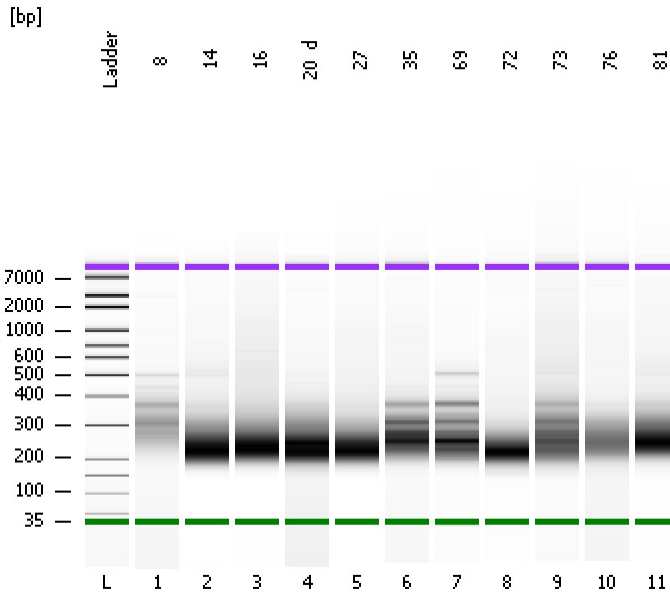


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

Created: 11/6/2019 4:23:49 PM
Modified: 11/7/2019 3:35:58 PM

Electrophoresis File Run Summary



Instrument Information:

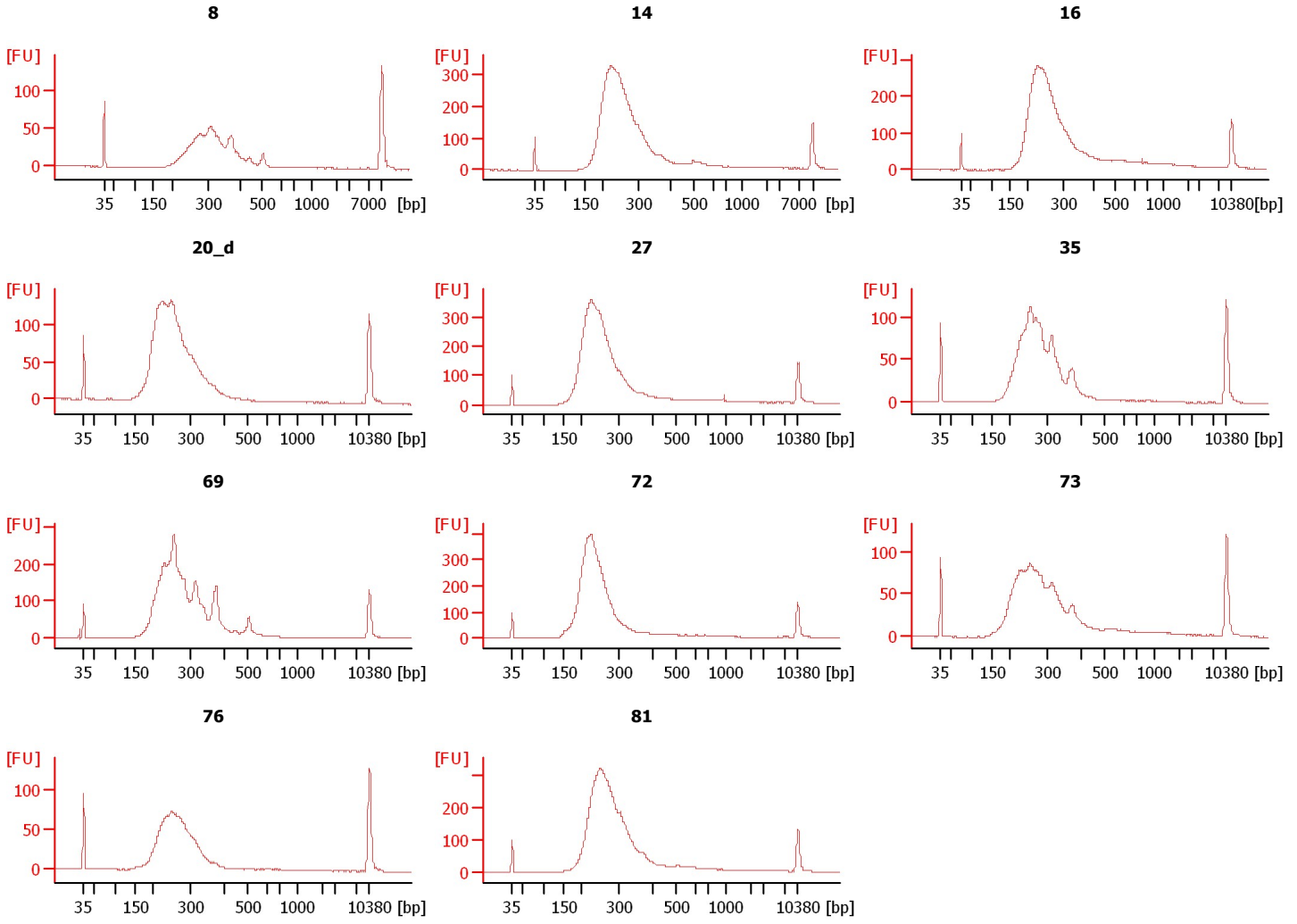
Instrument Name: DE34903152 Firmware: C.01.069
Serial#: DE34903152 Type: G2938C

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:



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

Created: 11/6/2019 4:23:49 PM
 Modified: 11/7/2019 3:35:58 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
8		<input type="checkbox"/>	✓			
14		<input type="checkbox"/>	✓			
16		<input type="checkbox"/>	✓			
20_d		<input type="checkbox"/>	✓			
27		<input type="checkbox"/>	✓			
35		<input type="checkbox"/>	✓			
69		<input type="checkbox"/>	✓			
72		<input type="checkbox"/>	✓			
73		<input type="checkbox"/>	✓			
76		<input type="checkbox"/>	✓			
81		<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\2019-11-06\2019-11-06_004.xad

Created: 11/6/2019 4:23:49 PM
Modified: 11/7/2019 3:35:58 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

