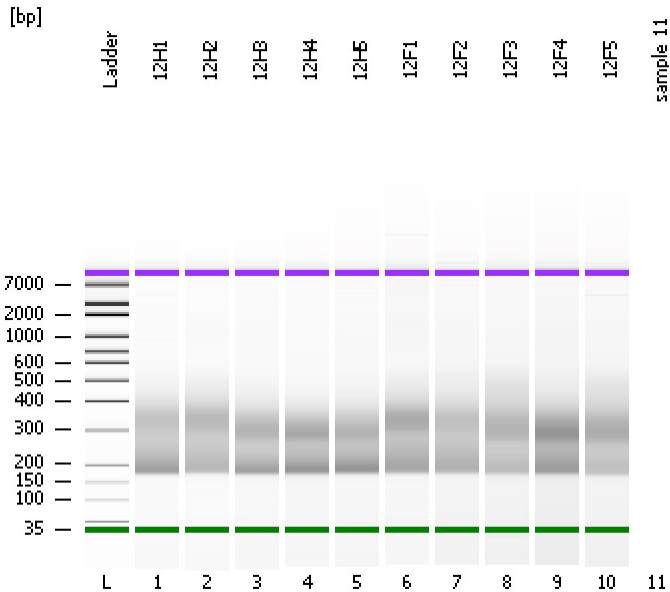


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
Modified: 10/25/2019 2:04:20 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

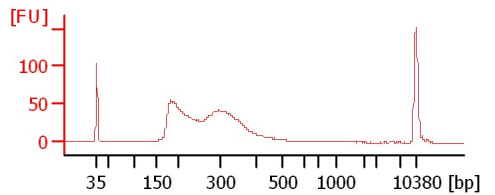
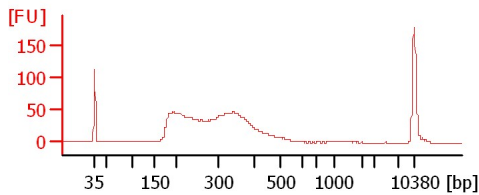
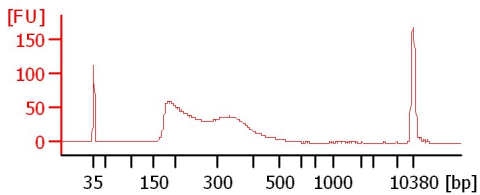
Chip Information:

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

12H1

12H2

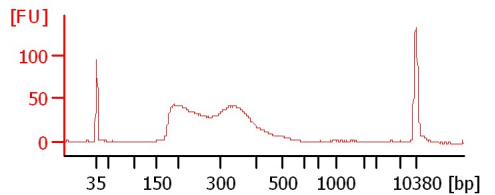
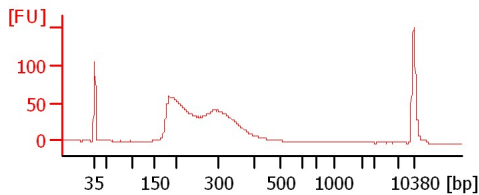
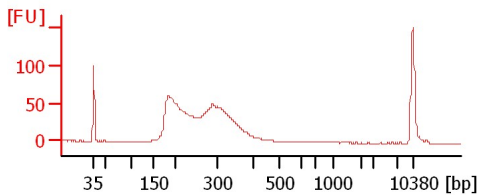
12H3



12H4

12H5

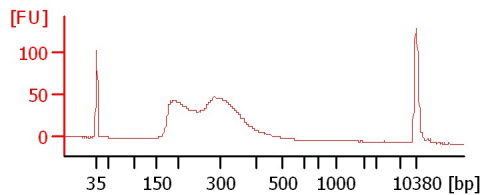
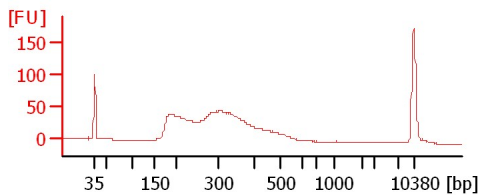
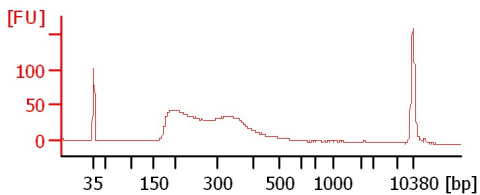
12F1



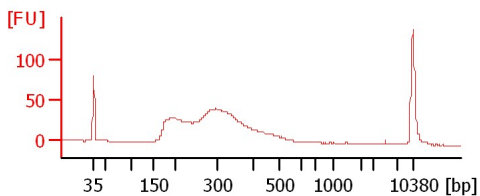
12F2

12F3

12F4



12F5



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
 Modified: 10/25/2019 2:04:20 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
12H1		<input type="checkbox"/>	✓			
12H2		<input type="checkbox"/>	✓			
12H3		<input type="checkbox"/>	✓			
12H4		<input type="checkbox"/>	✓			
12H5		<input type="checkbox"/>	✓			
12F1		<input type="checkbox"/>	✓			
12F2		<input type="checkbox"/>	✓			
12F3		<input type="checkbox"/>	✓			
12F4		<input type="checkbox"/>	✓			
12F5		<input type="checkbox"/>	✓			
sample 11		<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\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
Modified: 10/25/2019 2:04:20 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

