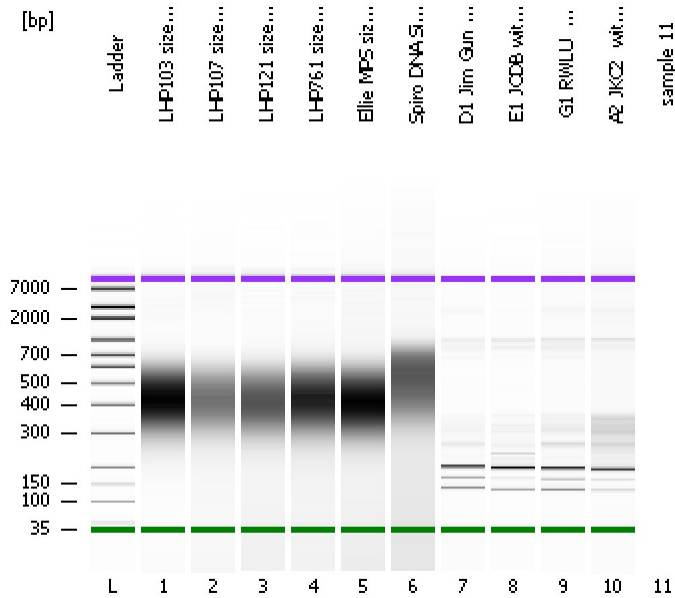


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
Modified: 9/26/2016 12:18:57 PM

Electrophoresis File Run Summary



Instrument Information:

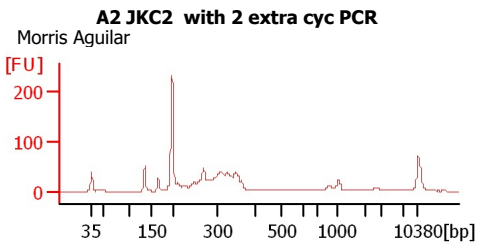
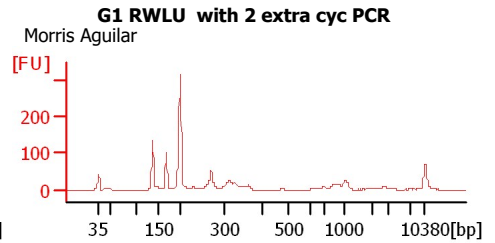
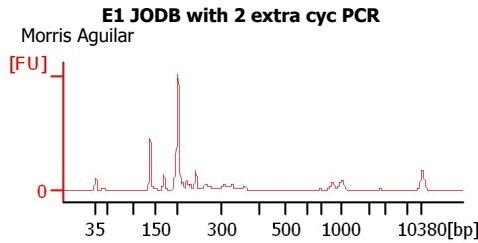
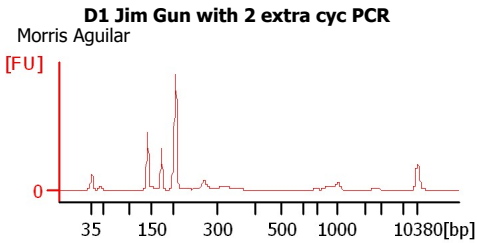
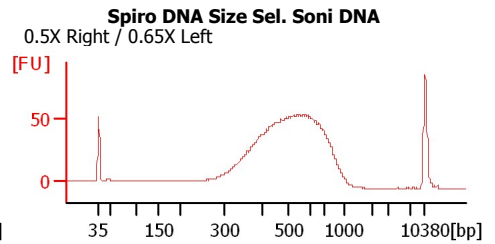
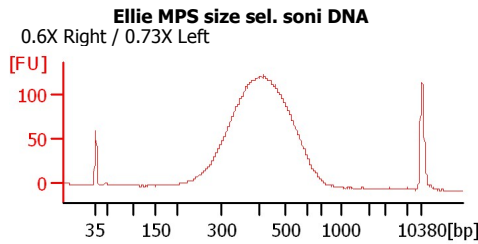
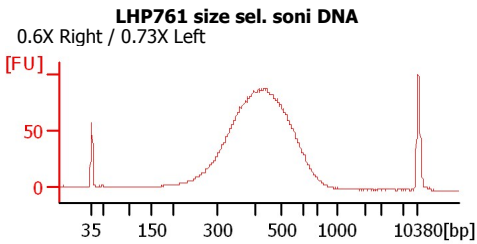
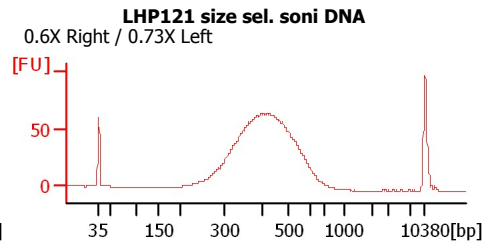
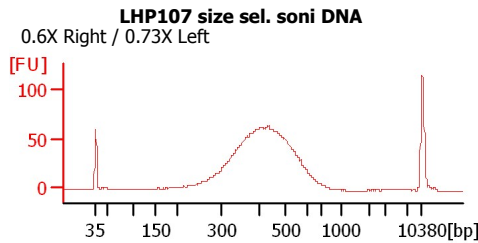
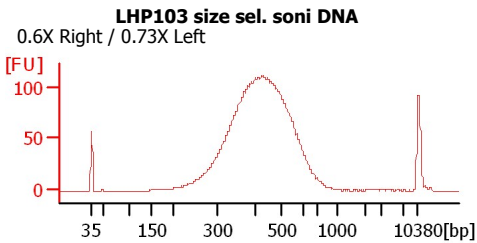
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:\... bioanalyzer\2100 expert\data\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
Modified: 9/26/2016 12:18:57 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
LHP103 size sel. soni DNA	0.6X Right / 0.73X	<input type="checkbox"/>	✓			
LHP107 size sel. soni DNA	0.6X Right / 0.73X	<input type="checkbox"/>	✓			
LHP121 size sel. soni DNA	0.6X Right / 0.73X	<input type="checkbox"/>	✓			
LHP761 size sel. soni DNA	0.6X Right / 0.73X	<input type="checkbox"/>	✓			
Ellie MPS size sel. soni DNA	0.6X Right / 0.73X	<input type="checkbox"/>	✓			
Spiro DNA Size Sel. Soni DNA	0.5X Right / 0.65X	<input type="checkbox"/>	✓			
D1 Jim Gun with 2 extra cyc PCR	Morris Aguilar	<input type="checkbox"/>	✓			
E1 JODB with 2 extra cyc PCR	Morris Aguilar	<input type="checkbox"/>	✓			
G1 RWLU with 2 extra cyc PCR	Morris Aguilar	<input type="checkbox"/>	✓			
A2 JKC2 with 2 extra cyc PCR	Morris Aguilar	<input type="checkbox"/>	✓			
sample 11		<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\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
Modified: 9/26/2016 12:18:57 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

