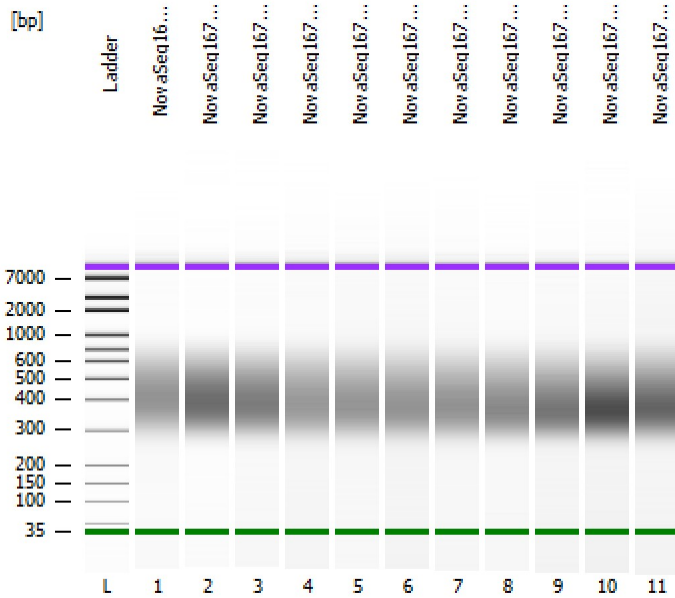


Assay Class: High Sensitivity DNA Assay  
Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
Modified: 5/29/2020 1:26:41 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 (x86)\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

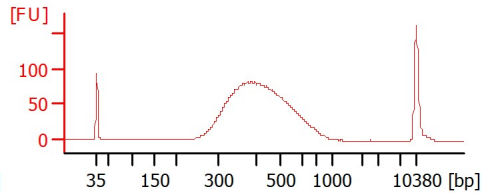
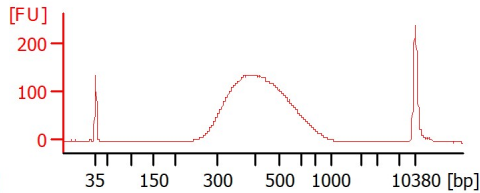
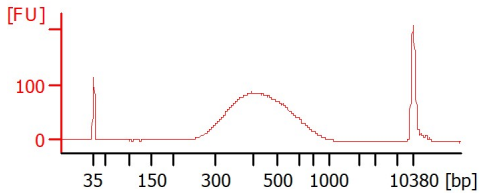
Chip Information:

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

NovaSeq167 - 5 library

NovaSeq167 - 11 library

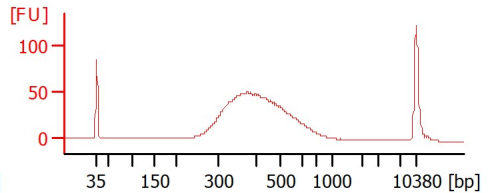
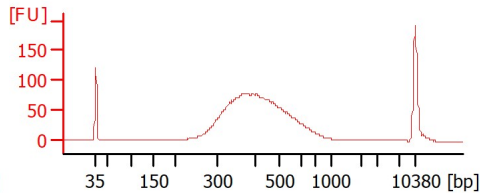
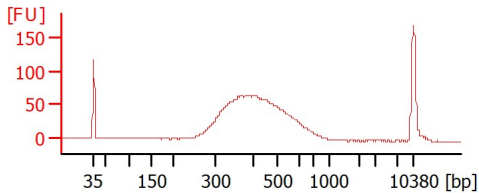
NovaSeq167 - 12 library



NovaSeq167 - 13 library

NovaSeq167 - 14 library

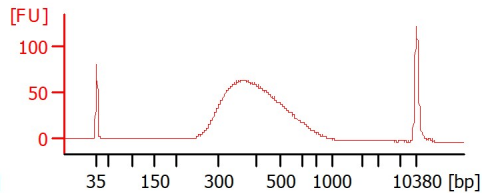
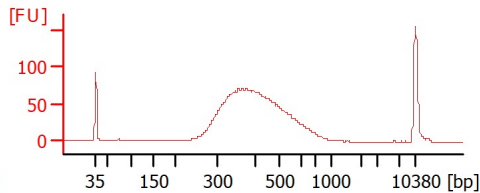
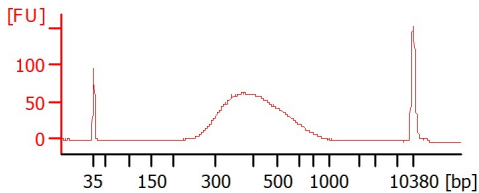
NovaSeq167 - 15 library



NovaSeq167 - 16 library

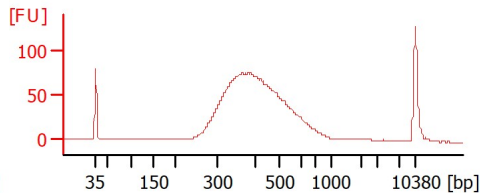
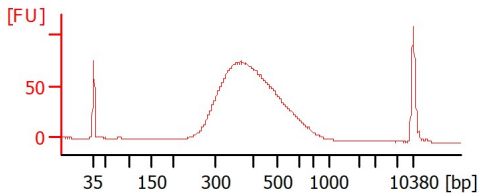
NovaSeq167 - 17 library

NovaSeq167 - 18 library



NovaSeq167 - 19 library

NovaSeq167 - 20 library



Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
 Modified: 5/29/2020 1:26:41 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
NovaSeq167 - 5 library		<input type="checkbox"/>	✓			
NovaSeq167 - 11 library		<input type="checkbox"/>	✓			
NovaSeq167 - 12 library		<input type="checkbox"/>	✓			
NovaSeq167 -13 library		<input type="checkbox"/>	✓			
NovaSeq167 - 14 library		<input type="checkbox"/>	✓			
NovaSeq167 - 15 library		<input type="checkbox"/>	✓			
NovaSeq167 - 16 library		<input type="checkbox"/>	✓			
NovaSeq167 - 17 library		<input type="checkbox"/>	✓			
NovaSeq167 - 18 library		<input type="checkbox"/>	✓			
NovaSeq167 - 19 library		<input type="checkbox"/>	✓			
NovaSeq167 - 20 library		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
 Modified: 5/29/2020 1:26:41 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

