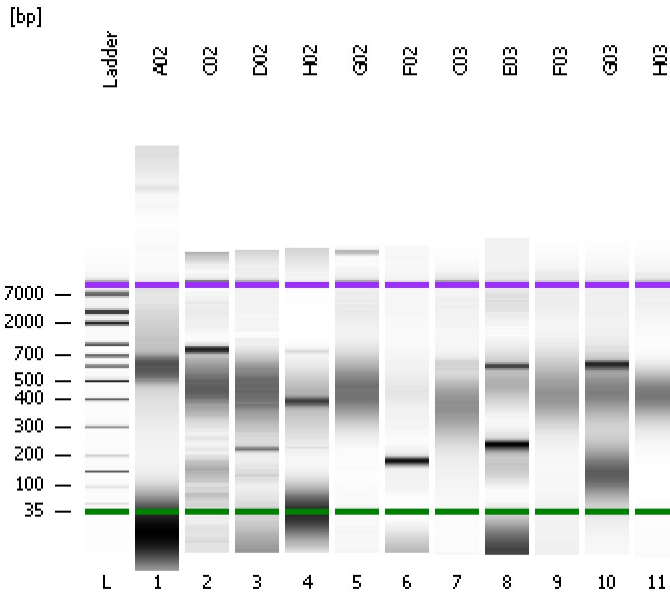


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-17\2017-08-17_005.xad

Created: 8/17/2017 1:21:34 PM
Modified: 8/17/2017 2:55:00 PM

Electrophoresis File Run Summary



Instrument Information:

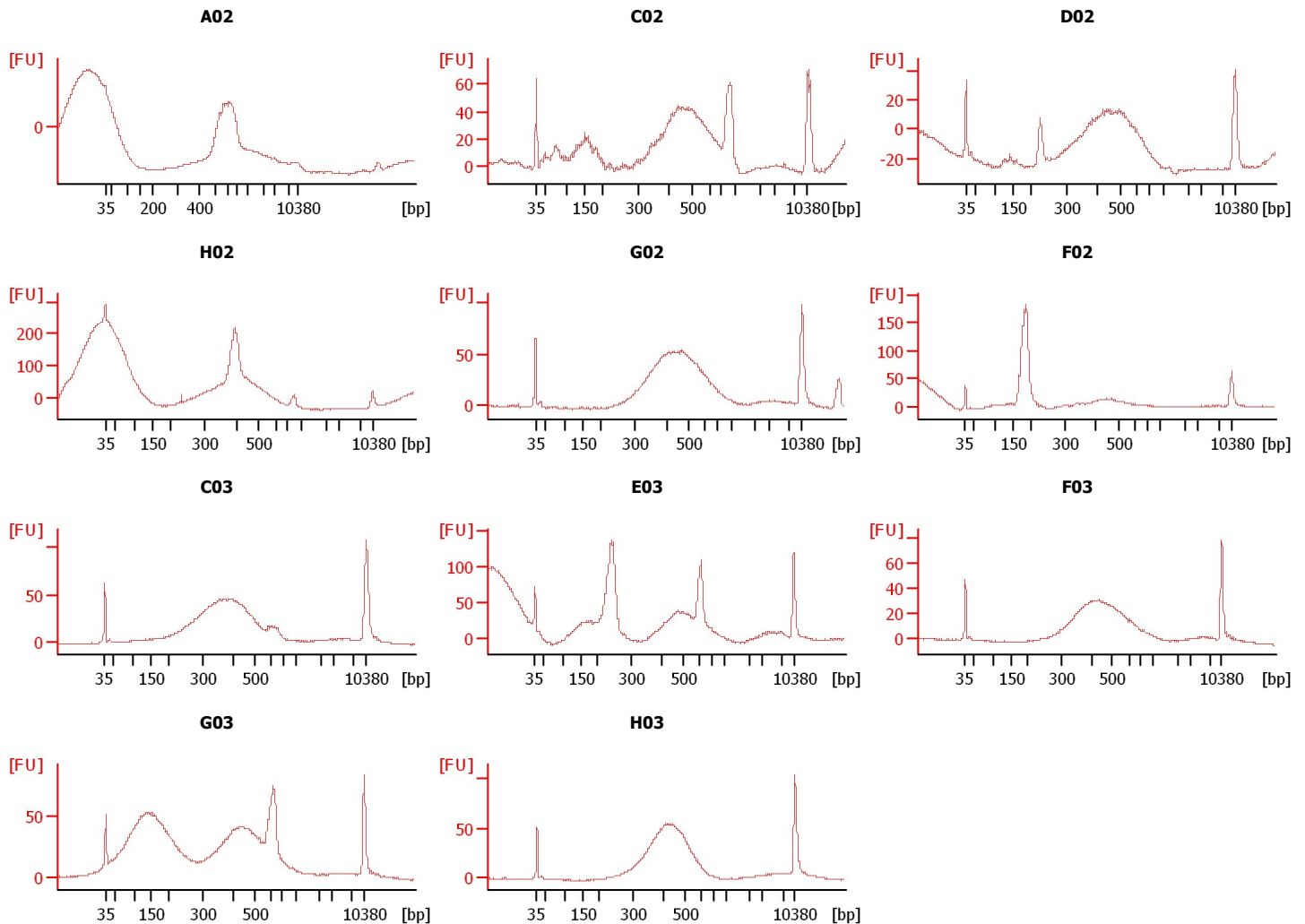
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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\2017-08-17\2017-08-17_005.xad

Created: 8/17/2017 1:21:34 PM
Modified: 8/17/2017 2:55:00 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
A02		<input type="checkbox"/>	✓			
C02		<input type="checkbox"/>	✓			
D02		<input type="checkbox"/>	✓			
H02		<input type="checkbox"/>	✓			
G02		<input type="checkbox"/>	✓			
F02		<input type="checkbox"/>	✓			
C03		<input type="checkbox"/>	✓			
E03		<input type="checkbox"/>	✓			
F03		<input type="checkbox"/>	✓			
G03		<input type="checkbox"/>	✓			
H03		<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\2017-08-17\2017-08-17_005.xad

Created: 8/17/2017 1:21:34 PM
Modified: 8/17/2017 2:55:00 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

