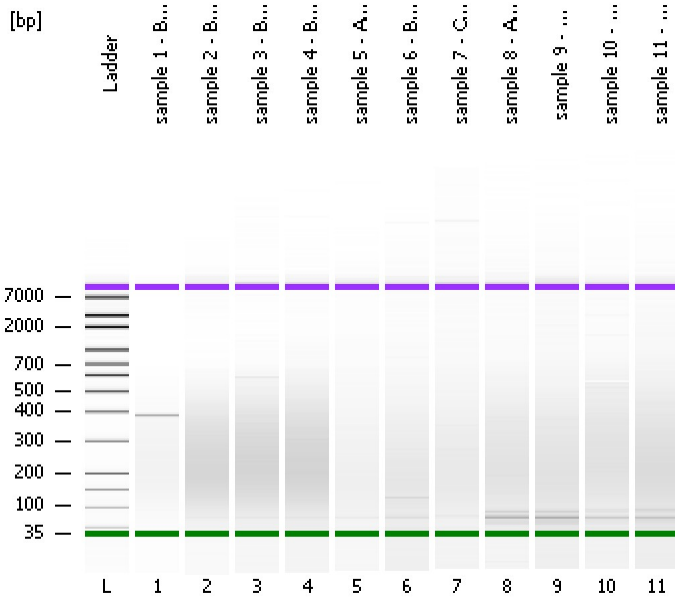


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
Modified: 6/2/2016 12:13:47 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

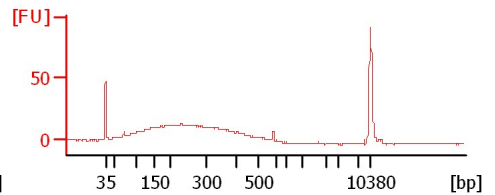
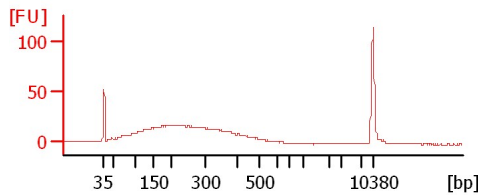
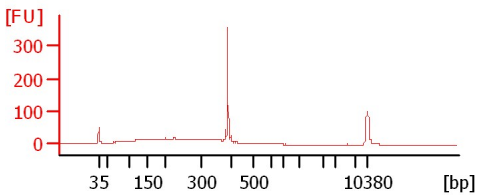
Chip Information:

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

sample 1 - B1 SPsm

sample 2 - B2 SPsm

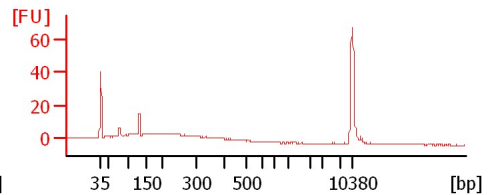
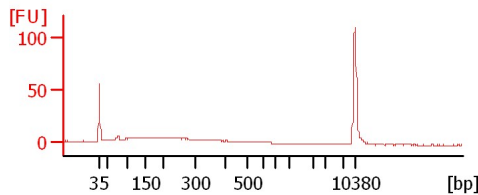
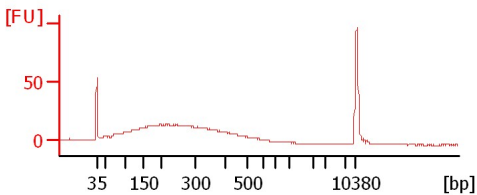
sample 3 - B4 SPsm



sample 4 - B6 SPsm

sample 5 - A7 SPp a0

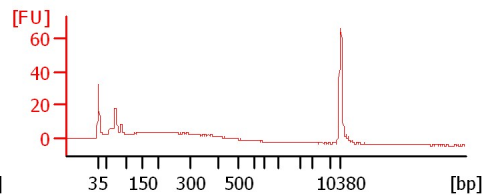
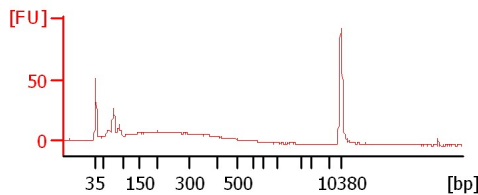
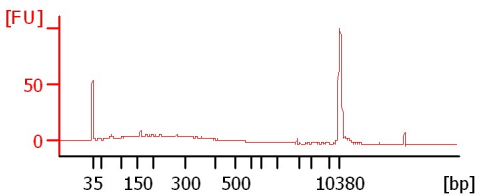
sample 6 - B8 SPp b1



sample 7 - C9 SPp c20

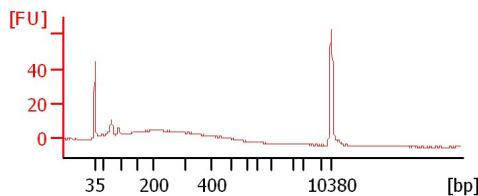
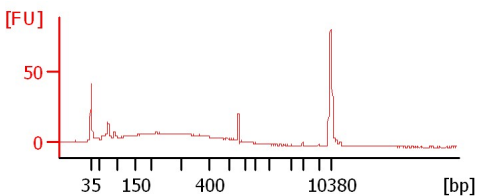
sample 8 - A11 C1t b0

sample 9 - D11 C1t c1



sample 10 - E11 C1t b20

sample 11 - B12 C1t cG



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
 Modified: 6/2/2016 12:13:47 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1 - B1 SPsm		<input type="checkbox"/>	✓			
sample 2 - B2 SPsm		<input type="checkbox"/>	✓			
sample 3 - B4 SPsm		<input type="checkbox"/>	✓			
sample 4 - B6 SPsm		<input type="checkbox"/>	✓			
sample 5 - A7 SPp a0		<input type="checkbox"/>	✓			
sample 6 - B8 SPp b1		<input type="checkbox"/>	✓			
sample 7 - C9 SPp c20		<input type="checkbox"/>	✓			
sample 8 - A11 C1t b0		<input type="checkbox"/>	✓			
sample 9 - D11 C1t c1		<input type="checkbox"/>	✓			
sample 10 - E11 C1t b20		<input type="checkbox"/>	✓			
sample 11 - B12 C1t cG		<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\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
Modified: 6/2/2016 12:13:47 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