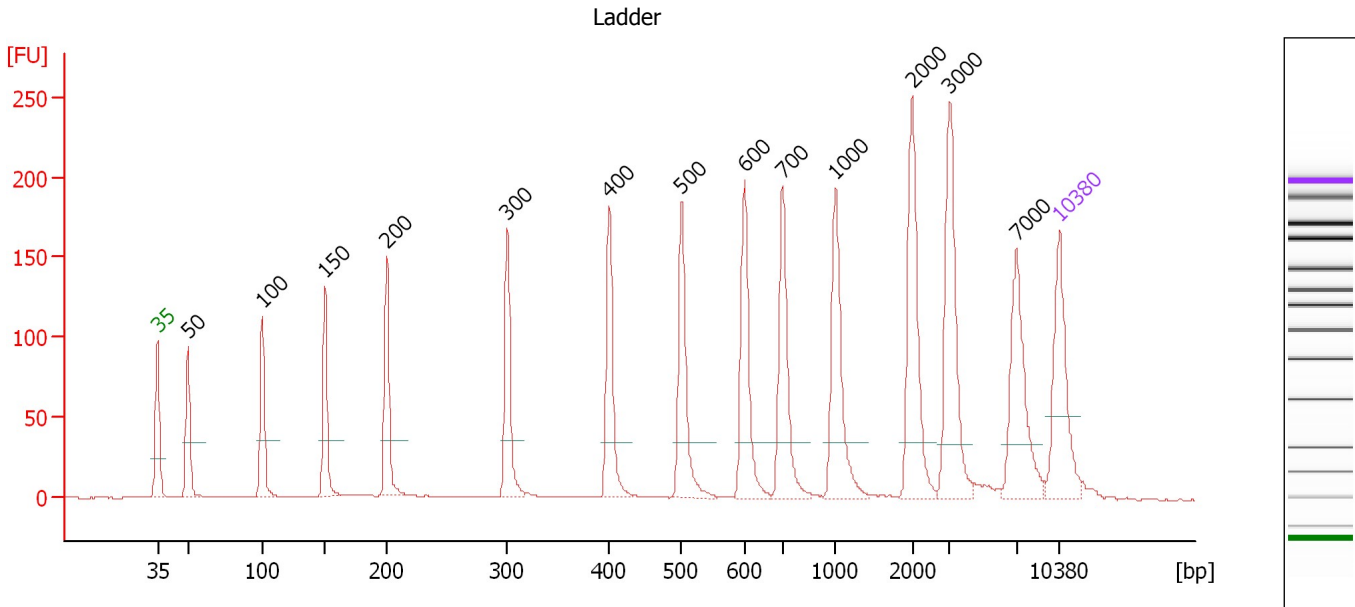
**Ladder**

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\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
 Modified: 10/25/2019 2:04:20 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.3

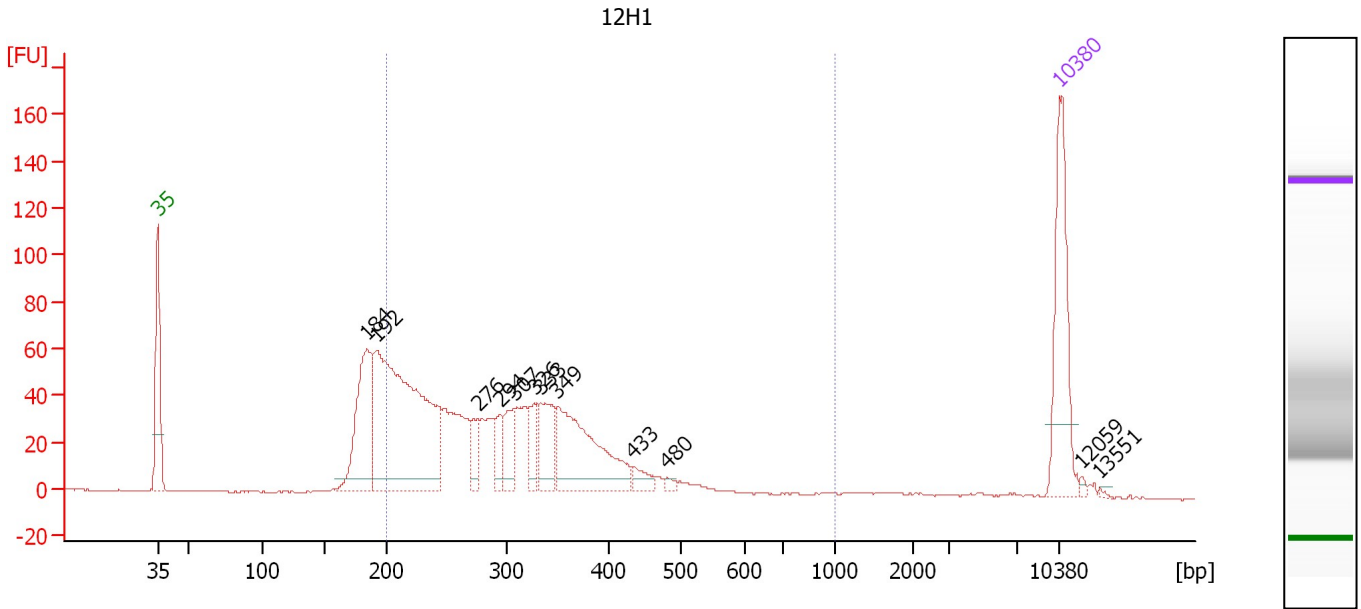
**Peak table for Ladder**

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	45.38
3	100	150.00	2,272.7	Ladder Peak	51.15
4	150	150.00	1,515.2	Ladder Peak	56.00
5	200	150.00	1,136.4	Ladder Peak	60.81
6	300	150.00	757.6	Ladder Peak	70.15
7	400	150.00	568.2	Ladder Peak	78.07
8	500	150.00	454.5	Ladder Peak	83.65
9	600	150.00	378.8	Ladder Peak	88.55
10	700	150.00	324.7	Ladder Peak	91.48
11	1,000	150.00	227.3	Ladder Peak	95.60
12	2,000	150.00	113.6	Ladder Peak	101.55
13	3,000	150.00	75.8	Ladder Peak	104.48
14	7,000	150.00	32.5	Ladder Peak	109.66
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
 Modified: 10/25/2019 2:04:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 12H1**

Number of peaks found: 12                      Corr. Area 1: 1,037.6  
 Noise: 0.3

**Peak table for sample 1 : 12H1**

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	184	123.95	1,022.9		59.23
3	192	345.58	2,730.7		60.02
4	276	23.59	129.5		67.90
5	294	20.43	105.4		69.56
6	307	32.68	161.5		70.67
7	326	23.50	109.3		72.19
8	333	49.55	225.6		72.74
9	349	120.64	523.7		74.03
10	433	11.16	39.0		79.94
11	480	3.93	12.4		82.52
12	10,380	75.00	10.9	Upper Marker	113.00
13	12,059	0.00	0.0		114.66
14	13,551	0.00	0.0		116.14