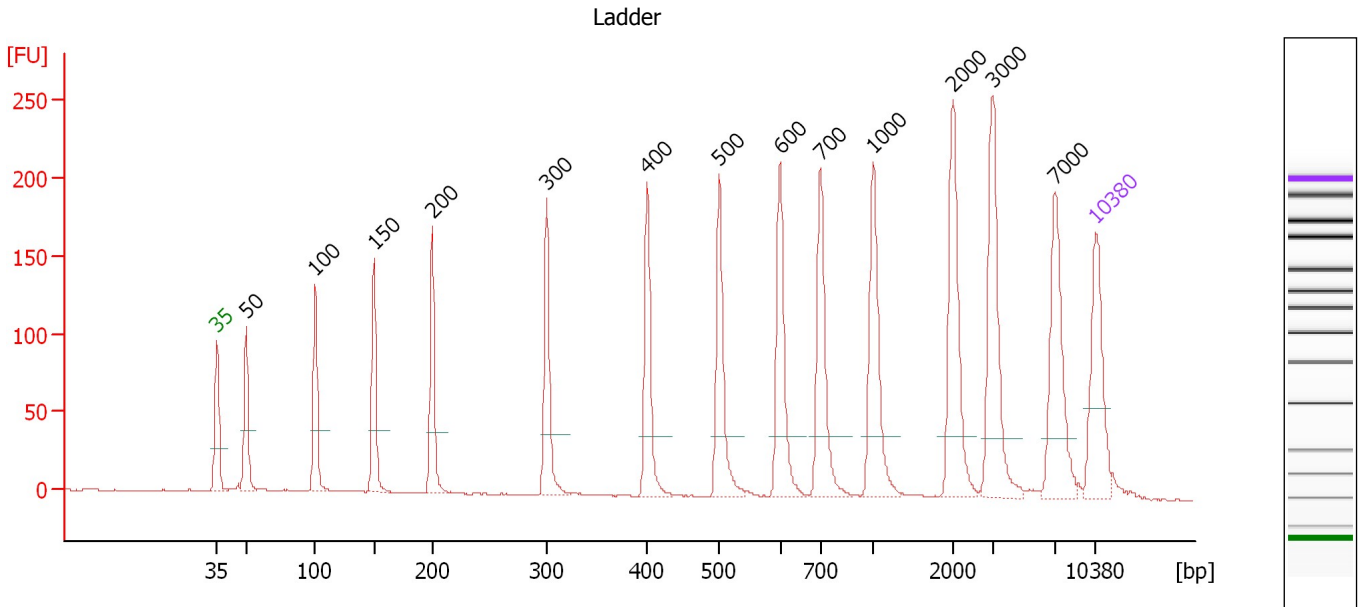
Ladder

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\2019-11-06\2019-11-06_004.xad

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Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

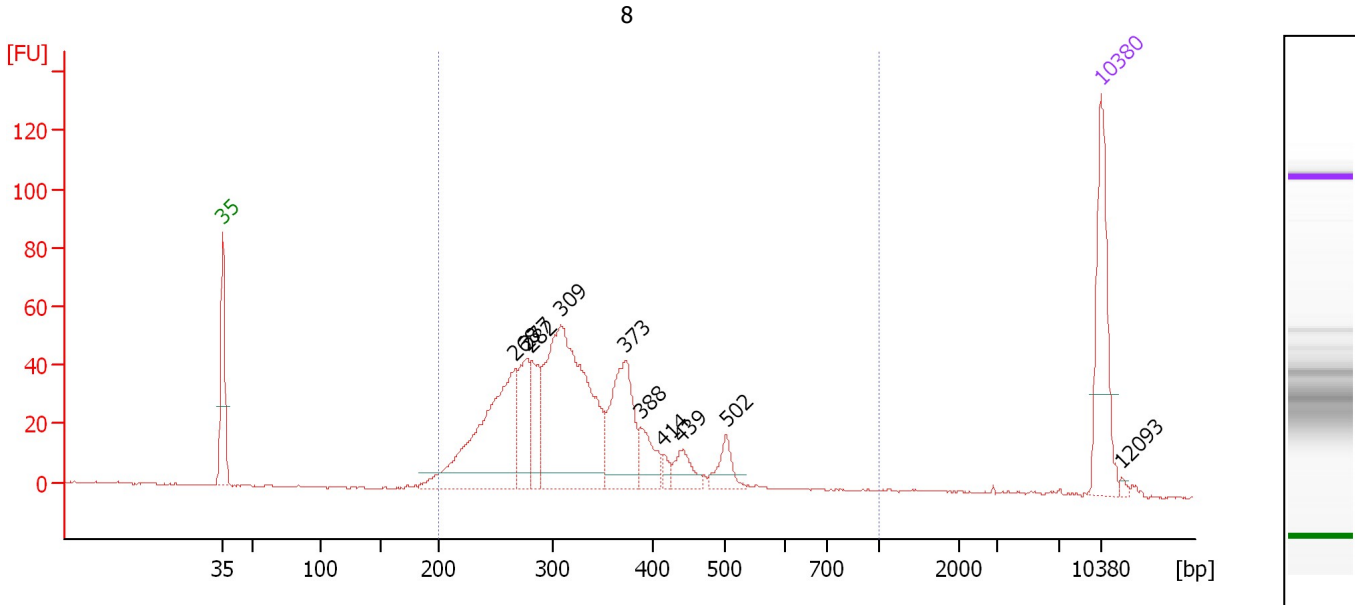
Peak table for Ladder

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	45.34
3	100	150.00	2,272.7	Ladder Peak	50.86
4	150	150.00	1,515.2	Ladder Peak	55.53
5	200	150.00	1,136.4	Ladder Peak	60.16
6	300	150.00	757.6	Ladder Peak	69.25
7	400	150.00	568.2	Ladder Peak	77.28
8	500	150.00	454.5	Ladder Peak	83.01
9	600	150.00	378.8	Ladder Peak	87.85
10	700	150.00	324.7	Ladder Peak	91.08
11	1,000	150.00	227.3	Ladder Peak	95.29
12	2,000	150.00	113.6	Ladder Peak	101.66
13	3,000	150.00	75.8	Ladder Peak	104.76
14	7,000	150.00	32.5	Ladder Peak	109.73
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

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Electropherogram Summary Continued ...