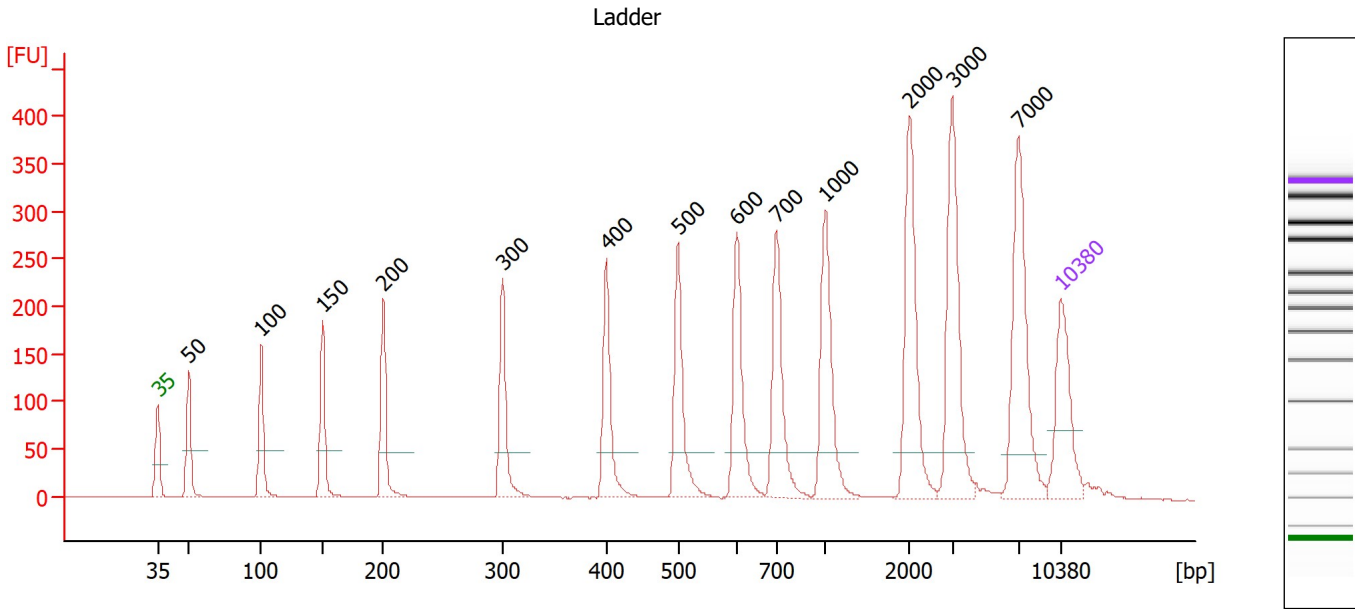
**Ladder**

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: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
 Modified: 5/29/2020 1:26:41 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.3

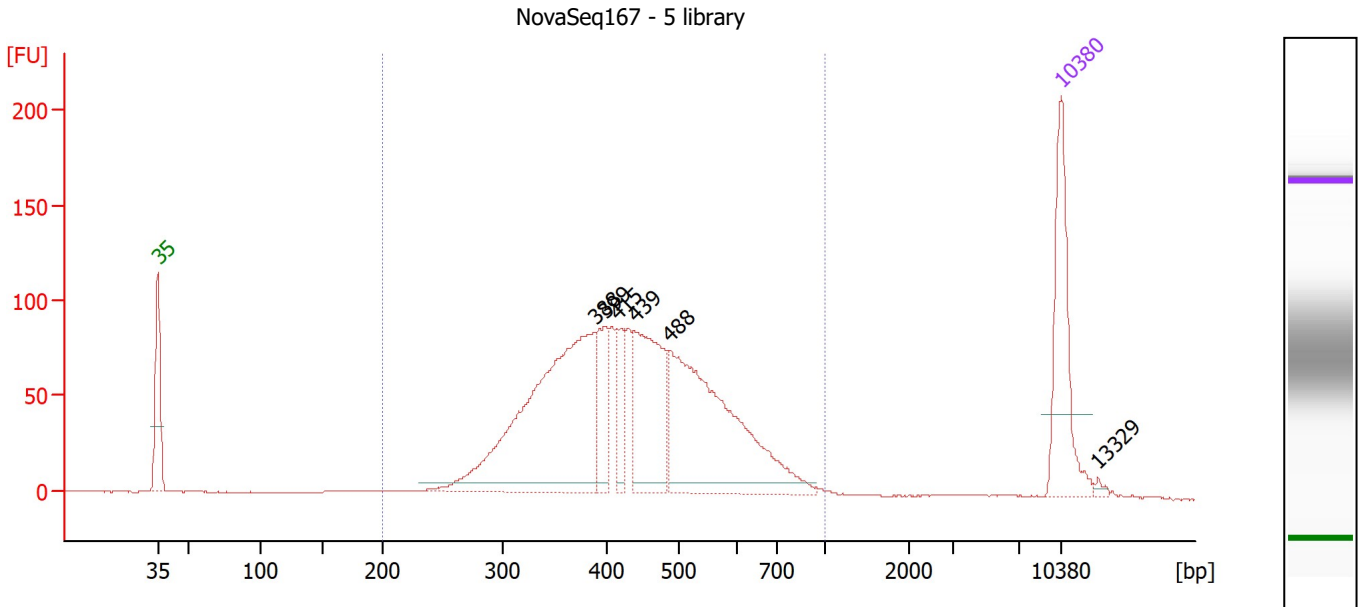
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
 Modified: 5/29/2020 1:26:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : NovaSeq167 - 5 library**

Number of peaks found: 6                      Corr. Area 1: 1,855.9  
 Noise: 0.3

**Peak table for sample 1 : NovaSeq167 - 5 library**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	388	321.12	1,254.0	
3	399	51.23	194.7	
4	415	37.18	135.6	
5	439	129.10	445.7	
6	488	248.60	771.7	
7	10,380	75.00	10.9	Upper Marker
8	13,329	0.00	0.0	