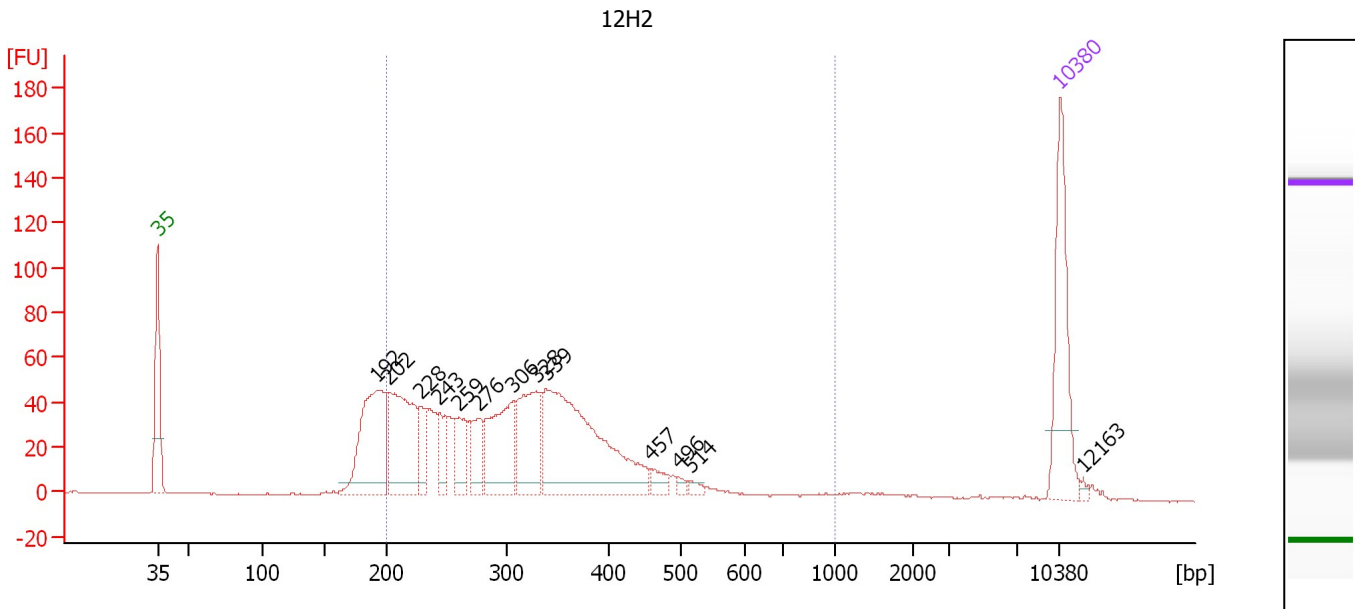
**Region table for sample 1 : 12H1**

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	310	736.01	1,037.6	3,940.6	77	29.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
 Modified: 10/25/2019 2:04:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 12H2**

Number of peaks found: 13                      Corr. Area 1: 1,150.2  
 Noise: 0.3

**Peak table for sample 2 : 12H2**

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	148.54	1,173.2		60.02
3	202	138.69	1,040.1		61.00
4	228	29.95	198.7		63.46
5	243	30.24	188.4		64.85
6	259	40.75	238.3		66.33
7	276	36.85	202.6		67.86
8	306	91.66	454.3		70.60
9	328	82.61	381.6		72.36
10	339	236.04	1,056.5		73.20
11	457	11.83	39.2		81.27
12	496	4.34	13.3		83.45
13	514	4.93	14.5		84.33
14	10,380	75.00	10.9	Upper Marker	113.00
15	12,163	0.00	0.0		114.76

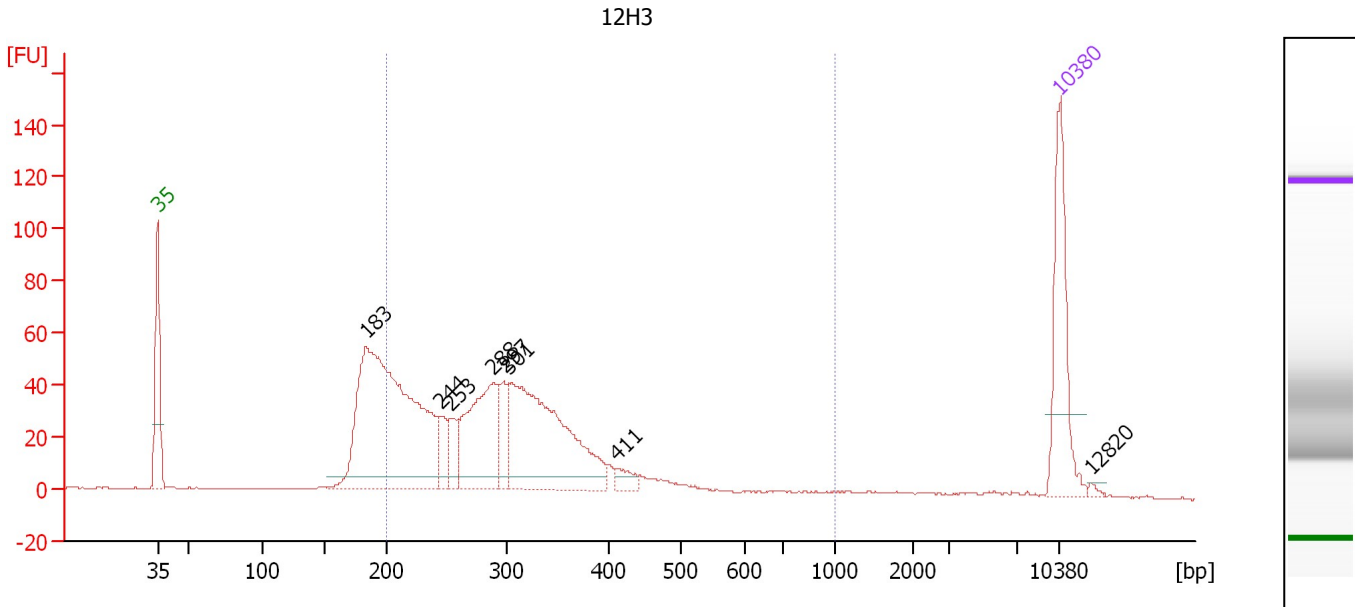
**Region table for sample 2 : 12H2**

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	322	823.20	1,150.2	4,255.2	83	30.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
 Modified: 10/25/2019 2:04:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 12H3**

