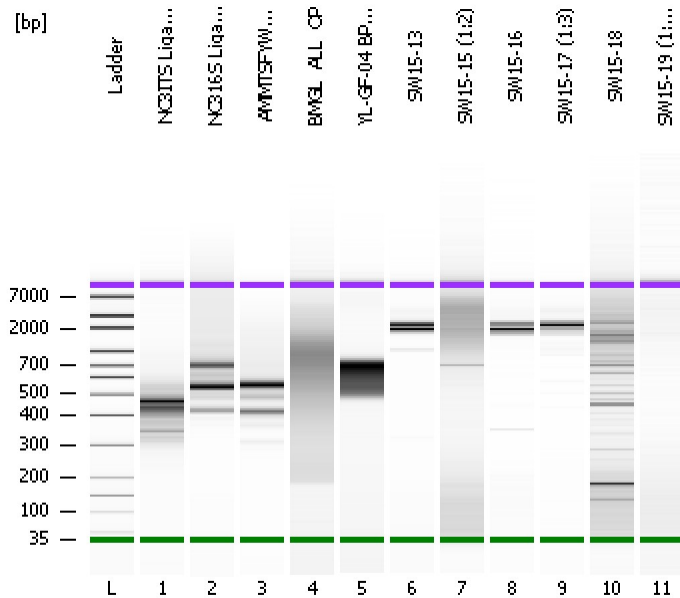


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
Modified: 7/2/2015 4:18:33 PM

Electrophoresis File Run Summary



Instrument Information:

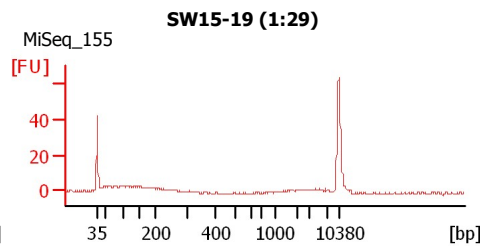
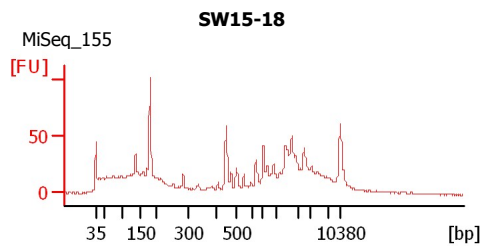
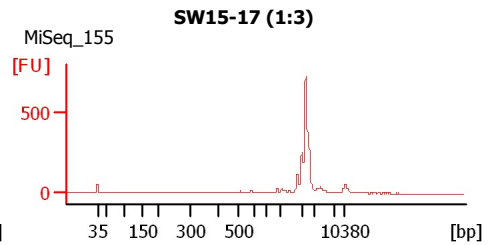
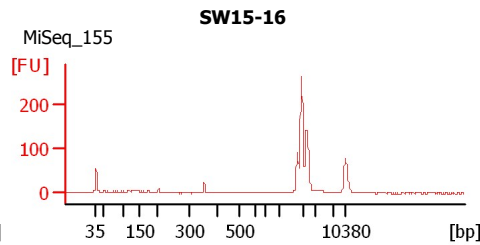
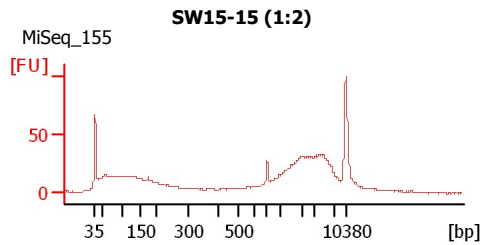
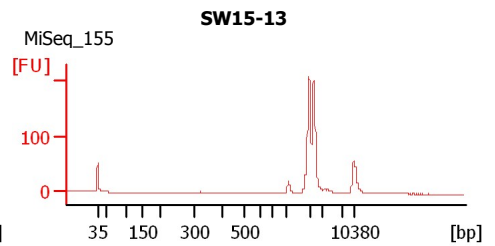
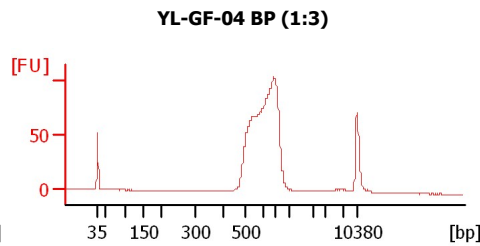
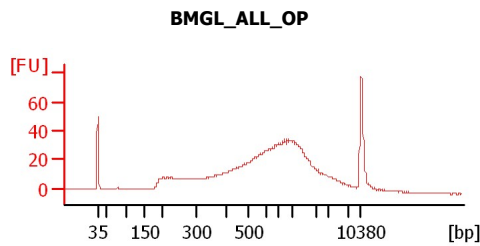
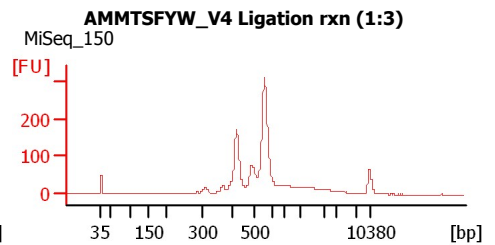
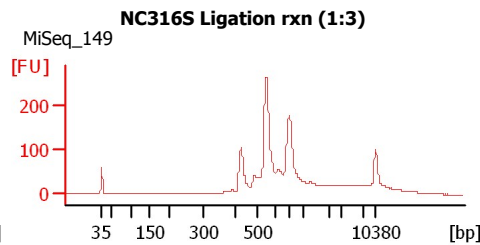
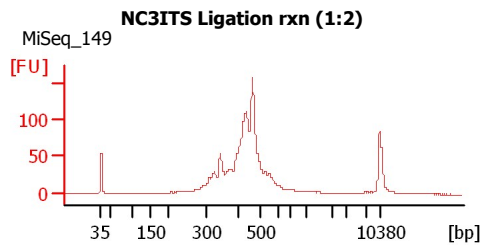
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:\...ents and Settings\Bioanalyzer\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
Modified: 7/2/2015 4:18:33 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
NC3ITS Ligation rxn (1:2)	MiSeq_149	<input type="checkbox"/>	✓			
NC316S Ligation rxn (1:3)	MiSeq_149	<input type="checkbox"/>	✓			
AMMTSFYW_V4 Ligation rxn (1:3)	MiSeq_150	<input type="checkbox"/>	✓			
BMGL_ALL_OP		<input type="checkbox"/>	✓			
YL-GF-04 BP (1:3)		<input type="checkbox"/>	✓			
SW15-13	MiSeq_155	<input type="checkbox"/>	✓			
SW15-15 (1:2)	MiSeq_155	<input type="checkbox"/>	✓			
SW15-16	MiSeq_155	<input type="checkbox"/>	✓			
SW15-17 (1:3)	MiSeq_155	<input type="checkbox"/>	✓			
SW15-18	MiSeq_155	<input type="checkbox"/>	✓			
SW15-19 (1:29)	MiSeq_155	<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\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
Modified: 7/2/2015 4:18:33 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