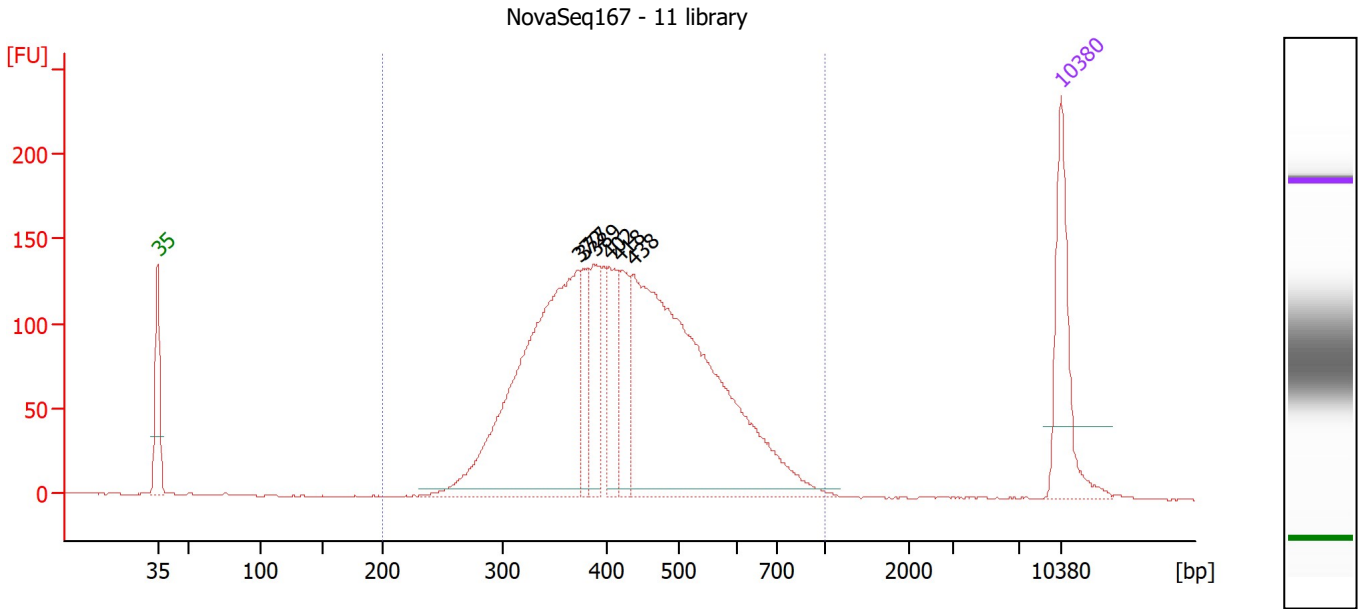
**Region table for sample 1 : NovaSeq167 - 5 library**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,855.9	98	446	25.3	896.93	3,305.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
 Modified: 5/29/2020 1:26:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : NovaSeq167 - 11 library**

Number of peaks found: 6                      Corr. Area 1: 2,815.1  
 Noise: 0.3

**Peak table for sample 2 : NovaSeq167 - 11 library**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	372	432.71	1,760.3	
3	377	53.81	216.3	
4	389	69.39	270.6	
5	402	62.90	237.1	
6	418	65.03	235.8	
7	438	531.78	1,841.3	
8	10,380	75.00	10.9	Upper Marker

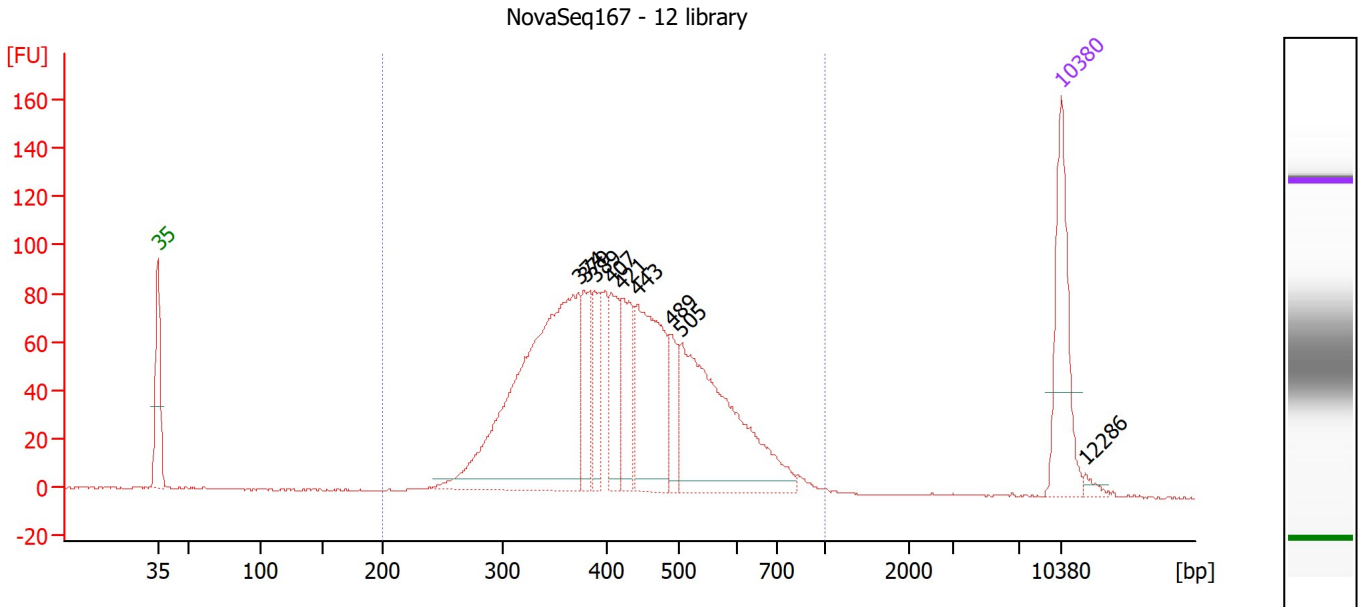
**Region table for sample 2 : NovaSeq167 - 11 library**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	2,815.1	100	438	24.6	1,248.59	4,654.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
 Modified: 5/29/2020 1:26:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : NovaSeq167 - 12 library**

Number of peaks found: 9                      Corr. Area 1: 1,736.4  
 Noise: 0.3

**Peak table for sample 3 : NovaSeq167 - 12 library**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	374	404.23	1,639.5	
3	379	48.25	193.1	
4	389	50.78	197.8	
5	407	55.21	205.5	
6	421	63.19	227.3	
7	443	152.31	521.5	
8	489	33.13	102.6	
9	505	234.72	704.4	
10	10,380	75.00	10.9	Upper Marker
11	12,286	0.00	0.0	

