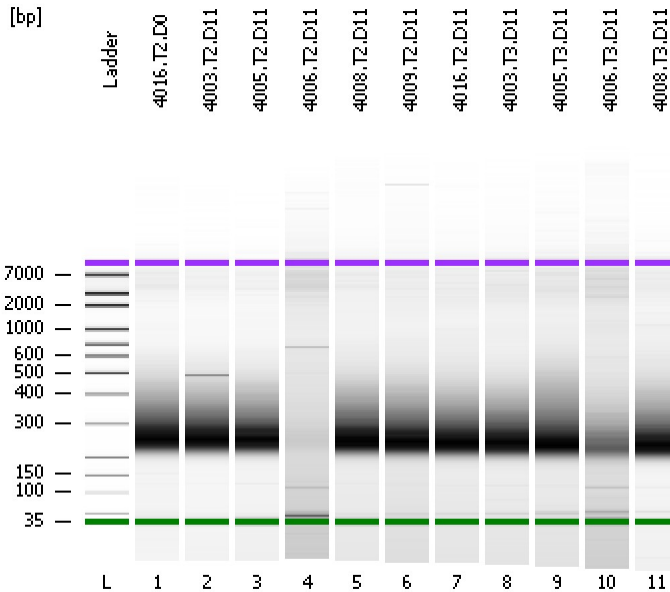


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
Modified: 6/16/2016 5:16:47 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

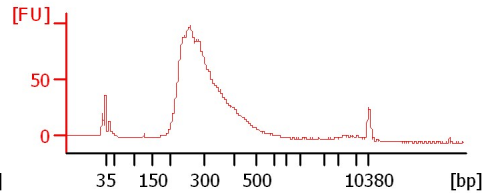
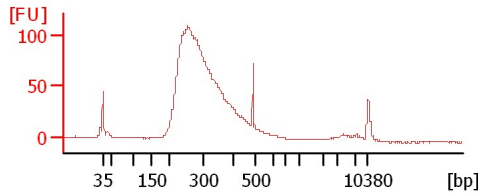
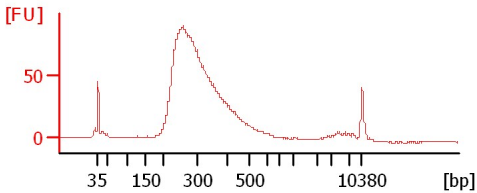
Chip Information:

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

4016.T2.D0

4003.T2.D11

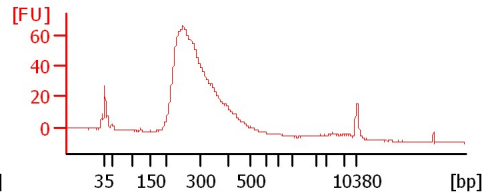
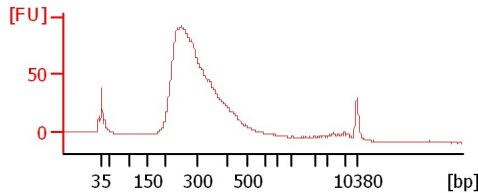
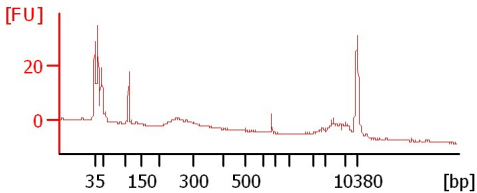
4005.T2.D11



4006.T2.D11

4008.T2.D11

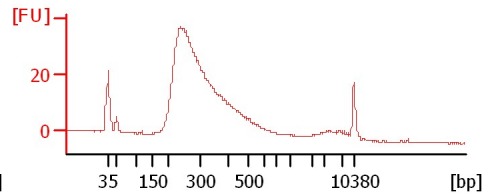
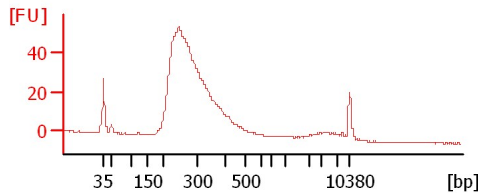
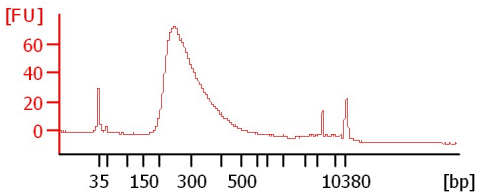
4009.T2.D11



4016.T2.D11

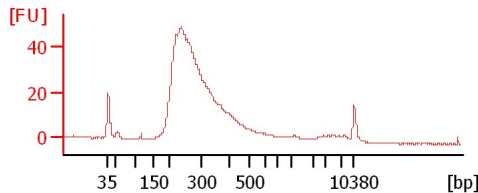
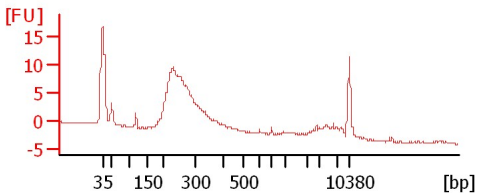
4003.T3.D11

4005.T3.D11



4006.T3.D11

4008.T3.D11



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
 Modified: 6/16/2016 5:16:47 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
4016.T2.D0		<input type="checkbox"/>	✓			
4003.T2.D11		<input type="checkbox"/>	✓			
4005.T2.D11		<input type="checkbox"/>	✓			
4006.T2.D11		<input type="checkbox"/>	✓			
4008.T2.D11		<input type="checkbox"/>	✓			
4009.T2.D11		<input type="checkbox"/>	✓			
4016.T2.D11		<input type="checkbox"/>	✓			
4003.T3.D11		<input type="checkbox"/>	✓			
4005.T3.D11		<input type="checkbox"/>	✓			
4006.T3.D11		<input type="checkbox"/>	✓			
4008.T3.D11		<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\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
Modified: 6/16/2016 5:16:47 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