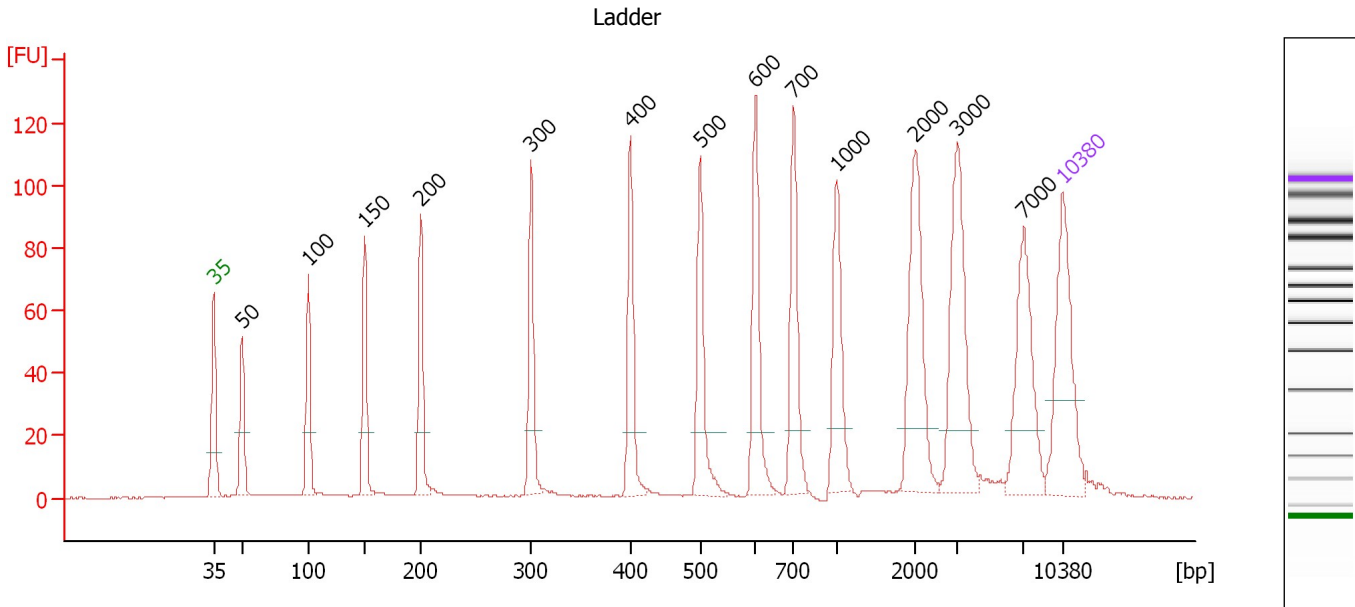
Ladder

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\2017-08-17\2017-08-17_005.xad

Created: 8/17/2017 1:21:34 PM
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Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

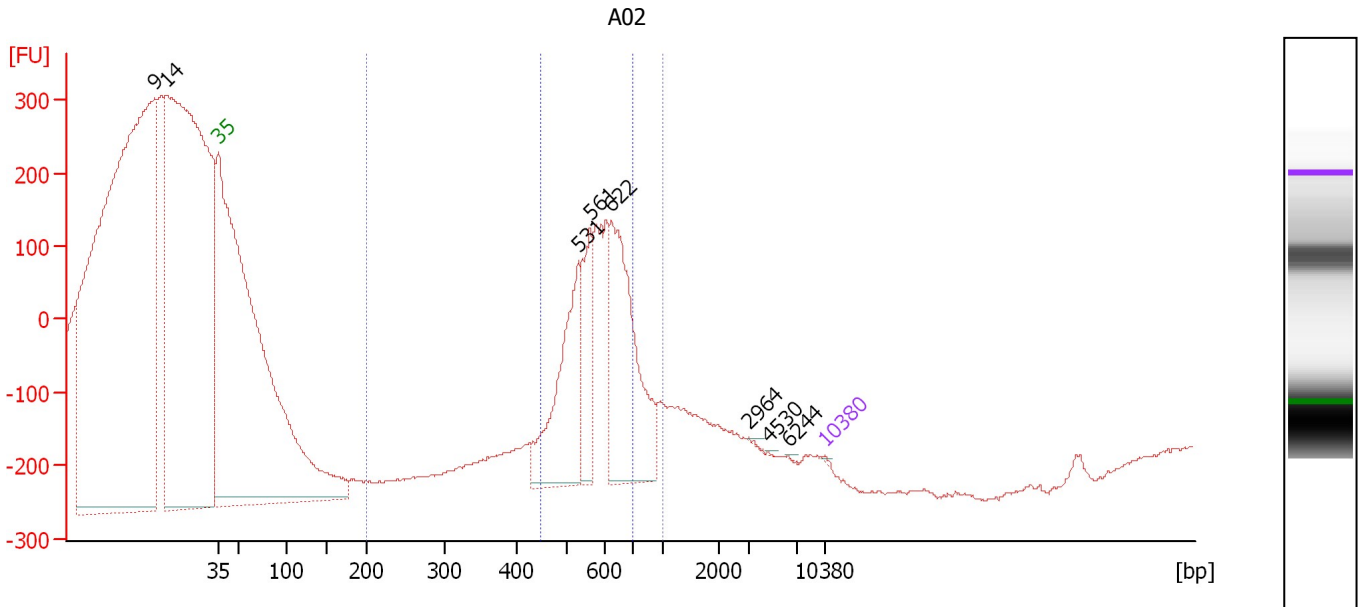
Peak table for Ladder

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	50.78
4	150	150.00	1,515.2	Ladder Peak	55.44
5	200	150.00	1,136.4	Ladder Peak	60.06
6	300	150.00	757.6	Ladder Peak	69.16
7	400	150.00	568.2	Ladder Peak	77.38
8	500	150.00	454.5	Ladder Peak	83.14
9	600	150.00	378.8	Ladder Peak	87.67
10	700	150.00	324.7	Ladder Peak	90.84
11	1,000	150.00	227.3	Ladder Peak	94.40
12	2,000	150.00	113.6	Ladder Peak	100.86
13	3,000	150.00	75.8	Ladder Peak	104.34
14	7,000	150.00	32.5	Ladder Peak	109.79
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-17\2017-08-17_005.xad

Created: 8/17/2017 1:21:34 PM
 Modified: 8/17/2017 2:55:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : A02

