

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
Modified: 1/29/2019 4:23:04 PM

**Electrophoresis File Run Summary**

Instrument Information:

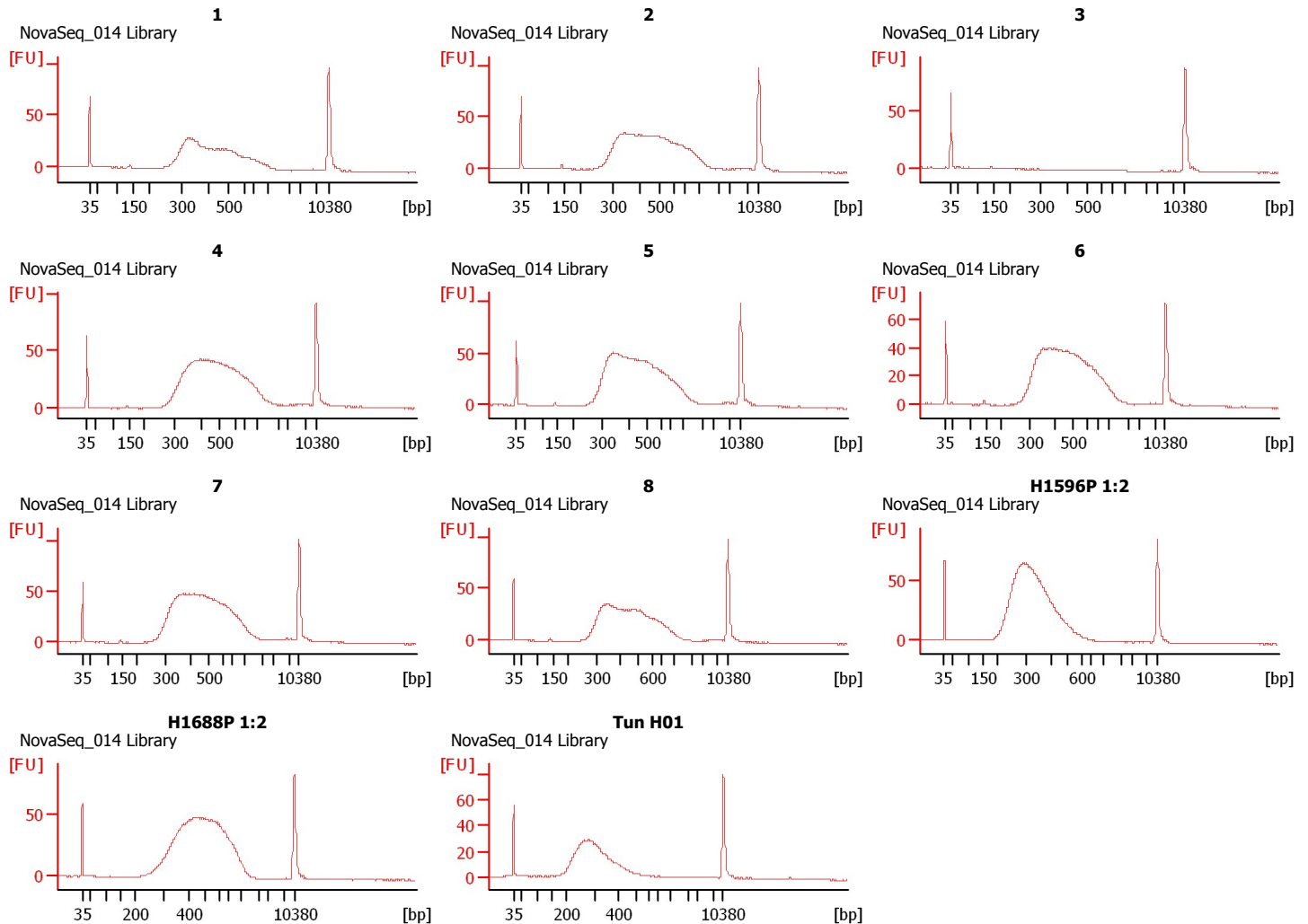
Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

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\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
Modified: 1/29/2019 4:23:04 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
1	NovaSeq_014 Library	<input type="checkbox"/>	✓			
2	NovaSeq_014 Library	<input type="checkbox"/>	✓			
3	NovaSeq_014 Library	<input type="checkbox"/>	✓			
4	NovaSeq_014 Library	<input type="checkbox"/>	✓			
5	NovaSeq_014 Library	<input type="checkbox"/>	✓			
6	NovaSeq_014 Library	<input type="checkbox"/>	✓			
7	NovaSeq_014 Library	<input type="checkbox"/>	✓			
8	NovaSeq_014 Library	<input type="checkbox"/>	✓			
H1596P 1:2	NovaSeq_014 Library	<input type="checkbox"/>	✓			
H1688P 1:2	NovaSeq_014 Library	<input type="checkbox"/>	✓			
Tun H01	NovaSeq_014 Library	<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\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
Modified: 1/29/2019 4:23:04 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