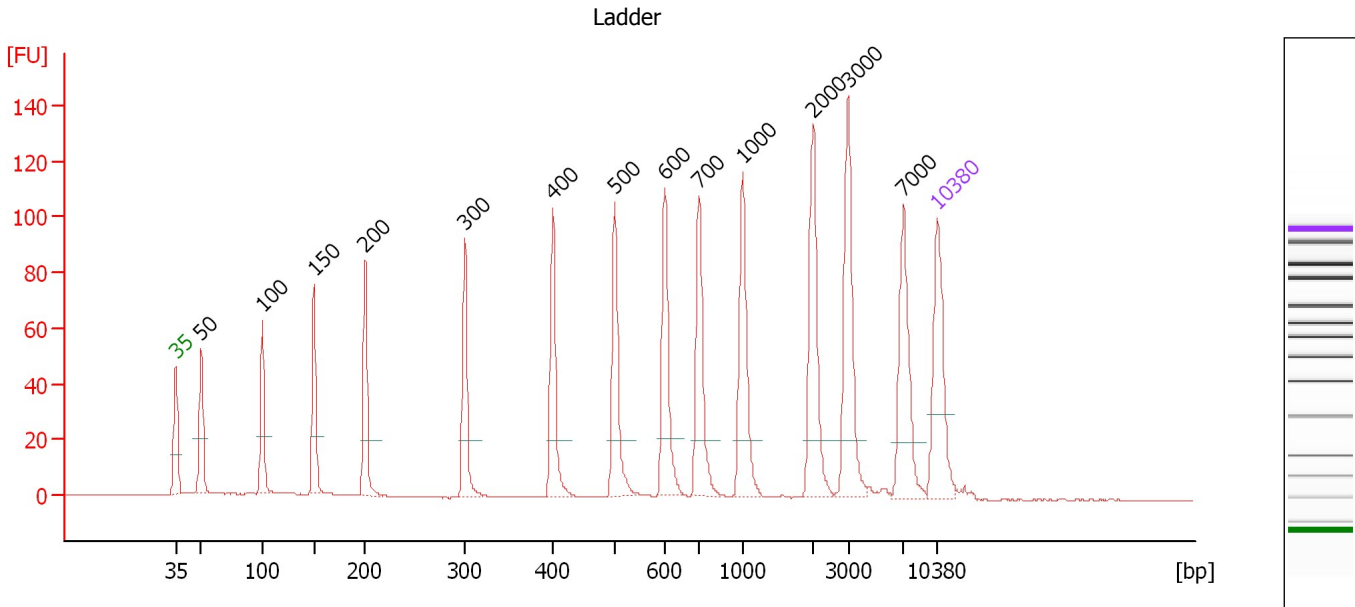
Ladder

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\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
 Modified: 6/2/2016 12:13:47 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

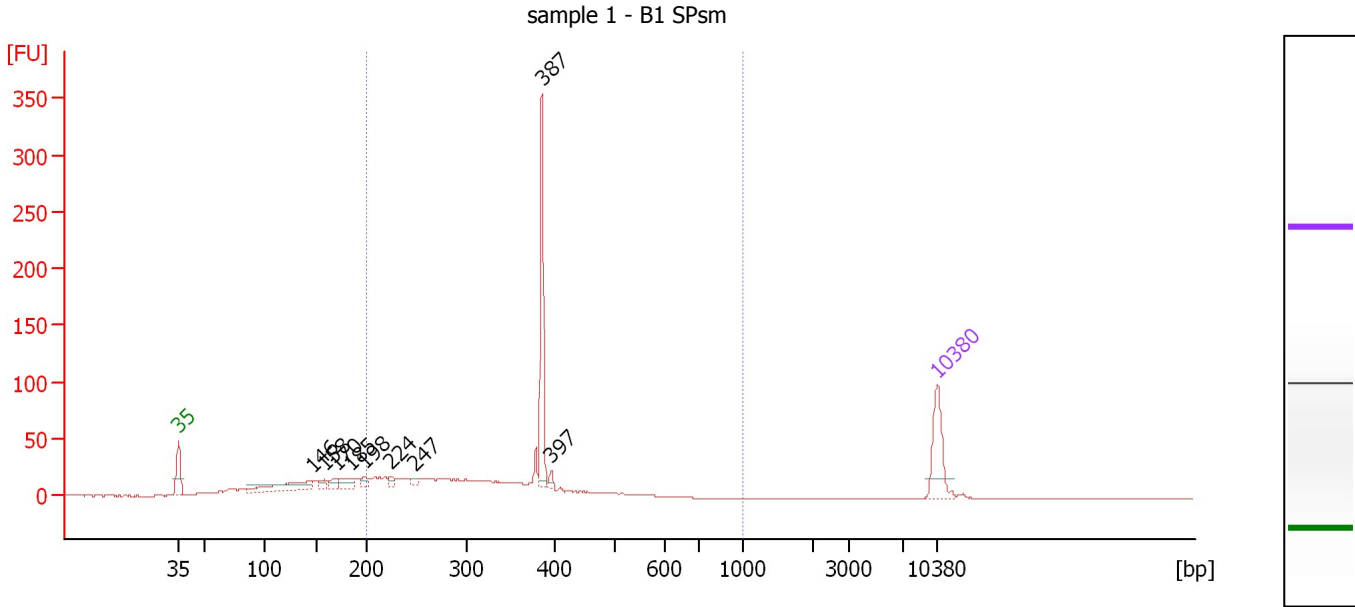
Peak table for Ladder

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	45.35
3	100	150.00	2,272.7	Ladder Peak	50.94
4	150	150.00	1,515.2	Ladder Peak	55.70
5	200	150.00	1,136.4	Ladder Peak	60.40
6	300	150.00	757.6	Ladder Peak	69.57
7	400	150.00	568.2	Ladder Peak	77.66
8	500	150.00	454.5	Ladder Peak	83.34
9	600	150.00	378.8	Ladder Peak	87.95
10	700	150.00	324.7	Ladder Peak	91.09
11	1,000	150.00	227.3	Ladder Peak	95.11
12	2,000	150.00	113.6	Ladder Peak	101.58
13	3,000	150.00	75.8	Ladder Peak	104.81
14	7,000	150.00	32.5	Ladder Peak	109.91
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
 Modified: 6/2/2016 12:13:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1 - B1 SPsm