Number of peaks found: 8 Corr. Area 1: 1,262.3
 Noise: 1.6 Corr. Area 2: 1,230.4

Peak table for sample 1 : A02

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	9	0.00	0.0		35.63
2	14	0.00	0.0		36.92
3	35	125.00	5,411.3	Lower Marker	43.00
4	531	13,040.86	37,215.6		84.55
5	561	6,497.86	17,556.2		85.90
6	622	16,813.22	40,985.6		88.36
7	2,964	52.61	26.9		104.21
8	4,530	17.32	5.8		106.42
9	6,244	20.67	5.0		108.76
10	10,380	75.00	10.9	Upper Marker	113.00

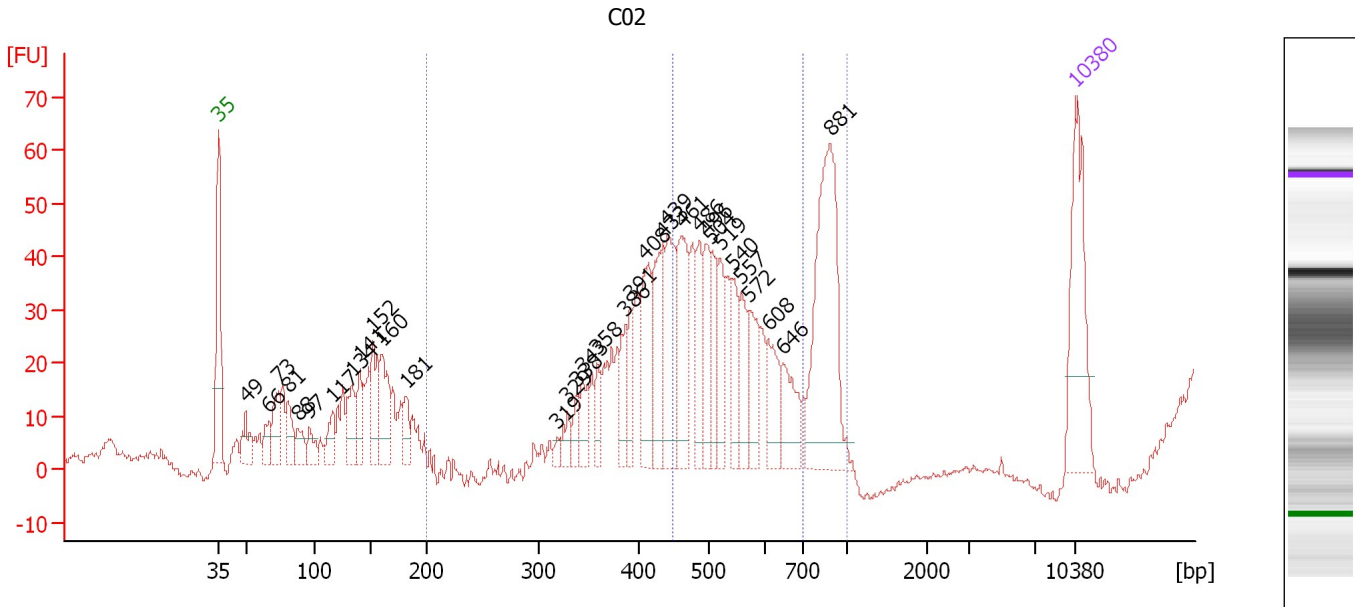
Region table for sample 1 : A02

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	597	1,262.3	45,606.9	17,814.93	15	9.1
449	699	594	1,230.4	44,650.3	17,362.46	15	8.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-17\2017-08-17_005.xad

Created: 8/17/2017 1:21:34 PM
 Modified: 8/17/2017 2:55:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : C02

Number of peaks found: 33 Corr. Area 1: 582.6
 Noise: 0.6 Corr. Area 2: 282.0

Peak table for sample 2 : 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	49	26.86	825.4		45.22
3	66	20.41	467.0		47.10
4	73	35.41	731.0		47.88
5	81	26.75	503.0		48.67
6	88	20.95	360.0		49.49
7	97	19.57	307.0		50.41
8	117	23.22	301.8		52.33
9	134	39.44	446.4		53.94
10	141	33.44	359.6		54.59
11	152	52.06	520.1		55.60
12	160	53.93	511.7		56.34
13	181	20.70	173.3		58.30
14	319	6.37	30.3		70.72
15	329	13.17	60.7		71.55
16	338	16.05	72.1		72.25
17	343	20.93	92.3		72.73
18	358	19.71	83.4		73.95
19	386	25.20	98.8		76.26
20	391	29.14	112.9		76.65
21	408	60.91	226.0		77.87
22	433	65.00	227.3		79.31
23	439	72.46	249.8		79.66
24	461	68.33	224.8		80.88
25	486	41.63	129.9		82.32

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-17\2017-08-17_005.xad

Created: 8/17/2017 1:21:34 PM
 Modified: 8/17/2017 2:55:00 PM

Electropherogram Summary Continued ...

... Peak table for sample 2 : C02

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	496	41.27	126.0		82.93
27	504	36.65	110.2		83.32
28	519	36.83	107.5		84.01
29	540	32.21	90.3		84.97
30	557	32.82	89.3		85.71
31	572	40.12	106.3		86.41
32	608	37.82	94.2		87.94
33	646	37.54	88.1		89.11
34	881	161.42	277.5		92.99
35	▶ 10,380	75.00	10.9	Upper Marker	113.00

