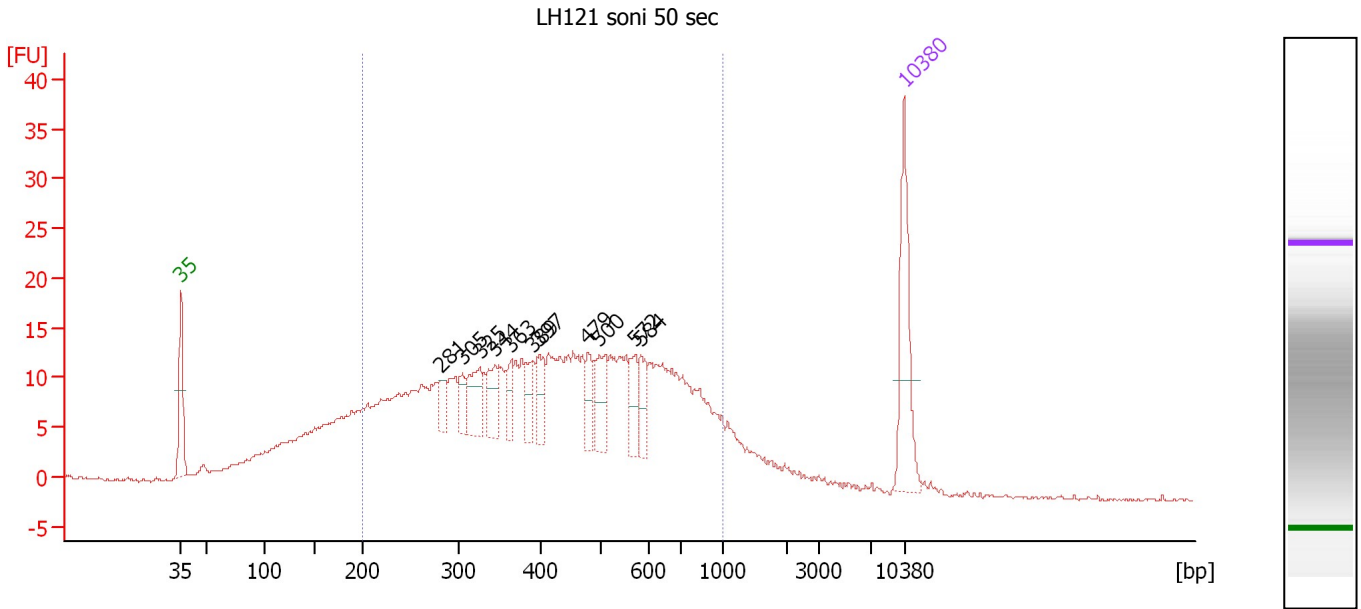
**Region table for sample 6 : LH107 soni 50 sec**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	445	522.2	8,853.3	2,094.40	71	40.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
 Modified: 9/23/2016 5:07:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : LH121 soni 50 sec**

Number of peaks found: 11                      Corr. Area 1: 496.1  
 Noise: 0.1

**Peak table for sample 7 : LH121 soni 50 sec**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	281	19.16	103.2		68.14
3	305	20.65	102.7		70.26
4	325	45.91	213.8		71.91
5	344	33.90	149.3		73.41
6	363	23.53	98.1		74.95
7	389	25.61	99.7		77.02
8	397	32.21	122.9		77.64
9	479	27.33	86.5		82.34
10	500	45.42	137.8		83.52
11	572	29.07	77.1		86.93
12	584	28.26	73.4		87.50
13	10,380	75.00	10.9	Upper Marker	113.00

