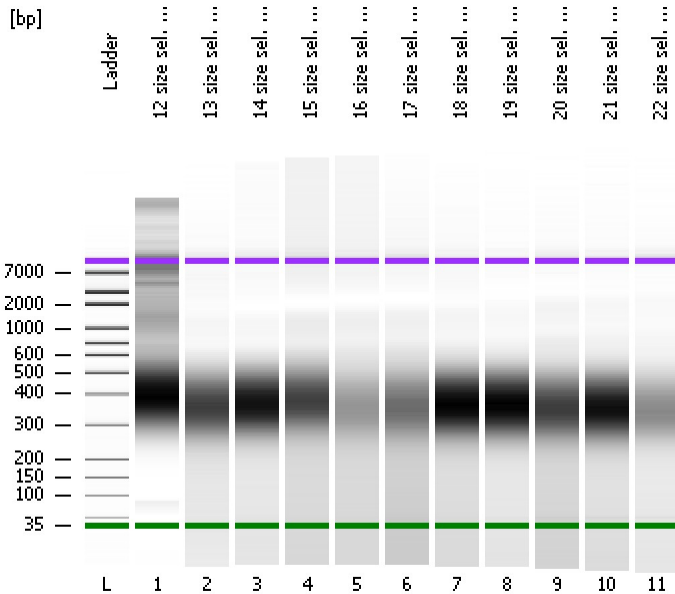


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
Modified: 5/19/2016 1:11:44 PM

### Electrophoresis File Run Summary



#### Instrument Information:

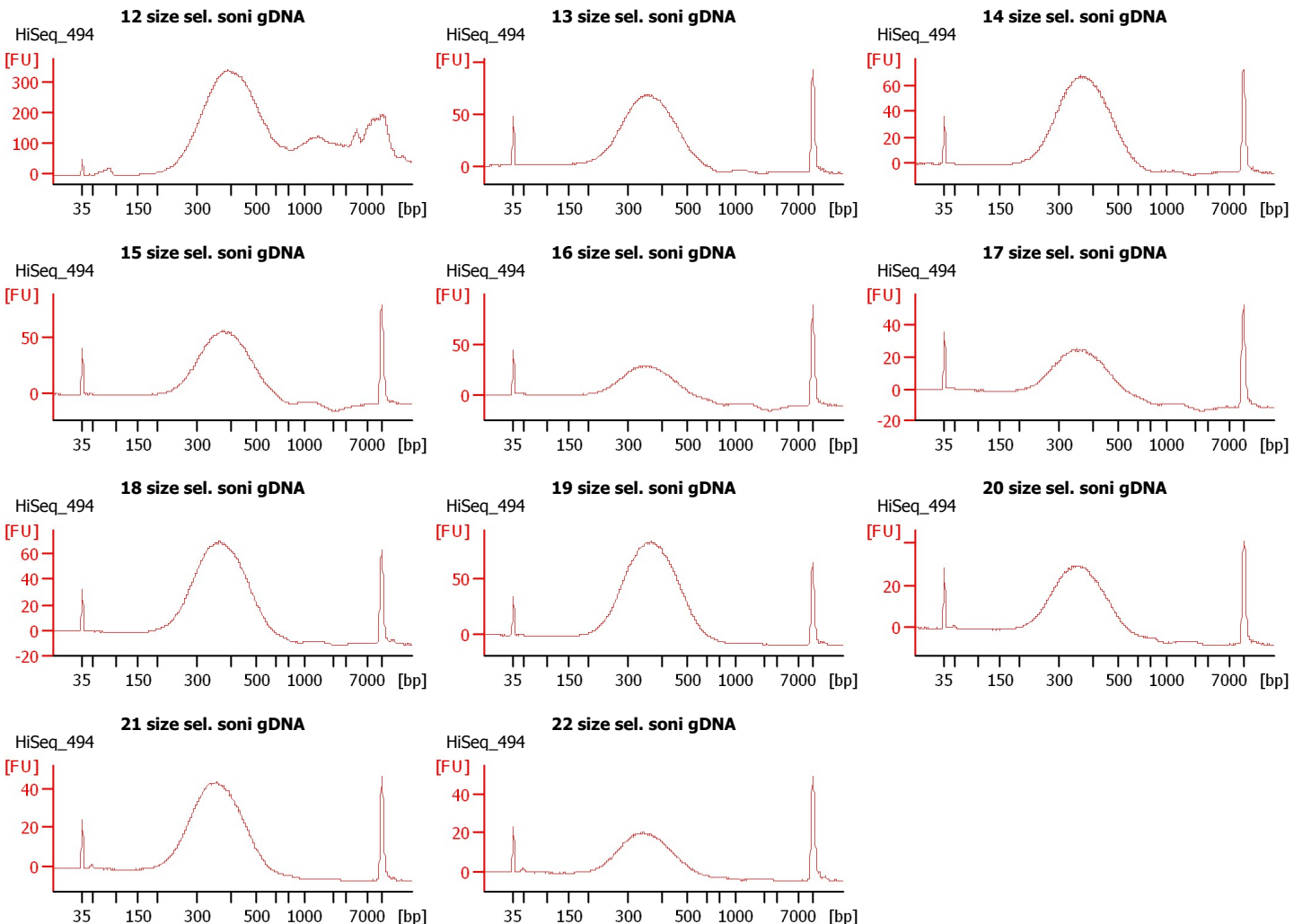
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
 Modified: 5/19/2016 1:11:44 PM

**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
12 size sel. soni gDNA	HiSeq_494	<input type="checkbox"/>	✓			
13 size sel. soni gDNA	HiSeq_494	<input type="checkbox"/>	✓			
14 size sel. soni gDNA	HiSeq_494	<input type="checkbox"/>	✓			
15 size sel. soni gDNA	HiSeq_494	<input type="checkbox"/>	✓			
16 size sel. soni gDNA	HiSeq_494	<input type="checkbox"/>	✓			
17 size sel. soni gDNA	HiSeq_494	<input type="checkbox"/>	✓			
18 size sel. soni gDNA	HiSeq_494	<input type="checkbox"/>	✓			
19 size sel. soni gDNA	HiSeq_494	<input type="checkbox"/>	✓			
20 size sel. soni gDNA	HiSeq_494	<input type="checkbox"/>	✓			
21 size sel. soni gDNA	HiSeq_494	<input type="checkbox"/>	✓			
22 size sel. soni gDNA	HiSeq_494	<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\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
Modified: 5/19/2016 1:11:44 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