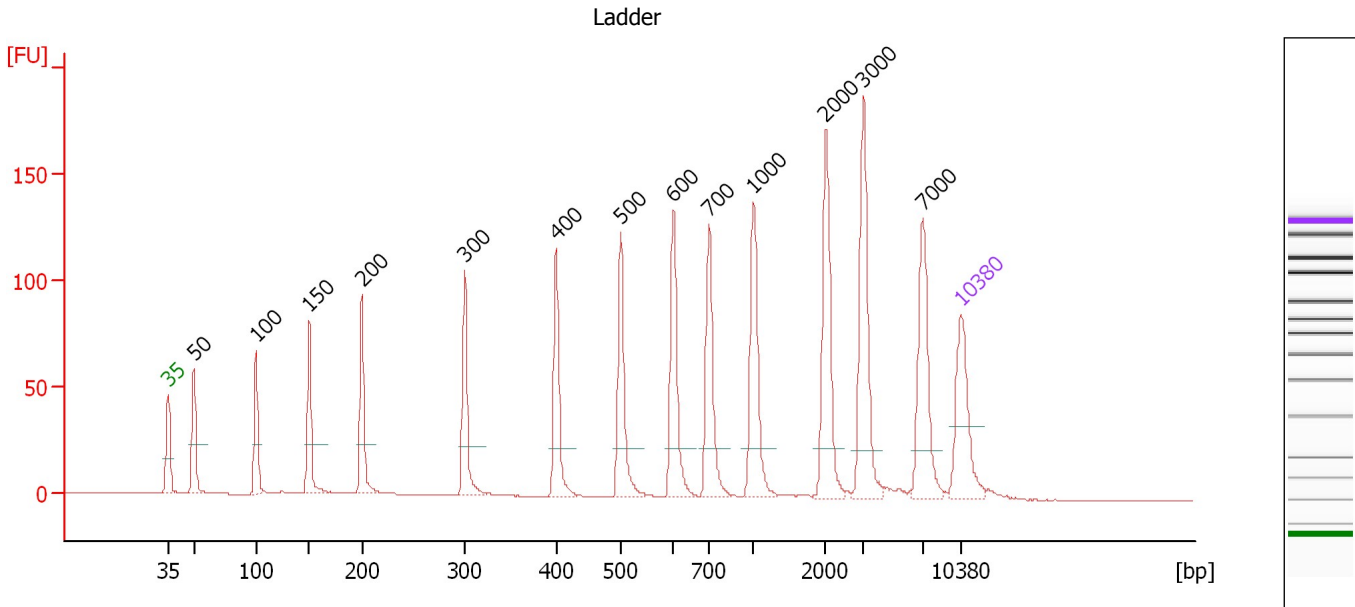
Ladder

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\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
 Modified: 7/2/2015 4:18:33 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