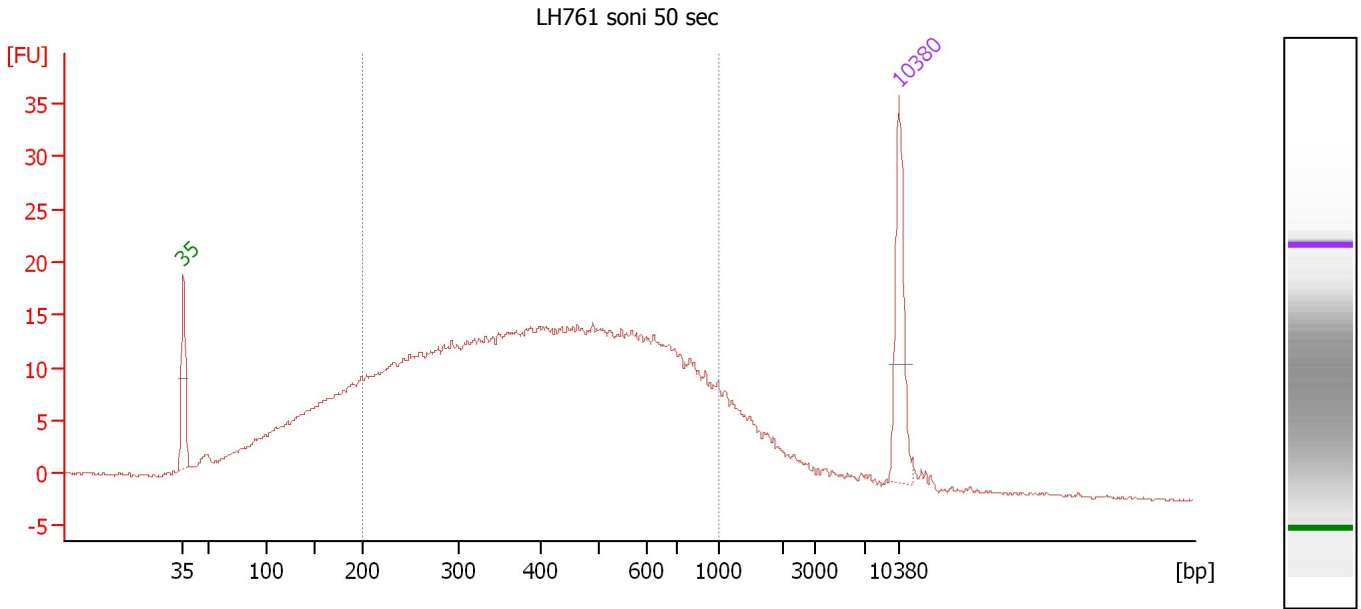
**Region table for sample 7 : LH121 soni 50 sec**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	454	496.1	6,732.5	1,630.52	77	39.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
 Modified: 9/23/2016 5:07:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : LH761 soni 50 sec**

Number of peaks found: 0                      Corr. Area 1: 577.3  
 Noise: 0.2

**Peak table for sample 8 : LH761 soni 50 sec**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	10,380	75.00	10.9	Upper Marker	113.00

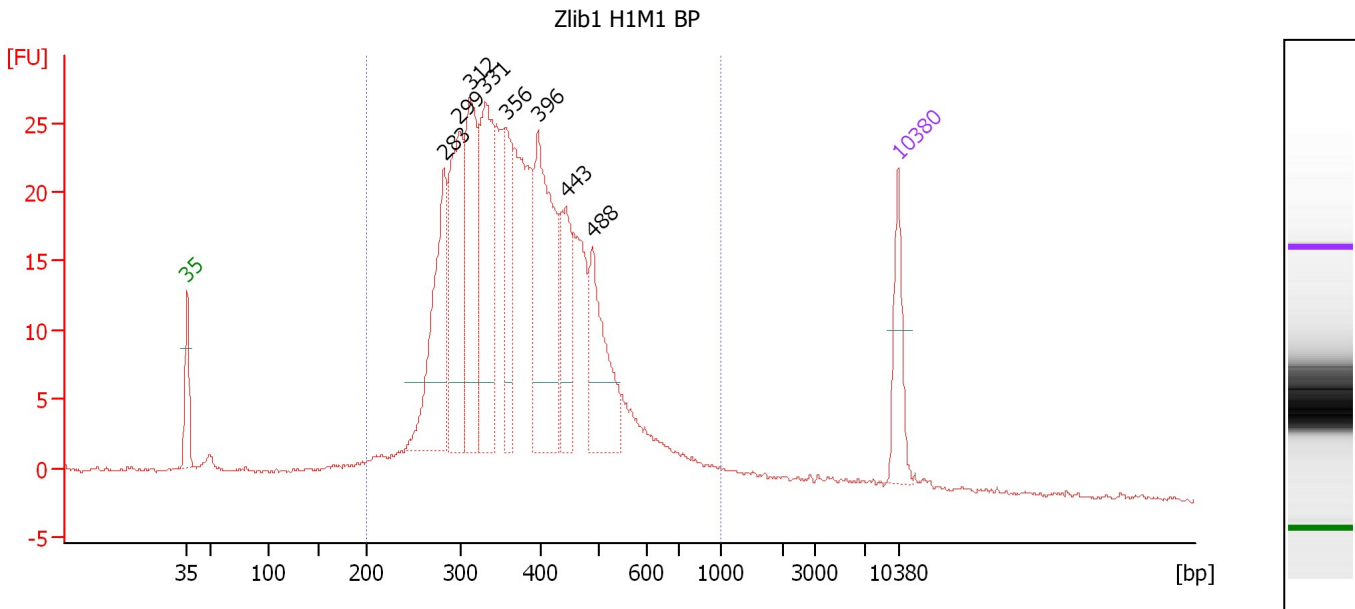
**Region table for sample 8 : LH761 soni 50 sec**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	451	577.3	8,822.5	2,110.00	73	40.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
 Modified: 9/23/2016 5:07:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : Zlib1 H1M1 BP**

