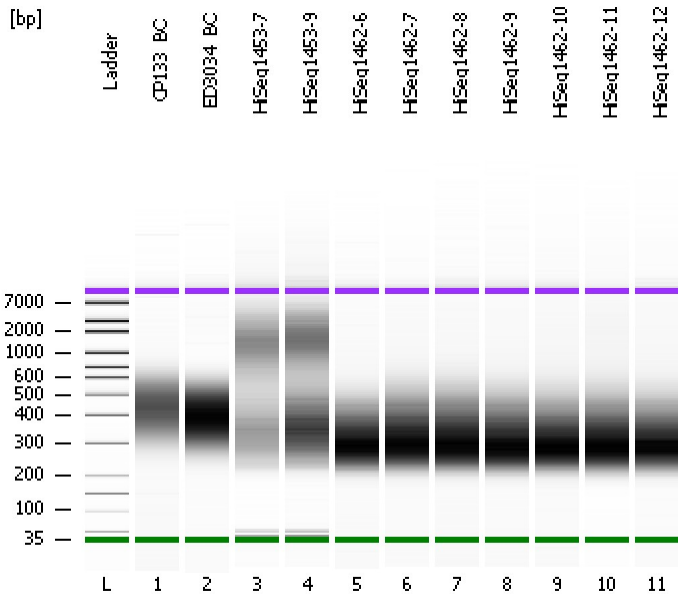


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
Modified: 8/16/2018 1:34:20 PM

Electrophoresis File Run Summary



Instrument Information:

Instrument Name: DE34903152 Firmware: C.01.069
Serial#: DE34903152 Type: G2938C

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

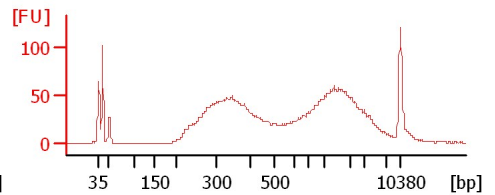
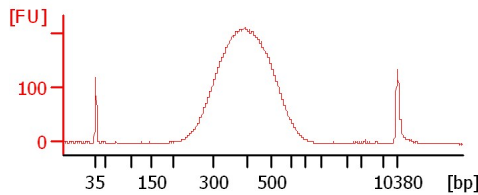
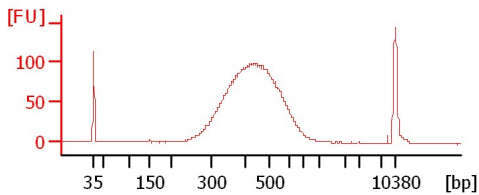
Chip Information:

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

CP133_BC

ED3034_BC

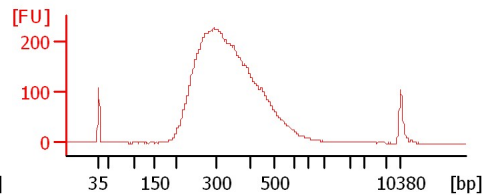
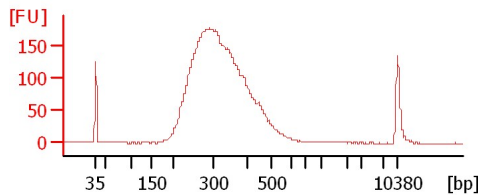
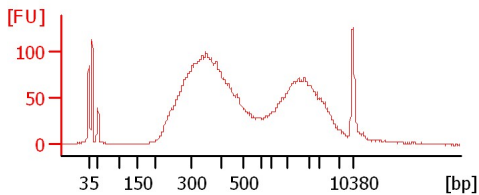
HiSeq1462-7



HiSeq1462-9

HiSeq1462-6

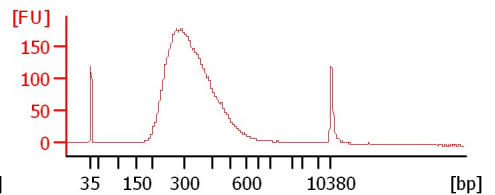
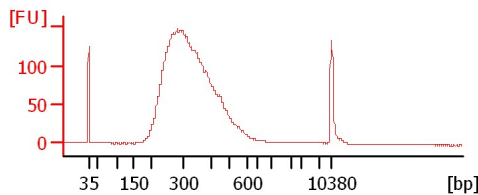
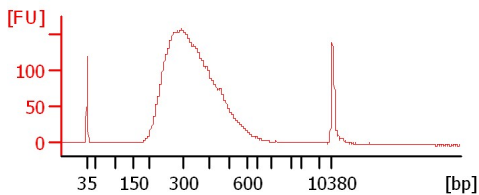
HiSeq1462-7



HiSeq1462-8

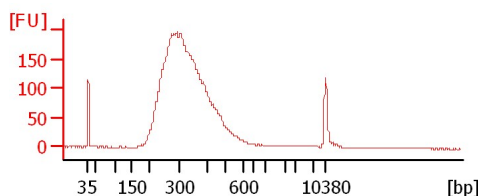
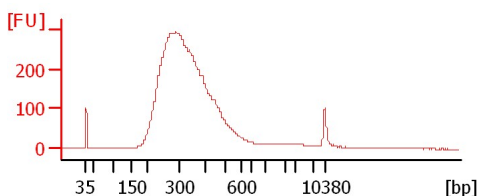
HiSeq1462-9

HiSeq1462-10



HiSeq1462-11

HiSeq1462-12



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
 Modified: 8/16/2018 1:34:20 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
CP133_BC		<input type="checkbox"/>	✓			
ED3034_BC		<input type="checkbox"/>	✓			
HiSeq1453-7		<input type="checkbox"/>	✓			
HiSeq1453-9		<input type="checkbox"/>	✓			
HiSeq1462-6		<input type="checkbox"/>	✓			
HiSeq1462-7		<input type="checkbox"/>	✓			
HiSeq1462-8		<input type="checkbox"/>	✓			
HiSeq1462-9		<input type="checkbox"/>	✓			
HiSeq1462-10		<input type="checkbox"/>	✓			
HiSeq1462-11		<input type="checkbox"/>	✓			
HiSeq1462-12		<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\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
Modified: 8/16/2018 1:34:20 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