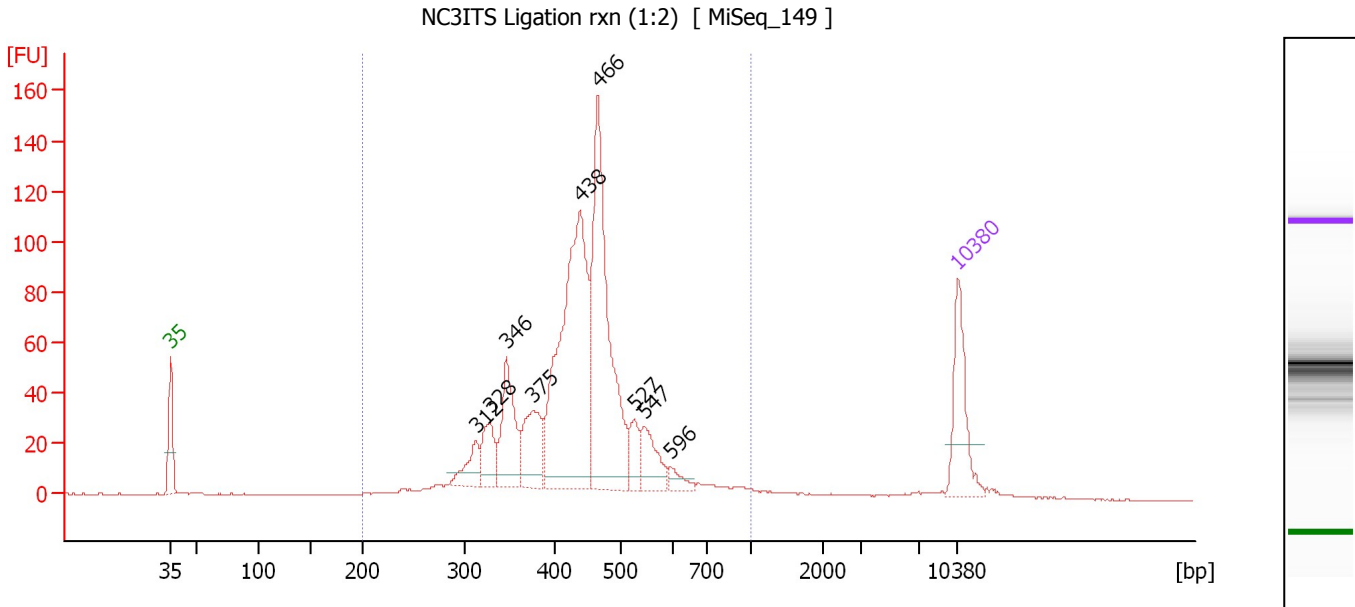
Peak table for Ladder

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	45.26
3	100	150.00	2,272.7	Ladder Peak	50.77
4	150	150.00	1,515.2	Ladder Peak	55.44
5	200	150.00	1,136.4	Ladder Peak	60.10
6	300	150.00	757.6	Ladder Peak	69.19
7	400	150.00	568.2	Ladder Peak	77.25
8	500	150.00	454.5	Ladder Peak	82.99
9	600	150.00	378.8	Ladder Peak	87.61
10	700	150.00	324.7	Ladder Peak	90.77
11	1,000	150.00	227.3	Ladder Peak	94.68
12	2,000	150.00	113.6	Ladder Peak	101.08
13	3,000	150.00	75.8	Ladder Peak	104.43
14	7,000	150.00	32.5	Ladder Peak	109.66
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
 Modified: 7/2/2015 4:18:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : NC3ITS Ligation rxn (1:2)

Number of peaks found: 9 Corr. Area 1: 1,242.8
 Noise: 0.2

Peak table for sample 1 : NC3ITS Ligation rxn (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	312	44.12	214.1		70.17
3	328	56.38	260.8		71.41
4	346	112.08	491.1		72.88
5	375	88.13	355.9		75.25
6	438	439.60	1,521.1		79.42
7	466	361.99	1,177.1		81.04
8	527	35.71	102.6		84.26
9	547	53.86	149.2		85.16
10	596	16.84	42.8		87.44
11	10,380	75.00	10.9	Upper Marker	113.00

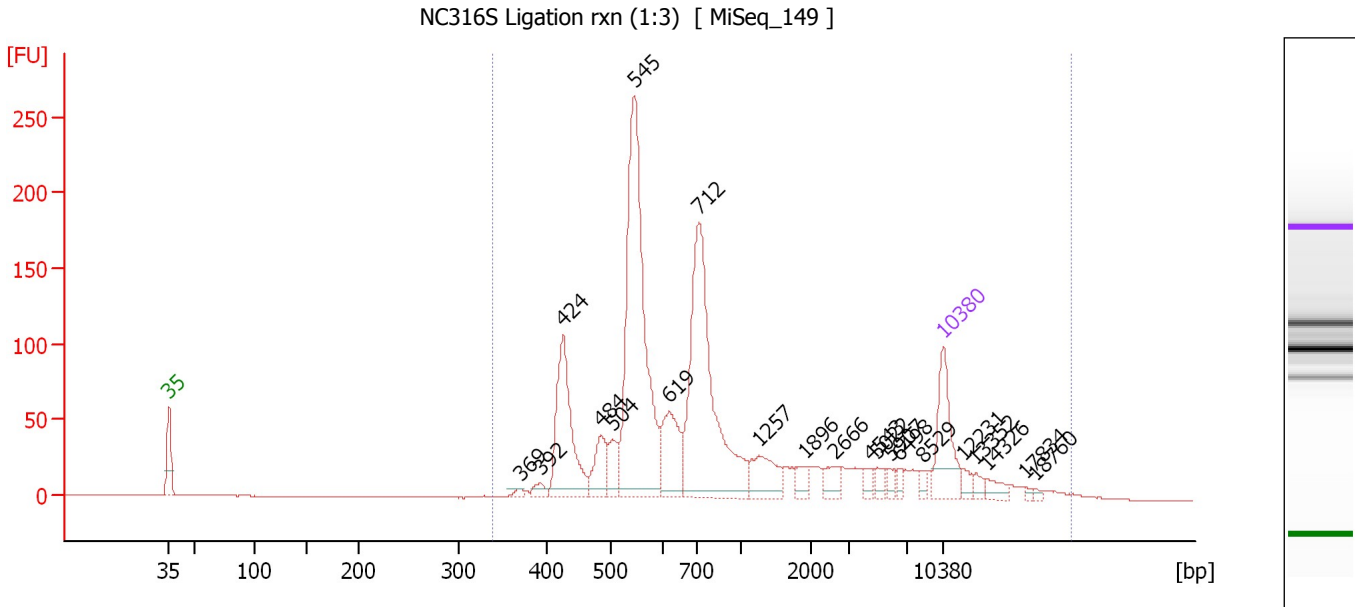
Region table for sample 1 : NC3ITS Ligation rxn (1:2)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	442	1,000	1,242.8	5,052.0	96	21.1	1,392.83

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
 Modified: 7/2/2015 4:18:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : NC316S Ligation rxn (1:3)

Number of peaks found: 21 Corr. Area 1: 2,001.6
 Noise: 0.2

Peak table for sample 2 : NC316S Ligation rxn (1:3)

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	369	5.48	22.5		74.72
3	392	12.40	47.9		76.60
4	424	179.44	641.2		78.63
5	484	53.51	167.4		82.10
6	504	37.61	113.1		83.16
7	545	460.70	1,280.0		85.09
8	619	89.55	219.1		88.22
9	712	382.48	814.1		90.92
10	1,257	53.39	64.4		96.32
11	1,896	17.72	14.2		100.42
12	2,666	18.67	10.6		103.31
13	4,543	10.88	3.6		106.44
14	5,022	10.40	3.1		107.07
15	5,907	8.45	2.2		108.23
16	6,498	7.80	1.8		109.00
17	8,529	7.22	1.3		111.17
18	10,380	75.00	10.9	Upper Marker	113.00
19	12,231	0.00	0.0		114.83
20	13,352	0.00	0.0		115.94
21	14,326	0.00	0.0		116.90
22	17,834	0.00	0.0		120.38
23	18,760	0.00	0.0		121.29

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
Modified: 7/2/2015 4:18:33 PM

