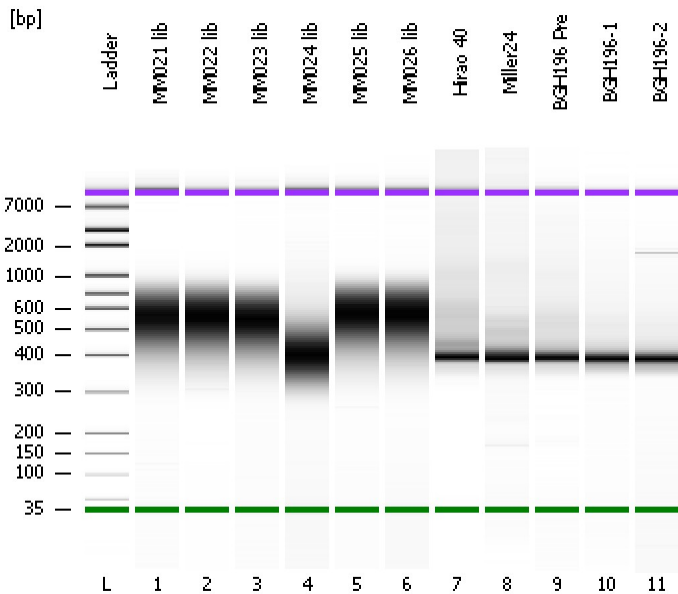


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
Modified: 10/14/2014 3:16:17 PM

Electrophoresis File Run Summary



Instrument Information:

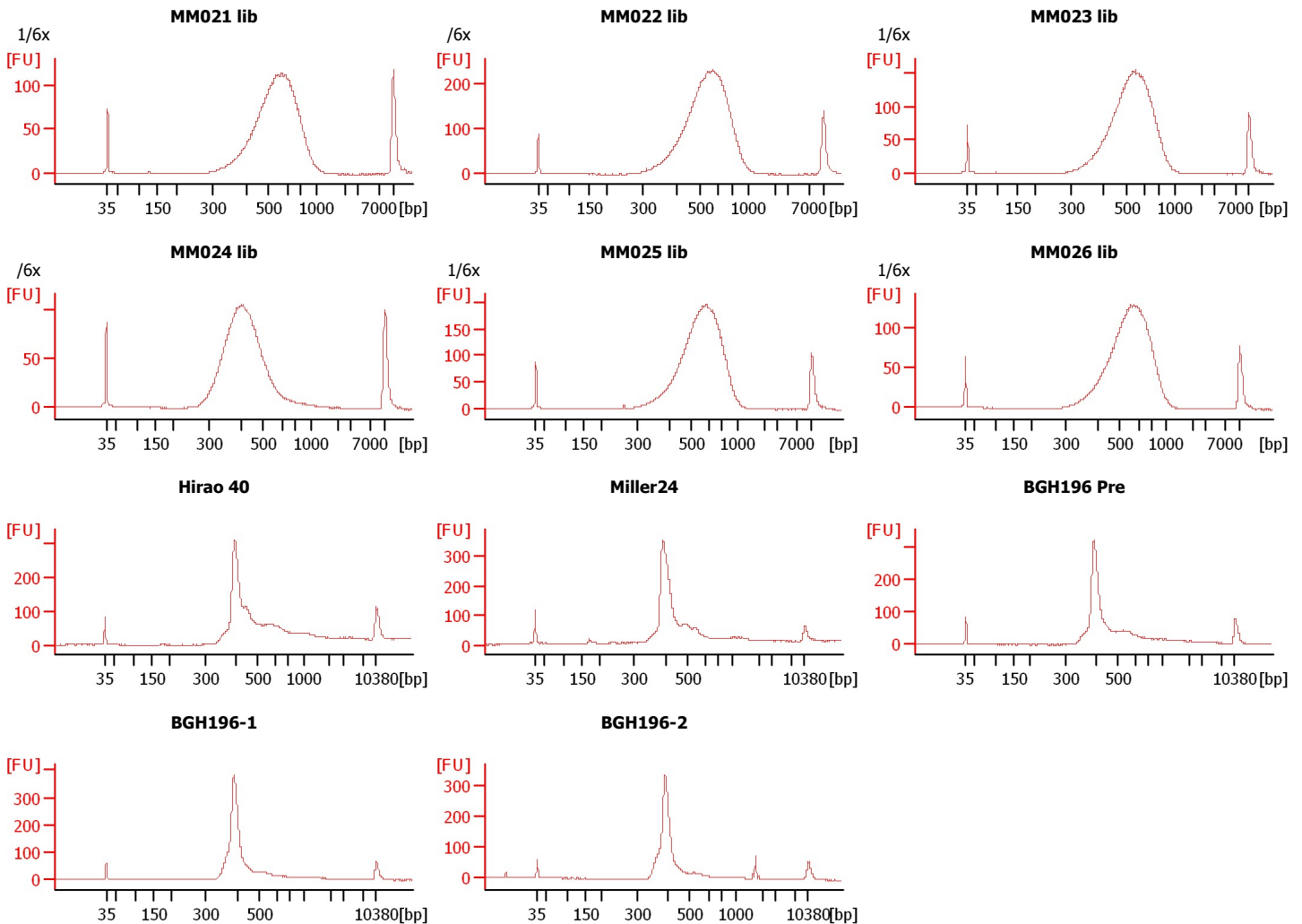
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
 Modified: 10/14/2014 3:16:17 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
MM021 lib	1/6x	<input type="checkbox"/>	✓			
MM022 lib	/6x	<input type="checkbox"/>	✓			
MM023 lib	1/6x	<input type="checkbox"/>	✓			
MM024 lib	/6x	<input type="checkbox"/>	✓			
MM025 lib	1/6x	<input type="checkbox"/>	✓			
MM026 lib	1/6x	<input type="checkbox"/>	✓			
Hirao 40		<input type="checkbox"/>	✓			
Miller24		<input type="checkbox"/>	✓			
BGH196 Pre		<input type="checkbox"/>	✓			
BGH196-1		<input type="checkbox"/>	✓			
BGH196-2		<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\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
Modified: 10/14/2014 3:16:17 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