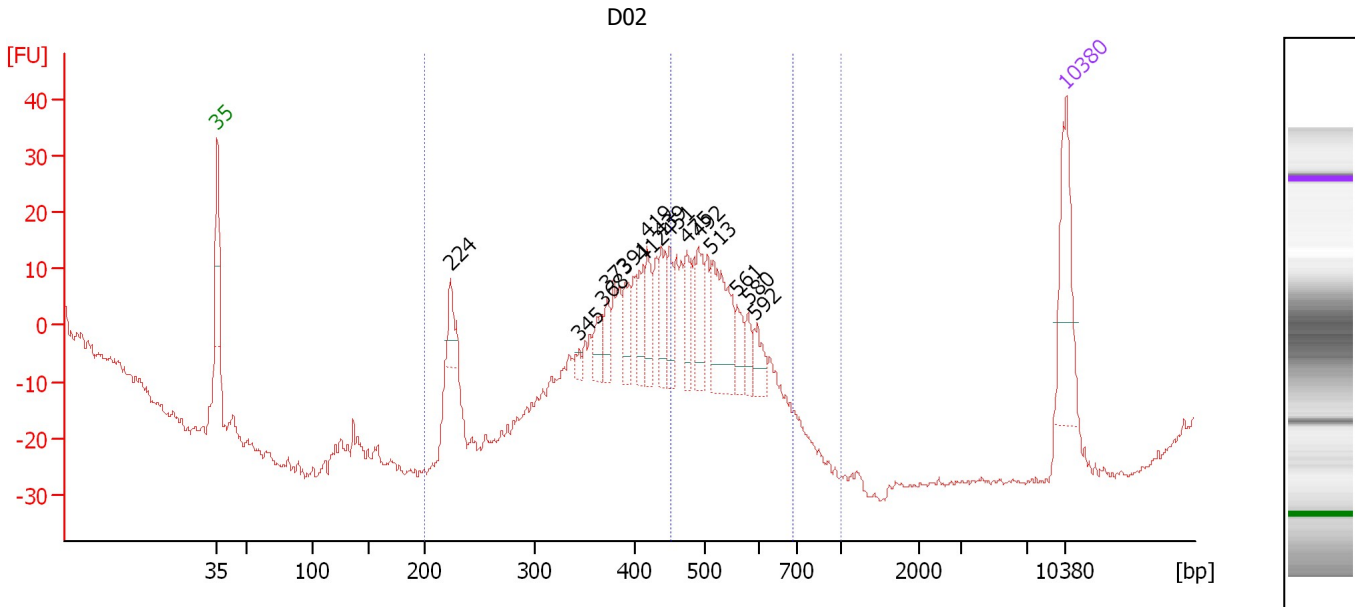
Region table for sample 2 : C02

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	549	582.6	2,276.4	■ 745.29	79	30.0
449	700	524	282.0	1,056.6	■ 360.54	38	10.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-17\2017-08-17_005.xad

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 Modified: 8/17/2017 2:55:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : D02

Number of peaks found: 15 Corr. Area 1: 370.3
 Noise: 0.6 Corr. Area 2: 181.9

Peak table for sample 3 : D02

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	37.28	251.9		62.27
3	345	7.40	32.5		72.83
4	368	25.73	106.0		74.72
5	373	20.45	83.1		75.16
6	391	29.19	113.1		76.66
7	412	28.56	105.1		78.07
8	419	38.02	137.6		78.46
9	439	38.18	131.9		79.61
10	451	32.22	108.3		80.31
11	475	31.77	101.3		81.72
12	492	44.02	135.6		82.69
13	513	92.19	272.2		83.74
14	561	21.56	58.3		85.90
15	580	19.66	51.3		86.78
16	592	22.14	56.7		87.31
17	10,380	75.00	10.9	Upper Marker	113.00

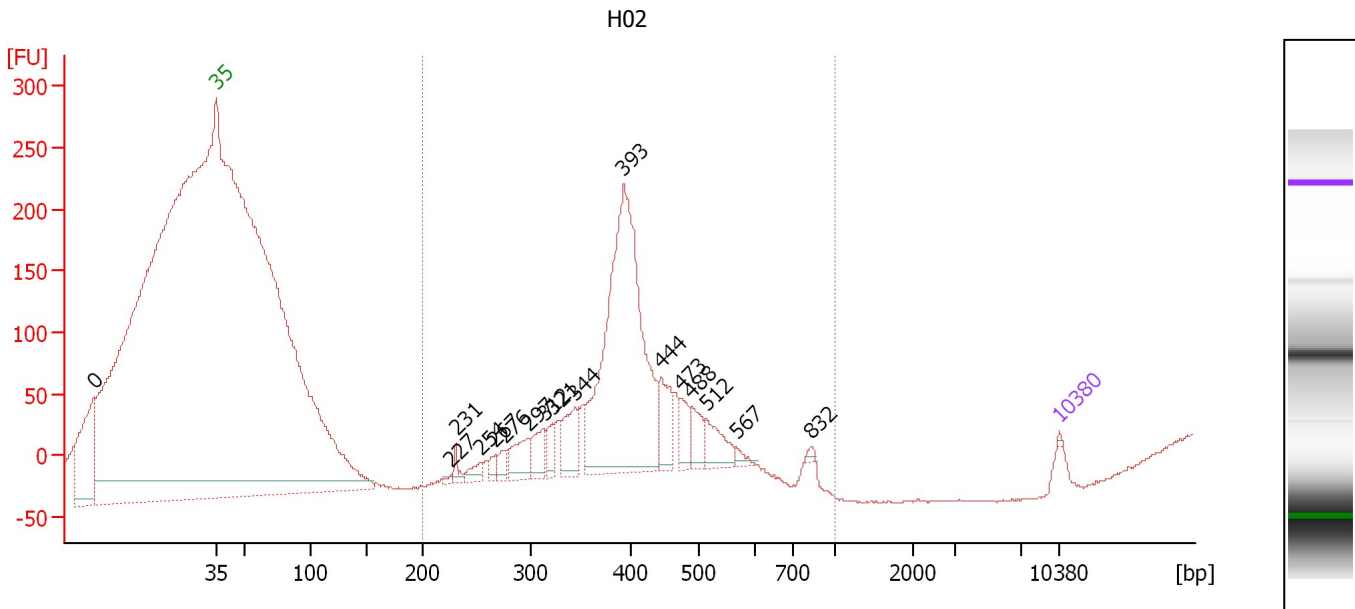
Region table for sample 3 : D02

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	458	370.3	2,500.7	704.57	99	18.3
454	691	521	181.9	983.5	334.98	49	9.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-17\2017-08-17_005.xad

Created: 8/17/2017 1:21:34 PM
 Modified: 8/17/2017 2:55:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : H02

Number of peaks found: 17 Corr. Area 1: 1,126.8
 Noise: 0.8

Peak table for sample 4 : H02

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0		32.82
2	35	125.00	5,411.3	Lower Marker	43.00
3	227	192.12	1,284.6		62.48
4	231	652.46	4,280.0		62.88
5	254	955.73	5,704.7		64.96
6	267	706.95	4,012.1		66.16
7	276	876.29	4,815.3		66.95
8	297	2,281.90	11,635.8		68.90
9	312	1,942.38	9,419.3		70.19
10	321	1,117.97	5,275.9		70.89
11	344	2,927.65	12,886.8		72.80
12	393	26,881.48	103,580.2		76.83
13	444	2,792.43	9,526.5		79.93
14	473	1,468.11	4,699.5		81.61
15	488	1,659.62	5,153.5		82.45
16	512	2,095.41	6,200.5		83.69
17	567	405.31	1,083.5		86.17
18	832	210.91	383.9		92.41
19	10,380	75.00	10.9	Upper Marker	113.00