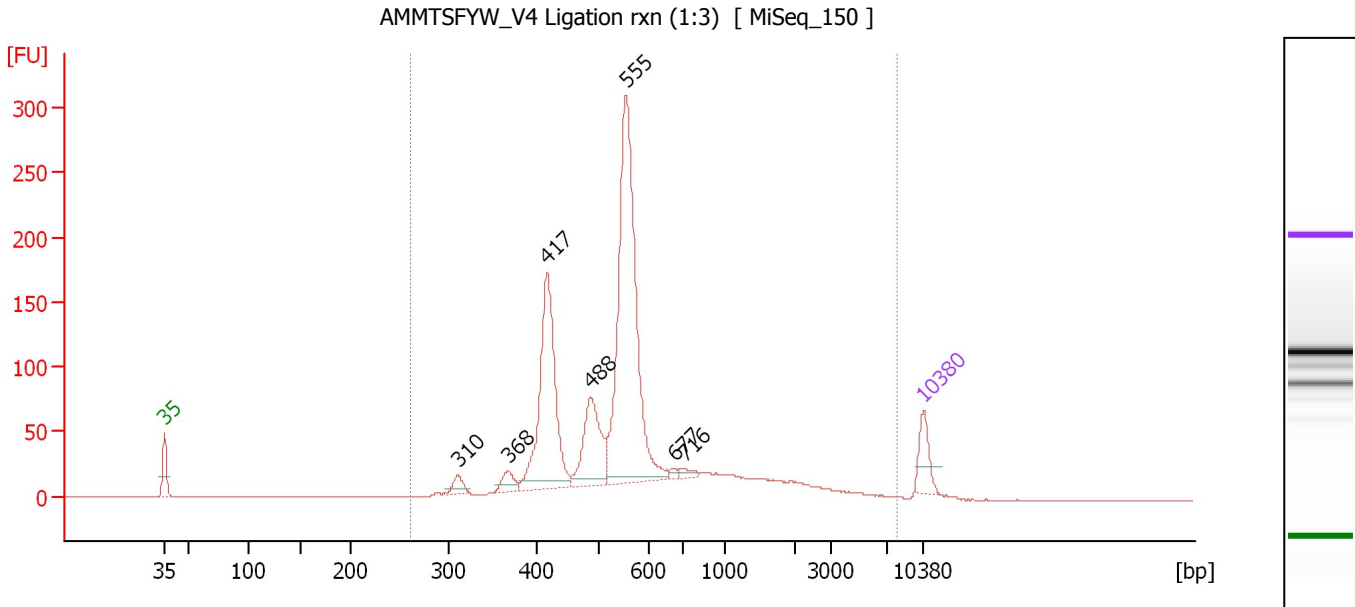
Electropherogram Summary Continued ...**... Region table for sample 2 : NC316S Ligation rxn (1:3)**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/μl]
339	2,707	22,038	2,001.6	3,370.5	■ 99	100.0	1,481.43

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
 Modified: 7/2/2015 4:18:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : AMMTSFYW V4 Ligation rxn (1:3)

Number of peaks found: 7 Corr. Area 1: 1,739.5
 Noise: 0.2

Peak table for sample 3 : AMMTSFYW V4 Ligation rxn (1:3)

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	310	49.61	242.1		70.04
3	368	50.27	207.0		74.66
4	417	623.50	2,263.3		78.25
5	488	270.78	841.5		82.28
6	555	1,100.77	3,006.4		85.52
7	677	11.75	26.3		90.04
8	716	20.43	43.2		90.98
9	10,380	75.00	10.9	Upper Marker	113.00

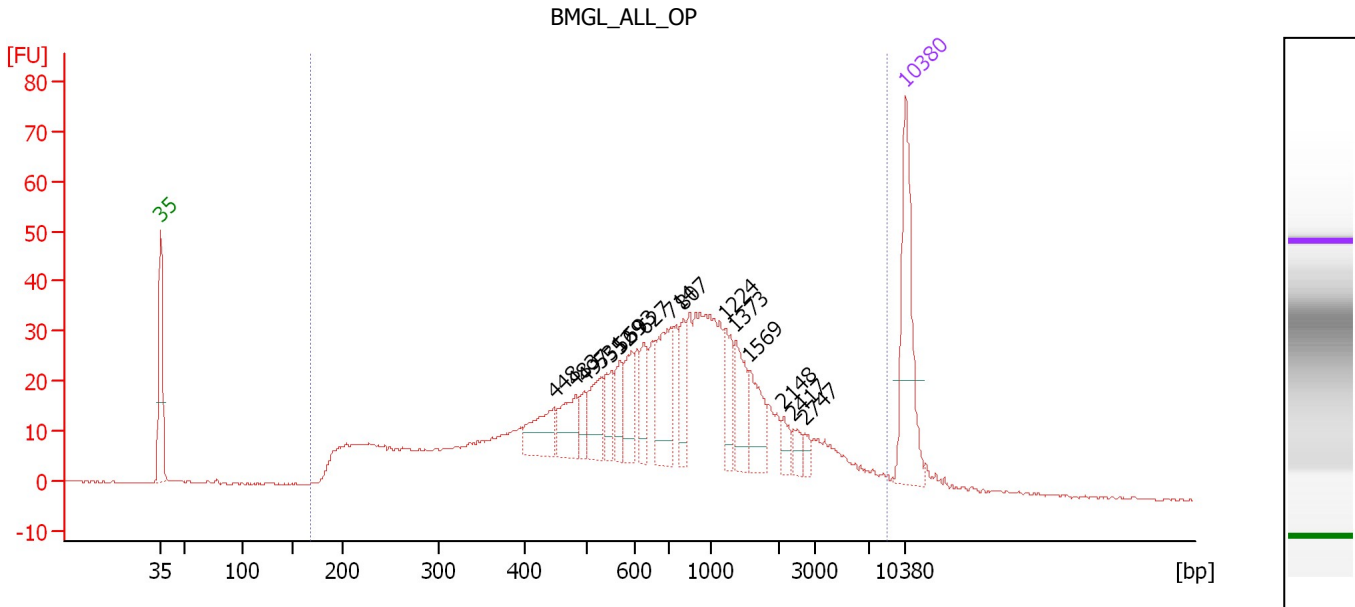
Region table for sample 3 : AMMTSFYW V4 Ligation rxn (1:3)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/μl]
261	710	7,897	1,739.5	8,235.6	100	96.9	2,855.35

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
 Modified: 7/2/2015 4:18:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : BMGL ALL OP

