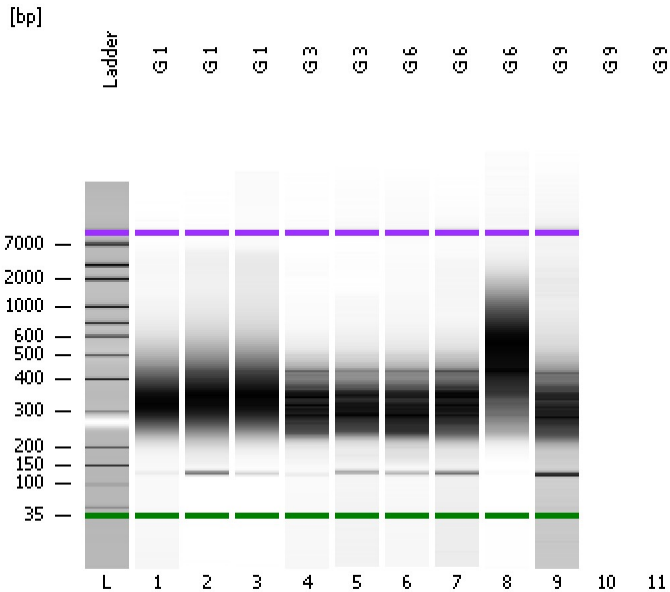


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
Modified: 5/2/2016 3:54:29 PM

Electrophoresis File Run Summary



Instrument Information:

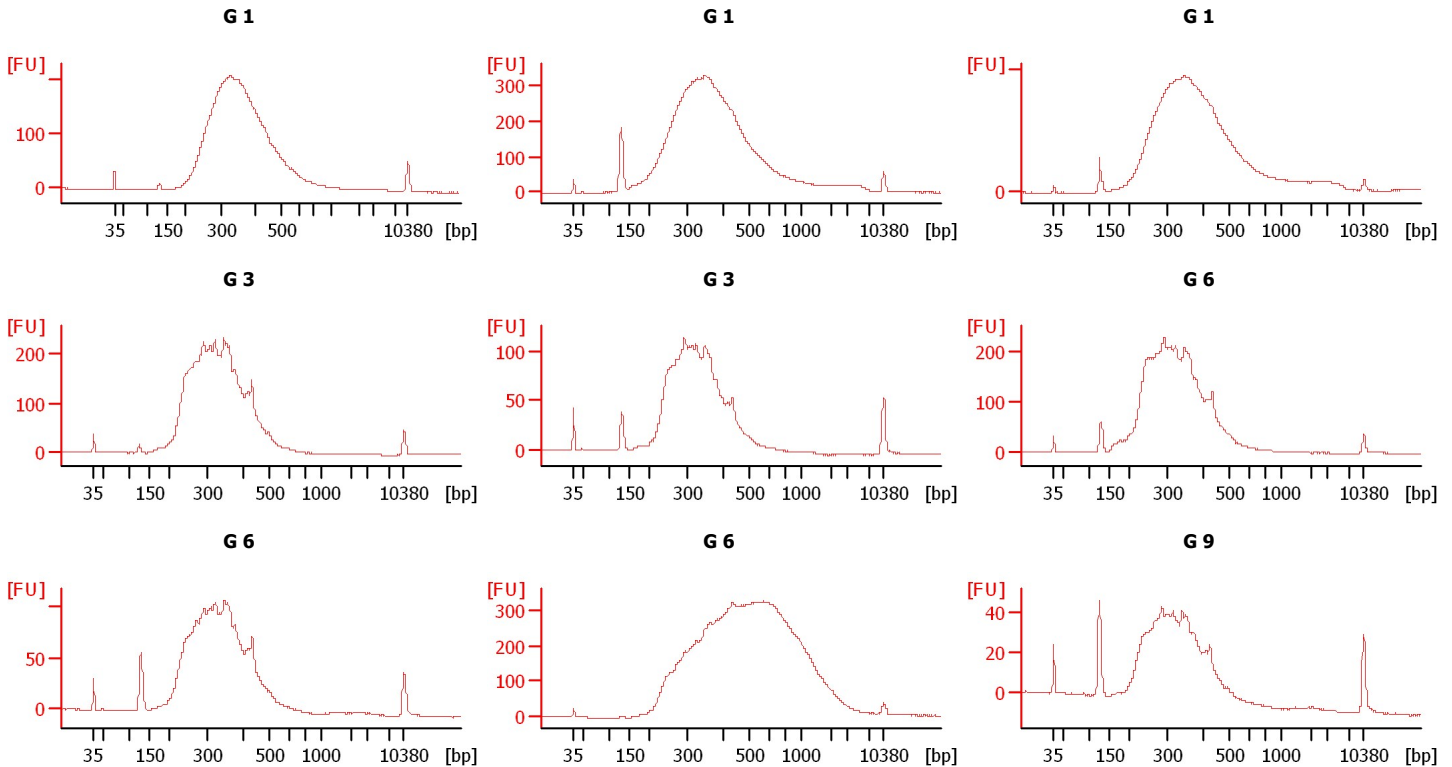
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
 Modified: 5/2/2016 3:54:29 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
G 1		<input type="checkbox"/>	✓			
G 1		<input type="checkbox"/>	✓			
G 1		<input type="checkbox"/>	✓			
G 3		<input type="checkbox"/>	✓			
G 3		<input type="checkbox"/>	✓			
G 6		<input type="checkbox"/>	✓			
G 6		<input type="checkbox"/>	✓			
G 6		<input type="checkbox"/>	✓			
G 9		<input type="checkbox"/>	✓			
G 9		<input type="checkbox"/>	✓			
G 9		<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\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
Modified: 5/2/2016 3:54:29 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