Overall Results for sample 1 : 8

Number of peaks found: 10 Corr. Area 1: 926.7
 Noise: 0.2

Peak table for sample 1 : 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	268	218.79	1,237.3		66.33
3	277	63.84	348.9		67.18
4	282	51.52	276.9		67.61
5	309	301.45	1,479.7		69.95
6	373	109.22	444.0		75.09
7	388	32.66	127.7		76.28
8	414	8.35	30.6		78.06
9	439	24.08	83.1		79.51
10	502	24.27	73.2		83.12
11	10,380	75.00	10.9	Upper Marker	113.00
12	12,093	0.00	0.0		114.66

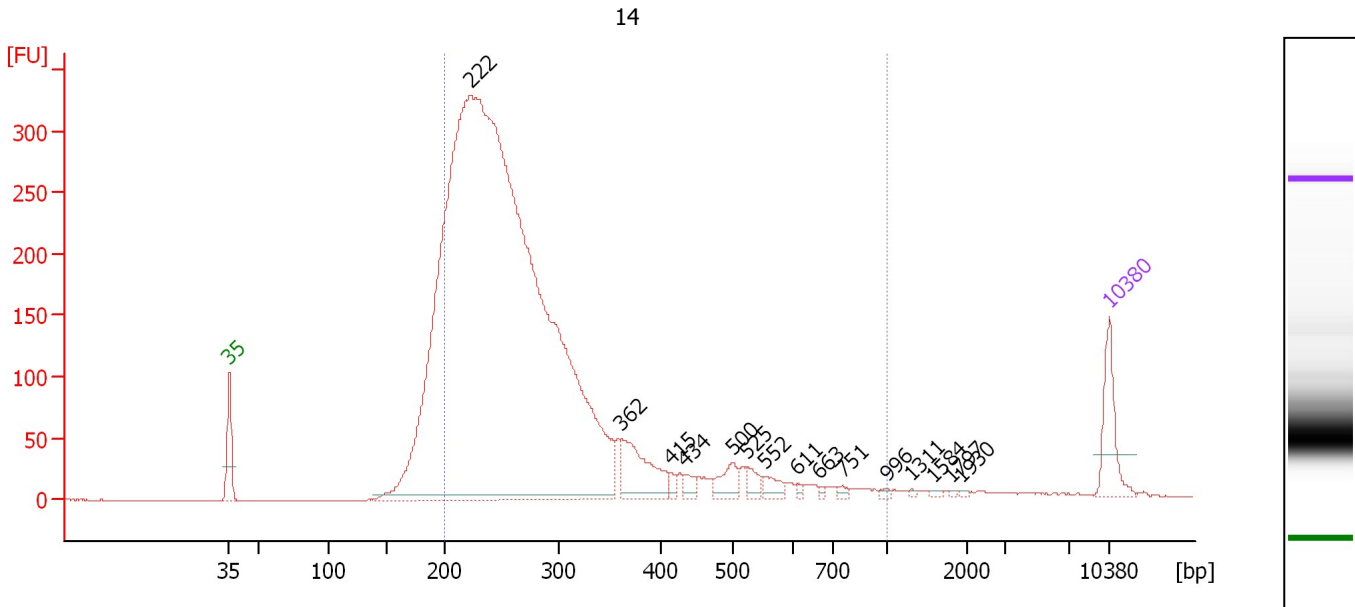
Region table for sample 1 : 8

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	331	866.09	926.7	4,248.4	97	26.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

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Electropherogram Summary Continued ...



Overall Results for sample 2 : 14

Number of peaks found: 15 Corr. Area 1: 4,761.6
 Noise: 0.4

Peak table for sample 2 : 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	222	5,071.05	34,602.7		62.16
3	362	153.19	641.7		74.21
4	415	13.32	48.6		78.15
5	434	21.39	74.7		79.21
6	500	46.80	141.7		83.02
7	525	25.33	73.1		84.21
8	552	26.24	72.0		85.53
9	611	5.48	13.6		88.20
10	663	4.70	10.7		89.89
11	751	6.87	13.8		91.80
12	996	4.97	7.6		95.24
13	1,311	3.13	3.6		97.27
14	1,584	4.80	4.6		99.01
15	1,797	1.88	1.6		100.37
16	1,930	2.45	1.9		101.21
17	10,380	75.00	10.9	Upper Marker	113.00

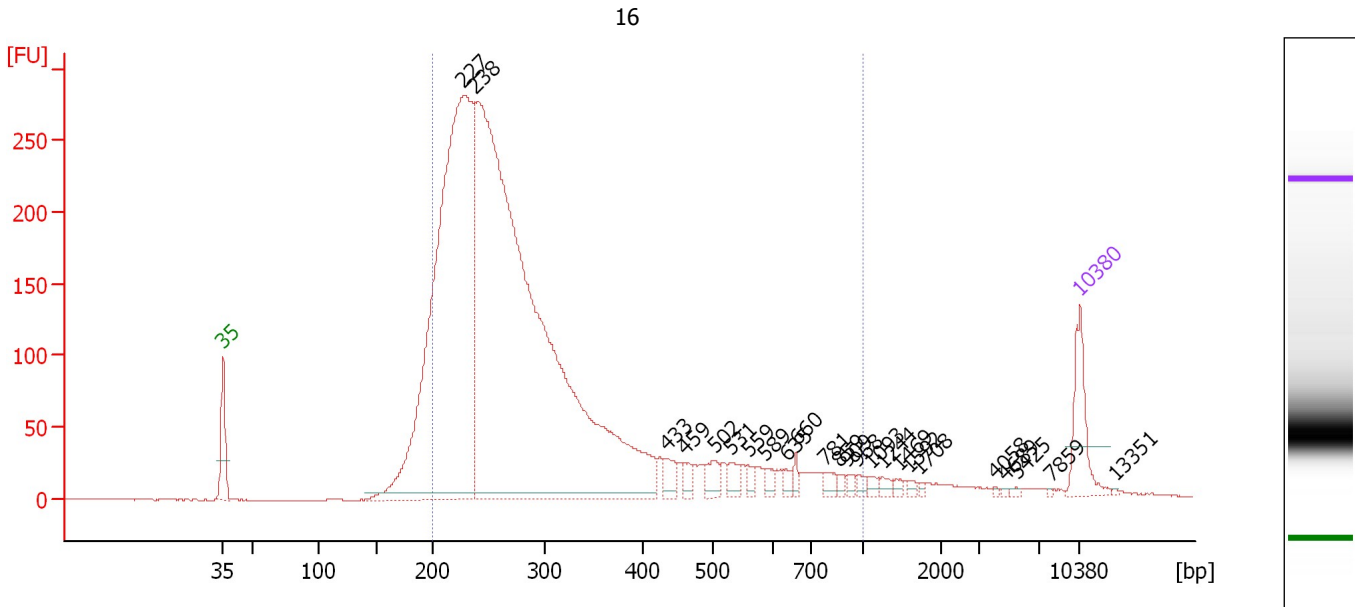
Region table for sample 2 : 14

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	285	4,506.60	4,761.6	26,128.5	87	34.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

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Electropherogram Summary Continued ...