Number of peaks found: 16 Corr. Area 1: 1,001.2
 Noise: 0.2

Peak table for sample 4 : BMGL ALL OP

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	448	39.55	133.9		79.98
3	483	36.12	113.2		82.03
4	497	14.01	42.7		82.84
5	531	34.72	99.0		84.44
6	552	23.94	65.7		85.39
7	569	25.74	68.5		86.19
8	593	28.93	73.9		87.29
9	627	25.00	60.4		88.45
10	714	63.74	135.2		90.95
11	807	25.25	47.4		92.16
12	1,224	28.01	34.7		96.11
13	1,373	33.72	37.2		97.07
14	1,569	32.26	31.2		98.32
15	2,148	10.22	7.2		101.58
16	2,417	8.39	5.3		102.48
17	2,747	6.39	3.5		103.58
18	10,380	75.00	10.9	Upper Marker	113.00

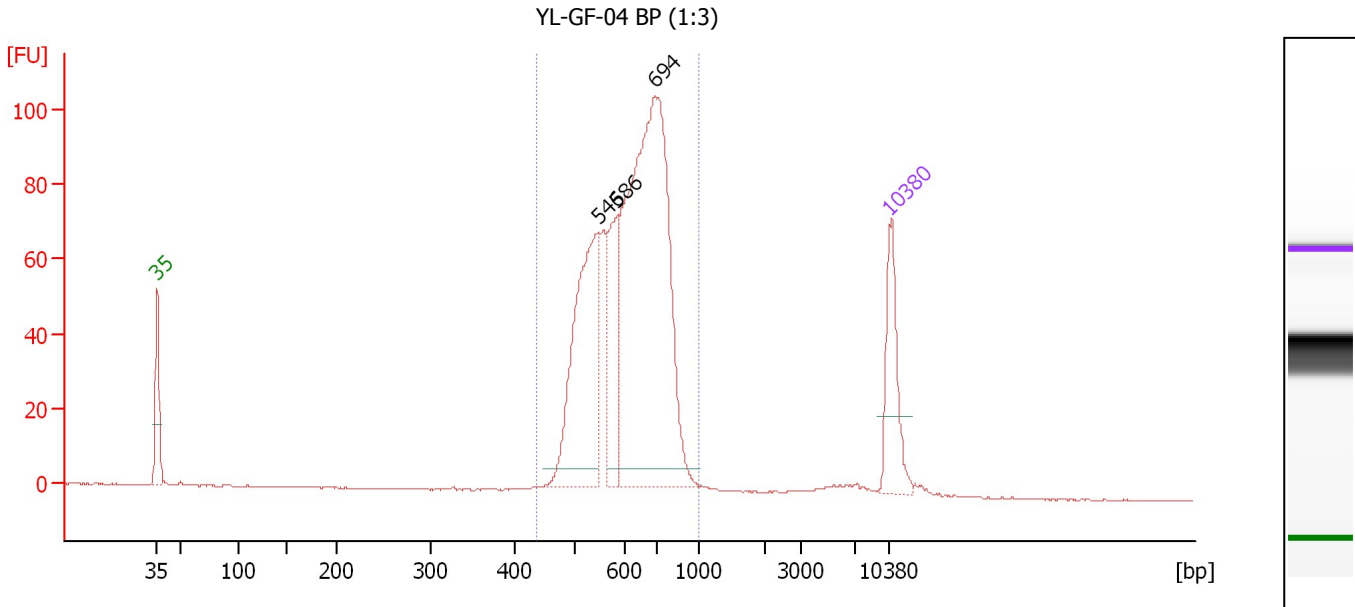
Region table for sample 4 : BMGL ALL OP

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/μl]
168	1,079	8,719	1,001.2	3,837.1	98	100.0	1,264.51

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
 Modified: 7/2/2015 4:18:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : YL-GF-04 BP (1:3)

Number of peaks found: 3 Corr. Area 1: 941.8
 Noise: 0.1

Peak table for sample 5 : YL-GF-04 BP (1:3)

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	546	277.88	770.6		85.13
3	586	112.62	291.1		86.97
4	694	676.17	1,475.7		90.58
5	10,380	75.00	10.9	Upper Marker	113.00

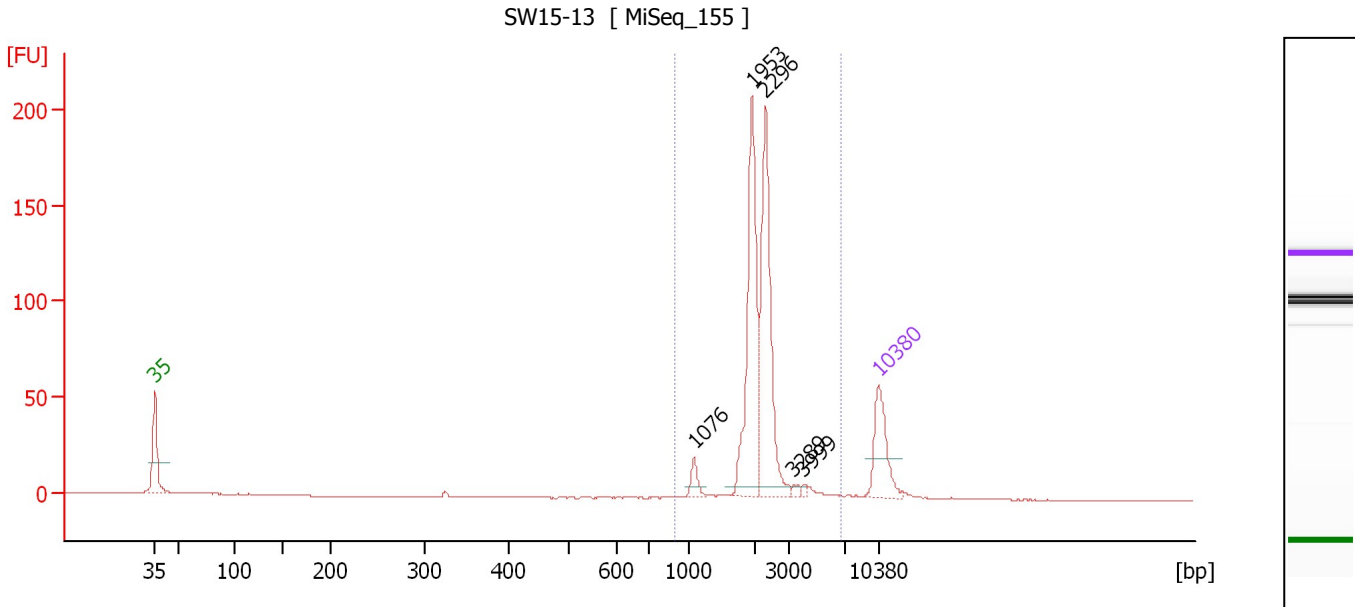
Region table for sample 5 : YL-GF-04 BP (1:3)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/μl]
434	629	1,000	941.8	2,906.6	97	15.2	1,174.37