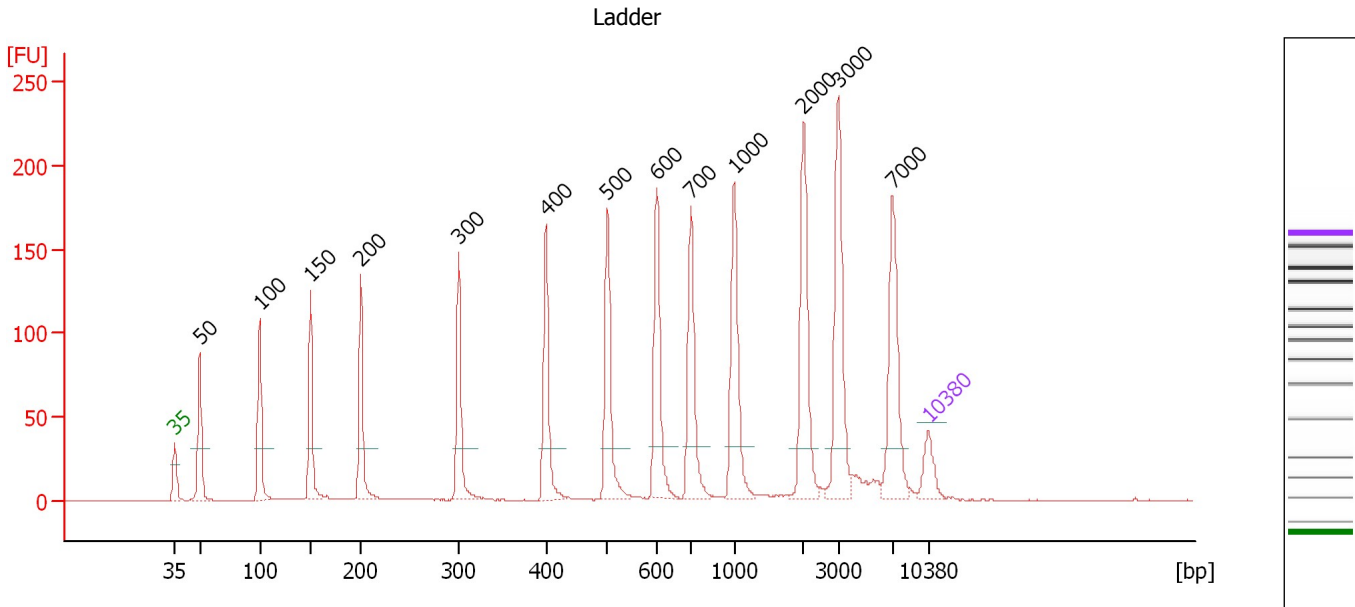
Ladder

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\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
 Modified: 6/16/2016 5:16:47 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

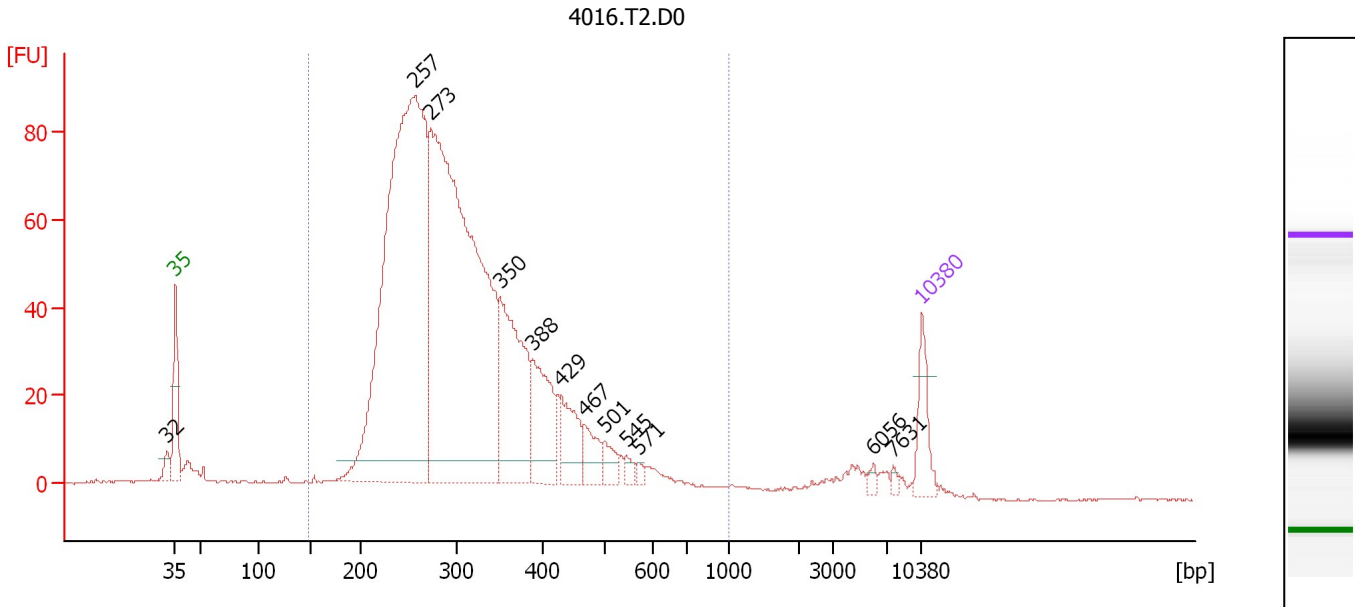
Peak table for Ladder

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	45.33
3	100	150.00	2,272.7	Ladder Peak	50.88
4	150	150.00	1,515.2	Ladder Peak	55.63
5	200	150.00	1,136.4	Ladder Peak	60.29
6	300	150.00	757.6	Ladder Peak	69.40
7	400	150.00	568.2	Ladder Peak	77.48
8	500	150.00	454.5	Ladder Peak	83.23
9	600	150.00	378.8	Ladder Peak	87.78
10	700	150.00	324.7	Ladder Peak	90.95
11	1,000	150.00	227.3	Ladder Peak	94.97
12	2,000	150.00	113.6	Ladder Peak	101.41
13	3,000	150.00	75.8	Ladder Peak	104.68
14	7,000	150.00	32.5	Ladder Peak	109.68
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
 Modified: 6/16/2016 5:16:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 4016.T2.D0

Number of peaks found: 12 Corr. Area 1: 1,620.2
 Noise: 0.2

Peak table for sample 1 : 4016.T2.D0

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.25
2	35	125.00	5,411.3	Lower Marker	43.00
3	257	2,006.72	11,823.2		65.50
4	273	1,980.44	10,988.7		66.95
5	350	433.14	1,874.5		73.45
6	388	234.52	916.1		76.50
7	429	127.29	449.5		79.15
8	467	69.58	225.6		81.35
9	501	42.89	129.8		83.25
10	545	16.71	46.4		85.30
11	571	9.40	25.0		86.45
12	6,056	10.87	2.7		108.50
13	7,631	8.16	1.6		110.30
14	10,380	75.00	10.9	Upper Marker	113.00

