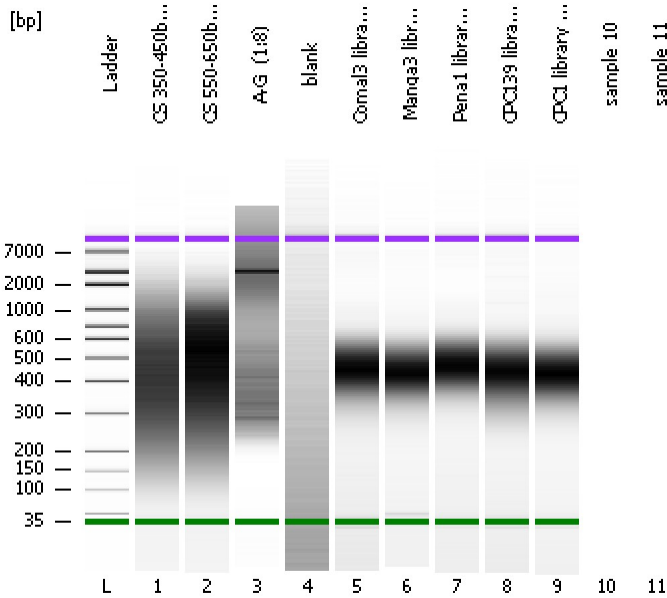


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
Modified: 12/12/2015 2:49:05 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

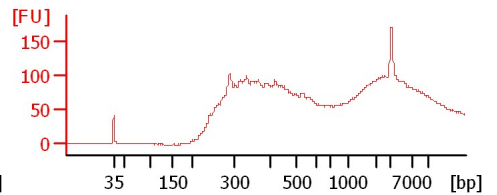
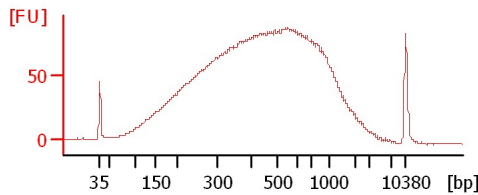
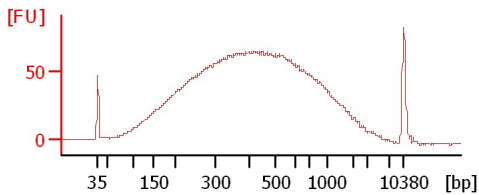
Chip Information:

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

CS 350-450bp (55s soni)

CS 550-650bp (40s soni)

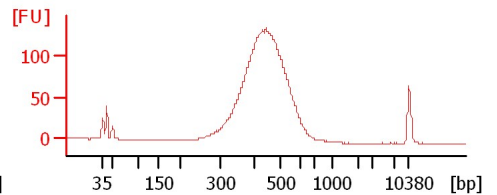
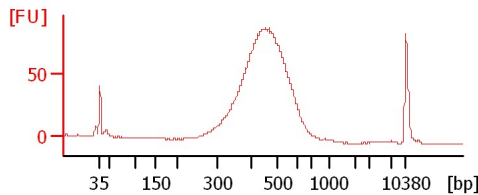
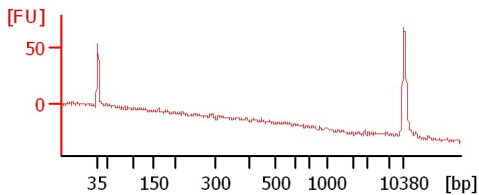
A-G (1:8)



blank

Comal3 library (1:21)

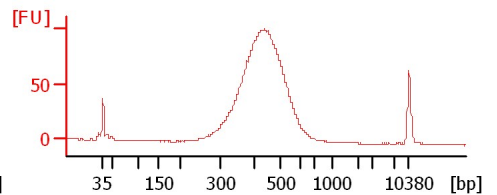
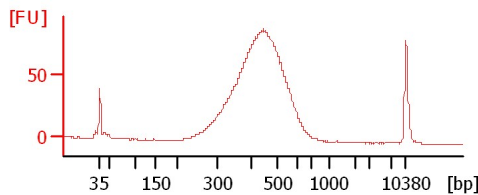
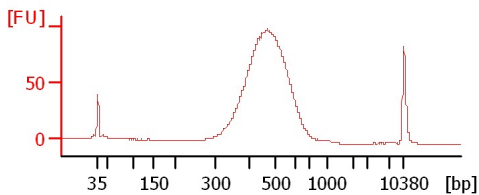
Manga3 library (1:2)



Pena1 library (1:12)

CPC139 library (1:7)

CPC1 library (1:7)



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
 Modified: 12/12/2015 2:49:05 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
CS 350-450bp (55s soni)		<input type="checkbox"/>	✓			
CS 550-650bp (40s soni)		<input type="checkbox"/>	✓			
A-G (1:8)		<input type="checkbox"/>	✓			
blank		<input type="checkbox"/>	✓			
Comal3 library (1:21)		<input type="checkbox"/>	✓			
Manga3 library (1:2)		<input type="checkbox"/>	✓			
Pena1 library (1:12)		<input type="checkbox"/>	✓			
CPC139 library (1:7)		<input type="checkbox"/>	✓			
CPC1 library (1:7)		<input type="checkbox"/>	✓			
sample 10		<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:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
Modified: 12/12/2015 2:49:05 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