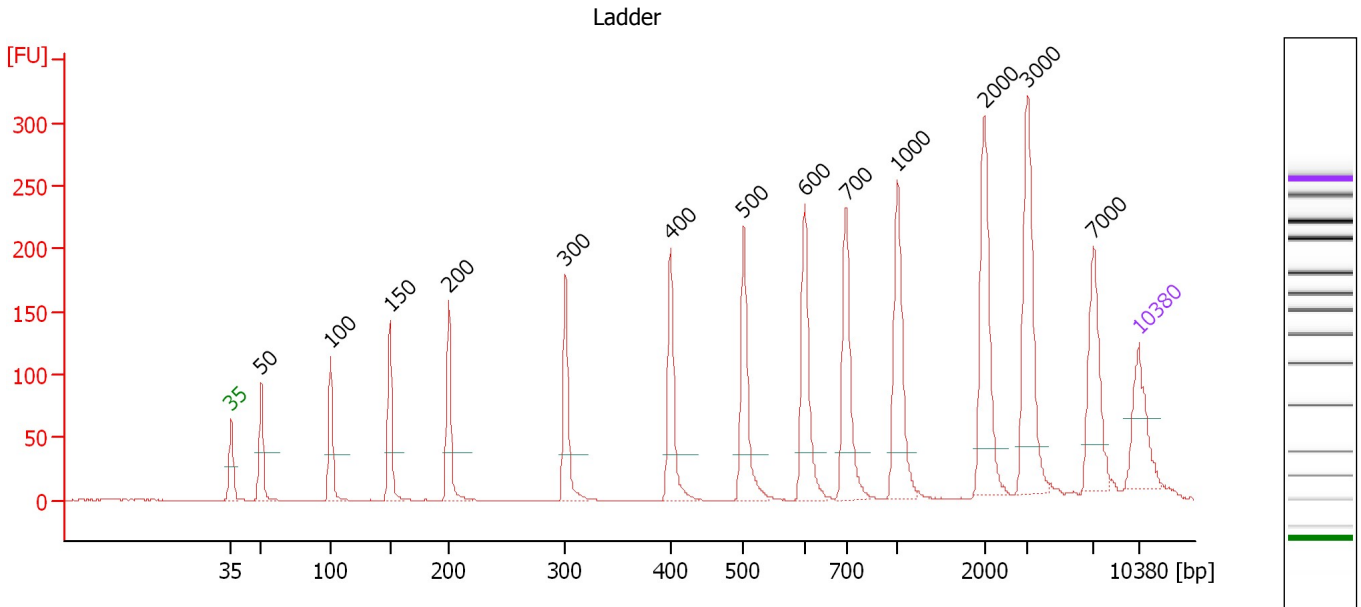
Ladder

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\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
 Modified: 10/14/2014 3:16:17 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

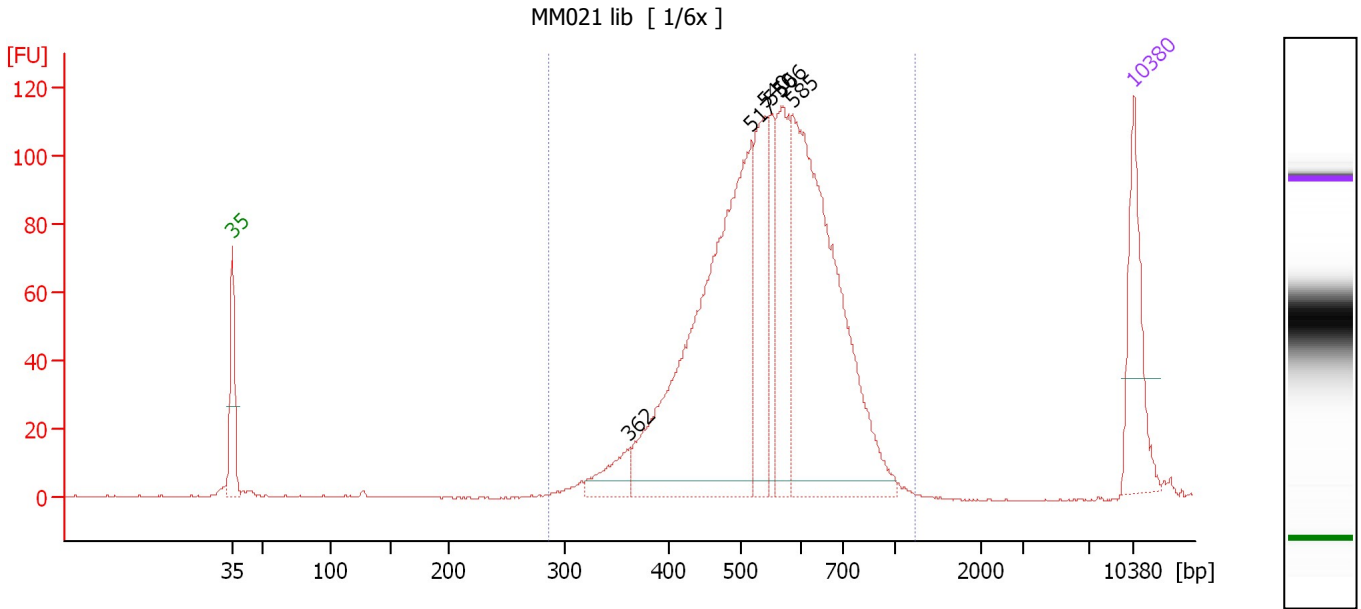
Peak table for Ladder

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\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
 Modified: 10/14/2014 3:16:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : MM021 lib

Number of peaks found: 6 Corr. Area 1: 1,645.6
 Noise: 0.2

Peak table for sample 1 : MM021 lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	362	40.95	171.2	
3	517	540.38	1,583.8	
4	540	130.60	366.5	
5	550	61.10	168.4	
6	566	134.13	359.4	
7	585	454.00	1,176.0	
8	10,380	75.00	10.9	Upper Marker

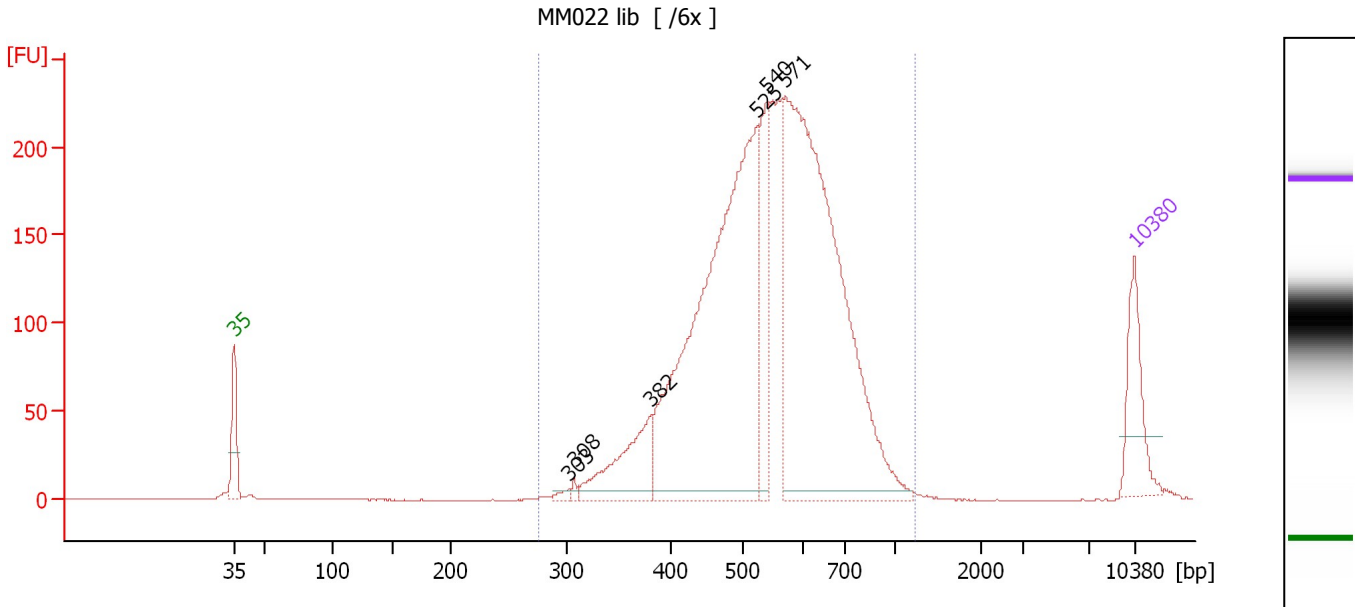
Region table for sample 1 : MM021 lib

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
286	552	1,255	1,645.6	99	20.6	1,380.97	4,007.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
 Modified: 10/14/2014 3:16:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : MM022 lib

Number of peaks found: 6 Corr. Area 1: 3,396.8
 Noise: 0.2

Peak table for sample 2 : MM022 lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	303	7.74	38.7	
3	308	5.69	28.0	
4	382	138.55	549.6	
5	525	876.67	2,531.6	
6	540	141.19	396.4	
7	571	898.93	2,386.7	
8	10,380	75.00	10.9	Upper Marker

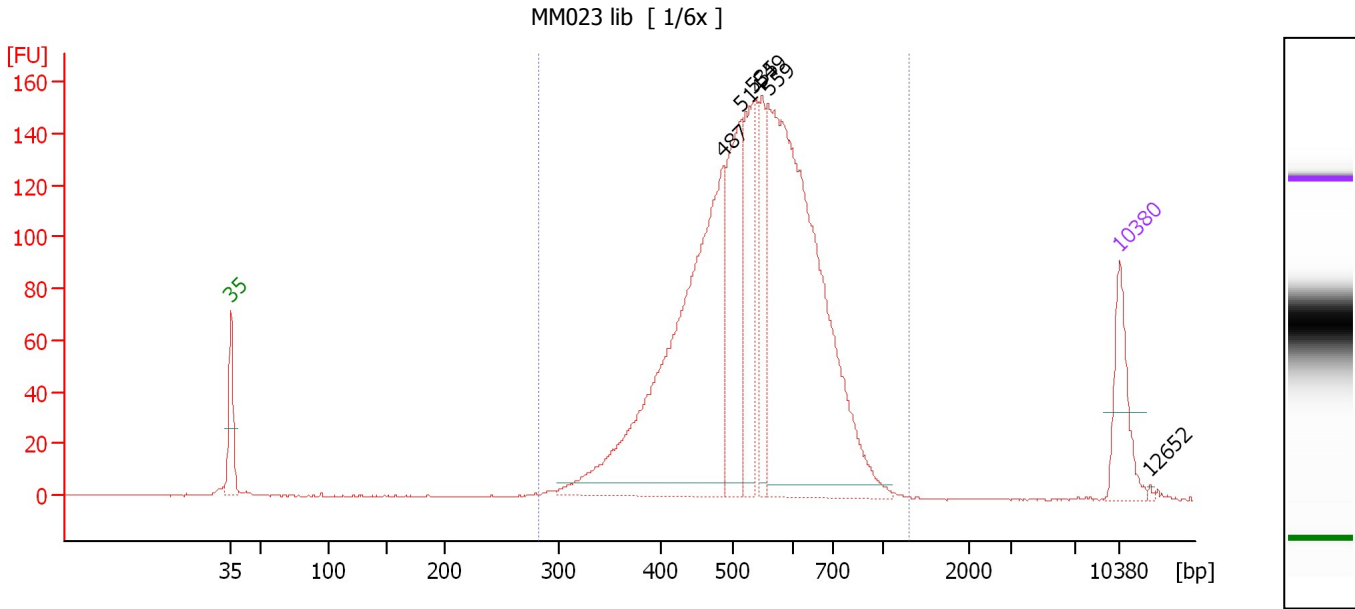
Region table for sample 2 : MM022 lib

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
277	553	1,244	3,396.8	99	21.5	2,255.79	6,563.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
 Modified: 10/14/2014 3:16:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : MM023 lib

Number of peaks found: 6 Corr. Area 1: 2,274.9
 Noise: 0.2

Peak table for sample 3 : MM023 lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	487	788.87	2,455.6	
3	514	238.58	702.6	
4	535	179.99	509.7	
5	549	101.77	281.1	
6	559	883.90	2,394.7	
7	10,380	75.00	10.9	Upper Marker
8	12,652	0.00	0.0	

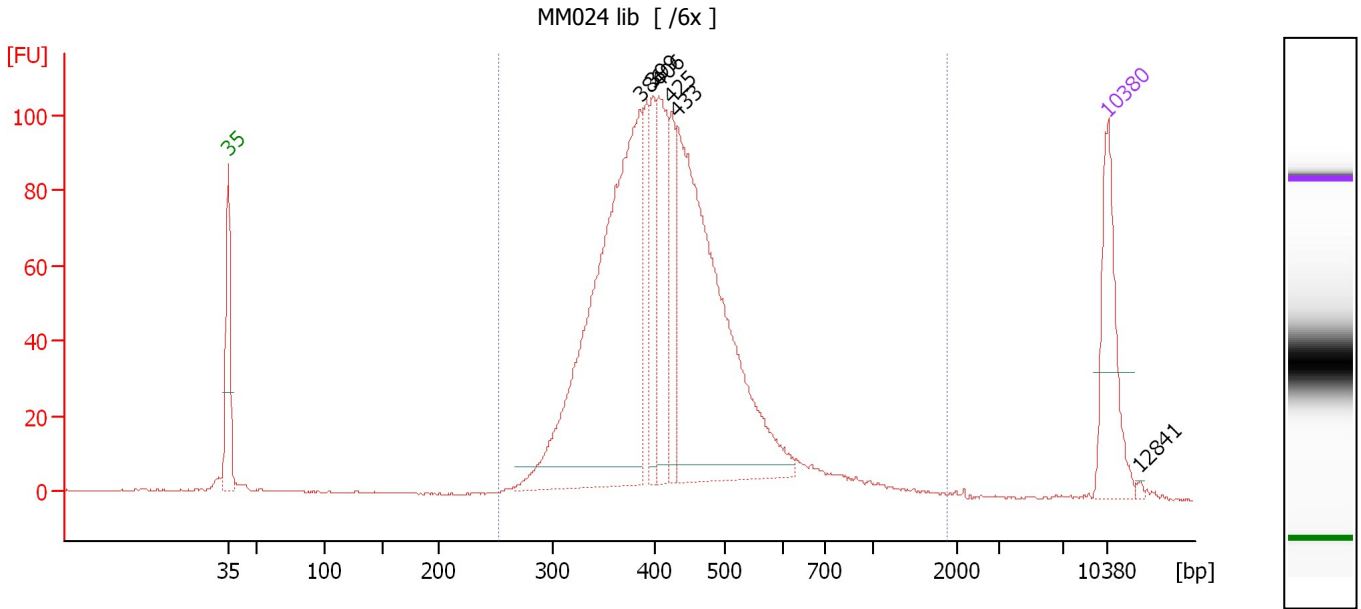
Region table for sample 3 : MM023 lib

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
283	540	1,304	2,274.9	98	20.8	2,318.70	6,888.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
 Modified: 10/14/2014 3:16:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : MM024 lib

Number of peaks found: 6 Corr. Area 1: 1,615.0
 Noise: 0.2

Peak table for sample 4 : MM024 lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	386	526.47	2,064.0	
3	399	68.30	259.3	
4	406	122.94	458.6	
5	425	63.11	225.0	
6	433	457.00	1,598.2	
7	10,380	75.00	10.9	Upper Marker
8	12,841	0.00	0.0	

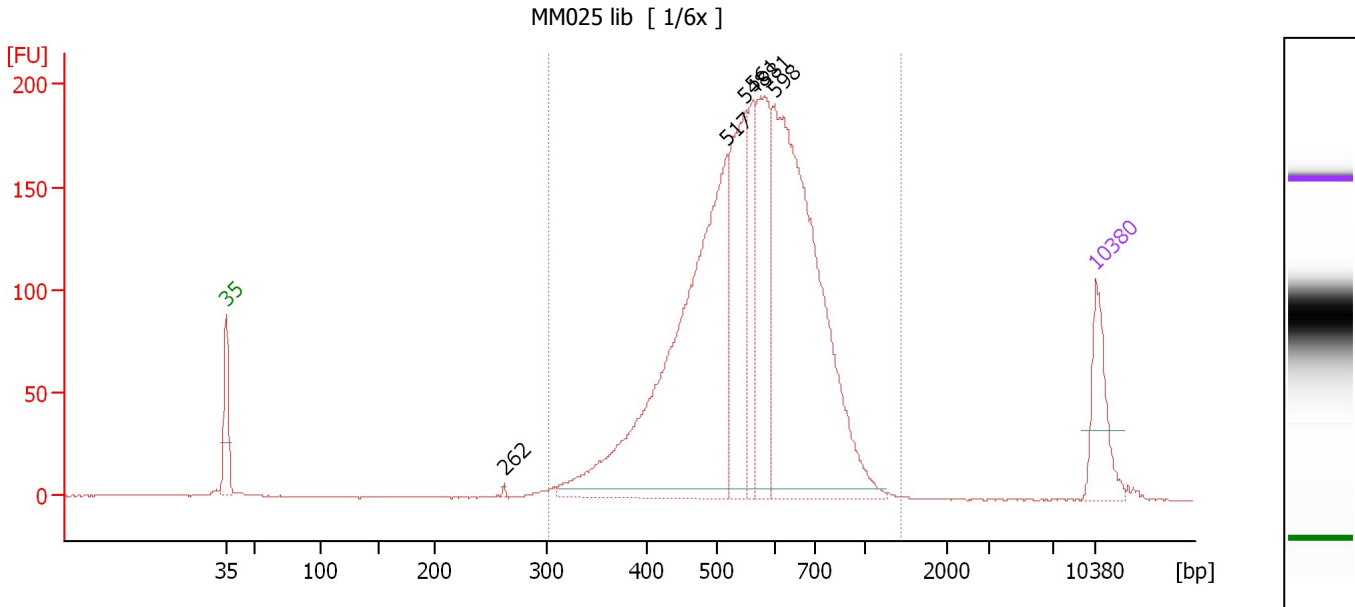
Region table for sample 4 : MM024 lib

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
253	437	1,875	1,615.0	97	30.3	1,457.86	5,400.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
 Modified: 10/14/2014 3:16:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : MM025 lib

Number of peaks found: 6 Corr. Area 1: 2,797.6
 Noise: 0.2

Peak table for sample 5 : MM025 lib

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	262	2.59	15.0	
3	517	816.00	2,391.0	
4	548	267.01	738.0	
5	561	116.57	314.8	
6	581	228.72	596.3	
7	598	745.93	1,890.9	
8	10,380	75.00	10.9	Upper Marker

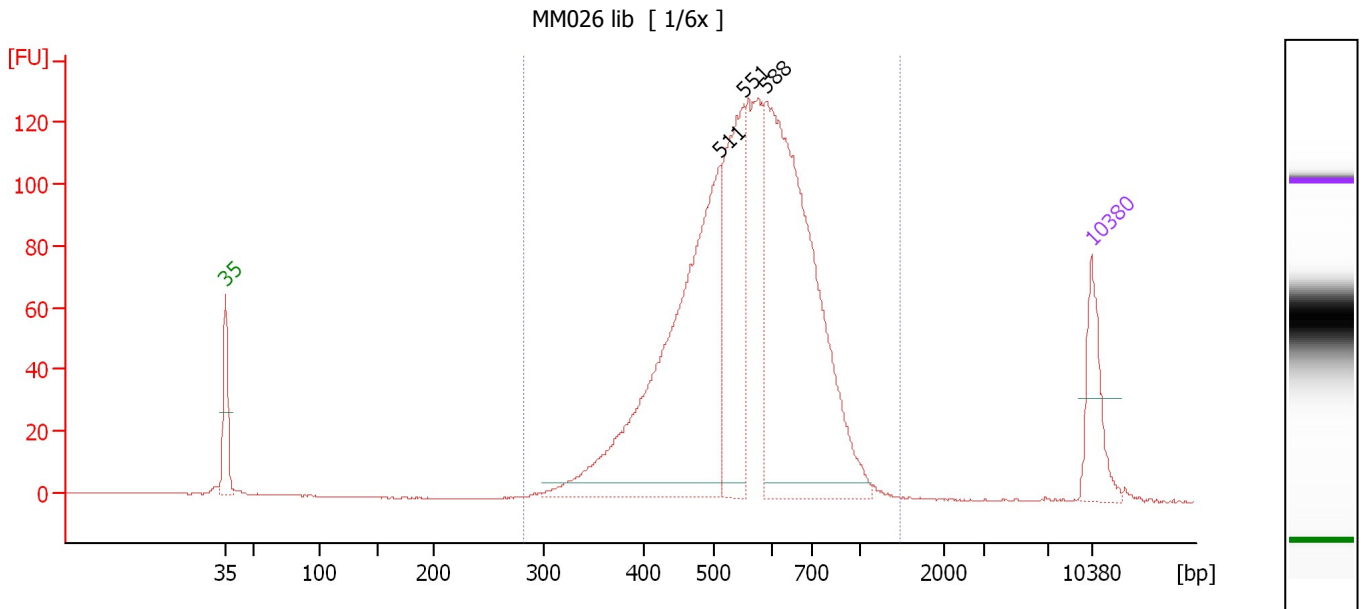
Region table for sample 5 : MM025 lib

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/µl]	Molarity [pmol/l]	Color
301	570	1,433	2,797.6	98	22.3	2,240.37	6,333.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
 Modified: 10/14/2014 3:16:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : MM026 lib

Number of peaks found: 3 Corr. Area 1: 1,899.7
 Noise: 0.2

Peak table for sample 6 : MM026 lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	511	745.22	2,209.3	
3	551	297.61	819.0	
4	588	752.96	1,939.2	
5	10,380	75.00	10.9	Upper Marker

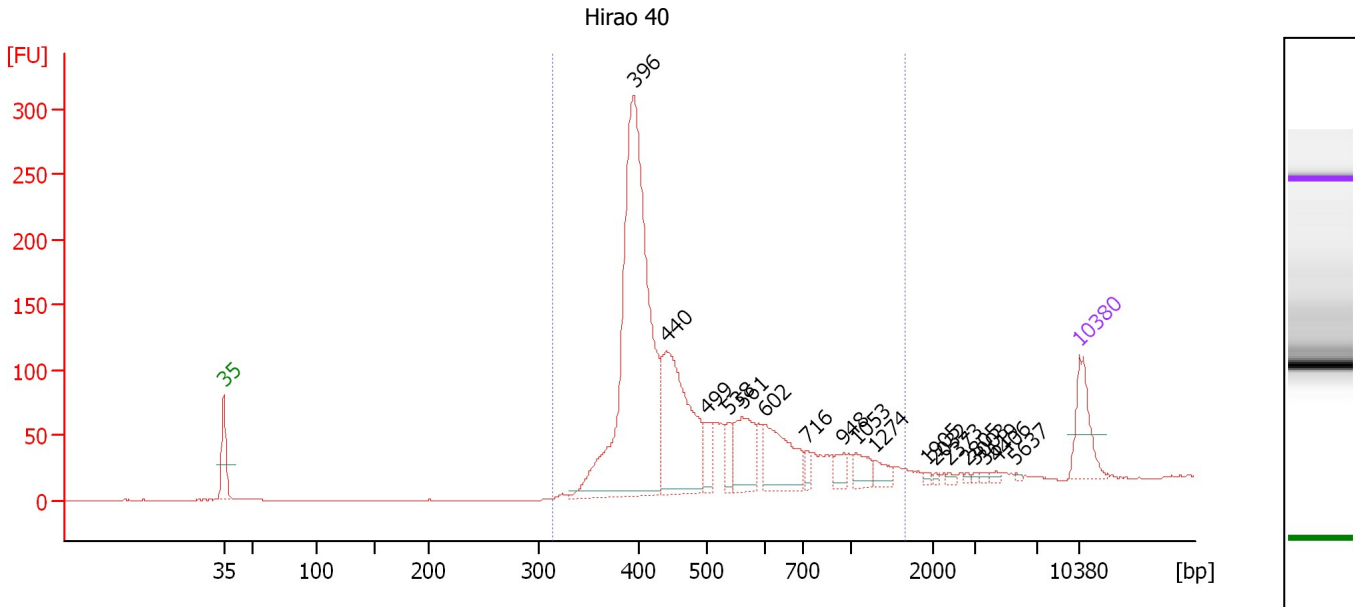
Region table for sample 6 : MM026 lib

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
282	569	1,461	1,899.7	99	22.6	2,090.32	5,932.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
 Modified: 10/14/2014 3:16:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Hirao 40

Number of peaks found: 18 Corr. Area 1: 1,914.9
 Noise: 0.2

Peak table for sample 7 : Hirao 40

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	396	1,018.17	3,898.9	
3	440	368.66	1,268.9	
4	499	46.23	140.4	
5	538	36.86	103.8	
6	561	118.43	319.7	
7	602	135.66	341.6	
8	716	17.16	36.3	
9	948	26.82	42.9	
10	1,053	32.56	46.8	
11	1,274	23.35	27.8	
12	1,905	4.60	3.7	
13	2,032	3.56	2.7	
14	2,373	5.01	3.2	
15	2,805	3.37	1.8	
16	3,003	3.12	1.6	
17	3,619	5.22	2.2	
18	4,406	5.12	1.8	
19	5,637	2.64	0.7	
20	10,380	75.00	10.9	Upper Marker

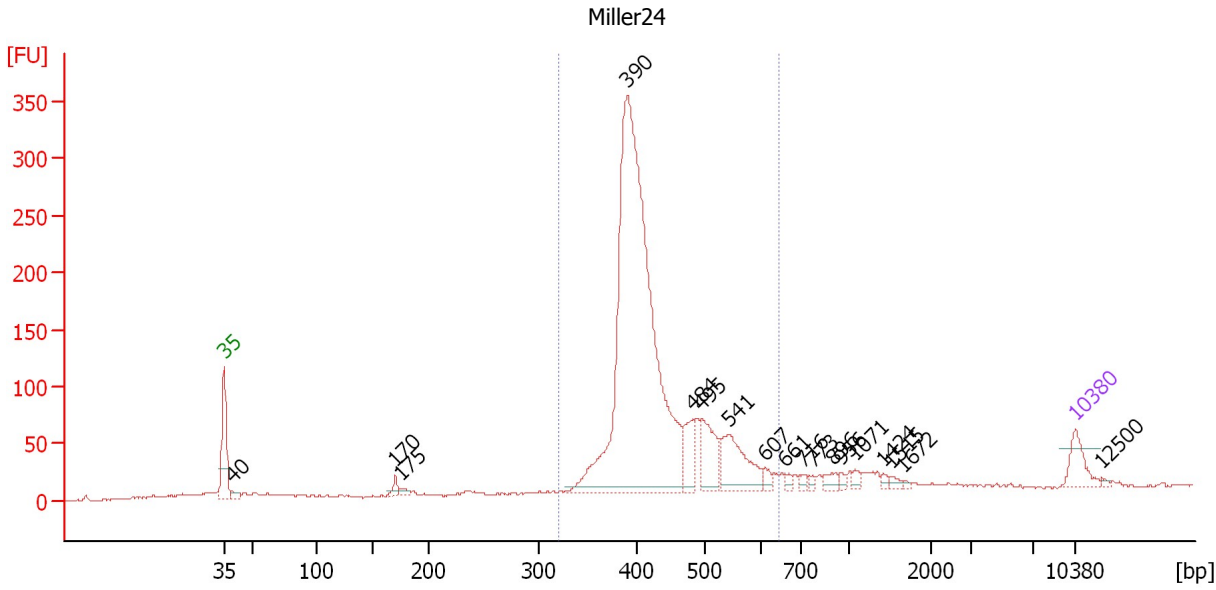
Region table for sample 7 : Hirao 40

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
314	517	1,646	1,914.9	97	40.2	1,825.65	6,005.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
 Modified: 10/14/2014 3:16:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : Miller24

Number of peaks found: 18 Corr. Area 1: 1,873.7
 Noise: 1.0

Peak table for sample 8 : Miller24

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	26.17	1,002.0	
3	170	31.66	282.0	
4	175	20.53	177.3	
5	390	2,620.78	10,170.6	
6	484	133.11	417.1	
7	495	187.35	573.2	
8	541	243.29	681.4	
9	607	27.79	69.4	
10	661	14.77	33.8	
11	716	17.90	37.9	
12	773	12.72	24.9	
13	896	30.26	51.2	
14	956	14.08	22.3	
15	1,071	19.20	27.2	
16	1,424	11.05	11.8	
17	1,515	13.89	13.9	
18	1,672	6.42	5.8	
19	10,380	75.00	10.9	Upper Marker
20	12,500	0.00	0.0	

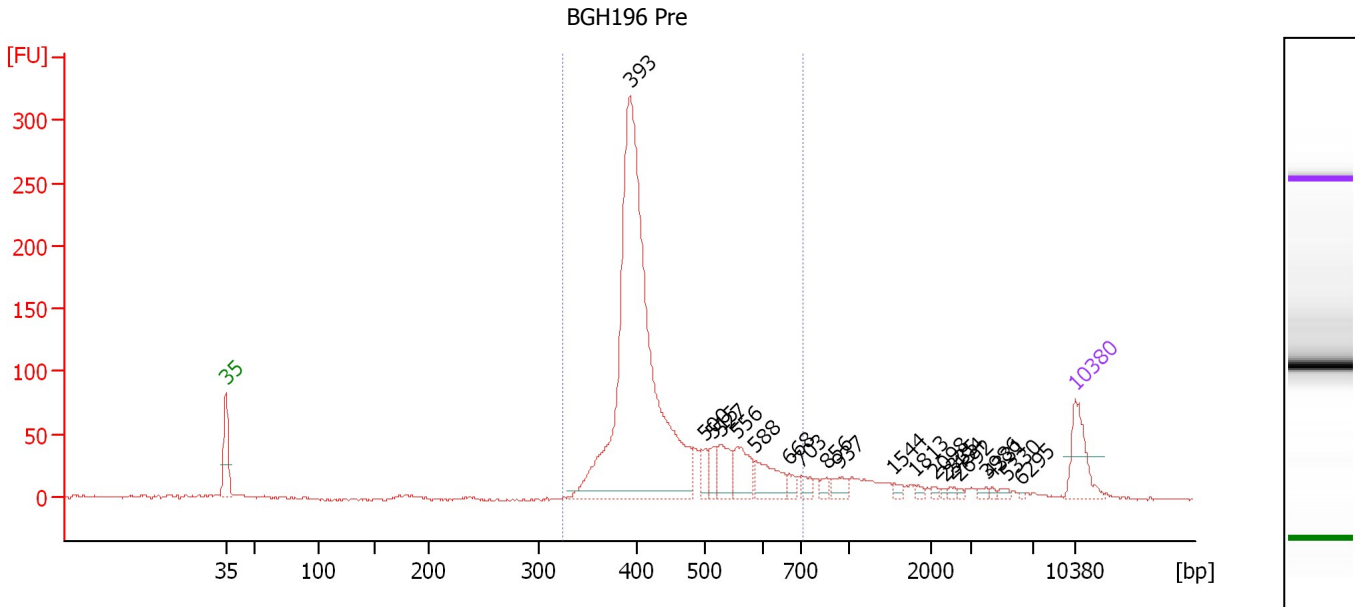
Region table for sample 8 : Miller24

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
322	431	644	1,873.7	84	13.8	3,251.98	11,669.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
 Modified: 10/14/2014 3:16:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : BGH196 Pre

Number of peaks found: 20 Corr. Area 1: 1,545.2
 Noise: 1.1

Peak table for sample 9 : BGH196 Pre

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	393	1,374.95	5,303.3	
3	500	34.51	104.6	
4	515	32.77	96.5	
5	527	66.85	192.3	
6	556	80.45	219.3	
7	588	76.18	196.4	
8	668	17.40	39.5	
9	703	19.73	42.5	
10	856	13.99	24.7	
11	937	25.27	40.9	
12	1,544	9.00	8.8	
13	1,813	7.04	5.9	
14	2,098	5.15	3.7	
15	2,335	3.84	2.5	
16	2,494	5.07	3.1	
17	2,692	3.56	2.0	
18	3,986	6.62	2.5	
19	4,331	3.85	1.3	
20	5,330	6.45	1.8	
21	6,295	2.06	0.5	
22	10,380	75.00	10.9	Upper Marker