Overall Results for sample 3 : 16

Number of peaks found: 24 Corr. Area 1: 4,335.4
 Noise: 0.4

Peak table for sample 3 : 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	227	1,759.91	11,754.0		62.60
3	238	2,749.61	17,513.1		63.60
4	433	29.93	104.6		79.20
5	459	20.18	66.6		80.68
6	502	33.98	102.5		83.12
7	531	24.27	69.3		84.51
8	559	13.53	36.7		85.86
9	589	14.69	37.8		87.30
10	635	11.78	28.1		89.00
11	660	12.18	28.0		89.78
12	781	15.90	30.8		92.22
13	859	7.73	13.6		93.31
14	909	8.49	14.2		94.01
15	968	8.75	13.7		94.84
16	1,093	8.88	12.3		95.88
17	1,244	9.56	11.7		96.84
18	1,469	7.08	7.3		98.28
19	1,592	5.28	5.0		99.06
20	1,708	3.99	3.5		99.80
21	4,058	2.11	0.8		106.07
22	4,689	2.34	0.8		106.86
23	5,425	2.84	0.8		107.77
24	7,859	1.49	0.3		110.56
25	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

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Electropherogram Summary Continued ...**... Peak table for sample 3 : 16**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	13,351	0.00	0.0		115.87

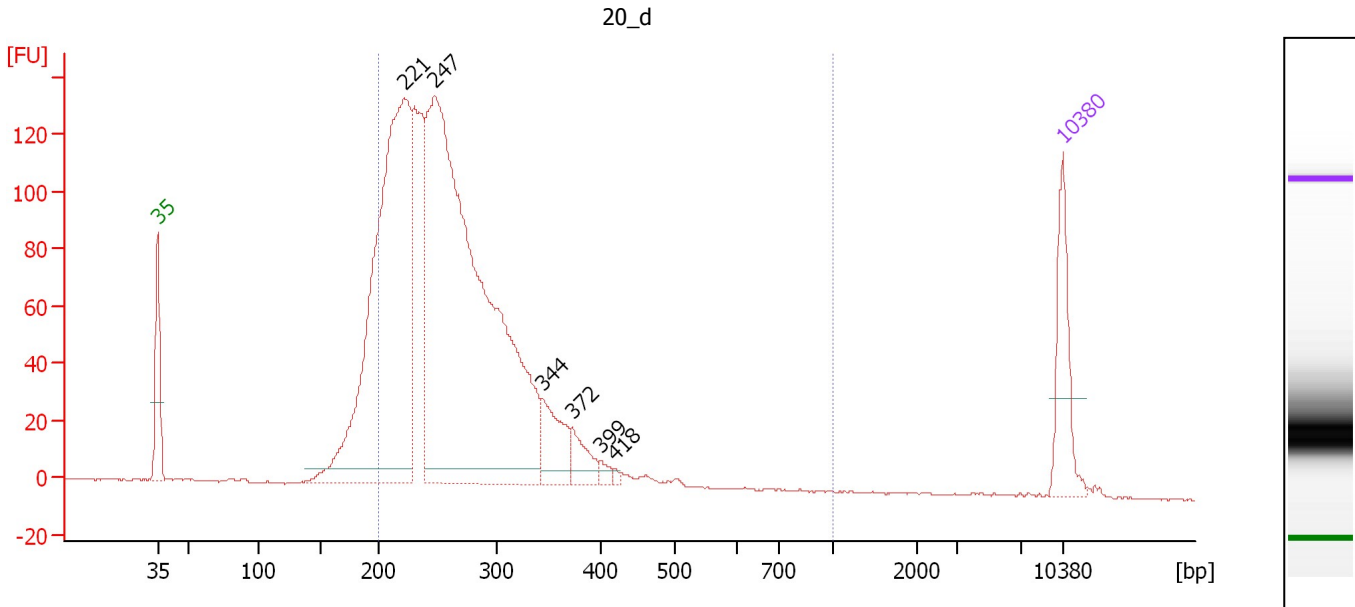
Region table for sample 3 : 16

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ μ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	306	4,176.04	4,335.4	23,484.9	 90	41.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

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Electropherogram Summary Continued ...



Overall Results for sample 4 : 20_d

Number of peaks found: 6 Corr. Area 1: 2,003.7
 Noise: 0.3

Peak table for sample 4 : 20_d

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	221	888.68	6,088.5		62.08
3	247	1,292.21	7,931.9		64.42
4	344	79.81	351.7		72.77
5	372	39.07	159.0		75.06
6	399	9.83	37.3		77.21
7	418	3.92	14.2		78.34
8	10,380	75.00	10.9	Upper Marker	113.00

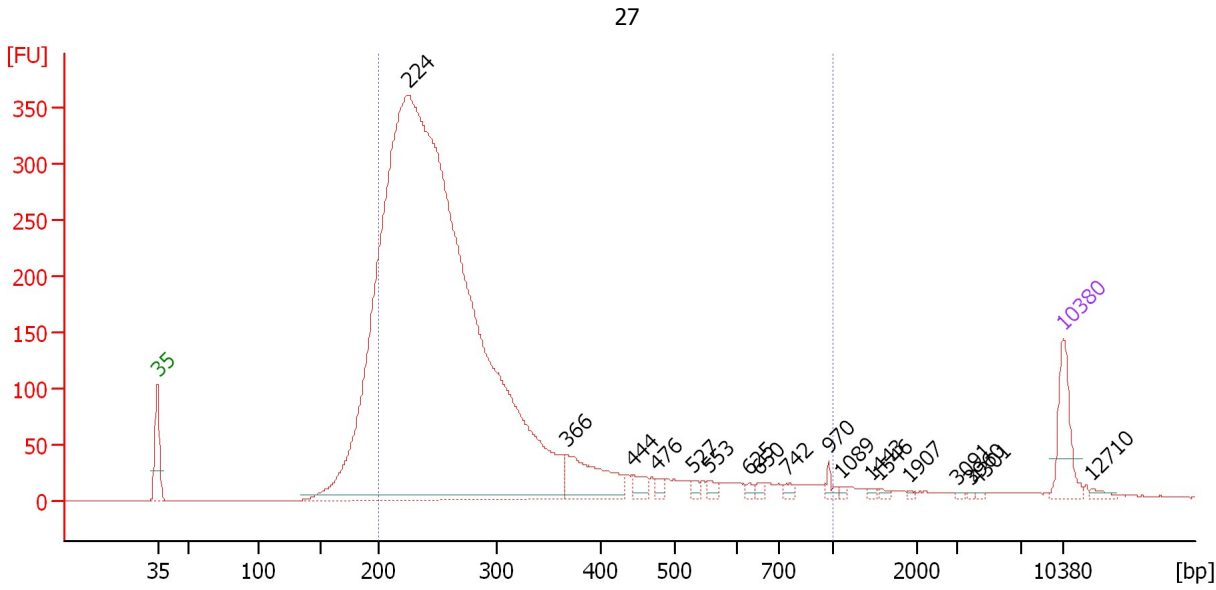
Region table for sample 4 : 20_d

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	271	2,269.34	2,003.7	13,282.6	88	24.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