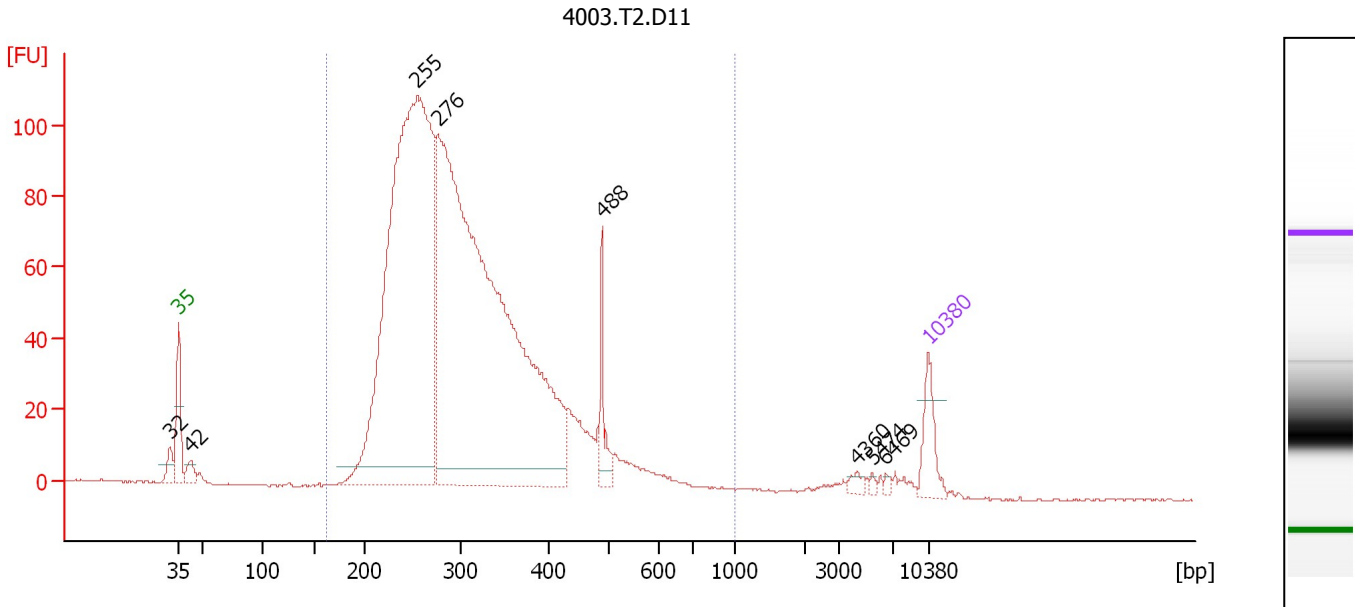
Region table for sample 1 : 4016.T2.D0

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
149	1,000	316	1,620.2	26,820.6	5,137.10	93	29.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
 Modified: 6/16/2016 5:16:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 4003.T2.D11

Number of peaks found: 8 Corr. Area 1: 1,935.4
 Noise: 0.3

Peak table for sample 2 : 4003.T2.D11

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.20
2	35	125.00	5,411.3	Lower Marker	43.00
3	42	49.06	1,754.1		44.15
4	255	2,446.29	14,534.3		65.30
5	276	2,983.00	16,389.2		67.20
6	488	93.18	289.4		82.53
7	4,360	14.93	5.2		106.38
8	5,474	6.70	1.9		107.77
9	6,469	7.57	1.8		109.02
10	10,380	75.00	10.9	Upper Marker	113.00

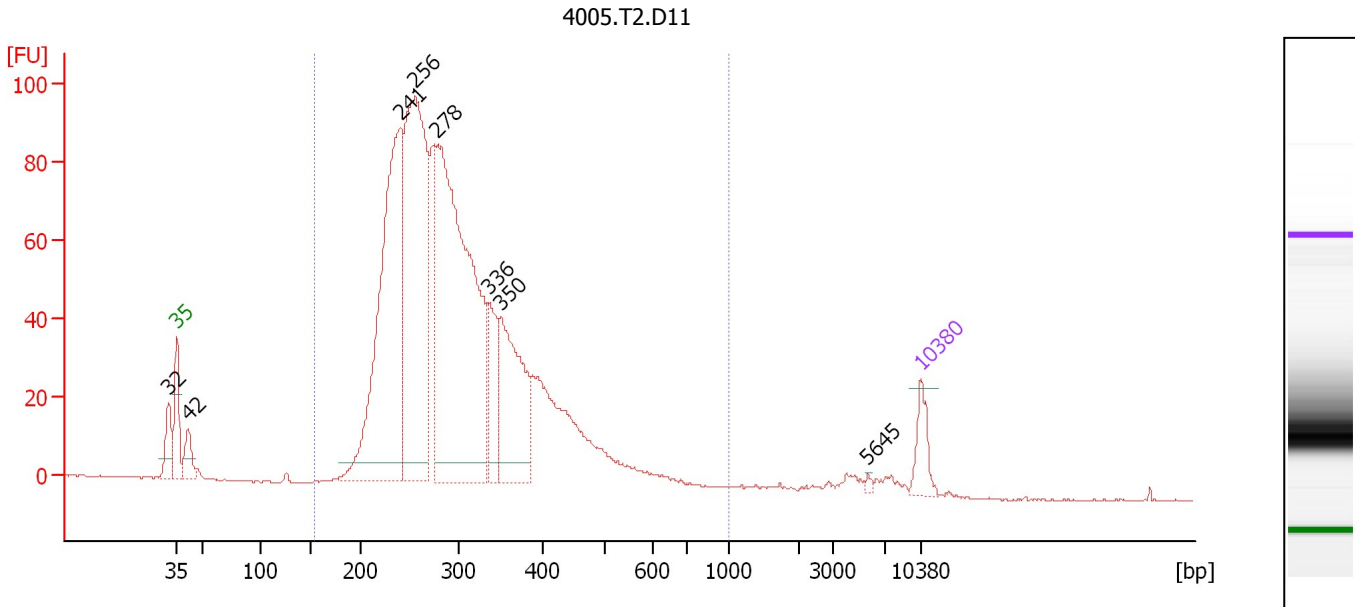
Region table for sample 2 : 4003.T2.D11

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
162	1,000	313	1,935.4	29,482.5	5,629.69	96	27.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
 Modified: 6/16/2016 5:16:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 4005.T2.D11

