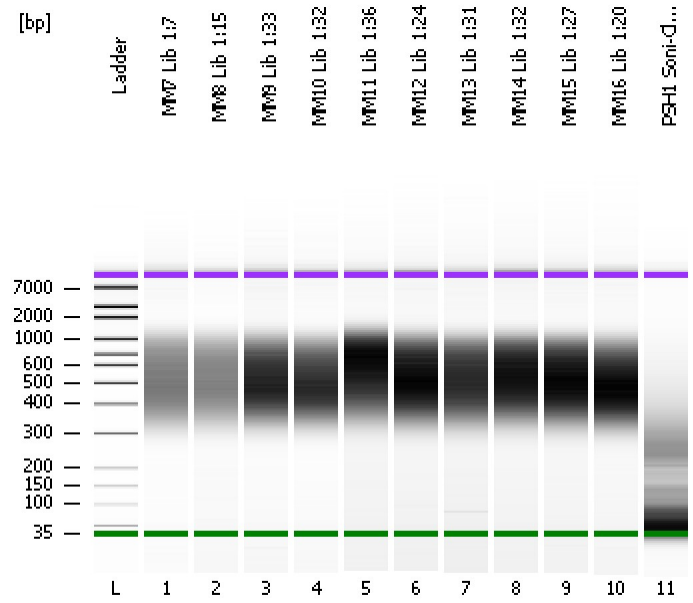
Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 PM

Electrophoresis File Run Summary



Instrument Information:

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

Assay Information:

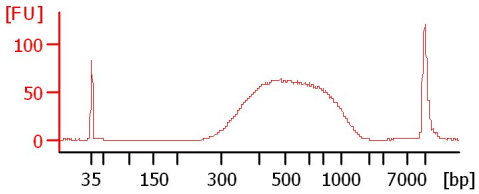
Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\dsDNA\High Sensitivity DNA.xsy

Assay Class: High Sensitivity DNA Assay
Version: 1.03
Assay Comments: Copyright © 2003-2010 Agilent Technologies

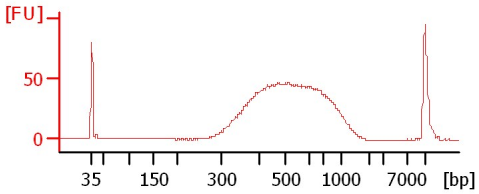
Chip Information:

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

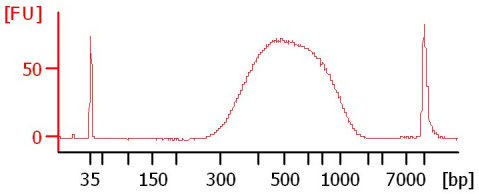
MM7 Lib 1:7



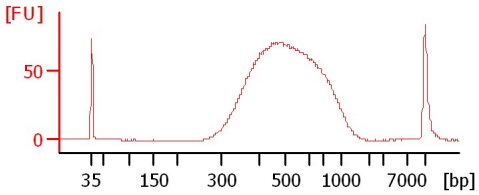
MM8 Lib 1:15



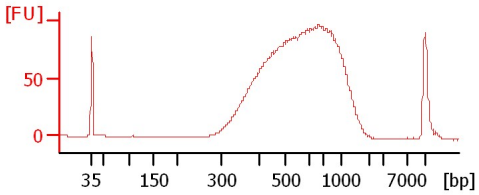
MM9 Lib 1:33



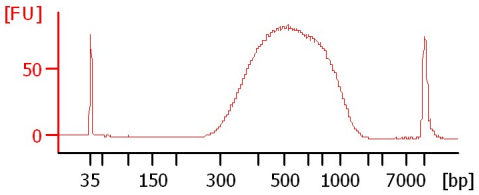
MM10 Lib 1:32



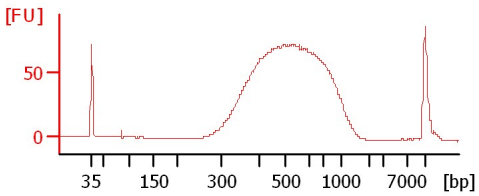
MM11 Lib 1:36



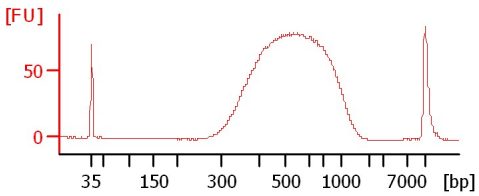
MM12 Lib 1:24



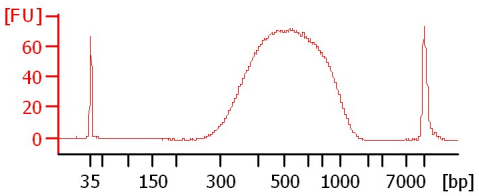
MM13 Lib 1:31



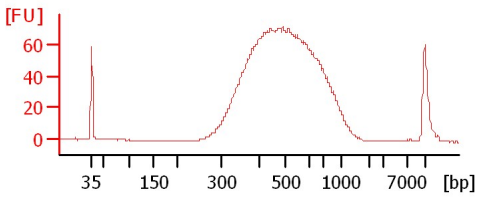
MM14 Lib 1:32



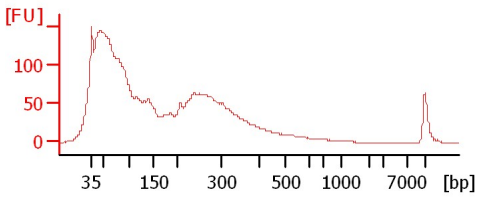
MM15 Lib 1:27



MM16 Lib 1:20



PSH1 Soni-Cleaned



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
MM7 Lib 1:7		☐	✓			
MM8 Lib 1:15		☐	✓			
MM9 Lib 1:33		☐	✓			
MM10 Lib 1:32		☐	✓			
MM11 Lib 1:36		☐	✓			
MM12 Lib 1:24		☐	✓			
MM13 Lib 1:31		☐	✓			
MM14 Lib 1:32		☐	✓			
MM15 Lib 1:27		☐	✓			
MM16 Lib 1:20		☐	✓			
PSH1 Soni-Cleaned		☐	✓			
Ladder		☐	✓			

Chip Lot # **Reagent Kit Lot #**

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 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