Number of peaks found: 9 Corr. Area 1: 570.4
 Noise: 0.2

Peak table for sample 1 : sample 1 - B1 SPsm

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	146	100.76	1,046.3		55.31
3	158	16.53	158.1		56.49
4	170	20.79	184.8		57.62
5	185	31.16	255.8		58.95
6	198	13.56	104.0		60.18
7	224	12.15	82.0		62.64
8	247	9.91	60.8		64.71
9	387	168.18	659.1		76.57
10	397	10.03	38.3		77.41
11	10,380	75.00	10.9	Upper Marker	113.00

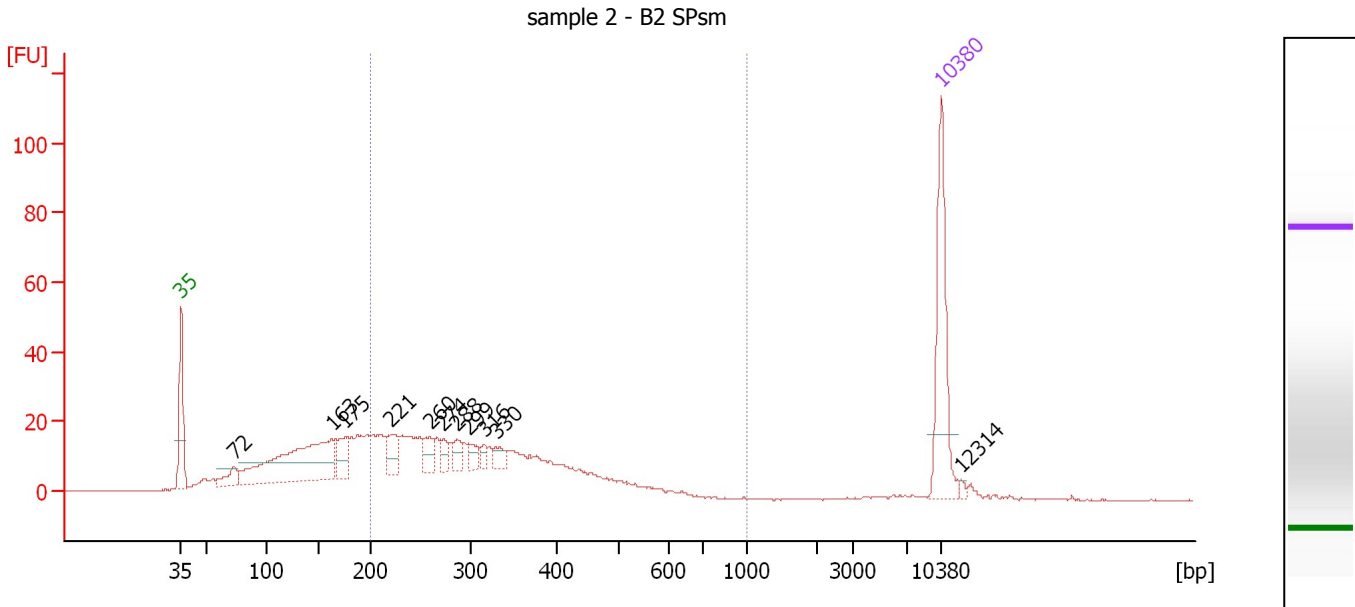
Region table for sample 1 : sample 1 - B1 SPsm

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	335	570.4	3,580.6	729.24	66	23.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
 Modified: 6/2/2016 12:13:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2 - B2 SPsm

Number of peaks found: 11 Corr. Area 1: 426.3
 Noise: 0.2

Peak table for sample 2 : sample 2 - B2 SPsm

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	72	22.37	468.0		47.86
3	163	181.12	1,686.6		56.89
4	175	32.14	278.7		58.02
5	221	26.55	181.9		62.34
6	260	20.03	116.9		65.88
7	274	10.86	60.1		67.15
8	288	13.08	68.9		68.43
9	299	12.32	62.3		69.51
10	316	7.26	34.8		70.88
11	330	10.86	49.9		71.96
12	10,380	75.00	10.9	Upper Marker	113.00
13	12,314	0.00	0.0		114.77

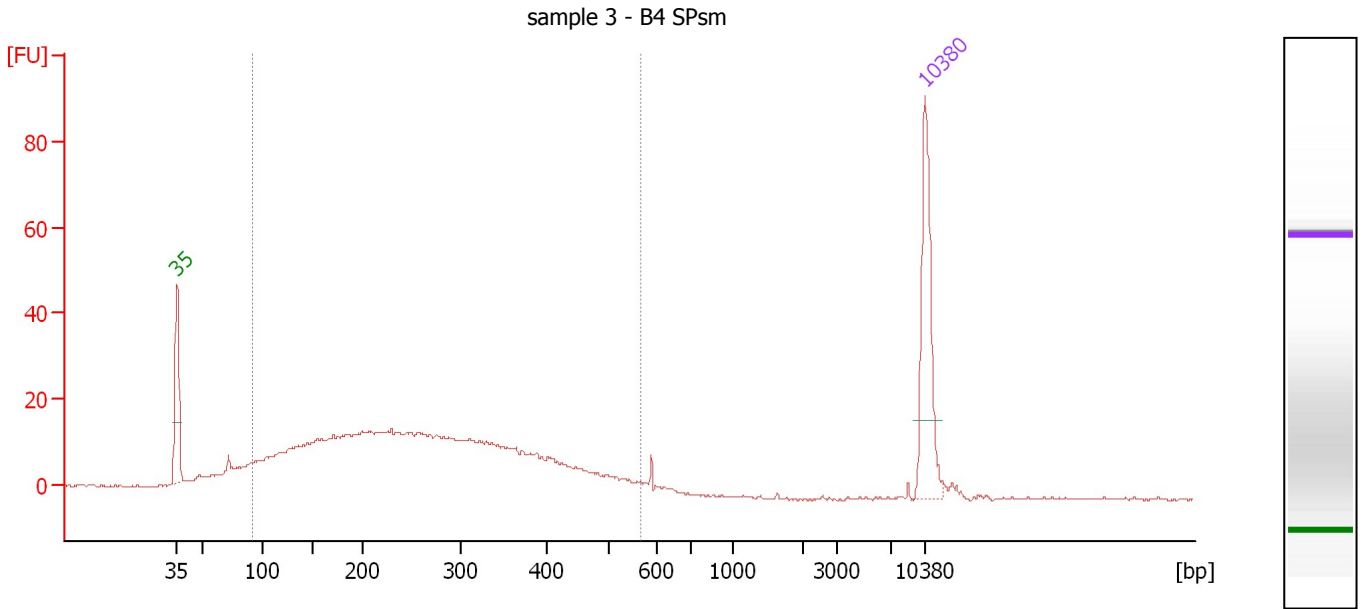
Region table for sample 2 : sample 2 - B2 SPsm