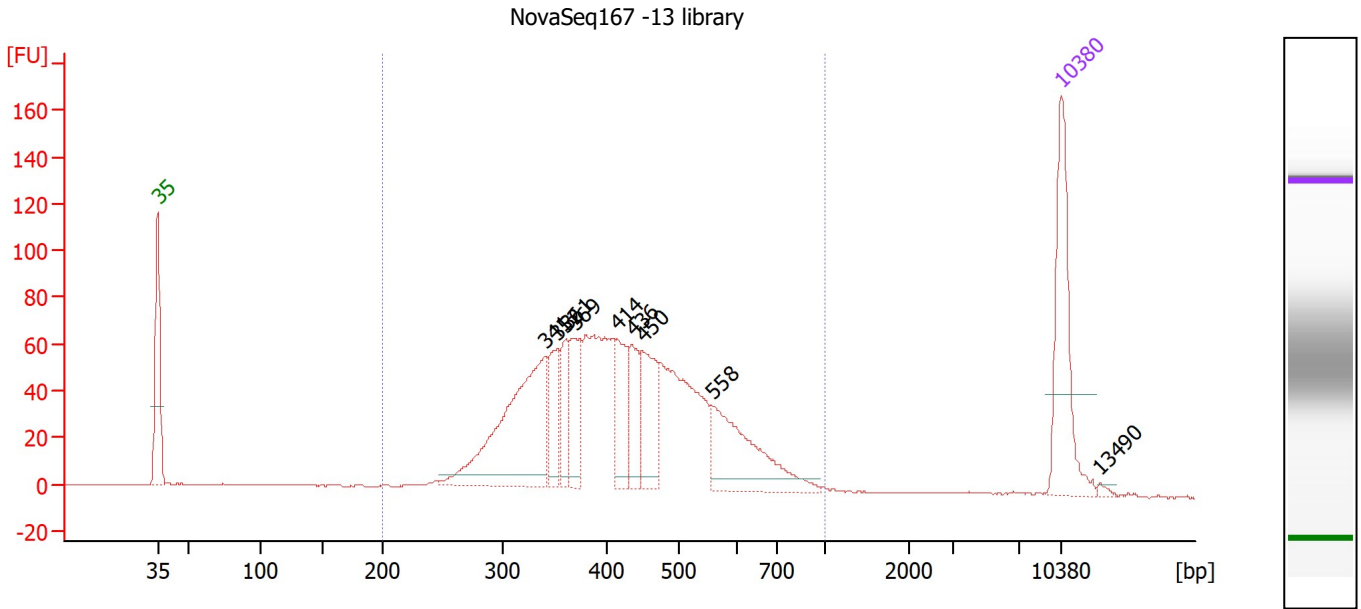
**Region table for sample 3 : NovaSeq167 - 12 library**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,736.4	99	435	24.8	1,139.49	4,283.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
 Modified: 5/29/2020 1:26:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : NovaSeq167 -13 library**

Number of peaks found: 9                      Corr. Area 1: 1,432.1  
 Noise: 0.3

**Peak table for sample 4 : NovaSeq167 -13 library**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	341	185.47	825.1	
3	352	38.53	165.8	
4	361	34.96	146.7	
5	369	48.94	201.2	
6	414	46.48	170.3	
7	436	41.90	145.6	
8	450	54.26	182.8	
9	558	93.09	252.7	
10	10,380	75.00	10.9	Upper Marker
11	13,490	0.00	0.0	

**Region table for sample 4 : NovaSeq167 -13 library**

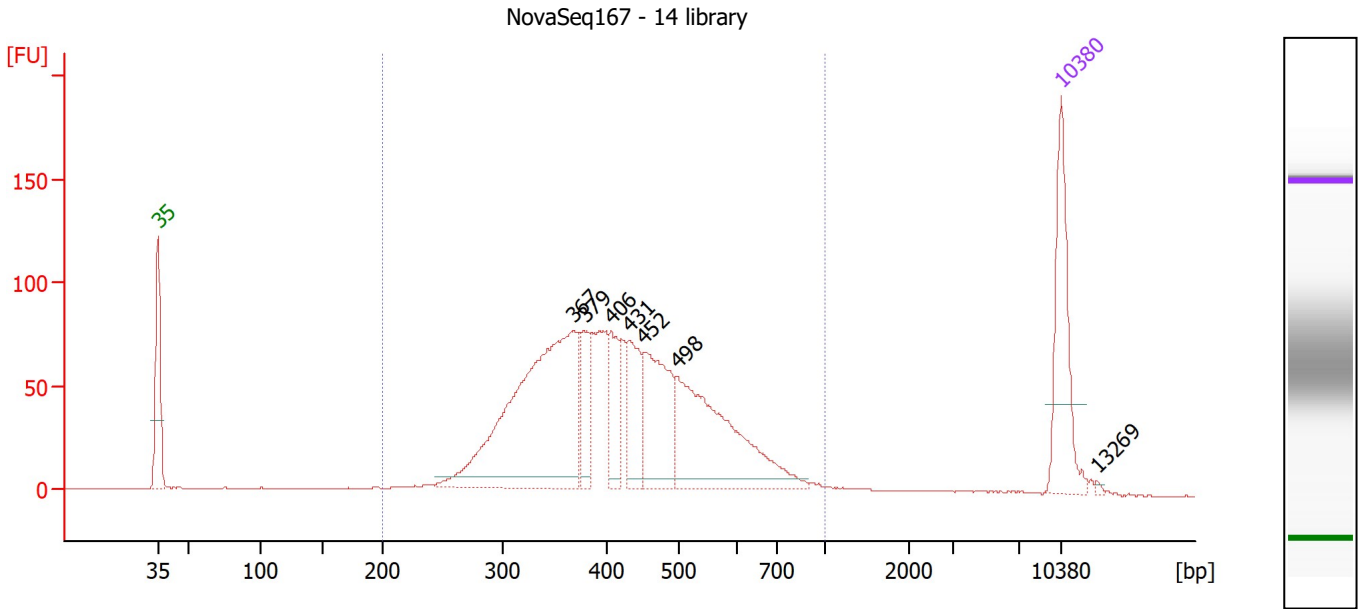
From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,432.1	97	433	25.8	873.70	3,322.7	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
 Modified: 5/29/2020 1:26:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : NovaSeq167 - 14 library**

Number of peaks found: 7                      Corr. Area 1: 1,712.3  
 Noise: 0.3