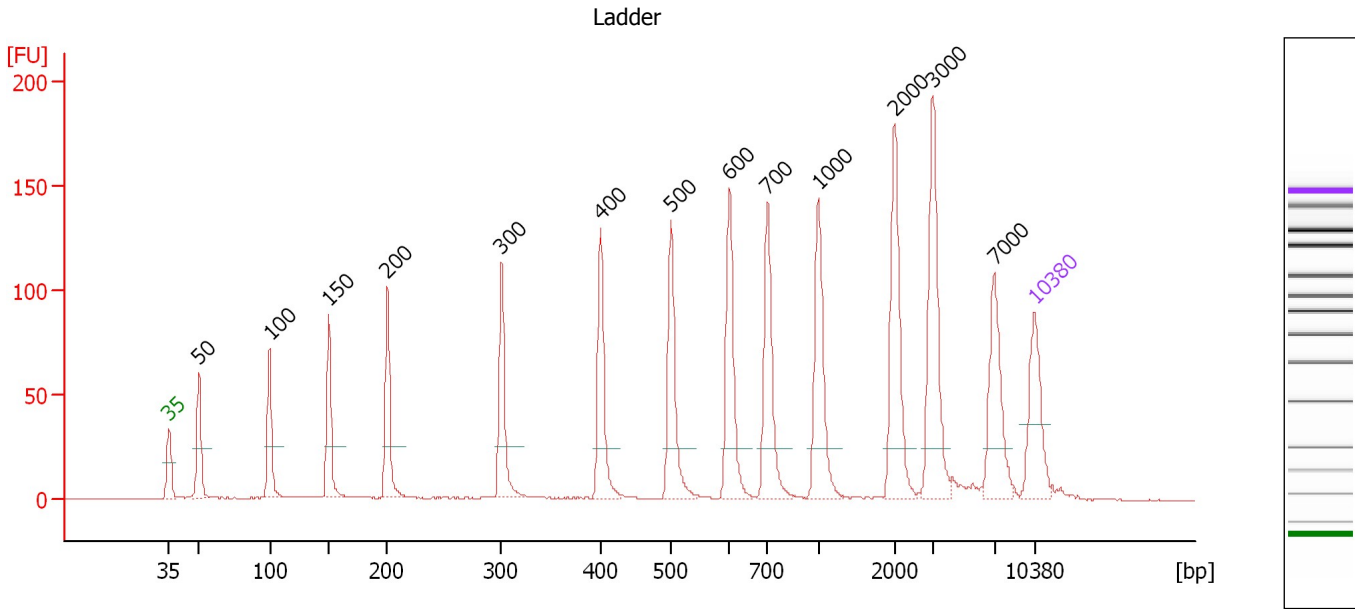
Ladder

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:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
 Modified: 12/12/2015 2:49:05 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

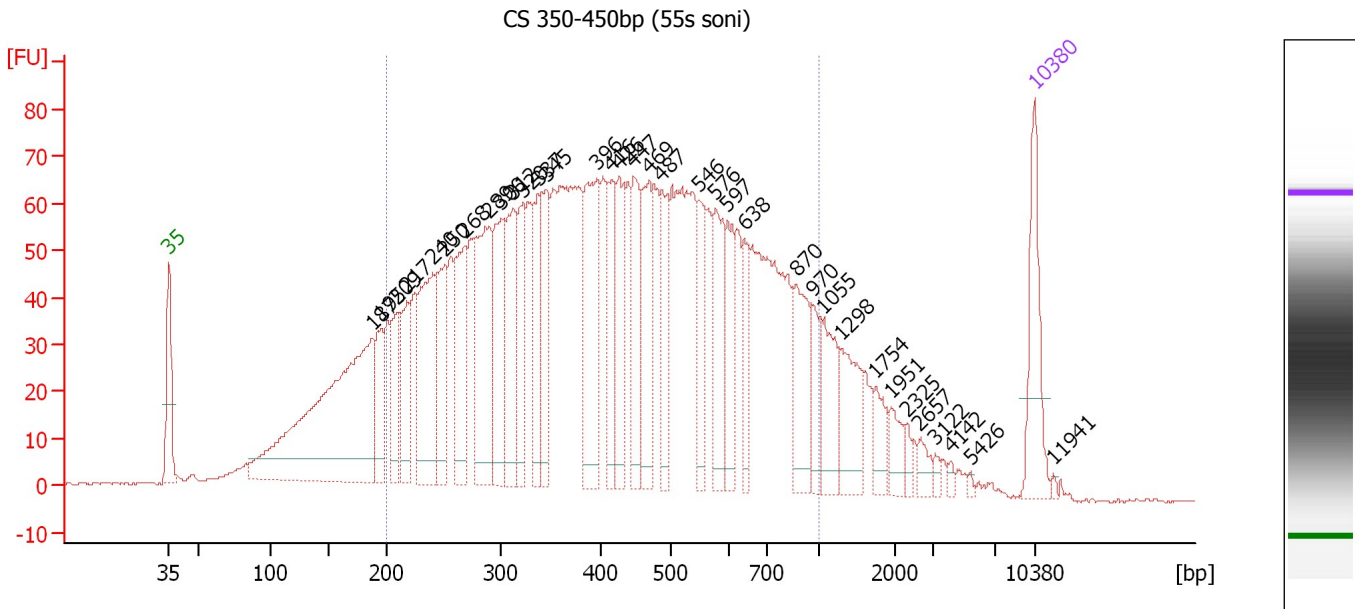
Peak table for Ladder

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	45.42
3	100	150.00	2,272.7	Ladder Peak	51.13
4	150	150.00	1,515.2	Ladder Peak	55.91
5	200	150.00	1,136.4	Ladder Peak	60.65
6	300	150.00	757.6	Ladder Peak	69.89
7	400	150.00	568.2	Ladder Peak	77.88
8	500	150.00	454.5	Ladder Peak	83.60
9	600	150.00	378.8	Ladder Peak	88.34
10	700	150.00	324.7	Ladder Peak	91.40
11	1,000	150.00	227.3	Ladder Peak	95.49
12	2,000	150.00	113.6	Ladder Peak	101.67
13	3,000	150.00	75.8	Ladder Peak	104.78
14	7,000	150.00	32.5	Ladder Peak	109.75
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
 Modified: 12/12/2015 2:49:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : CS 350-450bp (55s soni)

Number of peaks found: 35 Corr. Area 1: 2,571.5
 Noise: 0.2

Peak table for sample 1 : CS 350-450bp (55s soni)