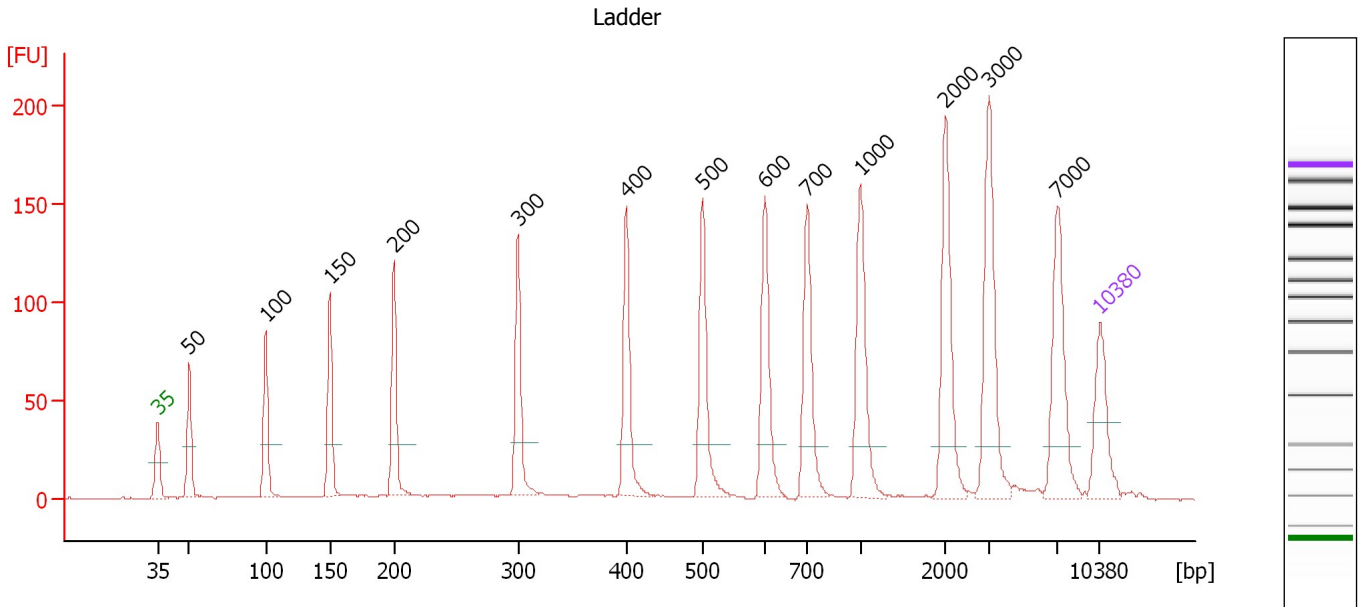
**Ladder**

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\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
 Modified: 5/19/2016 1:11:44 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

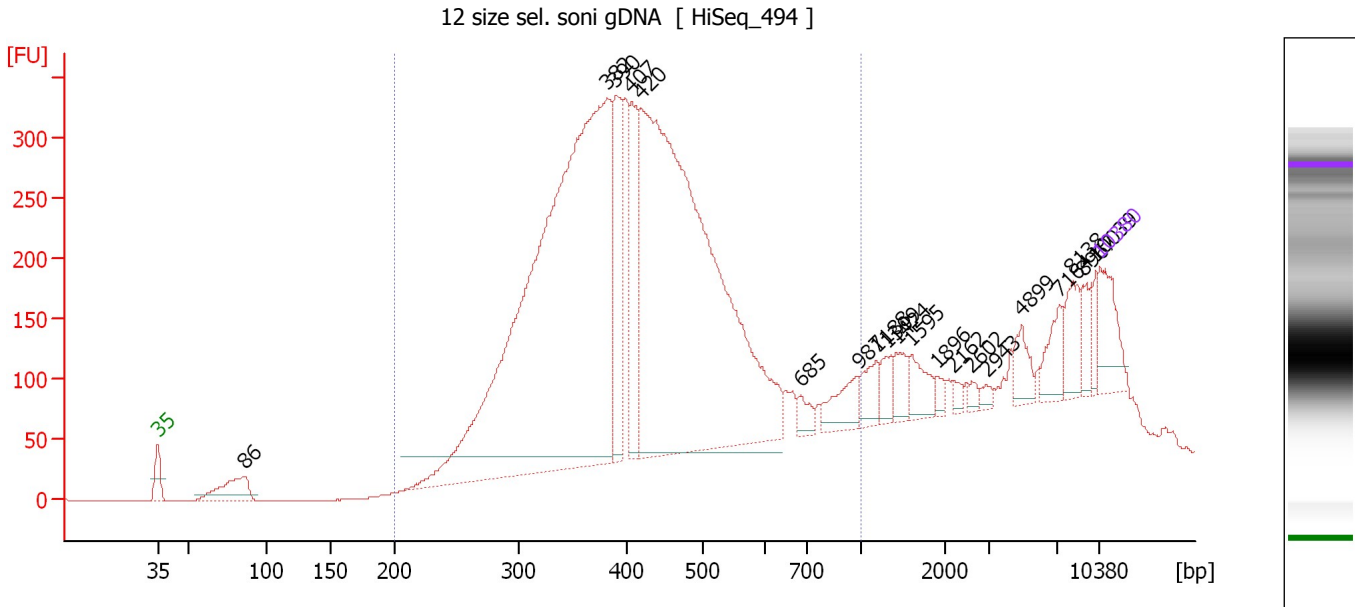
**Peak table for Ladder**

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	45.37
3	100	150.00	2,272.7	Ladder Peak	51.04
4	150	150.00	1,515.2	Ladder Peak	55.82
5	200	150.00	1,136.4	Ladder Peak	60.55
6	300	150.00	757.6	Ladder Peak	69.77
7	400	150.00	568.2	Ladder Peak	77.80
8	500	150.00	454.5	Ladder Peak	83.52
9	600	150.00	378.8	Ladder Peak	88.11
10	700	150.00	324.7	Ladder Peak	91.21
11	1,000	150.00	227.3	Ladder Peak	95.20
12	2,000	150.00	113.6	Ladder Peak	101.56
13	3,000	150.00	75.8	Ladder Peak	104.77
14	7,000	150.00	32.5	Ladder Peak	109.85
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
 Modified: 5/19/2016 1:11:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 12 size sel. soni gDNA**