**Peak table for sample 5 : NovaSeq167 - 14 library**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	367	347.76	1,435.2	
3	379	45.40	181.7	
4	406	50.30	187.8	
5	431	58.94	207.4	
6	452	106.67	357.6	
7	498	192.47	585.4	
8	10,380	75.00	10.9	Upper Marker
9	13,269	0.00	0.0	

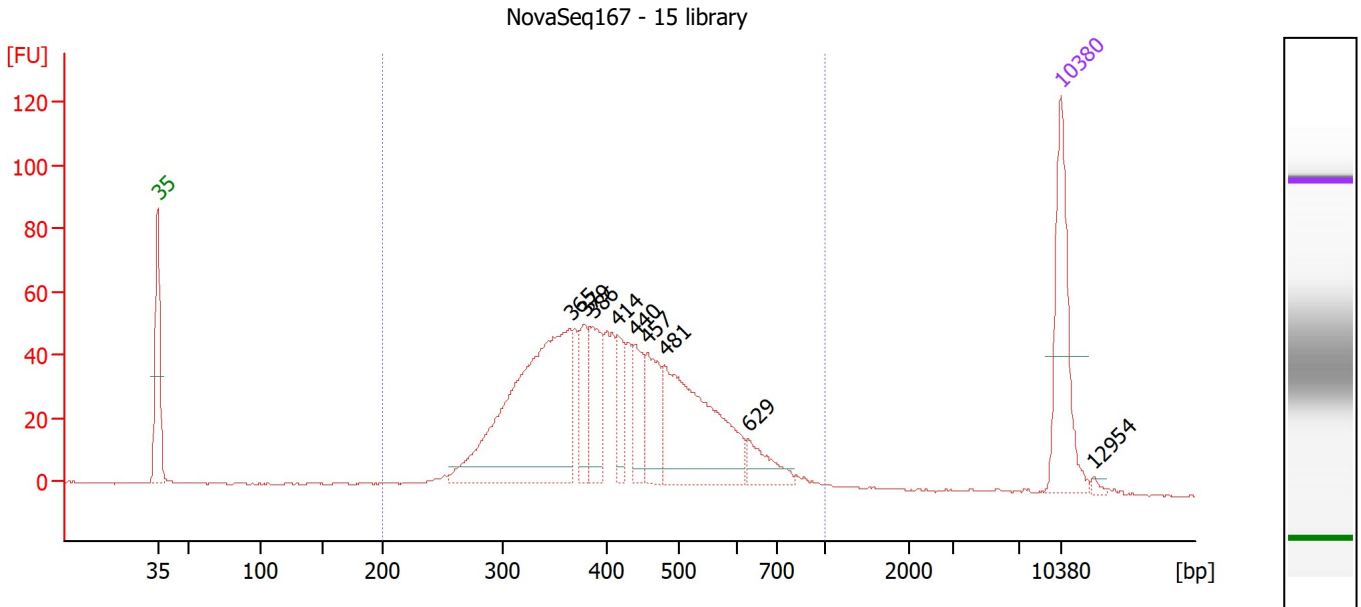
**Region table for sample 5 : NovaSeq167 - 14 library**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,712.3	94	431	26.7	1,006.90	3,860.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
 Modified: 5/29/2020 1:26:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : NovaSeq167 - 15 library**

Number of peaks found: 9                      Corr. Area 1: 1,093.3  
 Noise: 0.3

**Peak table for sample 6 : NovaSeq167 - 15 library**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	365	305.35	1,266.8	
3	379	42.95	171.6	
4	386	55.71	218.6	
5	414	35.20	128.8	
6	440	38.89	134.0	
7	457	54.05	179.4	
8	481	172.33	543.3	
9	629	26.72	64.3	
10	10,380	75.00	10.9	Upper Marker
11	12,954	0.00	0.0	

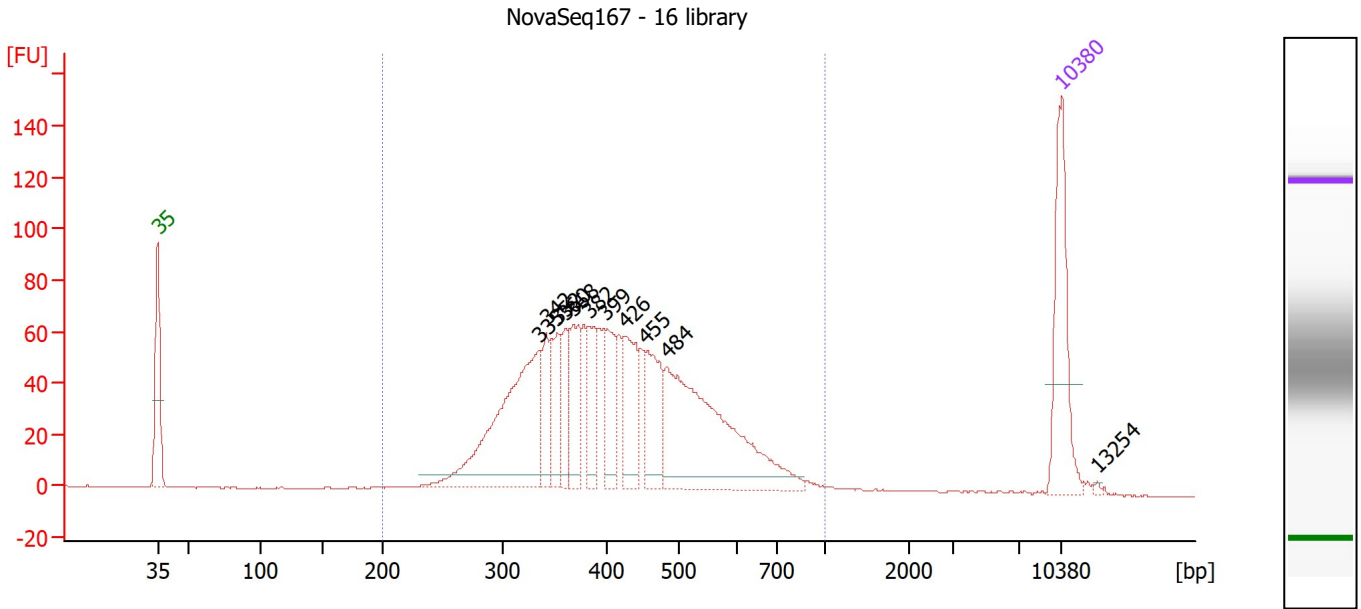
**Region table for sample 6 : NovaSeq167 - 15 library**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,093.3	96	428	26.3	938.28	3,613.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
 Modified: 5/29/2020 1:26:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : NovaSeq167 - 16 library**