Number of peaks found: 8                      Corr. Area 1: 903.5  
 Noise: 0.3

**Peak table for sample 3 : 12H3**

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	183	445.76	3,690.5		59.18
3	244	25.02	155.5		64.90
4	253	28.94	173.1		65.80
5	288	131.07	688.7		69.06
6	297	34.74	177.3		69.86
7	301	243.70	1,225.9		70.24
8	411	11.93	44.0		78.66
9	10,380	75.00	10.9	Upper Marker	113.00
10	12,820	0.00	0.0		115.41

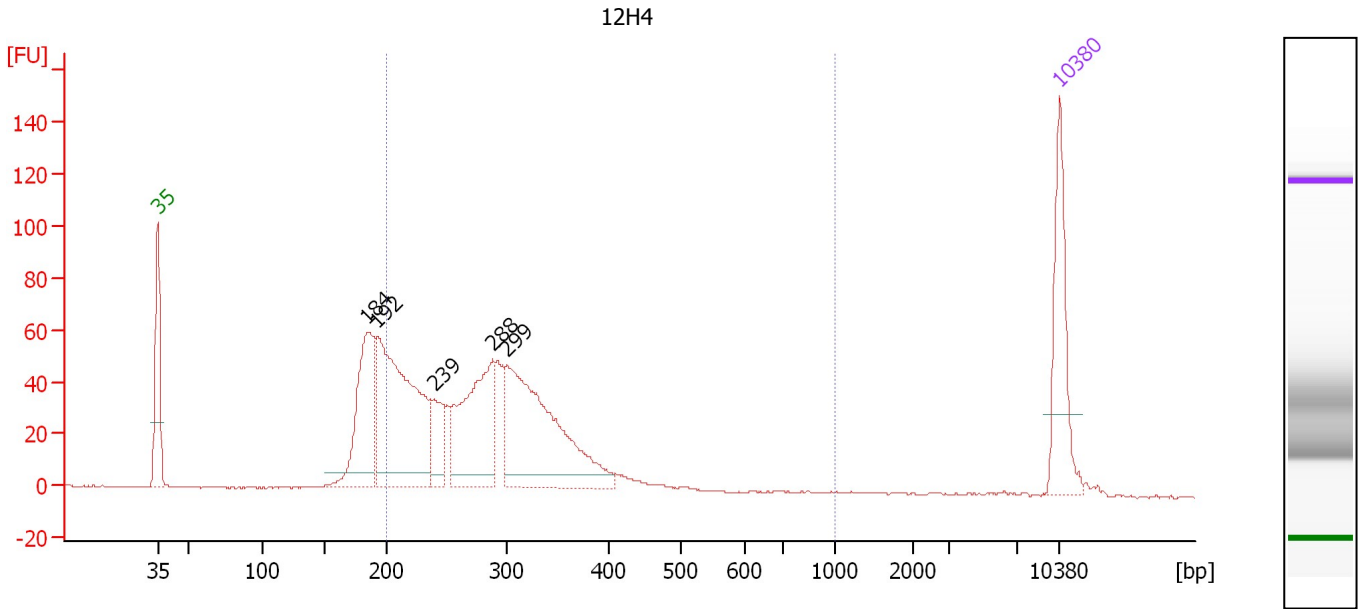
**Region table for sample 3 : 12H3**

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	308	730.79	903.5	3,903.5	75	30.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
 Modified: 10/25/2019 2:04:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 12H4**

Number of peaks found: 5                      Corr. Area 1: 944.3  
 Noise: 0.2

**Peak table for sample 4 : 12H4**

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	184	163.34	1,343.7		59.29
3	192	307.93	2,426.9		60.06
4	239	55.91	354.1		64.48
5	288	171.59	902.6		69.03
6	299	269.69	1,364.5		70.10
7	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : 12H4**

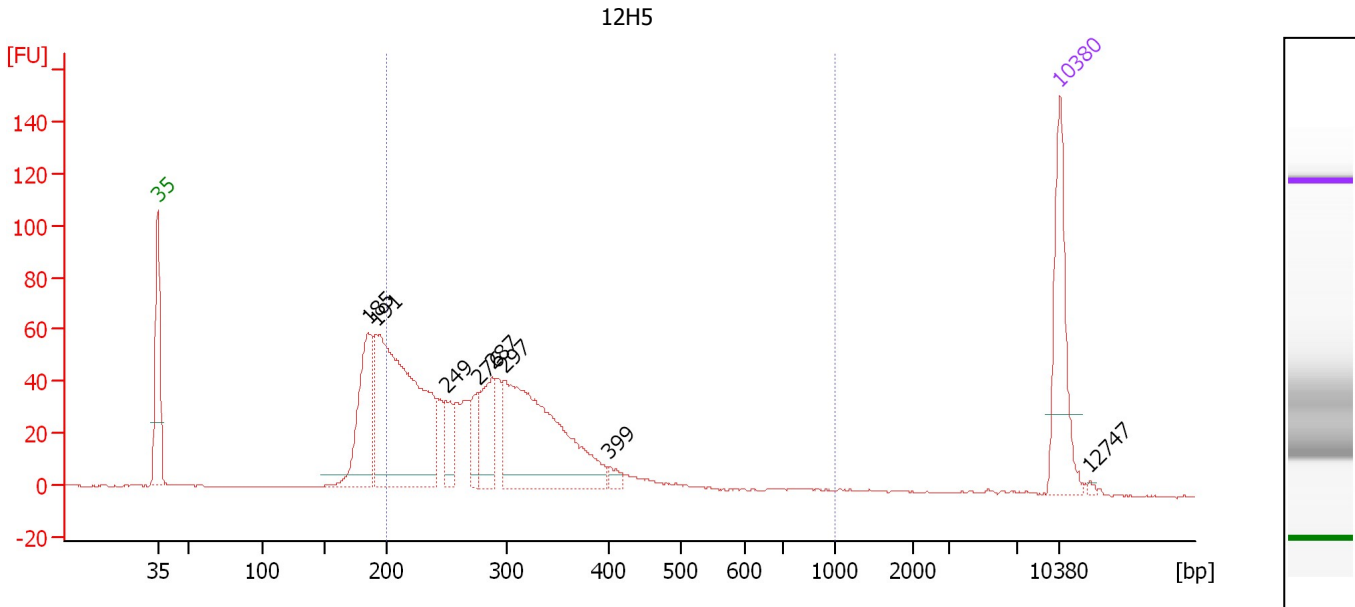
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	294	824.40	944.3	4,520.7	76	27.2