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	320	426.3	2,680.7	514.19	57	28.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
 Modified: 6/2/2016 12:13:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3 - B4 SPsm

Number of peaks found: 0 Corr. Area 1: 534.9
 Noise: 0.3

Peak table for sample 3 : sample 3 - B4 SPsm

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	10,380	75.00	10.9	Upper Marker	113.00

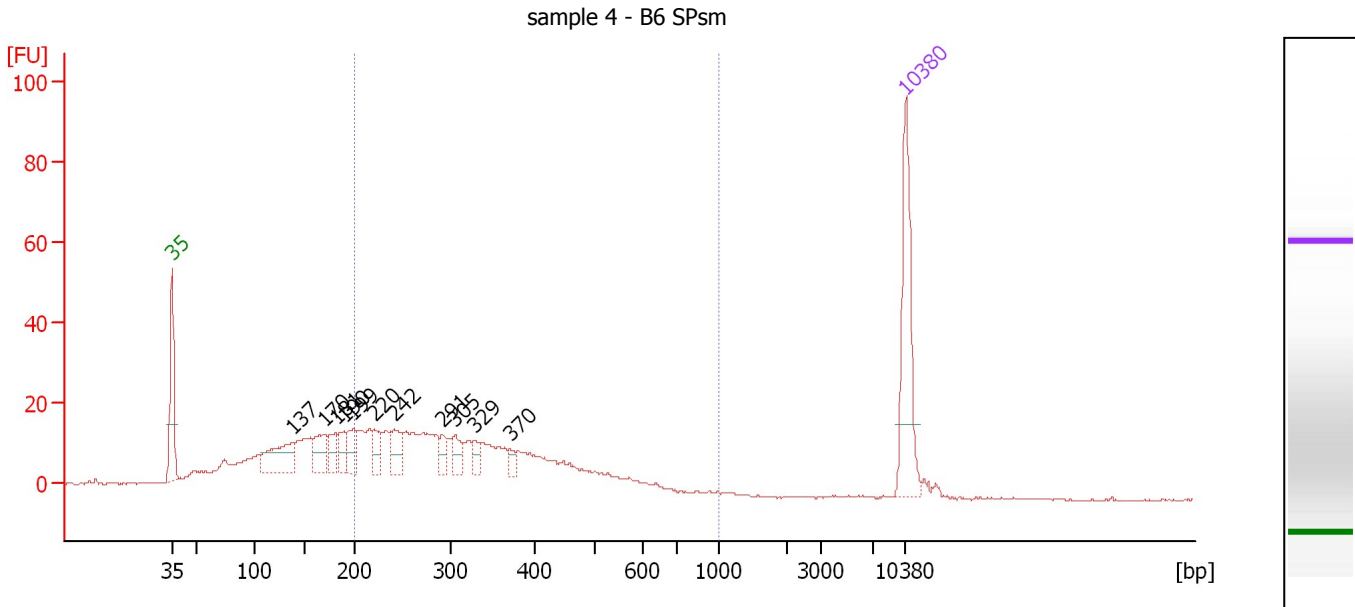
Region table for sample 3 : sample 3 - B4 SPsm

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
93	565	268	534.9	5,937.6	812.86	89	39.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
 Modified: 6/2/2016 12:13:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4 - B6 SPsm

Number of peaks found: 11 Corr. Area 1: 390.8
 Noise: 0.2

Peak table for sample 4 : sample 4 - B6 SPsm

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	137	62.12	687.7		54.45
3	170	33.34	297.7		57.55
4	181	24.46	204.7		58.62
5	190	19.43	155.2		59.43
6	199	25.36	193.2		60.30
7	220	17.39	119.8		62.23
8	242	28.82	180.7		64.21
9	291	13.92	72.5		68.74
10	305	17.03	84.5		70.01
11	329	12.06	55.6		71.90
12	370	7.64	31.3		75.25
13	10,380	75.00	10.9	Upper Marker	113.00

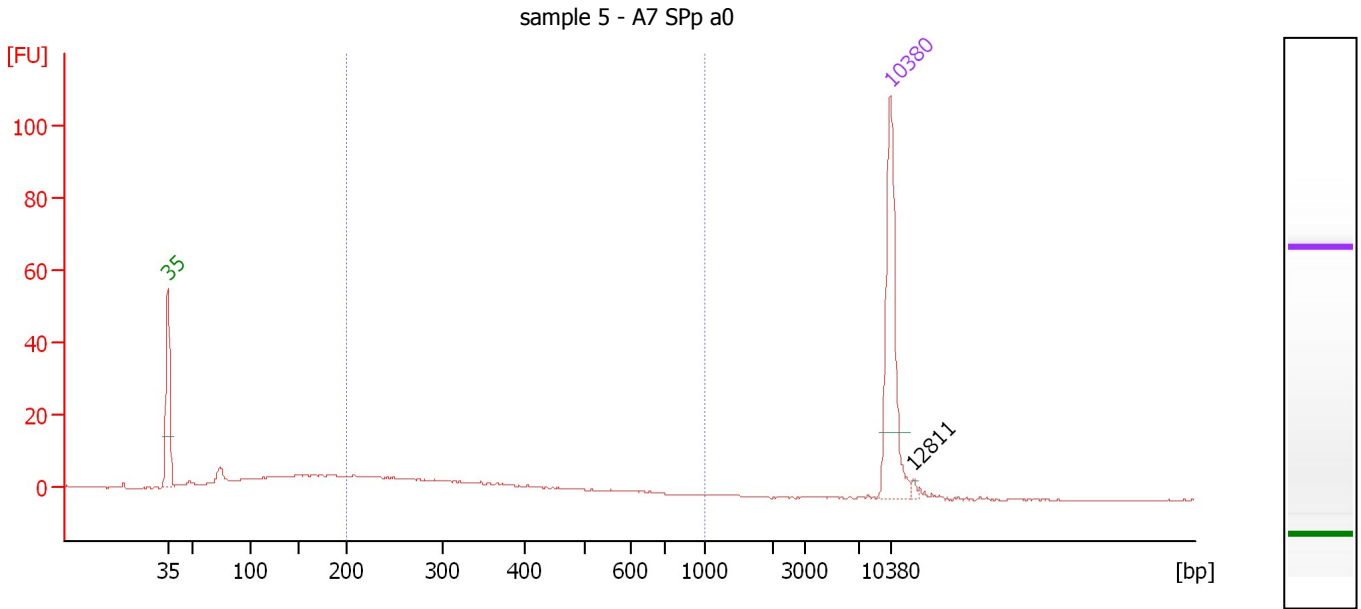
Region table for sample 4 : sample 4 - B6 SPsm