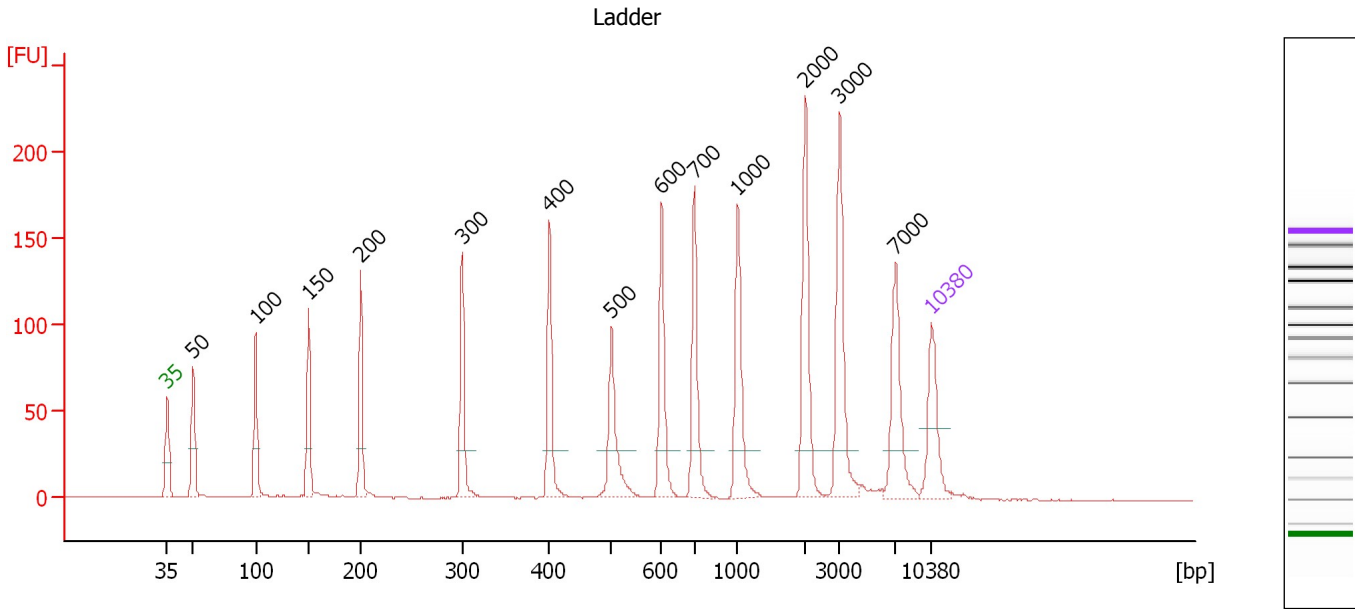
**Ladder**

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\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
 Modified: 1/29/2019 4:23:04 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

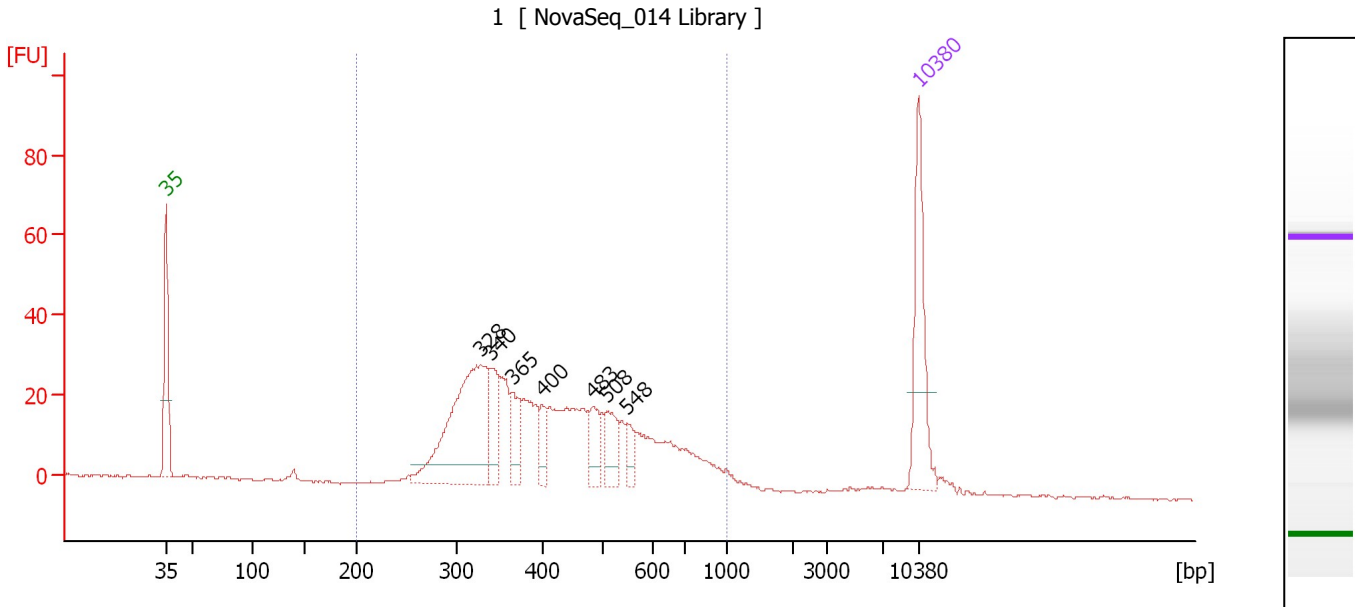
**Peak table for Ladder**

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	45.39
3	100	150.00	2,272.7	Ladder Peak	51.11
4	150	150.00	1,515.2	Ladder Peak	55.94
5	200	150.00	1,136.4	Ladder Peak	60.73
6	300	150.00	757.6	Ladder Peak	70.01
7	400	150.00	568.2	Ladder Peak	78.02
8	500	150.00	454.5	Ladder Peak	83.69
9	600	150.00	378.8	Ladder Peak	88.28
10	700	150.00	324.7	Ladder Peak	91.31
11	1,000	150.00	227.3	Ladder Peak	95.27
12	2,000	150.00	113.6	Ladder Peak	101.42
13	3,000	150.00	75.8	Ladder Peak	104.60
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\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
 Modified: 1/29/2019 4:23:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 1**