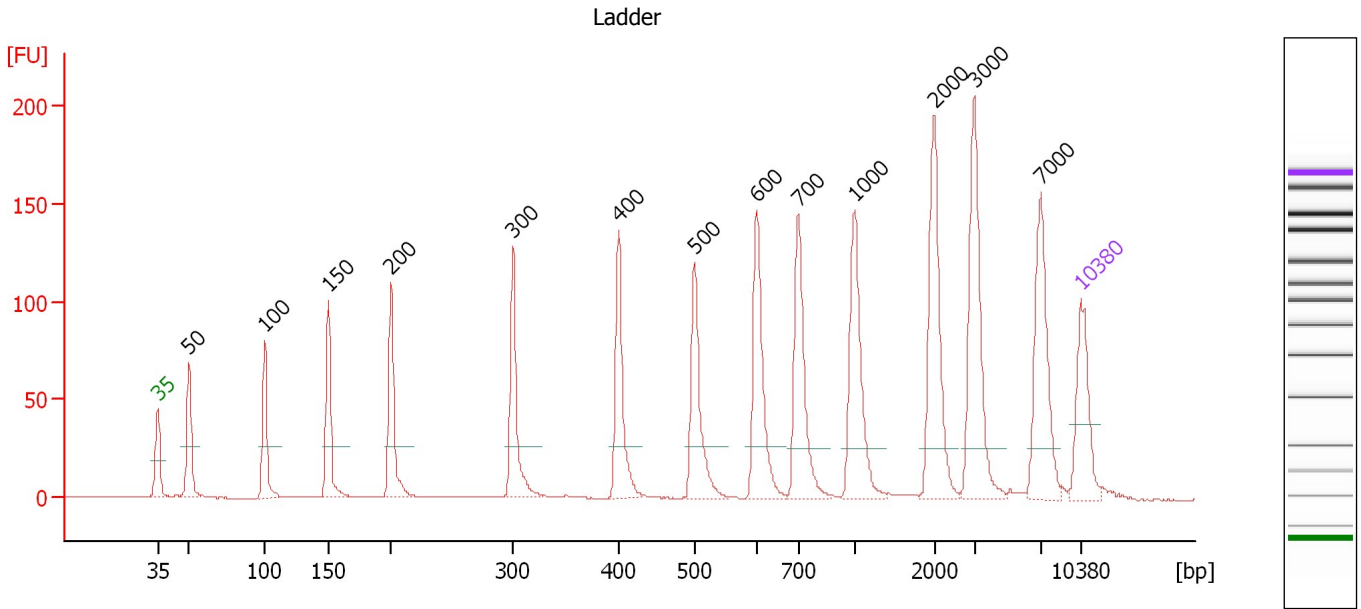
Ladder

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\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
 Modified: 9/26/2016 12:18:57 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

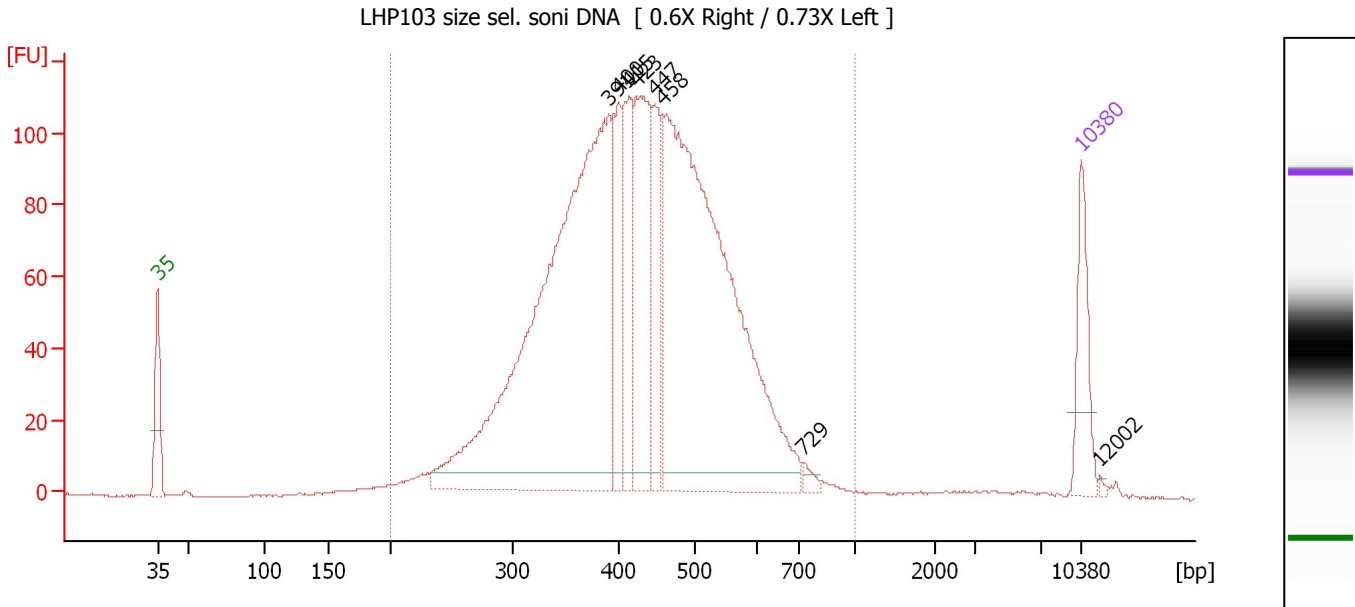
Peak table for Ladder

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	45.41
3	100	150.00	2,272.7	Ladder Peak	51.14
4	150	150.00	1,515.2	Ladder Peak	55.95
5	200	150.00	1,136.4	Ladder Peak	60.72
6	300	150.00	757.6	Ladder Peak	69.96
7	400	150.00	568.2	Ladder Peak	77.95
8	500	150.00	454.5	Ladder Peak	83.73
9	600	150.00	378.8	Ladder Peak	88.45
10	700	150.00	324.7	Ladder Peak	91.58
11	1,000	150.00	227.3	Ladder Peak	95.86
12	2,000	150.00	113.6	Ladder Peak	101.88
13	3,000	150.00	75.8	Ladder Peak	104.91
14	7,000	150.00	32.5	Ladder Peak	109.97
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
 Modified: 9/26/2016 12:18:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : LHP103 size sel. soni DNA