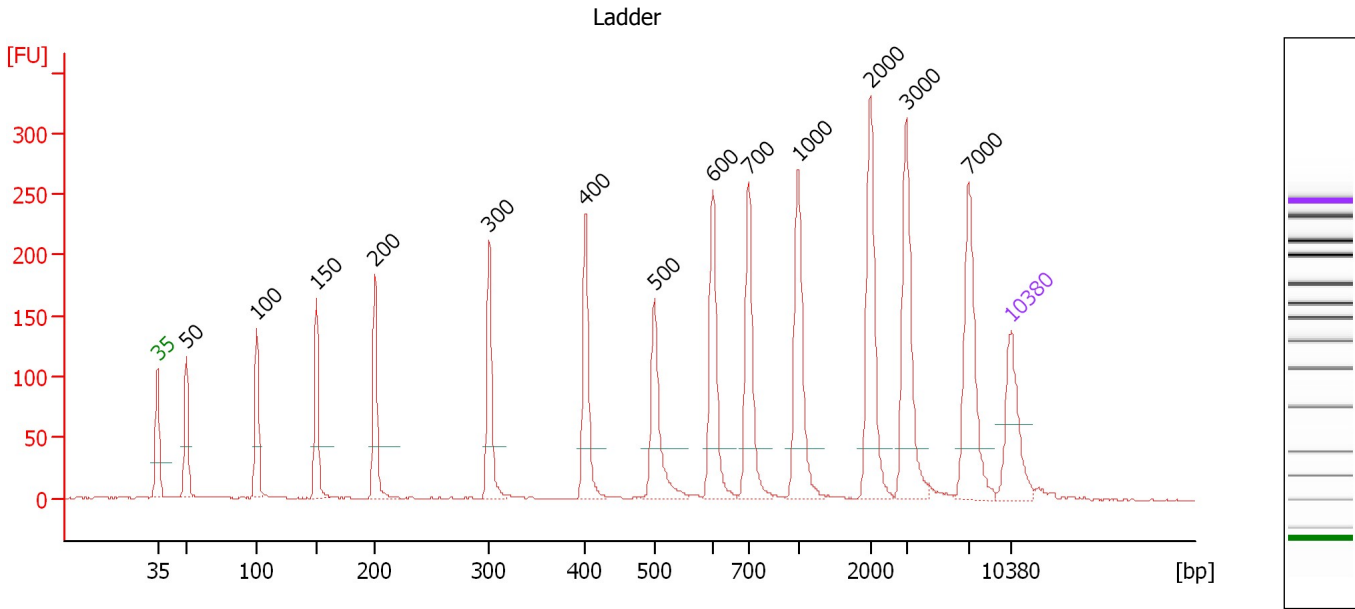
Ladder

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\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
 Modified: 8/16/2018 1:34:20 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.4

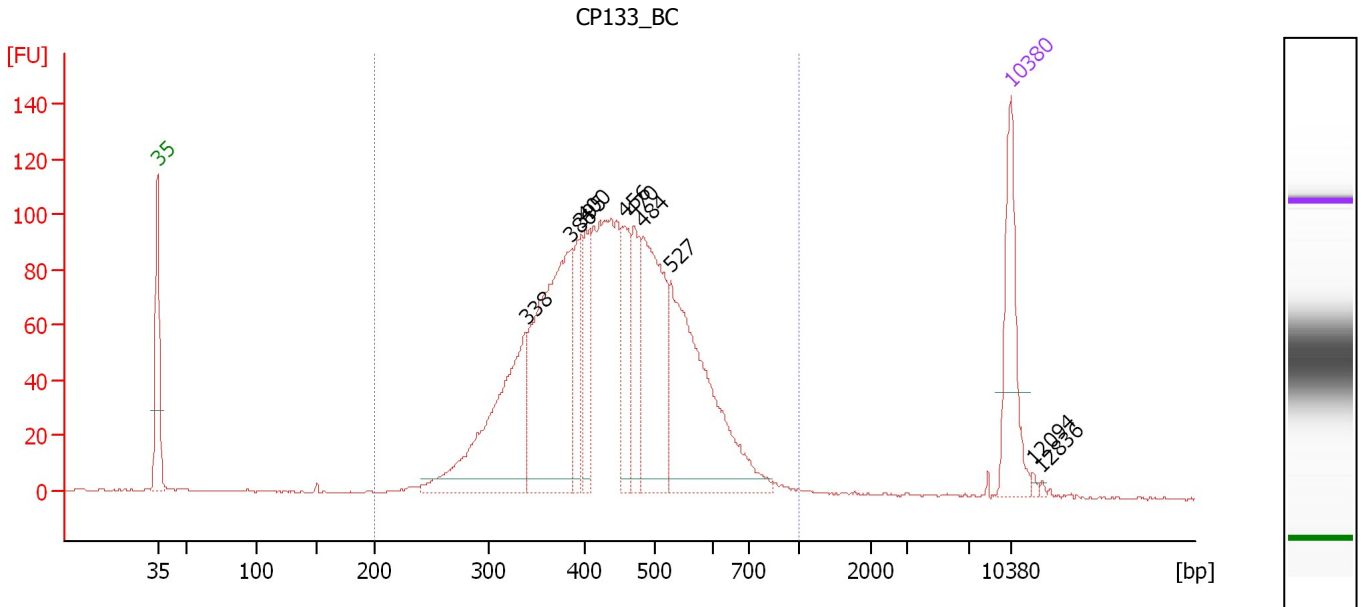
Peak table for Ladder

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	45.36
3	100	150.00	2,272.7	Ladder Peak	51.12
4	150	150.00	1,515.2	Ladder Peak	56.04
5	200	150.00	1,136.4	Ladder Peak	60.85
6	300	150.00	757.6	Ladder Peak	70.21
7	400	150.00	568.2	Ladder Peak	78.09
8	500	150.00	454.5	Ladder Peak	83.76
9	600	150.00	378.8	Ladder Peak	88.53
10	700	150.00	324.7	Ladder Peak	91.51
11	1,000	150.00	227.3	Ladder Peak	95.52
12	2,000	150.00	113.6	Ladder Peak	101.48
13	3,000	150.00	75.8	Ladder Peak	104.40
14	7,000	150.00	32.5	Ladder Peak	109.50
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
 Modified: 8/16/2018 1:34:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : CP133 BC