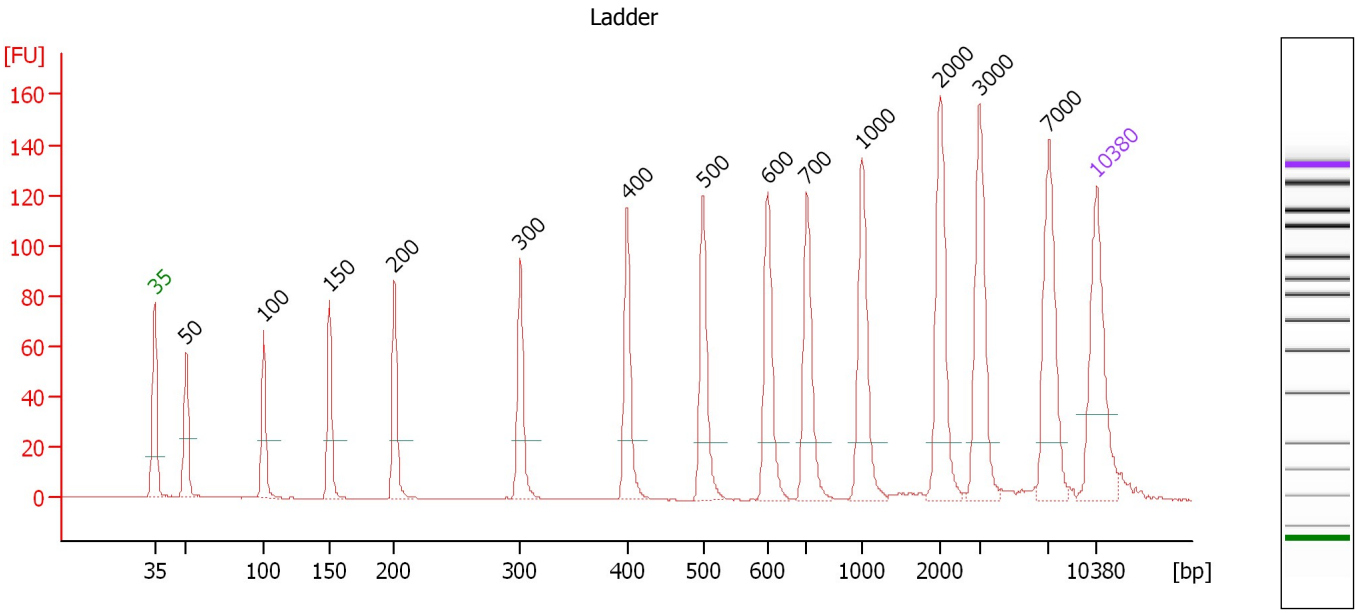
Ladder

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\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

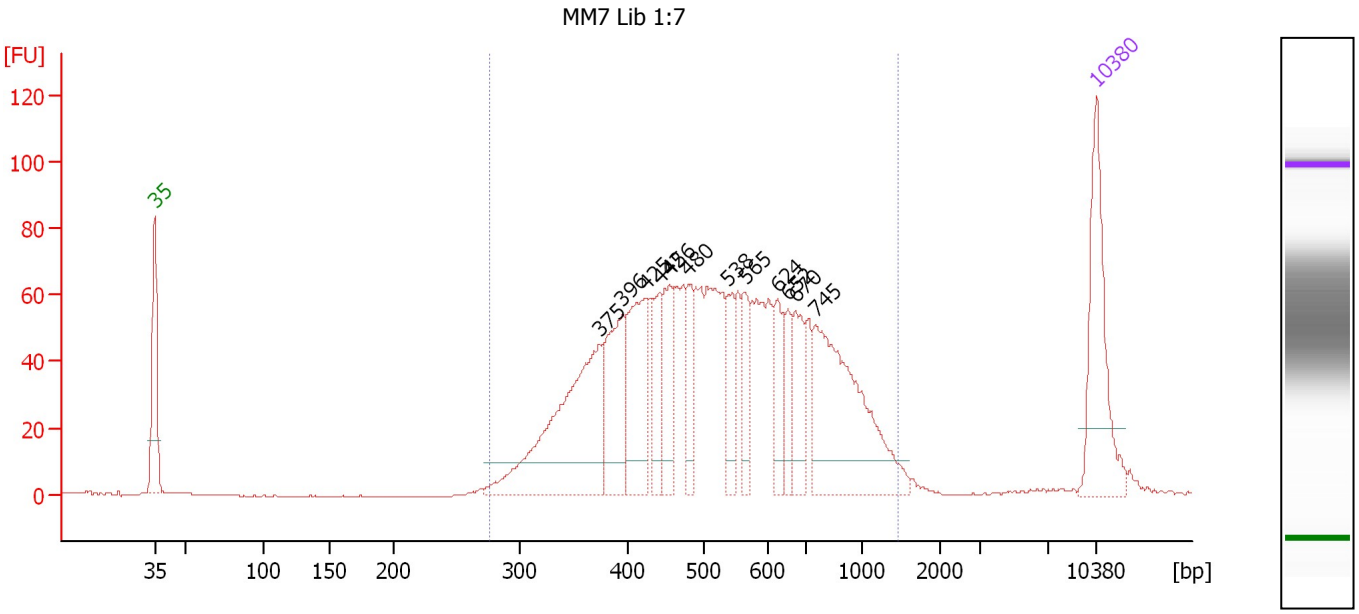
Peak table for Ladder

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\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 1 : MM7 Lib 1:7

Height Threshold [FU] : 10

Overall Results for sample 1 : MM7 Lib 1:7

Number of peaks found:	12	Corr. Area 1:	1,621.0
Noise:	0.1		

Peak table for sample 1 : MM7 Lib 1:7

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	375	197.43	797.7	
3	396	87.24	334.1	
4	425	93.72	333.8	
5	442	38.66	132.5	
6	456	50.98	169.4	
7	480	36.52	115.2	
8	538	34.93	98.3	
9	565	33.35	89.5	
10	624	34.53	83.8	
11	652	27.19	63.2	
12	670	43.09	97.5	
13	745	167.14	339.8	
14	10,380	75.00	10.9	Upper Marker