Number of peaks found: 8 Corr. Area 1: 1,662.4
 Noise: 0.2

Peak table for sample 3 : 4005.T2.D11

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.20
2	35	125.00	5,411.3	Lower Marker	43.00
3	42	118.99	4,314.7		44.05
4	241	1,494.46	9,381.3		64.06
5	256	1,421.79	8,425.9		65.36
6	278	1,931.17	10,516.8		67.42
7	336	241.81	1,089.5		72.33
8	350	517.51	2,240.7		73.44
9	5,645	7.49	2.0		107.99
10	10,380	75.00	10.9	Upper Marker	113.00

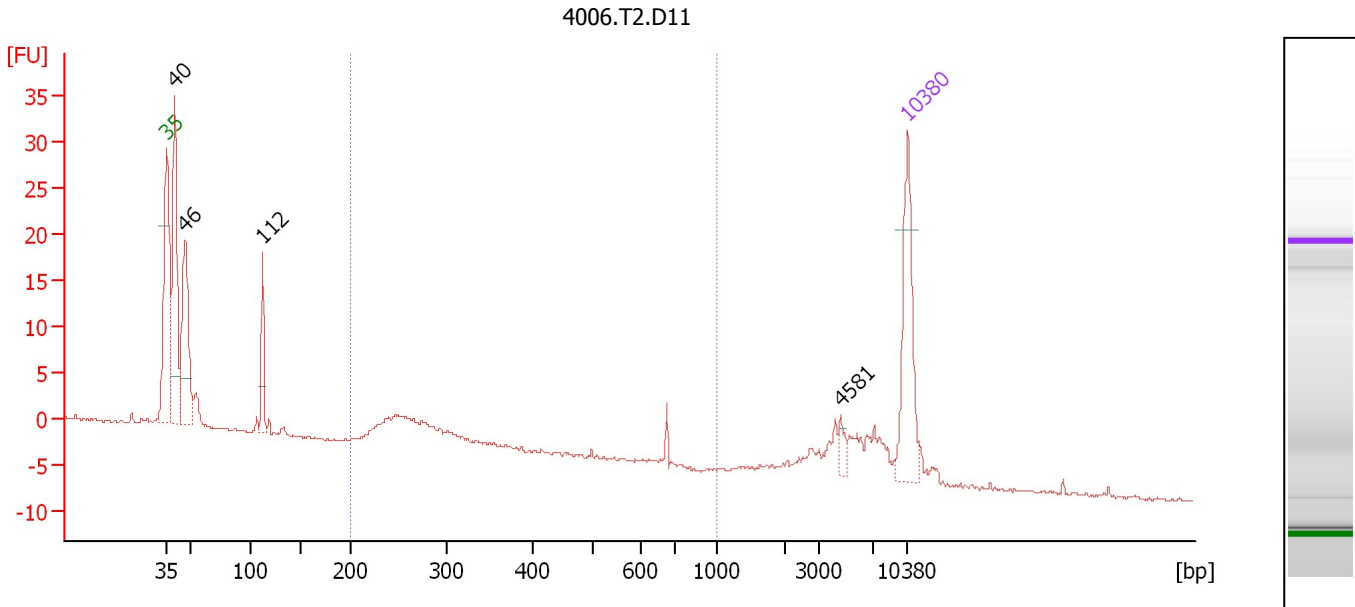
Region table for sample 3 : 4005.T2.D11

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
154	1,000	308	1,662.4	34,867.0	6,574.75	95	27.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
 Modified: 6/16/2016 5:16:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 4006.T2.D11

Number of peaks found: 4 Corr. Area 1: 34.9
 Noise: 0.2

Peak table for sample 4 : 4006.T2.D11

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	40	183.63	6,978.9		43.76
3	46	148.10	4,874.8		44.71
4	112	48.74	656.5		52.06
5	4,581	9.01	3.0		106.65
6	10,380	75.00	10.9	Upper Marker	113.00

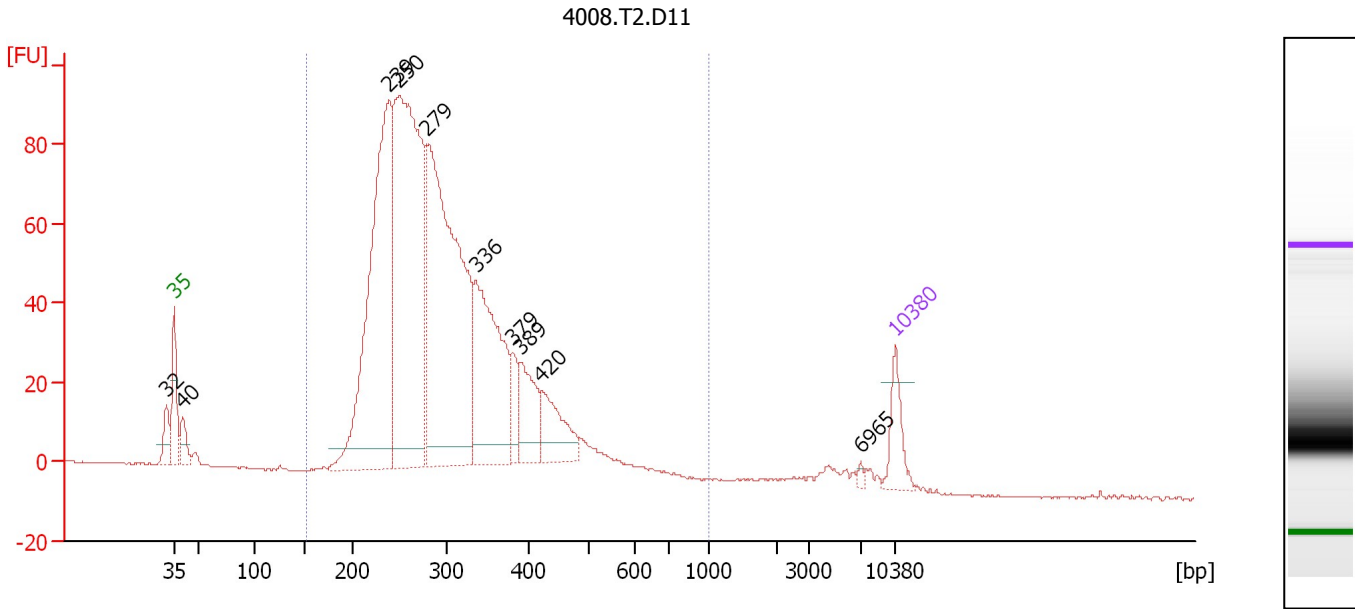
Region table for sample 4 : 4006.T2.D11

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	309	34.9	644.4	119.44	21	35.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
 Modified: 6/16/2016 5:16:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 4008.T2.D11