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
 Modified: 10/25/2019 2:04:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 12H5**

Number of peaks found: 8                      Corr. Area 1: 928.5  
 Noise: 0.2

**Peak table for sample 5 : 12H5**

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	185	124.16	1,019.0		59.33
3	191	365.34	2,900.7		59.93
4	249	34.30	208.5		65.40
5	276	32.36	177.8		67.89
6	287	65.69	346.7		68.94
7	297	258.83	1,319.6		69.88
8	399	8.44	32.0		78.00
9	10,380	75.00	10.9	Upper Marker	113.00
10	12,747	0.00	0.0		115.34

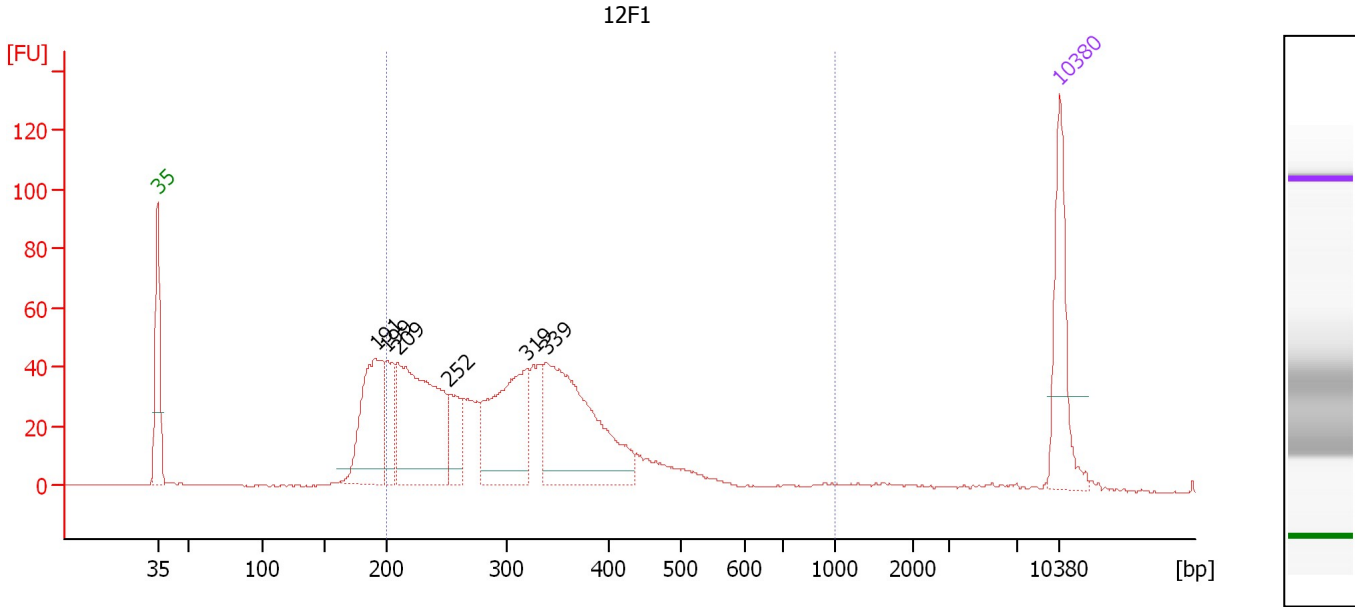
**Region table for sample 5 : 12H5**

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	300	800.40	928.5	4,383.4	76	31.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
 Modified: 10/25/2019 2:04:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 12F1**

Number of peaks found: 6                      Corr. Area 1: 1,019.0  
 Noise: 0.3

**Peak table for sample 6 : 12F1**

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	191	156.50	1,240.0		59.97
3	199	60.85	462.9		60.73
4	209	244.97	1,776.2		61.65
5	252	52.79	318.0		65.62
6	319	165.20	783.7		71.68
7	339	240.81	1,077.4		73.21
8	10,380	75.00	10.9	Upper Marker	113.00

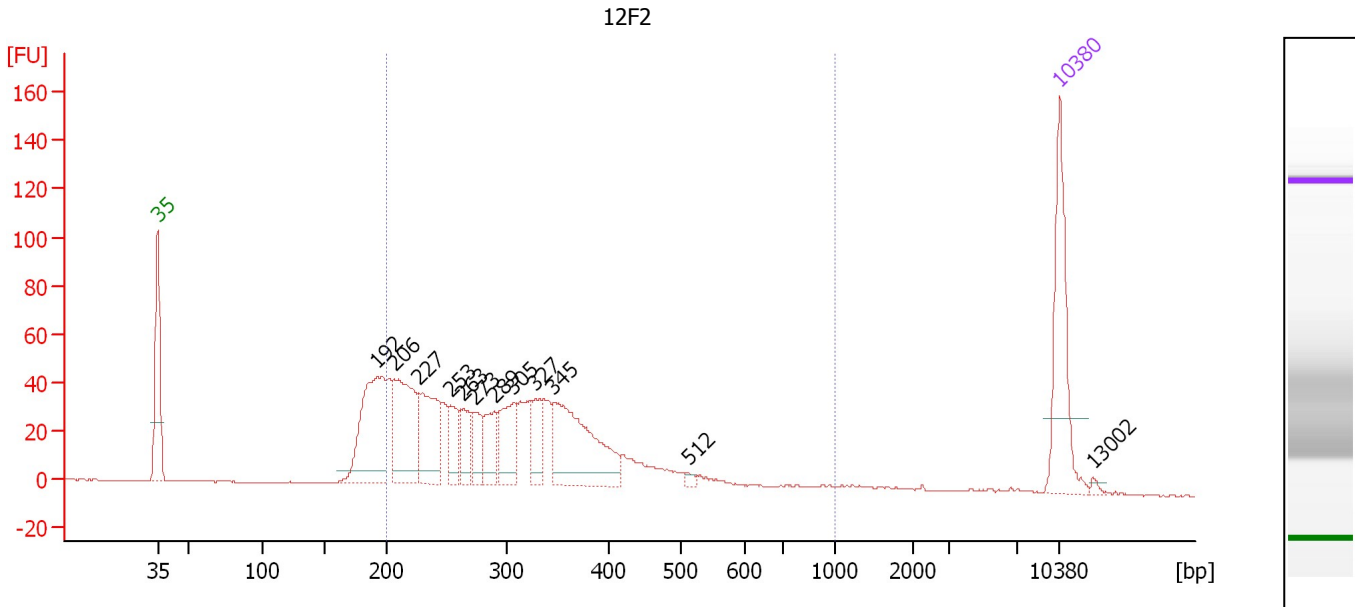
**Region table for sample 6 : 12F1**

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	325	980.37	1,019.0	5,076.8	80	33.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
 Modified: 10/25/2019 2:04:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 12F2**

Number of peaks found: 12                      Corr. Area 1: 944.0  
 Noise: 0.2

**Peak table for sample 7 : 12F2**

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	147.26	1,160.8		60.06
3	206	116.42	856.9		61.36
4	227	86.63	578.3		63.33
5	253	34.69	207.7		65.76
6	263	34.60	199.3		66.70
7	273	30.56	169.6		67.63
8	289	38.53	201.9		69.13
9	305	50.51	251.0		70.53
10	327	36.51	169.1		72.30
11	345	134.54	591.2		73.70
12	512	4.06	12.0		84.22
13	10,380	75.00	10.9	Upper Marker	113.00
14	13,002	0.00	0.0		115.59

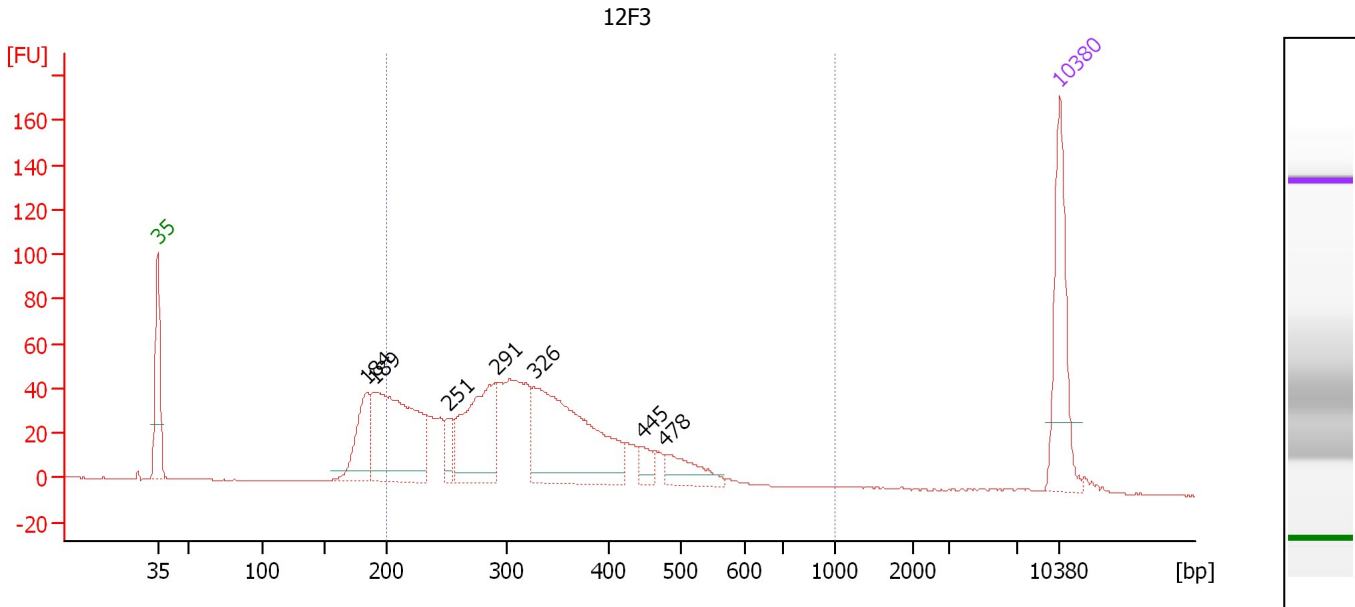
**Region table for sample 7 : 12F2**

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	318	775.00	944.0	4,090.1	83	32.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
 Modified: 10/25/2019 2:04:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 12F3**

Number of peaks found: 7                      Corr. Area 1: 1,077.3  
 Noise: 0.2

**Peak table for sample 8 : 12F3**

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	184	68.73	566.2		59.26
3	189	213.53	1,708.2		59.79
4	251	22.88	138.4		65.53
5	291	132.12	689.0		69.26
6	326	217.62	1,011.3		72.21
7	445	16.31	55.5		80.58
8	478	33.24	105.4		82.42
9	10,380	75.00	10.9	Upper Marker	113.00

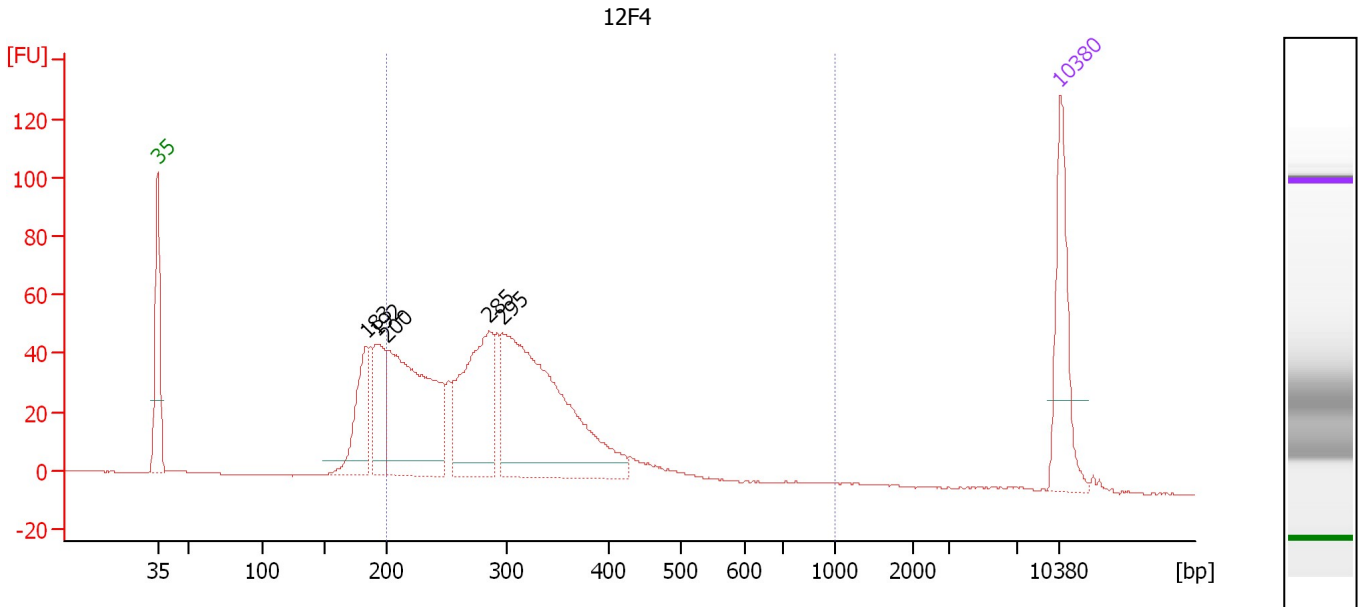
**Region table for sample 8 : 12F3**

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	774.07	1,077.3	3,905.2	83	30.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
 Modified: 10/25/2019 2:04:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 12F4**

Number of peaks found: 5                      Corr. Area 1: 968.8  
 Noise: 0.2

**Peak table for sample 9 : 12F4**

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	183	93.68	776.1		59.16
3	192	82.02	646.1		60.07
4	200	280.02	2,120.0		60.82
5	285	186.05	989.3		68.74
6	295	365.35	1,874.9		69.70
7	10,380	75.00	10.9	Upper Marker	113.00

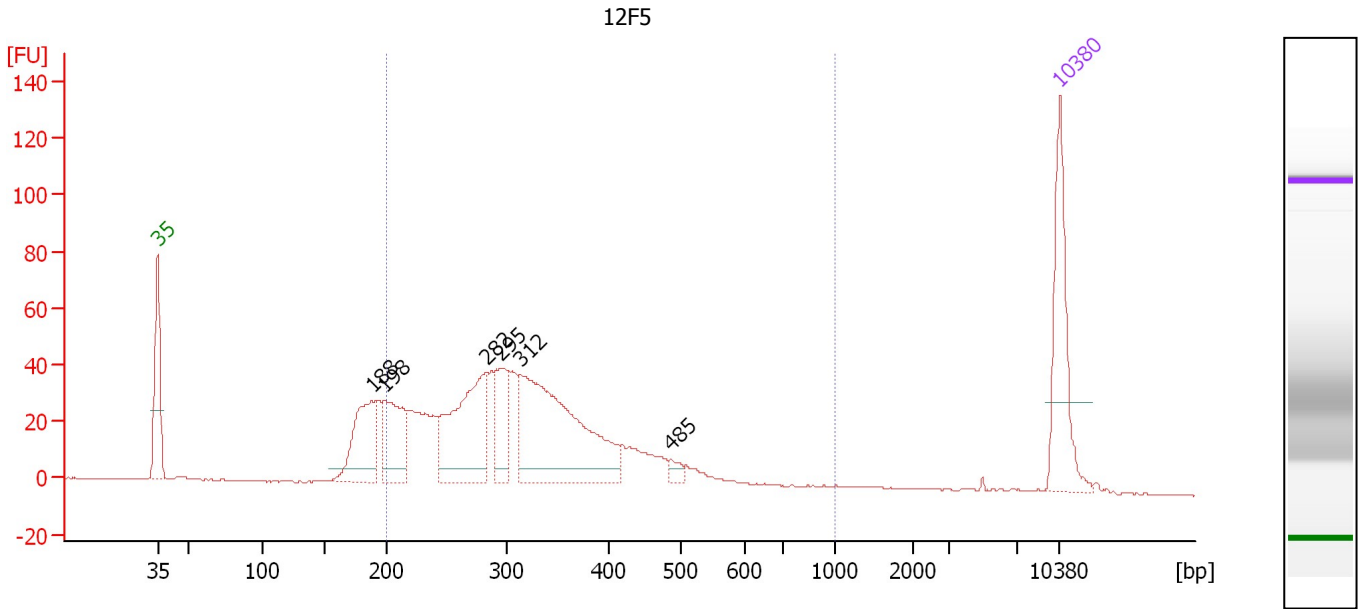
**Region table for sample 9 : 12F4**

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	306	911.30	968.8	4,857.5	81	29.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
 Modified: 10/25/2019 2:04:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 12F5**

Number of peaks found: 6                      Corr. Area 1: 851.7  
 Noise: 0.2

**Peak table for sample 10 : 12F5**

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	188	95.82	772.6		59.65
3	198	88.54	677.4		60.62
4	282	151.67	813.5		68.51
5	295	59.65	306.1		69.70
6	312	252.24	1,224.5		71.11
7	485	8.25	25.8		82.84
8	10,380	75.00	10.9	Upper Marker	113.00

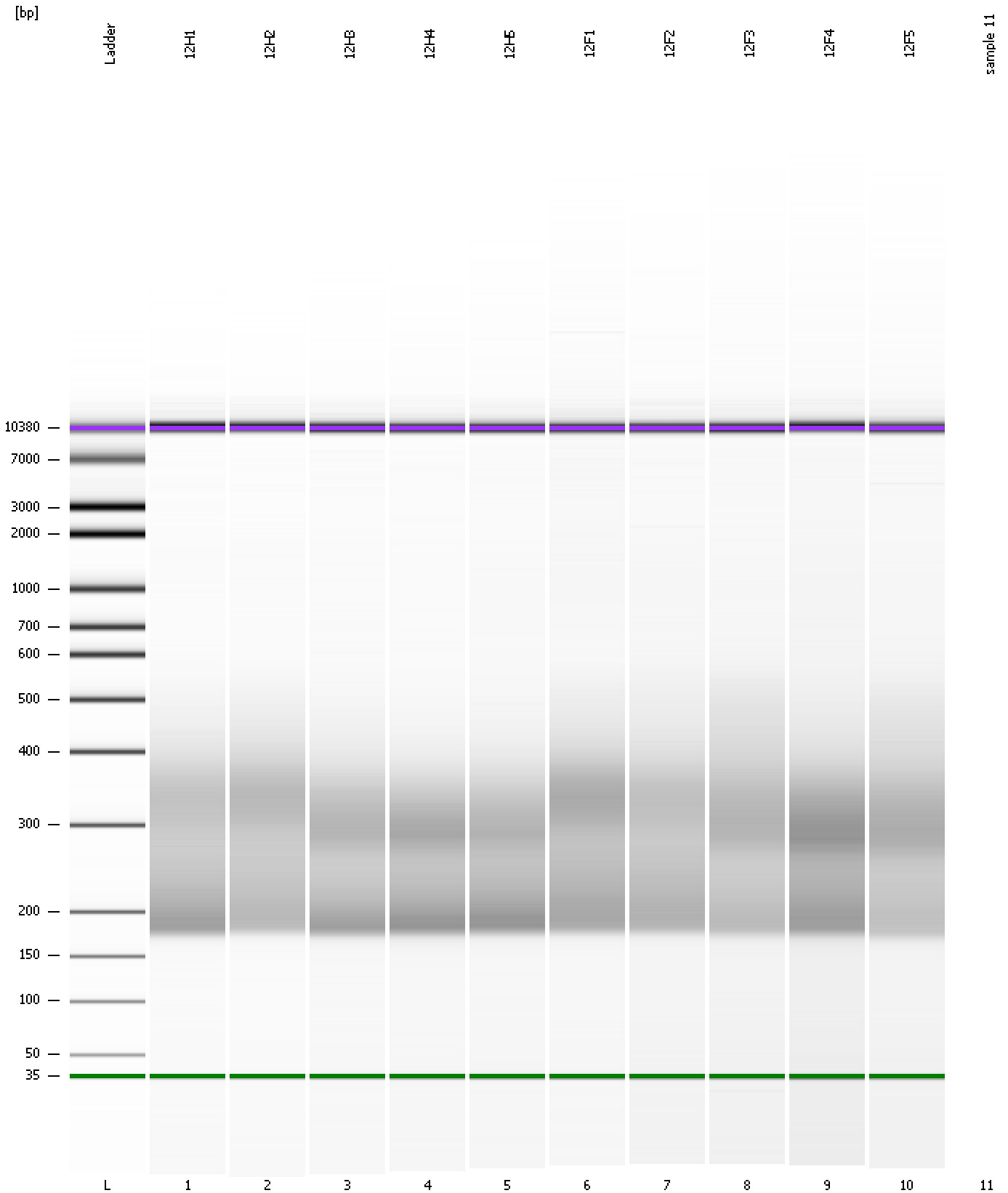
**Region table for sample 10 : 12F5**

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	327	779.65	851.7	3,959.4	84	30.5

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
Modified: 10/25/2019 2:04:20 PM

**Gel Image**

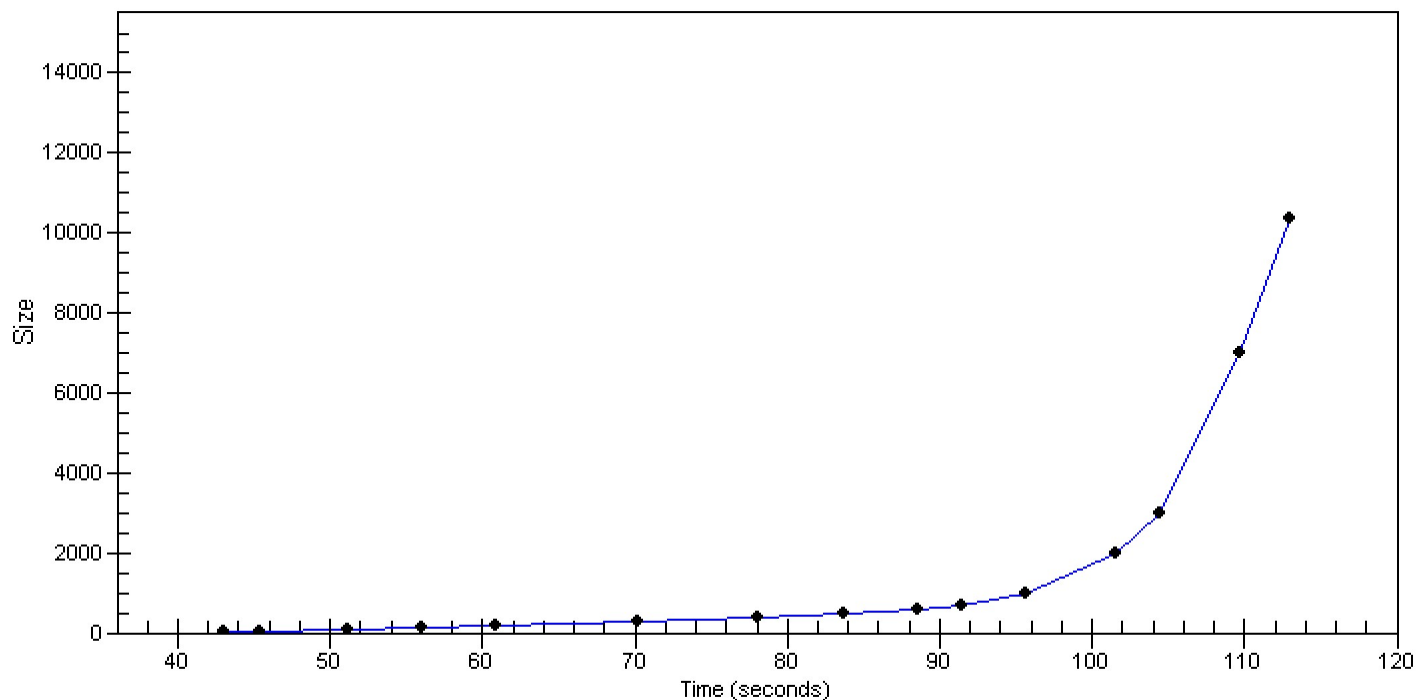


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
Modified: 10/25/2019 2:04:20 PM

**Curves**

**Standard Curve**





Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
Modified: 10/25/2019 2:04:20 PM

**Invalid Samples**

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-25\2019-10-25\_002.xad

Created: 10/25/2019 1:25:55 PM  
 Modified: 10/25/2019 2:04:20 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 11)		Instrument	Run		10/25/2019 2:04:19 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\2019-10-25\2019-10-25_002.xad)		Instrument	Run		10/25/2019 1:26:01 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		10/25/2019 1:26:01 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/25/2019 1:26:01 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/25/2019 1:26:01 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		10/25/2019 1:26:01 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/25/2019 1:26:01 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/25/2019 1:26:01 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1