Number of peaks found: 8                      Corr. Area 1: 549.0  
 Noise: 0.1

**Peak table for sample 9 : Zlib1 H1M1 BP**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	283	303.60	1,626.2		68.29
3	299	304.97	1,546.6		69.76
4	312	285.08	1,382.9		70.86
5	331	324.69	1,487.6		72.33
6	356	149.00	633.7		74.38
7	396	336.59	1,287.1		77.58
8	443	140.22	479.8		80.31
9	488	180.49	560.2		82.88
10	10,380	75.00	10.9	Upper Marker	113.00

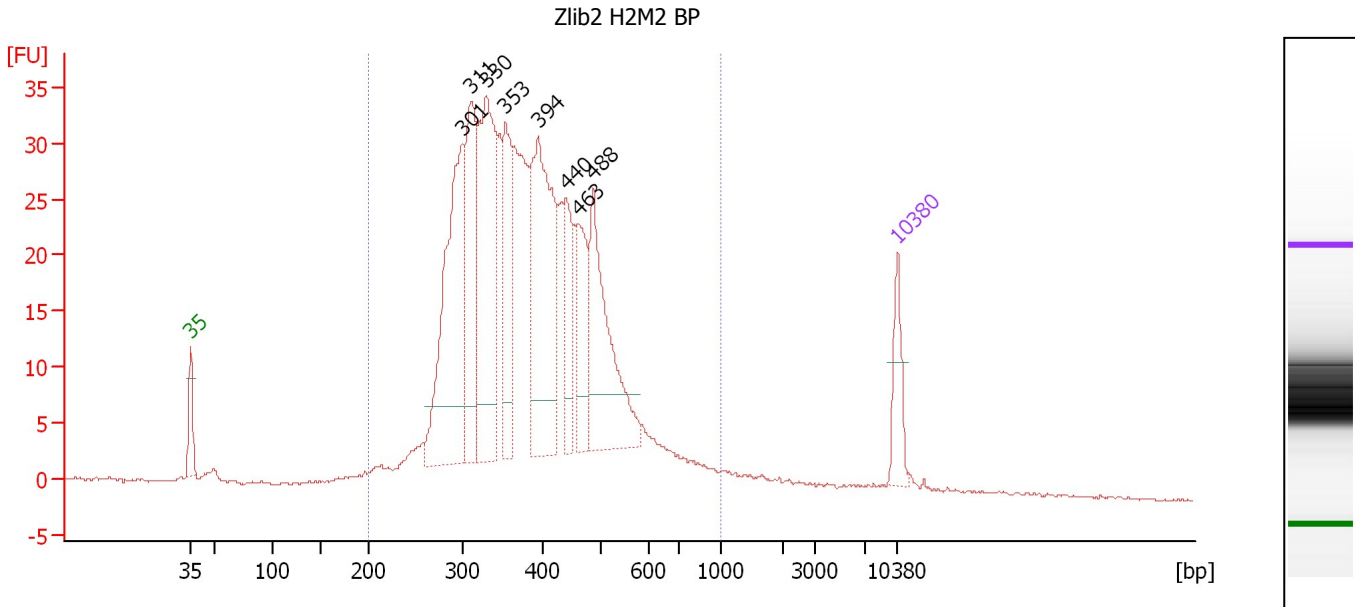
**Region table for sample 9 : Zlib1 H1M1 BP**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	388	549.0	13,919.6	3,288.92	95	27.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
 Modified: 9/23/2016 5:07:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : Zlib2 H2M2 BP**