Number of peaks found: 11                      Corr. Area 1: 1,381.5  
 Noise: 0.2

**Peak table for sample 7 : NovaSeq167 - 16 library**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	335	214.14	969.1	
3	342	40.18	178.1	
4	352	49.85	214.3	
5	360	41.21	173.4	
6	368	51.15	210.4	
7	382	43.30	171.7	
8	399	52.13	198.2	
9	426	66.34	235.7	
10	455	64.67	215.4	
11	484	231.61	724.5	
12	10,380	75.00	10.9	Upper Marker
13	13,254	0.00	0.0	

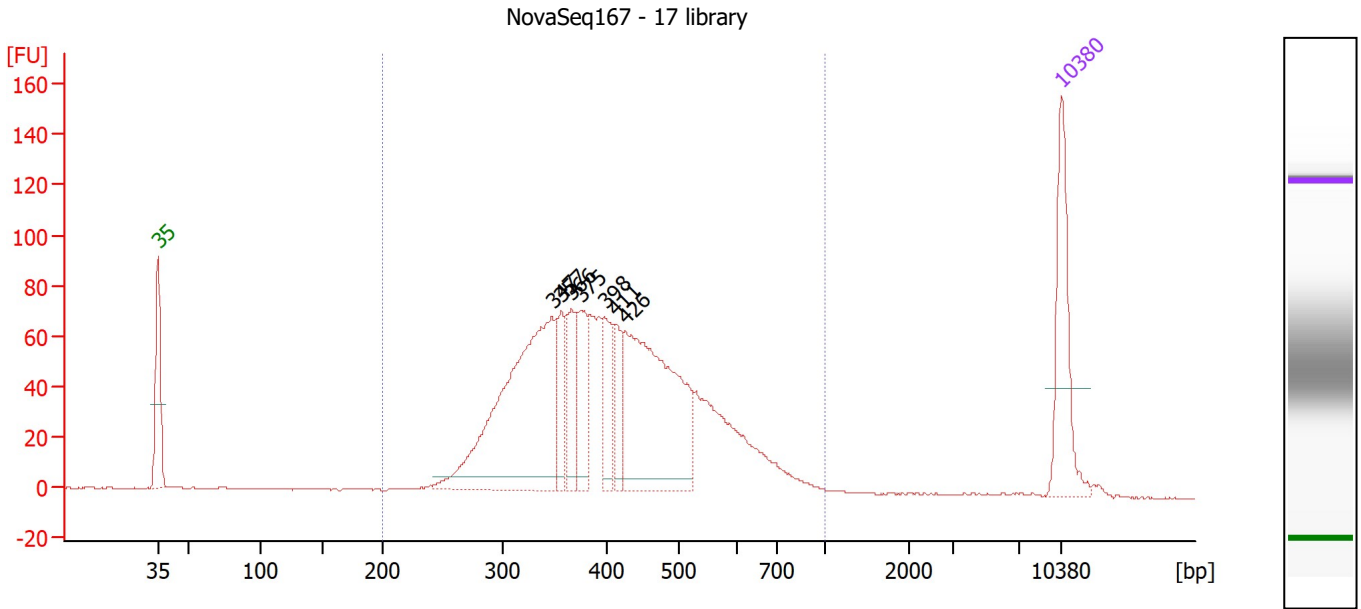
**Region table for sample 7 : NovaSeq167 - 16 library**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,381.5	97	428	26.3	1,023.37	3,938.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
 Modified: 5/29/2020 1:26:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : NovaSeq167 - 17 library**

Number of peaks found: 7                      Corr. Area 1: 1,522.5  
 Noise: 0.2

**Peak table for sample 8 : NovaSeq167 - 17 library**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	347	338.24	1,475.5	
3	357	47.00	199.6	
4	366	54.06	223.7	
5	375	63.55	256.8	
6	398	51.16	194.9	
7	411	39.49	145.5	
8	426	262.00	932.2	
9	10,380	75.00	10.9	Upper Marker

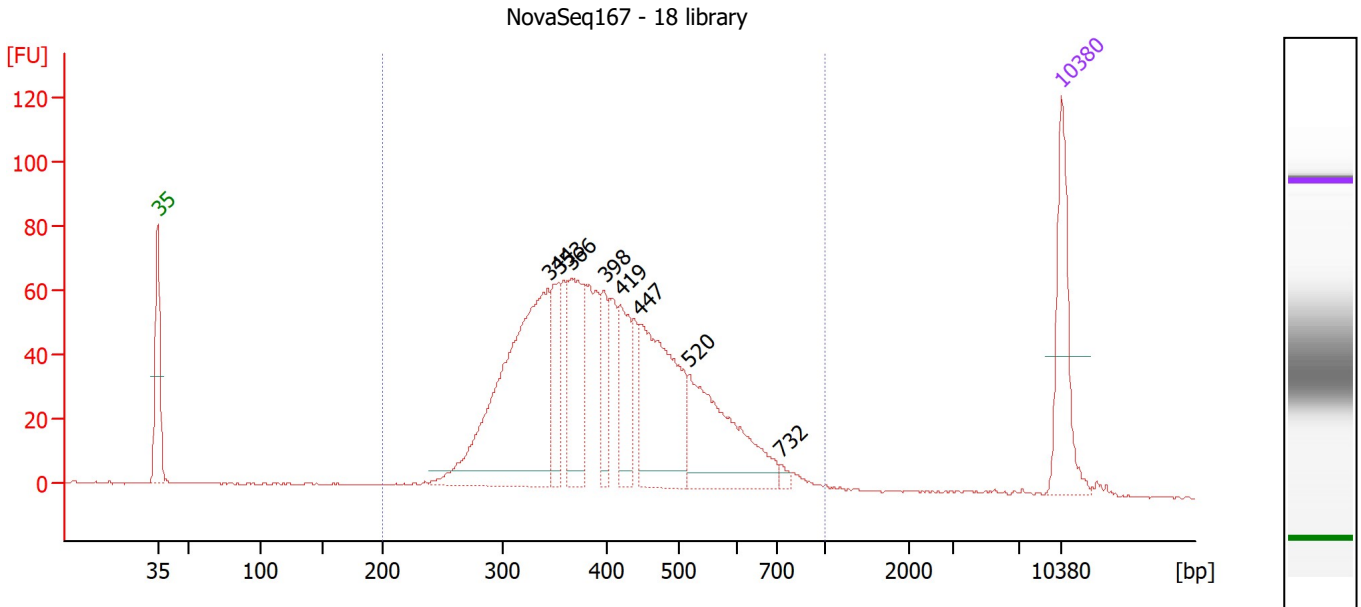
**Region table for sample 8 : NovaSeq167 - 17 library**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,522.5	98	423	26.0	1,131.23	4,393.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
 Modified: 5/29/2020 1:26:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : NovaSeq167 - 18 library**