Number of peaks found: 10 Corr. Area 1: 2,000.1
 Noise: 0.4

Peak table for sample 1 : CP133 BC

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	338	232.23	1,039.9		73.23
3	386	293.39	1,152.4		76.97
4	395	68.09	260.9		77.74
5	400	60.37	228.4		78.12
6	456	76.92	255.5		81.28
7	470	66.33	213.9		82.05
8	484	185.83	581.6		82.86
9	527	268.75	772.2		85.07
10	10,380	75.00	10.9	Upper Marker	113.00
11	12,094	0.00	0.0		114.77
12	12,836	0.00	0.0		115.54

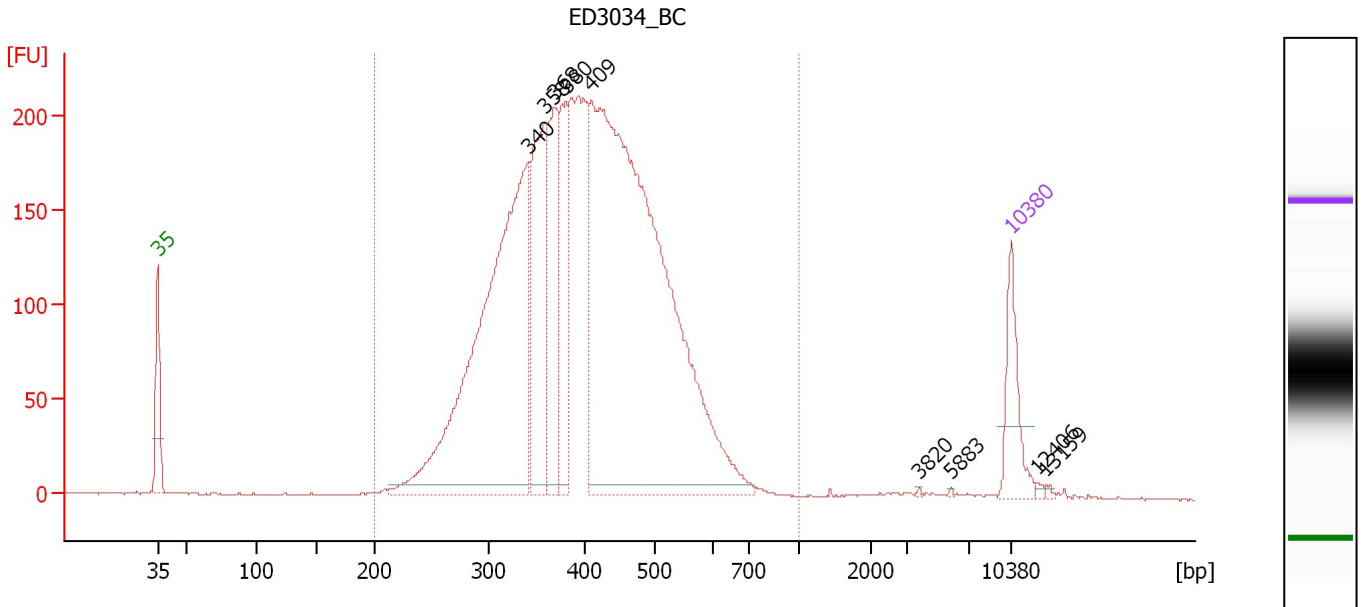
Region table for sample 1 : CP133 BC

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	444	1,558.17	2,000.1	5,701.7	98	22.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
 Modified: 8/16/2018 1:34:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : ED3034_BC

Number of peaks found: 9 Corr. Area 1: 4,367.5
 Noise: 0.4

Peak table for sample 2 : ED3034_BC

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	340	972.01	4,326.0		73.40
3	358	314.69	1,330.6		74.81
4	368	215.59	888.6		75.54
5	380	180.38	719.3		76.51
6	409	1,548.35	5,734.8		78.61
7	3,820	1.24	0.5		105.45
8	5,883	1.16	0.3		108.08
9	10,380	75.00	10.9	Upper Marker	113.00
10	12,406	0.00	0.0		115.09
11	13,159	0.00	0.0		115.87

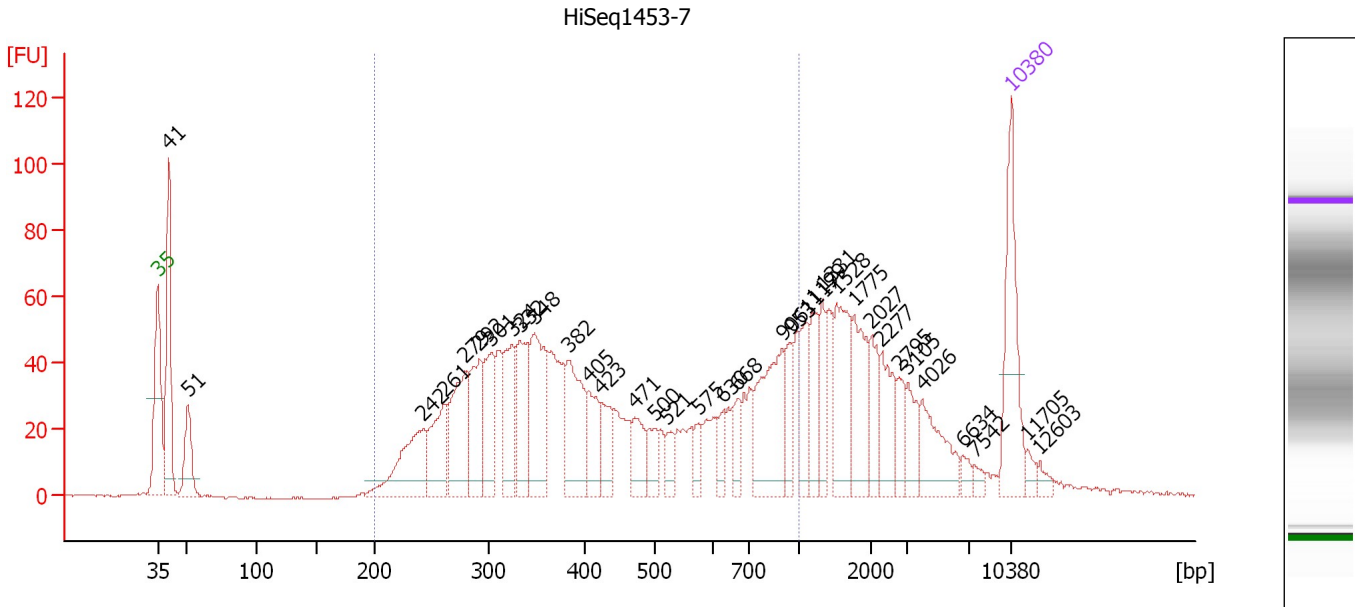
Region table for sample 2 : ED3034_BC

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	407	3,666.30	4,367.5	14,568.2	99	21.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
 Modified: 8/16/2018 1:34:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : HiSeq1453-7