Number of peaks found: 7                      Corr. Area 1: 621.5  
 Noise: 0.3

**Peak table for sample 1 : 1**

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	328	222.07	1,026.4		72.24
3	340	48.57	216.3		73.23
4	365	35.98	149.4		75.22
5	400	21.67	82.1		78.00
6	483	30.99	97.2		82.72
7	508	34.83	103.9		84.06
8	548	18.29	50.6		85.89
9	10,380	75.00	10.9	Upper Marker	113.00

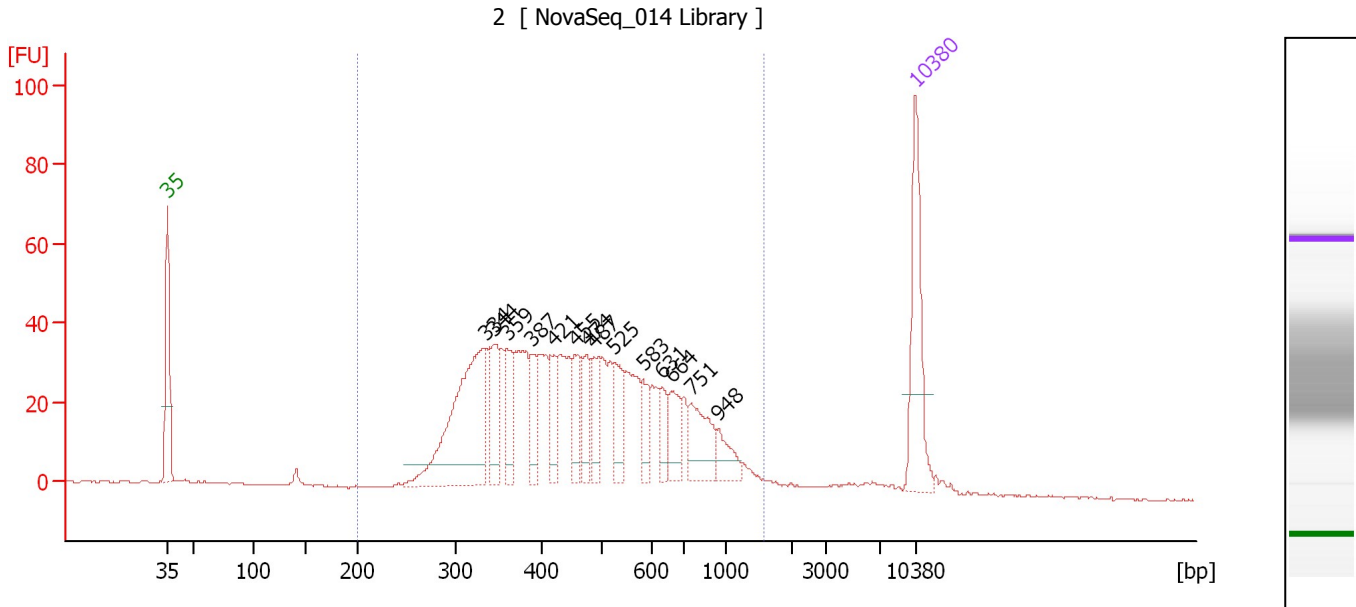
**Region table for sample 1 : 1**

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	443	765.85	621.5	2,938.5	97	31.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
 Modified: 1/29/2019 4:23:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 2**

Number of peaks found: 14                      Corr. Area 1: 1,031.9  
 Noise: 0.2

**Peak table for sample 2 : 2**

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	334	216.10	981.4		72.71
3	344	62.29	274.7		73.51
4	359	47.43	200.1		74.75
5	387	35.29	138.1		77.00
6	421	33.31	120.0		79.20
7	455	36.95	123.0		81.15
8	474	35.98	114.9		82.24
9	487	33.30	103.6		82.94
10	525	39.42	113.8		84.84
11	583	22.99	59.8		87.49
12	631	22.34	53.6		89.23
13	664	31.98	72.9		90.23
14	751	51.21	103.4		91.98
15	948	21.93	35.1		94.58
16	10,380	75.00	10.9	Upper Marker	113.00

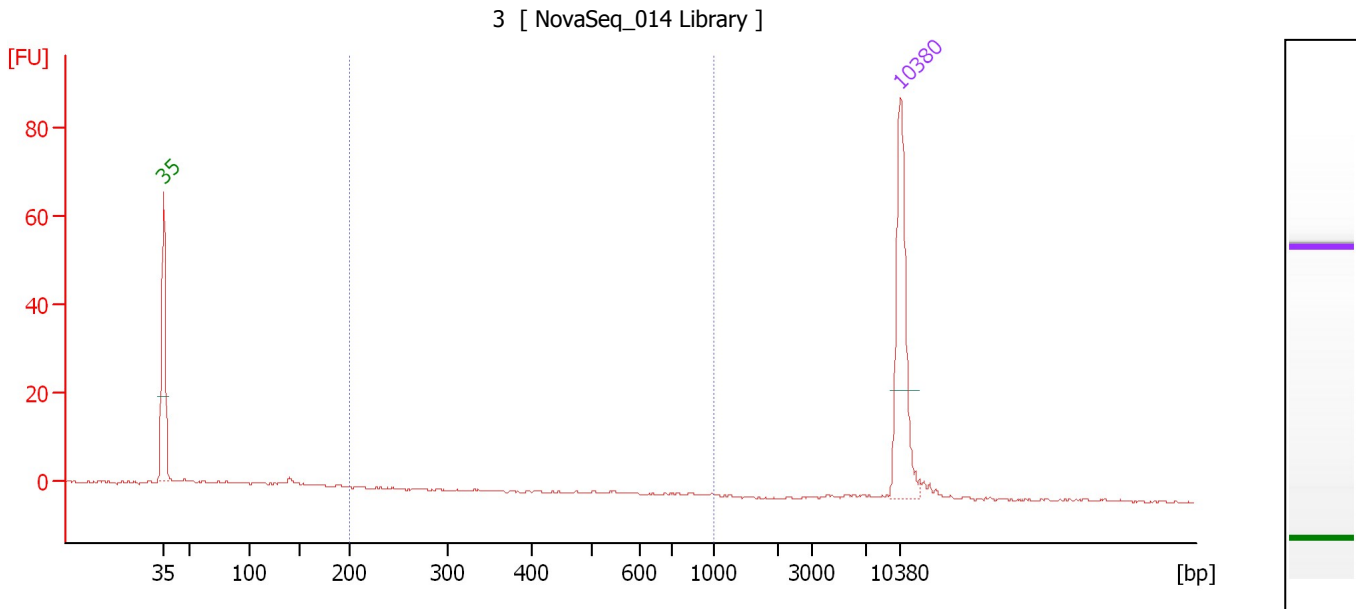
**Region table for sample 2 : 2**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,581	504	1,190.60	1,031.9	4,213.5	94	40.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
 Modified: 1/29/2019 4:23:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 3**