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
 Modified: 7/2/2015 4:18:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : SW15-13

Number of peaks found: 5 Corr. Area 1: 472.0
 Noise: 0.1

Peak table for sample 6 : SW15-13

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	1,076	19.74	27.8		95.16
3	1,953	235.51	182.7		100.78
4	2,296	231.38	152.7		102.07
5	3,289	4.77	2.2		104.80
6	3,999	4.01	1.5		105.73
7	10,380	75.00	10.9	Upper Marker	113.00

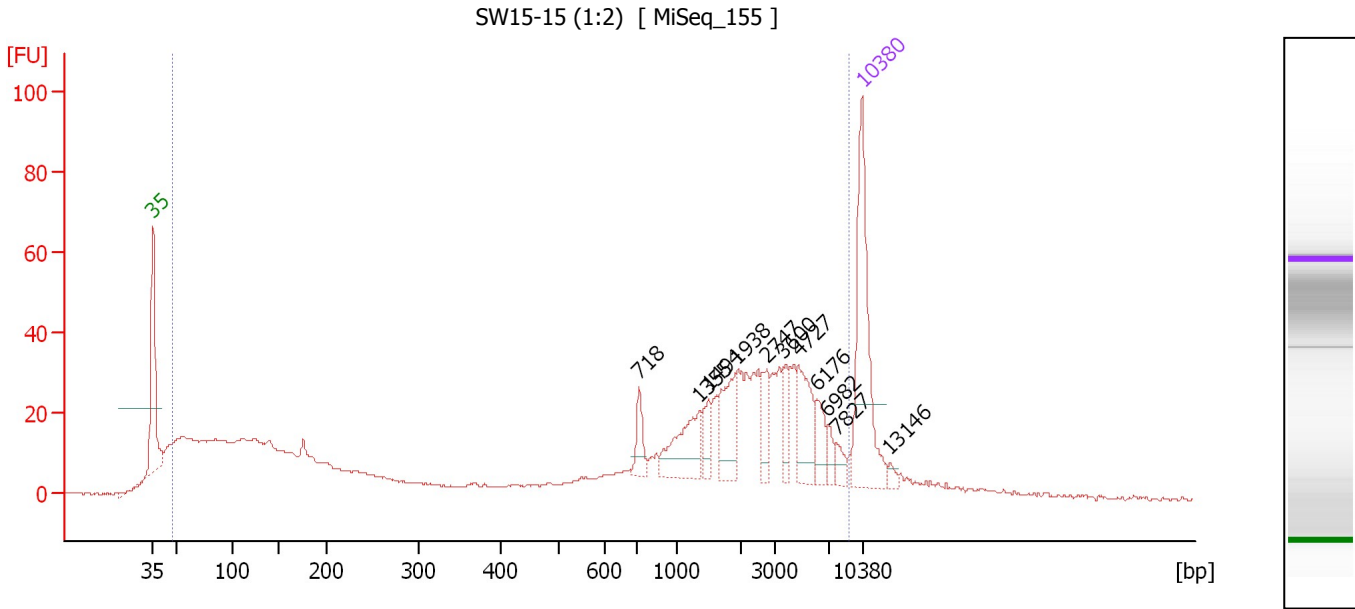
Region table for sample 6 : SW15-13

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/μl]
888	2,194	6,722	472.0	371.1	97	26.1	517.49

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
 Modified: 7/2/2015 4:18:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : SW15-15 (1:2)

Number of peaks found: 11 Corr. Area 1: 999.1
 Noise: 0.2

Peak table for sample 7 : SW15-15 (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	718	15.47	32.7		91.00
3	1,355	36.84	41.2		96.95
4	1,494	12.79	13.0		97.84
5	1,938	32.49	25.4		100.68
6	2,747	15.84	8.7		103.58
7	3,600	13.51	5.7		105.21
8	4,727	30.67	9.8		106.68
9	6,176	14.80	3.6		108.58
10	6,982	6.05	1.3		109.63
11	7,827	6.74	1.3		110.47
12	10,380	75.00	10.9	Upper Marker	113.00
13	13,146	0.00	0.0		115.74