Number of peaks found: 35 Corr. Area 1: 1,404.4
 Noise: 0.4

Peak table for sample 3 : HiSeq1453-7

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	152.83	5,661.2		43.93
3	51	60.55	1,793.5		45.49
4	242	98.24	614.1		64.82
5	261	71.96	417.4		66.58
6	279	95.95	521.1		68.24
7	292	74.35	386.4		69.42
8	301	64.07	323.0		70.25
9	324	70.81	331.0		72.11
10	332	68.51	312.5		72.74
11	348	105.71	460.7		73.96
12	382	87.85	348.7		76.65
13	405	44.07	165.0		78.37
14	423	35.88	128.5		79.39
15	471	34.78	111.8		82.13
16	500	22.72	68.9		83.75
17	521	16.42	47.7		84.77
18	575	15.81	41.7		87.32
19	630	16.41	39.5		89.42
20	668	21.76	49.4		90.55
21	906	91.65	153.3		94.26
22	953	26.19	41.6		94.90
23	1,117	30.13	40.9		96.22
24	1,199	35.90	45.3		96.71
25	1,331	29.65	33.8		97.49

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
 Modified: 8/16/2018 1:34:20 PM

Electropherogram Summary Continued ...

... Peak table for sample 3 : HiSeq1453-7

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	1,528	67.02	66.4		98.67
27	1,775	54.00	46.1		100.13
28	2,027	27.69	20.7		101.55
29	2,277	37.15	24.7		102.29
30	2,795	19.58	10.6		103.80
31	3,105	24.57	12.0		104.54
32	4,026	45.50	17.1		105.71
33	6,634	7.80	1.8		109.04
34	7,542	5.50	1.1		110.06
35	10,380	75.00	10.9	Upper Marker	113.00
36	11,705	0.00	0.0		114.37
37	12,603	0.00	0.0		115.30

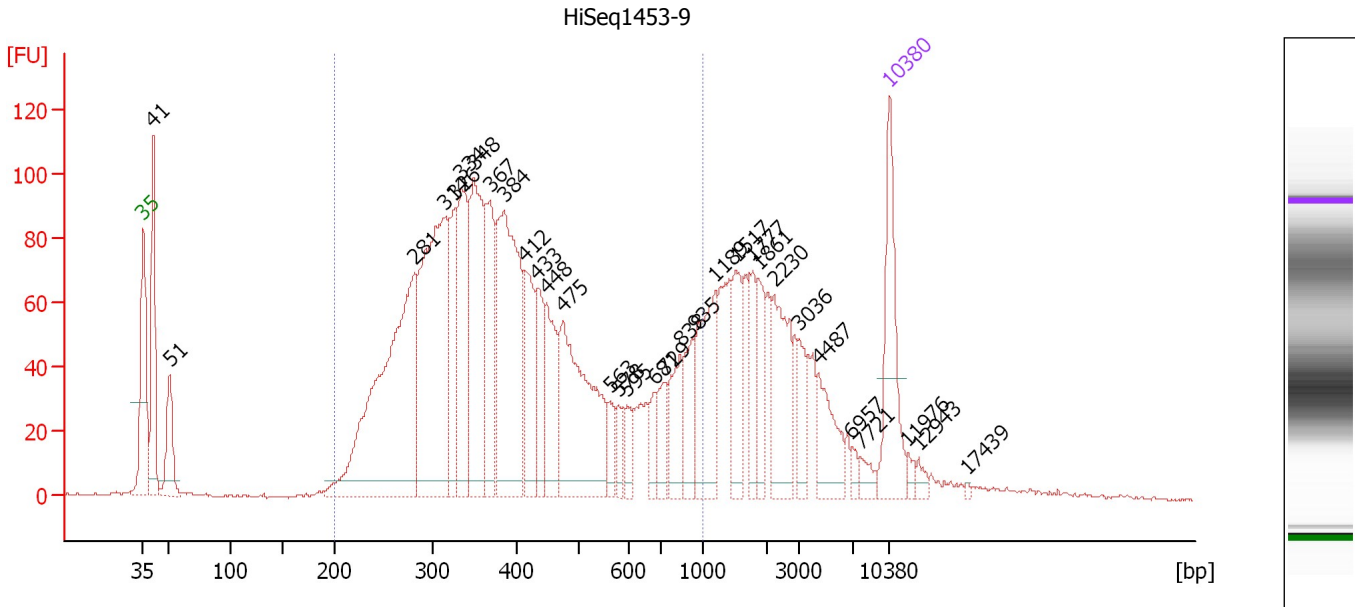
Region table for sample 3 : HiSeq1453-7

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	468	1,392.31	1,404.4	5,670.4	64	44.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
 Modified: 8/16/2018 1:34:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : HiSeq1453-9

Number of peaks found: 32 Corr. Area 1: 2,512.4
 Noise: 0.5

Peak table for sample 4 : HiSeq1453-9

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	41	144.91	5,392.4		43.90
3	51	73.85	2,204.0		45.45
4	281	396.69	2,137.3		68.45
5	314	322.44	1,556.5		71.30
6	326	80.59	374.7		72.25
7	334	131.83	598.9		72.85
8	348	175.58	764.2		74.00
9	367	101.60	419.3		75.50
10	384	242.76	958.9		76.80
11	412	81.67	300.7		78.75
12	433	54.44	190.6		79.95
13	448	70.28	237.8		80.80
14	475	186.94	596.2		82.35
15	563	18.97	51.1		86.75
16	578	17.86	46.8		87.50
17	595	20.94	53.3		88.30
18	681	18.20	40.5		90.95
19	729	30.22	62.8		91.90
20	838	46.01	83.2		93.35
21	935	39.95	64.8		94.65
22	1,189	88.51	112.8		96.65
23	1,517	49.11	49.1		98.60
24	1,777	35.79	30.5		100.15
25	1,861	35.84	29.2		100.65

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
 Modified: 8/16/2018 1:34:20 PM

Electropherogram Summary Continued ...