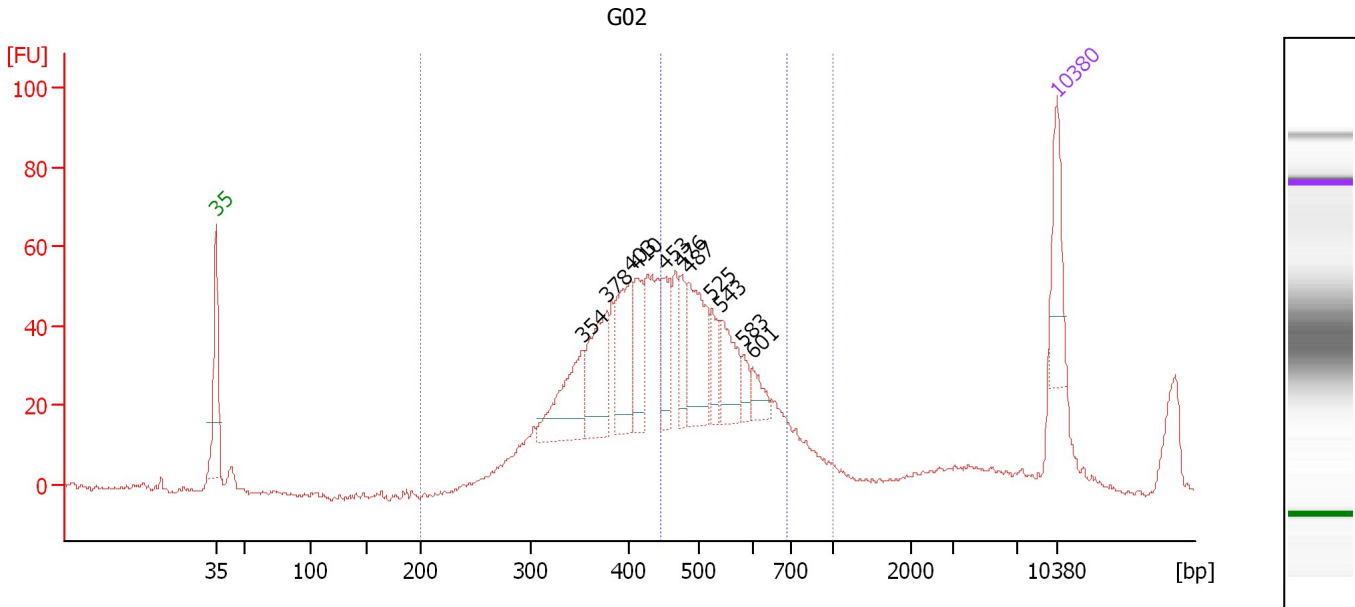
Region table for sample 4 : H02

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	403	1,126.8	109,904.1	28,947.64	91	10.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-17\2017-08-17_005.xad

Created: 8/17/2017 1:21:34 PM
 Modified: 8/17/2017 2:55:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : G02

Number of peaks found: 11 Corr. Area 1: 1,099.9
 Noise: 0.6 Corr. Area 2: 480.9

Peak table for sample 5 : G02

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	354	135.92	582.2		73.58
3	378	137.83	552.4		75.58
4	403	130.99	492.0		77.58
5	410	84.99	313.8		77.98
6	453	84.85	284.0		80.42
7	476	49.03	156.1		81.76
8	487	140.77	437.6		82.42
9	525	46.65	134.6		84.29
10	543	75.51	210.7		85.09
11	583	23.77	61.8		86.91
12	601	27.68	69.8		87.71
13	10,380	75.00	10.9	Upper Marker	113.00

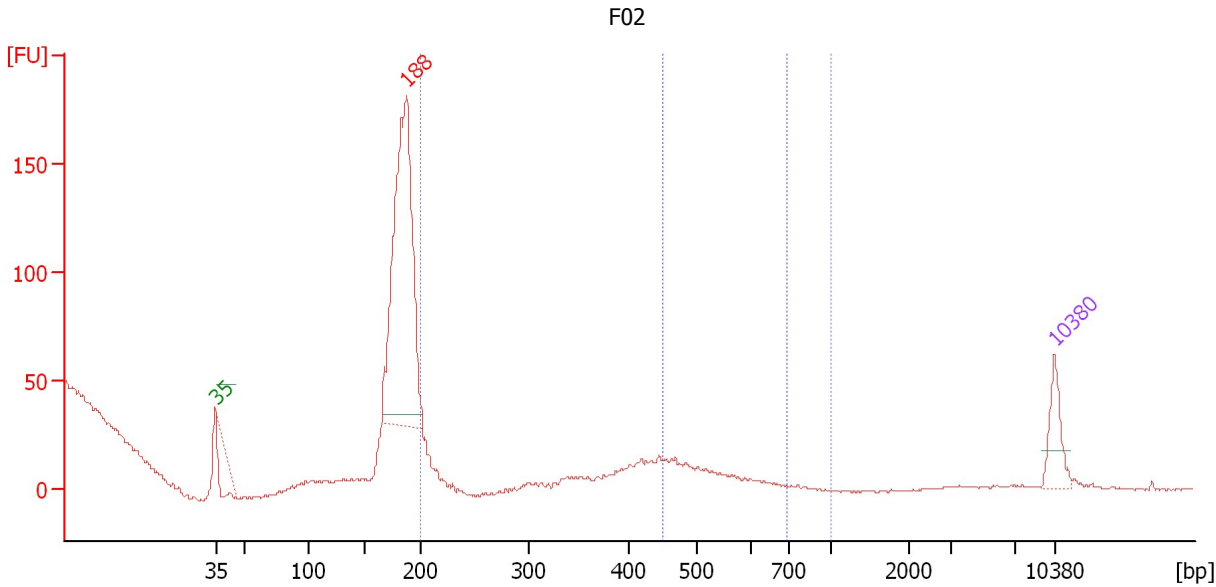
Region table for sample 5 : G02

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	467	1,099.9	7,002.3	1,989.60	92	25.4
447	693	532	480.9	2,429.4	838.66	40	11.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-17\2017-08-17_005.xad

Created: 8/17/2017 1:21:34 PM
 Modified: 8/17/2017 2:55:00 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 6 : F02