Number of peaks found: 0                      Corr. Area 1: 0.1  
 Noise: 0.3

**Peak table for sample 3 : 3**

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	10,380	75.00	10.9	Upper Marker	113.00

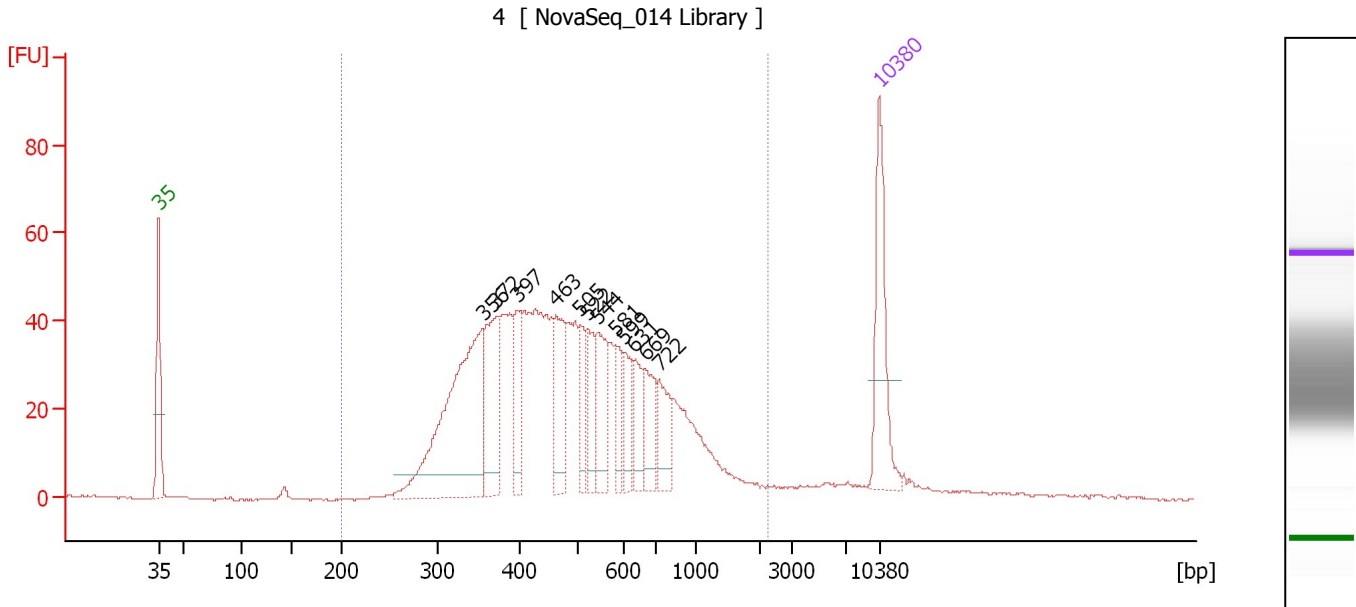
**Region table for sample 3 : 3**

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	281	0.14	0.1	0.9	0	45.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
 Modified: 1/29/2019 4:23:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 4**

Number of peaks found: 12                      Corr. Area 1: 1,138.2  
 Noise: 0.3

**Peak table for sample 4 : 4**

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	356	276.25	1,175.6		74.50
3	372	98.07	399.2		75.80
4	397	48.81	186.1		77.82
5	463	69.17	226.3		81.60
6	505	37.58	112.7		83.93
7	522	40.95	118.8		84.71
8	544	63.82	177.9		85.69
9	581	31.36	81.8		87.40
10	599	36.98	93.5		88.23
11	631	36.78	88.3		89.22
12	669	40.89	92.7		90.36
13	722	39.79	83.5		91.60
14	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : 4**