Number of peaks found: 20                      Corr. Area 1: 5,793.7  
 Noise: 0.2

**Peak table for sample 1 : 12 size sel. soni gDNA**

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	86	112.93	1,987.4		49.46
3	382	2,075.58	8,224.8		76.39
4	390	247.13	959.4		77.02
5	407	207.53	772.5		78.20
6	420	1,701.42	6,141.5		78.93
7	685	27.48	60.7		90.76
8	987	61.41	94.2		95.03
9	1,188	46.21	59.0		96.40
10	1,309	32.59	37.7		97.17
11	1,424	40.50	43.1		97.90
12	1,595	46.92	44.6		98.99
13	1,896	15.29	12.2		100.90
14	2,162	12.31	8.6		102.08
15	2,602	10.63	6.2		103.49
16	2,943	10.98	5.7		104.59
17	4,899	42.76	13.2		107.18
18	7,164	52.70	11.1		110.00
19	8,138	59.67	11.1		110.91
20	8,967	30.54	5.2		111.68
21	10,039	27.40	4.1		112.68
22	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
Modified: 5/19/2016 1:11:44 PM

**Electropherogram Summary Continued ...**

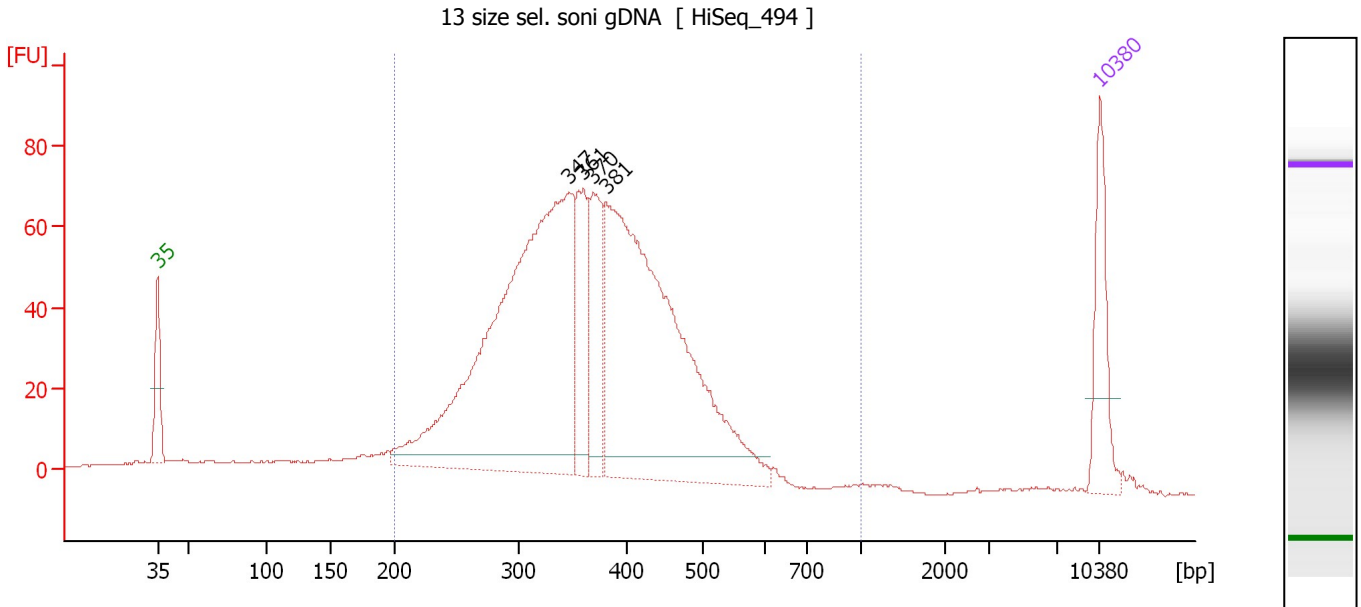
... Region table for sample 1 : 12 size sel. soni gDNA

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	424	5,793.7	16,472.5	4,281.51	86	26.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
 Modified: 5/19/2016 1:11:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 13 size sel. soni gDNA**

Number of peaks found: 4                      Corr. Area 1: 1,471.8  
 Noise: 0.3

**Peak table for sample 2 : 13 size sel. soni gDNA**

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	347	843.94	3,685.1		73.54
3	361	129.32	543.2		74.65
4	370	125.16	512.5		75.40
5	381	710.56	2,823.7		76.30
6	10,380	75.00	10.9	Upper Marker	113.00

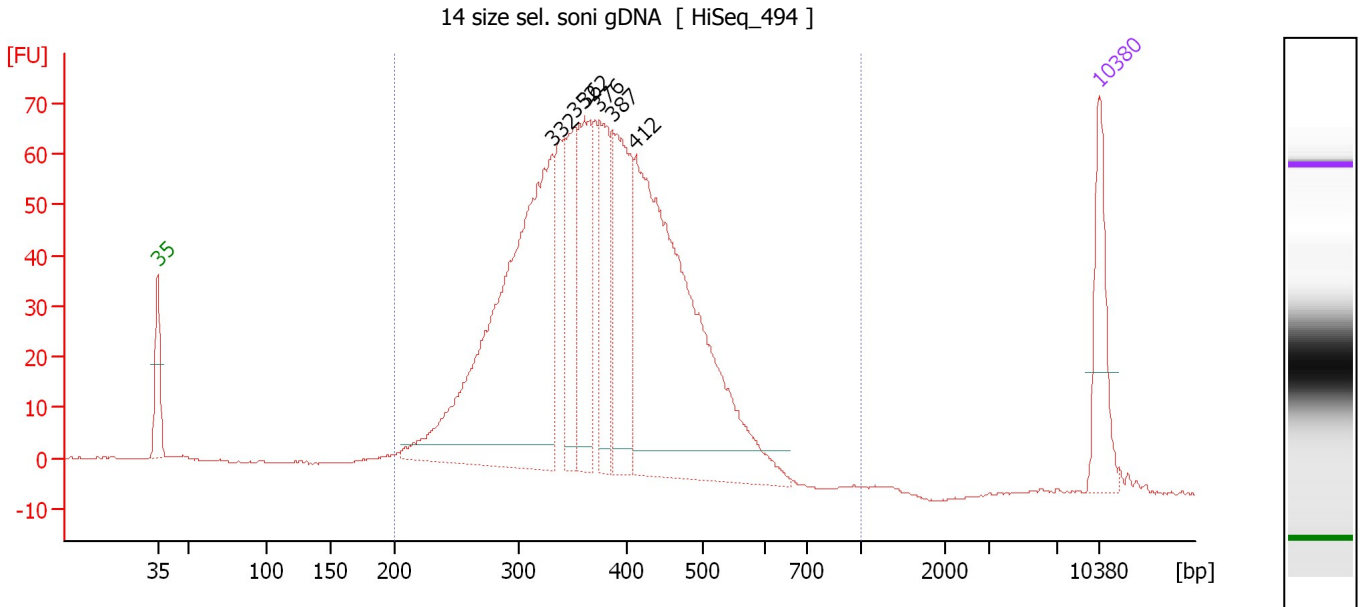
**Region table for sample 2 : 13 size sel. soni gDNA**