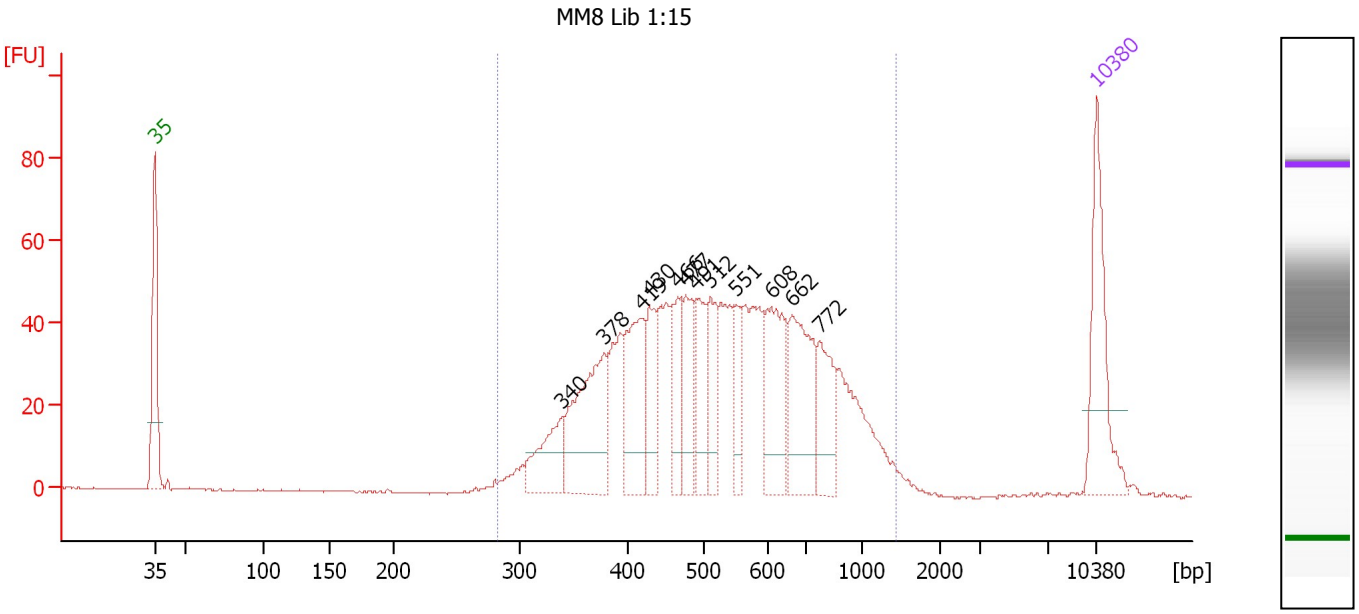
Region table for sample 1 : MM7 Lib 1:7

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
275	1,471	561	3,769.9	1,210.12	1,621.0	95	36.6	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 2 : MM8 Lib 1:15

Height Threshold [FU] : 10

Overall Results for sample 2 : MM8 Lib 1:15

Number of peaks found:	12	Corr. Area 1:	1,151.6
Noise:	0.2		

Peak table for sample 2 : MM8 Lib 1:15

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	340	62.80	280.2	
3	378	136.60	547.1	
4	419	96.38	348.5	
5	430	54.56	192.3	
6	466	49.80	161.9	
7	477	59.34	188.5	
8	491	51.95	160.2	
9	512	53.45	158.3	
10	551	35.68	98.1	
11	608	88.71	221.3	
12	662	97.44	223.1	
13	772	57.76	113.4	
14	10,380	75.00	10.9	Upper Marker

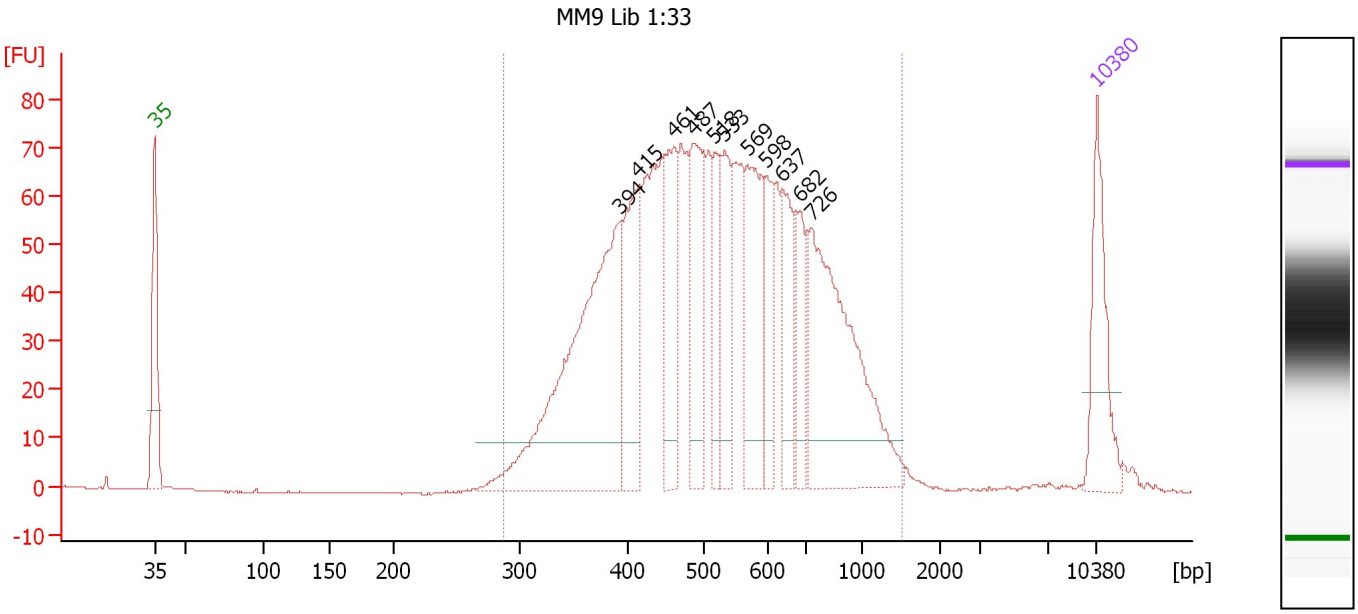
Region table for sample 2 : MM8 Lib 1:15

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
282	1,442	559	3,863.2	1,251.58	1,151.6	98	34.8	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 3 : MM9 Lib 1:33

Height Threshold [FU] : 10

Overall Results for sample 3 : MM9 Lib 1:33

Number of peaks found:	11	Corr. Area 1:	1,669.5
Noise:	0.1		

Peak table for sample 3 : MM9 Lib 1:33

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	394	414.78	1,596.3	
3	415	130.80	477.5	
4	461	109.57	359.9	
5	487	124.70	388.0	
6	518	66.62	194.9	
7	533	89.27	253.8	
8	569	130.42	347.3	
9	598	58.74	148.8	
10	637	74.62	177.5	
11	682	62.83	139.6	
12	726	284.33	593.6	
13	10,380	75.00	10.9	Upper Marker