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 Modified: 11/7/2019 3:35:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 27

Number of peaks found: 18 Corr. Area 1: 4,731.5
 Noise: 0.2

Peak table for sample 5 : 27

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	4,764.30	32,203.9		62.36
3	366	149.17	617.1		74.57
4	444	26.50	90.5		79.79
5	476	12.46	39.6		81.66
6	527	10.29	29.6		84.34
7	553	13.36	36.6		85.56
8	625	8.28	20.1		88.66
9	650	9.06	21.1		89.46
10	742	9.13	18.6		91.67
11	970	11.86	18.5		94.87
12	1,089	5.13	7.1		95.85
13	1,443	4.46	4.7		98.11
14	1,546	4.64	4.6		98.77
15	1,907	2.36	1.9		101.07
16	3,091	2.03	1.0		104.87
17	3,960	1.64	0.6		105.95
18	4,301	2.07	0.7		106.38
19	10,380	75.00	10.9	Upper Marker	113.00
20	12,710	0.00	0.0		115.26

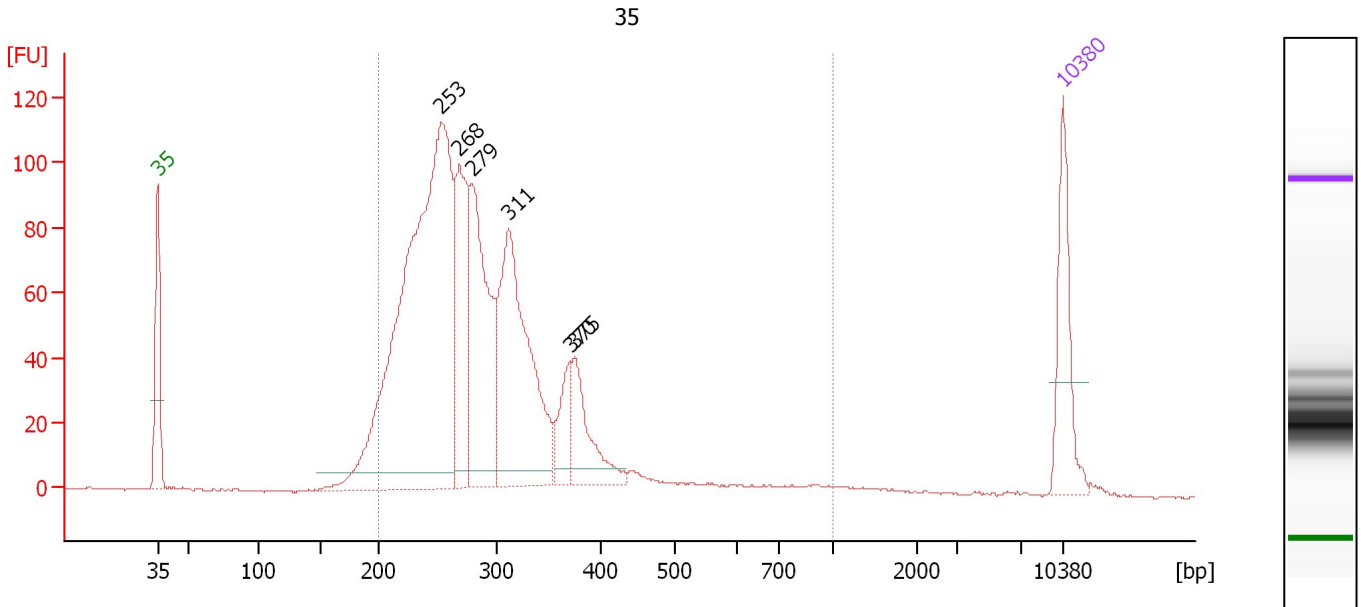
Region table for sample 5 : 27

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	289	4,354.22	4,731.5	25,349.3	87	40.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

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Electropherogram Summary Continued ...



Overall Results for sample 6 : 35

Number of peaks found: 6 Corr. Area 1: 1,633.7
 Noise: 0.3

Peak table for sample 6 : 35

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	253	847.07	5,078.1		64.95
3	268	182.00	1,030.0		66.32
4	279	253.31	1,375.7		67.34
5	311	325.77	1,585.2		70.16
6	370	49.75	203.6		74.88
7	375	83.00	335.3		75.27
8	10,380	75.00	10.9	Upper Marker	113.00