Area Threshold : 0.05 Width Threshold [s] : 0.4

Overall Results for sample 6 : F02

Number of peaks found: 0 Corr. Area 1: 3.0
 Noise: 0.5 Corr. Area 2: 0.0

Peak table for sample 6 : F02

Pea	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	188	1,111.09	8,965.5	excluded peak	58.93
3	10,380	75.00	10.9	Upper Marker	113.00

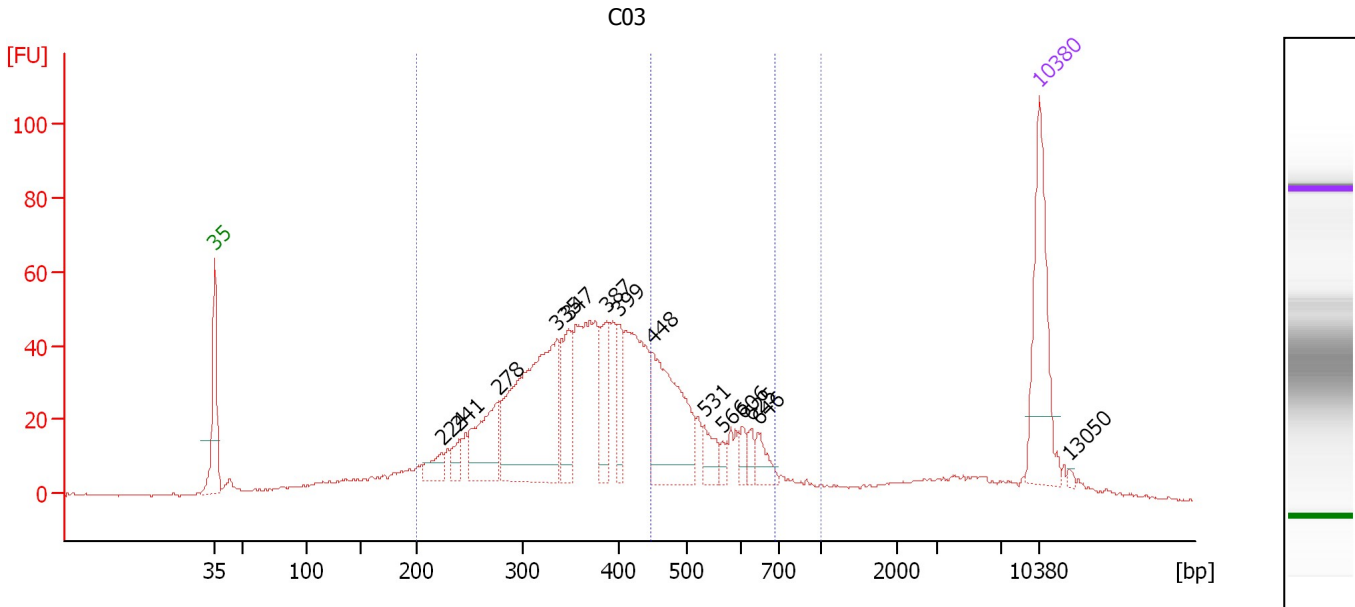
Region table for sample 6 : F02

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	200	3.0	51.3	6.77	1	0.3
450	693	0	0.0	0.0	0.00	0	0.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-17\2017-08-17_005.xad

Created: 8/17/2017 1:21:34 PM
 Modified: 8/17/2017 2:55:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : C03

Number of peaks found: 14 Corr. Area 1: 1,185.6
 Noise: 0.2 Corr. Area 2: 275.7

Peak table for sample 7 : C03

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	19.42	131.1		62.29
3	241	15.60	98.1		63.78
4	278	71.65	390.9		67.13
5	335	207.25	936.4		72.07
6	347	55.13	240.4		73.06
7	387	42.70	167.4		76.28
8	399	29.38	111.7		77.28
9	448	116.73	394.4		80.17
10	531	20.02	57.1		84.57
11	566	7.64	20.4		86.15
12	606	10.77	26.9		87.87
13	625	8.44	20.5		88.46
14	646	16.53	38.7		89.14
15	10,380	75.00	10.9	Upper Marker	113.00
16	13,050	0.00	0.0		115.54

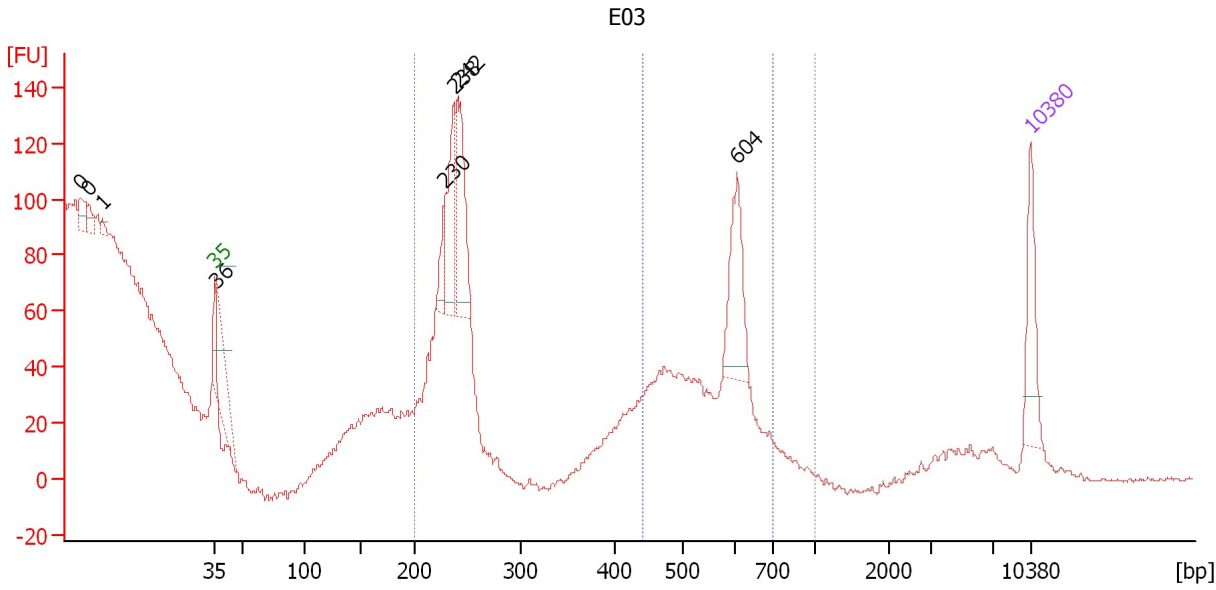
Region table for sample 7 : C03

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	400	1,185.6	4,754.4	1,119.46	85	29.9
446	692	530	275.7	698.8	239.39	20	12.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-17\2017-08-17_005.xad

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Electropherogram Summary Continued ...