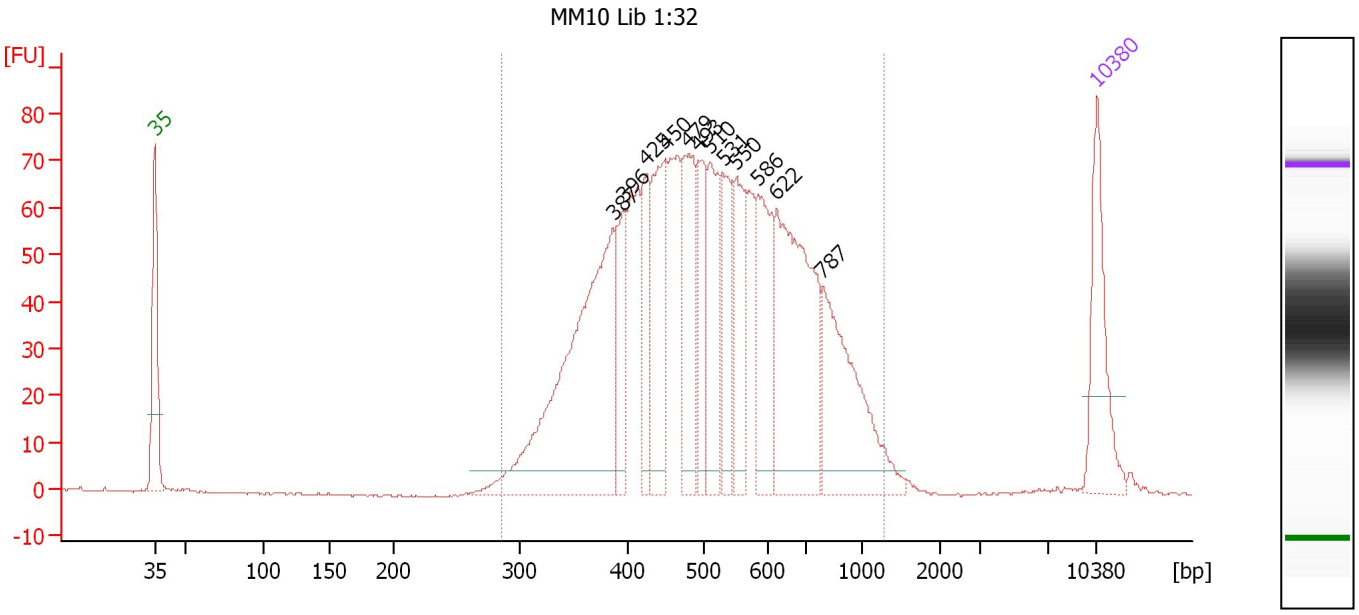
Region table for sample 3 : MM9 Lib 1:33

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
288	1,503	557	6,469.4	2,099.09	1,669.5	97	34.6	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : MM10 Lib 1:32

Number of peaks found:	12	Corr. Area 1:	1,622.3
Noise:	0.2		

Peak table for sample 4 : MM10 Lib 1:32

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	387	378.80	1,484.8	
3	396	75.66	289.6	
4	425	73.03	260.2	
5	450	127.27	428.9	
6	479	123.38	390.1	
7	493	73.32	225.3	
8	510	95.43	283.3	
9	531	66.41	189.6	
10	550	85.65	235.9	
11	586	103.86	268.6	
12	622	238.39	580.4	
13	787	166.25	320.1	
14	10,380	75.00	10.9	Upper Marker

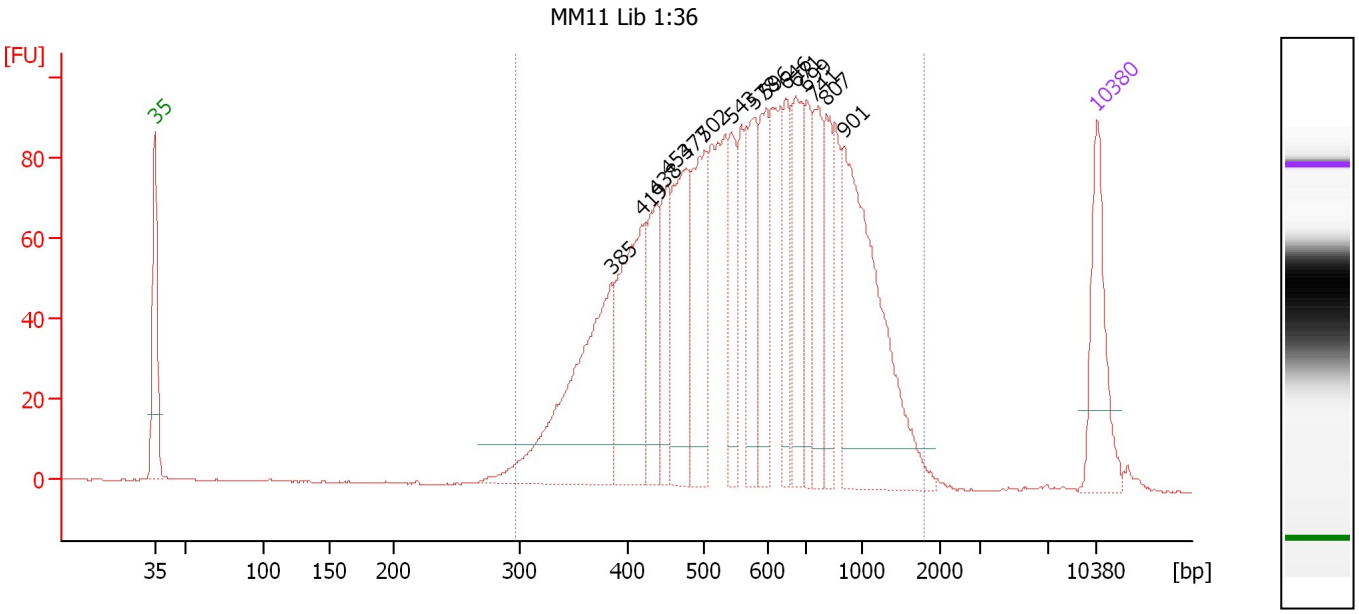
Region table for sample 4 : MM10 Lib 1:32

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
286	1,286	537	6,180.8	1,963.53	1,622.3	97	31.2	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 5 : MM11 Lib 1:36