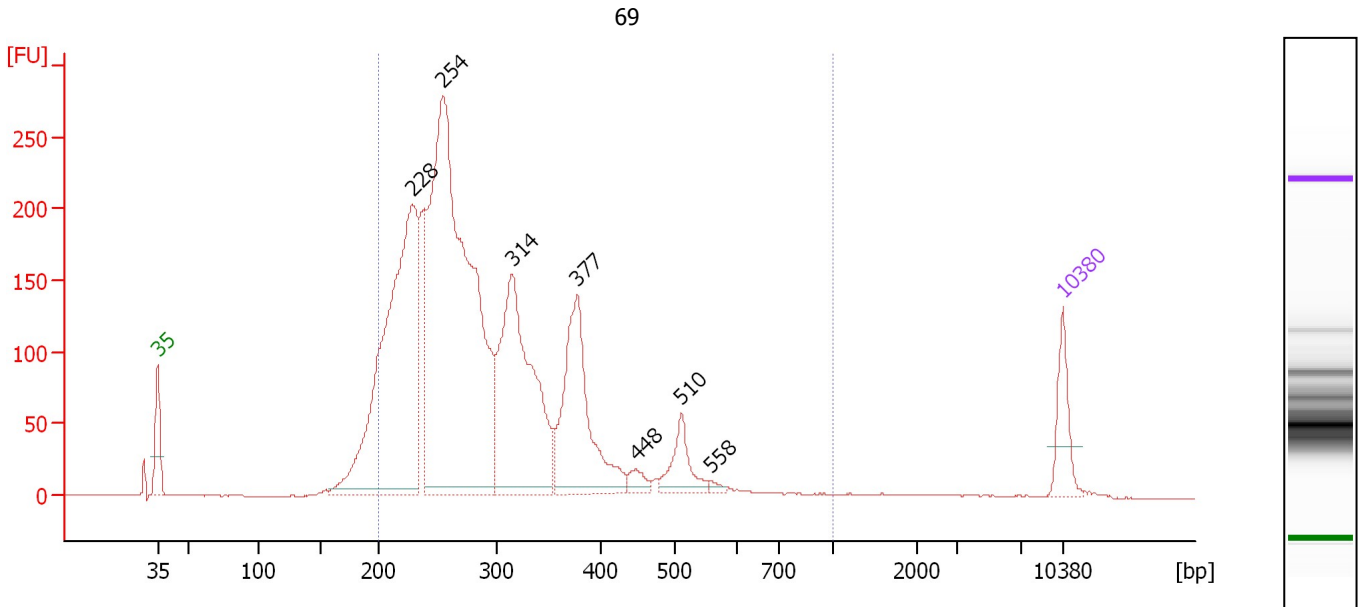
Region table for sample 6 : 35

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	297	1,793.43	1,633.7	9,808.3	94	30.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

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Electropherogram Summary Continued ...



Overall Results for sample 7 : 69

Number of peaks found: 7 Corr. Area 1: 3,708.8
 Noise: 0.2

Peak table for sample 7 : 69

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	228	1,135.39	7,557.9		62.67
3	254	1,712.10	10,230.7		65.03
4	314	662.65	3,194.5		70.40
5	377	406.44	1,631.6		75.47
6	448	29.53	99.9		80.03
7	510	92.16	273.8		83.49
8	558	9.21	25.0		85.80
9	10,380	75.00	10.9	Upper Marker	113.00

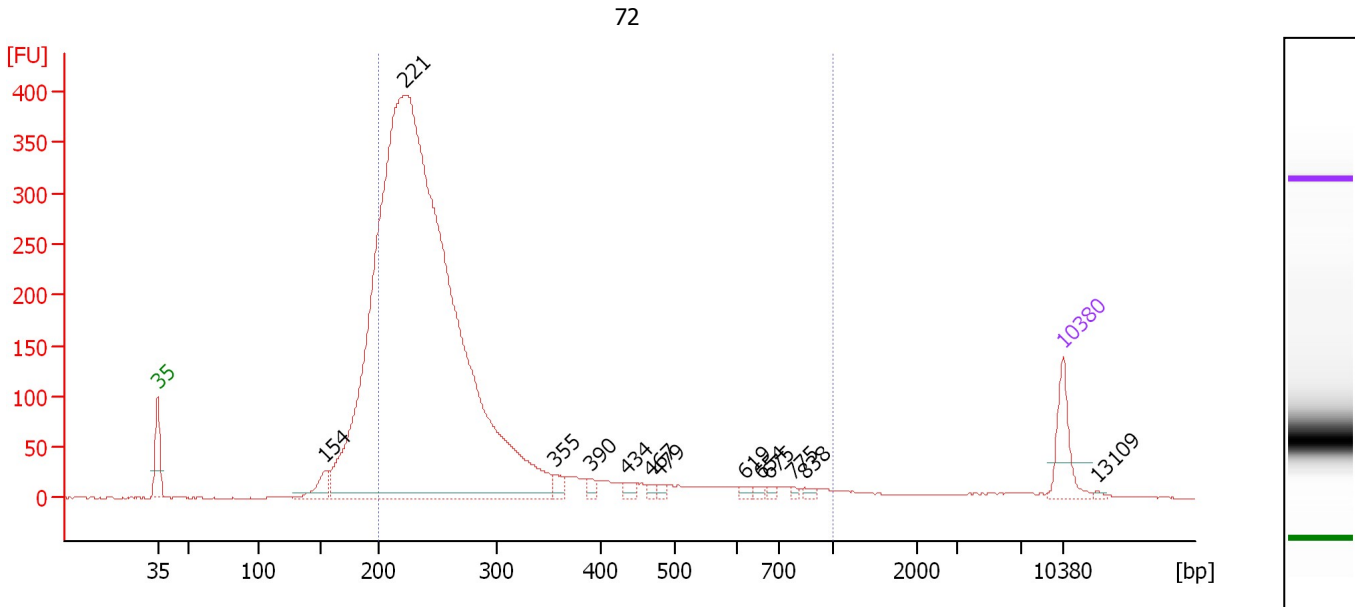
Region table for sample 7 : 69

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	298	4,041.74	3,708.8	22,196.0	93	29.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

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Electropherogram Summary Continued ...



Overall Results for sample 8 : 72

Number of peaks found: 13 Corr. Area 1: 4,126.2
 Noise: 0.4

Peak table for sample 8 : 72

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	154	61.06	598.9		55.94
3	221	4,631.98	31,781.3		62.05
4	355	24.82	106.0		73.65
5	390	16.95	65.9		76.45
6	434	16.31	56.9		79.24
7	467	10.20	33.1		81.11
8	479	10.34	32.7		81.83
9	619	10.85	26.6		88.46
10	654	8.75	20.3		89.60
11	675	7.12	16.0		90.27
12	775	5.88	11.5		92.13
13	838	8.59	15.5		93.01
14	10,380	75.00	10.9	Upper Marker	113.00
15	13,109	0.00	0.0		115.64