Number of peaks found: 8                      Corr. Area 1: 673.4  
 Noise: 0.1

**Peak table for sample 10 : Zlib2 H2M2 BP**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	301	605.45	3,051.8		69.92
3	311	372.50	1,813.9		70.77
4	330	549.49	2,525.9		72.25
5	353	251.62	1,078.9		74.15
6	394	531.64	2,043.2		77.42
7	440	157.28	541.3		80.16
8	463	178.80	585.6		81.43
9	488	375.22	1,165.6		82.86
10	10,380	75.00	10.9	Upper Marker	113.00

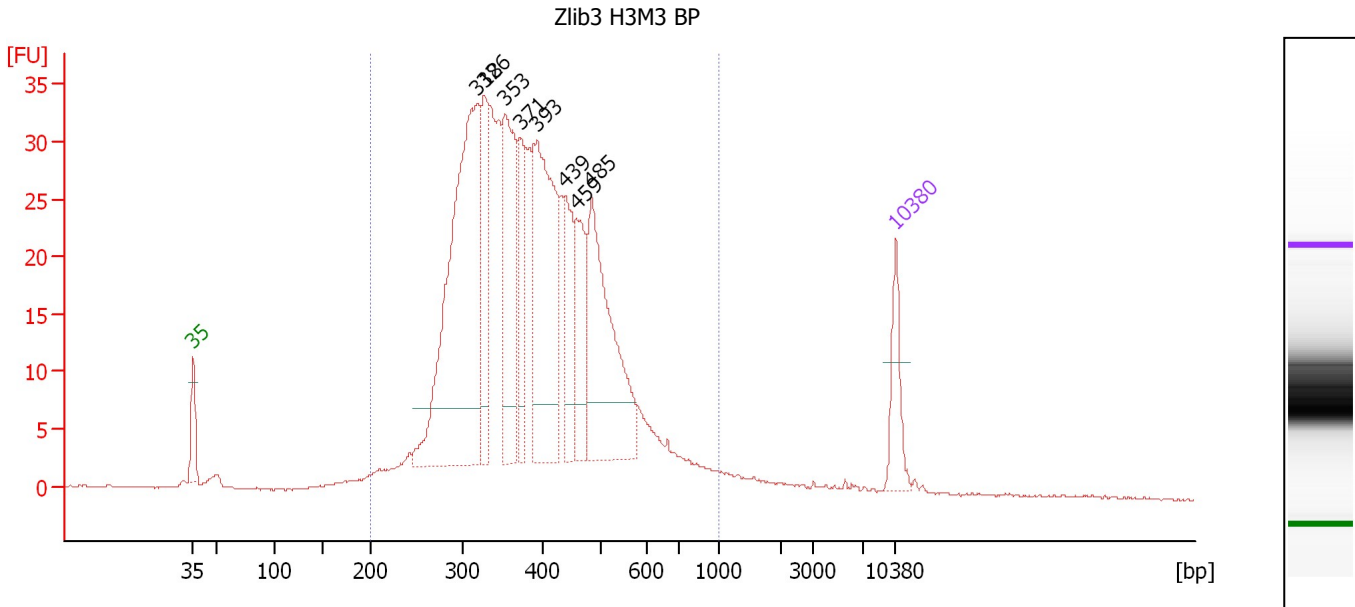
**Region table for sample 10 : Zlib2 H2M2 BP**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	396	673.4	18,545.8	4,484.62	96	26.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
 Modified: 9/23/2016 5:07:05 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : Zlib3 H3M3 BP**

Number of peaks found: 8                      Corr. Area 1: 682.1  
 Noise: 0.1

**Peak table for sample 11 : Zlib3 H3M3 BP**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	318	920.93	4,385.6		71.33
3	326	196.56	913.2		71.97
4	353	341.85	1,468.6		74.09
5	371	145.56	594.0		75.58
6	393	499.37	1,927.6		77.28
7	439	153.24	528.7		80.10
8	459	162.69	537.2		81.22
9	485	412.74	1,289.2		82.70
10	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 11 : Zlib3 H3M3 BP**