Number of peaks found: 10 Corr. Area 1: 1,653.1
 Noise: 0.1

Peak table for sample 5 : 4008.T2.D11

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.22
2	35	125.00	5,411.3	Lower Marker	43.00
3	40	77.79	2,922.3		43.83
4	239	1,191.91	7,554.3		63.85
5	250	1,401.82	8,501.1		64.83
6	279	1,345.21	7,310.8		67.47
7	336	562.78	2,540.5		72.28
8	379	73.08	292.0		75.80
9	389	161.72	630.2		76.58
10	420	161.48	582.1		78.65
11	6,965	6.45	1.4		109.64
12	10,380	75.00	10.9	Upper Marker	113.00

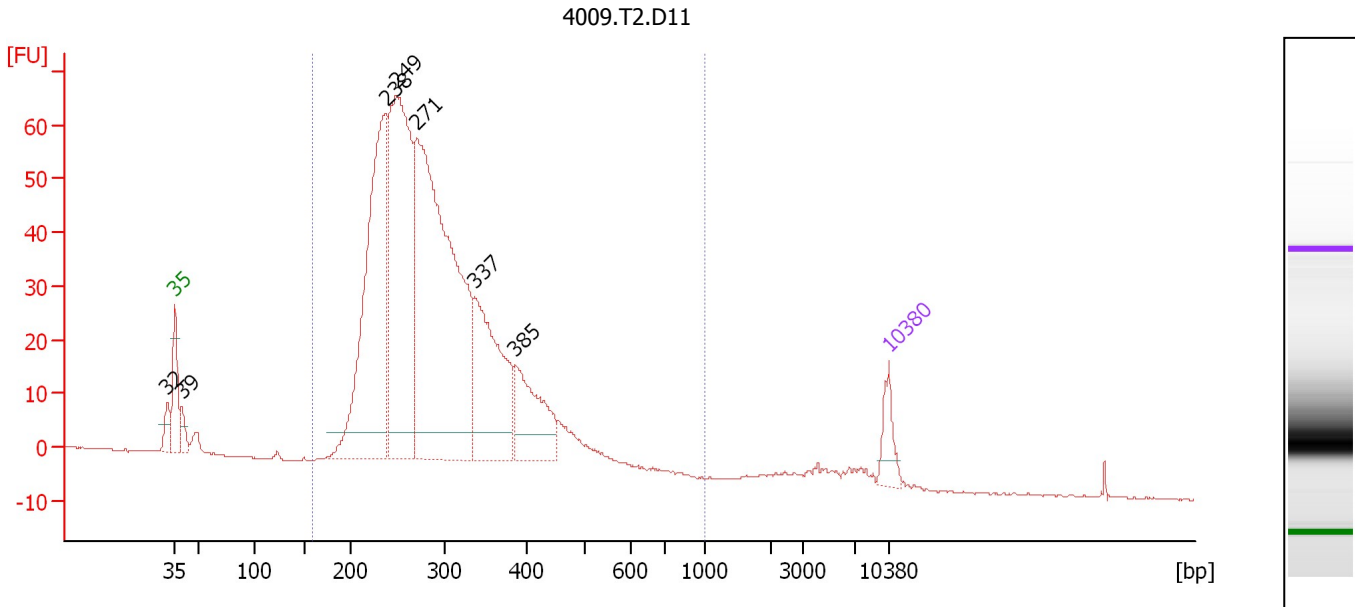
Region table for sample 5 : 4008.T2.D11

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
153	1,000	308	1,653.1	27,911.6	5,244.89	95	28.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
 Modified: 6/16/2016 5:16:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 4009.T2.D11

Number of peaks found: 7 Corr. Area 1: 1,125.8
 Noise: 0.2

Peak table for sample 6 : 4009.T2.D11

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.27
2	35	125.00	5,411.3	Lower Marker	43.00
3	39	77.62	2,986.5		43.68
4	238	1,402.46	8,927.9		63.75
5	249	1,421.89	8,655.3		64.75
6	271	2,139.60	11,950.3		66.79
7	337	649.19	2,920.1		72.38
8	385	342.87	1,348.0		76.30
9	10,380	75.00	10.9	Upper Marker	113.00