... Peak table for sample 4 : HiSeq1453-9

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	2,230	71.96	48.9		102.15
27	3,036	24.24	12.1		104.45
28	4,487	44.42	15.0		106.30
29	6,957	6.09	1.3		109.45
30	7,721	9.94	2.0		110.25
31	10,380	75.00	10.9	Upper Marker	113.00
32	11,976	0.00	0.0		114.65
33	12,943	0.00	0.0		115.65
34	17,439	0.00	0.0		120.30

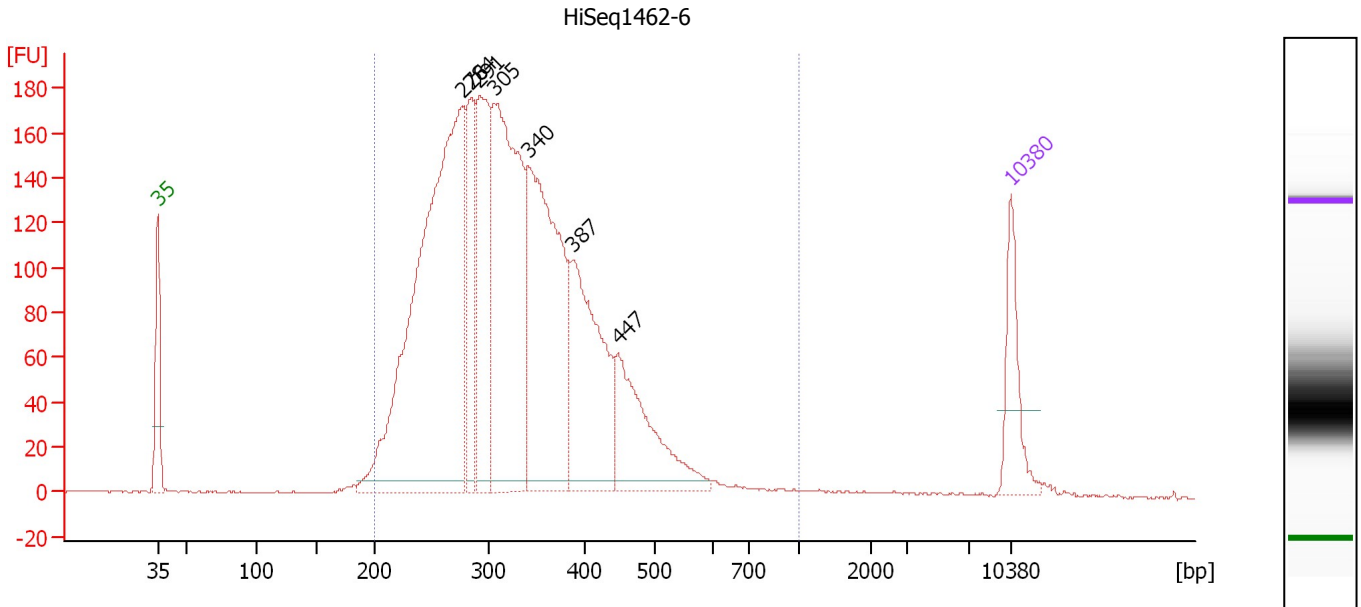
Region table for sample 4 : HiSeq1453-9

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	429	2,156.55	2,512.4	9,066.3	71	40.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
 Modified: 8/16/2018 1:34:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : HiSeq1462-6

Number of peaks found: 7 Corr. Area 1: 3,684.1
 Noise: 0.4

Peak table for sample 5 : HiSeq1462-6

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	276	1,043.83	5,727.6		67.97
3	284	184.11	980.7		68.75
4	291	290.54	1,512.3		69.37
5	305	586.12	2,909.8		70.62
6	340	528.73	2,356.1		73.36
7	387	325.72	1,276.4		77.04
8	447	205.47	696.1		80.77
9	10,380	75.00	10.9	Upper Marker	113.00

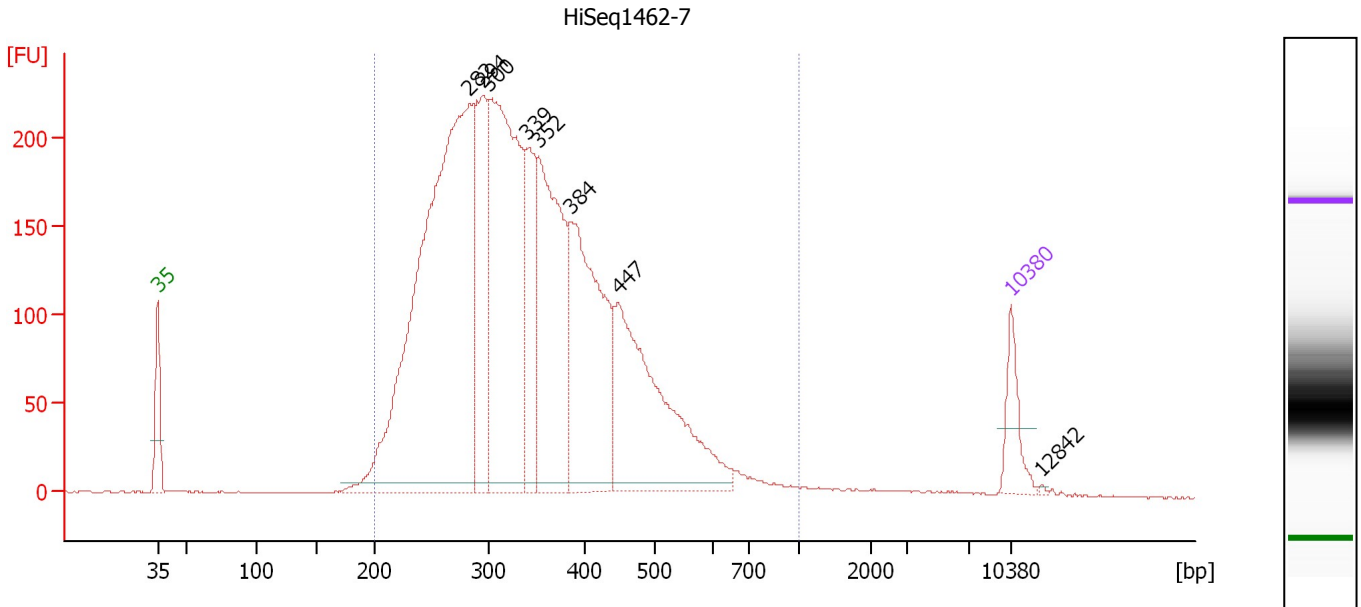
Region table for sample 5 : HiSeq1462-6

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	331	3,227.90	3,684.1	15,855.4	98	25.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
 Modified: 8/16/2018 1:34:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : HiSeq1462-7