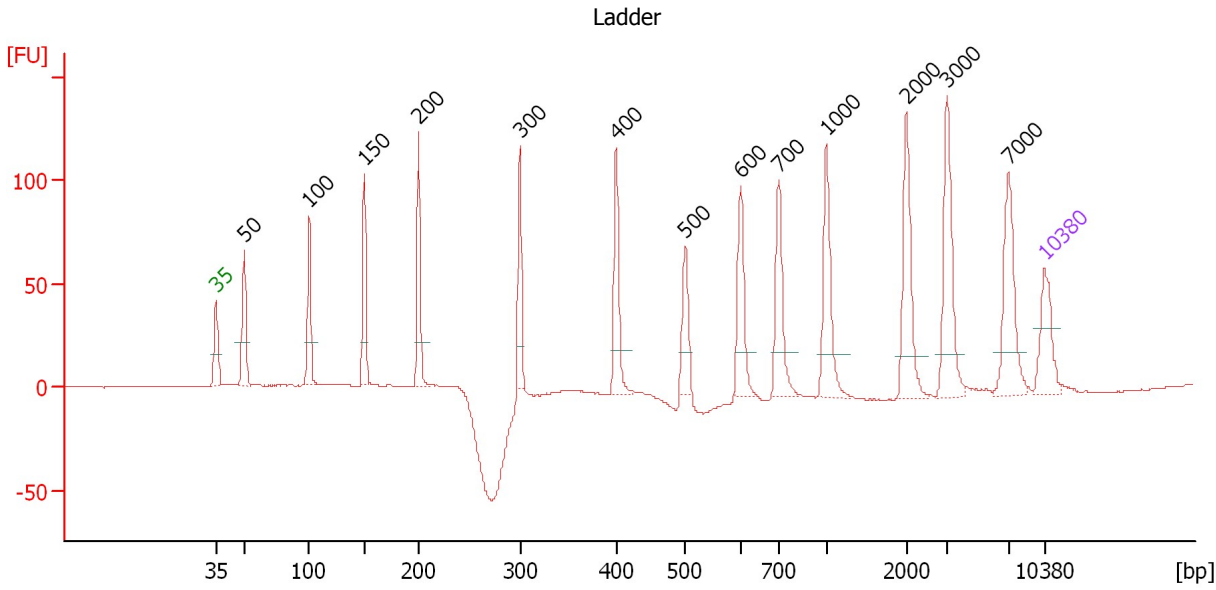
Ladder

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\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
 Modified: 5/2/2016 3:54:29 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

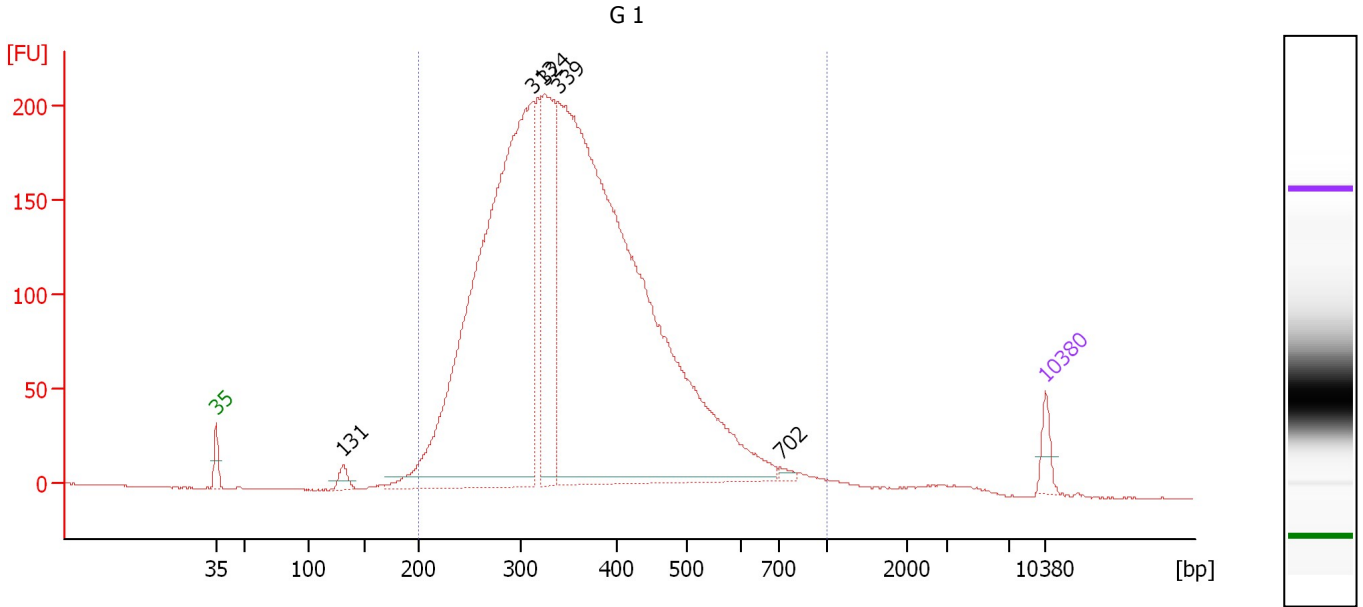
Peak table for Ladder

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	45.34
3	100	150.00	2,272.7	Ladder Peak	50.84
4	150	150.00	1,515.2	Ladder Peak	55.53
5	200	150.00	1,136.4	Ladder Peak	60.08
6	300	150.00	757.6	Ladder Peak	68.65
7	400	150.00	568.2	Ladder Peak	76.81
8	500	150.00	454.5	Ladder Peak	82.67
9	600	150.00	378.8	Ladder Peak	87.31
10	700	150.00	324.7	Ladder Peak	90.55
11	1,000	150.00	227.3	Ladder Peak	94.56
12	2,000	150.00	113.6	Ladder Peak	101.33
13	3,000	150.00	75.8	Ladder Peak	104.75
14	7,000	150.00	32.5	Ladder Peak	109.93
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
 Modified: 5/2/2016 3:54:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : G 1

Number of peaks found: 5 Corr. Area 1: 4,617.5
 Noise: 0.3

Peak table for sample 1 : G 1

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	131	82.93	961.9		53.71
3	313	4,918.47	23,821.3		69.69
4	324	1,184.91	5,533.8		70.64
5	339	6,852.75	30,598.9		71.86
6	702	27.54	59.4		90.58
7	10,380	75.00	10.9	Upper Marker	113.00