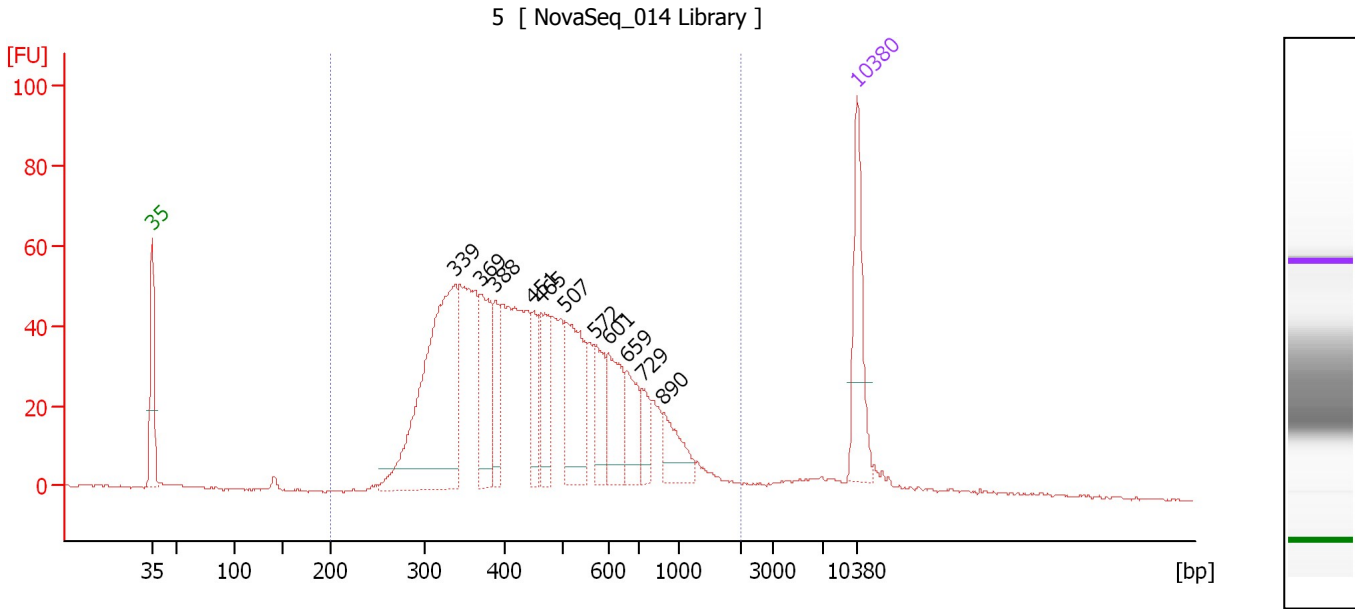
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	2,248	537	1,392.32	1,138.2	4,697.0	95	47.4



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
 Modified: 1/29/2019 4:23:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 5**

Number of peaks found: 11                      Corr. Area 1: 1,358.1  
 Noise: 0.3

**Peak table for sample 5 : 5**

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	339	357.01	1,597.9		73.10
3	369	108.85	447.0		75.54
4	388	50.71	198.0		77.07
5	451	48.22	162.2		80.89
6	465	63.93	208.5		81.68
7	507	122.92	367.3		84.01
8	572	50.88	134.9		86.98
9	601	72.61	183.1		88.31
10	659	48.64	111.9		90.06
11	729	28.10	58.4		91.70
12	890	41.28	70.3		93.82
13	10,380	75.00	10.9	Upper Marker	113.00

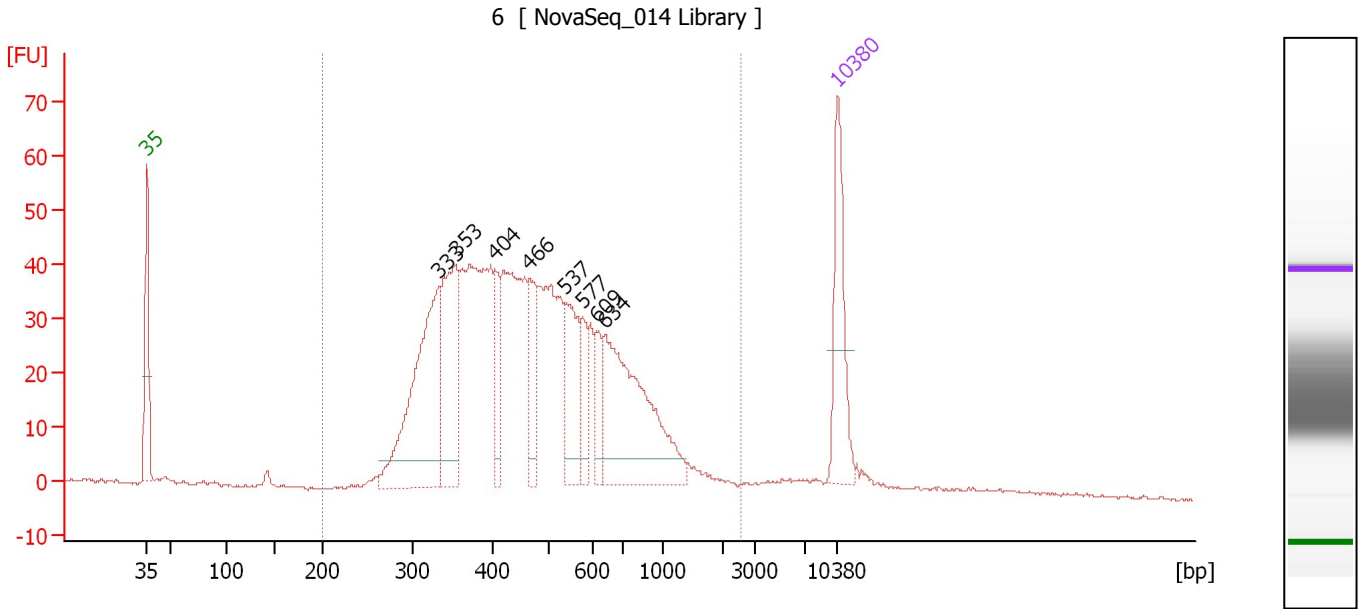
**Region table for sample 5 : 5**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	2,051	505	1,648.26	1,358.1	5,878.5	94	46.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
 Modified: 1/29/2019 4:23:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 6**

Number of peaks found: 8                      Corr. Area 1: 1,090.4  
 Noise: 0.3

**Peak table for sample 6 : 6**

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	333	244.61	1,114.4		72.62
3	353	149.62	641.3		74.30
4	404	51.42	192.9		78.24
5	466	57.76	187.9		81.76
6	537	82.86	233.9		85.38
7	577	35.37	92.9		87.22
8	609	31.66	78.7		88.57
9	634	203.05	485.0		89.32
10	10,380	75.00	10.9	Upper Marker	113.00