Overall Results for sample 8 : E03

Number of peaks found: 9 Corr. Area 1: 281.9
 Noise: 0.7 Corr. Area 2: 91.6

Peak table for sample 8 : E03

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0		0.75
2	0	0.00	0.0		31.48
3	0	0.00	0.0		32.21
4	1	0.00	0.0		33.40
5	35	125.00	5,411.3	Lower Marker	43.00
6	36	0.00	0.0		43.09
7	230	52.58	346.3		62.80
8	238	128.66	818.7		63.53
9	242	159.16	998.1		63.85
10	604	128.55	322.3		87.81
11	10,380	75.00	10.9	Upper Marker	113.00

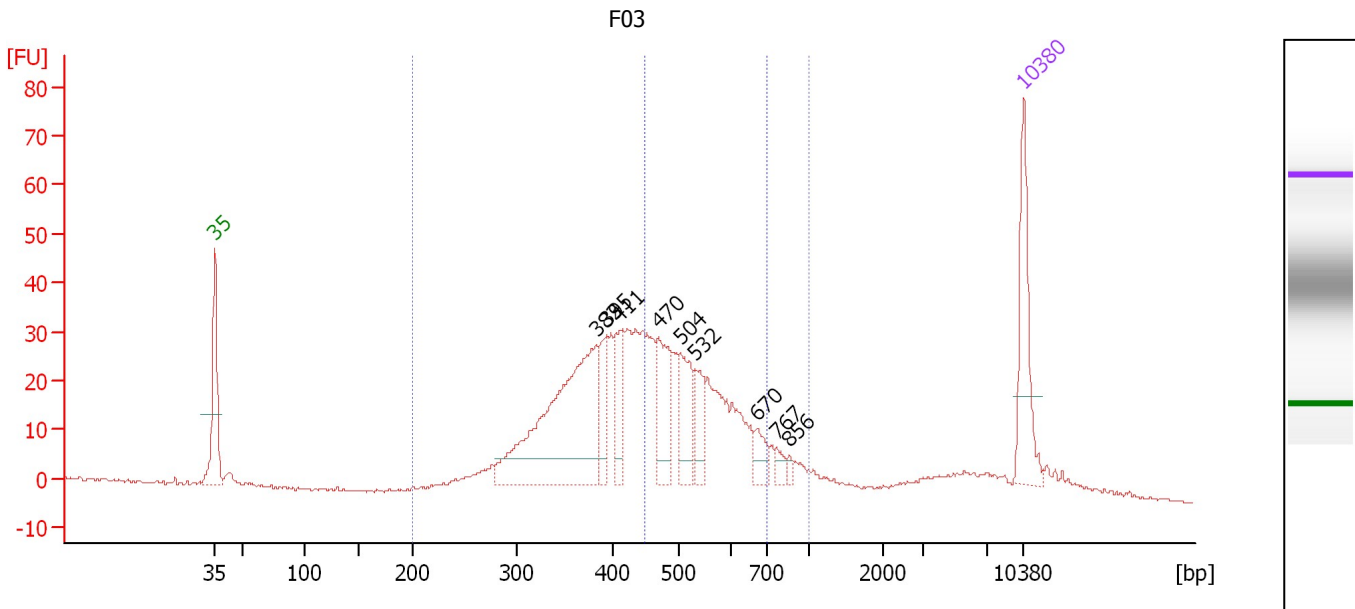
Region table for sample 8 : E03

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	384	281.9	2,302.6	433.02	99	46.4
441	698	602	91.6	291.0	115.67	32	2.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-17\2017-08-17_005.xad

Created: 8/17/2017 1:21:34 PM
 Modified: 8/17/2017 2:55:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : F03

Number of peaks found: 9 Corr. Area 1: 703.0
 Noise: 0.3 Corr. Area 2: 283.6

Peak table for sample 9 : F03

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	383	319.92	1,265.3		75.99
3	395	51.44	197.4		76.96
4	411	53.19	196.0		78.02
5	470	79.43	256.3		81.39
6	504	68.69	206.5		83.33
7	532	42.97	122.5		84.58
8	670	23.92	54.1		89.88
9	767	10.76	21.3		91.64
10	856	5.62	9.9		92.70
11	10,380	75.00	10.9	Upper Marker	113.00