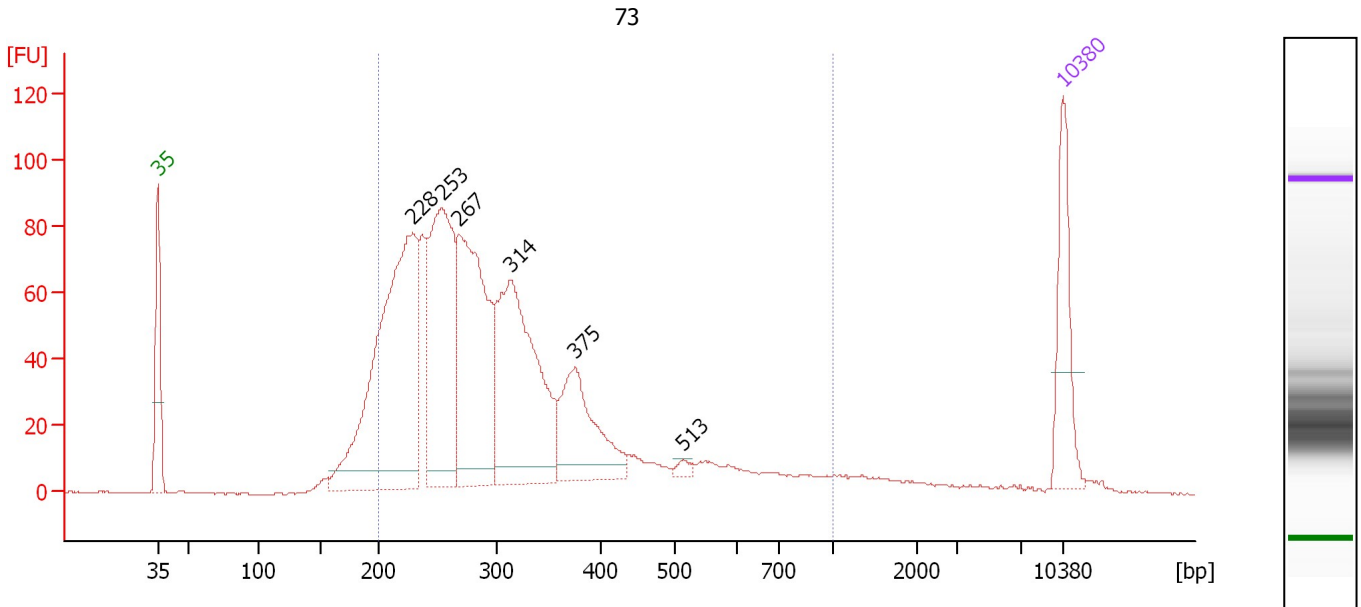
Region table for sample 8 : 72

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	276	4,068.59	4,126.2	24,604.3	83	39.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

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Electropherogram Summary Continued ...



Overall Results for sample 9 : 73

Number of peaks found: 6 Corr. Area 1: 1,634.4
 Noise: 0.2

Peak table for sample 9 : 73

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	228	529.03	3,510.3		62.74
3	253	324.97	1,944.3		65.00
4	267	337.03	1,911.5		66.26
5	314	342.33	1,652.2		70.37
6	375	143.89	581.5		75.26
7	513	6.85	20.2		83.63
8	10,380	75.00	10.9	Upper Marker	113.00

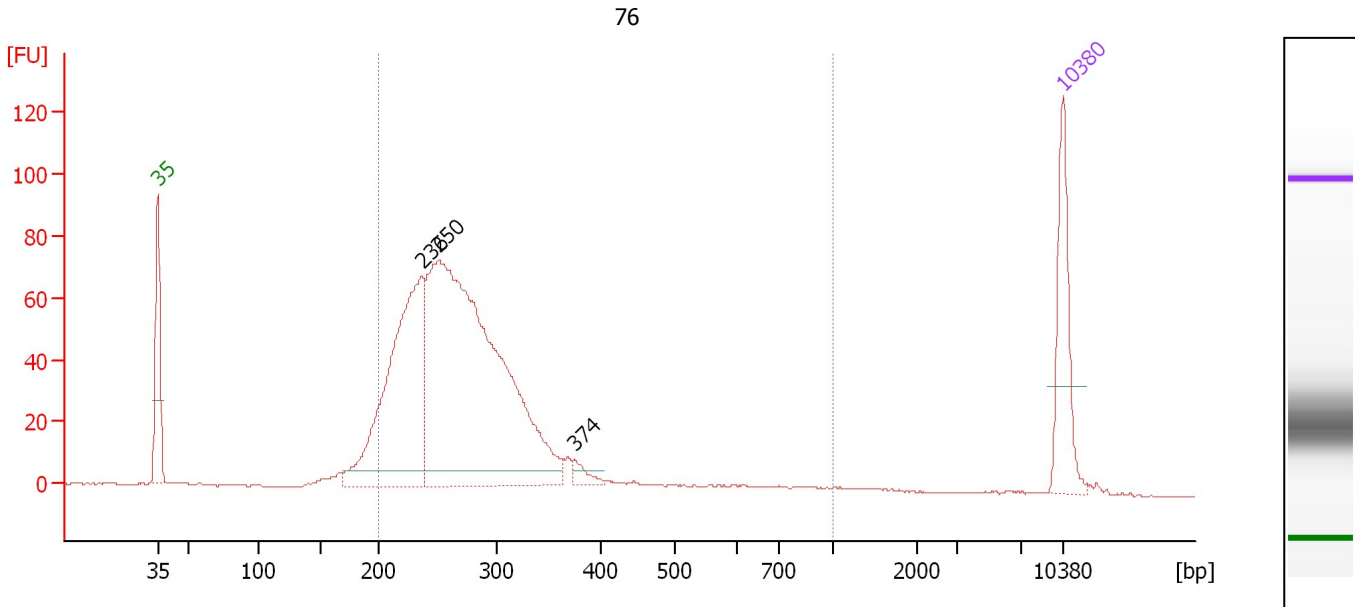
Region table for sample 9 : 73

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	321	1,865.04	1,634.4	9,945.6	87	38.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

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Electropherogram Summary Continued ...



Overall Results for sample 10 : 76

Number of peaks found: 3 Corr. Area 1: 1,047.7
 Noise: 0.2

Peak table for sample 10 : 76

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	236	397.22	2,547.6		63.45
3	250	812.56	4,920.1		64.73
4	374	14.05	56.9		75.22
5	10,380	75.00	10.9	Upper Marker	113.00