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	333	390.8	2,731.5	534.89	58	31.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
 Modified: 6/2/2016 12:13:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5 - A7 SPp a0

Number of peaks found: 1 Corr. Area 1: 91.6
 Noise: 0.2

Peak table for sample 5 : sample 5 - A7 SPp a0

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	10,380	75.00	10.9	Upper Marker	113.00
3	12,811	0.00	0.0		115.22

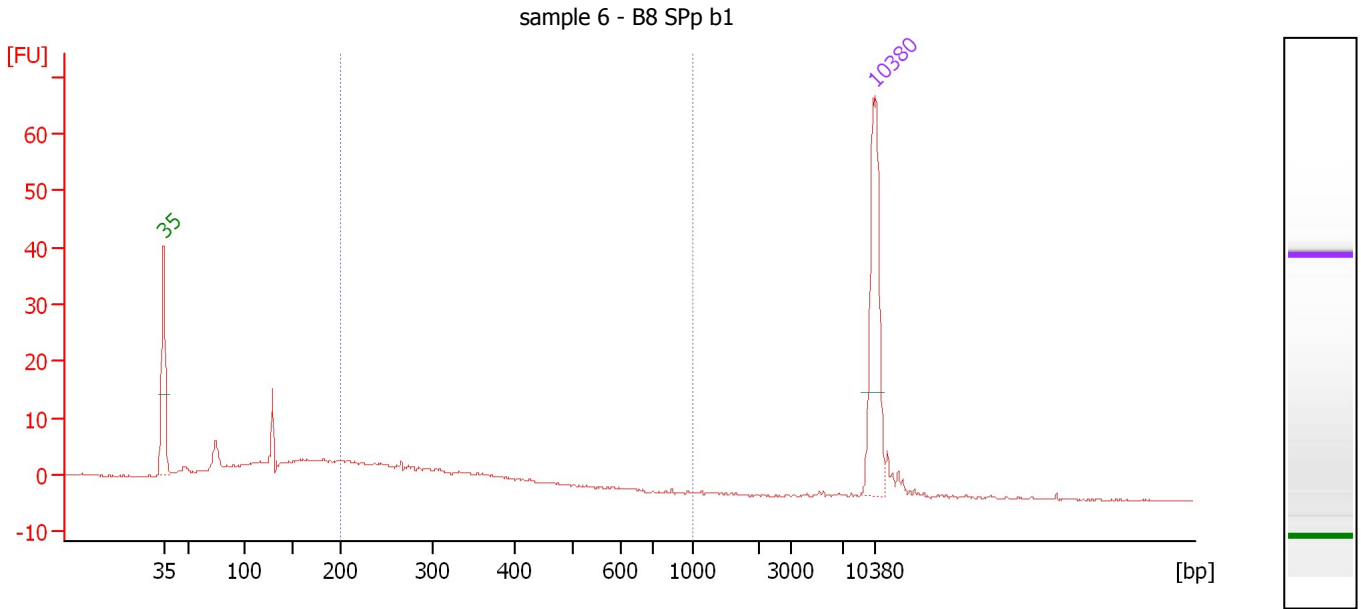
Region table for sample 5 : sample 5 - A7 SPp a0

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	329	91.6	547.8	105.27	48	33.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
Modified: 6/2/2016 12:13:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6 - B8 SPp b1

Number of peaks found: 0 Corr. Area 1: 63.9
Noise: 0.2

Peak table for sample 6 : sample 6 - B8 SPp b1

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	10,380	75.00	10.9	Upper Marker	113.00

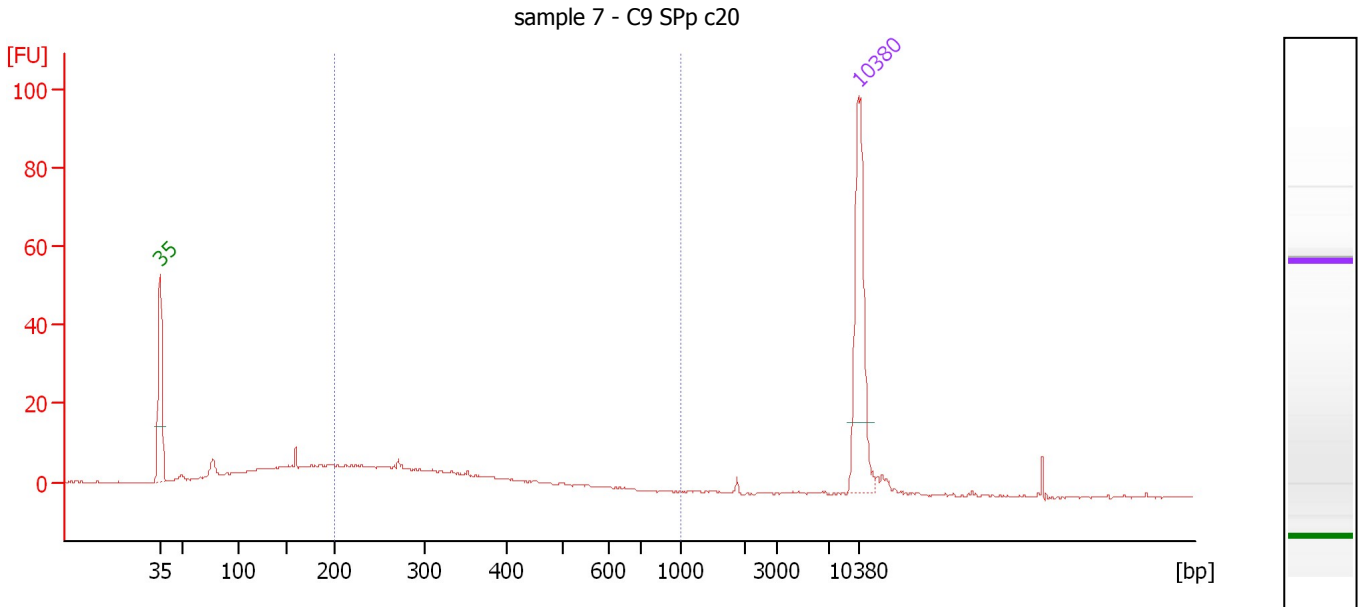
Region table for sample 6 : sample 6 - B8 SPp b1

