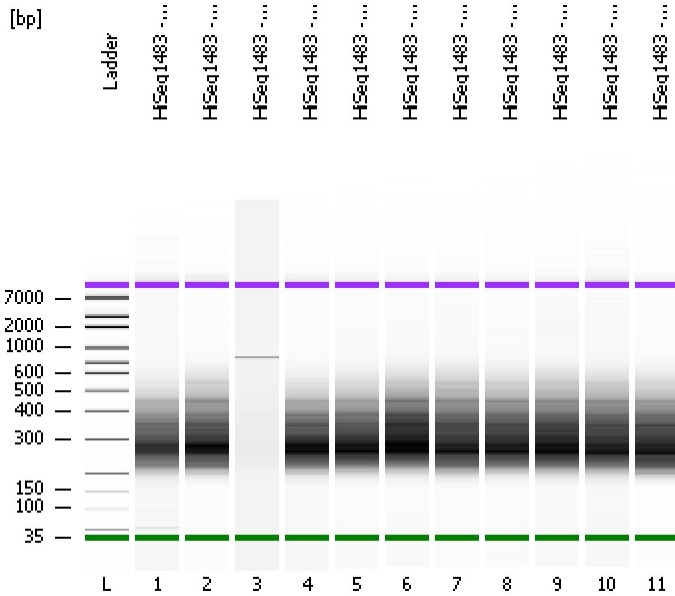


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-27\2018-08-27_001.xad

Created: 8/27/2018 12:28:19 PM
Modified: 8/27/2018 1:09:38 PM

Electrophoresis File Run Summary



Instrument Information:

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

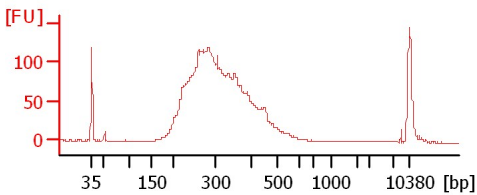
Assay Information:

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

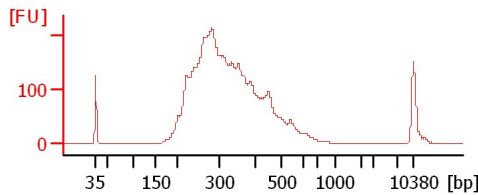
Chip Information:

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

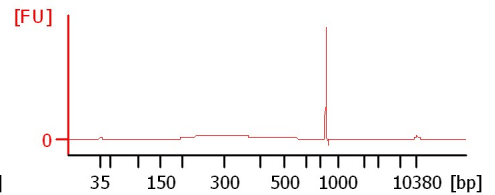
HiSeq1483 - 11



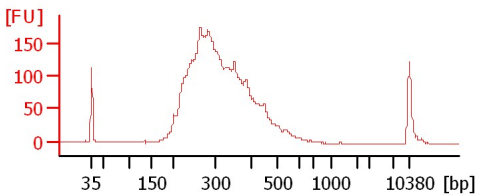
HiSeq1483 - 12



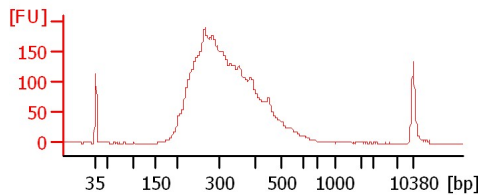
HiSeq1483 - 13



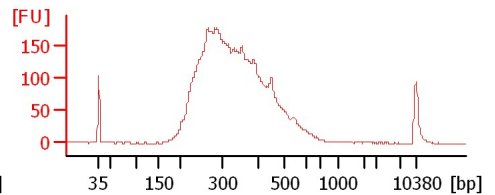
HiSeq1483 - 14



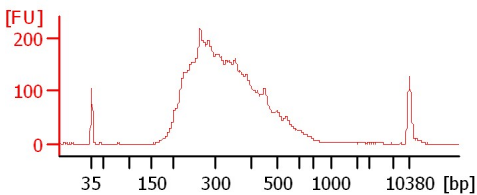
HiSeq1483 - 15



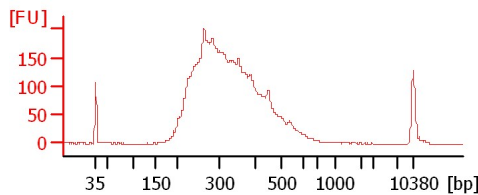
HiSeq1483 - 16



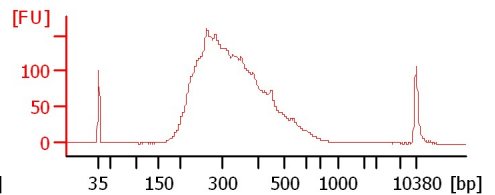
HiSeq1483 - 17



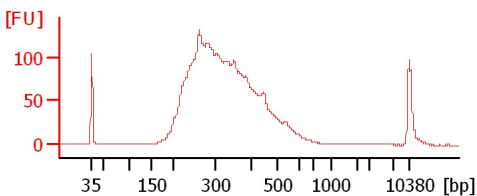
HiSeq1483 - 18



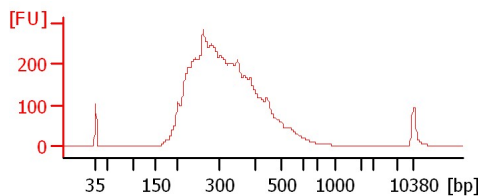
HiSeq1483 - 19



HiSeq1483 - 20



HiSeq1483 - 21



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-27\2018-08-27_001.xad

Created: 8/27/2018 12:28:19 PM
Modified: 8/27/2018 1:09:38 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
HiSeq1483 - 11		<input type="checkbox"/>	✓			
HiSeq1483 - 12		<input type="checkbox"/>	✓			
HiSeq1483 - 13		<input type="checkbox"/>	✓			
HiSeq1483 - 14		<input type="checkbox"/>	✓			
HiSeq1483 - 15		<input type="checkbox"/>	✓			
HiSeq1483 - 16		<input type="checkbox"/>	✓			
HiSeq1483 - 17		<input type="checkbox"/>	✓			
HiSeq1483 - 18		<input type="checkbox"/>	✓			
HiSeq1483 - 19		<input type="checkbox"/>	✓			
HiSeq1483 - 20		<input type="checkbox"/>	✓			
HiSeq1483 - 21		<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\2018-08-27\2018-08-27_001.xad