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	187	536.21	4,344.1		59.42
3	195	76.45	594.2		60.17
4	209	71.43	519.0		61.44
5	217	89.51	624.5		62.24
6	240	181.82	1,147.9		64.35
7	250	100.54	609.0		65.29
8	268	128.54	727.0		66.93
9	289	195.25	1,022.9		68.90
10	300	127.97	646.6		69.88
11	312	122.14	593.9		70.82
12	320	83.87	396.6		71.53
13	337	83.54	375.8		72.84
14	345	90.05	395.4		73.50
15	396	166.03	635.0		77.58
16	416	75.96	276.7		78.80
17	426	81.27	289.1		79.36
18	447	91.21	309.0		80.58
19	469	116.30	376.1		81.80
20	487	80.08	249.4		82.83
21	546	67.07	186.0		85.79
22	576	96.04	252.6		87.20
23	597	69.21	175.7		88.18
24	638	50.04	118.9		89.49
25	870	81.27	141.5		93.72

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
 Modified: 12/12/2015 2:49:05 PM

Electropherogram Summary Continued ...

... Peak table for sample 1 : CS 350-450bp (55s soni)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	970	41.35	64.6		95.08
27	1,055	60.05	86.2		95.83
28	1,298	66.98	78.2		97.33
29	1,754	26.50	22.9		100.14
30	1,951	21.58	16.8		101.36
31	2,325	9.24	6.0		102.68
32	2,657	13.76	7.8		103.71
33	3,122	5.41	2.6		104.93
34	4,142	4.59	1.7		106.20
35	5,426	2.85	0.8		107.79
36	10,380	75.00	10.9	Upper Marker	113.00
37	11,941	0.00	0.0		114.50

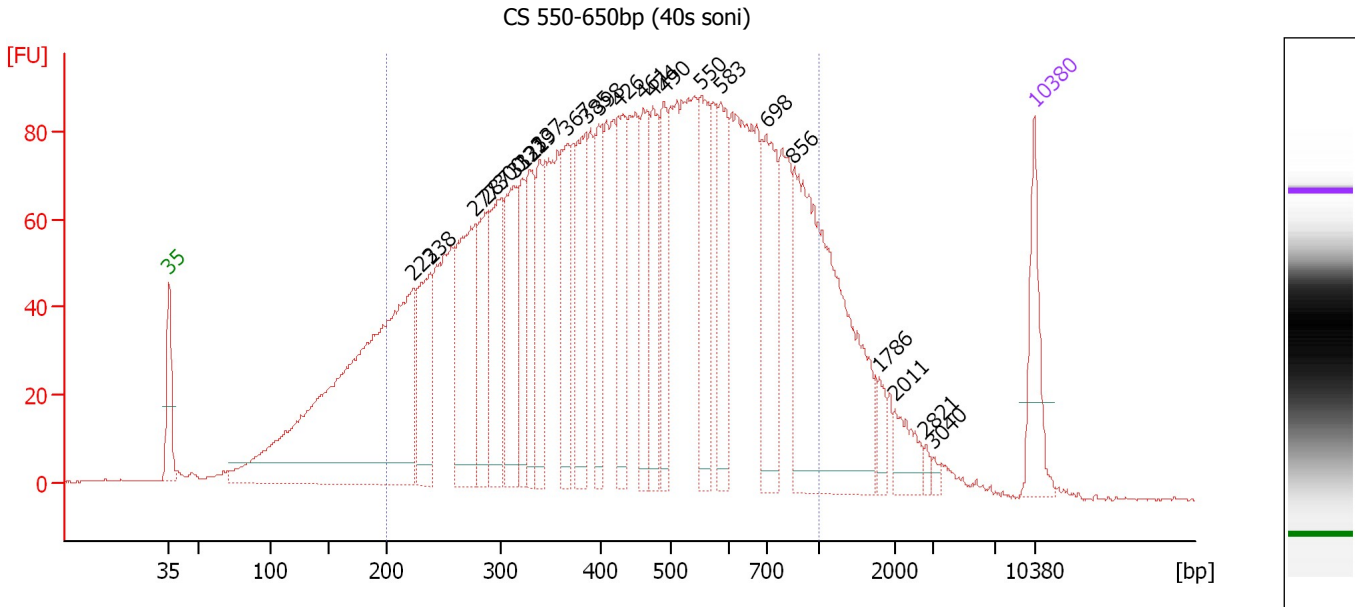
Region table for sample 1 : CS 350-450bp (55s soni)

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	448	2,571.5	16,633.7	3,988.96	79	39.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
 Modified: 12/12/2015 2:49:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : CS 550-650bp (40s soni)

Number of peaks found: 24 Corr. Area 1: 3,285.5
 Noise: 0.2

Peak table for sample 2 : CS 550-650bp (40s soni)

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	223	941.40	6,403.6		62.75
3	238	168.50	1,073.2		64.15
4	277	270.59	1,481.2		67.75
5	287	130.39	687.4		68.73
6	300	184.09	931.2		69.85
7	312	180.06	873.5		70.88
8	321	106.12	500.8		71.58
9	329	122.22	563.4		72.19
10	337	130.78	587.2		72.89
11	367	129.33	534.4		75.22
12	385	164.42	646.4		76.72
13	398	112.52	428.1		77.74
14	426	135.89	483.2		79.38
15	461	126.56	415.7		81.39
16	474	125.39	400.5		82.13
17	490	103.51	320.1		83.02
18	550	152.59	420.4		85.96
19	583	129.47	336.2		87.55
20	698	174.03	377.9		91.33
21	856	492.21	871.2		93.53
22	1,786	23.53	20.0		100.34
23	2,011	40.04	30.2		101.70
24	2,821	6.47	3.5		104.22
25	3,040	6.06	3.0		104.83

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
Modified: 12/12/2015 2:49:05 PM

Electropherogram Summary Continued ...**... Peak table for sample 2 : CS 550-650bp (40s soni)**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	10,380	75.00	10.9	Upper Marker	113.00

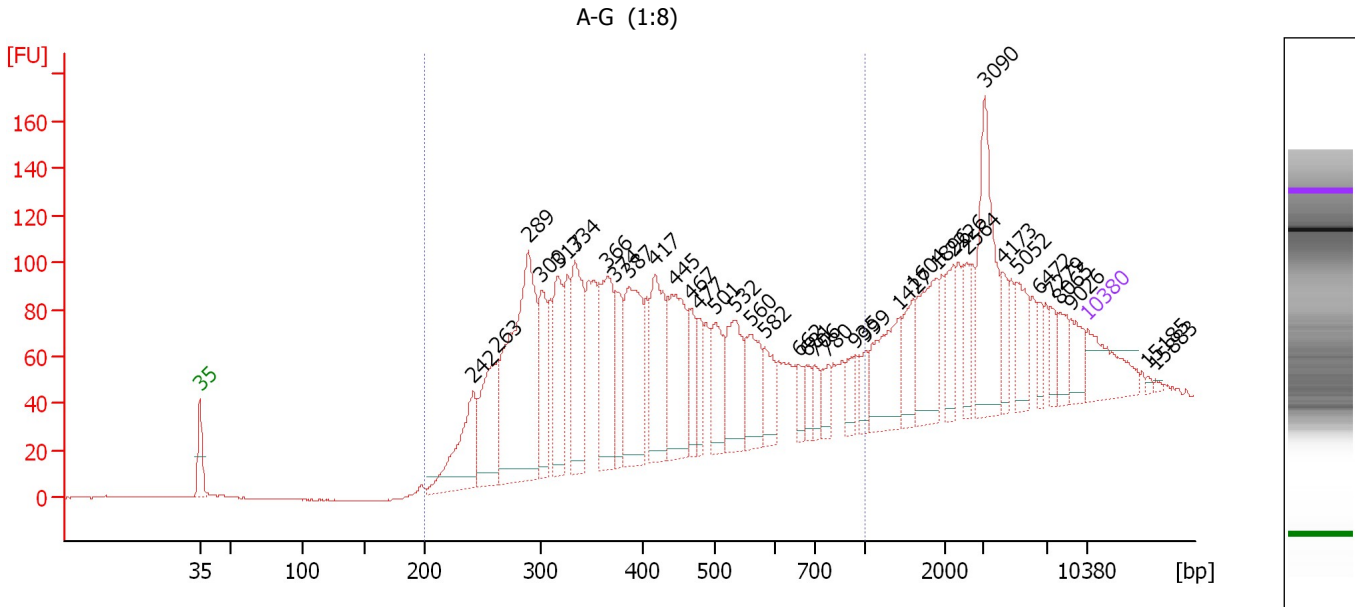
Region table for sample 2 : CS 550-650bp (40s soni)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/ μ l]	% of Total	Size distribution in CV [%]
200	1,000	472	3,285.5	20,283.3	5,081.78	81	39.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
 Modified: 12/12/2015 2:49:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : A-G (1:8)

Number of peaks found: 37 Corr. Area 1: 2,178.1
 Noise: 0.2

Peak table for sample 3 : A-G (1:8)

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	198.51	1,241.7		64.55
3	263	204.06	1,177.0		66.45
4	289	536.50	2,812.3		68.88
5	300	145.47	734.8		69.89
6	317	177.30	848.0		71.24
7	334	207.18	940.9		72.58
8	366	201.28	833.9		75.14
9	374	103.85	421.2		75.77
10	387	224.71	880.4		76.82
11	417	181.56	658.9		78.88
12	445	209.21	711.7		80.48
13	467	68.37	221.9		81.70
14	477	59.41	188.7		82.29
15	501	99.59	301.4		83.63
16	532	139.07	396.3		85.10
17	560	100.19	271.0		86.45
18	582	62.14	161.7		87.50
19	662	28.36	64.9		90.23
20	681	27.81	61.9		90.82
21	706	30.48	65.4		91.49
22	780	34.21	66.4		92.50
23	935	35.35	57.3		94.60
24	999	35.59	54.0		95.48
25	1,427	118.77	126.1		98.13

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
 Modified: 12/12/2015 2:49:05 PM

Electropherogram Summary Continued ...

... Peak table for sample 3 : A-G (1:8)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	1,604	59.26	56.0		99.22
27	1,896	110.38	88.2		101.03
28	2,226	55.50	37.8		102.37
29	2,564	41.99	24.8		103.42
30	3,090	182.07	89.3		104.89
31	4,173	34.46	12.5		106.24
32	5,052	62.90	18.9		107.33
33	6,472	24.17	5.7		109.09
34	7,279	25.41	5.3		110.02
35	8,065	33.82	6.4		110.77
36	9,026	39.18	6.6		111.70
37	10,380	75.00	10.9	Upper Marker	113.00
38	15,185	0.00	0.0		117.62
39	15,883	0.00	0.0		118.29

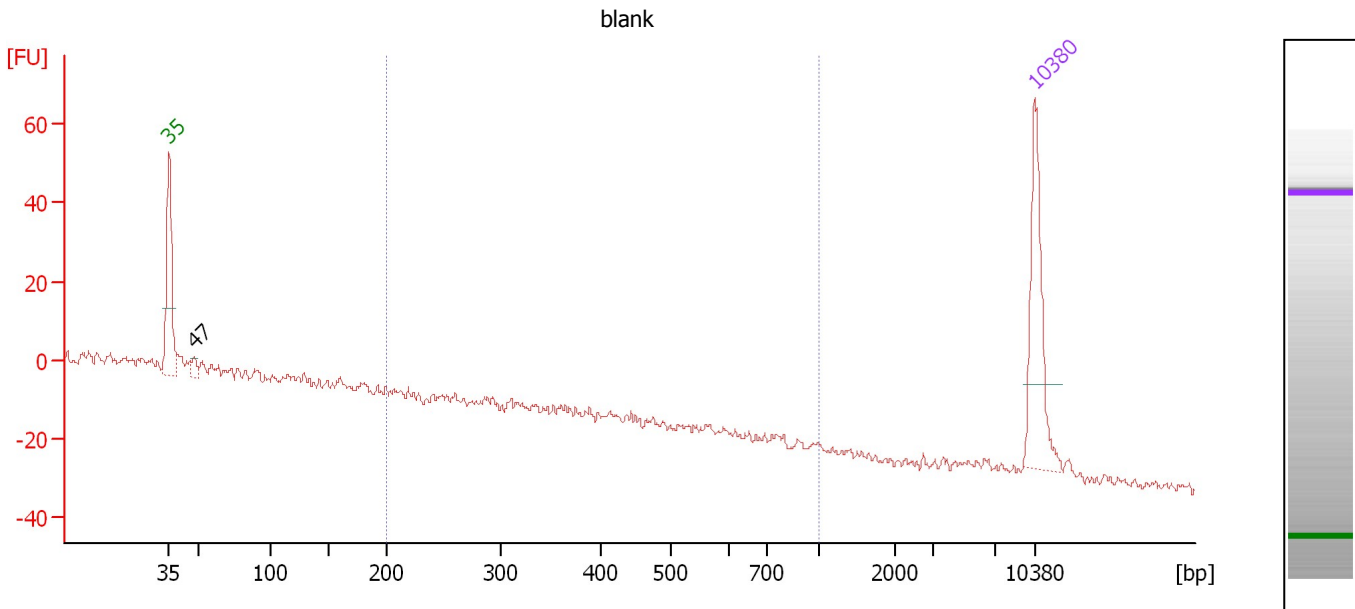
Region table for sample 3 : A-G (1:8)

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	430	2,178.1	12,533.7	3,062.84	70	36.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
 Modified: 12/12/2015 2:49:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : blank

Number of peaks found: 1 Corr. Area 1: 89.0
 Noise: 1.5

Peak table for sample 4 : blank

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	47	10.54	336.6		45.01
3	10,380	75.00	10.9	Upper Marker	113.00

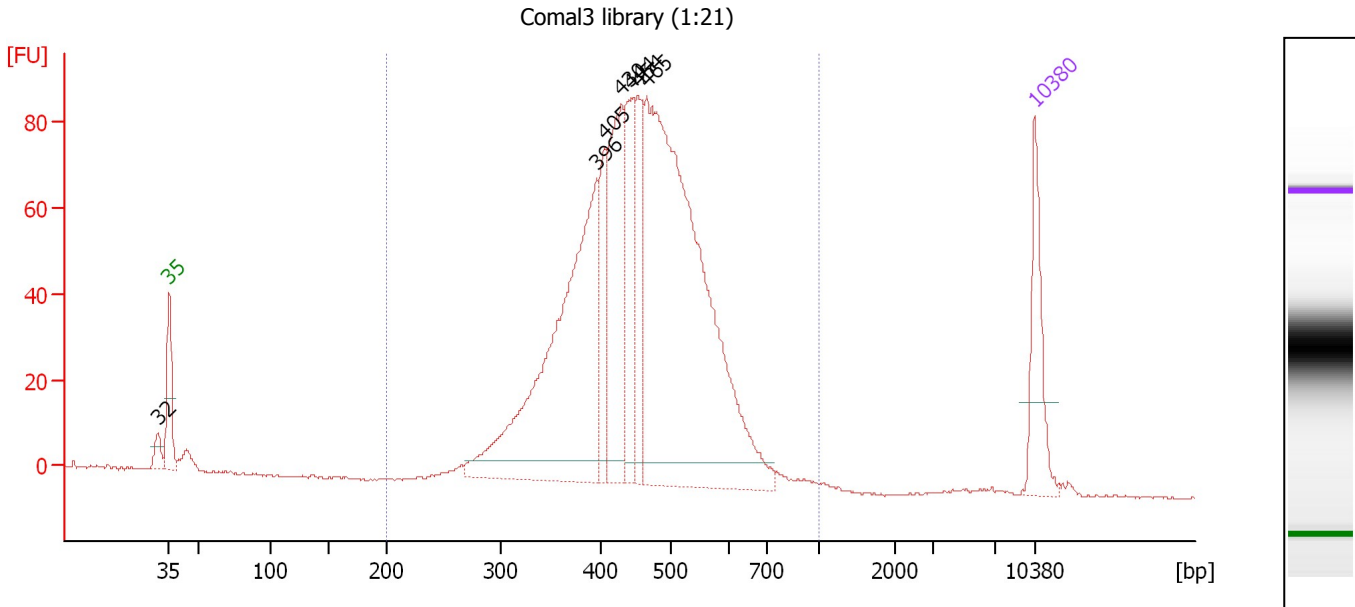
Region table for sample 4 : blank

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	397	89.0	532.3	116.12	33	39.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
 Modified: 12/12/2015 2:49:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Comal3 library (1:21)

Number of peaks found: 7 Corr. Area 1: 1,367.7
 Noise: 0.3

Peak table for sample 5 : Comal3 library (1:21)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.08
2	35	125.00	5,411.3	Lower Marker	43.00
3	396	542.57	2,075.9		77.57
4	405	94.27	352.3		78.19
5	430	213.99	754.2		79.59
6	444	132.23	451.0		80.41
7	454	108.82	363.5		80.94
8	465	865.55	2,817.8		81.62
9	10,380	75.00	10.9	Upper Marker	113.00

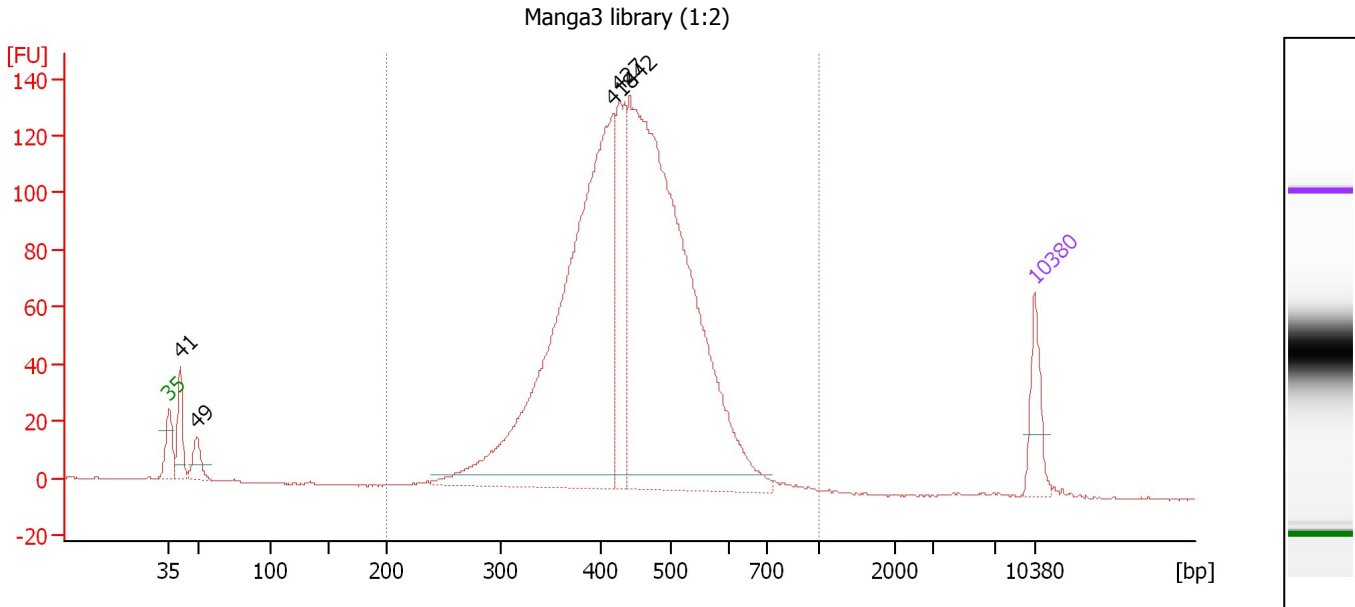
Region table for sample 5 : Comal3 library (1:21)

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	456	1,367.7	6,954.0	1,990.38	97	19.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
 Modified: 12/12/2015 2:49:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Manga3 library (1:2)

Number of peaks found: 5 Corr. Area 1: 2,004.0
 Noise: 0.2

Peak table for sample 6 : Manga3 library (1:2)

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	41	116.16	4,331.1		43.91
3	49	69.93	2,164.8		45.25
4	418	1,482.70	5,370.1		78.93
5	427	306.72	1,089.1		79.41
6	442	1,744.68	5,984.0		80.27
7	10,380	75.00	10.9	Upper Marker	113.00

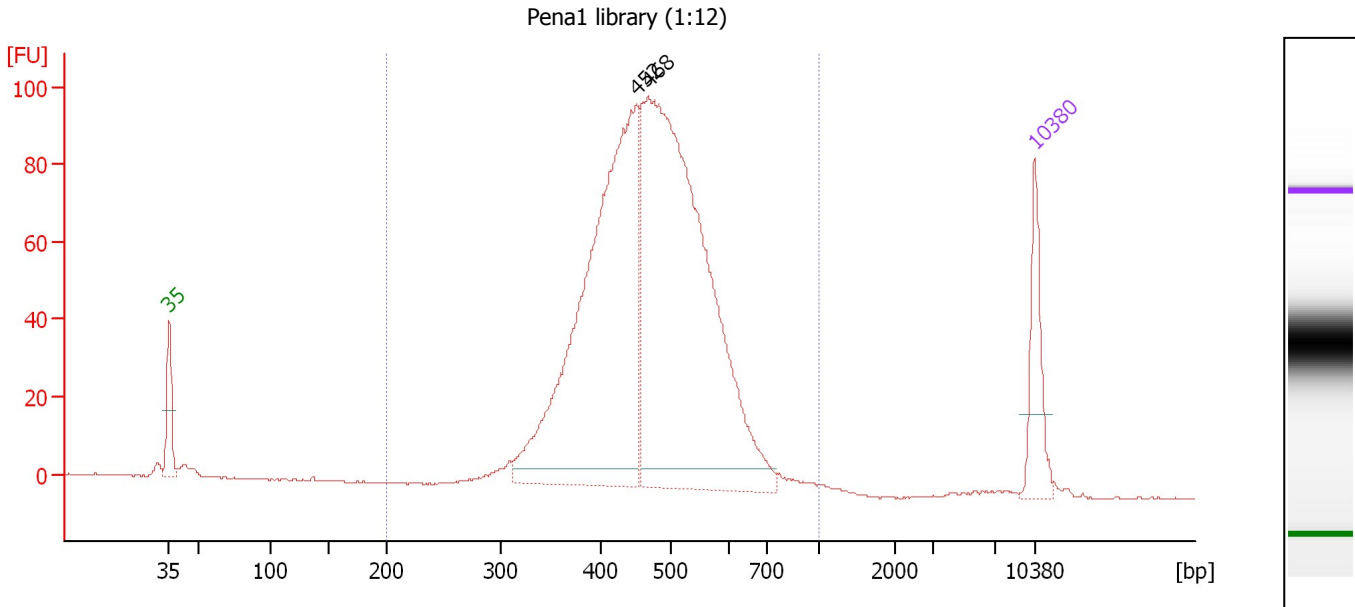
Region table for sample 6 : Manga3 library (1:2)

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	443	2,004.0	12,782.4	3,574.93	96	18.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
 Modified: 12/12/2015 2:49:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Pena1 library (1:12)

Number of peaks found: 2 Corr. Area 1: 1,383.5
 Noise: 0.2

Peak table for sample 7 : Pena1 library (1:12)

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	452	865.16	2,901.9		80.84
3	468	1,073.43	3,475.2		81.77
4	10,380	75.00	10.9	Upper Marker	113.00

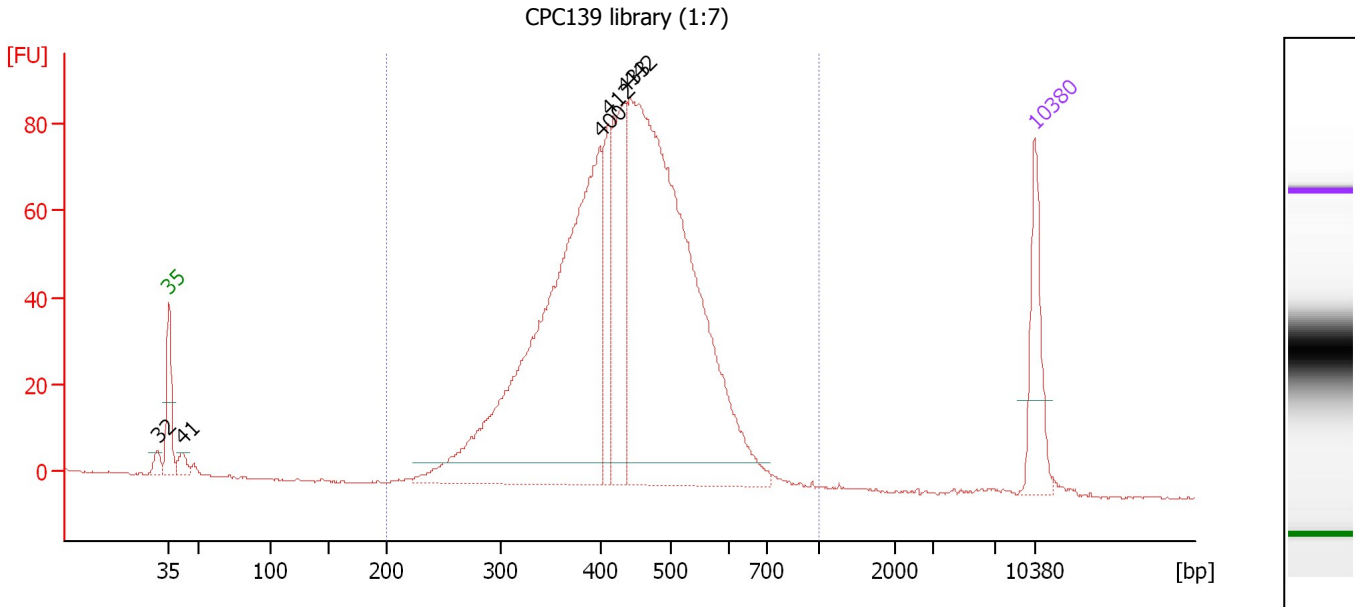
Region table for sample 7 : Pena1 library (1:12)

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	473	1,383.5	6,564.1	1,969.13	98	17.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
 Modified: 12/12/2015 2:49:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : CPC139 library (1:7)

Number of peaks found: 6 Corr. Area 1: 1,430.7
 Noise: 0.2

Peak table for sample 8 : CPC139 library (1:7)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.07
2	35	125.00	5,411.3	Lower Marker	43.00
3	41	21.83	798.7		44.03
4	400	818.57	3,101.3		77.88
5	412	97.00	356.8		78.57
6	433	194.35	679.4		79.80
7	442	984.33	3,373.7		80.29
8	10,380	75.00	10.9	Upper Marker	113.00

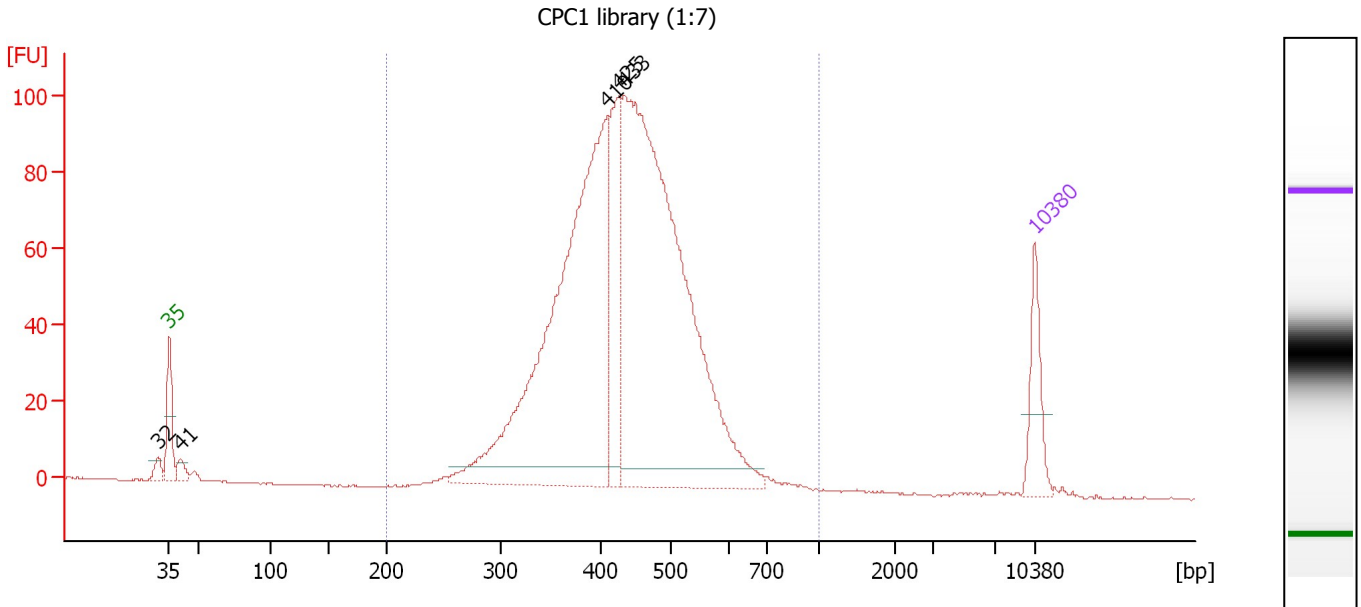
Region table for sample 8 : CPC139 library (1:7)

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	437	1,430.7	7,895.7	2,150.09	98	20.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
 Modified: 12/12/2015 2:49:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : CPC1 library (1:7)

Number of peaks found: 5 Corr. Area 1: 1,465.2
 Noise: 0.2

Peak table for sample 9 : CPC1 library (1:7)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.12
2	35	125.00	5,411.3	Lower Marker	43.00
3	41	28.78	1,069.0		43.93
4	410	1,124.01	4,151.7		78.47
5	425	244.42	871.7		79.30
6	433	1,356.40	4,741.8		79.79
7	10,380	75.00	10.9	Upper Marker	113.00

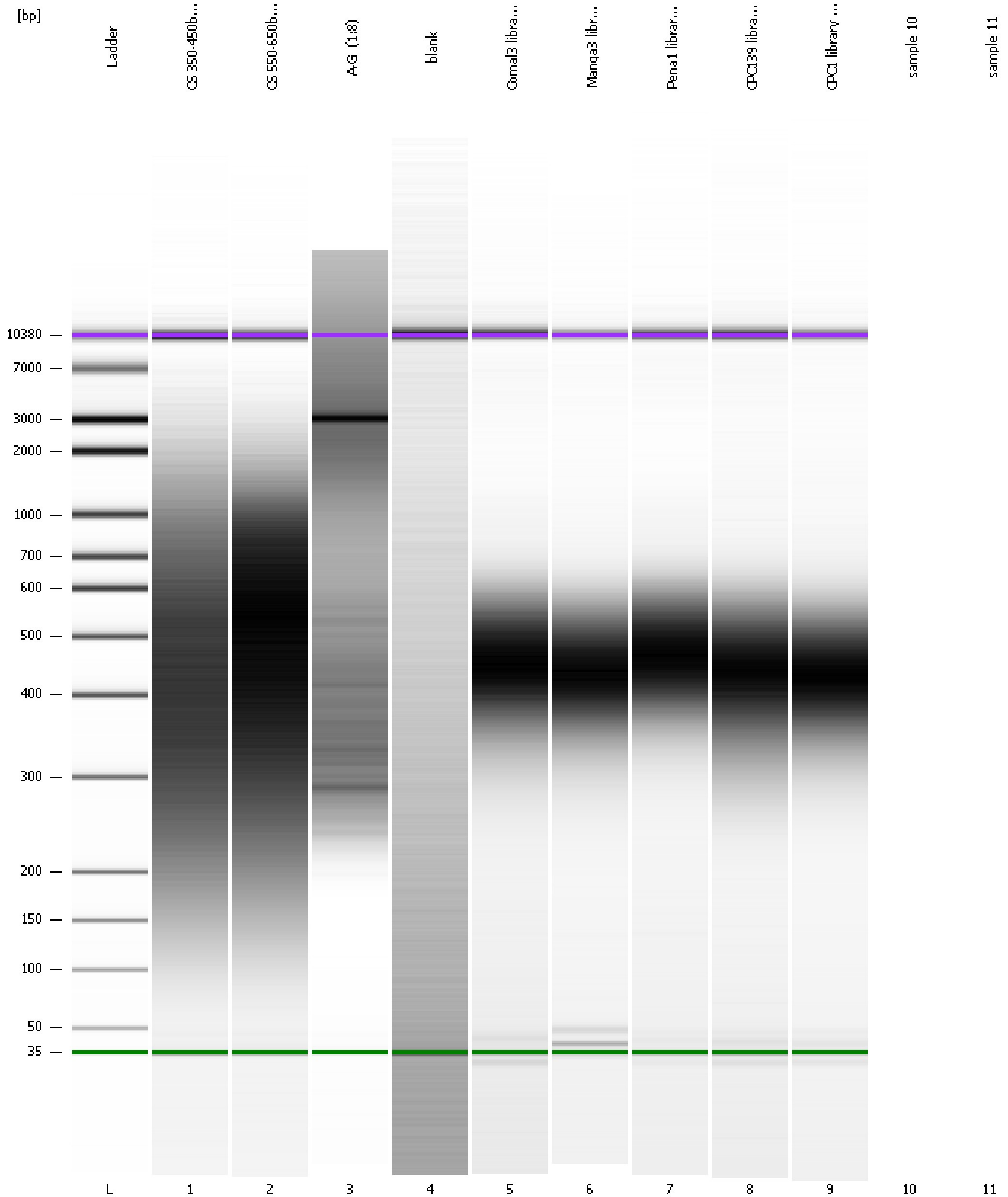
Region table for sample 9 : CPC1 library (1:7)

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	437	1,465.2	10,184.1	2,809.08	98	18.3

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
Modified: 12/12/2015 2:49:05 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
Modified: 12/12/2015 2:49:05 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
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad

Created: 12/12/2015 2:13:29 PM
 Modified: 12/12/2015 2:49:05 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		12/12/2015 2:49:05 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-12-12\2015-12-12_001.xad)		Instrument	Run		12/12/2015 2:13:34 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		12/12/2015 2:13:34 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		12/12/2015 2:13:34 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		12/12/2015 2:13:34 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		12/12/2015 2:13:34 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		12/12/2015 2:13:34 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		12/12/2015 2:13:34 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1