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	368	1,471.8	8,611.9	1,958.93	90	21.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
 Modified: 5/19/2016 1:11:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 14 size sel. soni gDNA**

Number of peaks found: 6                      Corr. Area 1: 1,368.1  
 Noise: 0.2

**Peak table for sample 3 : 14 size sel. soni gDNA**

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	332	678.08	3,091.2		72.37
3	352	124.54	535.5		73.98
4	362	169.92	711.7		74.73
5	376	121.29	489.4		75.84
6	387	205.77	804.7		76.79
7	412	644.19	2,367.6		78.50
8	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 3 : 14 size sel. soni gDNA**

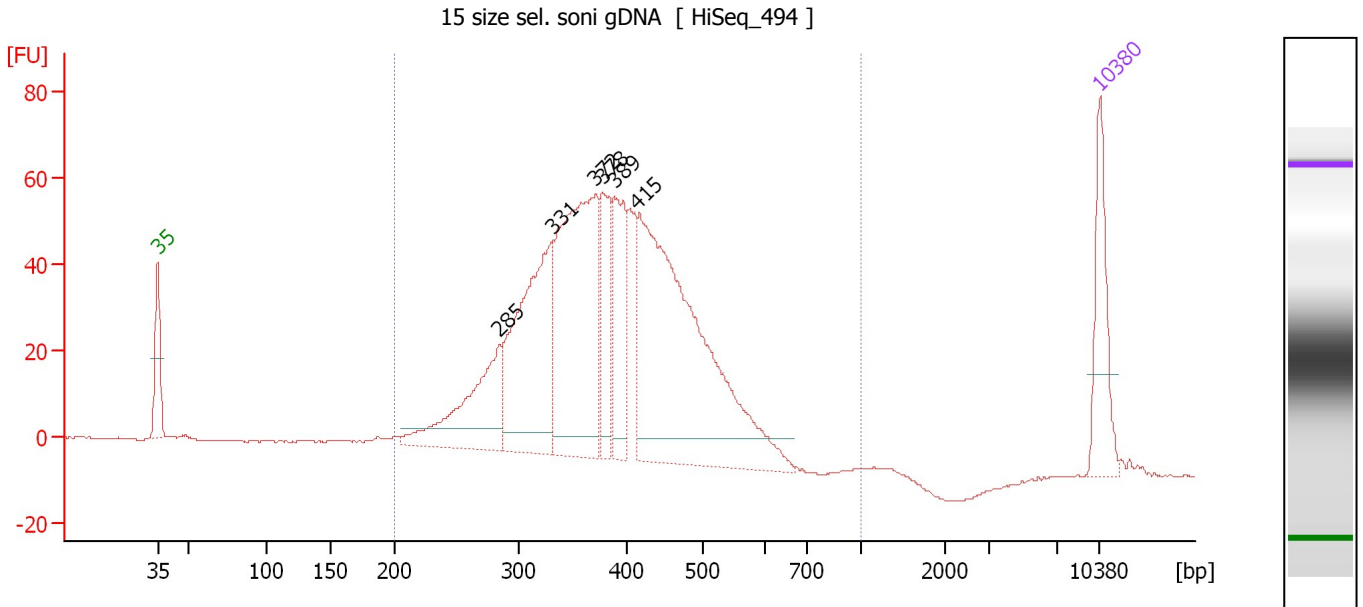
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	378	1,368.1	9,356.5	2,196.64	97	20.6



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
 Modified: 5/19/2016 1:11:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 15 size sel. soni gDNA**

Number of peaks found: 6                      Corr. Area 1: 1,131.0  
 Noise: 0.2

**Peak table for sample 4 : 15 size sel. soni gDNA**

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	285	175.55	932.9		68.39
3	331	295.99	1,352.9		72.30
4	372	370.35	1,509.0		75.54
5	378	93.85	376.7		76.00
6	389	123.03	479.3		76.91
7	415	559.73	2,045.9		78.63
8	10,380	75.00	10.9	Upper Marker	113.00

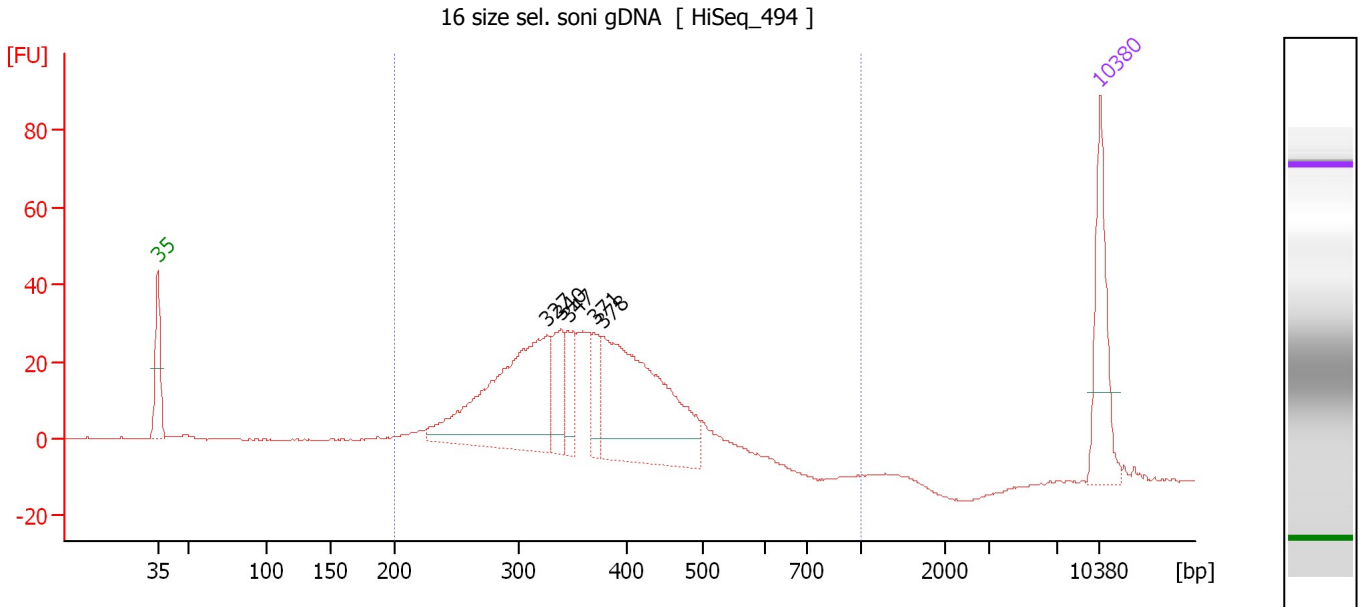
**Region table for sample 4 : 15 size sel. soni gDNA**

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	387	1,131.0	6,925.1	1,666.39	98	20.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
 Modified: 5/19/2016 1:11:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 16 size sel. soni gDNA**

Number of peaks found: 5                      Corr. Area 1: 660.7  
 Noise: 0.2

**Peak table for sample 5 : 16 size sel. soni gDNA**

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	327	287.46	1,332.4		71.93
3	340	56.55	252.3		72.95
4	347	41.55	181.6		73.51
5	371	36.52	149.3		75.45
6	378	288.31	1,154.7		76.06
7	10,380	75.00	10.9	Upper Marker	113.00

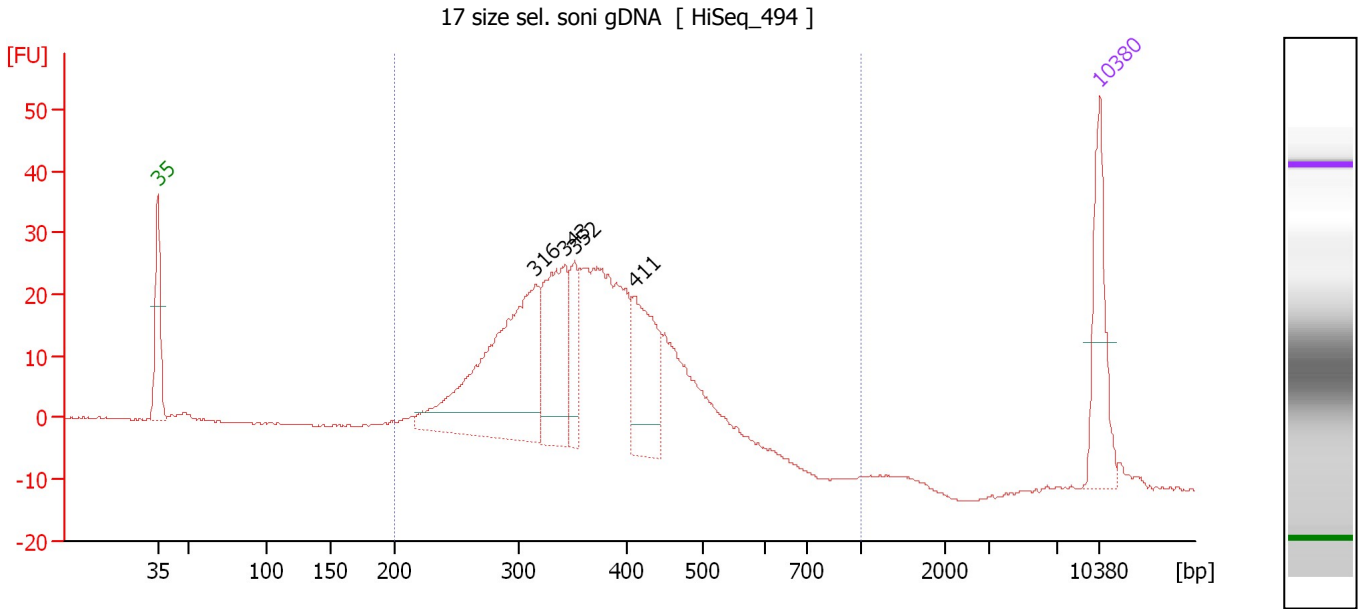
**Region table for sample 5 : 16 size sel. soni gDNA**

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	361	660.7	3,965.2	886.90	89	21.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
 Modified: 5/19/2016 1:11:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 17 size sel. soni gDNA**

Number of peaks found: 4                      Corr. Area 1: 600.4  
 Noise: 0.2

**Peak table for sample 6 : 17 size sel. soni gDNA**

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	316	330.35	1,585.3		71.03
3	343	155.94	688.5		73.23
4	352	55.47	238.7		73.95
5	411	120.30	443.9		78.41
6	10,380	75.00	10.9	Upper Marker	113.00

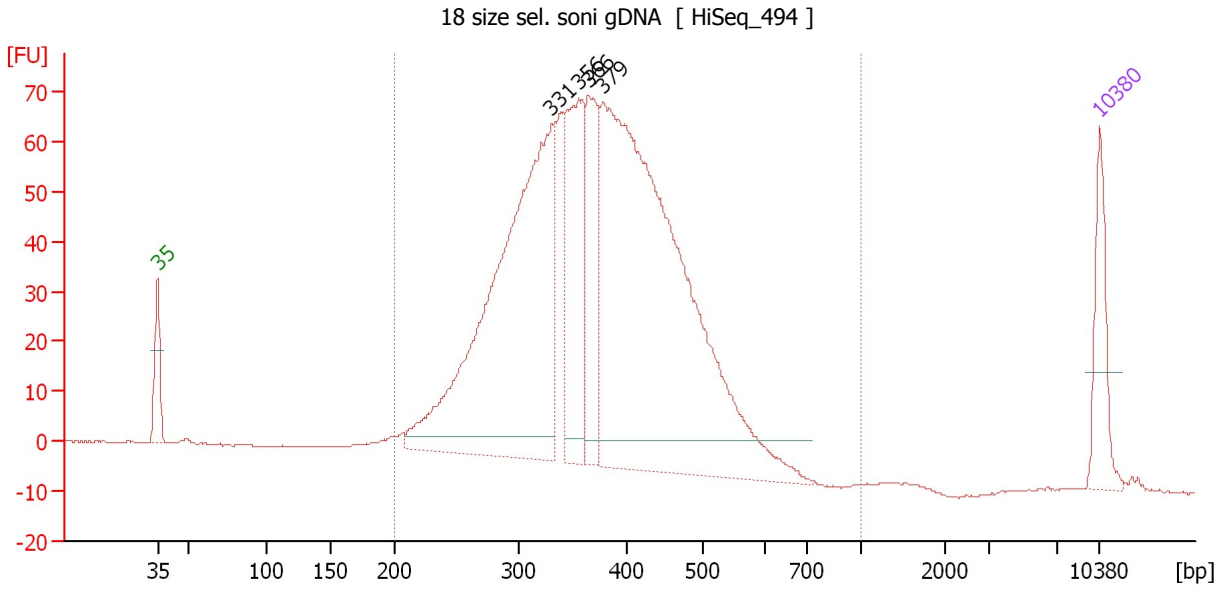
**Region table for sample 6 : 17 size sel. soni gDNA**