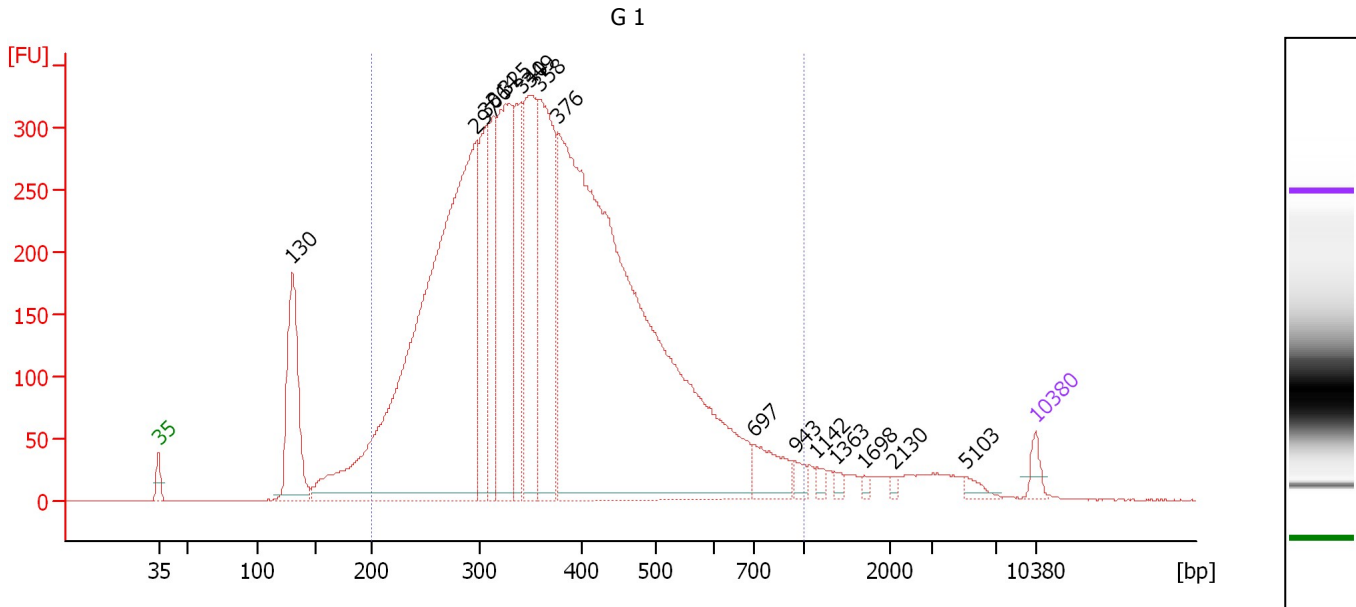
Region table for sample 1 : G 1

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	366	4,617.5	60,786.8	13,442.03	97	28.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
 Modified: 5/2/2016 3:54:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : G 1

Number of peaks found: 16 Corr. Area 1: 8,104.6
 Noise: 0.3

Peak table for sample 2 : G 1

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	130	1,249.35	14,525.3		53.69
3	297	6,355.56	32,467.0		68.36
4	306	977.00	4,831.0		69.17
5	314	827.71	3,998.7		69.76
6	325	1,662.58	7,757.3		70.66
7	340	808.45	3,599.8		71.93
8	349	1,342.16	5,824.3		72.66
9	358	1,718.27	7,271.5		73.38
10	376	8,039.60	32,367.0		74.88
11	697	310.06	674.1		90.45
12	943	75.29	121.0		93.80
13	1,142	48.15	63.9		95.52
14	1,363	33.60	37.4		97.02
15	1,698	25.98	23.2		99.28
16	2,130	21.54	15.3		101.77
17	5,103	54.55	16.2		107.48
18	10,380	75.00	10.9	Upper Marker	113.00

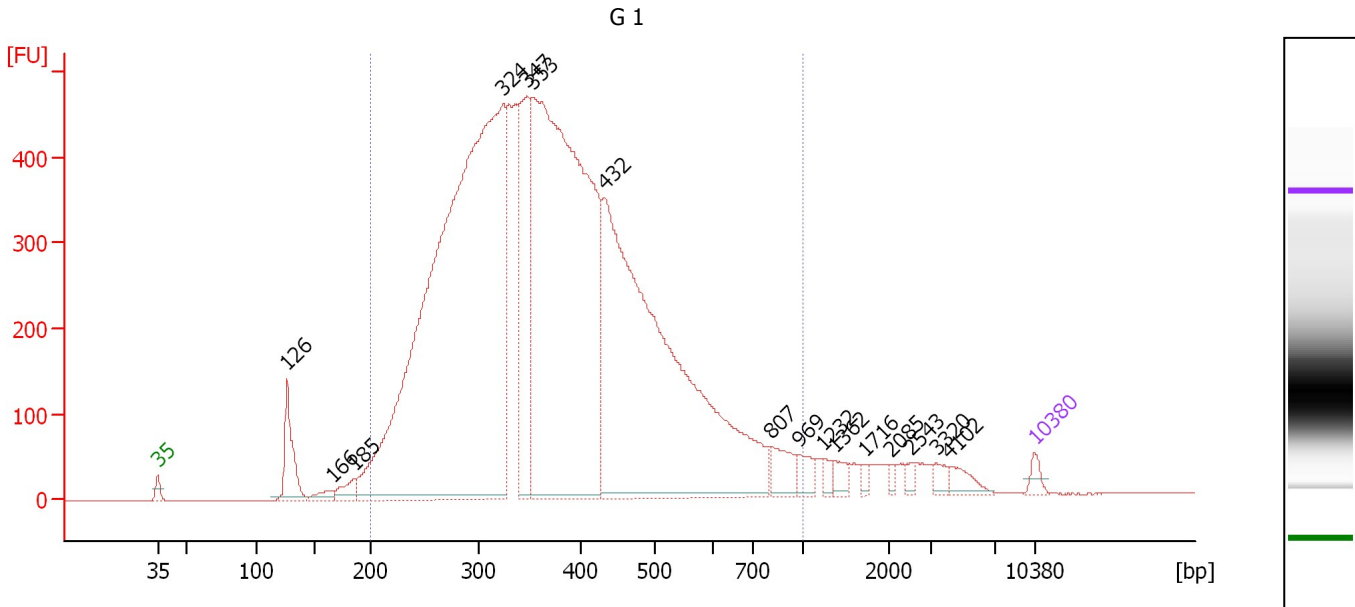
Region table for sample 2 : G 1

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	383	8,104.6	95,156.5	21,444.91	90	31.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
 Modified: 5/2/2016 3:54:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : G 1

Number of peaks found: 16 Corr. Area 1: 11,616.3
 Noise: 0.3

Peak table for sample 3 : G 1

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	126	738.45	8,848.3		53.32
3	166	114.18	1,043.8		56.96
4	185	195.20	1,594.6		58.76
5	324	13,212.13	61,788.5		70.60
6	347	1,872.66	8,173.5		72.49
7	353	9,629.59	41,290.8		73.00
8	432	7,942.86	27,871.6		78.67
9	807	305.79	574.0		91.99
10	969	163.00	254.8		94.15
11	1,232	83.48	102.7		96.13
12	1,362	126.38	140.6		97.01
13	1,716	50.77	44.8		99.41
14	2,085	44.12	32.1		101.62
15	2,543	52.21	31.1		103.18
16	3,320	84.35	38.5		105.17
17	4,102	147.30	54.4		106.18
18	10,380	75.00	10.9	Upper Marker	113.00

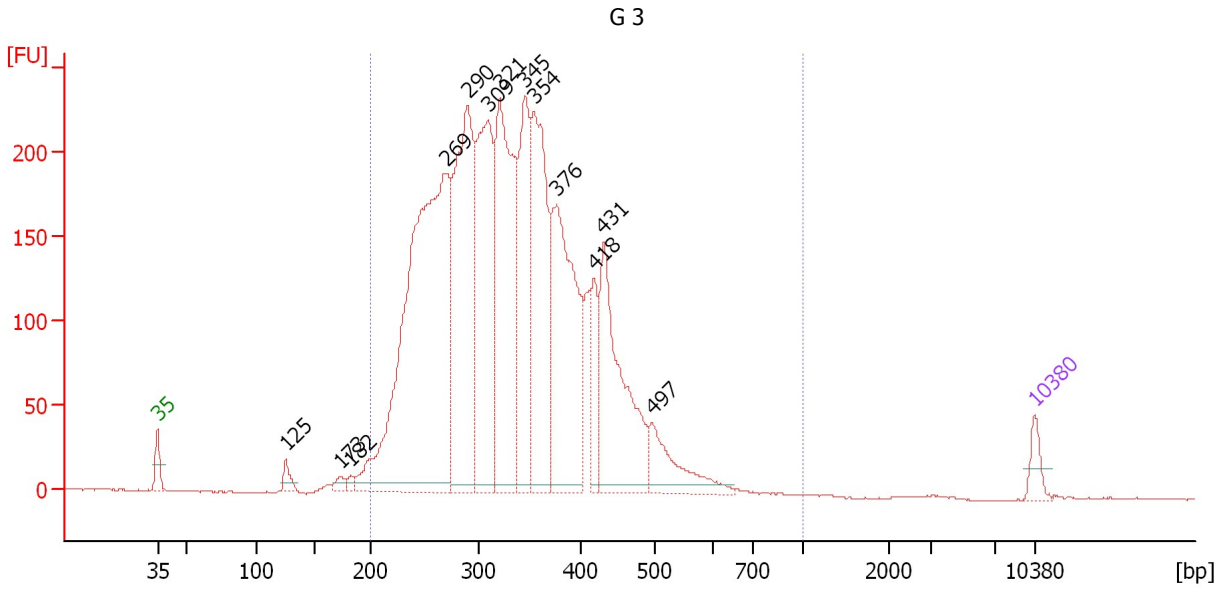
Region table for sample 3 : G 1

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	387	11,616.3	152,367.3	34,769.58	93	31.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
 Modified: 5/2/2016 3:54:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : G 3

Number of peaks found: 13 Corr. Area 1: 4,832.3
 Noise: 0.5

Peak table for sample 4 : G 3

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	125	75.12	907.5		53.23
3	173	44.38	389.4		57.59
4	182	32.37	268.9		58.48
5	269	3,510.37	19,758.8		66.01
6	290	1,772.50	9,266.9		67.77
7	309	1,329.21	6,512.6		69.40
8	321	1,552.16	7,334.7		70.33
9	345	938.91	4,128.7		72.28
10	354	1,215.79	5,200.0		73.07
11	376	1,340.76	5,404.3		74.84
12	418	283.95	1,029.2		77.86
13	431	1,013.19	3,564.3		78.60
14	497	347.33	1,059.9		82.46
15	10,380	75.00	10.9	Upper Marker	113.00

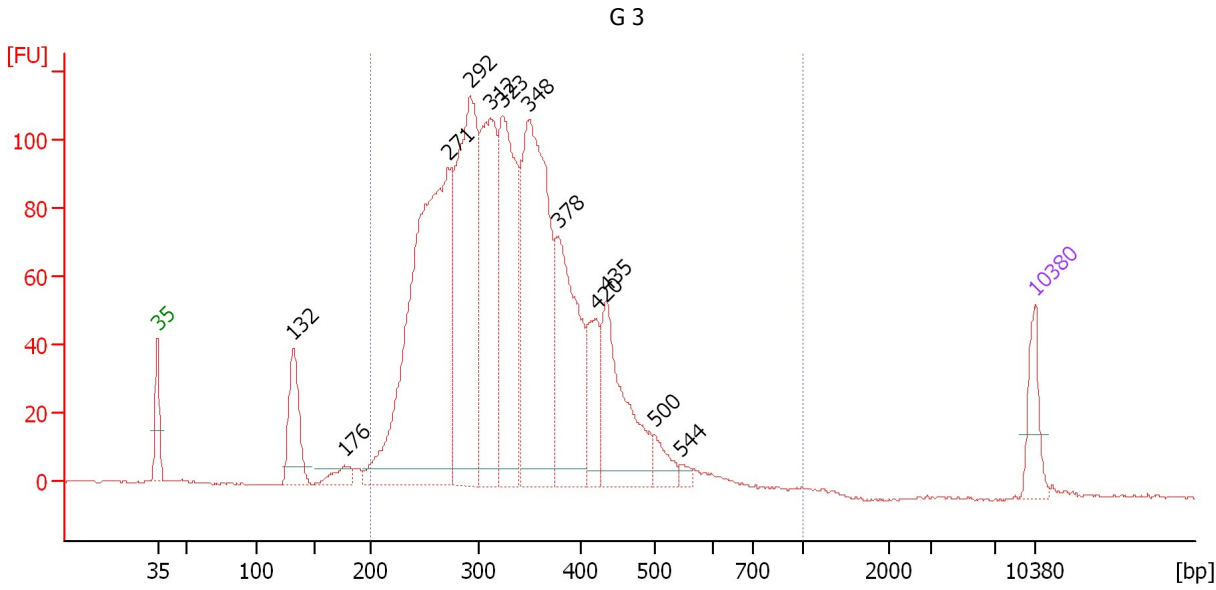
Region table for sample 4 : G 3

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	337	4,832.3	65,411.9	13,613.98	98	23.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
 Modified: 5/2/2016 3:54:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : G 3

Number of peaks found: 12 Corr. Area 1: 2,232.5
 Noise: 0.4

Peak table for sample 5 : G 3

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	132	217.88	2,503.6		53.83
3	176	48.35	415.6		57.92
4	271	1,333.08	7,443.5		66.19
5	292	823.50	4,273.3		67.96
6	312	545.86	2,654.9		69.59
7	323	572.84	2,683.1		70.56
8	348	844.72	3,678.0		72.56
9	378	448.14	1,798.1		74.98
10	420	155.74	561.3		78.00
11	435	332.54	1,159.2		78.84
12	500	54.26	164.5		82.65
13	544	16.25	45.3		84.69
14	10,380	75.00	10.9	Upper Marker	113.00

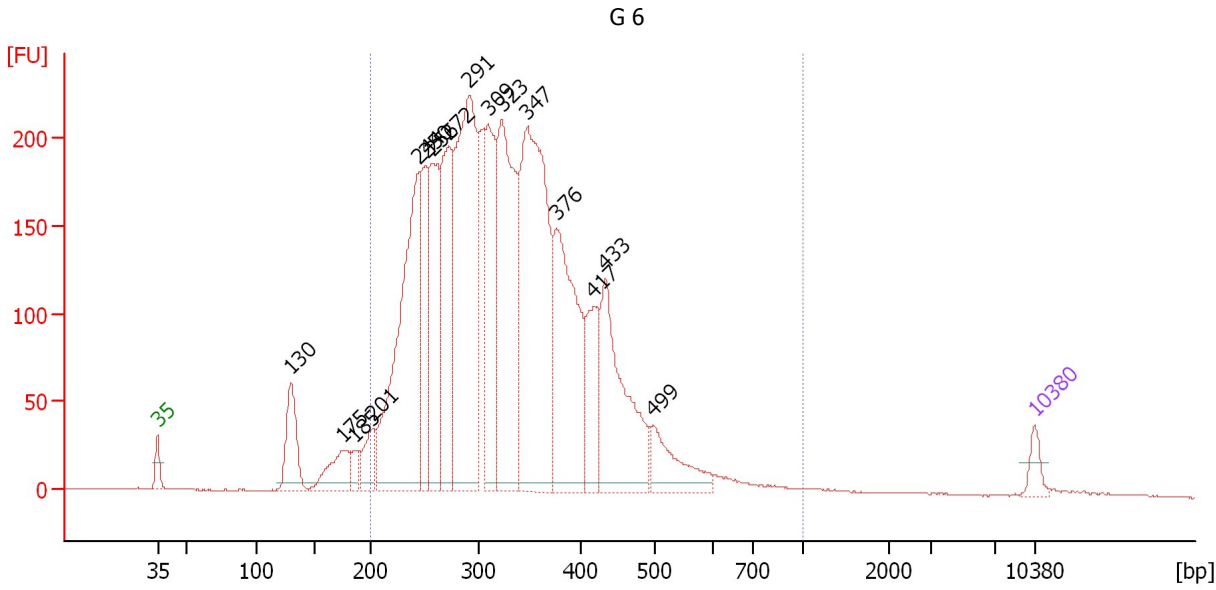
Region table for sample 5 : G 3

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	336	2,232.5	25,345.3	5,270.43	95	23.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
 Modified: 5/2/2016 3:54:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : G 6

Number of peaks found: 16 Corr. Area 1: 4,754.8
 Noise: 0.3

Peak table for sample 6 : G 6

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	130	470.51	5,483.4		53.66
3	175	312.68	2,704.3		57.82
4	185	102.89	842.4		58.72
5	201	229.61	1,728.5		60.19
6	244	2,060.40	12,772.9		63.89
7	250	645.73	3,905.8		64.41
8	256	940.19	5,564.1		64.88
9	272	1,088.27	6,073.1		66.21
10	291	2,167.03	11,267.0		67.91
11	309	965.25	4,733.2		69.38
12	323	1,639.28	7,691.6		70.52
13	347	2,337.35	10,197.0		72.51
14	376	1,378.40	5,558.2		74.83
15	417	447.36	1,624.9		77.81
16	433	1,079.57	3,781.9		78.71
17	499	377.65	1,147.2		82.59
18	10,380	75.00	10.9	Upper Marker	113.00

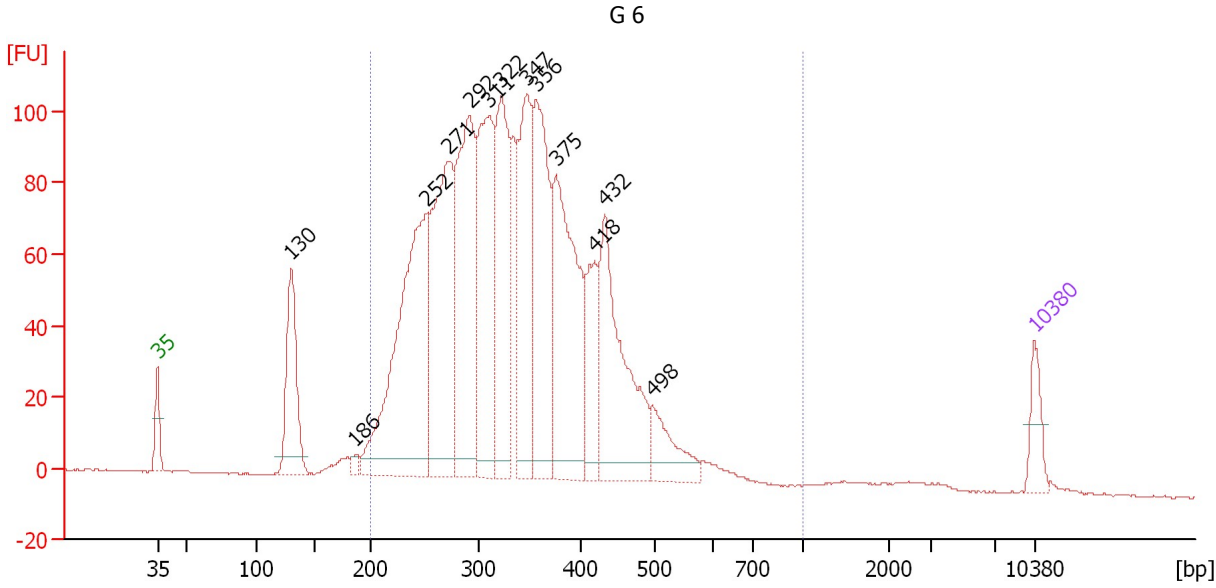
Region table for sample 6 : G 6

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	336	4,754.8	77,991.1	16,018.91	93	26.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
 Modified: 5/2/2016 3:54:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : G 6

Number of peaks found: 13 Corr. Area 1: 2,290.2
 Noise: 0.2

Peak table for sample 7 : G 6

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	130	406.89	4,732.7		53.68
3	186	25.51	208.1		58.78
4	252	1,093.98	6,572.4		64.55
5	271	835.60	4,666.7		66.19
6	292	795.20	4,133.0		67.92
7	311	661.90	3,229.3		69.51
8	322	569.53	2,677.0		70.47
9	347	523.04	2,283.0		72.49
10	356	618.07	2,630.8		73.21
11	375	716.15	2,890.2		74.80
12	418	234.15	848.1		77.88
13	432	610.43	2,139.5		78.70
14	498	164.18	499.5		82.55
15	10,380	75.00	10.9	Upper Marker	113.00

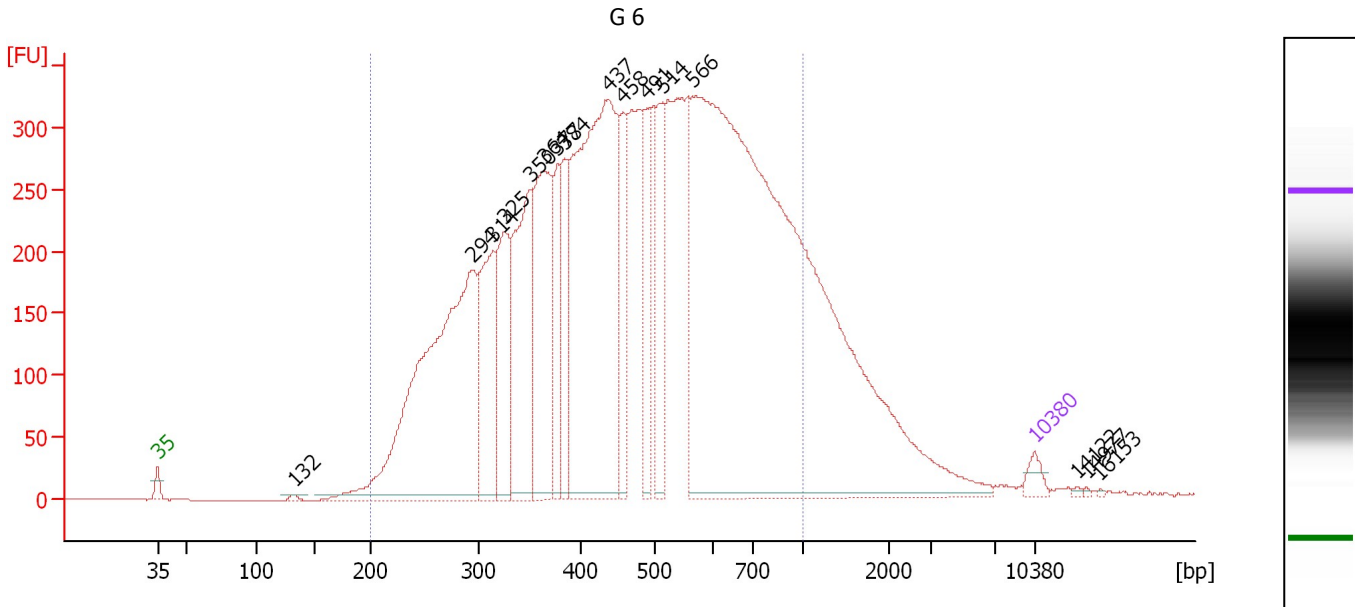
Region table for sample 7 : G 6

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	341	2,290.2	34,598.0	7,248.63	93	23.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
 Modified: 5/2/2016 3:54:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : G 6