Number of peaks found: 8                      Corr. Area 1: 1,335.4  
 Noise: 0.2

**Peak table for sample 9 : NovaSeq167 - 18 library**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	344	360.11	1,587.7	
3	353	63.81	273.8	
4	366	113.68	470.1	
5	398	47.92	182.5	
6	419	68.82	248.8	
7	447	186.72	633.4	
8	520	158.92	463.1	
9	732	5.33	11.0	
10	10,380	75.00	10.9	Upper Marker

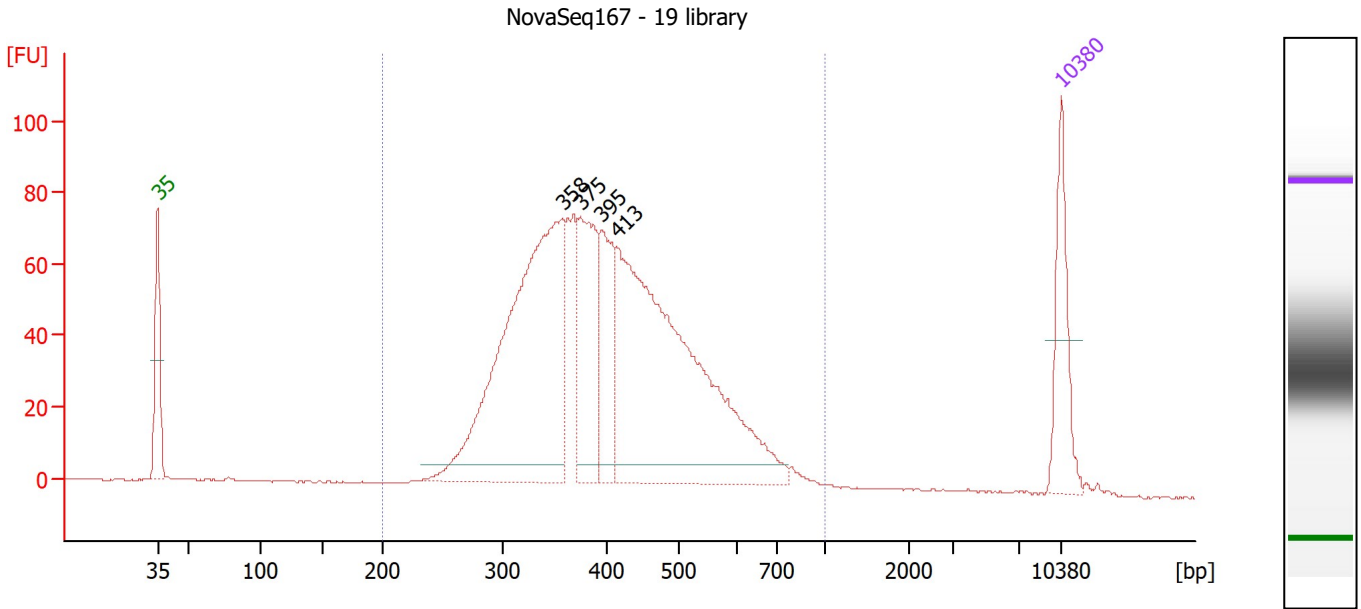
**Region table for sample 9 : NovaSeq167 - 18 library**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,335.4	97	419	25.8	1,281.68	5,016.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
 Modified: 5/29/2020 1:26:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : NovaSeq167 - 19 library**

Number of peaks found: 4                      Corr. Area 1: 1,491.4  
 Noise: 0.2

**Peak table for sample 10 : NovaSeq167 - 19 library**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	358	579.16	2,452.9	
3	375	179.64	726.1	
4	395	122.68	470.5	
5	413	617.19	2,263.7	
6	10,380	75.00	10.9	Upper Marker

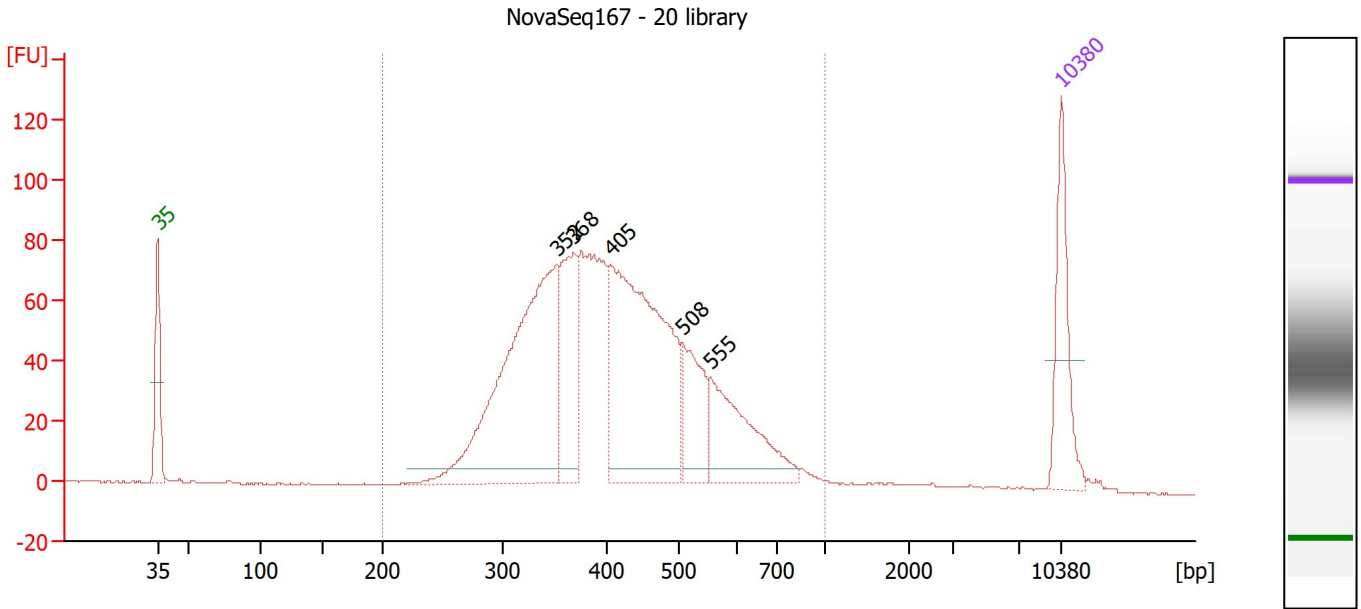
**Region table for sample 10 : NovaSeq167 - 19 library**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,491.4	98	415	25.0	1,674.06	6,577.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
 Modified: 5/29/2020 1:26:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : NovaSeq167 - 20 library**