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	367	600.4	5,177.7	1,174.79	91	21.4

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
Modified: 5/19/2016 1:11:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : **18 size sel. soni gDNA**

Number of peaks found: 4                      Corr. Area 1: 1,439.9  
Noise: 0.2

Peak table for sample 7 : **18 size sel. soni gDNA**

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	331	884.68	4,050.4		72.25
3	356	264.75	1,126.6		74.27
4	366	172.82	714.7		75.10
5	379	1,206.50	4,820.0		76.14
6	10,380	75.00	10.9	Upper Marker	113.00

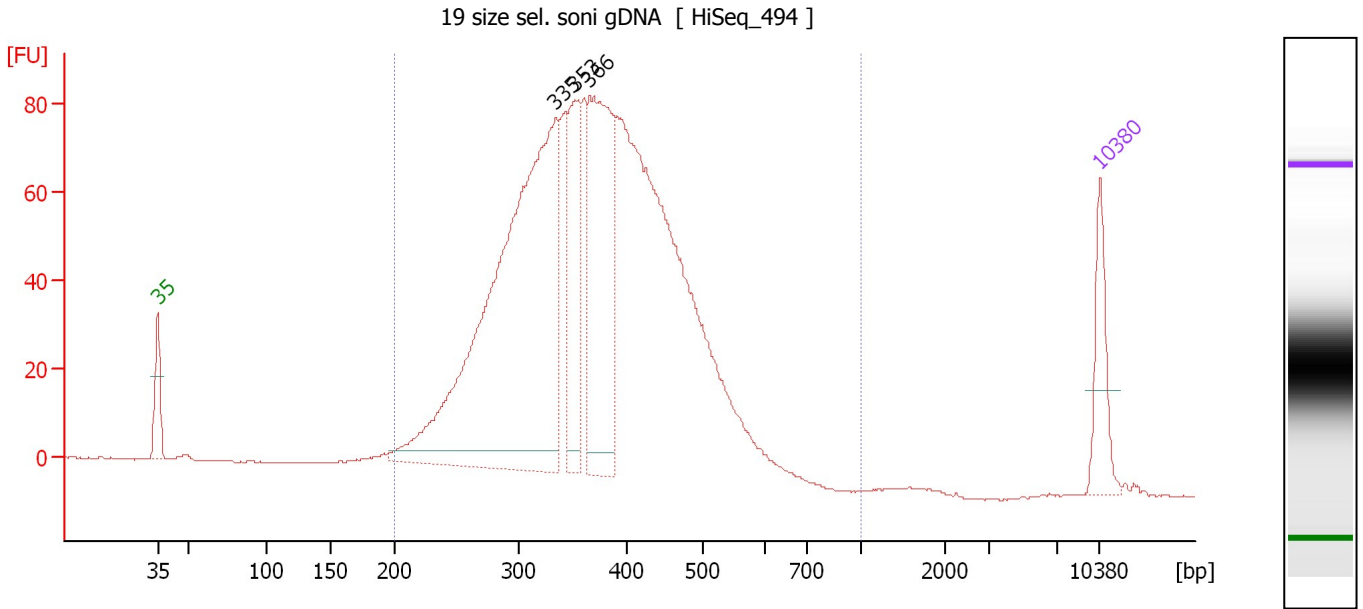
Region table for sample 7 : **18 size sel. soni gDNA**

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	374	1,439.9	11,497.9	2,672.90	97	20.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
 Modified: 5/19/2016 1:11:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 19 size sel. soni gDNA**

Number of peaks found: 3                      Corr. Area 1: 1,666.5  
 Noise: 0.2

**Peak table for sample 8 : 19 size sel. soni gDNA**

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	335	1,159.63	5,247.3		72.57
3	353	212.16	910.5		74.03
4	366	435.32	1,801.9		75.07
5	10,380	75.00	10.9	Upper Marker	113.00

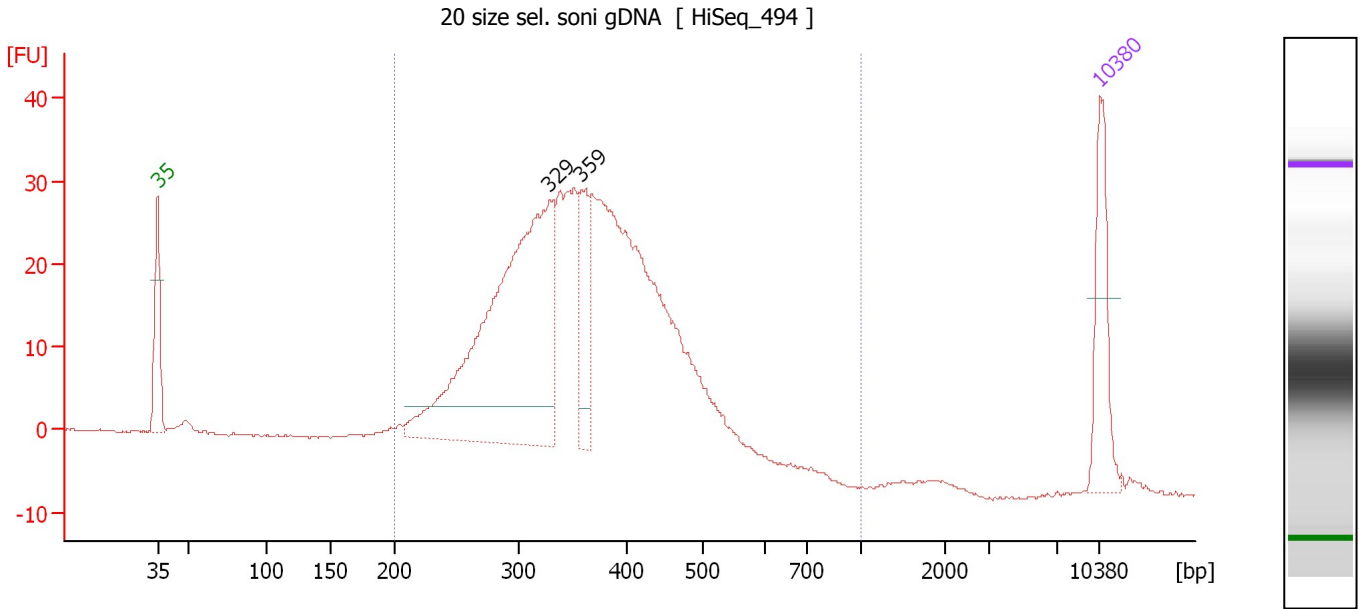
**Region table for sample 8 : 19 size sel. soni gDNA**