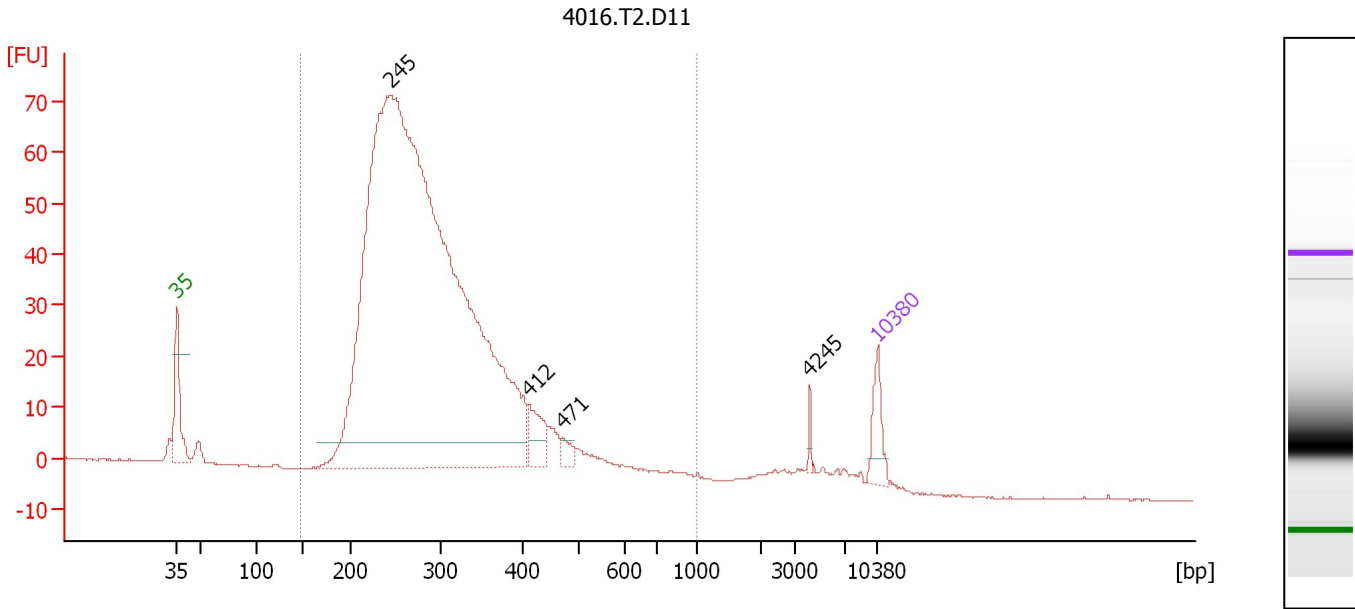
Region table for sample 6 : 4009.T2.D11

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
160	1,000	300	1,125.8	33,829.4	6,254.32	96	25.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
 Modified: 6/16/2016 5:16:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 4016.T2.D11

Number of peaks found: 4 Corr. Area 1: 1,206.6
 Noise: 0.1

Peak table for sample 7 : 4016.T2.D11

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	245	6,117.24	37,789.9		64.42
3	412	112.87	415.3		78.16
4	471	34.32	110.4		81.57
5	4,245	13.48	4.8		106.23
6	10,380	75.00	10.9	Upper Marker	113.00

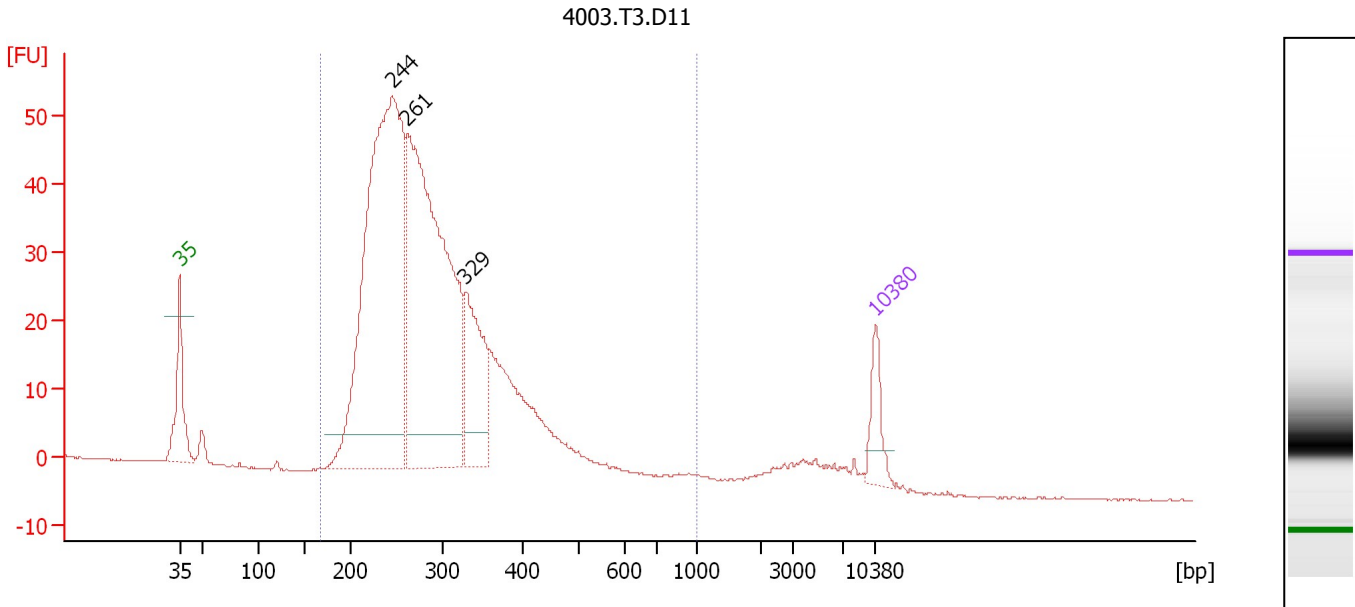
Region table for sample 7 : 4016.T2.D11

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
148	1,000	302	1,206.6	33,826.6	6,207.02	96	30.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
 Modified: 6/16/2016 5:16:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 4003.T3.D11

Number of peaks found: 3 Corr. Area 1: 874.2
 Noise: 0.1

Peak table for sample 8 : 4003.T3.D11

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	244	1,852.45	11,486.5		64.33
3	261	1,617.18	9,373.5		65.89
4	329	346.12	1,595.1		71.73
5	10,380	75.00	10.9	Upper Marker	113.00