Number of peaks found: 8 Corr. Area 1: 2,228.5
 Noise: 0.2

Peak table for sample 1 : LHP103 size sel. soni DNA

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	391	1,121.96	4,352.3		77.20
3	400	142.88	540.6		77.98
4	415	144.88	529.4		78.80
5	423	261.05	934.9		79.29
6	447	129.60	438.9		80.69
7	458	1,010.97	3,341.9		81.32
8	729	10.90	22.6		92.00
9	10,380	75.00	10.9	Upper Marker	113.00
10	12,002	0.00	0.0		114.46

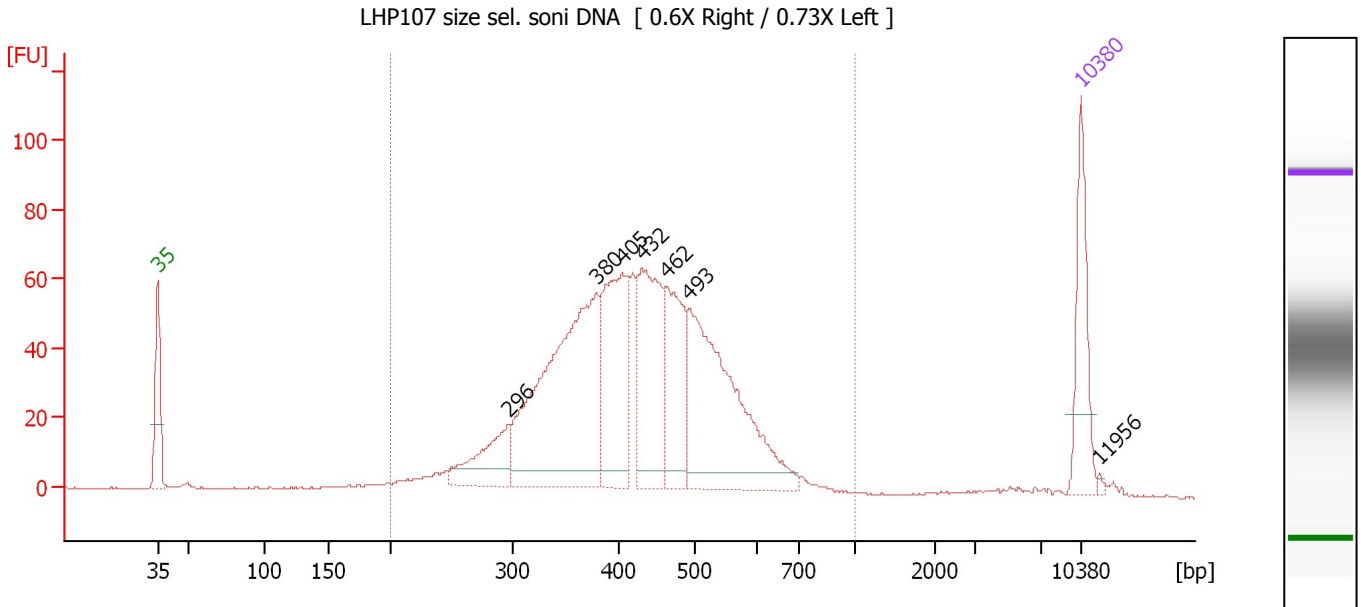
Region table for sample 1 : LHP103 size sel. soni DNA

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	433	2,228.5	11,499.0	3,044.99	98	23.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
 Modified: 9/26/2016 12:18:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : LHP107 size sel. soni DNA

Number of peaks found: 7 Corr. Area 1: 1,253.7
 Noise: 0.3

Peak table for sample 2 : LHP107 size sel. soni DNA

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	296	89.37	456.7		69.63
3	380	398.38	1,590.3		76.32
4	405	188.20	704.7		78.22
5	432	174.91	614.0		79.78
6	462	128.62	421.8		81.54
7	493	303.63	932.6		83.34
8	10,380	75.00	10.9	Upper Marker	113.00
9	11,956	0.00	0.0		114.41

Region table for sample 2 : LHP107 size sel. soni DNA

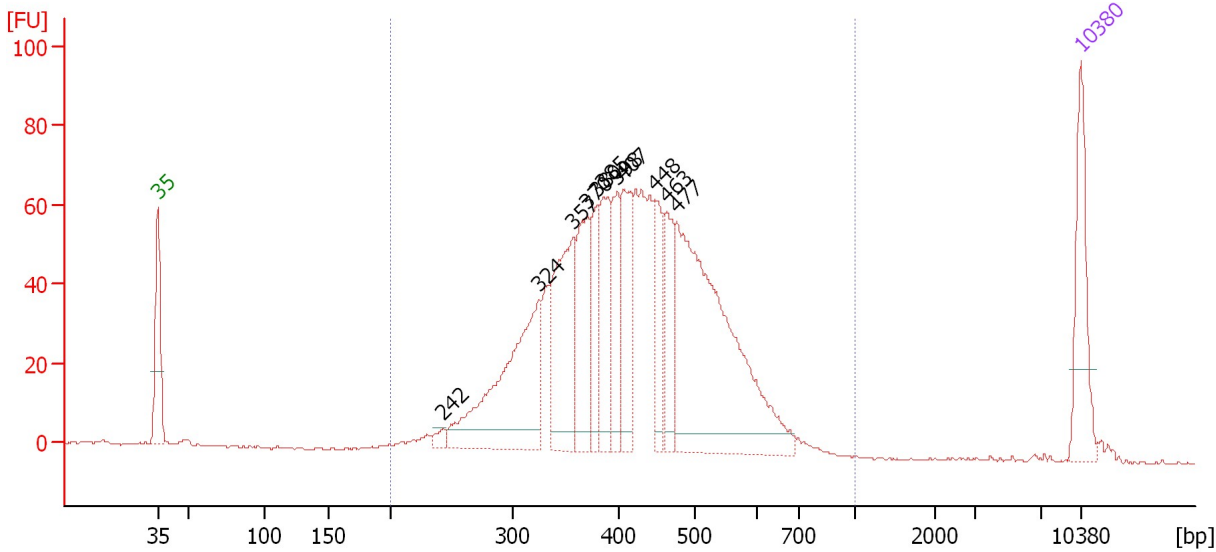
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	429	1,253.7	5,577.5	1,462.86	97	23.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
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Electropherogram Summary Continued ...

LHP121 size sel. soni DNA [0.6X Right / 0.73X Left]



Overall Results for sample 3 : LHP121 size sel. soni DNA

Number of peaks found: 11 Corr. Area 1: 1,304.6
 Noise: 0.3

Peak table for sample 3 : LHP121 size sel. soni DNA

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	242	10.40	65.1		64.62
3	324	252.14	1,179.1		71.88
4	357	168.62	714.9		74.54
5	370	113.23	463.3		75.58
6	380	66.44	264.7		76.37
7	385	100.20	394.2		76.77
8	398	67.84	258.2		77.80
9	407	94.55	352.1		78.35
10	448	67.66	228.9		80.72
11	463	72.83	238.2		81.60
12	477	416.82	1,324.3		82.39
13	10,380	75.00	10.9	Upper Marker	113.00

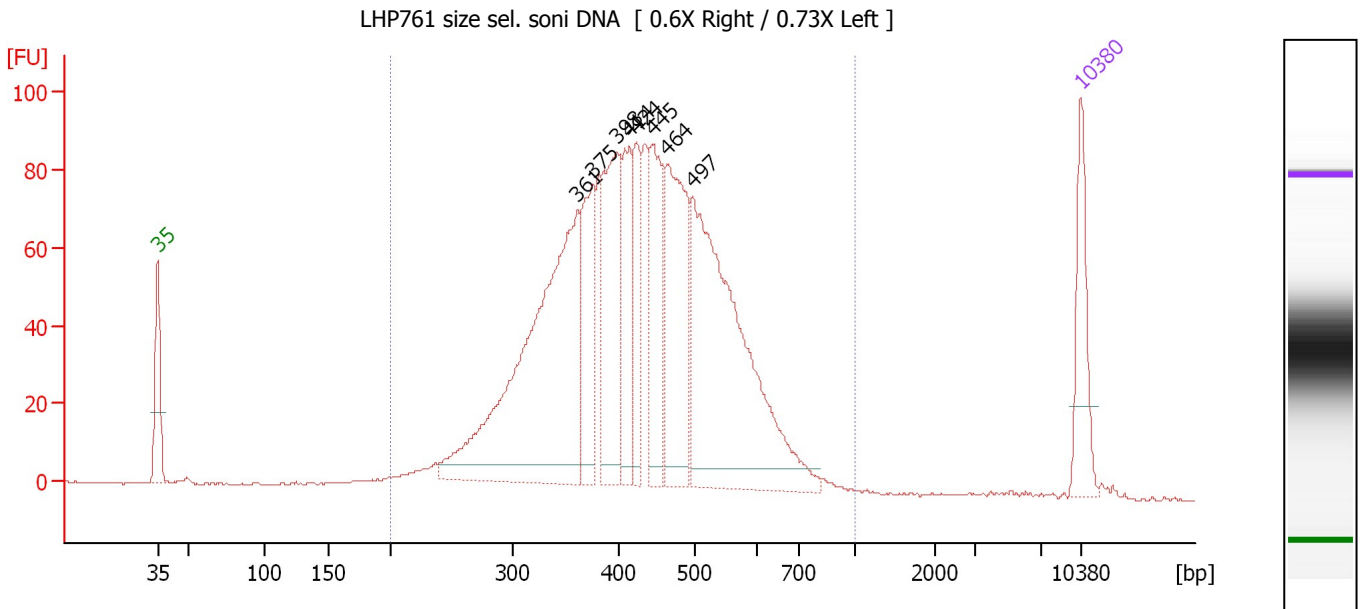
Region table for sample 3 : LHP121 size sel. soni DNA

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	422	1,304.6	6,490.5	1,690.32	99	21.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
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Electropherogram Summary Continued ...



Overall Results for sample 4 : LHP761 size sel. soni DNA

Number of peaks found: 8 Corr. Area 1: 1,777.9
 Noise: 0.3

Peak table for sample 4 : LHP761 size sel. soni DNA

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	361	565.15	2,372.2		74.83
3	375	131.82	532.0		75.99
4	398	193.90	738.0		77.80
5	414	115.78	423.8		78.75
6	424	89.21	318.5		79.36
7	445	139.11	473.4		80.56
8	464	223.15	728.1		81.67
9	497	497.60	1,515.6		83.58
10	10,380	75.00	10.9	Upper Marker	113.00

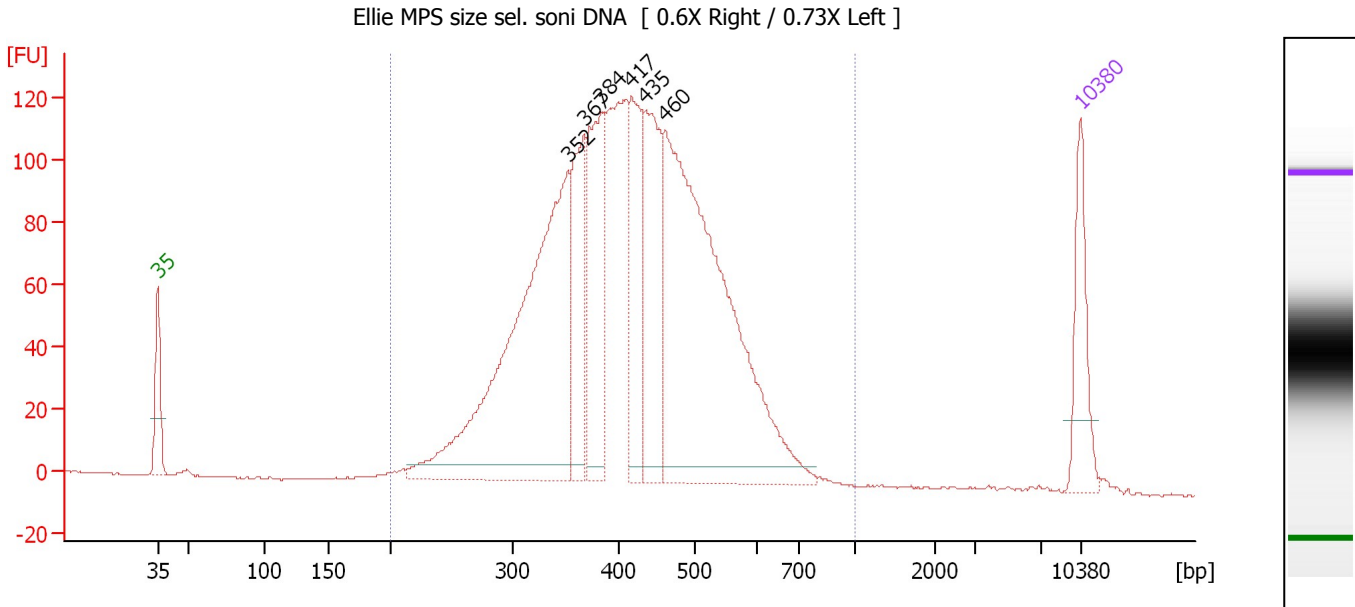
Region table for sample 4 : LHP761 size sel. soni DNA

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	432	1,777.9	8,592.8	2,269.05	98	23.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
 Modified: 9/26/2016 12:18:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Ellie MPS size sel. soni DNA

Number of peaks found: 6 Corr. Area 1: 2,445.3
 Noise: 0.3

Peak table for sample 5 : Ellie MPS size sel. soni DNA

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	352	697.08	2,997.4		74.15
3	367	169.89	701.3		75.32
4	384	226.73	895.4		76.65
5	417	162.79	591.2		78.94
6	435	207.93	724.5		79.97
7	460	773.27	2,544.3		81.45
8	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 5 : Ellie MPS size sel. soni DNA

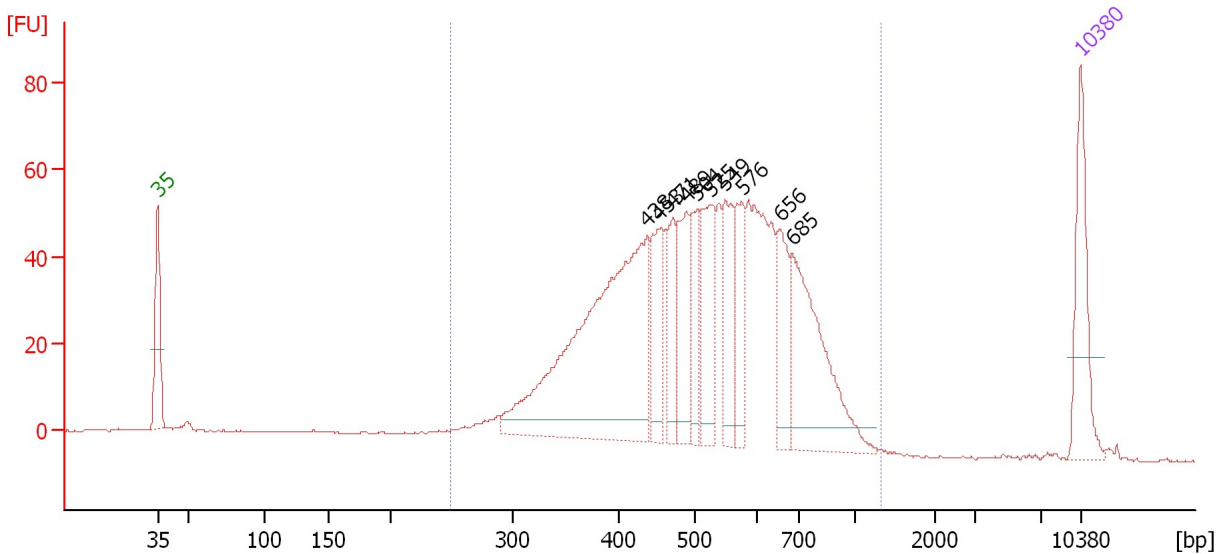
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	422	2,445.3	10,082.5	2,613.76	99	22.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
 Modified: 9/26/2016 12:18:57 PM

Electropherogram Summary Continued ...

Spiro DNA Size Sel. Soni DNA [0.5X Right / 0.65X Left]



Overall Results for sample 6 : Spiro DNA Size Sel. Soni DNA

Number of peaks found: 10 Corr. Area 1: 1,207.5
 Noise: 0.2

Peak table for sample 6 : Spiro DNA Size Sel. Soni DNA

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	438	481.65	1,665.5		80.16
3	453	74.28	248.2		81.04
4	471	71.95	231.2		82.08
5	489	87.10	269.6		83.12
6	504	65.04	195.7		83.90
7	525	87.66	253.2		84.89
8	549	76.77	212.0		86.03
9	576	69.41	182.5		87.33
10	656	72.92	168.5		90.19
11	685	192.36	425.2		91.12
12	10,380	75.00	10.9	Upper Marker	113.00

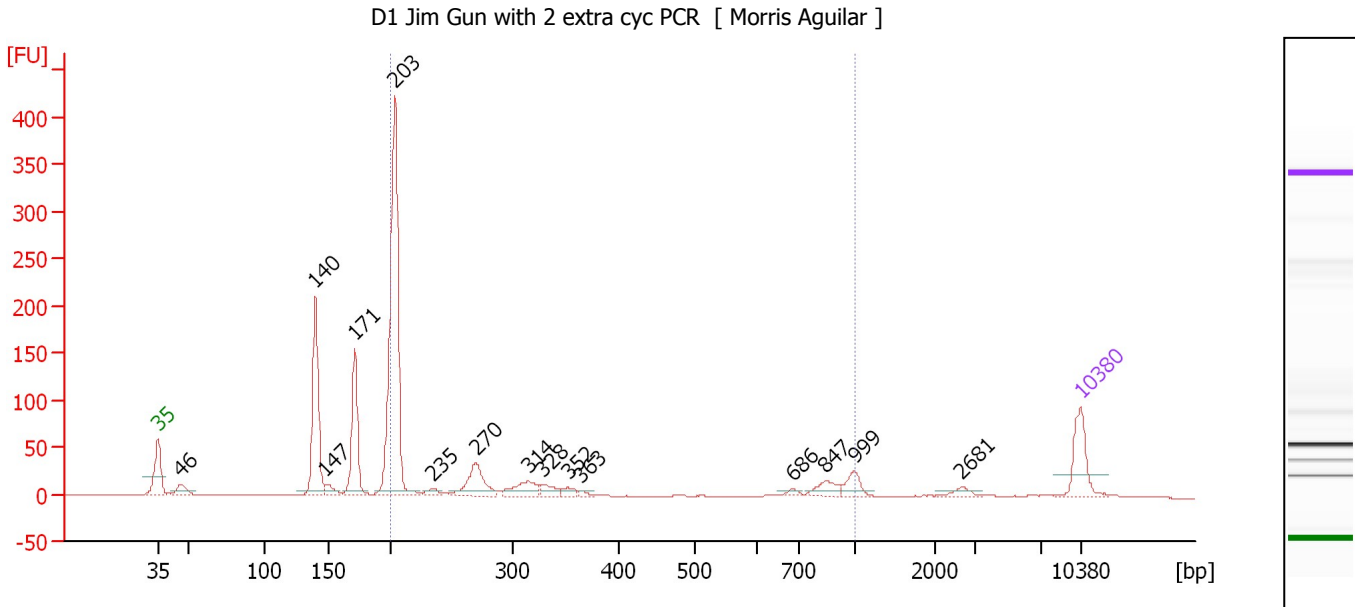
Region table for sample 6 : Spiro DNA Size Sel. Soni DNA

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
248	1,327	526	1,207.5	5,394.0	1,691.06	93	27.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
 Modified: 9/26/2016 12:18:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : D1 Jim Gun with 2 extra cyc PCR

Number of peaks found: 15 Corr. Area 1: 657.6
 Noise: 0.2

Peak table for sample 7 : D1 Jim Gun with 2 extra cyc PCR

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	46	35.86	1,175.6		44.80
3	140	305.46	3,310.9		54.97
4	147	28.31	292.0		55.66
5	171	213.67	1,895.6		57.93
6	203	692.67	5,167.4		61.00
7	235	16.92	109.2		63.92
8	270	99.60	559.8		67.15
9	314	53.77	259.1		71.12
10	328	22.52	104.1		72.18
11	352	15.53	66.8		74.13
12	363	6.80	28.3		75.03
13	686	8.71	19.2		91.13
14	847	29.92	53.5		93.67
15	999	31.68	48.1		95.84
16	2,681	12.75	7.2		103.95
17	10,380	75.00	10.9	Upper Marker	113.00

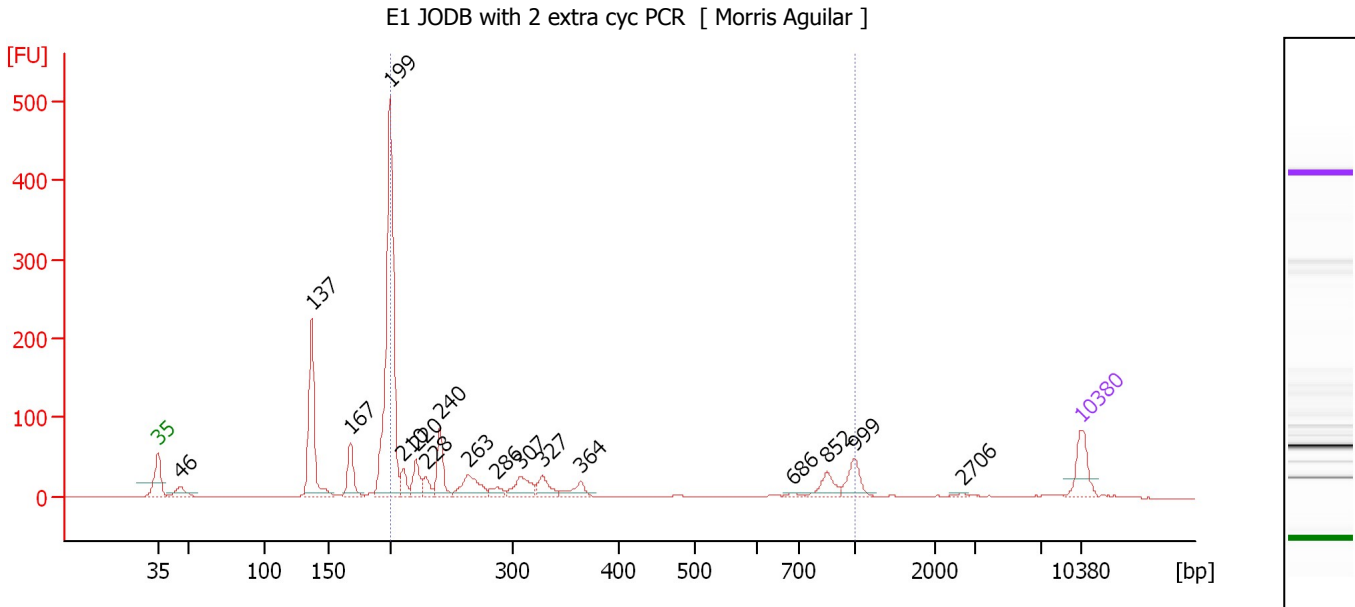
Region table for sample 7 : D1 Jim Gun with 2 extra cyc PCR

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	335	657.6	5,448.0	883.81	54	67.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
 Modified: 9/26/2016 12:18:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : E1 JODB with 2 extra cyc PCR