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	374	1,666.5	13,931.4	3,232.44	98	21.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
 Modified: 5/19/2016 1:11:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 20 size sel. soni gDNA**

Number of peaks found: 2                      Corr. Area 1: 613.4  
 Noise: 0.1

**Peak table for sample 9 : 20 size sel. soni gDNA**

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	329	587.93	2,711.3		72.06
3	359	88.88	375.5		74.48
4	10,380	75.00	10.9	Upper Marker	113.00

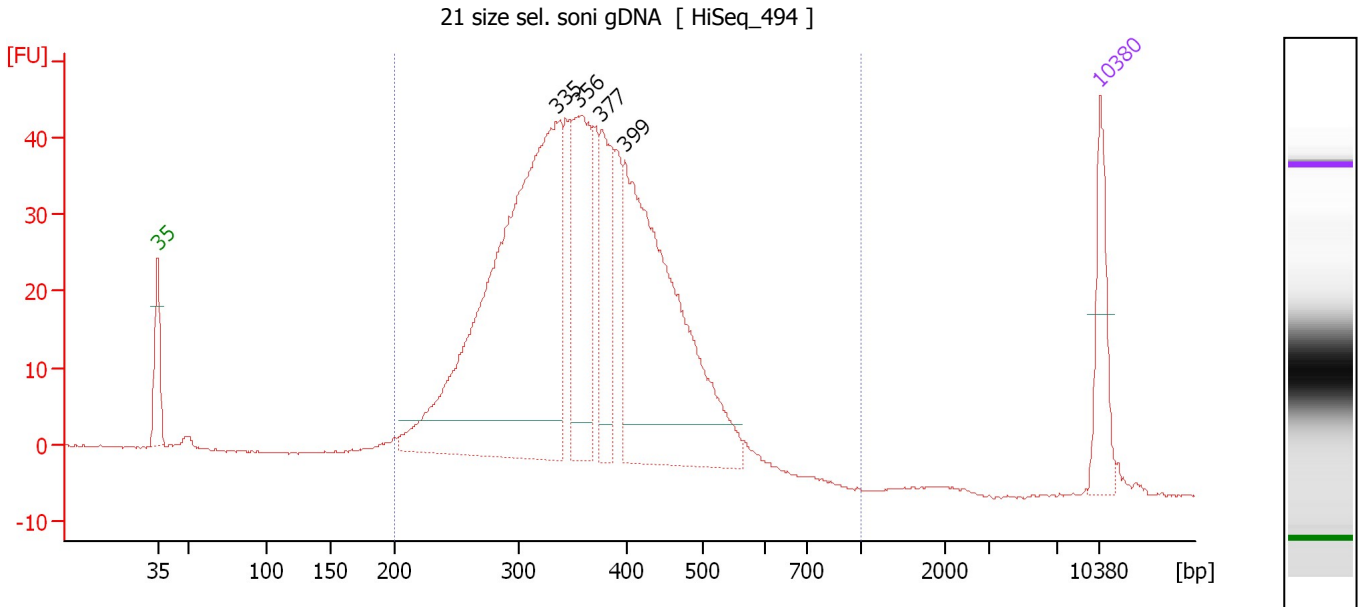
**Region table for sample 9 : 20 size sel. soni gDNA**

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	362	613.4	7,195.0	1,620.73	95	20.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
 Modified: 5/19/2016 1:11:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 21 size sel. soni gDNA**

Number of peaks found: 4                      Corr. Area 1: 865.9  
 Noise: 0.2

**Peak table for sample 10 : 21 size sel. soni gDNA**

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	335	978.61	4,421.3		72.61
3	356	252.70	1,076.5		74.24
4	377	152.23	612.4		75.92
5	399	598.88	2,275.0		77.71
6	10,380	75.00	10.9	Upper Marker	113.00