Number of peaks found: 16 Corr. Area 1: 10,024.6
 Noise: 0.1

Peak table for sample 8 : G 6

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	132	30.84	353.6		53.86
3	294	3,911.27	20,136.2		68.16
4	314	1,117.29	5,397.7		69.76
5	325	950.05	4,430.2		70.68
6	350	1,422.90	6,151.5		72.76
7	364	1,476.60	6,154.1		73.83
8	377	579.12	2,329.8		74.90
9	384	582.94	2,298.1		75.53
10	437	3,867.64	13,411.9		78.97
11	458	611.07	2,023.3		80.18
12	491	603.33	1,862.9		82.12
13	514	684.32	2,015.8		83.33
14	566	10,012.79	26,825.6		85.71
15	10,380	75.00	10.9	Upper Marker	113.00
16	14,122	0.00	0.0		116.39
17	14,977	0.00	0.0		117.17
18	16,153	0.00	0.0		118.24

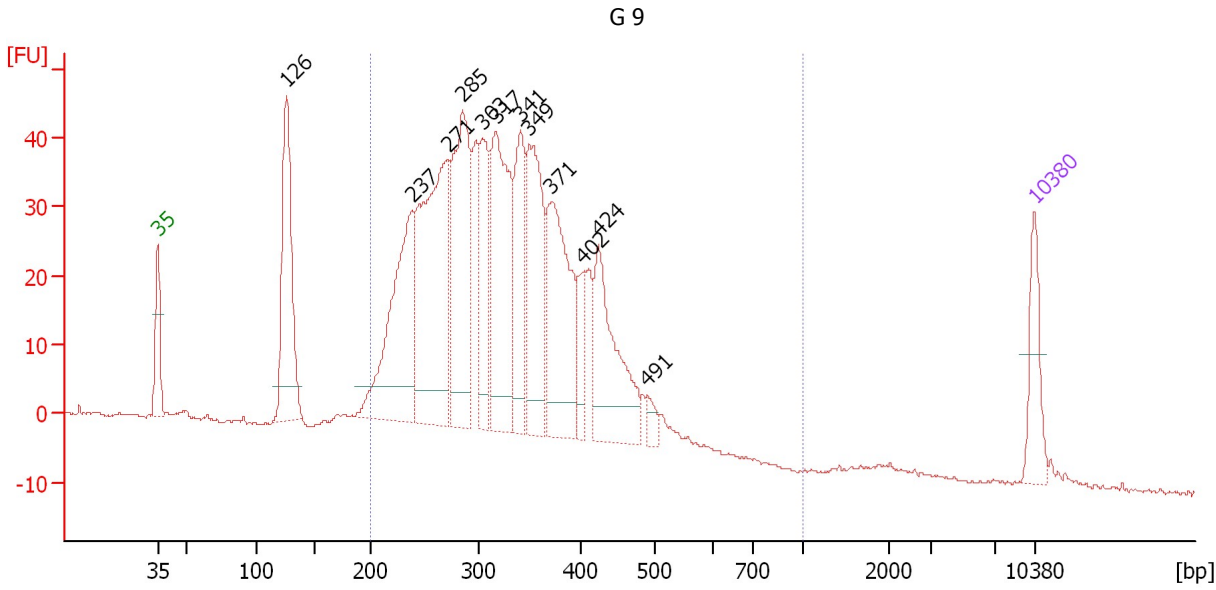
Region table for sample 8 : G 6

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	495	10,024.6	93,341.7	25,599.51	89	35.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
 Modified: 5/2/2016 3:54:29 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : G 9

Number of peaks found: 12 Corr. Area 1: 982.1
 Noise: 0.2

Peak table for sample 9 : G 9

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	126	362.67	4,358.3		53.29
3	237	397.21	2,535.7		63.28
4	271	534.78	2,987.1		66.19
5	285	374.57	1,990.9		67.37
6	303	172.21	861.1		68.89
7	317	370.59	1,771.9		70.03
8	341	195.26	867.5		71.99
9	349	280.76	1,217.2		72.68
10	371	316.74	1,292.9		74.46
11	402	64.58	243.5		76.92
12	424	247.02	883.3		78.20
13	491	23.82	73.5		82.14
14	10,380	75.00	10.9	Upper Marker	113.00