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	291	63.9	646.0	116.66	41	23.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
 Modified: 6/2/2016 12:13:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7 - C9 SPp c20

Number of peaks found: 0 Corr. Area 1: 122.3
 Noise: 0.2

Peak table for sample 7 : sample 7 - C9 SPp c20

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	10,380	75.00	10.9	Upper Marker	113.00

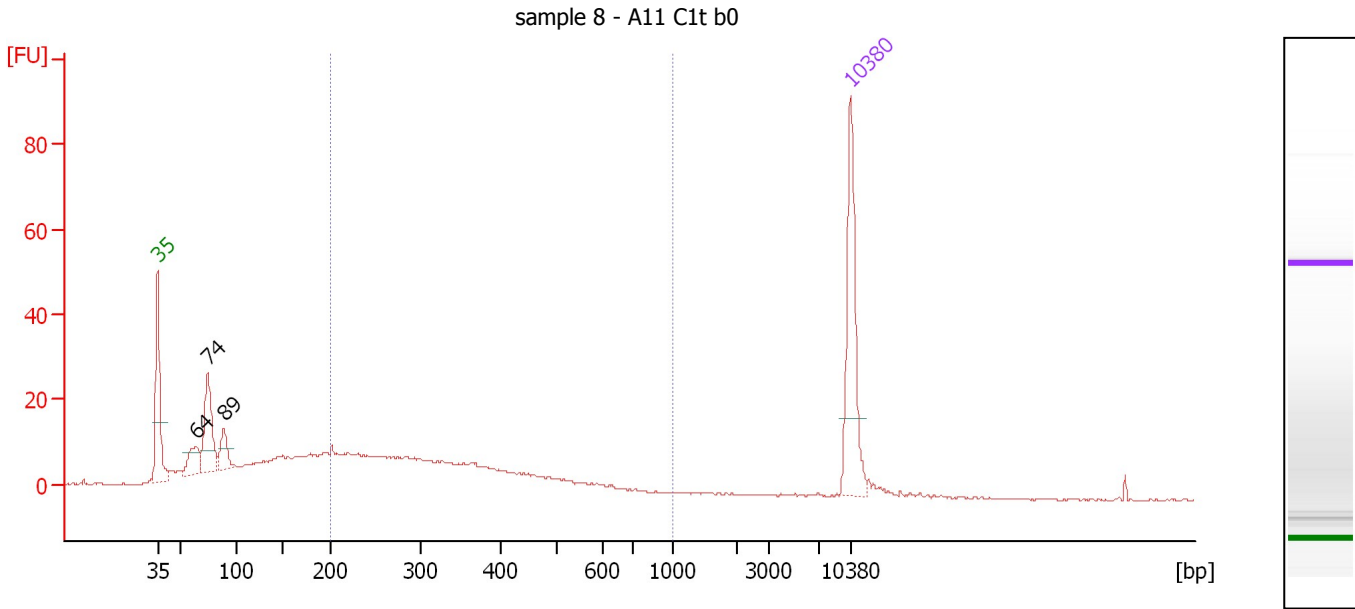
Region table for sample 7 : sample 7 - C9 SPp c20

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	317	122.3	801.1	152.07	51	29.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
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Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8 - A11 C1t b0

Number of peaks found: 3 Corr. Area 1: 210.5
 Noise: 0.1

Peak table for sample 8 : sample 8 - A11 C1t b0

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	64	35.19	837.5		46.88
3	74	78.73	1,606.1		48.07
4	89	28.21	481.7		49.68
5	10,380	75.00	10.9	Upper Marker	113.00

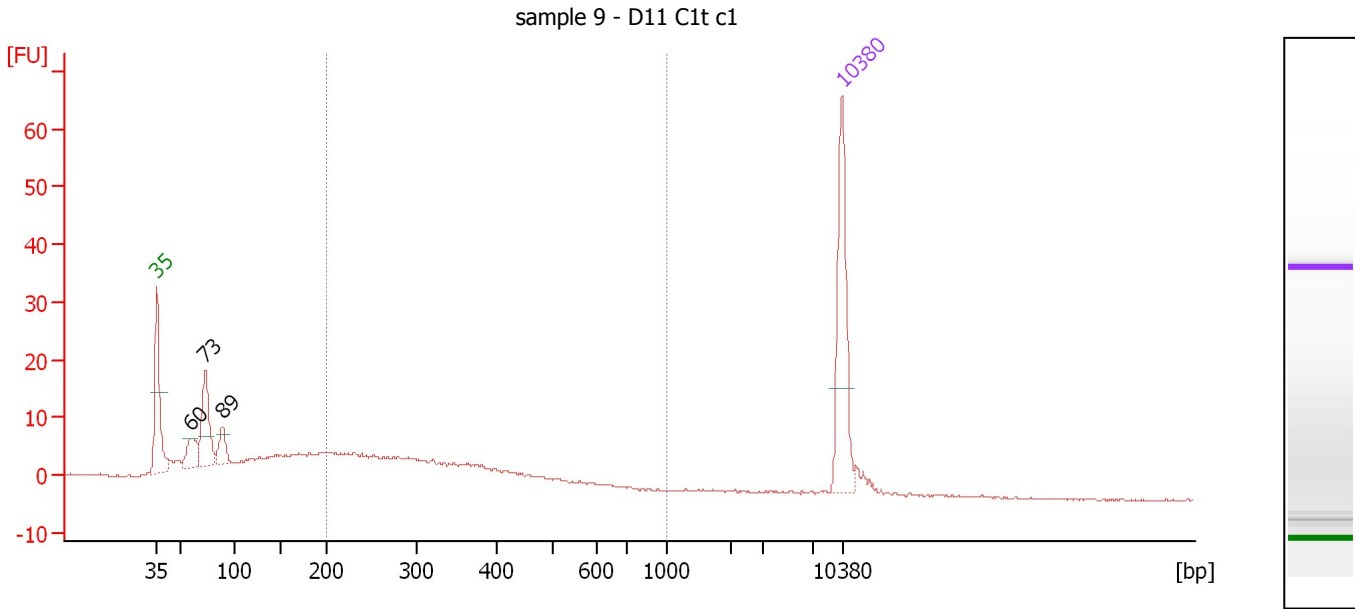
Region table for sample 8 : sample 8 - A11 C1t b0