Number of peaks found: 17 Corr. Area 1: 737.2
 Noise: 0.2

Peak table for sample 8 : E1 JODB with 2 extra cyc PCR

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	46	54.20	1,793.4		44.73
3	137	396.70	4,391.9		54.68
4	167	112.90	1,022.0		57.61
5	199	935.24	7,115.5		60.64
6	210	50.22	363.0		61.61
7	220	73.35	504.7		62.58
8	228	41.40	274.6		63.34
9	240	118.67	748.9		64.42
10	263	106.71	615.0		66.53
11	286	28.25	149.5		68.70
12	307	80.79	398.5		70.53
13	327	57.40	265.5		72.16
14	364	44.37	184.7		75.08
15	686	7.56	16.7		91.15
16	852	51.42	91.5		93.74
17	999	64.26	97.4		95.85
18	2,706	5.76	3.2		104.02
19	10,380	75.00	10.9	Upper Marker	113.00

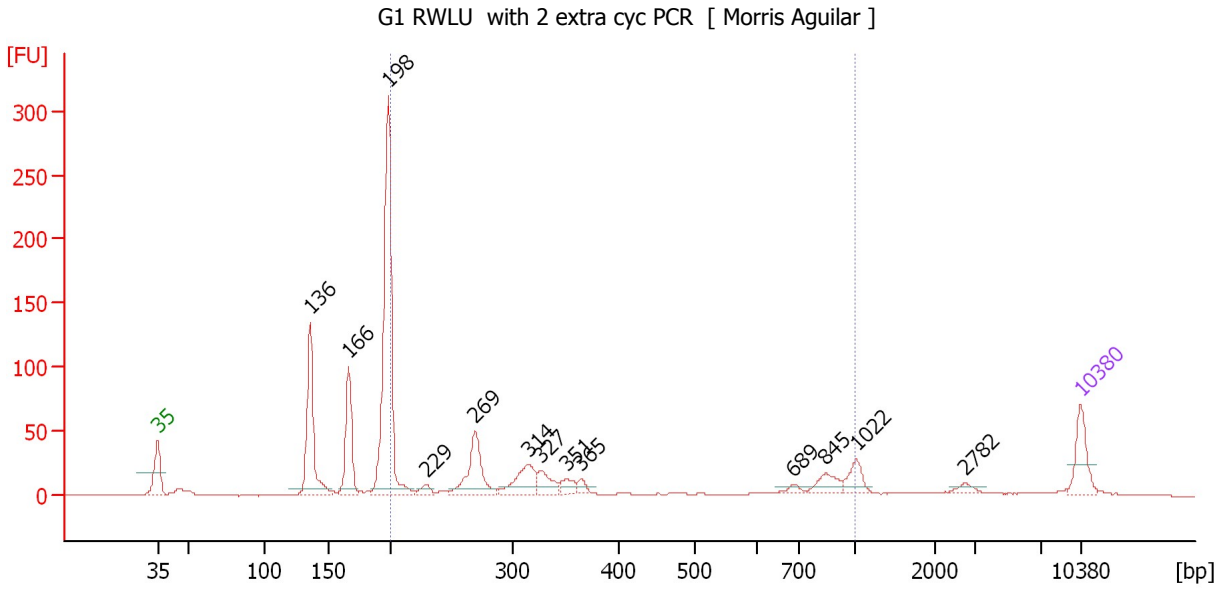
Region table for sample 8 : E1 JODB with 2 extra cyc PCR

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	367	737.2	6,697.0	1,169.77	49	65.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
 Modified: 9/26/2016 12:18:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : G1 RWLU with 2 extra cyc PCR

Number of peaks found: 13 Corr. Area 1: 453.5
 Noise: 0.1

Peak table for sample 9 : G1 RWLU with 2 extra cyc PCR

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	136	359.64	4,009.3		54.59
3	166	220.47	2,010.3		57.49
4	198	796.20	6,101.2		60.50
5	229	24.79	164.0		63.40
6	269	177.30	999.9		67.06
7	314	108.39	522.4		71.11
8	327	58.68	272.1		72.09
9	351	32.89	141.8		74.06
10	365	20.55	85.3		75.16
11	689	11.43	25.1		91.23
12	845	43.83	78.6		93.64
13	1,022	46.61	69.1		95.99
14	2,782	12.98	7.1		104.25
15	10,380	75.00	10.9	Upper Marker	113.00

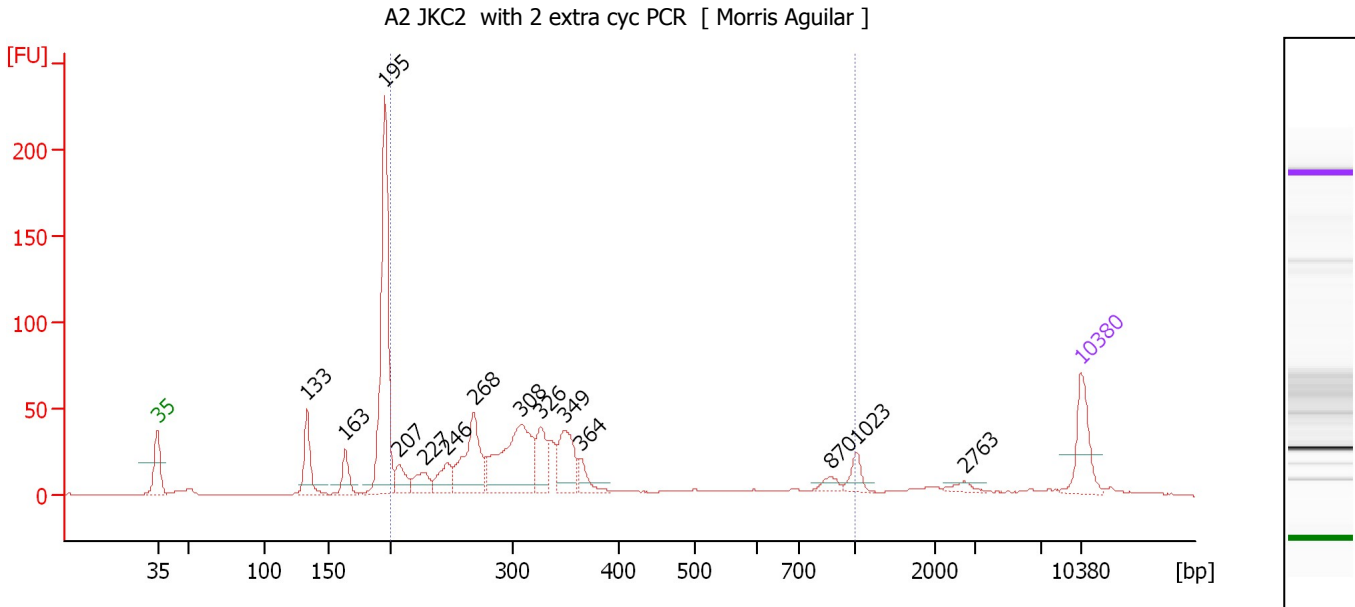
Region table for sample 9 : G1 RWLU with 2 extra cyc PCR