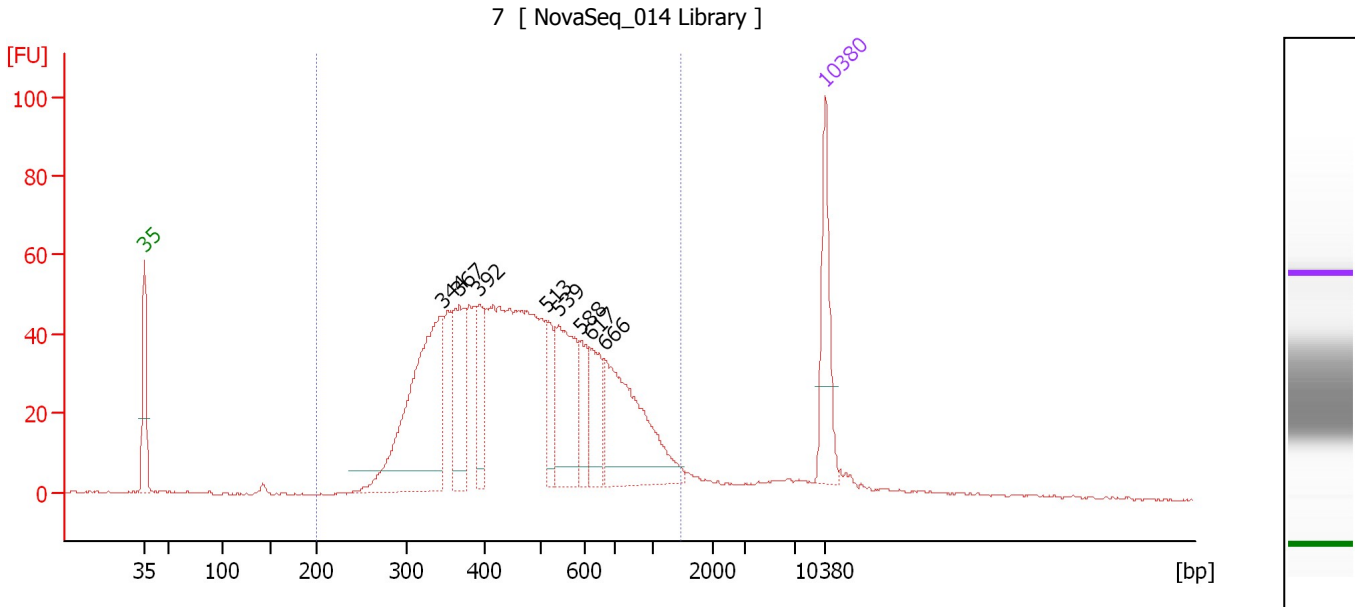
**Region table for sample 6 : 6**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	2,530	517	1,582.24	1,090.4	5,508.2	96	47.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
 Modified: 1/29/2019 4:23:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 7**

Number of peaks found: 8                      Corr. Area 1: 1,320.9  
 Noise: 0.3

**Peak table for sample 7 : 7**

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	314.76	1,385.1		73.56
3	367	110.00	454.3		75.37
4	392	58.61	226.4		77.40
5	513	50.22	148.3		84.30
6	539	142.45	400.1		85.50
7	588	46.83	120.6		87.75
8	617	62.53	153.6		88.79
9	666	191.63	436.2		90.27
10	10,380	75.00	10.9	Upper Marker	113.00

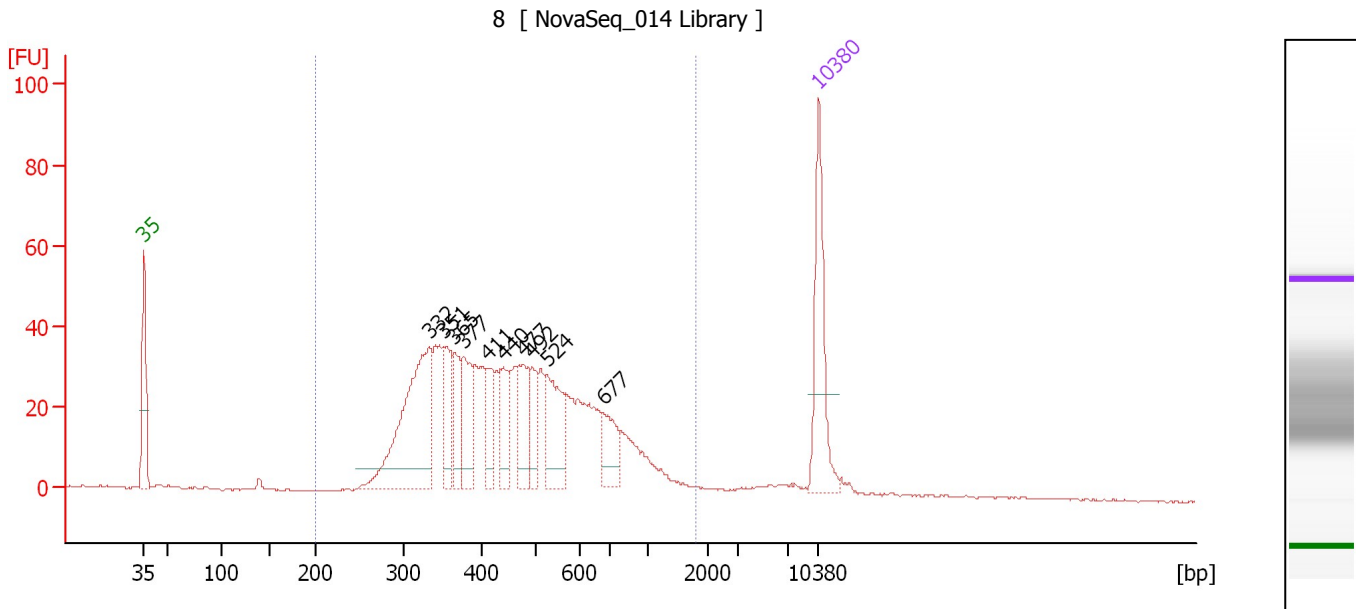
**Region table for sample 7 : 7**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,448	507	1,677.72	1,320.9	5,827.9	93	38.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
 Modified: 1/29/2019 4:23:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 8**