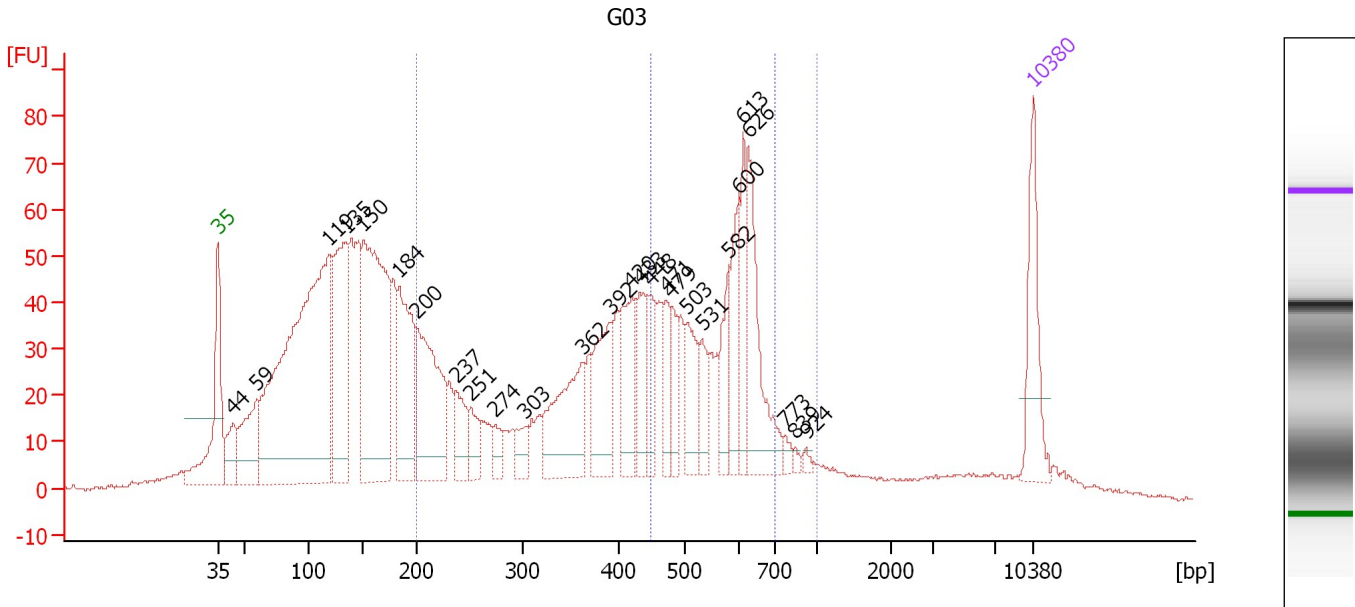
Region table for sample 9 : F03

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	467	703.0	4,284.1	1,199.25	88	27.7
450	699	537	283.6	1,333.6	464.19	36	12.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-17\2017-08-17_005.xad

Created: 8/17/2017 1:21:34 PM
 Modified: 8/17/2017 2:55:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : G03

Number of peaks found: 27 Corr. Area 1: 1,254.0
 Noise: 0.4 Corr. Area 2: 507.8

Peak table for sample 10 : G03

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	62.77	2,184.2		44.33
3	59	131.40	3,358.7		46.34
4	119	861.82	11,003.9		52.52
5	135	279.27	3,137.3		54.03
6	150	452.29	4,565.6		55.45
7	184	194.69	1,604.8		58.57
8	200	227.27	1,720.2		60.08
9	237	56.34	360.3		63.42
10	251	40.26	243.0		64.70
11	274	23.61	130.5		66.81
12	303	29.31	146.5		69.42
13	362	146.84	614.4		74.27
14	392	104.18	403.1		76.70
15	420	91.34	329.7		78.53
16	433	67.58	236.7		79.26
17	448	56.24	190.0		80.17
18	471	43.87	141.2		81.46
19	479	38.34	121.2		81.96
20	503	65.63	197.6		83.29
21	531	37.13	105.9		84.57
22	582	51.54	134.2		86.86
23	600	70.70	178.4		87.68
24	613	61.12	151.0		88.09
25	626	137.89	333.6		88.51

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-17\2017-08-17_005.xad

Created: 8/17/2017 1:21:34 PM
 Modified: 8/17/2017 2:55:00 PM

Electropherogram Summary Continued ...

... Peak table for sample 10 : G03

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	773	8.64	16.9		91.71
27	839	4.88	8.8		92.49
28	924	5.24	8.6		93.50
29	10,380	75.00	10.9	Upper Marker	113.00

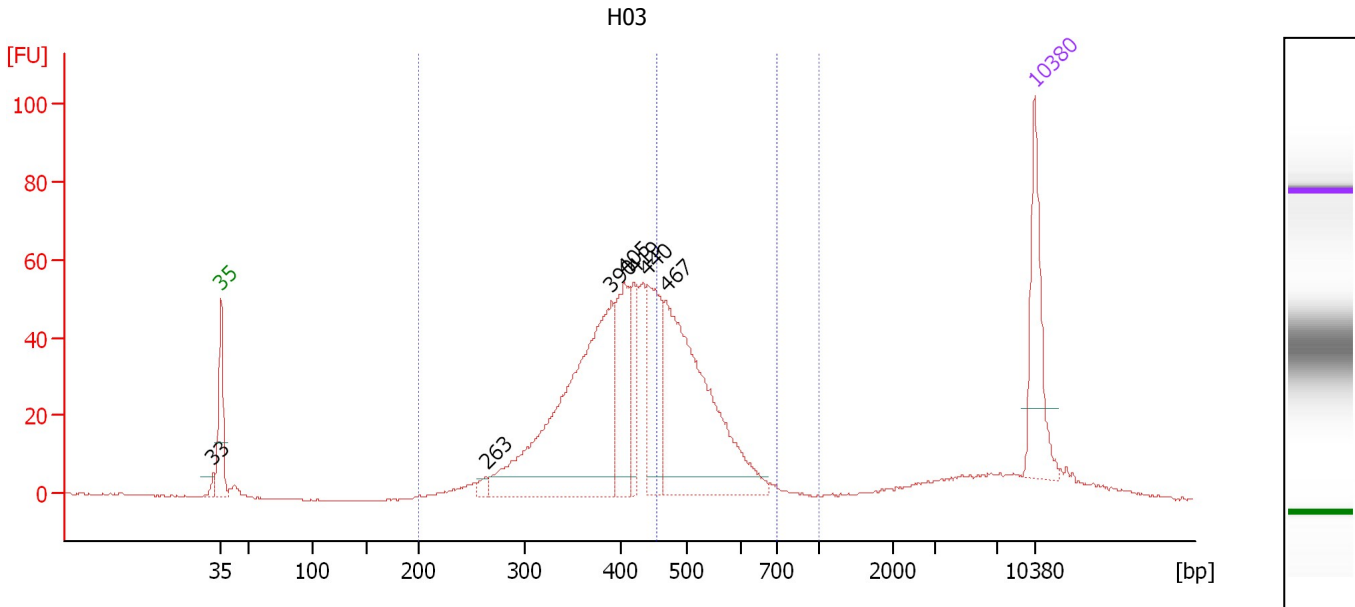
Region table for sample 10 : G03

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/ μ l]	% of Total	Size distribution in CV [%]
200	1,000	451	1,254.0	7,936.1	1,937.47	50	34.0
449	701	558	507.8	2,000.4	722.32	20	12.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-17\2017-08-17_005.xad

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Electropherogram Summary Continued ...



Overall Results for sample 11 : H03

Number of peaks found: 7 Corr. Area 1: 926.8
 Noise: 0.2 Corr. Area 2: 308.1

Peak table for sample 11 : H03

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.31
2	35	125.00	5,411.3	Lower Marker	43.00
3	263	9.14	52.6		65.80
4	390	397.03	1,541.7		76.58
5	405	106.46	398.2		77.68
6	419	48.79	176.3		78.50
7	440	117.76	405.4		79.70
8	467	318.71	1,033.5		81.26
9	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 11 : H03

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	430	926.8	4,167.7	1,115.46	91	20.4
454	700	516	308.1	1,053.8	355.08	30	10.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-17\2017-08-17_005.xad

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Gel Image