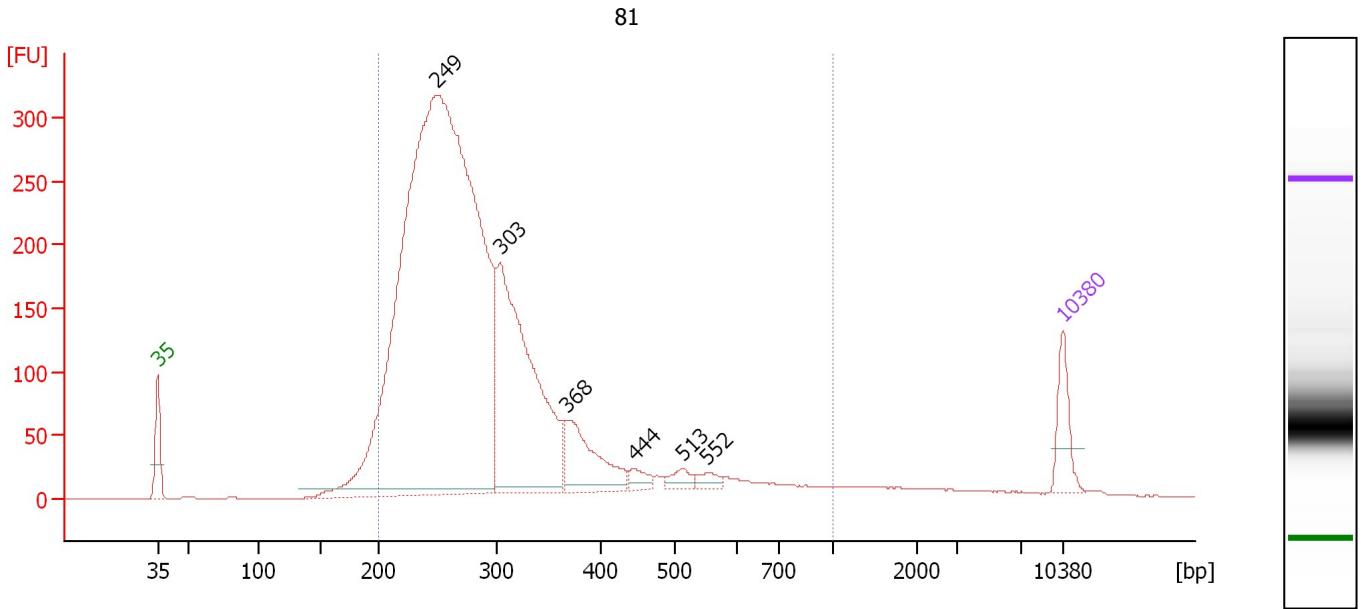
Region table for sample 10 : 76

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	284	1,186.03	1,047.7	6,720.4	92	30.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

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Electropherogram Summary Continued ...



Overall Results for sample 11 : 81

Number of peaks found: 6 Corr. Area 1: 4,565.7
 Noise: 0.3

Peak table for sample 11 : 81

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	249	3,780.77	22,986.2		64.63
3	303	886.31	4,436.7		69.46
4	368	204.65	843.6		74.67
5	444	31.94	108.9		79.83
6	513	31.92	94.3		83.64
7	552	24.06	66.1		85.52
8	10,380	75.00	10.9	Upper Marker	113.00

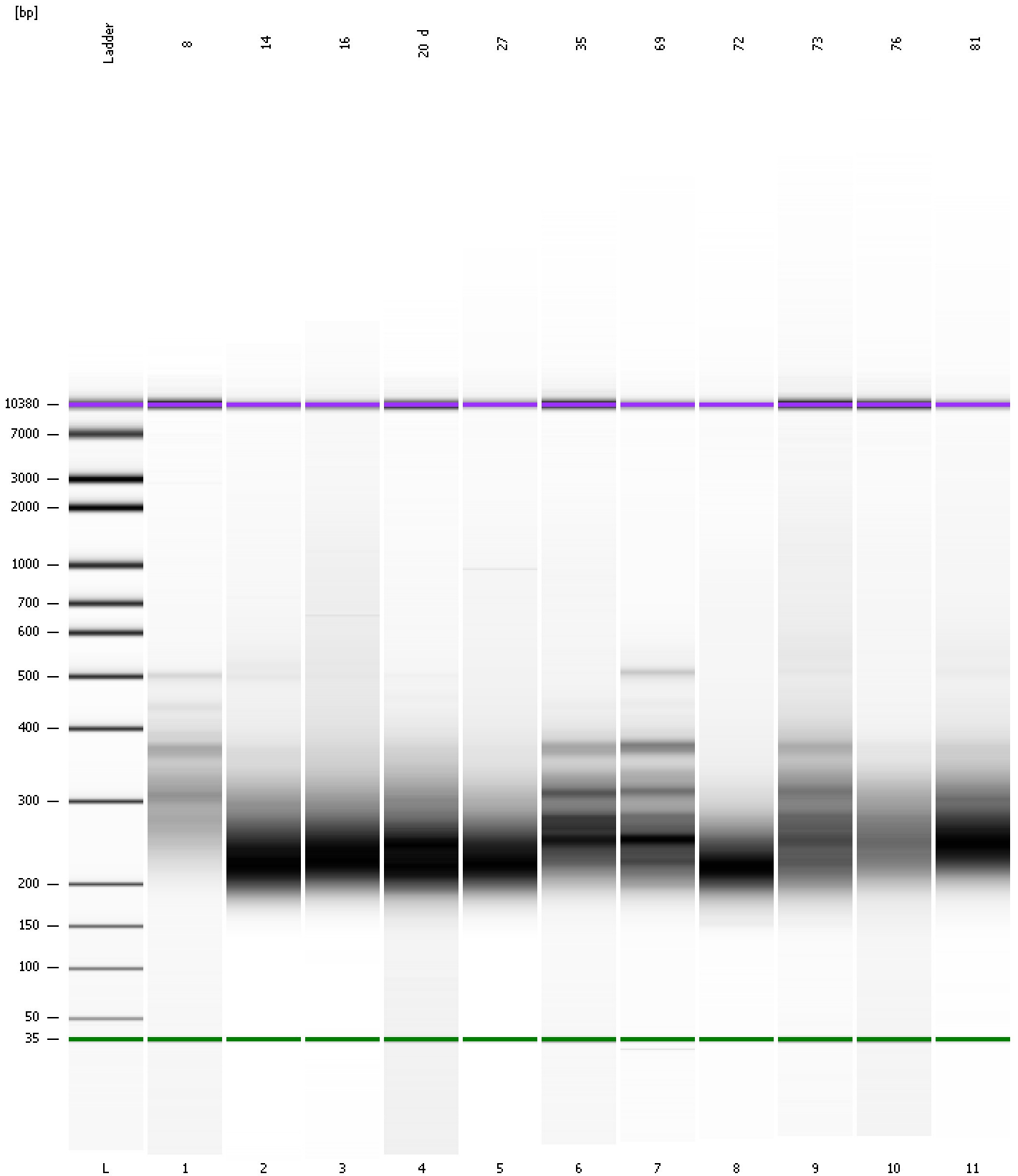
Region table for sample 11 : 81

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	302	5,035.32	4,565.7	27,621.9	93	34.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

Created: 11/6/2019 4:23:49 PM
Modified: 11/7/2019 3:35:58 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad

Created: 11/6/2019 4:23:49 PM
 Modified: 11/7/2019 3:35:58 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 12)		Instrument	Run		11/6/2019 5:04:15 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_004.xad)		Instrument	Run		11/6/2019 4:23:55 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		11/6/2019 4:23:55 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/6/2019 4:23:55 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/6/2019 4:23:55 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		11/6/2019 4:23:55 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/6/2019 4:23:55 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/6/2019 4:23:55 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1