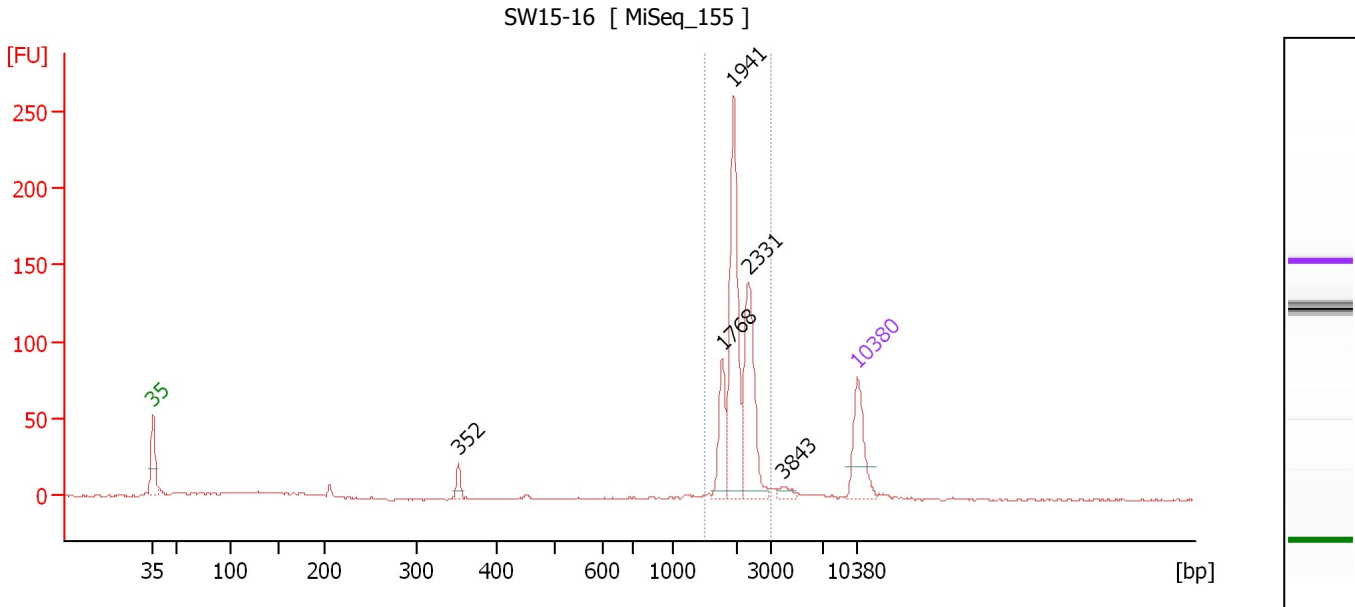
Region table for sample 7 : SW15-15 (1:2)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/μl]
48	1,962	9,151	999.1	8,757.5	93	100.0	1,016.50

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
 Modified: 7/2/2015 4:18:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : SW15-16

Number of peaks found: 5 Corr. Area 1: 468.7
 Noise: 0.4

Peak table for sample 8 : SW15-16

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	19.46	83.8		73.36
3	1,768	65.29	56.0		99.59
4	1,941	214.62	167.5		100.71
5	2,331	151.07	98.2		102.19
6	3,843	9.52	3.8		105.53
7	10,380	75.00	10.9	Upper Marker	113.00

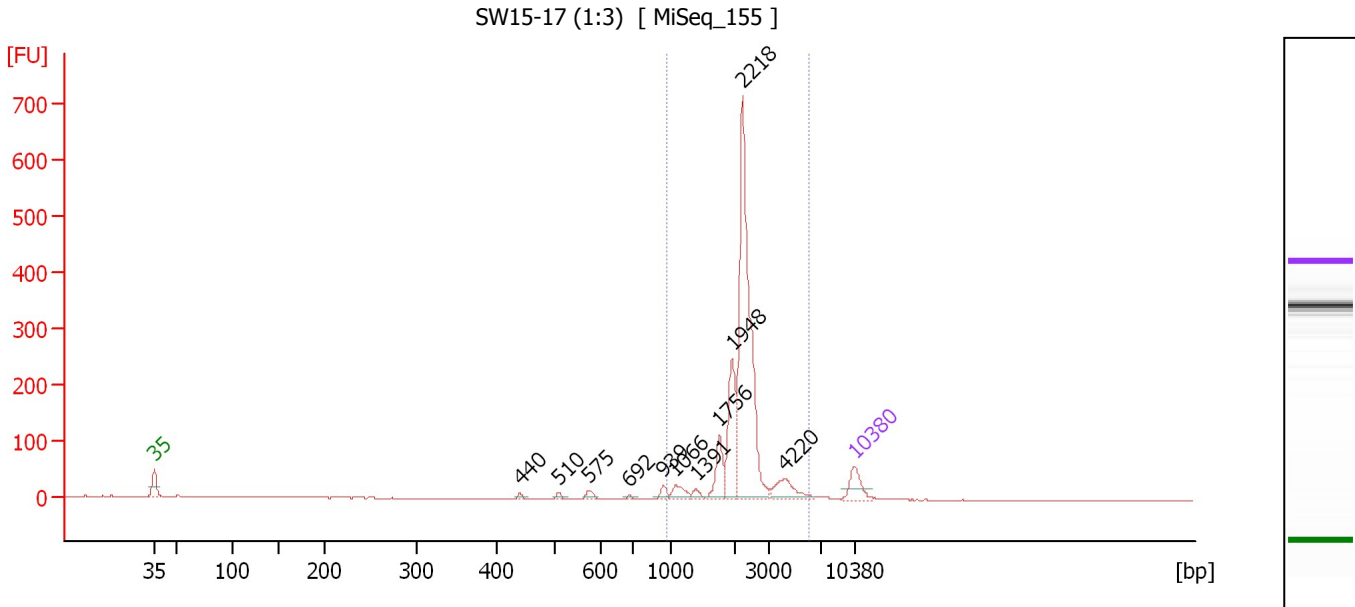
Region table for sample 8 : SW15-16

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
1,495	2,079	3,026	468.7	319.5	80	12.6	433.03

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
 Modified: 7/2/2015 4:18:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : SW15-17 (1:3)

Number of peaks found: 11 Corr. Area 1: 1,265.2
 Noise: 0.4

Peak table for sample 9 : SW15-17 (1:3)

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	440	10.96	37.7		79.54
3	510	13.85	41.2		83.43
4	575	21.66	57.0		86.47
5	692	7.54	16.5		90.52
6	939	24.71	39.9		93.88
7	1,066	48.46	68.9		95.10
8	1,391	21.32	23.2		97.18
9	1,756	109.88	94.8		99.52
10	1,948	239.92	186.6		100.75
11	2,218	920.93	629.0		101.81
12	4,220	97.42	35.0		106.02
13	10,380	75.00	10.9	Upper Marker	113.00