Height Threshold [FU] : 10

Overall Results for sample 5 : MM11 Lib 1:36

Number of peaks found:	15	Corr. Area 1:	2,206.4
Noise:	0.2		

Peak table for sample 5 : MM11 Lib 1:36

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	385	259.23	1,020.7	
3	419	177.54	641.9	
4	438	93.69	323.8	
5	453	70.95	237.5	
6	477	141.90	450.5	
7	502	131.75	397.5	
8	543	66.33	185.2	
9	578	91.13	239.0	
10	596	80.65	204.9	
11	646	72.48	170.1	
12	671	99.54	224.6	
13	699	67.65	146.7	
14	741	80.04	163.6	
15	807	70.27	132.0	
16	901	275.52	463.2	
17	10,380	75.00	10.9	Upper Marker

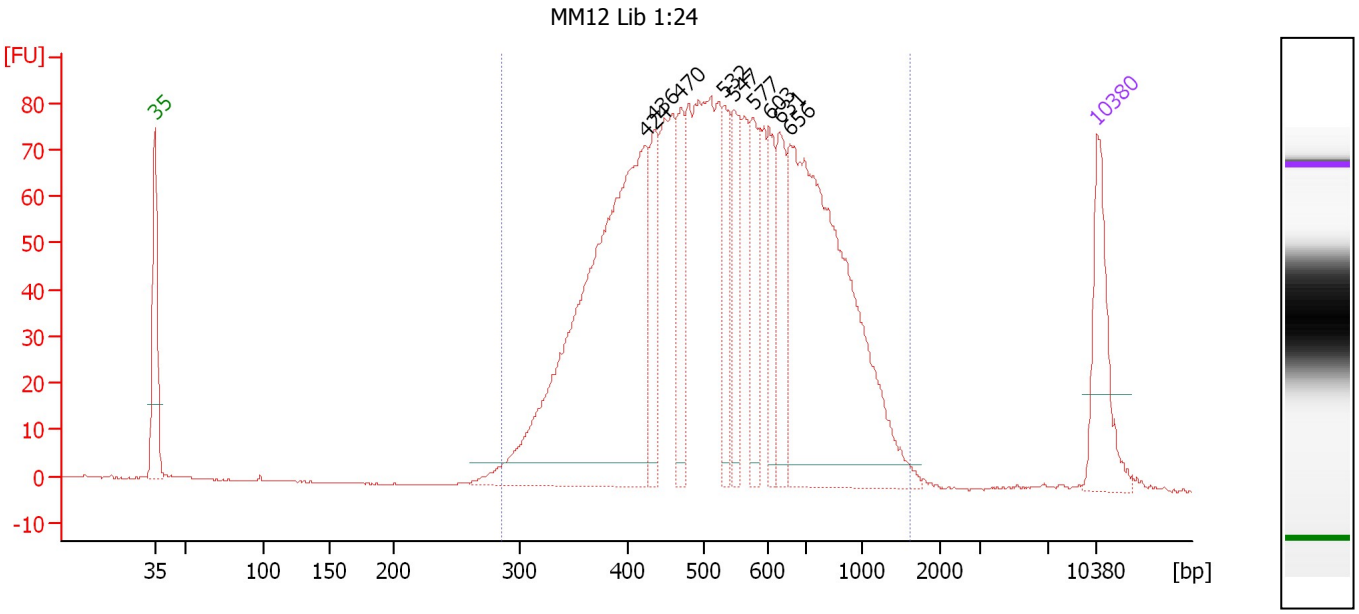
Region table for sample 5 : MM11 Lib 1:36

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
297	1,804	638	6,137.1	2,188.17	2,206.4	97	40.5	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : MM12 Lib 1:24

Number of peaks found:	9	Corr. Area 1:	1,939.5
Noise:	0.1		

Peak table for sample 6 : MM12 Lib 1:24

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	424	649.86	2,320.7	
3	436	88.13	306.3	
4	470	79.61	256.7	
5	532	74.89	213.4	
6	547	77.72	215.1	
7	577	77.74	204.2	
8	603	62.84	157.8	
9	631	76.66	184.0	
10	656	503.45	1,163.5	
11	10,380	75.00	10.9	Upper Marker

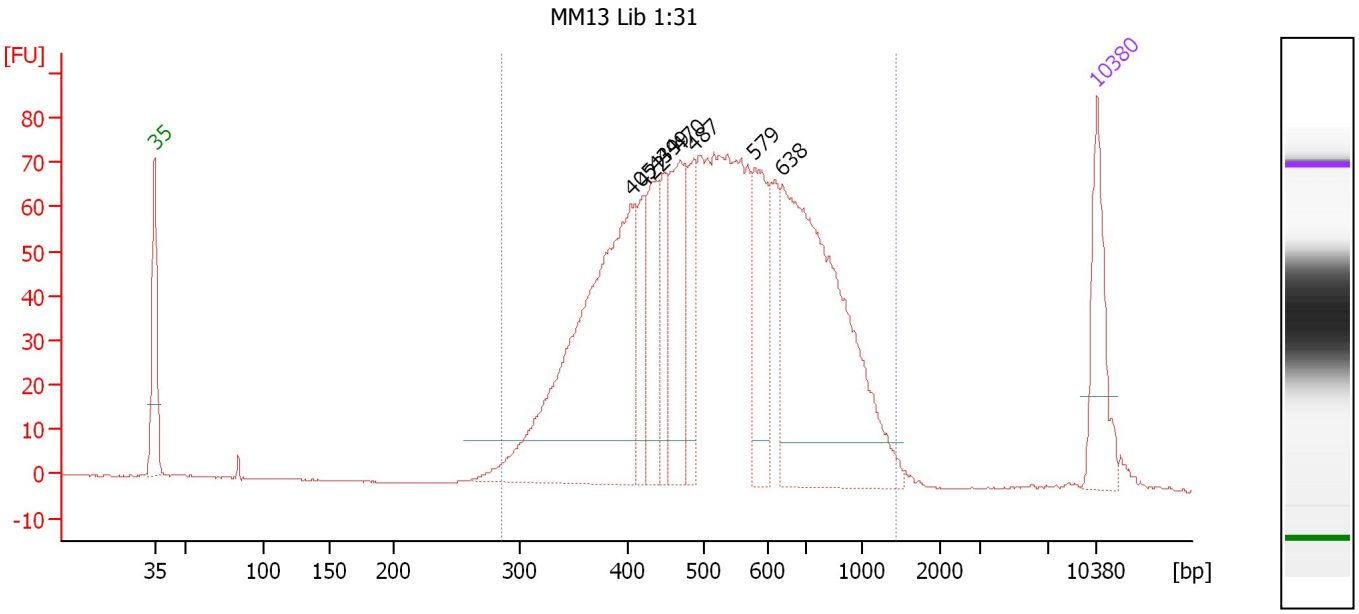
Region table for sample 6 : MM12 Lib 1:24

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
285	1,618	567	7,059.7	2,314.86	1,939.5	98	35.9	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 7 : MM13 Lib 1:31

Height Threshold [FU] : 10

Overall Results for sample 7 : MM13 Lib 1:31

Number of peaks found:	8	Corr. Area 1:	1,723.4
Noise:	0.1		

Peak table for sample 7 : MM13 Lib 1:31

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	405	499.77	1,868.8	
3	422	70.60	253.2	
4	439	94.49	326.3	
5	449	69.79	235.6	
6	470	146.71	473.4	
7	487	70.79	220.3	
8	579	124.55	325.8	
9	638	459.45	1,090.8	
10	10,380	75.00	10.9	Upper Marker

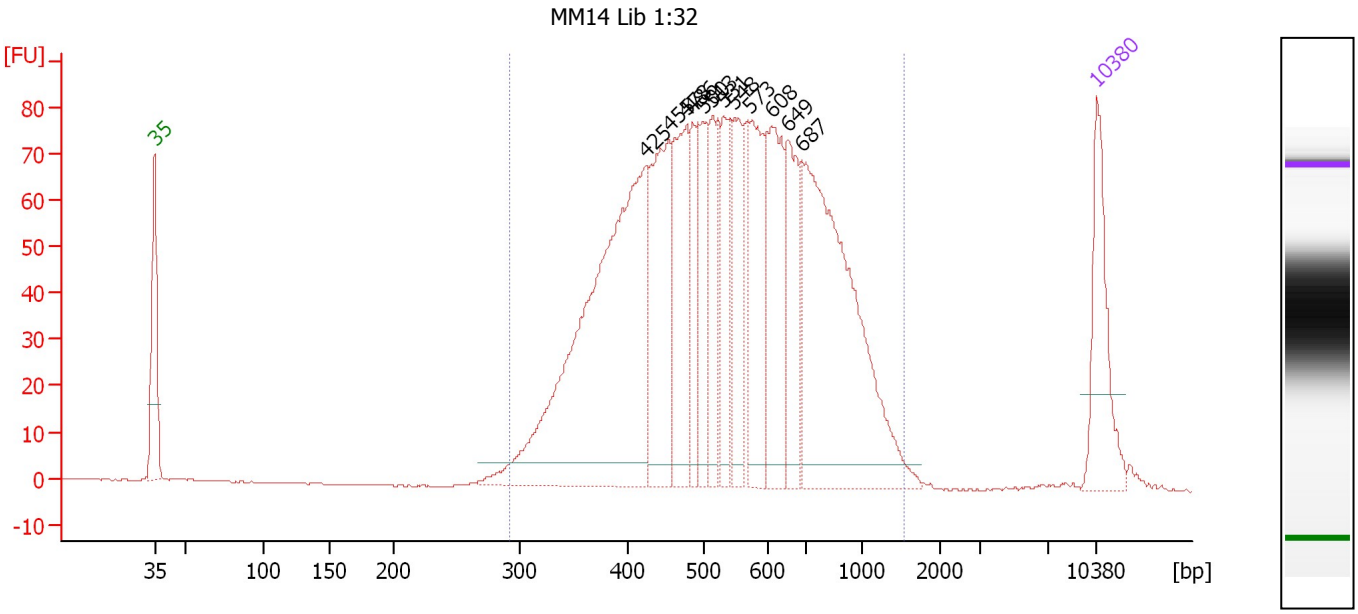
Region table for sample 7 : MM13 Lib 1:31

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
286	1,447	556	6,296.2	2,043.81	1,723.4	98	33.7	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : MM14 Lib 1:32

Number of peaks found:	12	Corr. Area 1:	1,832.4
Noise:	0.1		

Peak table for sample 8 : MM14 Lib 1:32

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	425	531.56	1,896.9	
3	455	174.71	581.9	
4	478	137.74	436.7	
5	486	72.96	227.4	
6	500	72.72	220.4	
7	513	88.53	261.5	
8	531	70.23	200.3	
9	548	89.10	246.1	
10	573	123.66	326.8	
11	608	126.25	314.8	
12	649	94.07	219.6	
13	687	382.18	843.4	
14	10,380	75.00	10.9	Upper Marker

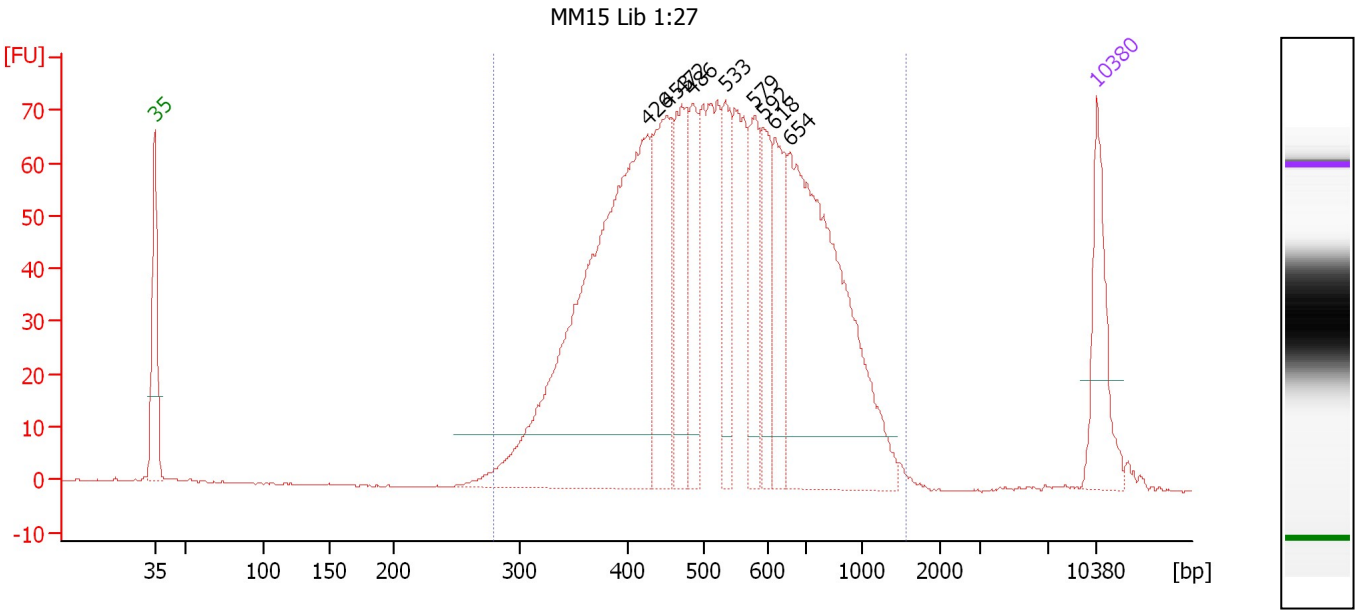
Region table for sample 8 : MM14 Lib 1:32