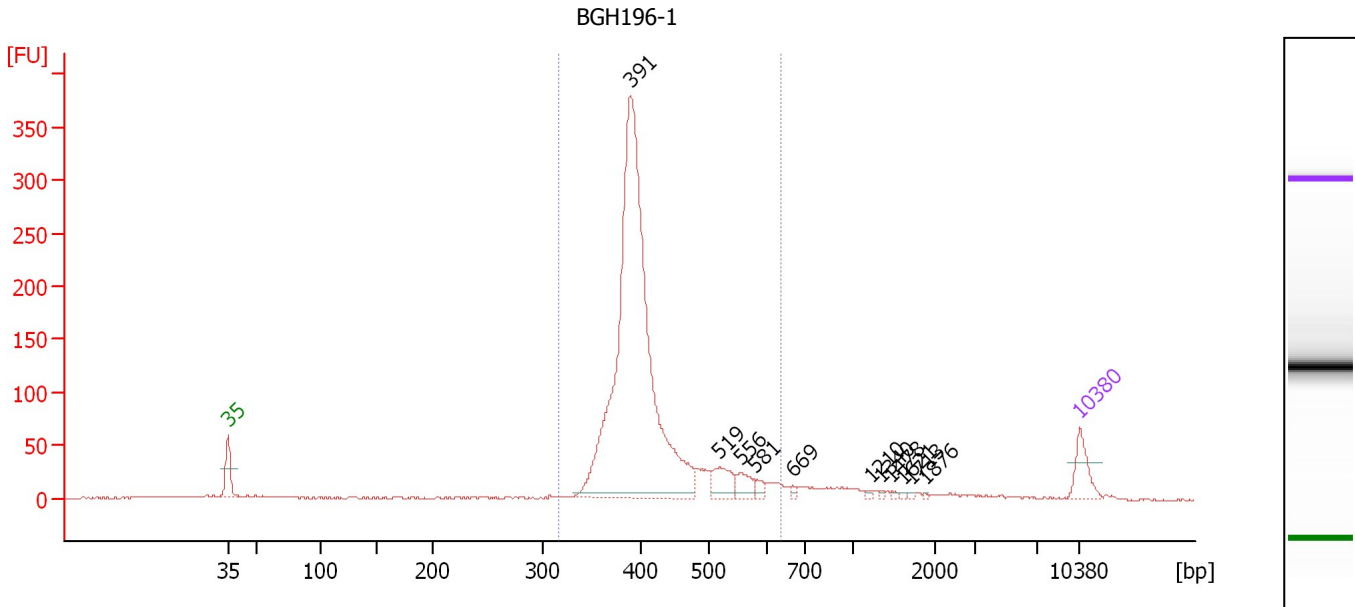
Region table for sample 9 : BGH196 Pre

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
325	441	715	1,545.2	88	17.4	1,695.85	6,017.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
 Modified: 10/14/2014 3:16:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : BGH196-1

Number of peaks found: 11 Corr. Area 1: 1,668.4
 Noise: 0.7

Peak table for sample 10 : BGH196-1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	391	2,283.84	8,856.5	
3	519	96.51	281.8	
4	556	58.83	160.2	
5	581	24.31	63.4	
6	669	10.54	23.9	
7	1,210	6.54	8.2	
8	1,340	5.19	5.9	
9	1,478	5.41	5.5	
10	1,621	4.09	3.8	
11	1,713	4.54	4.0	
12	1,876	3.00	2.4	
13	10,380	75.00	10.9	Upper Marker

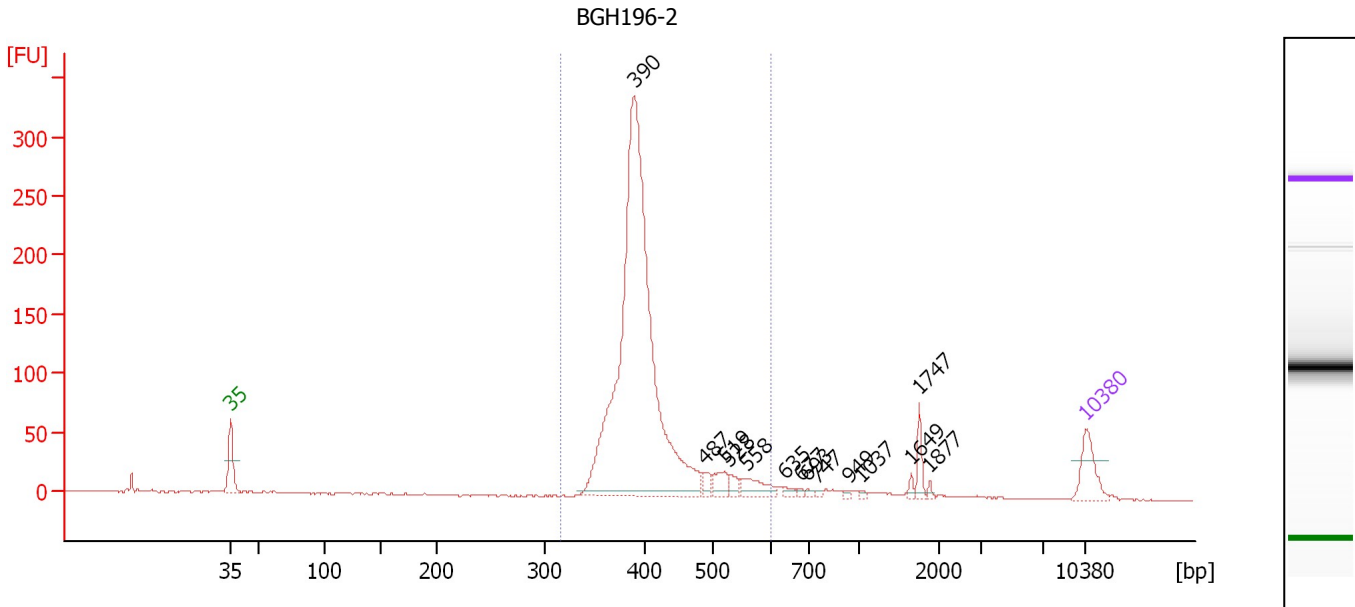
Region table for sample 10 : BGH196-1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
318	416	640	1,668.4	87	13.6	2,594.98	9,642.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
 Modified: 10/14/2014 3:16:17 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : BGH196-2

Number of peaks found: 14 Corr. Area 1: 1,405.9
 Noise: 0.7

Peak table for sample 11 : BGH196-2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	390	1,975.66	7,680.9	
3	487	25.90	80.6	
4	519	46.72	136.5	
5	528	26.97	77.4	
6	558	64.54	175.4	
7	635	13.41	32.0	
8	677	6.18	13.8	
9	693	8.76	19.1	
10	747	5.99	12.2	
11	949	5.72	9.1	
12	1,037	5.43	7.9	
13	1,649	10.01	9.2	
14	1,747	36.17	31.4	
15	1,877	6.77	5.5	
16	10,380	75.00	10.9	Upper Marker