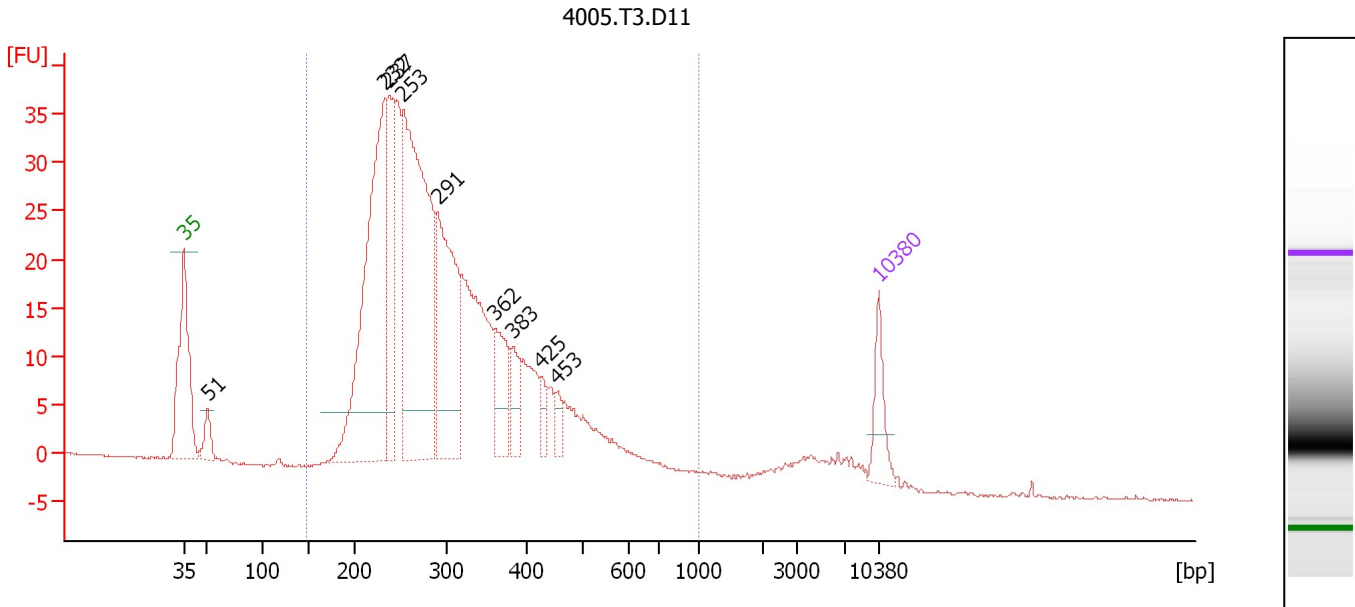
Region table for sample 8 : 4003.T3.D11

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
168	1,000	297	874.2	24,085.8	4,389.48	96	28.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
 Modified: 6/16/2016 5:16:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 4005.T3.D11

Number of peaks found: 9 Corr. Area 1: 678.8
 Noise: 0.1

Peak table for sample 9 : 4005.T3.D11

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	51	68.95	2,056.3		45.42
3	232	963.67	6,295.6		63.20
4	237	345.84	2,214.3		63.63
5	253	1,075.00	6,434.3		65.13
6	291	508.18	2,647.2		68.57
7	362	156.53	656.0		74.37
8	383	79.82	315.4		76.15
9	425	42.48	151.3		78.94
10	453	31.29	104.8		80.50
11	10,380	75.00	10.9	Upper Marker	113.00

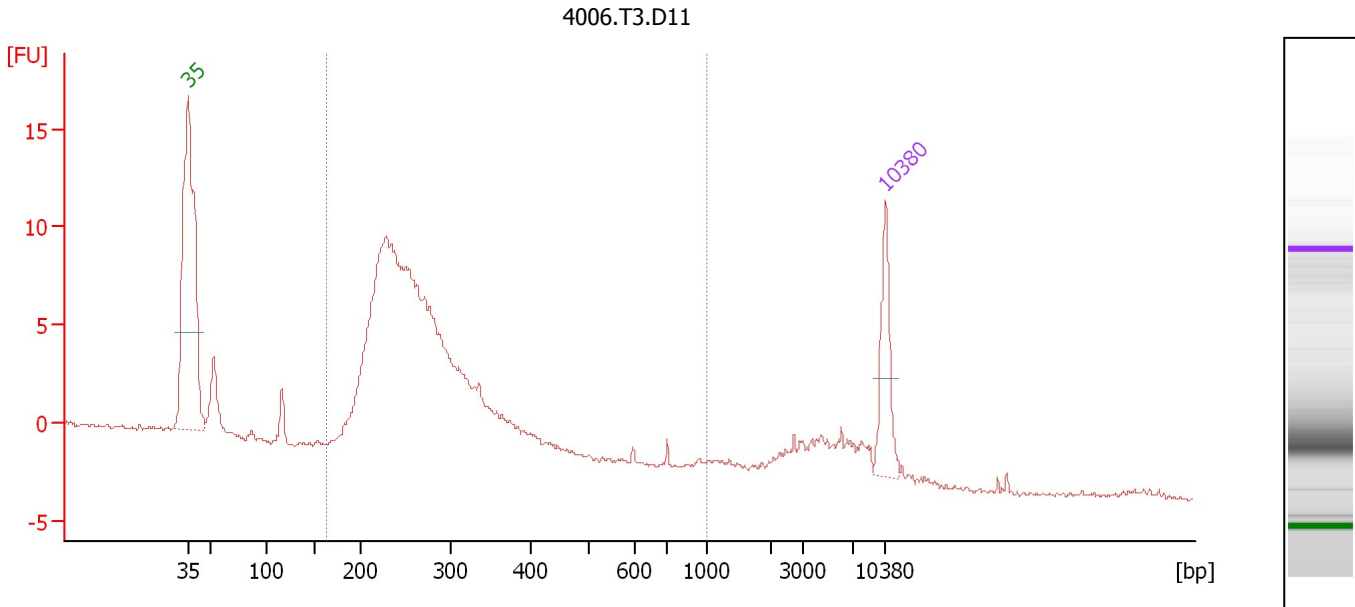
Region table for sample 9 : 4005.T3.D11

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
148	1,000	315	678.8	24,715.9	4,617.51	95	32.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
 Modified: 6/16/2016 5:16:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 4006.T3.D11

Number of peaks found: 0 Corr. Area 1: 140.8
 Noise: 0.1

Peak table for sample 10 : 4006.T3.D11

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

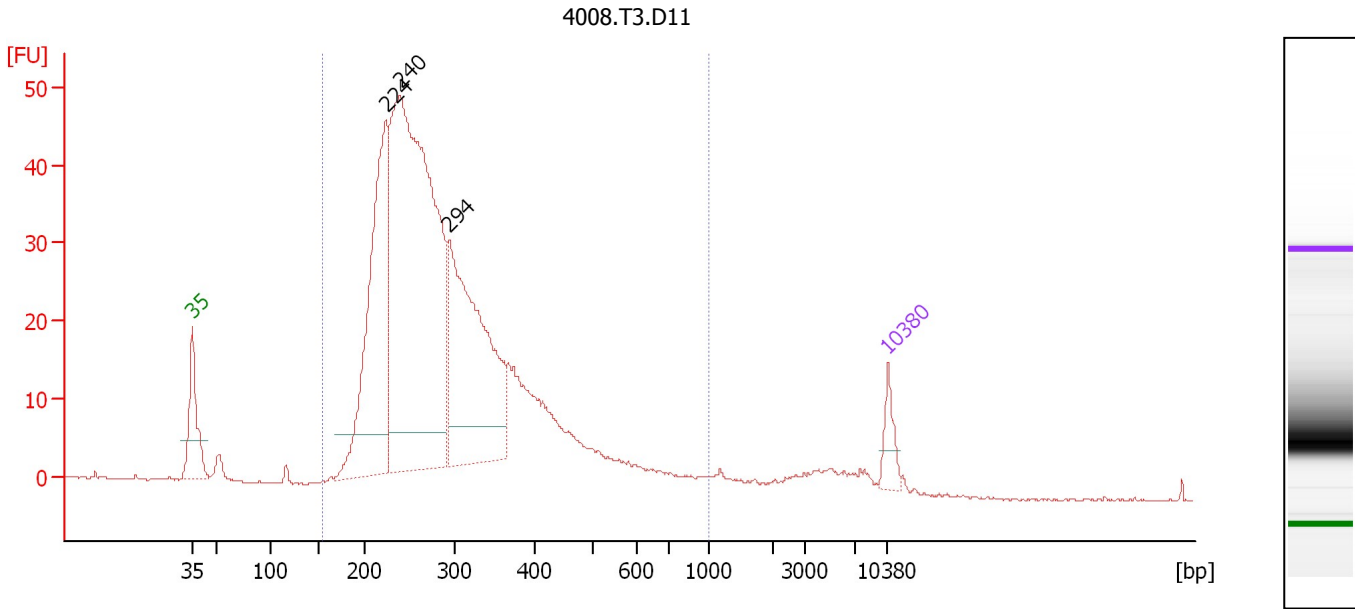
Region table for sample 10 : 4006.T3.D11