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	334	210.5	1,539.7	301.92	47	31.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
 Modified: 6/2/2016 12:13:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9 - D11 C1t c1

Number of peaks found: 3 Corr. Area 1: 113.2
 Noise: 0.1

Peak table for sample 9 : sample 9 - D11 C1t c1

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	60	33.48	843.7		46.48
3	73	73.36	1,517.1		47.95
4	89	24.63	420.0		49.70
5	10,380	75.00	10.9	Upper Marker	113.00

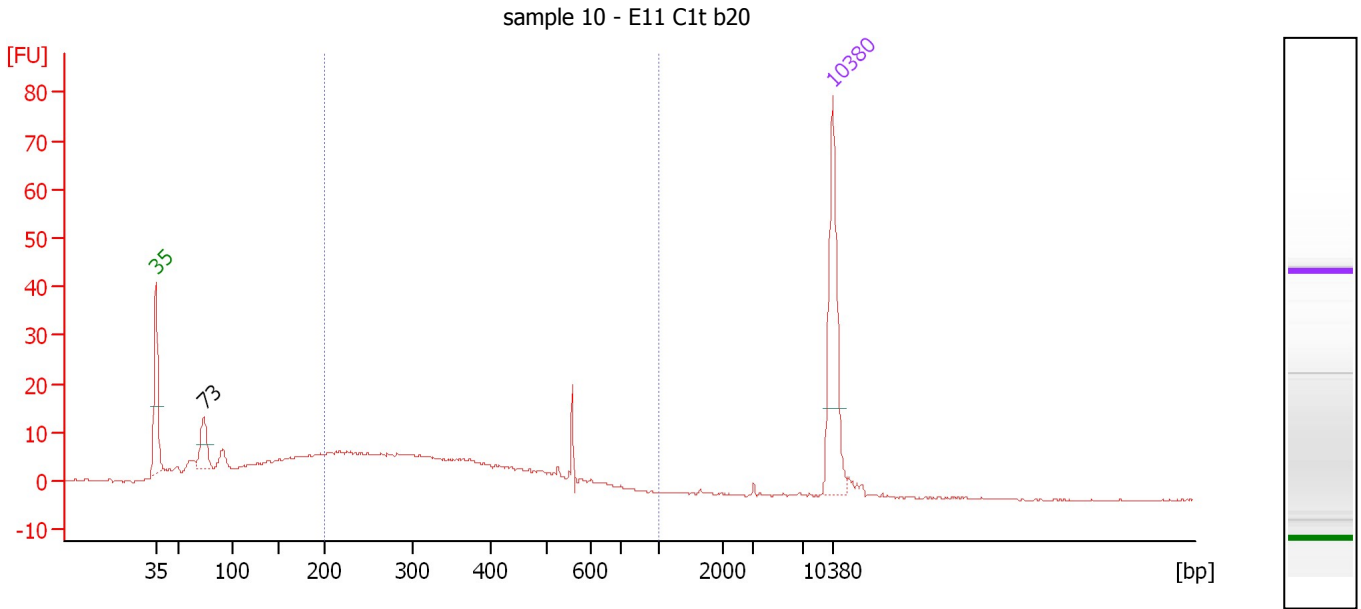
Region table for sample 9 : sample 9 - D11 C1t c1

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	319	113.2	1,110.1	212.68	42	28.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
 Modified: 6/2/2016 12:13:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10 - E11 C1t b20

Number of peaks found: 1 Corr. Area 1: 201.0
 Noise: 0.1

Peak table for sample 10 : sample 10 - E11 C1t b20

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	73	37.51	775.0		47.96
3	10,380	75.00	10.9	Upper Marker	113.00

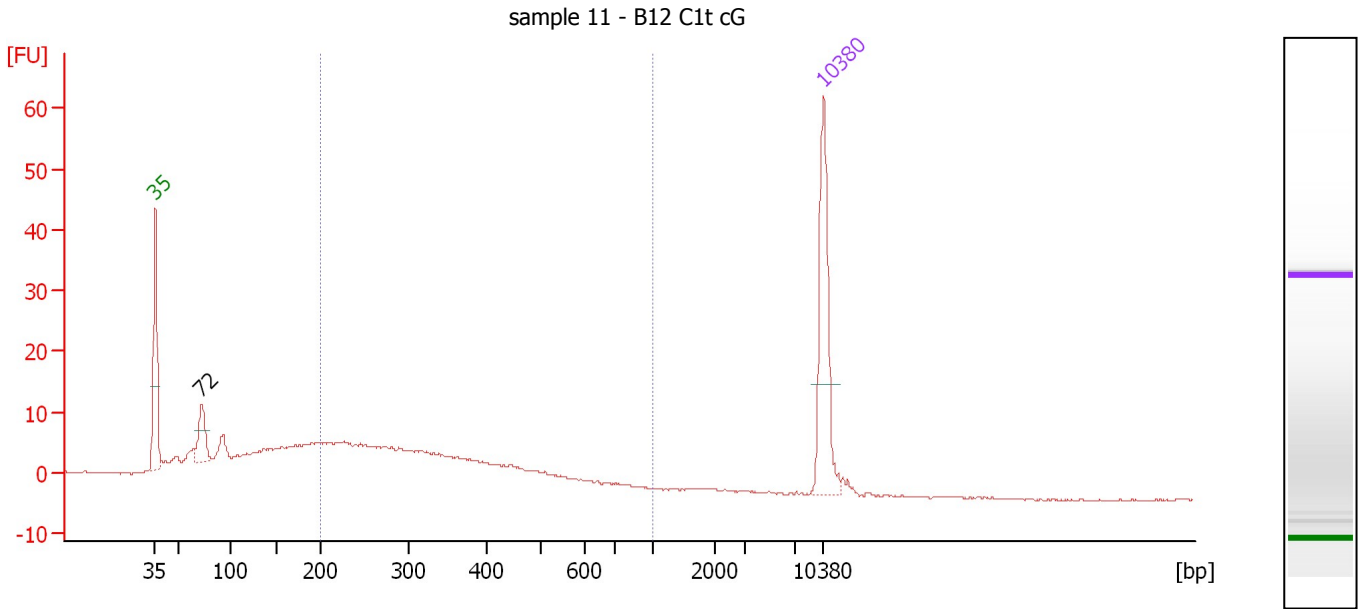
Region table for sample 10 : sample 10 - E11 C1t b20

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	353	201.0	1,621.6	330.33	57	32.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
 Modified: 6/2/2016 12:13:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11 - B12 C1t cG

Number of peaks found: 1 Corr. Area 1: 146.8
 Noise: 0.1

Peak table for sample 11 : sample 11 - B12 C1t cG

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	72	39.54	827.4		47.86
3	10,380	75.00	10.9	Upper Marker	113.00

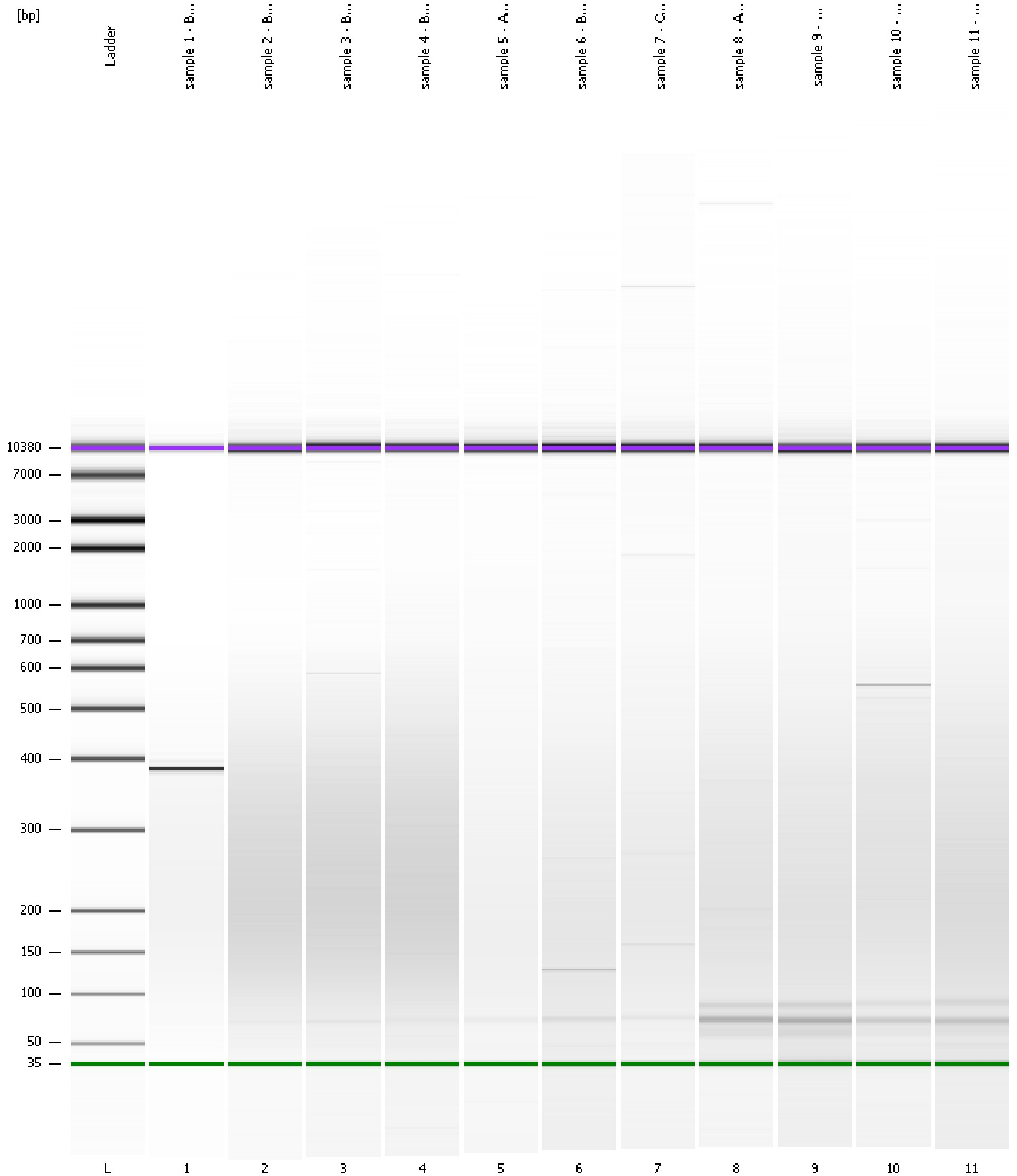
Region table for sample 11 : sample 11 - B12 C1t cG

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	328	146.8	1,457.5	283.04	51	30.8

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
Modified: 6/2/2016 12:13:47 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-02\2016-06-02_002.xad

Created: 6/2/2016 11:33:20 AM
 Modified: 6/2/2016 12:13:47 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		6/2/2016 12:13:46 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\2016-06-02\2016-06-02_002.xad)		Instrument	Run		6/2/2016 11:33:25 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		6/2/2016 11:33:25 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/2/2016 11:33:25 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/2/2016 11:33:25 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		6/2/2016 11:33:25 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/2/2016 11:33:25 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/2/2016 11:33:25 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1