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
292	1,540	573	6,179.0	2,055.14	1,832.4	98	34.8	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 9 : MM15 Lib 1:27

Height Threshold [FU] : 10

Overall Results for sample 9 : MM15 Lib 1:27

Number of peaks found:	9	Corr. Area 1:	1,672.6
Noise:	0.2		

Peak table for sample 9 : MM15 Lib 1:27

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	426	699.10	2,488.2	
3	453	187.67	628.3	
4	472	134.10	430.5	
5	486	95.63	298.2	
6	533	96.17	273.2	
7	579	97.21	254.3	
8	592	77.24	197.6	
9	618	102.96	252.6	
10	654	451.81	1,047.0	
11	10,380	75.00	10.9	Upper Marker

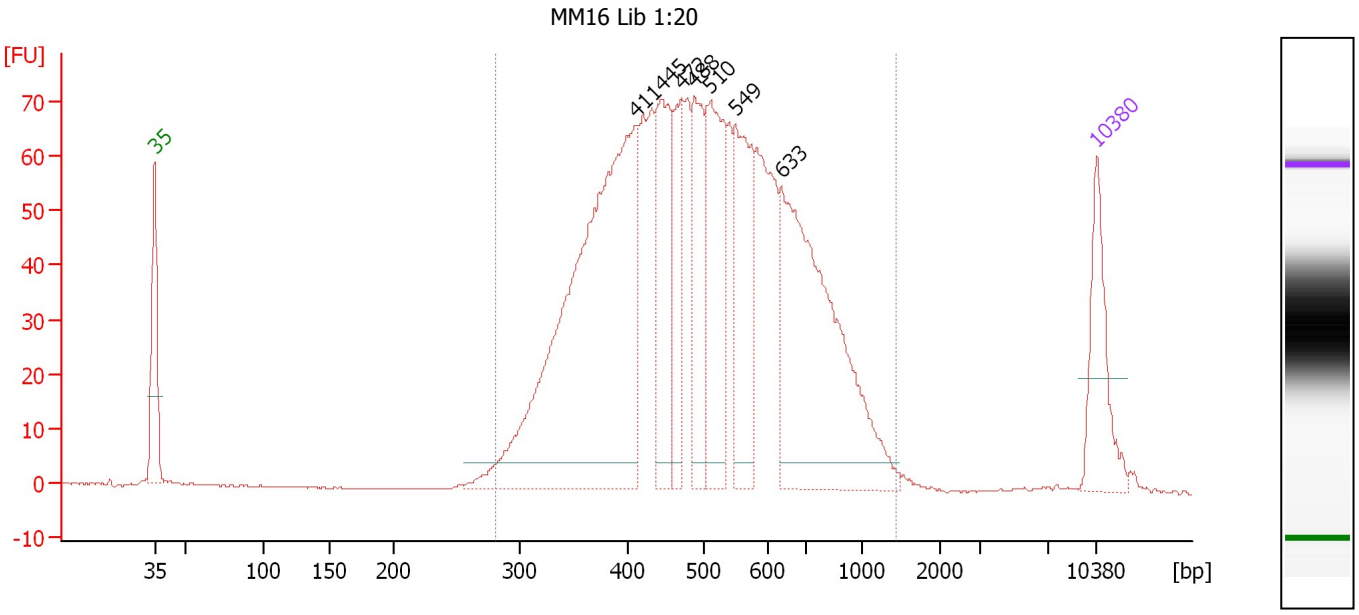
Region table for sample 9 : MM15 Lib 1:27

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
279	1,551	554	7,170.5	2,316.57	1,672.6	98	34.2	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : MM16 Lib 1:20

Number of peaks found:	7	Corr. Area 1:	1,602.4
Noise:	0.1		

Peak table for sample 10 : MM16 Lib 1:20

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	411	711.08	2,618.7	
3	445	161.80	551.0	
4	472	92.65	297.5	
5	488	130.99	406.9	
6	510	181.71	540.2	
7	549	164.50	454.0	
8	633	393.21	940.7	
9	10,380	75.00	10.9	Upper Marker

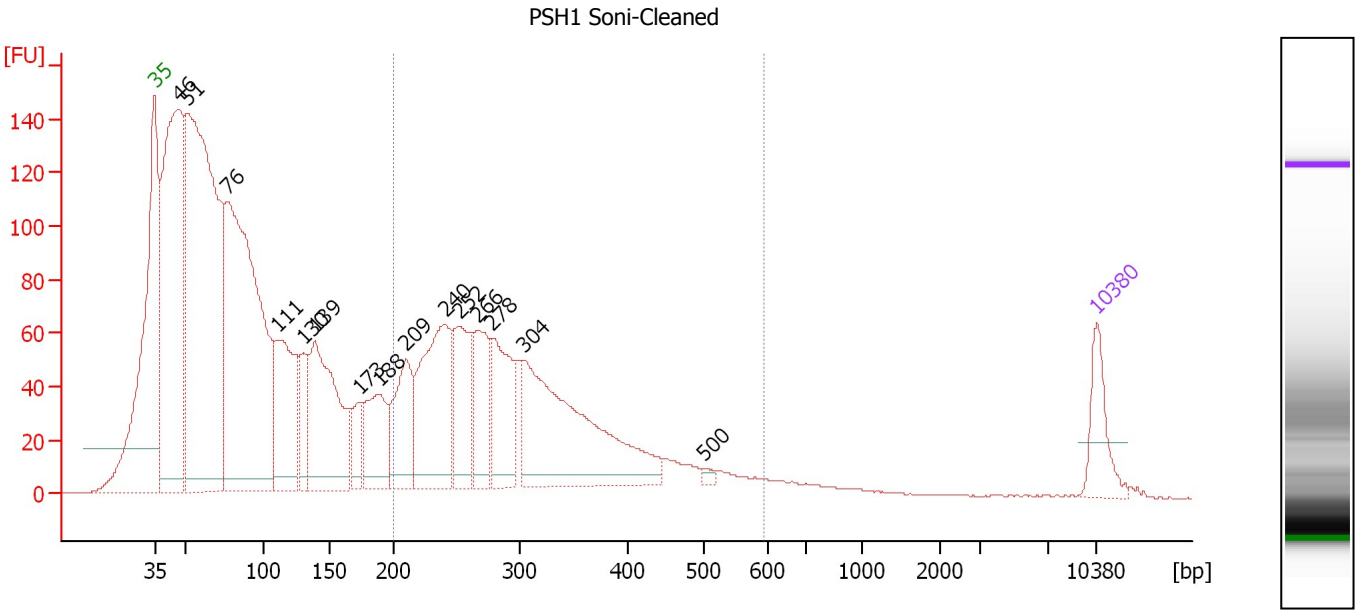
Region table for sample 10 : MM16 Lib 1:20