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	420	453.5	4,550.3	923.03	41	56.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
 Modified: 9/26/2016 12:18:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : A2 JKC2 with 2 extra cyc PCR

Number of peaks found: 14 Corr. Area 1: 626.2
 Noise: 0.1

Peak table for sample 10 : A2 JKC2 with 2 extra cyc PCR

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	133	103.56	1,176.2		54.35
3	163	52.32	485.0		57.23
4	195	476.32	3,704.3		60.22
5	207	49.42	362.4		61.33
6	227	47.81	319.1		63.21
7	246	57.82	355.8		64.99
8	268	171.69	971.5		66.98
9	308	264.08	1,300.2		70.58
10	326	82.57	383.2		72.07
11	349	104.65	453.9		73.90
12	364	34.83	145.0		75.06
13	870	18.11	31.5		94.00
14	1,023	28.44	42.1		96.00
15	2,763	11.37	6.2		104.19
16	10,380	75.00	10.9	Upper Marker	113.00

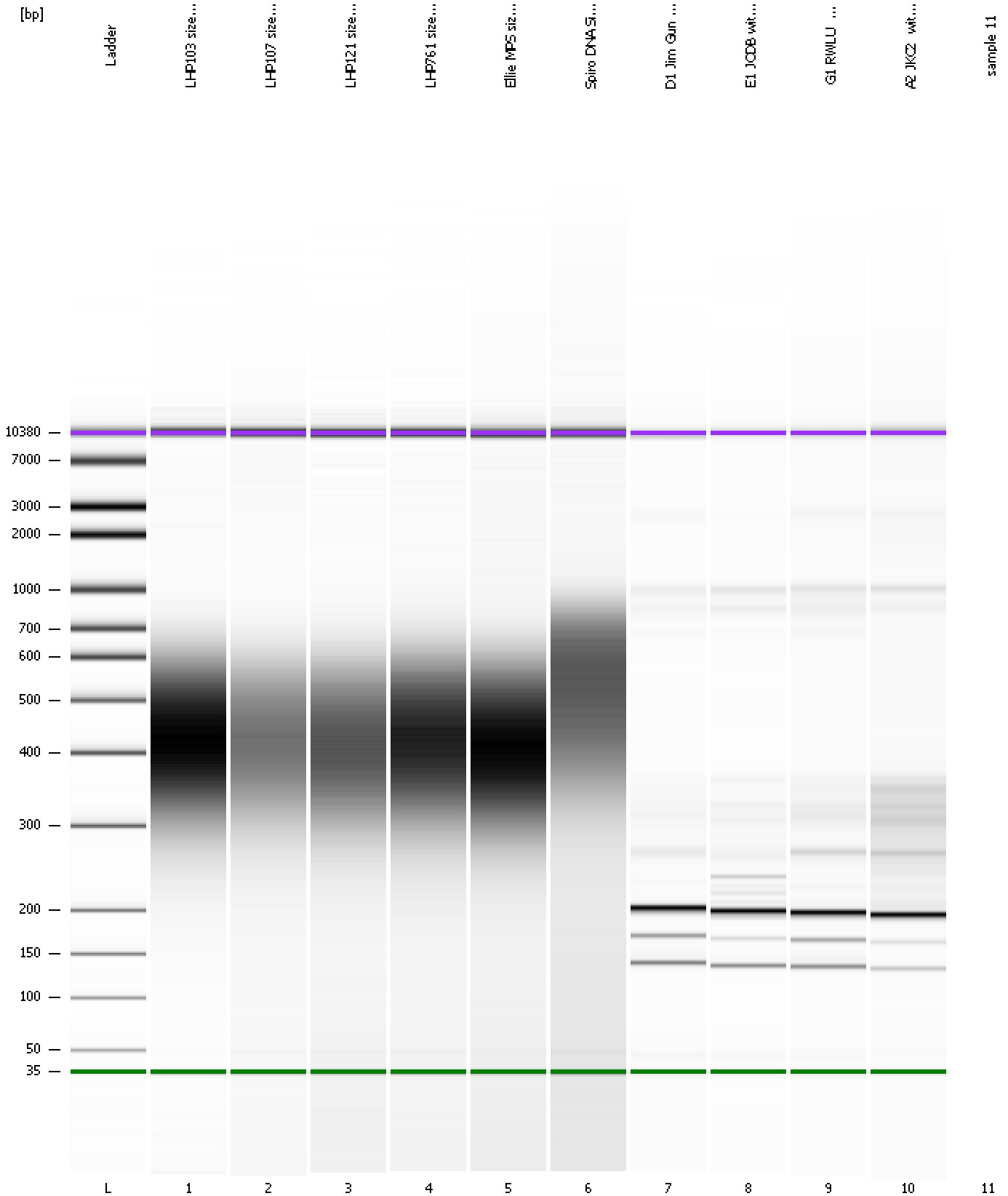
Region table for sample 10 : A2 JKC2 with 2 extra cyc PCR

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	369	626.2	5,478.5	1,120.04	58	47.8

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
Modified: 9/26/2016 12:18:57 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
Modified: 9/26/2016 12:18:57 PM

Invalid Samples

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-26\2016-09-26_001.xad

Created: 9/26/2016 11:30:43 AM
 Modified: 9/26/2016 12:18:57 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 11)		Instrument	Run		9/26/2016 12:09:39 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\2016-09-26\2016-09-26_001.xad)		Instrument	Run		9/26/2016 11:30:48 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/26/2016 11:30:48 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/26/2016 11:30:48 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/26/2016 11:30:48 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/26/2016 11:30:48 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/26/2016 11:30:48 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/26/2016 11:30:48 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1