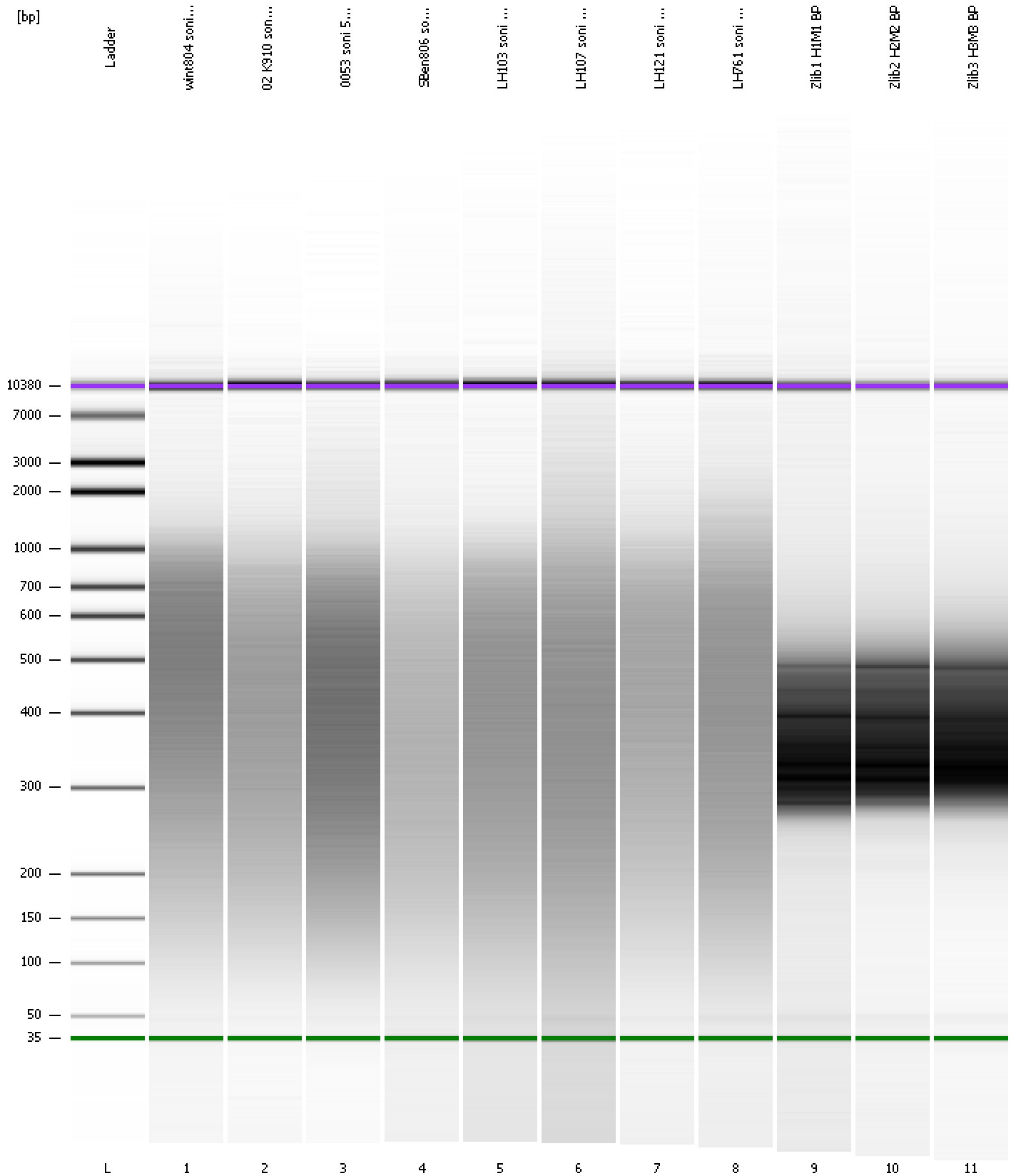
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	399	682.1	17,011.3	4,129.07	96	27.0



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
Modified: 9/23/2016 5:07:05 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-23\2016-09-23\_002.xad

Created: 9/23/2016 4:26:39 PM  
 Modified: 9/23/2016 5:07:05 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		9/23/2016 5:07:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-09-23\2016-09-23_002.xad)		Instrument	Run		9/23/2016 4:26:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/23/2016 4:26:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/23/2016 4:26:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/23/2016 4:26:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/23/2016 4:26:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/23/2016 4:26:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/23/2016 4:26:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1