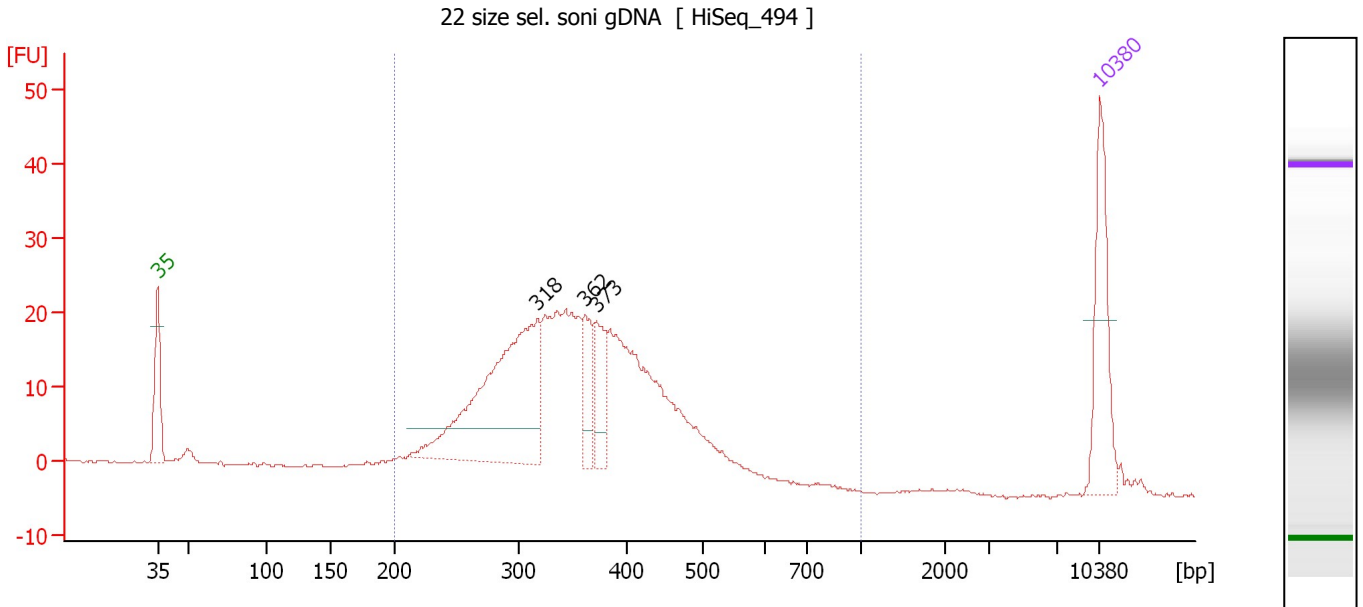
**Region table for sample 10 : 21 size sel. soni gDNA**

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	363	865.9	10,671.6	2,415.06	97	20.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
 Modified: 5/19/2016 1:11:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 22 size sel. soni gDNA**

Number of peaks found: 3                      Corr. Area 1: 416.7  
 Noise: 0.2

**Peak table for sample 11 : 22 size sel. soni gDNA**

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	318	301.18	1,435.8		71.20
3	362	50.00	209.5		74.72
4	373	52.60	213.8		75.61
5	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 11 : 22 size sel. soni gDNA**

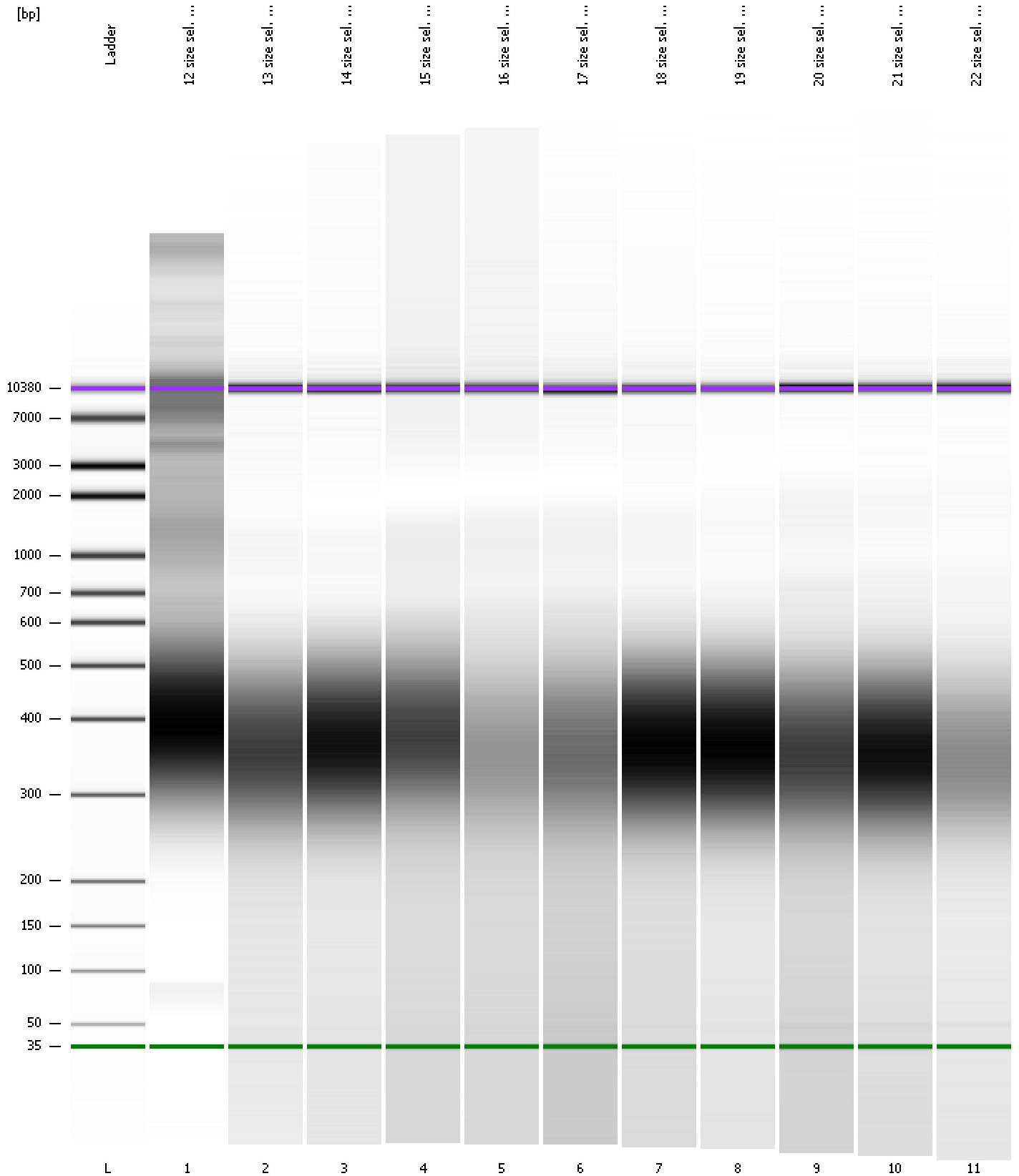
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	356	416.7	4,404.7	978.38	95	20.5



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
Modified: 5/19/2016 1:11:44 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-19\2016-05-19\_002.xad

Created: 5/19/2016 12:30:26 PM  
 Modified: 5/19/2016 1:11:44 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		5/19/2016 1:11:43 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-05-19\2016-05-19_002.xad)		Instrument	Run		5/19/2016 12:30:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		5/19/2016 12:30:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/19/2016 12:30:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/19/2016 12:30:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		5/19/2016 12:30:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/19/2016 12:30:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/19/2016 12:30:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1