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
280	1,431	525	7,598.7	2,354.67	1,602.4	98	32.2	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : PSH1 Soni-Cleaned

Number of peaks found:	15	Corr. Area 1:	1,255.0
Noise:	0.1		

Peak table for sample 11 : PSH1 Soni-Cleaned

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	46	1,070.78	34,935.6	
3	51	1,545.85	45,682.2	
4	76	1,271.01	25,196.1	
5	111	347.45	4,756.3	
6	130	125.55	1,457.7	
7	139	458.16	5,003.3	
8	173	79.20	692.4	
9	188	186.51	1,504.1	
10	209	211.28	1,528.2	
11	240	385.42	2,432.2	
12	252	205.22	1,235.5	
13	266	178.42	1,015.9	
14	278	211.57	1,152.1	
15	304	578.23	2,885.8	
16	500	9.33	28.3	
17	10,380	75.00	10.9	Upper Marker

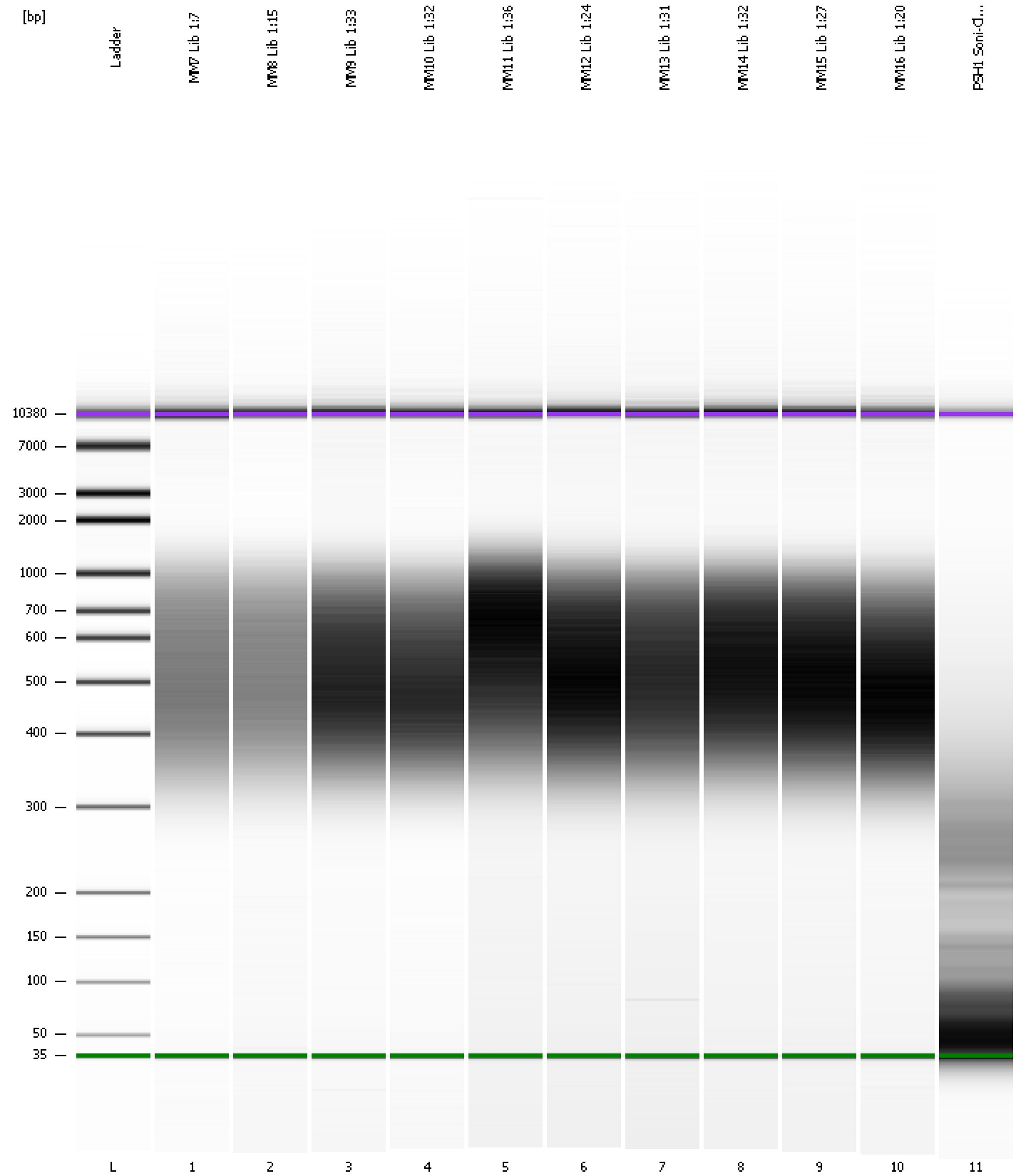
Region table for sample 11 : PSH1 Soni-Cleaned

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	592	307	10,733.6	2,010.71	1,255.0	32	27.1	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad

Created: 8/8/2013 4:37:19 PM
Modified: 8/8/2013 5:21:52 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		8/8/2013 5:18:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-08-08\2013-08-08_007.xad)		Instrument	Run		8/8/2013 4:37:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		8/8/2013 4:37:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/8/2013 4:37:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/8/2013 4:37:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		8/8/2013 4:37:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/8/2013 4:37:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/8/2013 4:37:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1