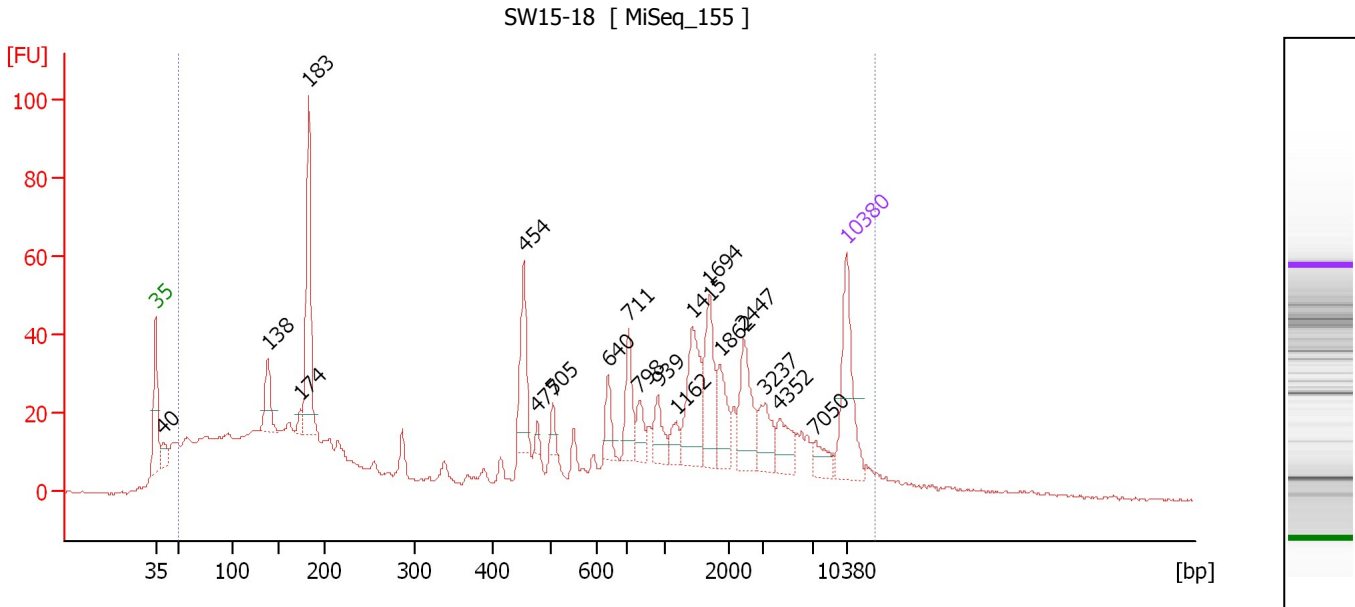
Region table for sample 9 : SW15-17 (1:3)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/μl]
969	2,309	6,034	1,265.2	983.0	93	28.2	1,423.49

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
 Modified: 7/2/2015 4:18:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : SW15-18

Number of peaks found: 19 Corr. Area 1: 1,402.8
 Noise: 0.5

Peak table for sample 10 : SW15-18

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	24.71	935.6		43.76
3	138	52.33	573.4		54.34
4	174	10.63	92.8		57.64
5	183	173.83	1,440.3		58.50
6	454	74.30	248.2		80.32
7	477	6.97	22.1		81.67
8	505	13.50	40.5		83.24
9	640	25.38	60.1		88.86
10	711	45.40	96.7		90.91
11	798	22.21	42.2		92.04
12	939	27.98	45.1		93.88
13	1,162	16.81	21.9		95.72
14	1,415	77.74	83.2		97.34
15	1,694	62.23	55.7		99.12
16	1,862	39.30	32.0		100.20
17	2,447	56.02	34.7		102.58
18	3,237	32.42	15.2		104.74
19	4,352	28.16	9.8		106.19
20	7,050	16.58	3.6		109.71
21	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 10 : SW15-18

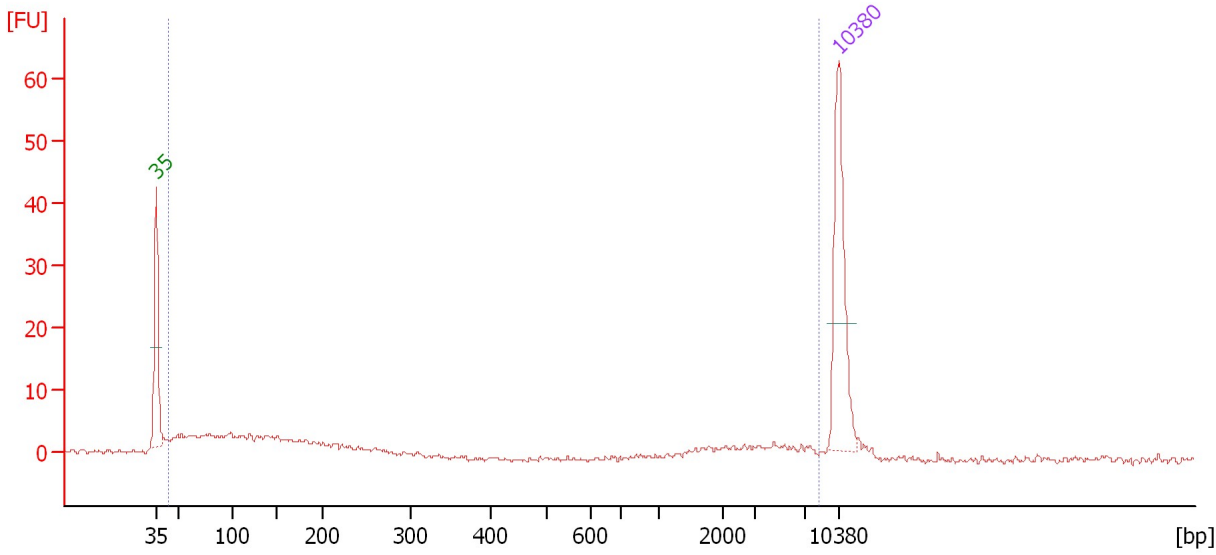
From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
50	2,080	13,346	1,402.8	19,925.6	93	100.0	2,594.50

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
 Modified: 7/2/2015 4:18:33 PM

Electropherogram Summary Continued ...

SW15-19 (1:29) [MiSeq_155]



Overall Results for sample 11 : SW15-19 (1:29)

Number of peaks found: 0 Corr. Area 1: 94.9
 Noise: 0.4

Peak table for sample 11 : SW15-19 (1:29)

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 11 : SW15-19 (1:29)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
44	1,167	8,306	94.9	2,695.9	92	100.0	195.25

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-07-02\2015-07-02_003.xad

Created: 7/2/2015 3:36:14 PM
Modified: 7/2/2015 4:18:33 PM

Gel Image