Number of peaks found: 8 Corr. Area 1: 5,150.2
 Noise: 0.4

Peak table for sample 6 : HiSeq1462-7

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	282	1,908.47	10,239.4		68.56
3	294	455.99	2,347.5		69.67
4	300	1,033.67	5,220.9		70.20
5	339	263.13	1,176.2		73.28
6	352	645.93	2,782.4		74.29
7	384	637.15	2,513.9		76.83
8	447	642.89	2,179.2		80.76
9	10,380	75.00	10.9	Upper Marker	113.00
10	12,842	0.00	0.0		115.55

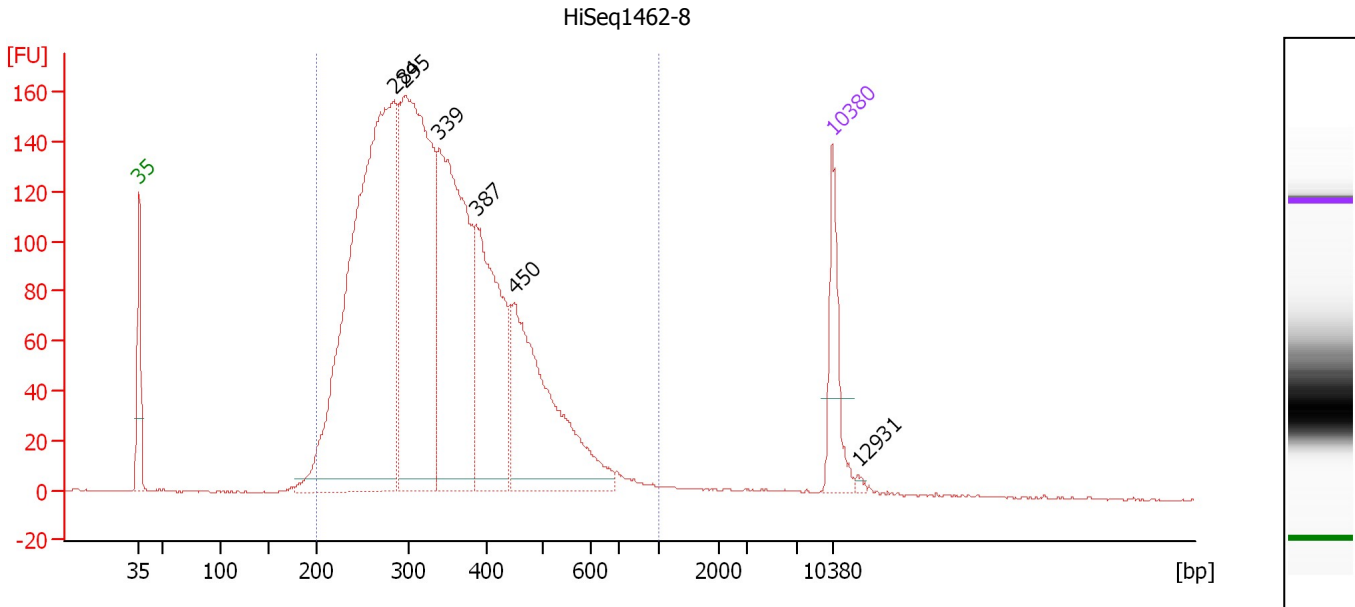
Region table for sample 6 : HiSeq1462-7

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	349	5,711.77	5,150.2	27,209.4	97	28.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
 Modified: 8/16/2018 1:34:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : HiSeq1462-8

Number of peaks found: 6 Corr. Area 1: 3,663.2
 Noise: 0.4

Peak table for sample 7 : HiSeq1462-8

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	284	1,128.62	6,014.8		68.74
3	295	757.35	3,886.6		69.76
4	339	553.93	2,477.8		73.26
5	387	325.11	1,272.2		77.08
6	450	356.31	1,200.7		80.91
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,931	0.00	0.0		115.64

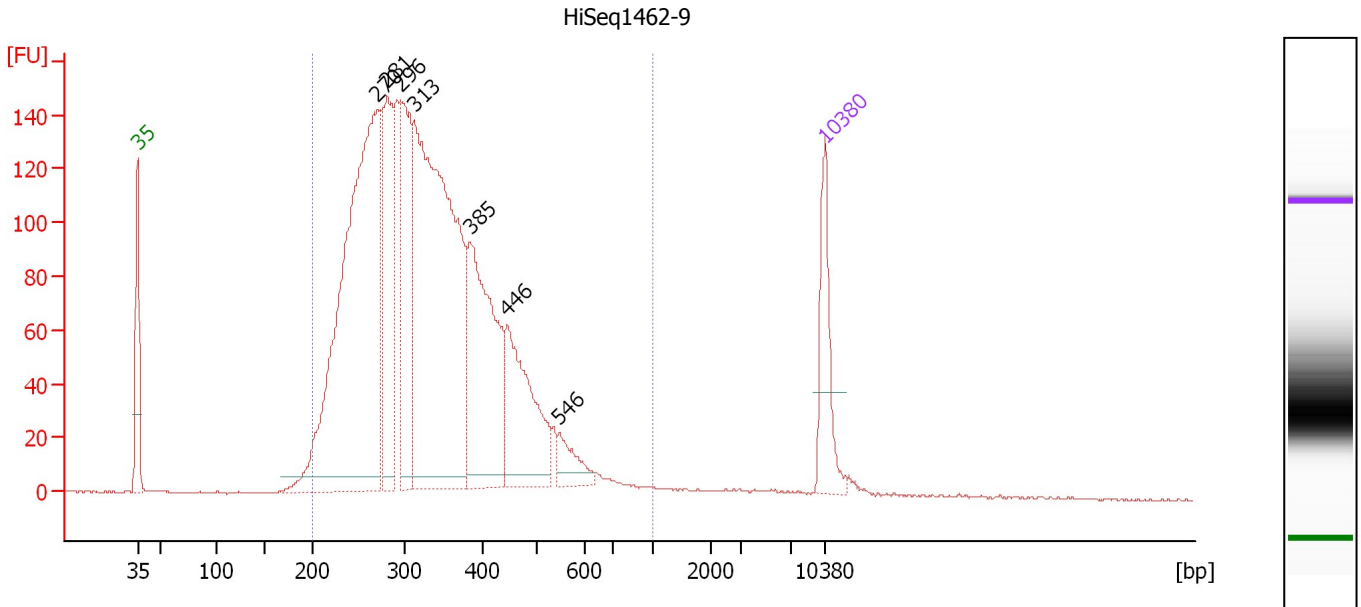
Region table for sample 7 : HiSeq1462-8

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	348	3,213.88	3,663.2	15,364.1	98	28.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
 Modified: 8/16/2018 1:34:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : HiSeq1462-9

Number of peaks found: 7 Corr. Area 1: 3,243.8
 Noise: 0.3

Peak table for sample 8 : HiSeq1462-9

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	270	876.53	4,911.6		67.44
3	281	217.56	1,173.7		68.42
4	296	236.54	1,211.0		69.83
5	313	803.95	3,890.6		71.24
6	385	306.99	1,209.1		76.89
7	446	191.09	649.5		80.69
8	546	39.26	109.0		85.96
9	10,380	75.00	10.9	Upper Marker	113.00

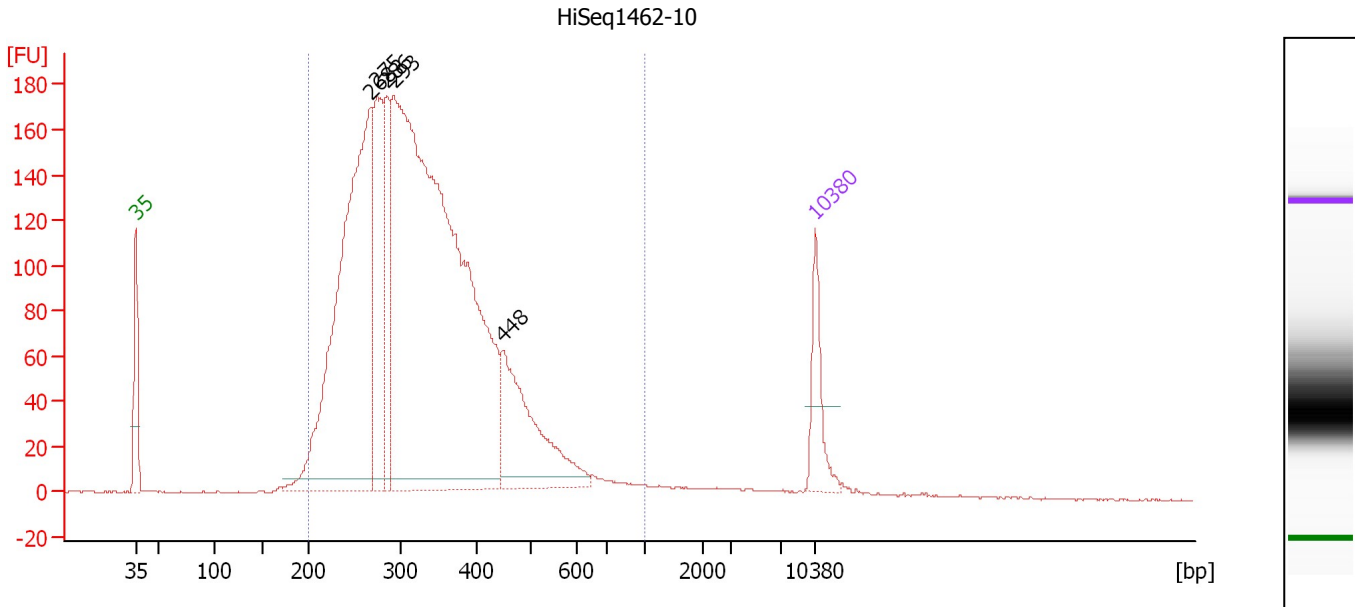
Region table for sample 8 : HiSeq1462-9

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	339	2,924.40	3,243.8	14,271.4	98	28.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
 Modified: 8/16/2018 1:34:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : HiSeq1462-10

Number of peaks found: 5 Corr. Area 1: 3,733.6
 Noise: 0.3

Peak table for sample 9 : HiSeq1462-10

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	268	1,076.43	6,081.5		67.23
3	275	322.18	1,777.4		67.84
4	286	195.01	1,033.8		68.88
5	293	2,097.12	10,828.1		69.59
6	448	289.47	979.5		80.80
7	10,380	75.00	10.9	Upper Marker	113.00

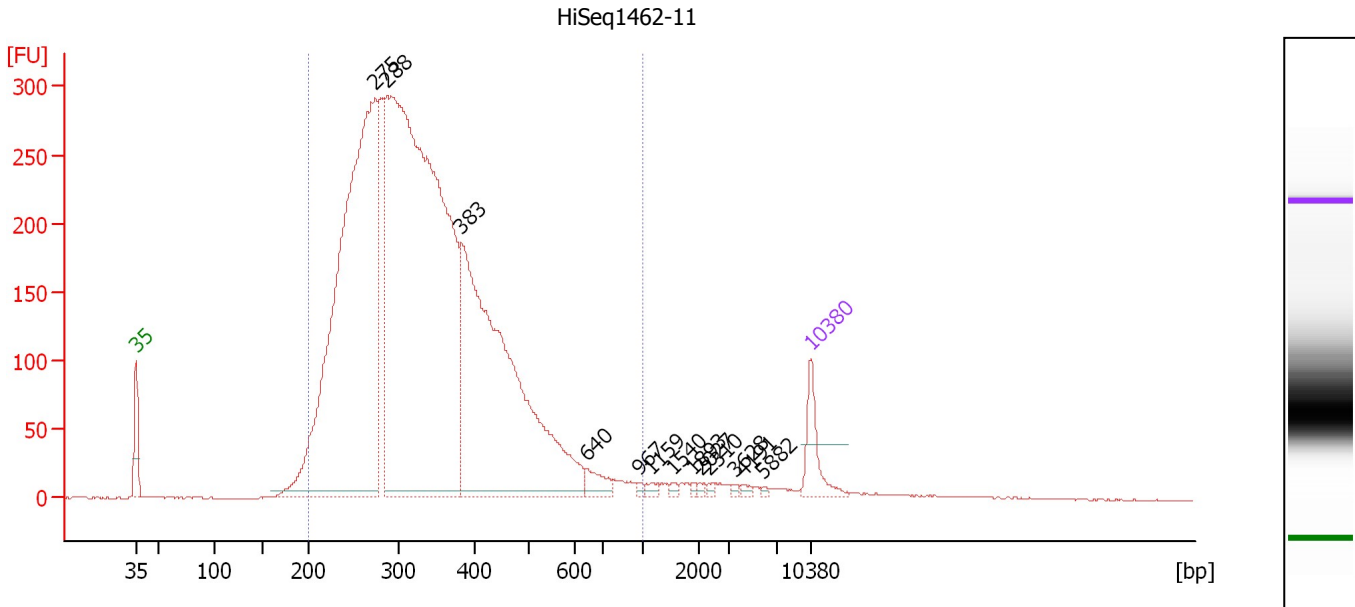
Region table for sample 9 : HiSeq1462-10

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	337	3,890.40	3,733.6	19,052.7	97	28.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

Created: 8/16/2018 12:29:23 PM
 Modified: 8/16/2018 1:34:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : HiSeq1462-11

Number of peaks found: 13 Corr. Area 1: 6,529.5
 Noise: 0.3

Peak table for sample 10 : HiSeq1462-11

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	275	2,200.18	12,142.1		67.83
3	288	3,101.16	16,340.2		69.04
4	383	1,413.90	5,587.8		76.78
5	640	44.24	104.8		89.72
6	967	6.07	9.5		95.09
7	1,159	10.84	14.2		96.47
8	1,540	6.48	6.4		98.73
9	1,893	5.47	4.4		100.84
10	2,027	5.19	3.9		101.55
11	2,310	6.30	4.1		102.38
12	3,628	5.56	2.3		105.20
13	4,191	7.58	2.7		105.92
14	5,882	3.90	1.0		108.08
15	10,380	75.00	10.9	Upper Marker	113.00

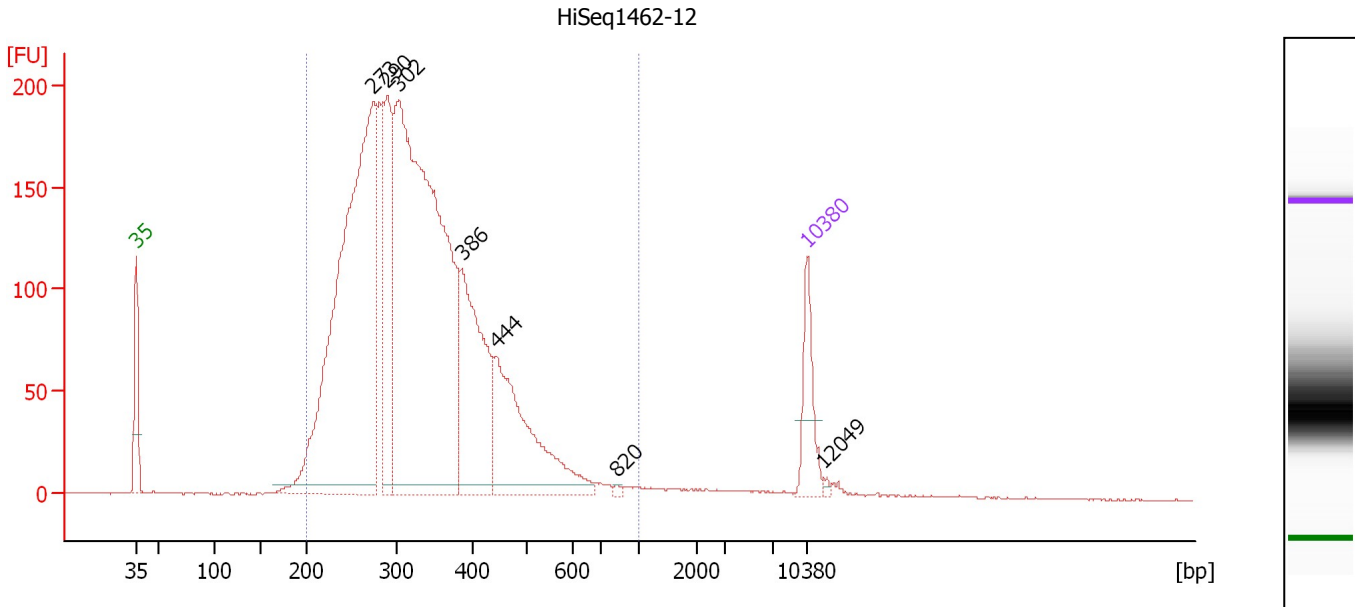
Region table for sample 10 : HiSeq1462-11

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	343	6,819.94	6,529.5	33,123.0	96	30.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

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 Modified: 8/16/2018 1:34:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : HiSeq1462-12

Number of peaks found: 7 Corr. Area 1: 3,972.0
 Noise: 0.3

Peak table for sample 11 : HiSeq1462-12

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	273	1,241.24	6,877.0		67.73
3	290	259.62	1,358.5		69.23
4	302	1,482.99	7,429.5		70.40
5	386	342.95	1,344.6		77.03
6	444	325.78	1,111.7		80.59
7	820	3.94	7.3		93.12
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,049	0.00	0.0		114.73

Region table for sample 11 : HiSeq1462-12

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	335	3,821.59	3,972.0	18,776.0	97	27.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-16\2018-08-16_002.xad

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Modified: 8/16/2018 1:34:20 PM

Gel Image