Created: 8/27/2018 12:28:19 PM
Modified: 8/27/2018 1:09:38 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/ μ l] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/ μ l] : 125
Upper Marker Concentration [pg/ μ l] : 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

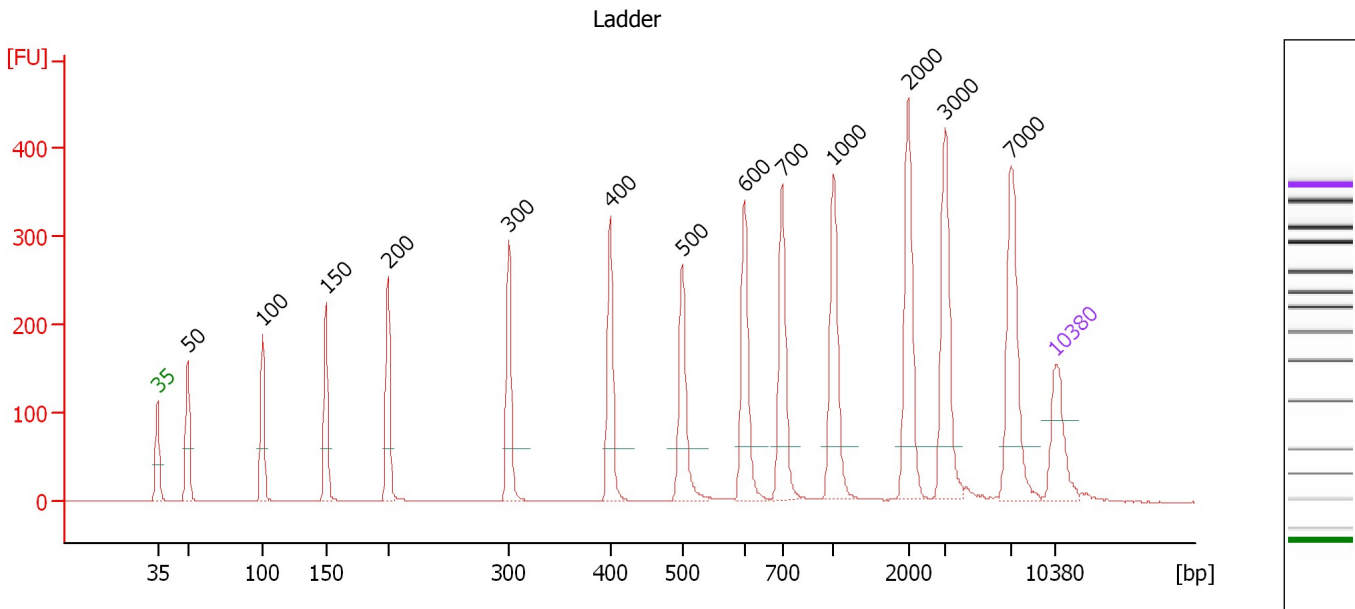
Ladder

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\2018-08-27\2018-08-27_001.xad

Created: 8/27/2018 12:28:19 PM
 Modified: 8/27/2018 1:09:38 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

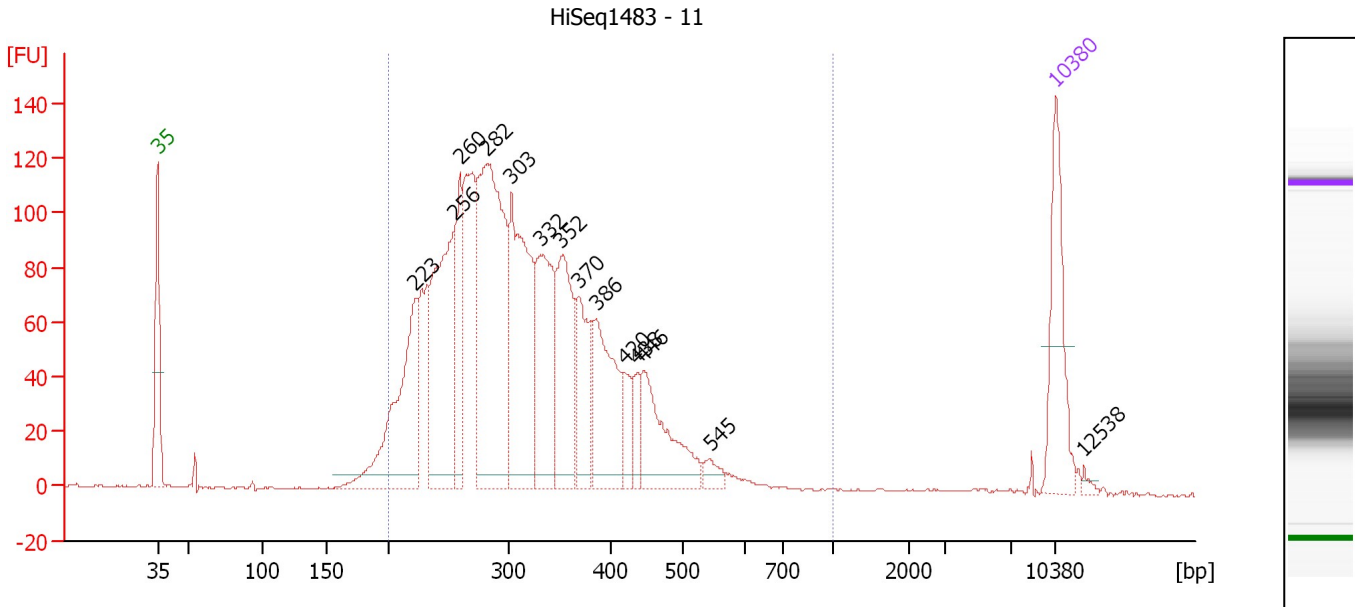
Peak table for Ladder

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	45.35
3	100	150.00	2,272.7	Ladder Peak	51.17
4	150	150.00	1,515.2	Ladder Peak	56.10
5	200	150.00	1,136.4	Ladder Peak	60.95
6	300	150.00	757.6	Ladder Peak	70.36
7	400	150.00	568.2	Ladder Peak	78.25
8	500	150.00	454.5	Ladder Peak	83.88
9	600	150.00	378.8	Ladder Peak	88.73
10	700	150.00	324.7	Ladder Peak	91.68
11	1,000	150.00	227.3	Ladder Peak	95.70
12	2,000	150.00	113.6	Ladder Peak	101.51
13	3,000	150.00	75.8	Ladder Peak	104.37
14	7,000	150.00	32.5	Ladder Peak	109.54
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-27\2018-08-27_001.xad

Created: 8/27/2018 12:28:19 PM
 Modified: 8/27/2018 1:09:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : HiSeq1483 - 11

Number of peaks found: 14 Corr. Area 1: 2,498.5
 Noise: 0.4

Peak table for sample 1 : HiSeq1483 - 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	223	199.52	1,358.3		63.07
3	256	237.34	1,407.3		66.18
4	260	87.81	512.6		66.55
5	282	343.12	1,840.3		68.72
6	303	228.52	1,142.9		70.60
7	332	145.37	664.3		72.85
8	352	131.57	566.6		74.45
9	370	72.78	298.3		75.86
10	386	112.28	440.3		77.18
11	420	27.85	100.4		79.39
12	438	23.84	82.5		80.37
13	446	100.55	341.6		80.84
14	545	13.46	37.4		86.06
15	10,380	75.00	10.9	Upper Marker	113.00
16	12,538	0.00	0.0		115.21

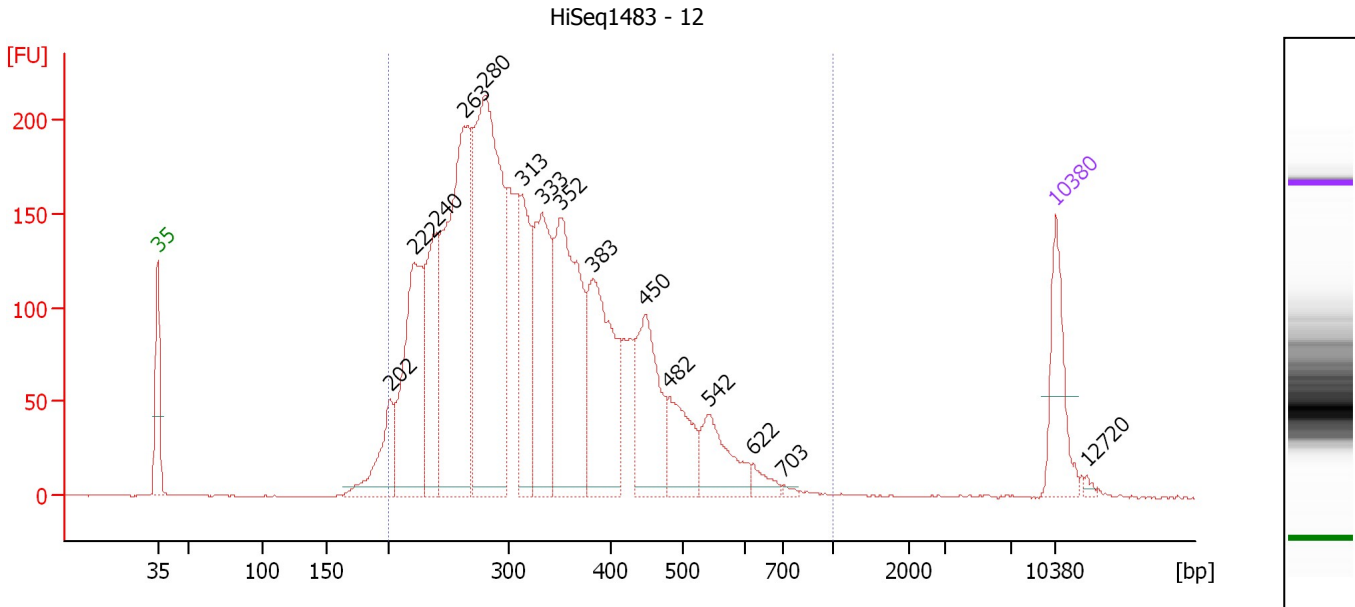
Region table for sample 1 : HiSeq1483 - 11

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	324	1,998.18	2,498.5	10,103.5	95	27.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-27\2018-08-27_001.xad

Created: 8/27/2018 12:28:19 PM
 Modified: 8/27/2018 1:09:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : HiSeq1483 - 12

Number of peaks found: 15 Corr. Area 1: 4,490.9
 Noise: 0.3

Peak table for sample 2 : HiSeq1483 - 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	202	102.89	770.9		61.16
3	222	297.84	2,036.8		62.98
4	240	199.20	1,258.2		64.70
5	263	515.21	2,970.5		66.86
6	280	600.56	3,248.7		68.49
7	313	173.90	841.0		71.41
8	333	236.21	1,075.7		72.95
9	352	327.73	1,410.1		74.48
10	383	251.27	995.3		76.87
11	450	165.03	556.2		81.04
12	482	91.20	286.8		82.86
13	542	88.26	246.6		85.93
14	622	18.51	45.1		89.38
15	703	4.05	8.7		91.73
16	10,380	75.00	10.9	Upper Marker	113.00
17	12,720	0.00	0.0		115.40

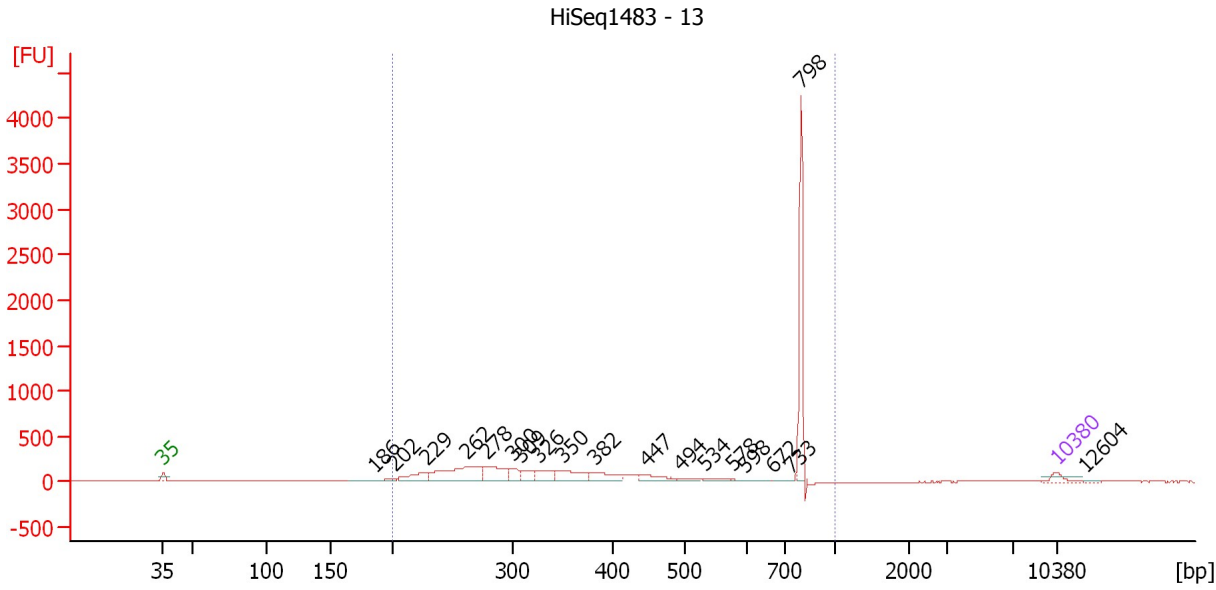
Region table for sample 2 : HiSeq1483 - 12

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	336	3,309.66	4,490.9	16,426.0	97	29.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-27\2018-08-27_001.xad

Created: 8/27/2018 12:28:19 PM
 Modified: 8/27/2018 1:09:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : HiSeq1483 - 13

Number of peaks found: 19 Corr. Area 1: 5,042.2
 Noise: 0.9

Peak table for sample 3 : HiSeq1483 - 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	186	29.34	239.4		59.57
3	202	91.57	685.8		61.17
4	229	341.14	2,261.6		63.64
5	262	996.84	5,764.9		66.79
6	278	534.81	2,910.0		68.34
7	300	178.59	903.3		70.32
8	309	220.81	1,081.7		71.10
9	326	290.48	1,348.1		72.45
10	350	411.60	1,782.7		74.29
11	382	309.27	1,225.5		76.86
12	447	207.43	703.6		80.88
13	494	85.67	262.8		83.55
14	534	65.82	186.7		85.53
15	578	23.34	61.2		87.66
16	598	29.07	73.6		88.63
17	672	9.47	21.3		90.86
18	733	7.37	15.2		92.12
19	798	1,227.02	2,329.7		92.99
20	10,380	75.00	10.9	Upper Marker	113.00
21	12,604	0.00	0.0		115.28

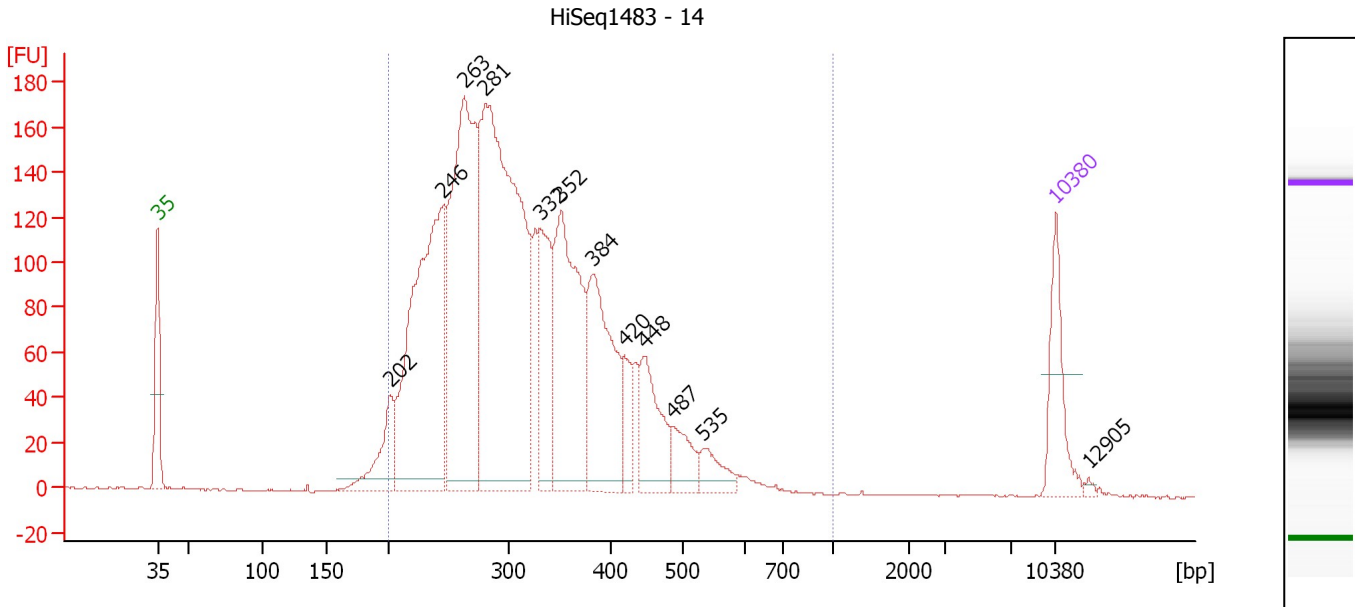
Region table for sample 3 : HiSeq1483 - 13

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	491	5,102.38	5,042.2	21,512.7	98	47.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-27\2018-08-27_001.xad

Created: 8/27/2018 12:28:19 PM
 Modified: 8/27/2018 1:09:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : HiSeq1483 - 14

Number of peaks found: 12 Corr. Area 1: 3,459.1
 Noise: 0.4

Peak table for sample 4 : HiSeq1483 - 14

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	202	101.87	765.8		61.10
3	246	579.33	3,569.3		65.27
4	263	589.85	3,393.6		66.91
5	281	894.15	4,825.1		68.55
6	332	160.90	734.5		72.88
7	352	336.89	1,449.9		74.47
8	384	251.04	991.7		76.96
9	420	48.04	173.2		79.39
10	448	115.02	388.6		80.98
11	487	55.04	171.1		83.17
12	535	39.97	113.3		85.56
13	10,380	75.00	10.9	Upper Marker	113.00
14	12,905	0.00	0.0		115.59

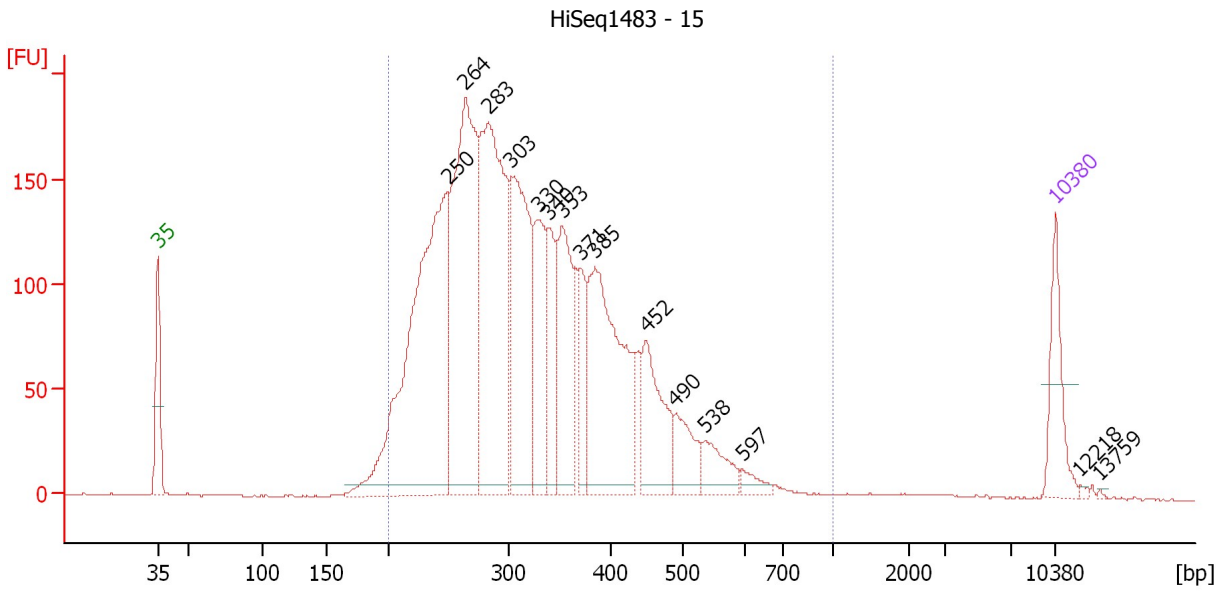
Region table for sample 4 : HiSeq1483 - 14

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	323	3,253.12	3,459.1	16,474.8	98	25.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-27\2018-08-27_001.xad

Created: 8/27/2018 12:28:19 PM
 Modified: 8/27/2018 1:09:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : HiSeq1483 - 15

Number of peaks found: 15 Corr. Area 1: 3,866.7
 Noise: 0.4

Peak table for sample 5 : HiSeq1483 - 15

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	250	808.61	4,904.5		65.64
3	264	635.18	3,640.0		67.01
4	283	605.96	3,240.7		68.79
5	303	381.33	1,909.0		70.57
6	330	171.47	787.9		72.71
7	340	135.71	604.7		73.52
8	353	211.83	909.4		74.54
9	371	93.38	381.4		75.97
10	385	372.91	1,466.9		77.08
11	452	156.76	526.0		81.15
12	490	72.08	222.7		83.34
13	538	58.66	165.1		85.73
14	597	18.73	47.5		88.58
15	10,380	75.00	10.9	Upper Marker	113.00
16	12,218	0.00	0.0		114.88
17	13,759	0.00	0.0		116.46

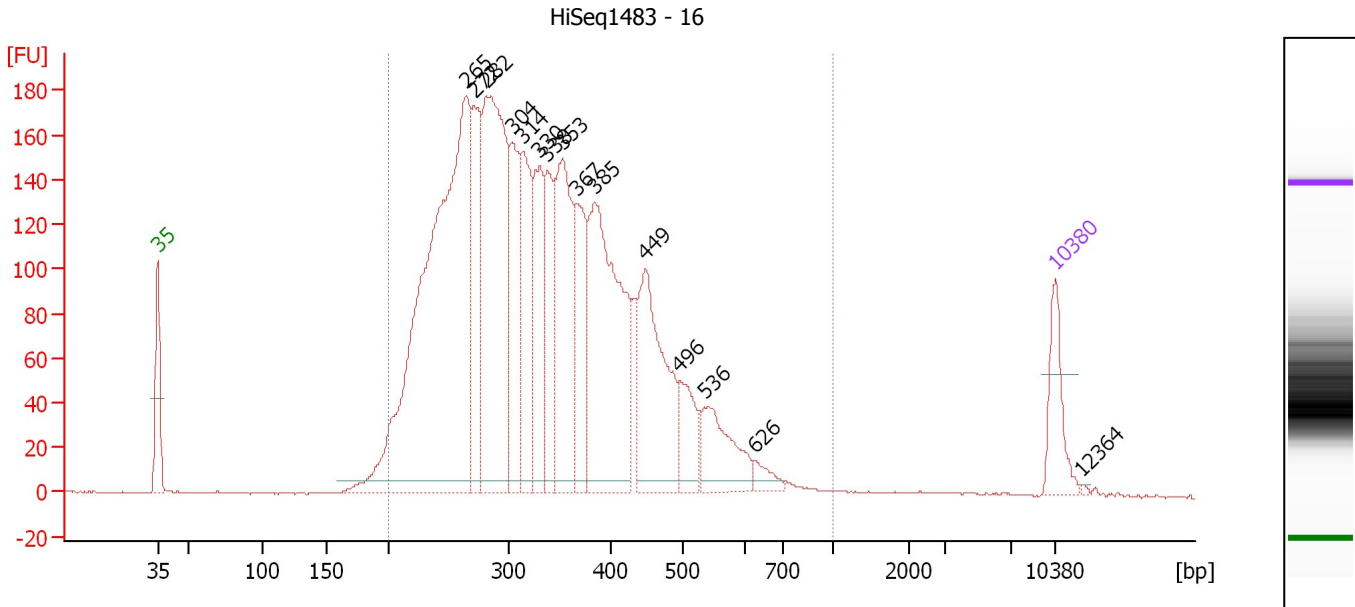
Region table for sample 5 : HiSeq1483 - 15

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	331	3,816.57	3,866.7	19,068.1	98	27.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-27\2018-08-27_001.xad

Created: 8/27/2018 12:28:19 PM
 Modified: 8/27/2018 1:09:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : HiSeq1483 - 16

Number of peaks found: 15 Corr. Area 1: 4,147.5
 Noise: 0.3

Peak table for sample 6 : HiSeq1483 - 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	265	1,361.79	7,771.8		67.11
3	272	254.55	1,420.2		67.69
4	282	671.26	3,612.5		68.63
5	304	239.43	1,194.4		70.66
6	314	236.88	1,142.0		71.49
7	330	221.78	1,017.9		72.74
8	338	178.84	801.6		73.36
9	353	341.44	1,464.6		74.56
10	367	189.35	781.5		75.66
11	385	532.01	2,094.2		77.06
12	449	322.62	1,088.3		81.02
13	496	93.17	284.4		83.68
14	536	134.74	381.2		85.60
15	626	25.62	62.0		89.51
16	10,380	75.00	10.9	Upper Marker	113.00
17	12,364	0.00	0.0		115.03

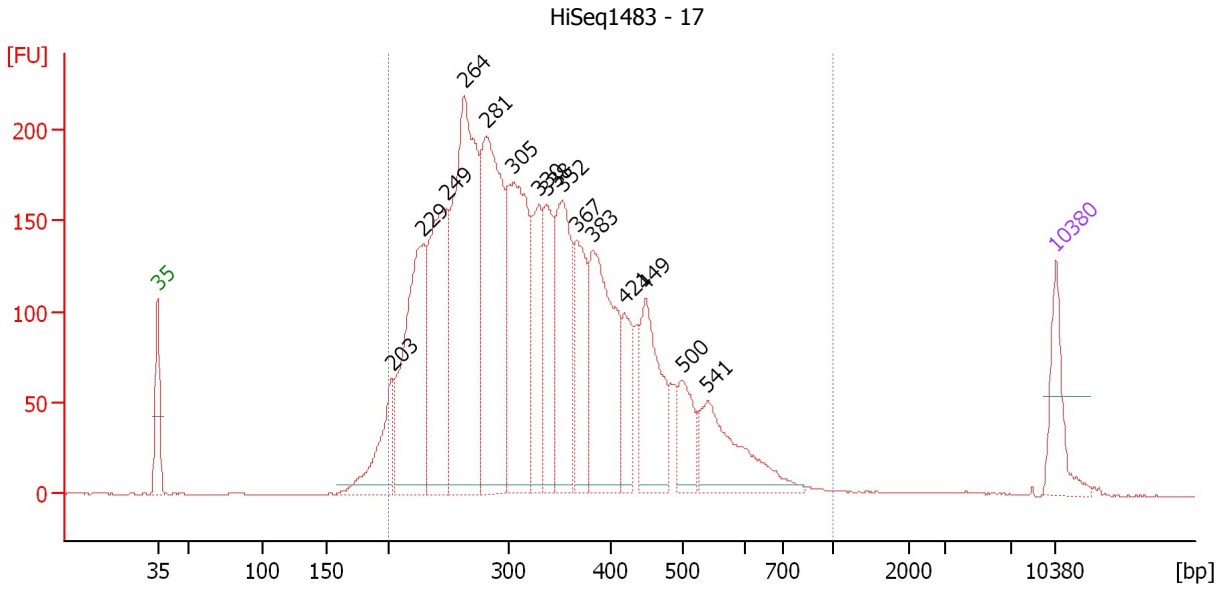
Region table for sample 6 : HiSeq1483 - 16

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	345	4,892.24	4,147.5	23,643.0	98	28.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-27\2018-08-27_001.xad

Created: 8/27/2018 12:28:19 PM
 Modified: 8/27/2018 1:09:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : HiSeq1483 - 17

Number of peaks found: 15 Corr. Area 1: 4,745.2
 Noise: 0.2

Peak table for sample 7 : HiSeq1483 - 17

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	203	147.83	1,101.3		61.27
3	229	433.69	2,873.4		63.65
4	249	424.99	2,586.7		65.56
5	264	702.42	4,038.0		66.93
6	281	539.80	2,910.6		68.57
7	305	446.14	2,217.4		70.75
8	330	181.75	833.6		72.76
9	338	179.10	803.5		73.34
10	352	267.76	1,150.9		74.51
11	367	177.94	734.1		75.67
12	383	342.93	1,355.4		76.94
13	421	94.24	339.3		79.43
14	449	212.37	716.5		81.02
15	500	90.72	275.0		83.88
16	541	182.67	511.2		85.89
17	10,380	75.00	10.9	Upper Marker	113.00

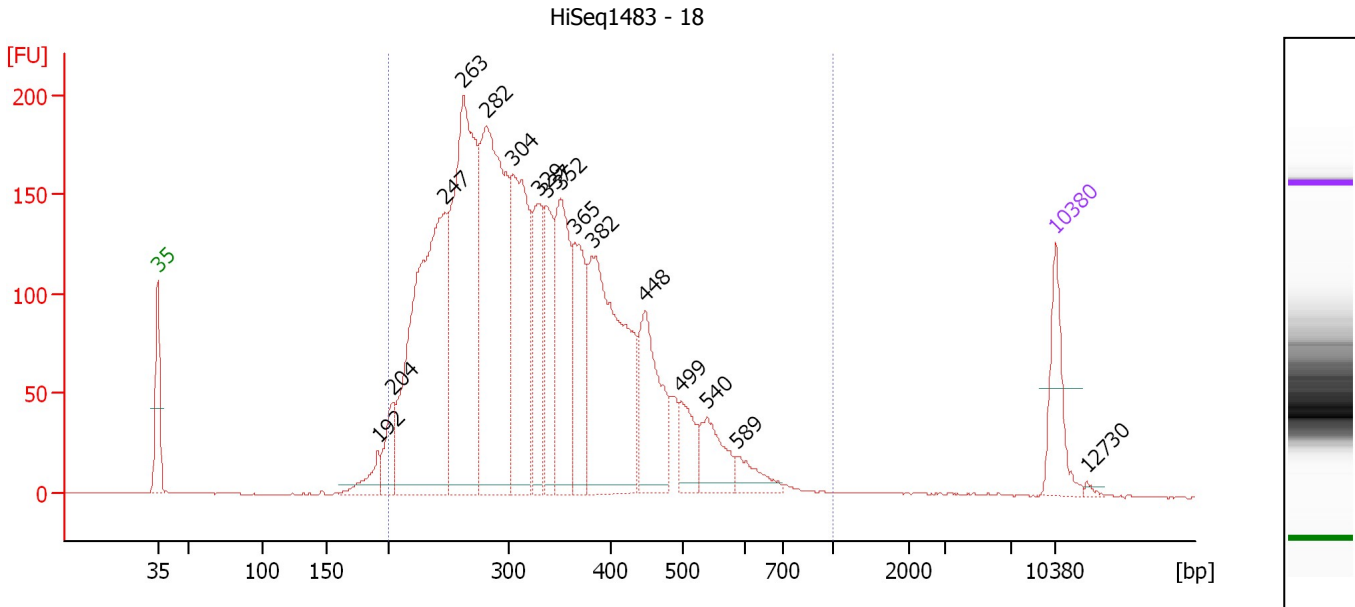
Region table for sample 7 : HiSeq1483 - 17

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	343	4,468.58	4,745.2	21,941.5	97	30.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-27\2018-08-27_001.xad

Created: 8/27/2018 12:28:19 PM
 Modified: 8/27/2018 1:09:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : HiSeq1483 - 18

Number of peaks found: 16 Corr. Area 1: 4,160.0
 Noise: 0.3

Peak table for sample 8 : HiSeq1483 - 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	192	47.37	374.0		60.17
3	204	68.65	509.5		61.34
4	247	700.90	4,303.4		65.35
5	263	666.24	3,842.9		66.85
6	282	616.87	3,314.4		68.67
7	304	360.94	1,797.3		70.70
8	329	164.65	757.5		72.68
9	337	149.43	670.9		73.32
10	352	244.38	1,052.7		74.44
11	365	177.15	734.8		75.51
12	382	446.27	1,769.1		76.85
13	448	187.63	634.3		80.97
14	499	62.28	189.3		83.80
15	540	80.73	226.4		85.83
16	589	38.39	98.8		88.19
17	10,380	75.00	10.9	Upper Marker	113.00
18	12,730	0.00	0.0		115.41

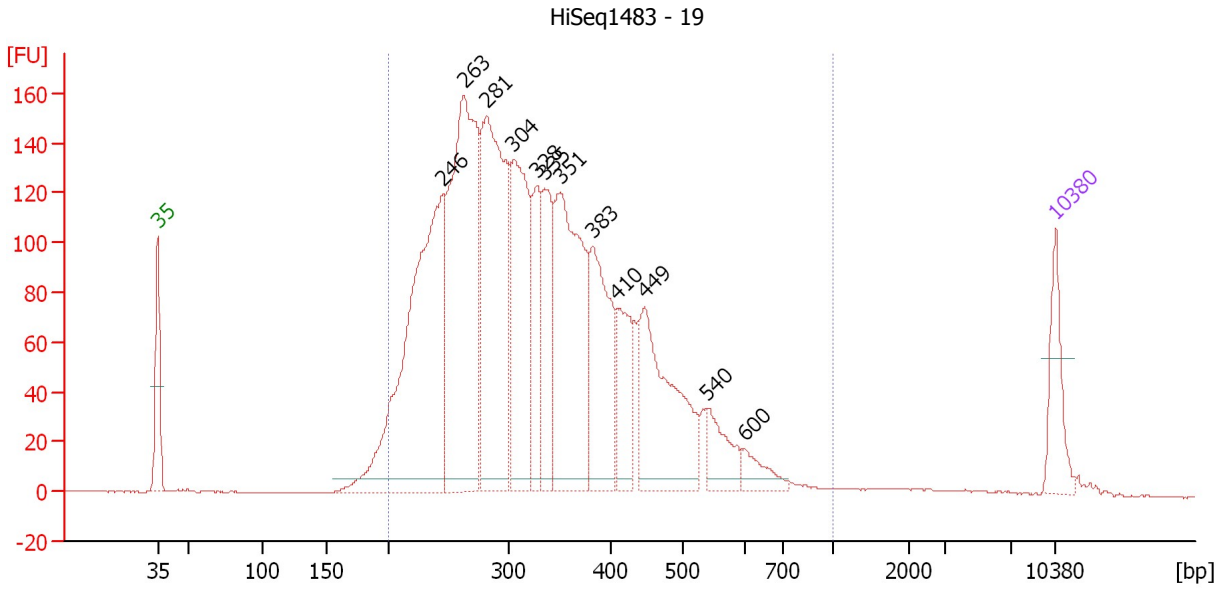
Region table for sample 8 : HiSeq1483 - 18

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	338	4,031.08	4,160.0	19,860.0	97	28.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-27\2018-08-27_001.xad

Created: 8/27/2018 12:28:19 PM
 Modified: 8/27/2018 1:09:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : HiSeq1483 - 19

Number of peaks found: 12 Corr. Area 1: 3,491.6
 Noise: 0.4

Peak table for sample 9 : HiSeq1483 - 19

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	246	819.82	5,051.5		65.27
3	263	748.36	4,309.3		66.89
4	281	607.21	3,268.3		68.62
5	304	384.32	1,915.7		70.68
6	328	155.41	718.0		72.57
7	335	193.90	875.7		73.16
8	351	477.13	2,062.3		74.35
9	383	264.21	1,044.0		76.95
10	410	131.97	487.3		78.84
11	449	310.97	1,049.9		81.00
12	540	81.15	227.8		85.81
13	600	40.42	102.1		88.73
14	10,380	75.00	10.9	Upper Marker	113.00

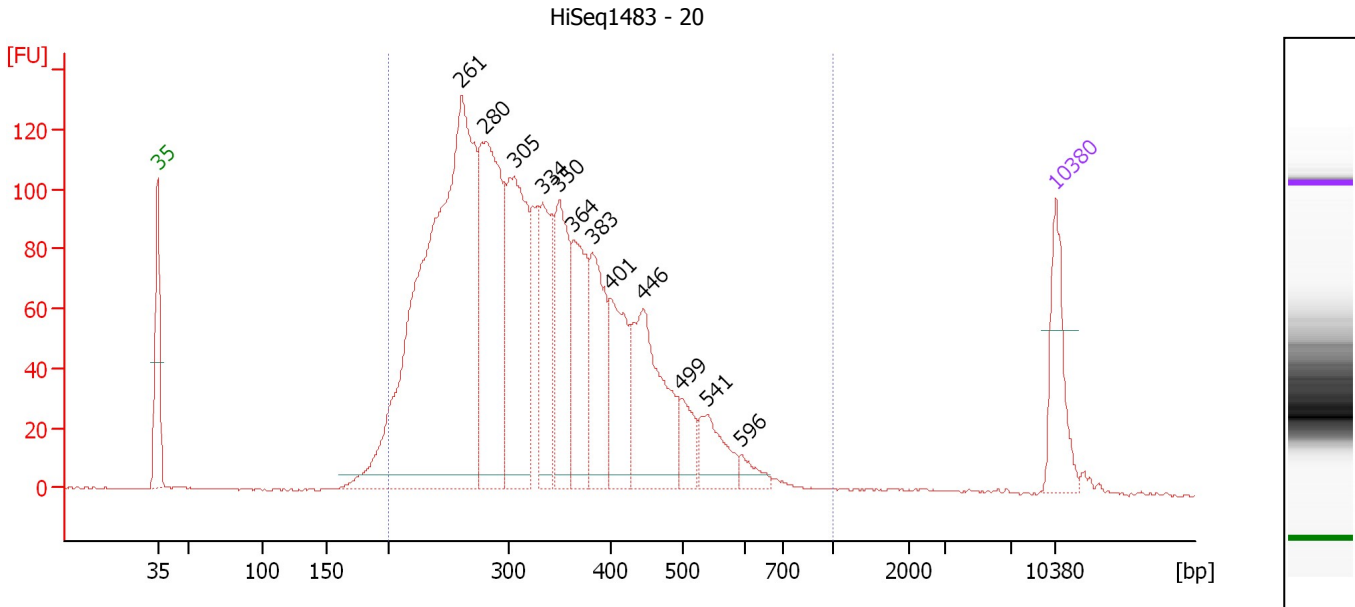
Region table for sample 9 : HiSeq1483 - 19

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	340	4,310.68	3,491.6	21,200.6	97	29.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-27\2018-08-27_001.xad

Created: 8/27/2018 12:28:19 PM
 Modified: 8/27/2018 1:09:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : HiSeq1483 - 20

Number of peaks found: 12 Corr. Area 1: 2,742.6
 Noise: 0.4

Peak table for sample 10 : HiSeq1483 - 20

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	261	1,119.74	6,508.8		66.66
3	280	397.14	2,146.7		68.51
4	305	327.18	1,622.9		70.79
5	334	147.14	668.0		73.02
6	350	179.91	778.2		74.33
7	364	155.72	648.1		75.42
8	383	148.97	588.8		76.94
9	401	127.21	480.9		78.30
10	446	215.49	731.7		80.86
11	499	46.74	141.8		83.85
12	541	66.46	186.2		85.86
13	596	20.10	51.1		88.52
14	10,380	75.00	10.9	Upper Marker	113.00

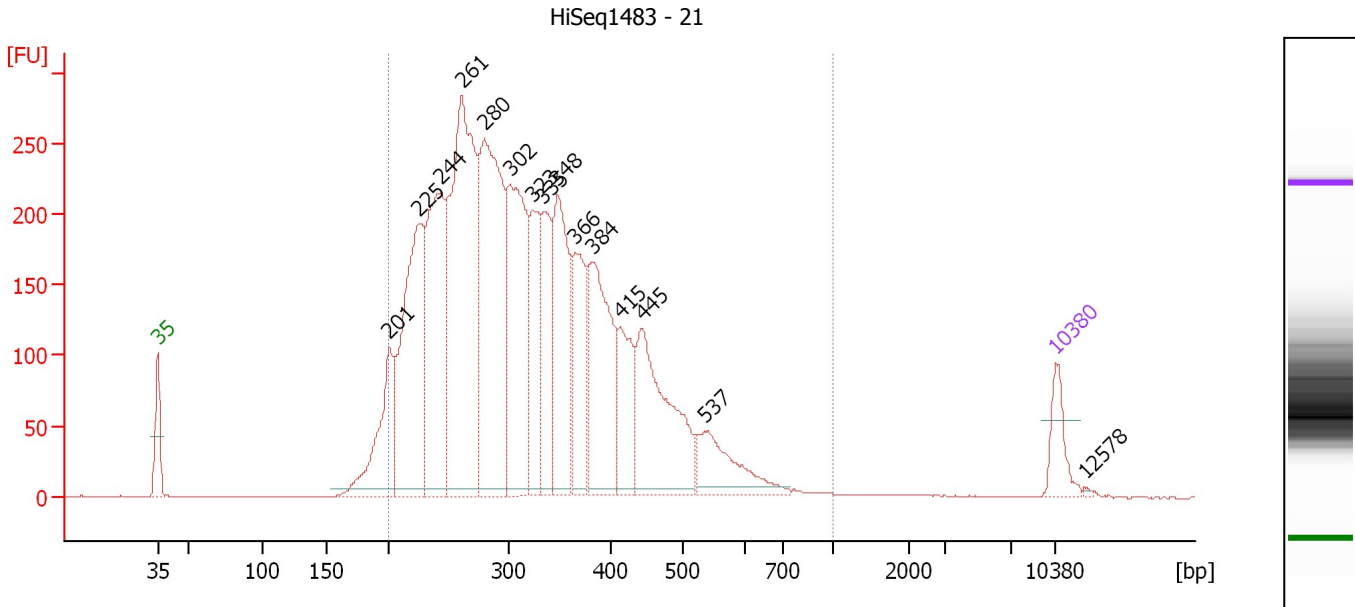
Region table for sample 10 : HiSeq1483 - 20

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	3,084.68	2,742.6	15,235.0	97	28.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-27\2018-08-27_001.xad

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 Modified: 8/27/2018 1:09:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : HiSeq1483 - 21

Number of peaks found: 15 Corr. Area 1: 5,901.7
 Noise: 0.2

Peak table for sample 11 : HiSeq1483 - 21

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	201	331.69	2,497.9		61.06
3	225	761.05	5,122.4		63.31
4	244	649.63	4,037.7		65.07
5	261	1,194.11	6,924.8		66.72
6	280	916.10	4,958.4		68.47
7	302	638.21	3,204.0		70.51
8	323	303.32	1,421.2		72.21
9	335	258.51	1,170.9		73.09
10	348	453.64	1,972.7		74.18
11	366	285.51	1,182.5		75.56
12	384	459.92	1,815.1		76.98
13	415	208.69	762.8		79.07
14	445	463.44	1,578.8		80.77
15	537	184.29	520.3		85.66
16	10,380	75.00	10.9	Upper Marker	113.00
17	12,578	0.00	0.0		115.25

Region table for sample 11 : HiSeq1483 - 21

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	331	7,004.81	5,901.7	35,270.1	96	29.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-27\2018-08-27_001.xad

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Gel Image