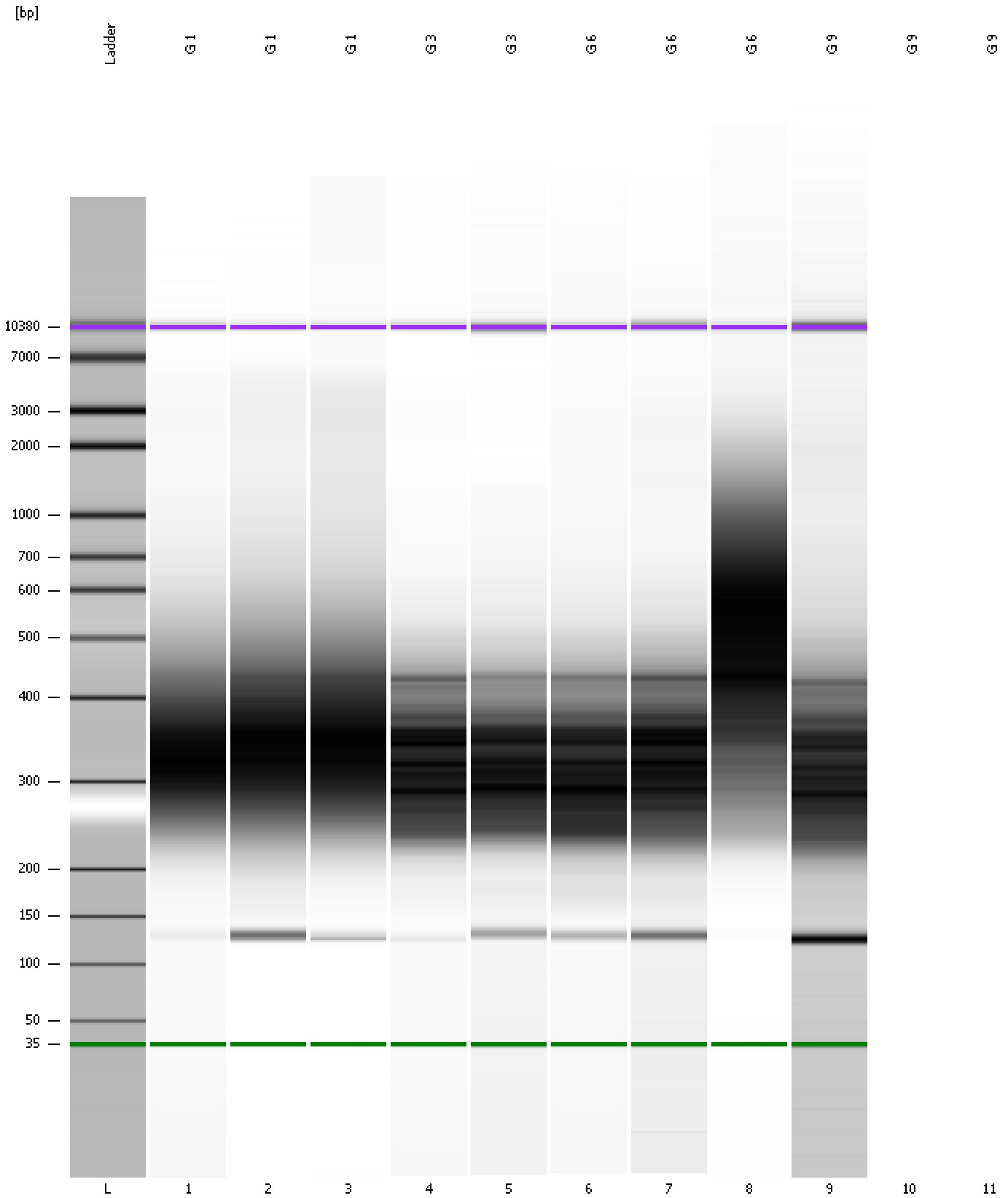
Region table for sample 9 : G 9

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	331	982.1	17,495.1	3,568.70	87	23.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
Modified: 5/2/2016 3:54:29 PM

Gel Image

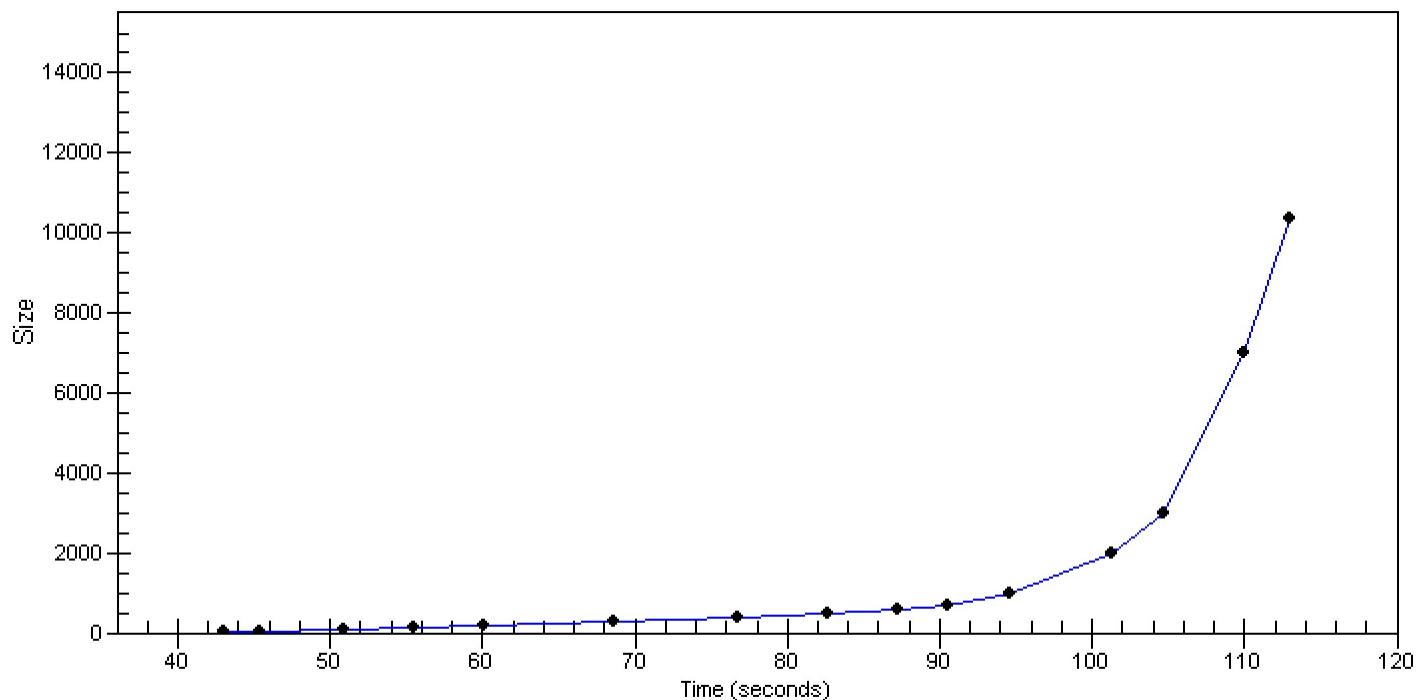


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
Modified: 5/2/2016 3:54:29 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-02\2016-05-02_001.xad

Created: 5/2/2016 3:18:46 PM
Modified: 5/2/2016 3:54:29 PM

Invalid Samples

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay Created: 5/2/2016 3:18:46 PM
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-02\2016-05-02_001.xad Modified: 5/2/2016 3:54:29 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 10)		Instrument	Run		5/2/2016 3:54:22 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\2016-05-02\2016-05-02_001.xad)		Instrument	Run		5/2/2016 3:18:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		5/2/2016 3:18:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/2/2016 3:18:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/2/2016 3:18:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		5/2/2016 3:18:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/2/2016 3:18:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/2/2016 3:18:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1