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
165	1,000	276	140.8	8,188.0	1,405.28	83	27.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
 Modified: 6/16/2016 5:16:47 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 4008.T3.D11

Number of peaks found: 3 Corr. Area 1: 830.8
 Noise: 0.1

Peak table for sample 11 : 4008.T3.D11

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	224	1,370.62	9,266.8		62.49
3	240	3,053.44	19,276.8		63.94
4	294	1,305.05	6,721.5		68.87
5	10,380	75.00	10.9	Upper Marker	113.00

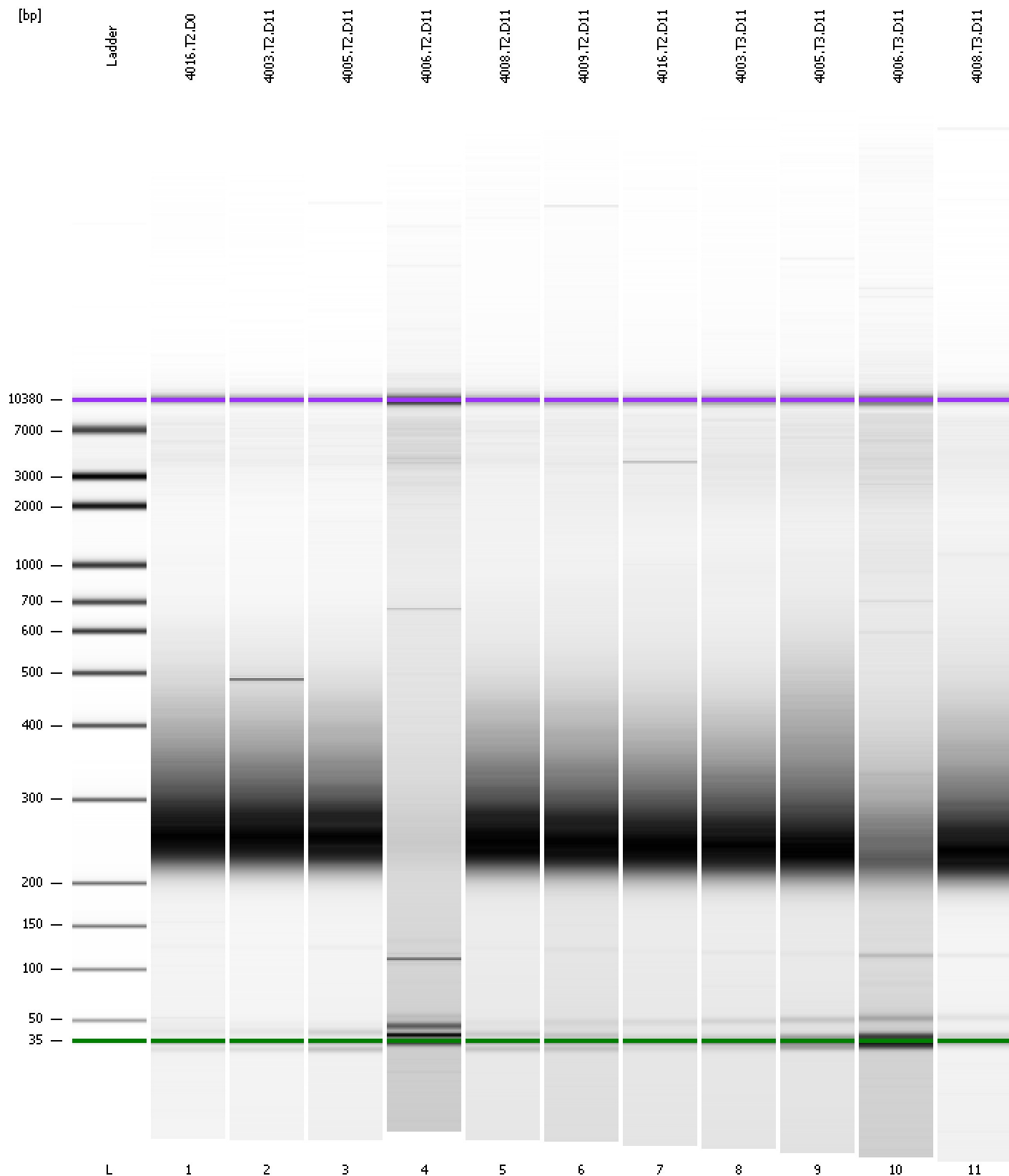
Region table for sample 11 : 4008.T3.D11

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
156	1,000	306	830.8	38,303.2	6,954.15	95	34.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
Modified: 6/16/2016 5:16:47 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-16\2016-06-16_003.xad

Created: 6/16/2016 4:31:13 PM
 Modified: 6/16/2016 5:16:47 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		6/16/2016 5:12:32 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\2016-06-16\2016-06-16_003.xad)		Instrument	Run		6/16/2016 4:31:19 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		6/16/2016 4:31:19 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/16/2016 4:31:19 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/16/2016 4:31:19 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		6/16/2016 4:31:19 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/16/2016 4:31:19 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/16/2016 4:31:19 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1