Number of peaks found: 10                      Corr. Area 1: 905.9  
 Noise: 0.3

**Peak table for sample 8 : 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	332	208.26	950.3		72.58
3	351	56.73	245.1		74.07
4	365	37.73	156.6		75.24
5	377	56.87	228.6		76.18
6	411	35.93	132.4		78.66
7	440	44.24	152.5		80.27
8	477	53.57	170.3		82.37
9	492	31.21	96.0		83.25
10	524	68.87	199.1		84.80
11	677	36.23	81.1		90.61
12	10,380	75.00	10.9	Upper Marker	113.00

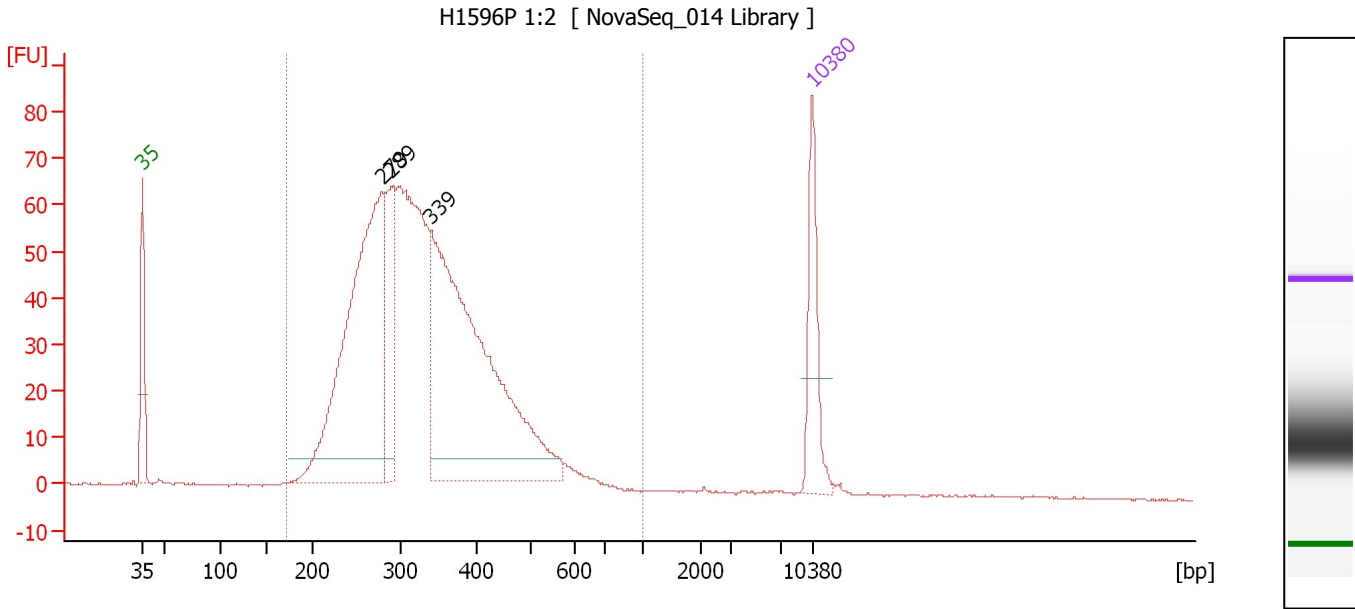
**Region table for sample 8 : 8**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,820	493	1,052.45	905.9	3,776.0	96	42.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
 Modified: 1/29/2019 4:23:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : H1596P 1:2**

Number of peaks found: 3                      Corr. Area 1: 1,347.3  
 Noise: 0.2

**Peak table for sample 9 : H1596P 1:2**

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	279	581.90	3,158.2		68.08
3	289	140.71	736.7		69.03
4	339	653.28	2,918.3		73.15
5	10,380	75.00	10.9	Upper Marker	113.00