Number of peaks found: 5                      Corr. Area 1: 1,593.1  
 Noise: 0.2

**Peak table for sample 11 : NovaSeq167 - 20 library**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	352	431.87	1,859.1	
3	368	132.89	547.3	
4	405	385.31	1,440.5	
5	508	88.82	264.9	
6	555	129.68	354.0	
7	10,380	75.00	10.9	Upper Marker

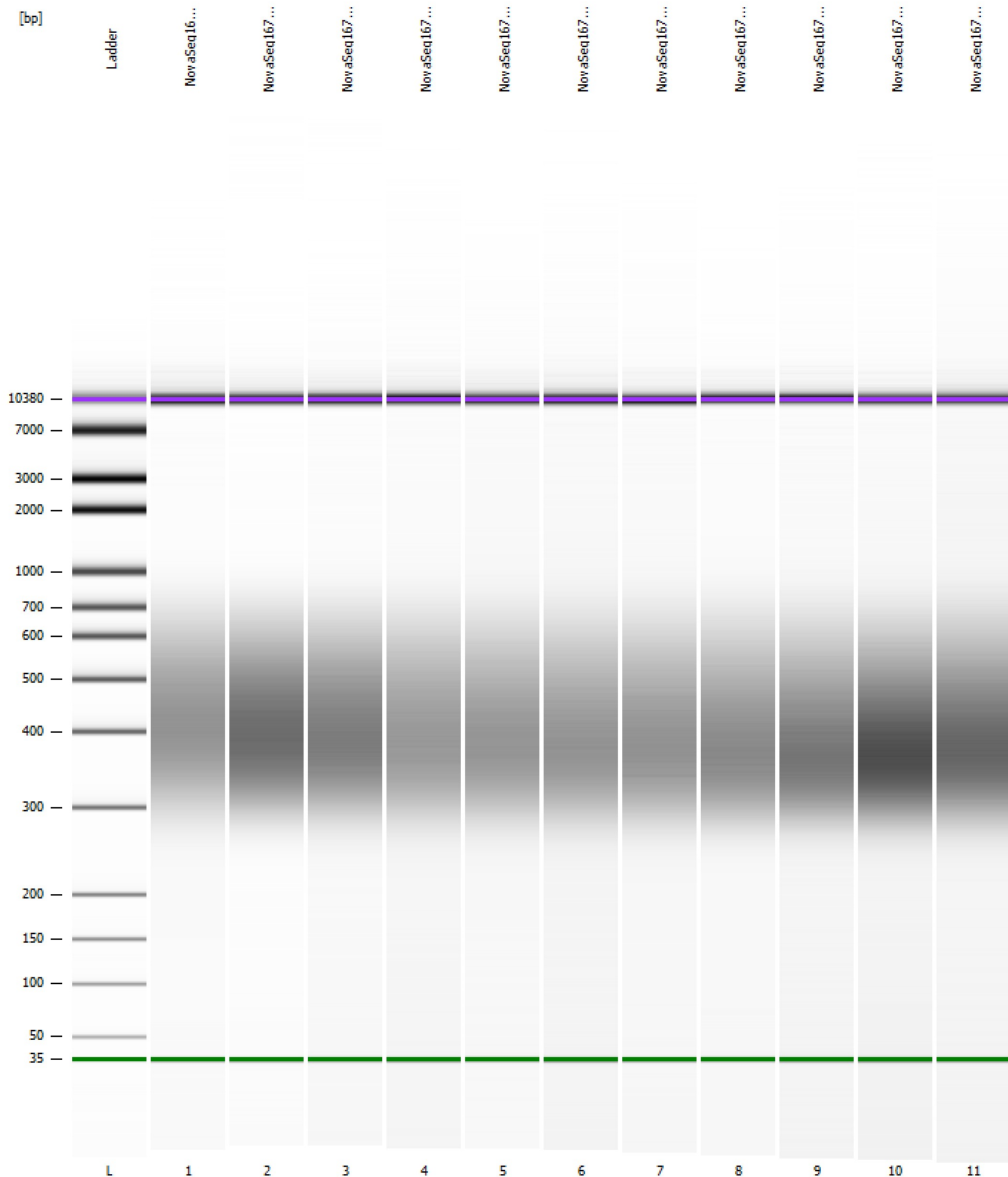
**Region table for sample 11 : NovaSeq167 - 20 library**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,593.1	96	427	26.4	1,474.46	5,681.6	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
Modified: 5/29/2020 1:26:41 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-05-29\_001.xad

Created: 5/29/2020 12:45:18 PM  
 Modified: 5/29/2020 1:26:41 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		5/29/2020 1:26:38 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Run started on port 1 (File: Z:\XADs\2020-05-29\Bioanalyze r1_High Sensitivity DNA Assay_2020-05-29_001.xad)		Instrument	Run		5/29/2020 12:45:23 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Product Number : G2938C		Instrument	Run		5/29/2020 12:45:23 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Name :		Instrument	Run		5/29/2020 12:45:23 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Vendor : Agilent Technologies		Instrument	Run		5/29/2020 12:45:23 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Serial# : DE34903152		Instrument	Run		5/29/2020 12:45:23 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Firmware : C.01.069		Instrument	Run		5/29/2020 12:45:23 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Cartridge : Electrode		Instrument	Run		5/29/2020 12:45:23 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB