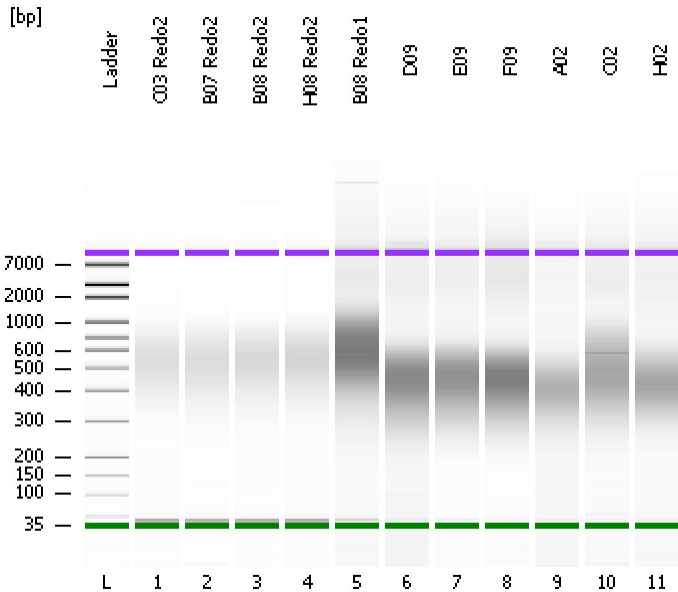


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

Created: 8/25/2017 11:16:48 AM
Modified: 8/25/2017 12:01:18 PM

Electrophoresis File Run Summary



Instrument Information:

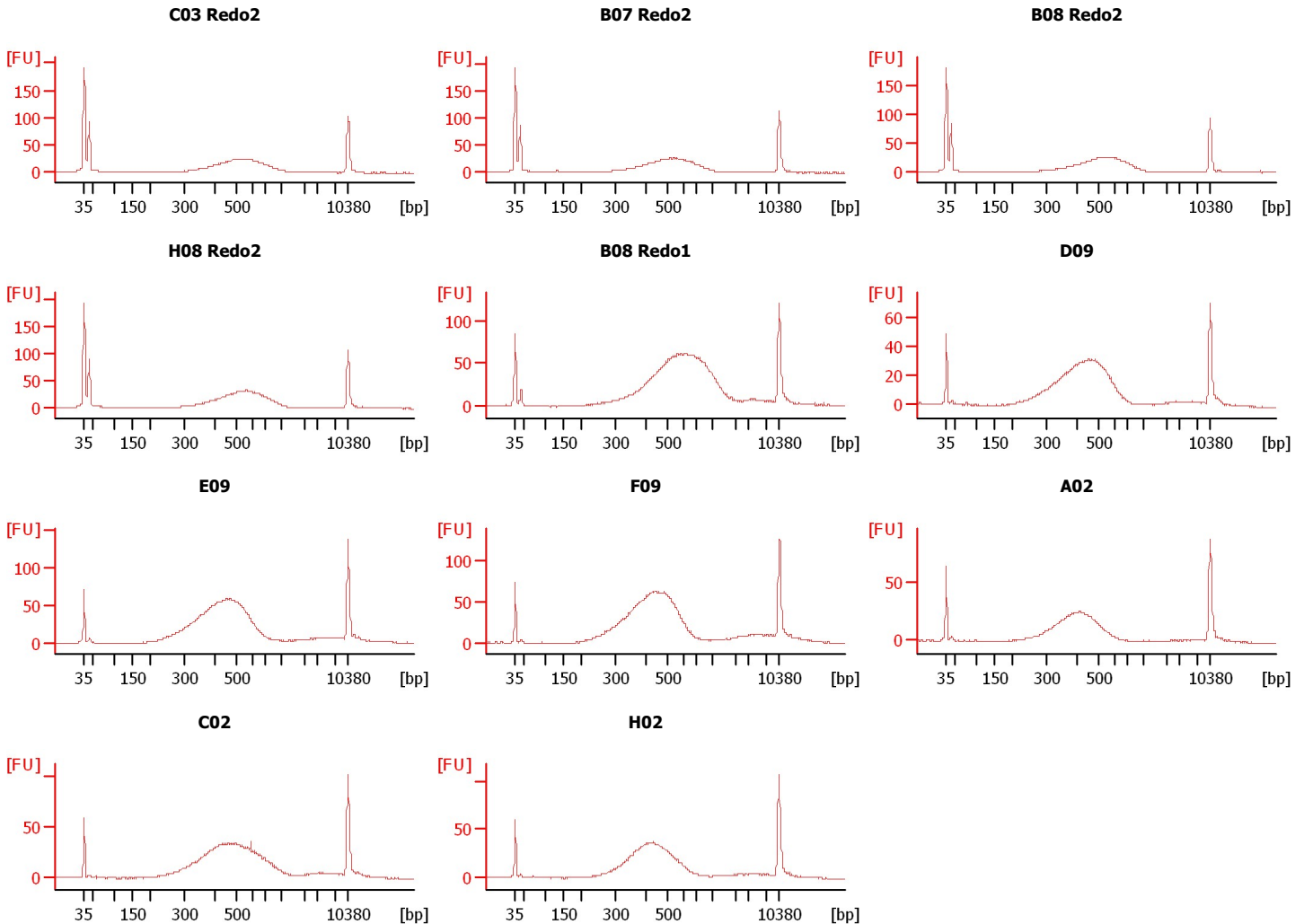
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

Created: 8/25/2017 11:16:48 AM
 Modified: 8/25/2017 12:01:18 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
C03 Redo2		<input type="checkbox"/>	✓			
B07 Redo2		<input type="checkbox"/>	✓			
B08 Redo2		<input type="checkbox"/>	✓			
H08 Redo2		<input type="checkbox"/>	✓			
B08 Redo1		<input type="checkbox"/>	✓			
D09		<input type="checkbox"/>	✓			
E09		<input type="checkbox"/>	✓			
F09		<input type="checkbox"/>	✓			
A02		<input type="checkbox"/>	✓			
C02		<input type="checkbox"/>	✓			
H02		<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\2017-08-25\2017-08-25_004.xad

Created: 8/25/2017 11:16:48 AM
Modified: 8/25/2017 12:01:18 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

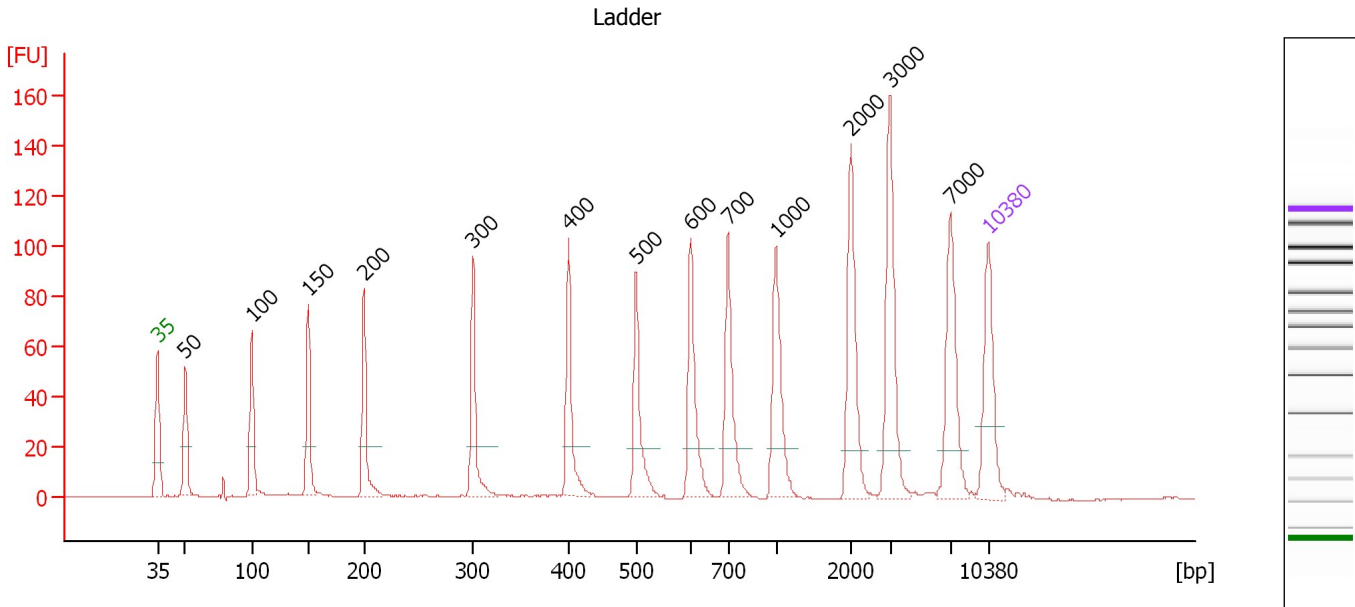
Ladder

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\2017-08-25\2017-08-25_004.xad

Created: 8/25/2017 11:16:48 AM
 Modified: 8/25/2017 12:01:18 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

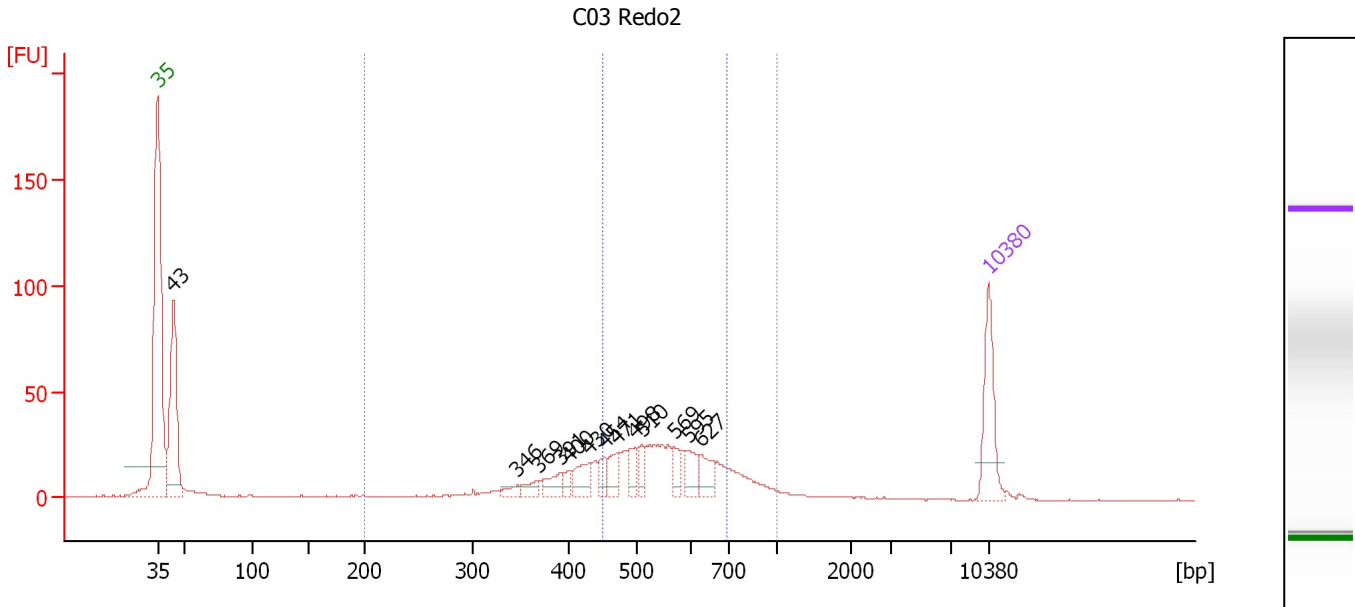
Peak table for Ladder

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	50.93
4	150	150.00	1,515.2	Ladder Peak	55.71
5	200	150.00	1,136.4	Ladder Peak	60.41
6	300	150.00	757.6	Ladder Peak	69.60
7	400	150.00	568.2	Ladder Peak	77.62
8	500	150.00	454.5	Ladder Peak	83.35
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	95.12
12	2,000	150.00	113.6	Ladder Peak	101.46
13	3,000	150.00	75.8	Ladder Peak	104.74
14	7,000	150.00	32.5	Ladder Peak	109.86
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

Created: 8/25/2017 11:16:48 AM
 Modified: 8/25/2017 12:01:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : C03 Redo2

Number of peaks found: 13 Corr. Area 1: 465.1
 Noise: 0.2 Corr. Area 2: 272.9

Peak table for sample 1 : C03 Redo2

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	43	271.99	9,484.3		44.32
3	346	13.46	58.9		73.30
4	369	17.17	70.5		75.14
5	391	26.74	103.5		76.94
6	400	12.81	48.6		77.60
7	430	37.42	131.8		79.35
8	454	21.50	71.8		80.71
9	471	32.02	102.9		81.71
10	498	27.83	84.7		83.22
11	510	21.89	65.0		83.83
12	569	20.64	55.0		86.52
13	595	30.11	76.7		87.70
14	627	32.48	78.5		88.79
15	10,380	75.00	10.9	Upper Marker	113.00

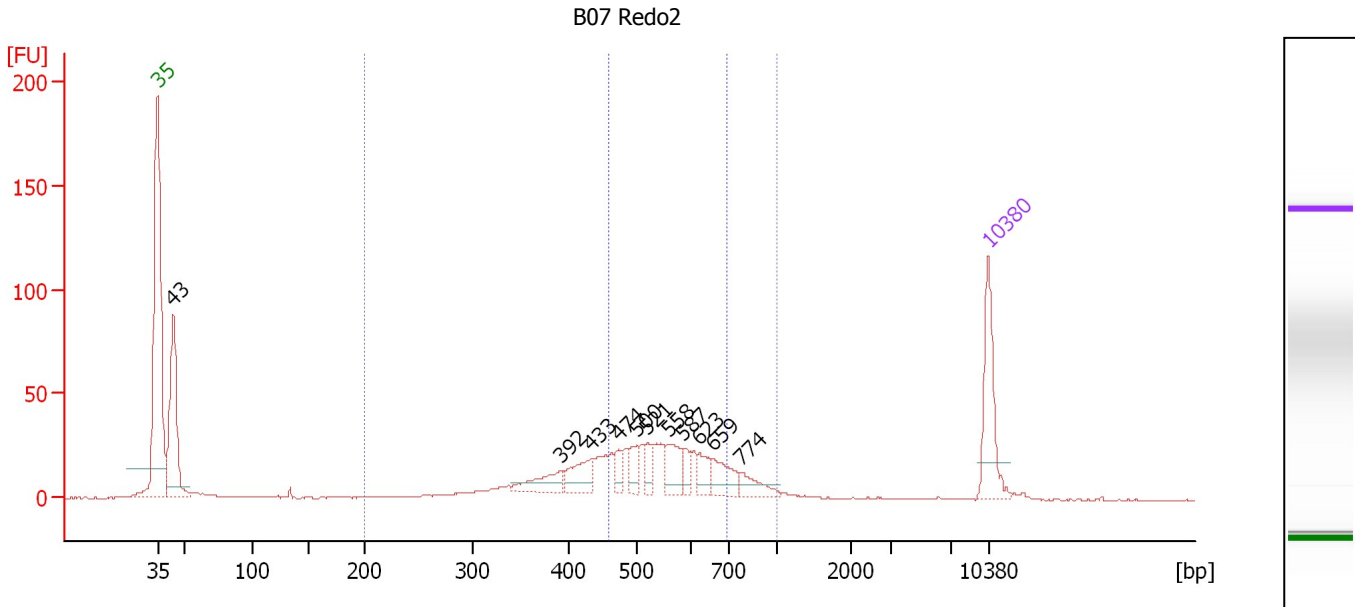
Region table for sample 1 : C03 Redo2

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	530	465.1	1,808.2	570.53	69	26.2
452	695	552	272.9	914.2	327.44	40	11.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

Created: 8/25/2017 11:16:48 AM
 Modified: 8/25/2017 12:01:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : B07 Redo2

Number of peaks found: 11 Corr. Area 1: 501.6
 Noise: 0.2 Corr. Area 2: 277.3

Peak table for sample 2 : B07 Redo2

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	43	229.16	7,983.7		44.33
3	392	40.36	156.1		76.96
4	433	47.26	165.4		79.52
5	474	18.52	59.2		81.84
6	500	24.47	74.1		83.36
7	521	20.76	60.4		84.31
8	558	42.12	114.4		86.01
9	587	15.82	40.9		87.34
10	623	24.67	60.0		88.67
11	659	38.59	88.7		89.81
12	774	25.97	50.8		92.09
13	10,380	75.00	10.9	Upper Marker	113.00

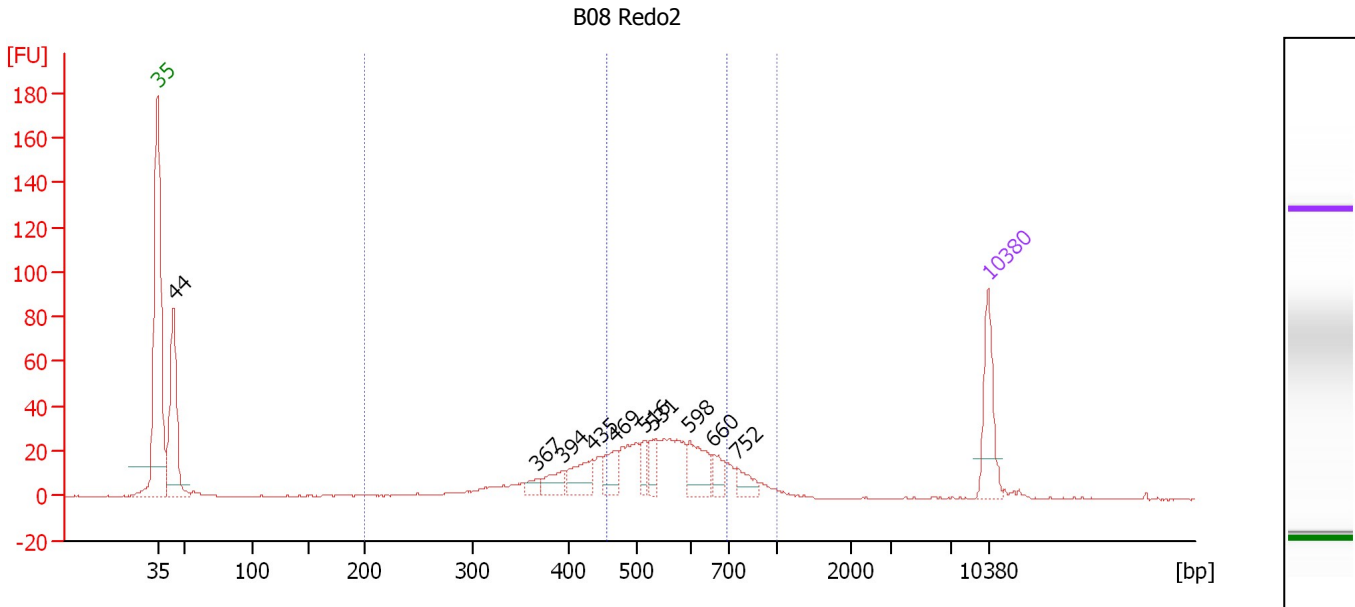
Region table for sample 2 : B07 Redo2

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	526	501.6	1,727.9	541.80	73	26.5
458	699	557	277.3	807.5	292.00	41	11.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

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 Modified: 8/25/2017 12:01:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : B08 Redo2

Number of peaks found: 10 Corr. Area 1: 464.6
 Noise: 0.2 Corr. Area 2: 272.1

Peak table for sample 3 : B08 Redo2

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	44	281.32	9,778.6		44.34
3	367	15.85	65.5		74.95
4	394	34.07	131.1		77.11
5	435	54.25	189.1		79.61
6	469	43.43	140.3		81.57
7	516	24.68	72.5		84.07
8	531	26.75	76.3		84.79
9	598	62.58	158.5		87.86
10	660	27.86	64.0		89.83
11	752	28.03	56.4		91.79
12	10,380	75.00	10.9	Upper Marker	113.00

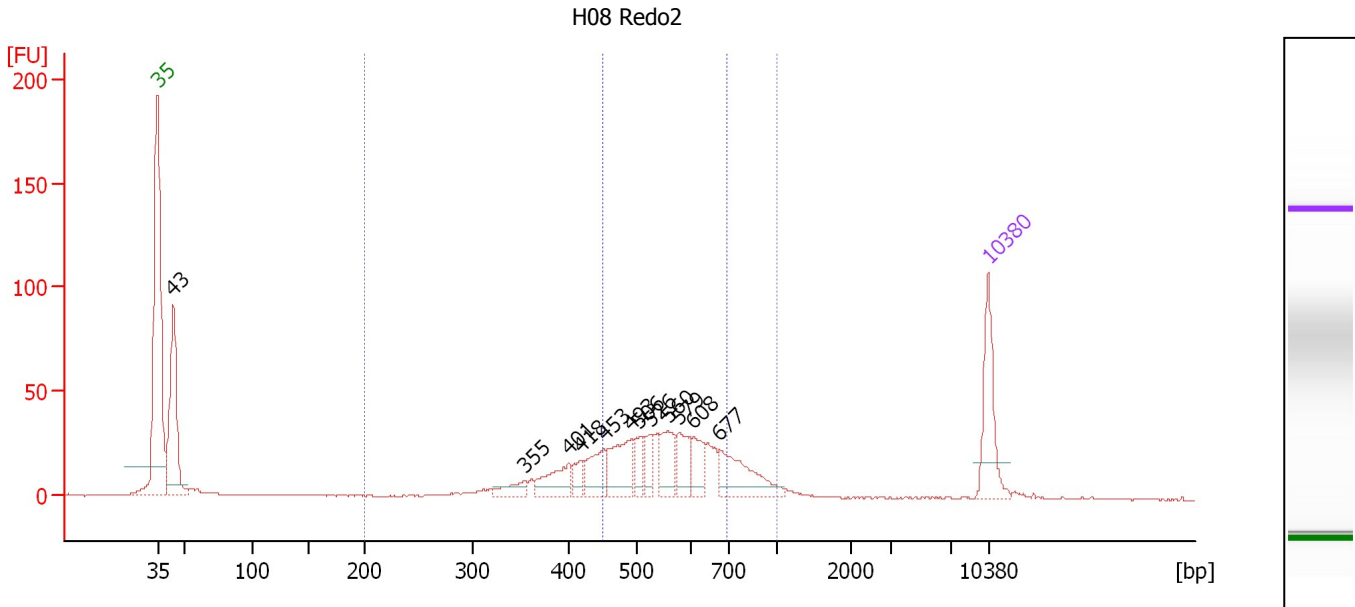
Region table for sample 3 : B08 Redo2

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	531	464.6	1,976.0	628.91	75	25.6
456	696	557	272.1	995.3	359.90	44	11.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

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Electropherogram Summary Continued ...



Overall Results for sample 4 : H08 Redo2

Number of peaks found: 12 Corr. Area 1: 568.2
 Noise: 0.3 Corr. Area 2: 340.4

Peak table for sample 4 : H08 Redo2

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	43	256.90	8,965.5		44.32
3	355	25.45	108.7		74.00
4	401	54.71	206.9		77.66
5	418	22.98	83.2		78.68
6	453	54.36	182.0		80.63
7	493	82.52	253.8		82.92
8	506	31.60	94.7		83.61
9	526	29.69	85.6		84.53
10	560	55.13	149.2		86.09
11	579	43.90	114.9		86.97
12	608	39.69	99.0		88.19
13	677	88.29	197.5		90.38
14	10,380	75.00	10.9	Upper Marker	113.00

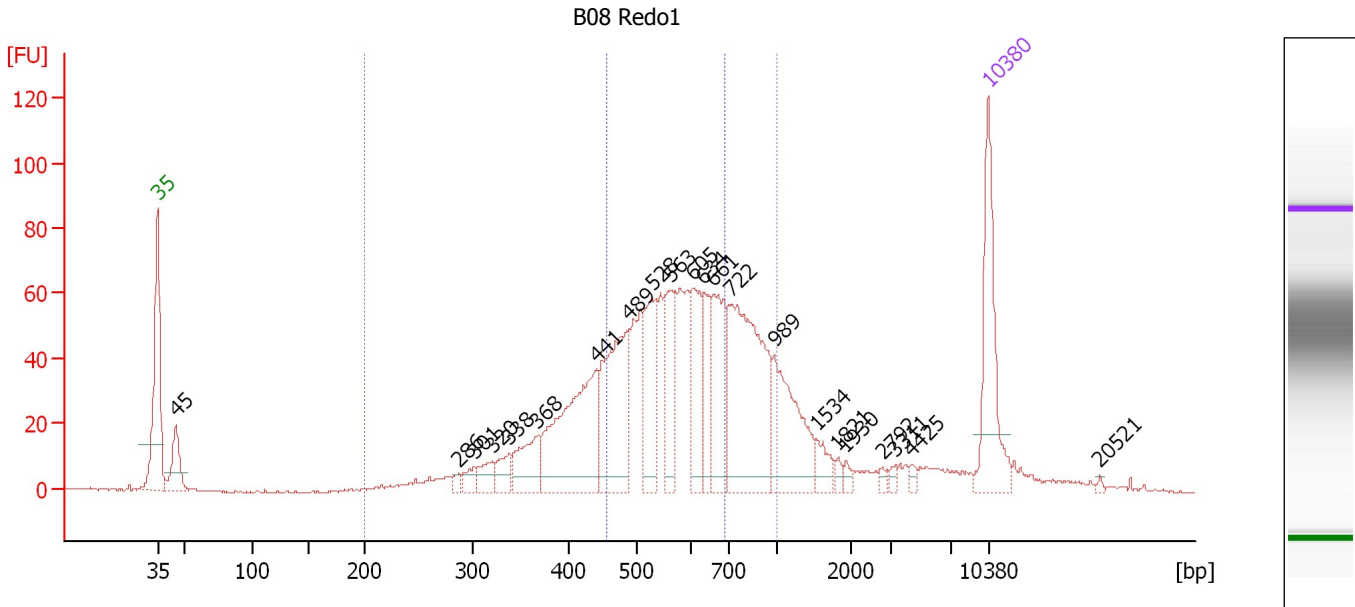
Region table for sample 4 : H08 Redo2

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	543	568.2	2,033.4	660.65	73	26.0
452	695	557	340.4	1,077.3	388.75	44	11.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

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Electropherogram Summary Continued ...



Overall Results for sample 5 : B08 Redo1

Number of peaks found: 22 Corr. Area 1: 1,236.0
 Noise: 0.2 Corr. Area 2: 668.5

Peak table for sample 5 : B08 Redo1

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	45	46.42	1,561.2		44.57
3	286	5.70	30.1		68.35
4	301	12.96	65.3		69.67
5	320	18.27	86.5		71.20
6	338	20.07	89.9		72.67
7	368	44.17	182.0		75.03
8	441	153.95	528.5		79.99
9	489	132.71	411.6		82.69
10	528	73.14	209.7		84.66
11	563	61.57	165.8		86.23
12	605	61.60	154.3		88.09
13	634	40.39	96.5		89.03
14	661	76.39	175.1		89.86
15	722	183.79	385.7		91.39
16	989	85.74	131.4		94.97
17	1,534	14.92	14.7		98.51
18	1,821	4.62	3.8		100.33
19	1,930	4.77	3.7		101.01
20	2,792	3.22	1.7		104.06
21	3,311	3.56	1.6		105.14
22	4,425	3.37	1.2		106.56
23	10,380	75.00	10.9	Upper Marker	113.00
24	20,521	0.00	0.0		122.43

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

Created: 8/25/2017 11:16:48 AM
Modified: 8/25/2017 12:01:18 PM

Electropherogram Summary Continued ...

... Region table for sample 5 :

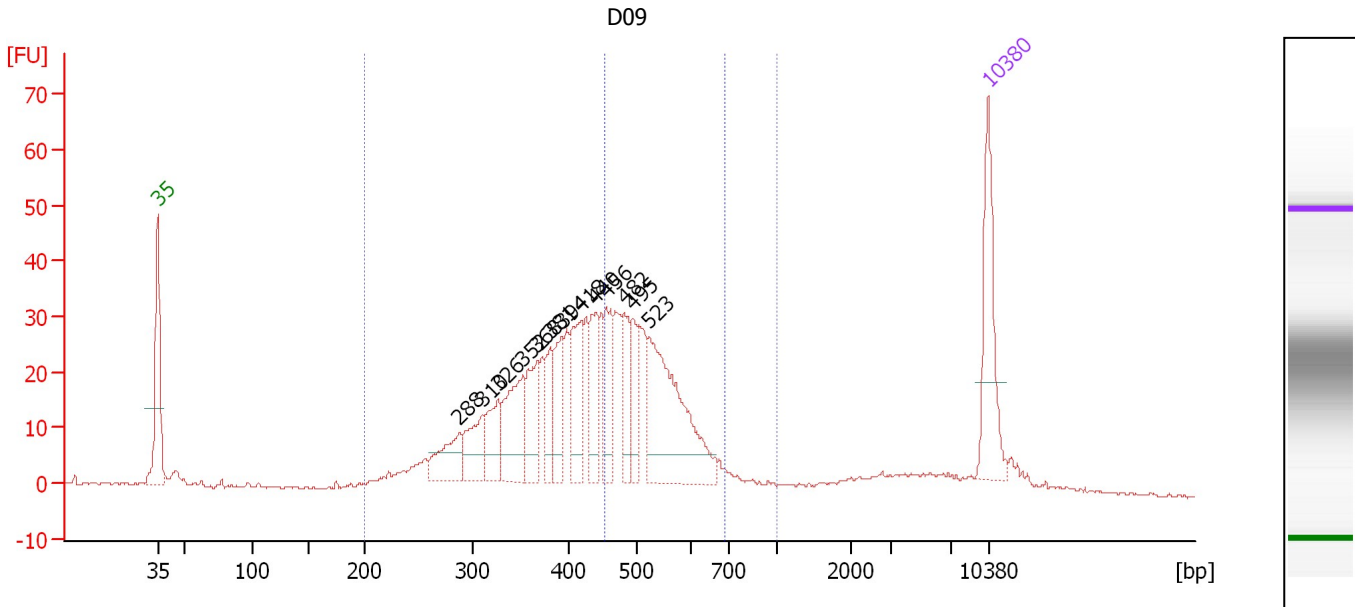
B08 Redo1

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	576	1,236.0	3,295.8	1,105.00	82	28.8
457	693	565	668.5	1,607.0	589.10	44	11.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

Created: 8/25/2017 11:16:48 AM
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Electropherogram Summary Continued ...



Overall Results for sample 6 : D09

Number of peaks found: 13 Corr. Area 1: 670.7
 Noise: 0.3 Corr. Area 2: 253.9

Peak table for sample 6 : D09

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	288	52.74	277.9		68.46
3	310	52.34	256.0		70.39
4	326	48.71	226.5		71.67
5	352	85.28	366.8		73.80
6	368	60.52	249.4		75.03
7	381	39.15	155.6		76.12
8	394	46.63	179.5		77.11
9	418	69.95	253.7		78.64
10	440	56.70	195.2		79.93
11	456	56.88	189.1		80.82
12	482	44.92	141.3		82.30
13	495	39.97	122.4		83.04
14	523	182.58	528.5		84.43
15	10,380	75.00	10.9	Upper Marker	113.00

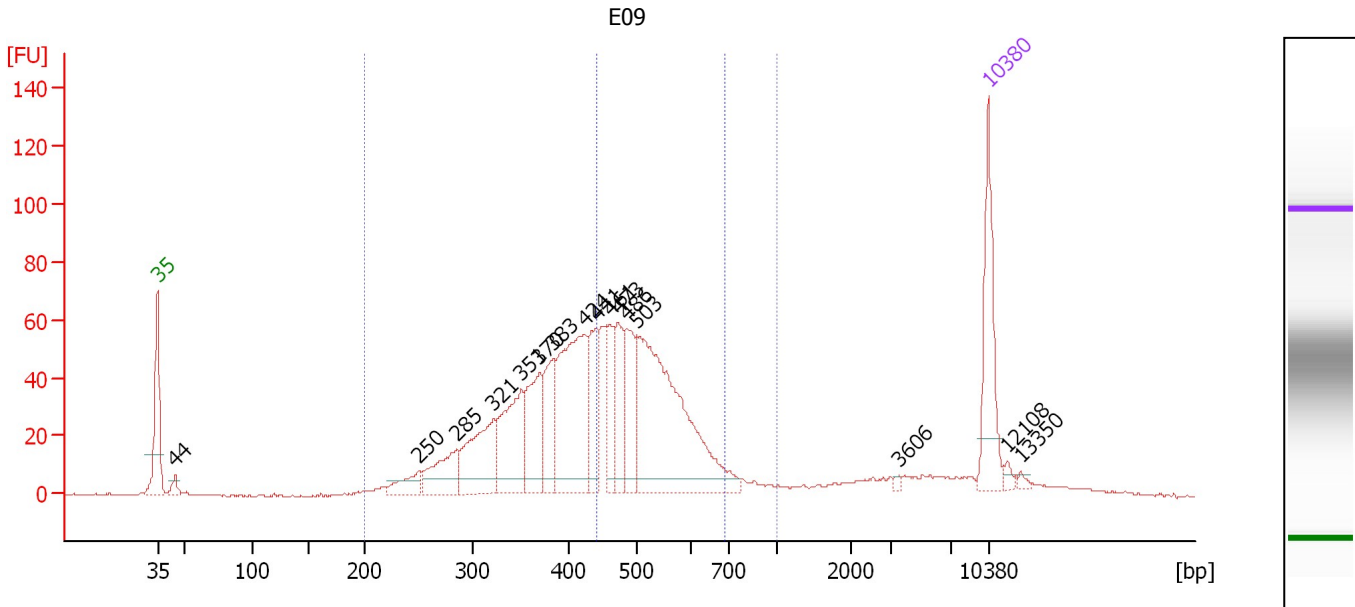
Region table for sample 6 : D09

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	440	670.7	4,572.6	1,209.69	90	25.1
454	691	526	253.9	1,267.2	434.63	34	10.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

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Electropherogram Summary Continued ...



Overall Results for sample 7 : E09

Number of peaks found: 16 Corr. Area 1: 1,223.6
 Noise: 0.2 Corr. Area 2: 526.6

Peak table for sample 7 : E09

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	44	12.46	425.9		44.46
3	250	28.38	172.1		64.99
4	285	59.67	316.8		68.26
5	321	98.77	465.6		71.32
6	351	106.26	458.9		73.68
7	370	81.72	335.0		75.19
8	383	60.94	240.8		76.29
9	424	183.42	655.3		79.00
10	441	64.32	221.1		79.96
11	461	50.86	167.2		81.11
12	473	60.95	195.1		81.82
13	486	65.30	203.8		82.52
14	503	290.64	876.0		83.47
15	3,606	2.23	0.9		105.52
16	10,380	75.00	10.9	Upper Marker	113.00
17	12,108	0.00	0.0		114.61
18	13,350	0.00	0.0		115.76

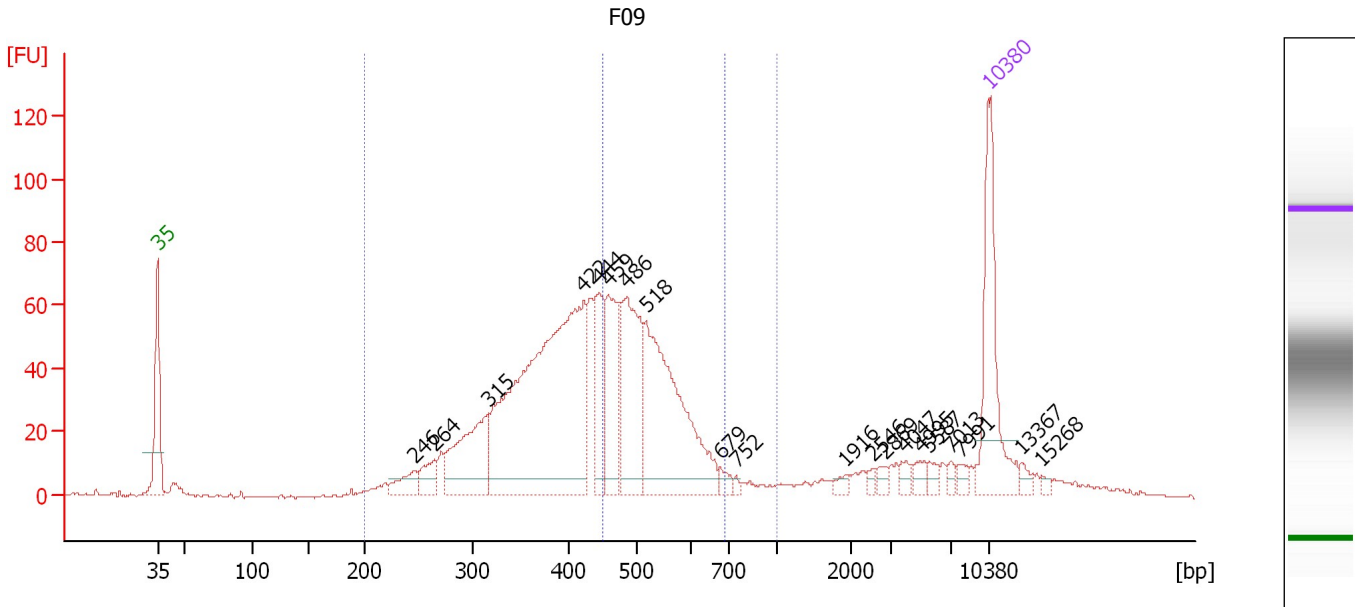
Region table for sample 7 : E09

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	446	1,223.6	4,732.4	1,267.37	88	25.8
442	693	522	526.6	1,533.0	520.23	38	11.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

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Electropherogram Summary Continued ...



Overall Results for sample 8 : F09

Number of peaks found: 20 Corr. Area 1: 1,298.2
 Noise: 0.4 Corr. Area 2: 503.2

Peak table for sample 8 : F09

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	20.28	125.0		64.62
3	264	21.59	123.7		66.33
4	315	89.20	428.7		70.83
5	422	373.16	1,338.4		78.91
6	444	54.44	185.6		80.17
7	459	74.72	246.8		80.98
8	486	107.15	334.1		82.55
9	518	183.19	536.2		84.16
10	679	7.13	15.9		90.42
11	752	2.68	5.4		91.79
12	1,916	4.93	3.9		100.93
13	2,546	3.08	1.8		103.25
14	2,869	5.14	2.7		104.31
15	4,047	5.49	2.1		106.08
16	4,995	6.55	2.0		107.29
17	5,587	5.49	1.5		108.05
18	7,013	3.92	0.8		109.87
19	7,991	4.68	0.9		110.78
20	10,380	75.00	10.9	Upper Marker	113.00
21	13,367	0.00	0.0		115.78
22	15,268	0.00	0.0		117.55

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

Created: 8/25/2017 11:16:48 AM
Modified: 8/25/2017 12:01:18 PM

Electropherogram Summary Continued ...

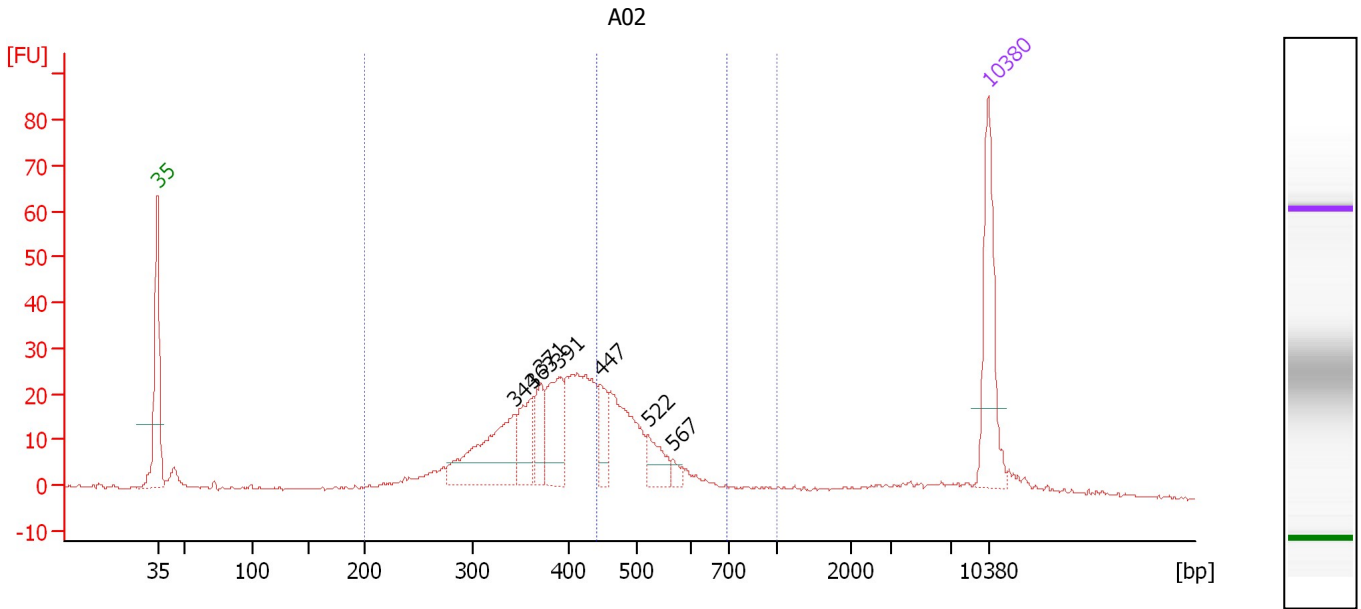
... Region table for sample 8 : F09

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	440	1,298.2	4,007.8	1,062.24	86	25.3
450	690	523	503.2	1,150.9	391.72	33	10.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

Created: 8/25/2017 11:16:48 AM
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Electropherogram Summary Continued ...



Overall Results for sample 9 : A02

Number of peaks found: 7 Corr. Area 1: 475.3
 Noise: 0.2 Corr. Area 2: 140.8

Peak table for sample 9 : A02

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	344	110.59	487.7		73.10
3	363	47.48	198.4		74.62
4	371	35.93	146.9		75.27
5	391	63.92	247.8		76.89
6	447	29.50	100.0		80.32
7	522	28.53	82.8		84.36
8	567	7.21	19.3		86.43
9	10,380	75.00	10.9	Upper Marker	113.00

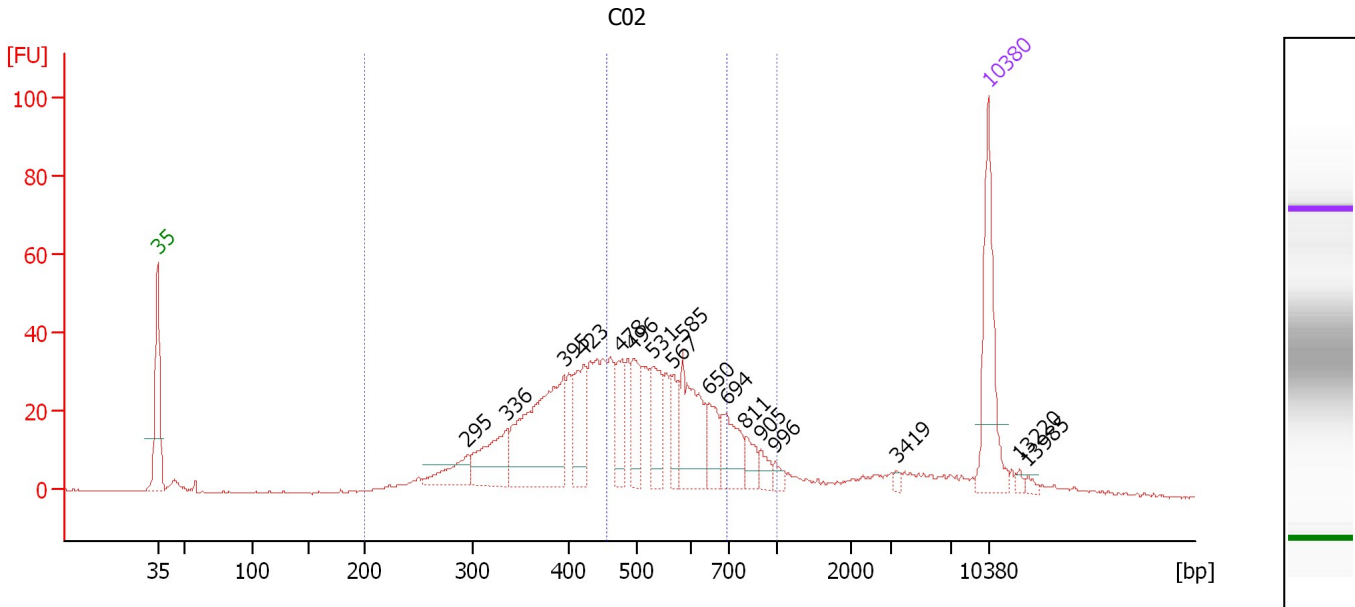
Region table for sample 9 : A02

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	416	475.3	2,627.5	667.05	86	24.9
443	699	507	140.8	567.5	187.48	25	10.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

Created: 8/25/2017 11:16:48 AM
 Modified: 8/25/2017 12:01:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : C02

Number of peaks found: 17 Corr. Area 1: 841.2
 Noise: 0.3 Corr. Area 2: 360.7

Peak table for sample 10 : C02

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	295	33.96	174.7		69.11
3	336	63.77	287.8		72.46
4	395	158.84	609.0		77.24
5	423	56.95	204.2		78.91
6	478	34.47	109.4		82.06
7	496	43.41	132.5		83.13
8	531	47.63	136.0		84.76
9	567	28.68	76.6		86.43
10	585	76.10	197.2		87.25
11	650	32.12	74.8		89.53
12	694	43.57	95.1		90.90
13	811	15.82	29.6		92.58
14	905	10.78	18.0		93.85
15	996	6.13	9.3		95.07
16	3,419	3.07	1.4		105.28
17	10,380	75.00	10.9	Upper Marker	113.00
18	13,220	0.00	0.0		115.64
19	13,985	0.00	0.0		116.35

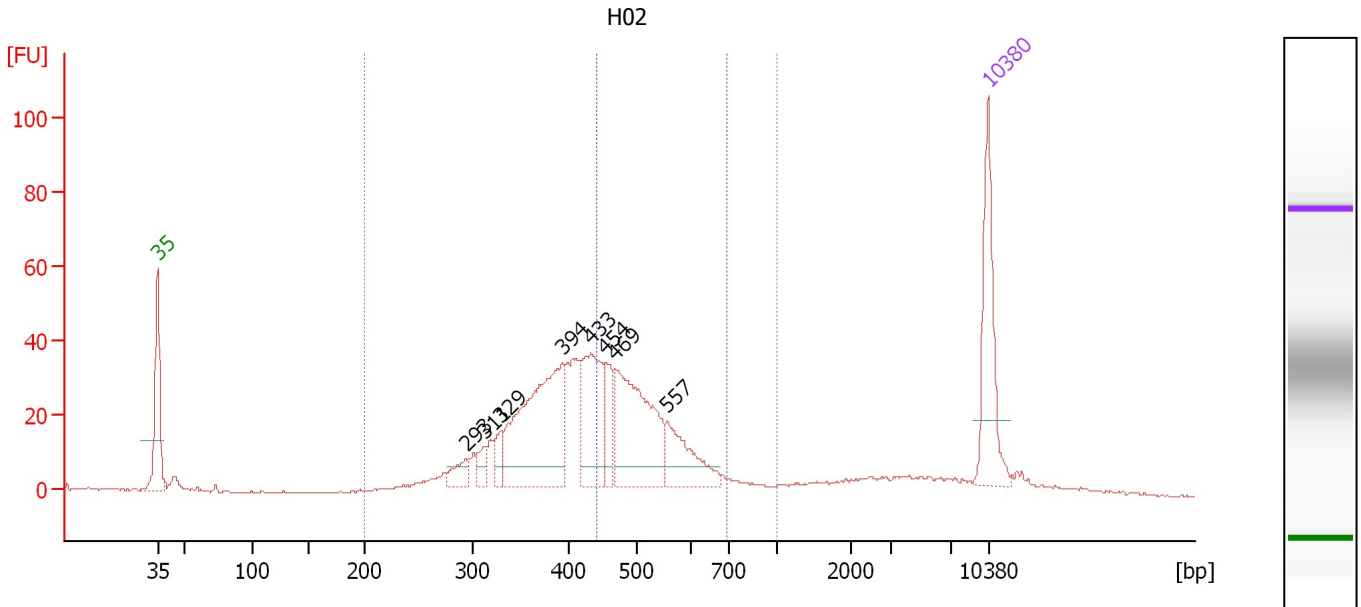
Region table for sample 10 : C02

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	490	841.2	3,644.6	1,039.05	83	30.2
455	696	550	360.7	1,197.7	426.82	36	11.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

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Electropherogram Summary Continued ...



Overall Results for sample 11 : H02

Number of peaks found: 8 Corr. Area 1: 685.2
 Noise: 0.3 Corr. Area 2: 269.2

Peak table for sample 11 : H02

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	293	19.66	101.6		68.99
3	311	14.95	72.7		70.52
4	329	17.77	81.9		71.90
5	394	196.35	754.7		77.16
6	433	99.02	346.6		79.51
7	454	36.42	121.5		80.73
8	469	152.61	493.5		81.55
9	557	57.76	157.0		85.99
10	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 11 : H02

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	442	685.2	3,049.8	822.86	86	24.8
443	698	518	269.2	920.8	309.82	34	11.5

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-25\2017-08-25_004.xad

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Modified: 8/25/2017 12:01:18 PM

Gel Image