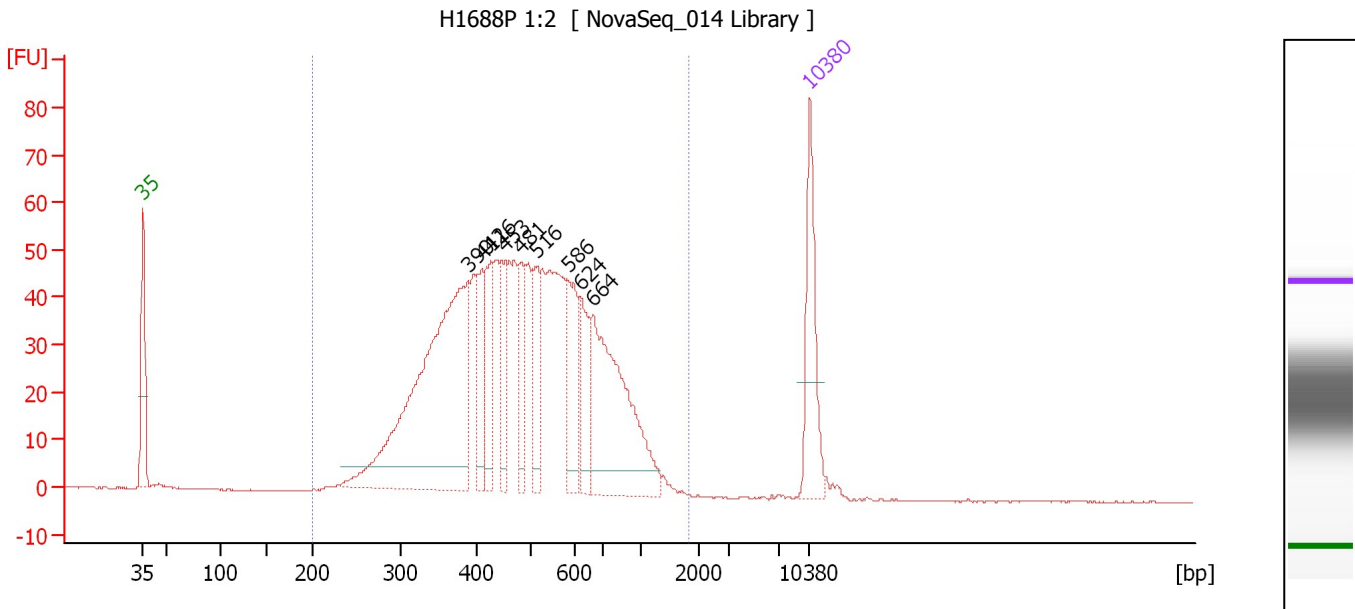
**Region table for sample 9 : H1596P 1:2**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
171	1,000	337	1,919.25	1,347.3	9,354.8	97	26.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
 Modified: 1/29/2019 4:23:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : H1688P 1:2**

Number of peaks found: 9                      Corr. Area 1: 1,239.4  
 Noise: 0.2

**Peak table for sample 10 : H1688P 1:2**

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	390	464.87	1,808.0		77.19
3	411	61.17	225.5		78.64
4	426	66.98	238.4		79.48
5	453	62.32	208.3		81.05
6	481	56.13	176.8		82.62
7	516	65.29	191.9		84.41
8	586	71.39	184.5		87.65
9	624	56.83	138.1		89.00
10	664	222.46	507.5		90.23
11	10,380	75.00	10.9	Upper Marker	113.00

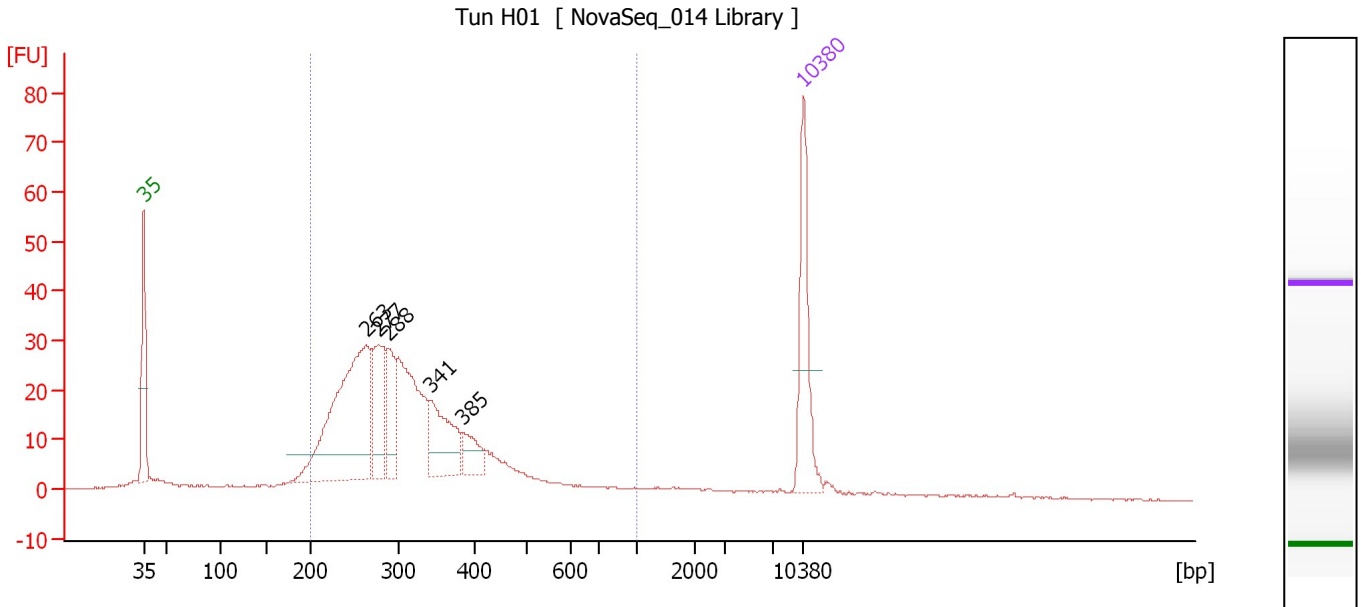
**Region table for sample 10 : H1688P 1:2**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,825	514	1,659.35	1,239.4	5,627.6	99	36.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
 Modified: 1/29/2019 4:23:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : Tun H01**

Number of peaks found: 5                      Corr. Area 1: 570.6  
 Noise: 0.2

**Peak table for sample 11 : Tun H01**

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	263	297.88	1,718.8		66.54
3	277	88.38	483.0		67.90
4	288	60.98	320.6		68.92
5	341	82.33	365.4		73.33
6	385	30.64	120.5		76.84
7	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 11 : Tun H01**

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	324	936.07	570.6	4,792.6	87	31.8

---

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-01-29\2019-01-29\_002.xad

Created: 1/29/2019 3:41:47 PM  
Modified: 1/29/2019 4:23:04 PM

**Gel Image**