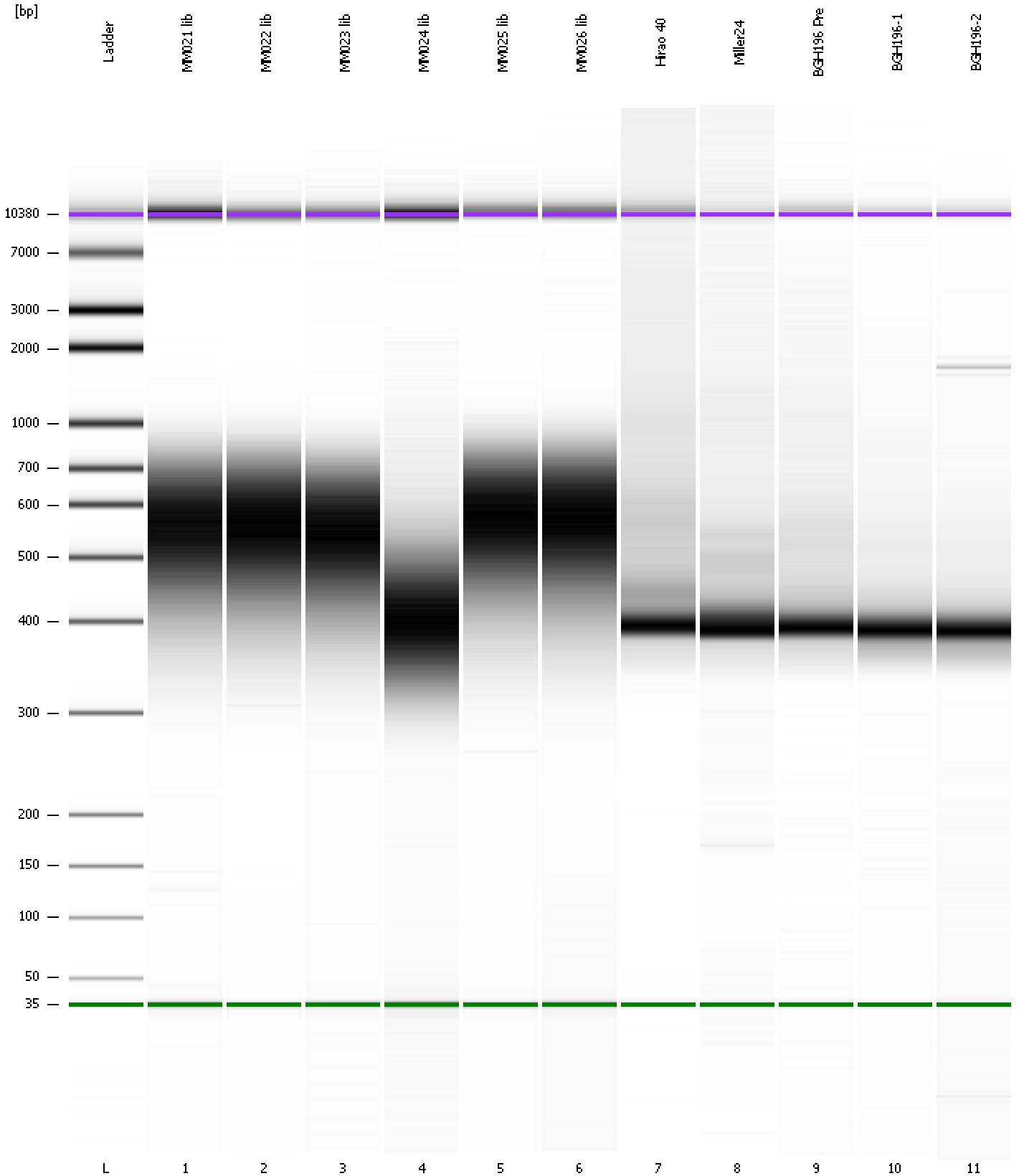
Region table for sample 11 : BGH196-2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
315	407	602	1,405.9	90	11.5	2,135.07	8,047.4	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
Modified: 10/14/2014 3:16:17 PM

Gel Image

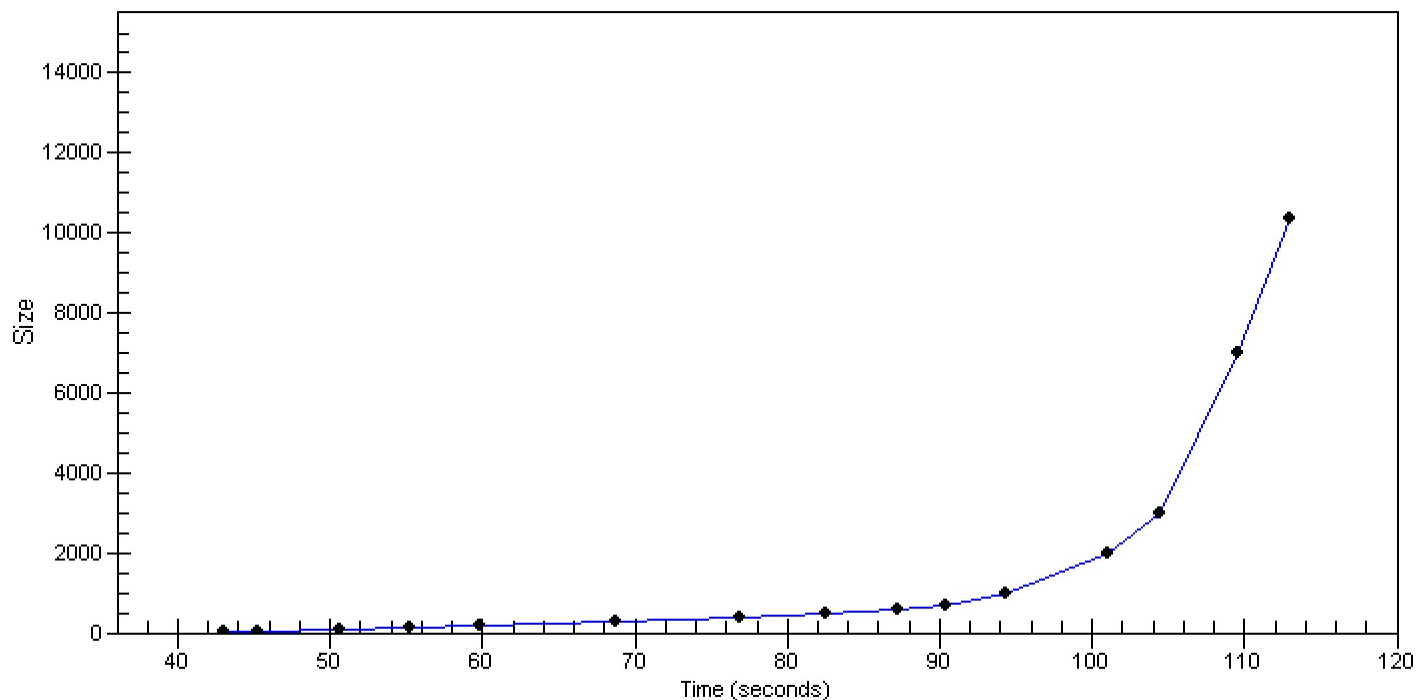


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
Modified: 10/14/2014 3:16:17 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-14\2014-10-14_002.xad

Created: 10/14/2014 2:34:27 PM
 Modified: 10/14/2014 3:16:17 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		10/14/2014 3:15:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-10-14\2014-10-14_002.xad)		Instrument	Run		10/14/2014 2:34:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/14/2014 2:34:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/14/2014 2:34:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/14/2014 2:34:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/14/2014 2:34:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/14/2014 2:34:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/14/2014 2:34:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1