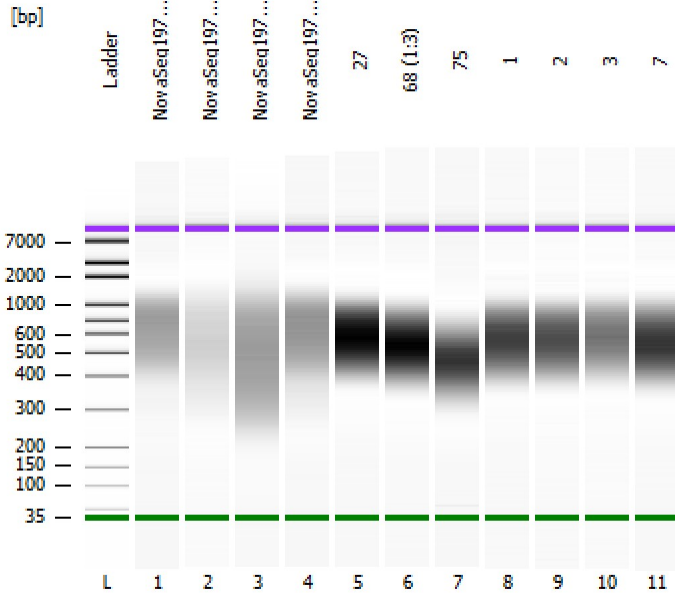


Assay Class: High Sensitivity DNA Assay
Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
Modified: 6/25/2020 5:55:48 PM

Electrophoresis File Run Summary



Instrument Information:

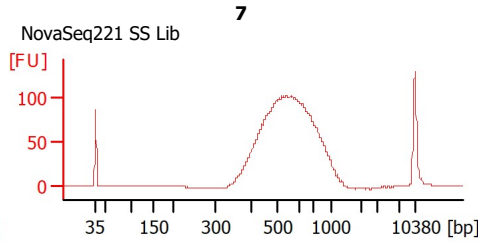
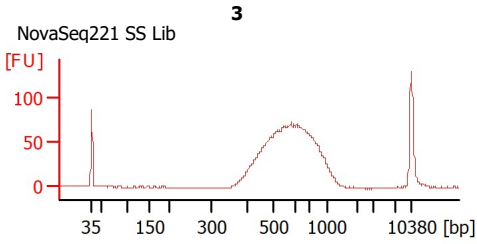
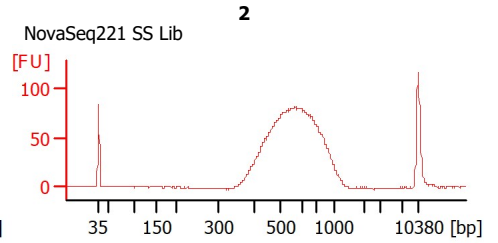
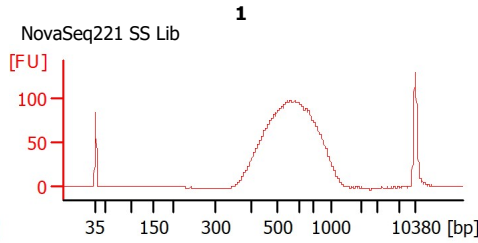
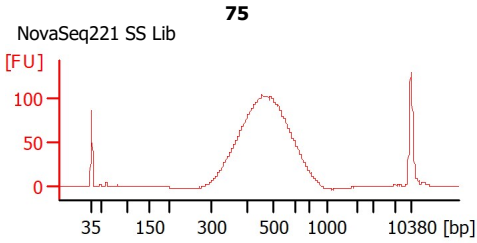
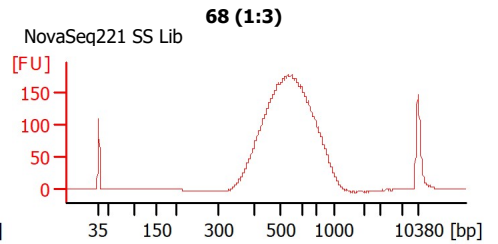
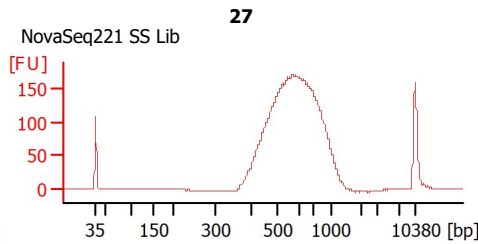
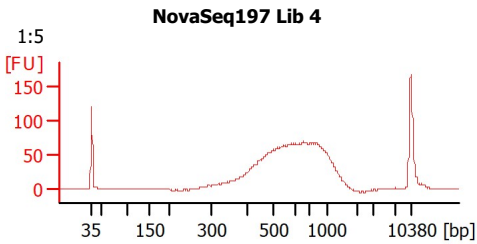
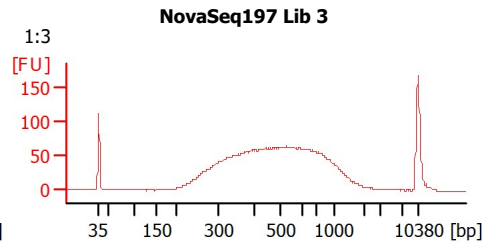
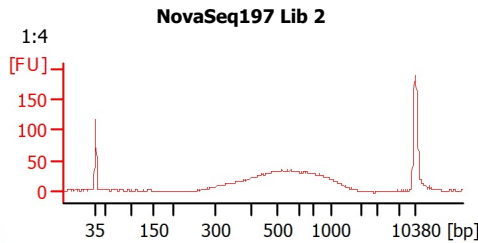
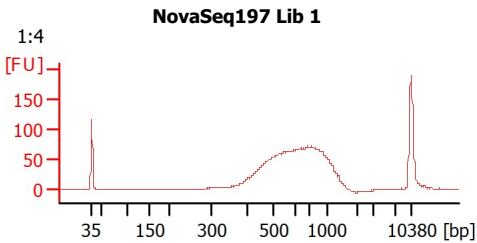
Instrument Name: DE34903152 Firmware: C.01.069
Serial#: DE34903152 Type: G2938C

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:



Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
 Modified: 6/25/2020 5:55:48 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
NovaSeq197 Lib 1	1:4	<input type="checkbox"/>	✓			
NovaSeq197 Lib 2	1:4	<input type="checkbox"/>	✓			
NovaSeq197 Lib 3	1:3	<input type="checkbox"/>	✓			
NovaSeq197 Lib 4	1:5	<input type="checkbox"/>	✓			
27	NovaSeq221 SS Lib	<input type="checkbox"/>	✓			
68 (1:3)	NovaSeq221 SS Lib	<input type="checkbox"/>	✓			
75	NovaSeq221 SS Lib	<input type="checkbox"/>	✓			
1	NovaSeq221 SS Lib	<input type="checkbox"/>	✓			
2	NovaSeq221 SS Lib	<input type="checkbox"/>	✓			
3	NovaSeq221 SS Lib	<input type="checkbox"/>	✓			
7	NovaSeq221 SS Lib	<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_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
 Modified: 6/25/2020 5:55:48 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

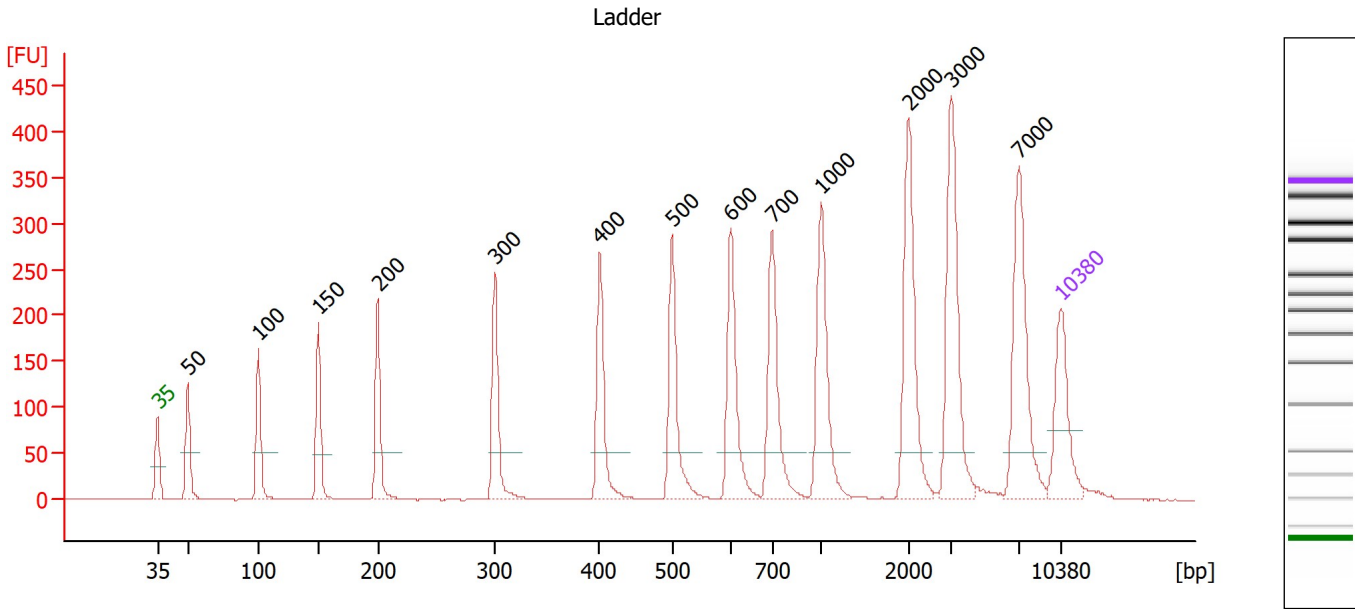
Ladder

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_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
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Electropherogram Summary



Overall Results for Ladder

Noise: 0.4

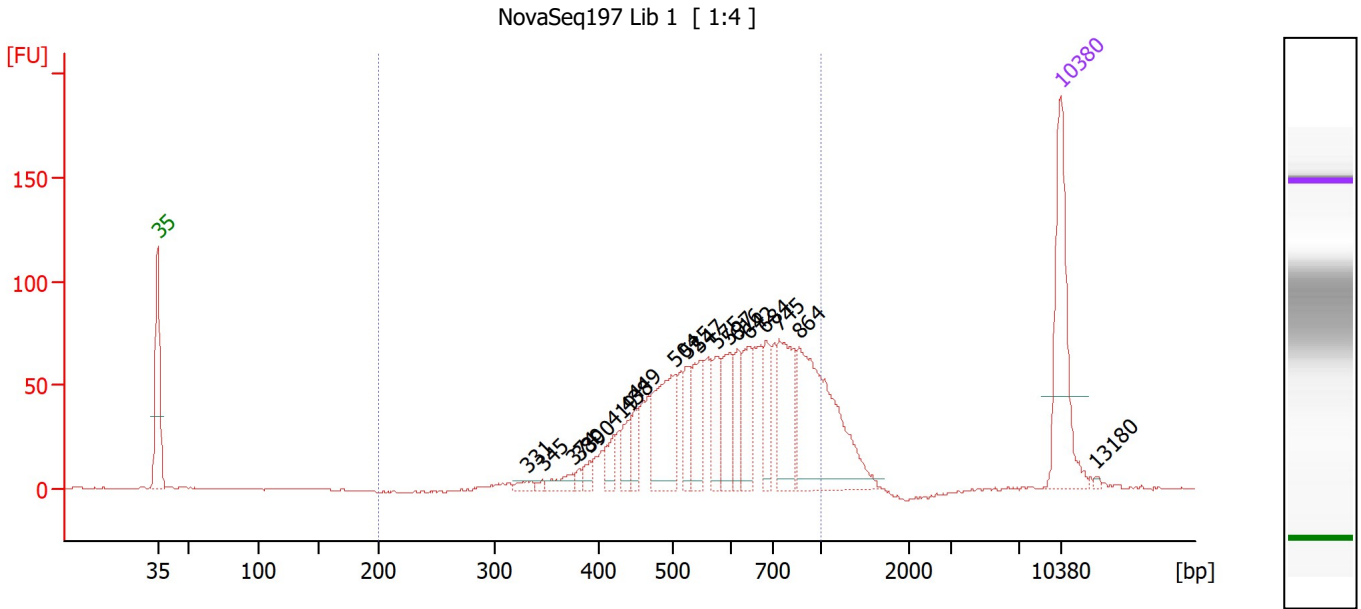
Peak table for Ladder

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_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
 Modified: 6/25/2020 5:55:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : NovaSeq197 Lib 1

Number of peaks found: 19 Corr. Area 1: 1,171.5
 Noise: 0.3

Peak table for sample 1 : NovaSeq197 Lib 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	331	6.51	29.8	
3	345	3.22	14.2	
4	374	11.44	46.4	
5	380	4.81	19.2	
6	390	8.05	31.2	
7	419	15.01	54.3	
8	438	18.07	62.5	
9	449	19.87	67.0	
10	504	74.28	223.5	
11	525	26.81	77.4	
12	547	36.41	100.9	
13	575	30.62	80.7	
14	597	37.82	95.9	
15	616	29.00	71.3	
16	642	33.60	79.2	
17	684	30.76	68.1	
18	745	65.30	132.9	
19	864	136.62	239.5	
20	10,380	75.00	10.9	Upper Marker
21	13,180	0.00	0.0	

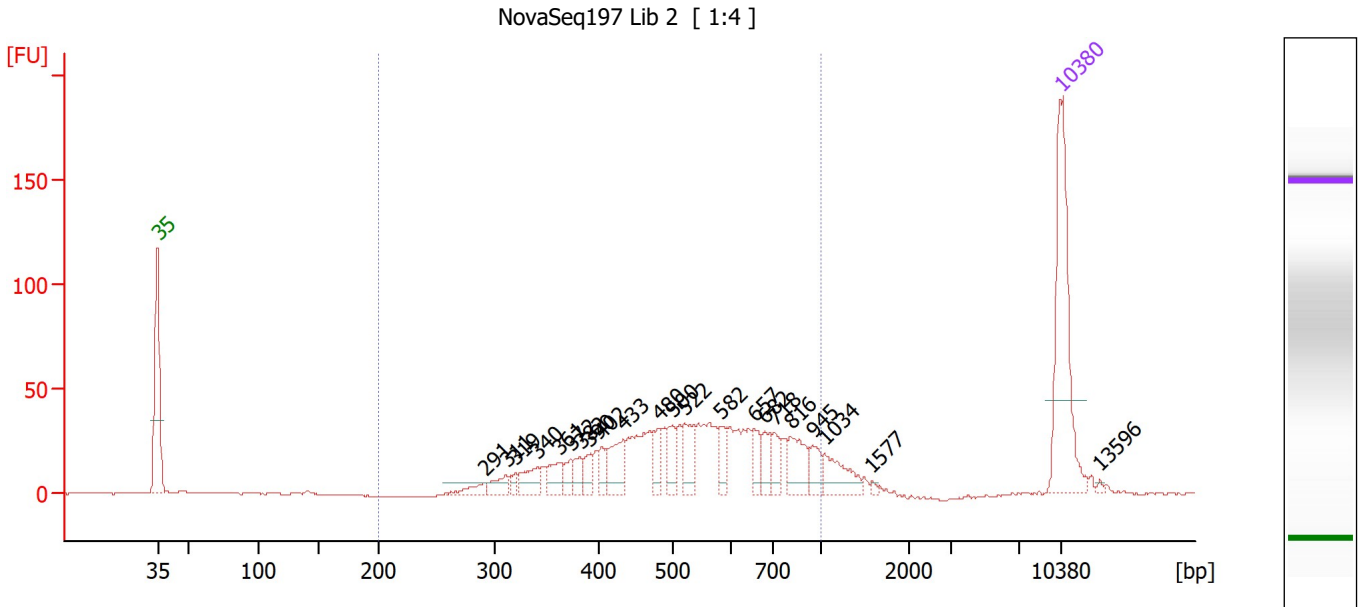
Region table for sample 1 : NovaSeq197 Lib 1

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	1,171.5	89	618	25.4	656.64	1,749.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
 Modified: 6/25/2020 5:55:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : NovaSeq197 Lib 2

Number of peaks found: 22 Corr. Area 1: 749.9
 Noise: 0.3

Peak table for sample 2 : NovaSeq197 Lib 2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	291	7.85	40.9	
3	311	10.63	51.8	
4	319	4.97	23.6	
5	340	16.20	72.1	
6	361	14.67	61.6	
7	372	8.86	36.0	
8	382	10.36	41.1	
9	390	9.62	37.4	
10	402	9.47	35.7	
11	433	24.26	84.9	
12	480	12.80	40.4	
13	500	17.15	51.9	
14	522	20.07	58.3	
15	582	12.44	32.4	
16	657	13.02	30.0	
17	682	13.50	30.0	
18	718	12.10	25.6	
19	816	22.49	41.7	
20	945	11.83	19.0	
21	1,034	19.55	28.7	
22	1,577	1.36	1.3	
23	10,380	75.00	10.9	Upper Marker
24	13,596	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
 Modified: 6/25/2020 5:55:48 PM

Electropherogram Summary Continued ...

... Region table for sample 2 :

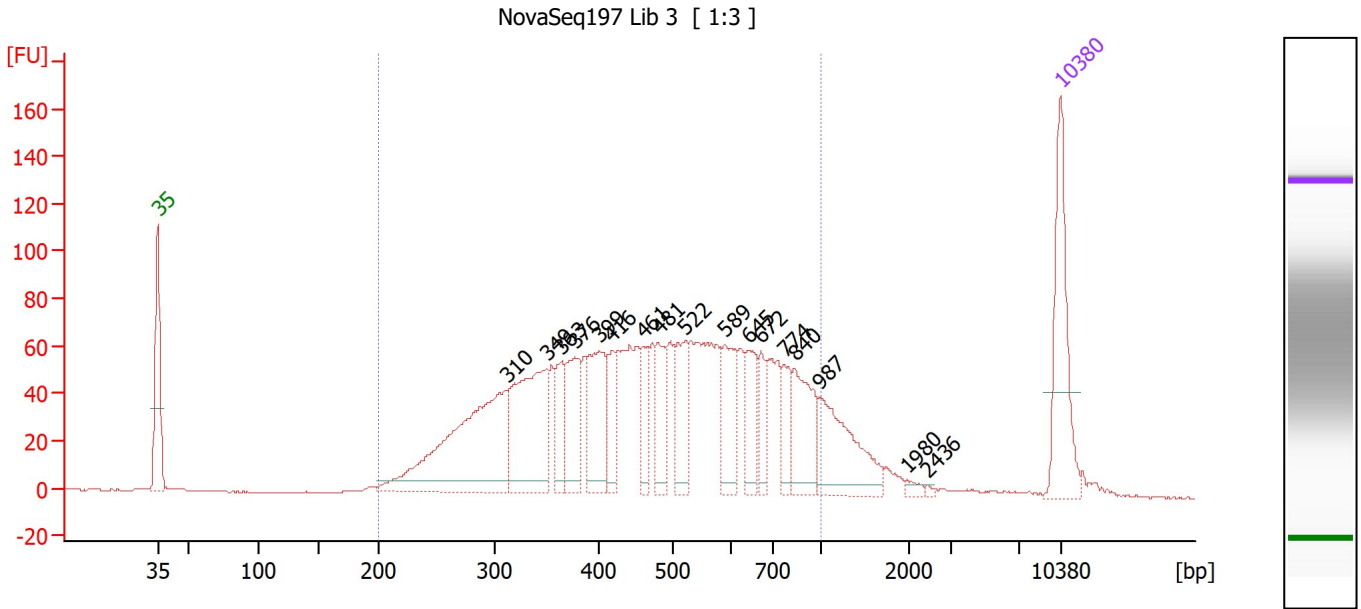
NovaSeq197 Lib 2

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	749.9	90	548	29.8	405.27	1,260.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
 Modified: 6/25/2020 5:55:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : NovaSeq197 Lib 3

Number of peaks found: 17 Corr. Area 1: 2,082.9
 Noise: 0.3

Peak table for sample 3 : NovaSeq197 Lib 3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	310	235.11	1,147.8	
3	349	145.32	631.2	
4	363	40.76	170.1	
5	376	62.54	252.1	
6	399	78.88	299.3	
7	416	33.41	121.8	
8	461	31.18	102.6	
9	481	43.14	135.8	
10	522	48.58	141.0	
11	589	54.97	141.3	
12	645	39.15	92.0	
13	672	24.84	56.0	
14	774	28.75	56.3	
15	840	61.75	111.4	
16	987	79.78	122.5	
17	1,980	4.34	3.3	
18	2,436	1.39	0.9	
19	10,380	75.00	10.9	Upper Marker

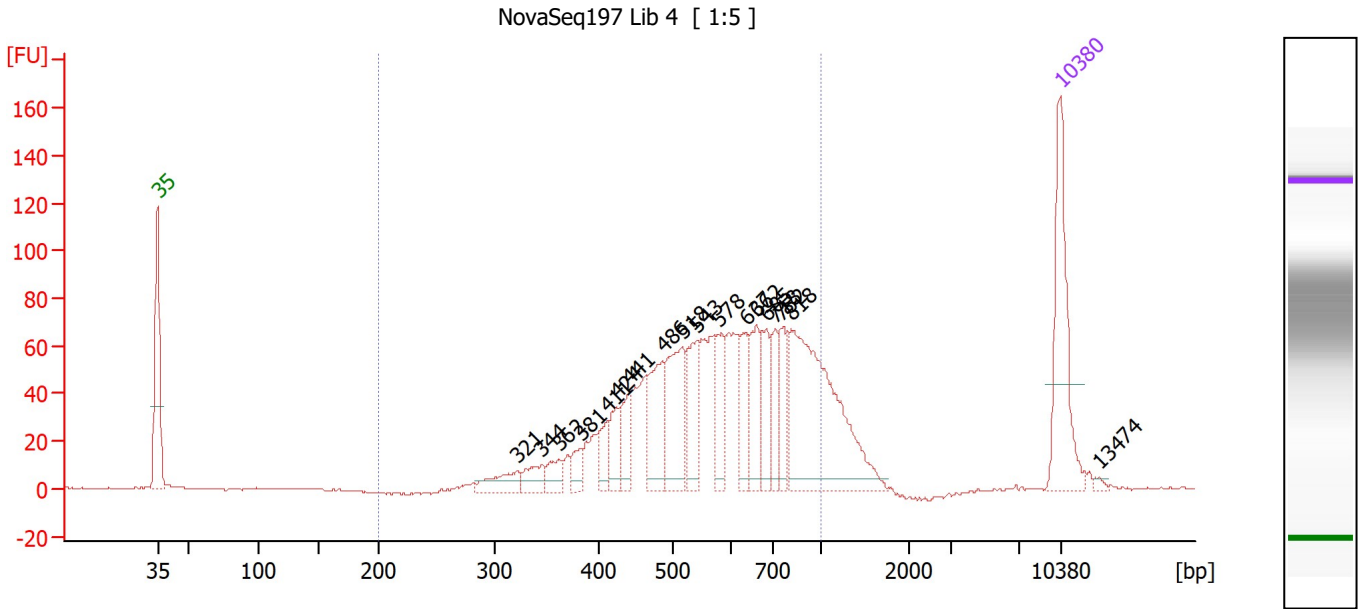
Region table for sample 3 : NovaSeq197 Lib 3

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	2,082.9	90	492	35.5	1,388.58	5,083.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
 Modified: 6/25/2020 5:55:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : NovaSeq197 Lib 4

Number of peaks found: 18 Corr. Area 1: 1,258.7
 Noise: 0.2

Peak table for sample 4 : NovaSeq197 Lib 4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	321	23.40	110.3	
3	344	18.30	80.5	
4	362	16.11	67.5	
5	381	14.40	57.2	
6	411	20.07	74.0	
7	424	25.72	91.9	
8	441	29.41	101.1	
9	486	61.75	192.5	
10	518	72.77	212.9	
11	543	48.26	134.6	
12	578	39.89	104.5	
13	637	36.85	87.7	
14	662	42.16	96.5	
15	685	35.29	78.0	
16	718	28.31	59.7	
17	752	32.61	65.7	
18	818	186.89	346.2	
19	10,380	75.00	10.9	Upper Marker
20	13,474	0.00	0.0	

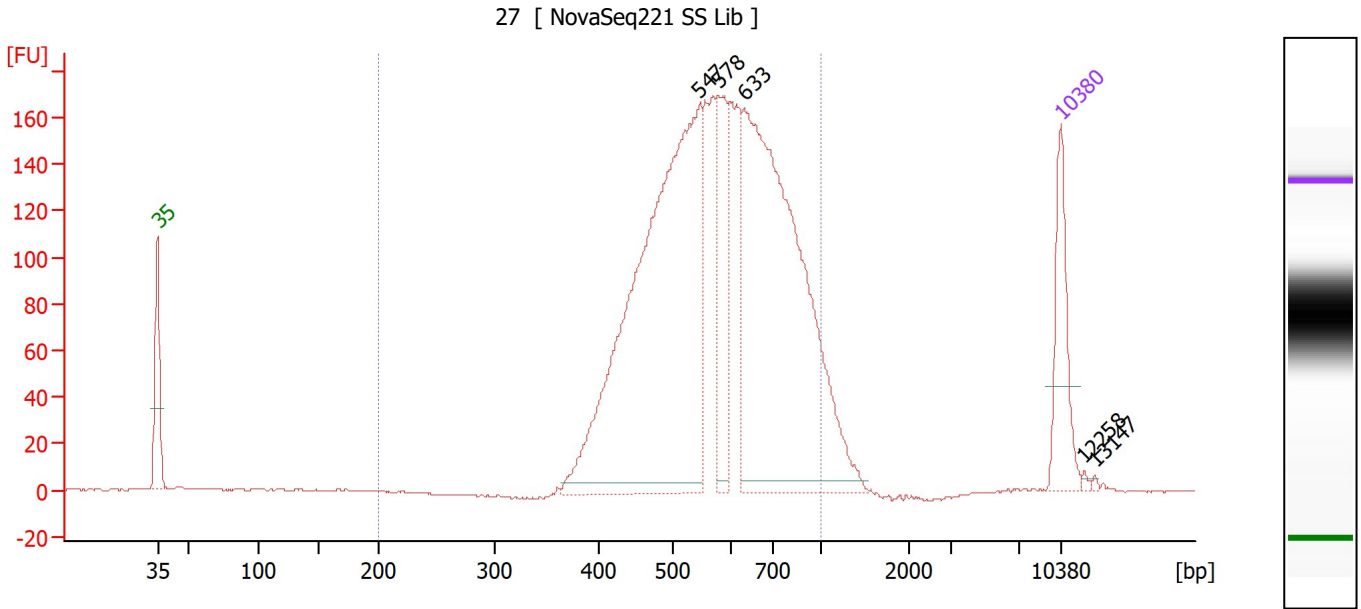
Region table for sample 4 : NovaSeq197 Lib 4

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	1,258.7	90	597	27.3	797.96	2,242.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
 Modified: 6/25/2020 5:55:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 27

Number of peaks found: 5 Corr. Area 1: 2,600.2
 Noise: 0.3

Peak table for sample 5 : 27

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	547	775.54	2,148.6	
3	578	125.09	328.0	
4	633	659.31	1,577.1	
5	10,380	75.00	10.9	Upper Marker
6	12,258	0.00	0.0	
7	13,147	0.00	0.0	

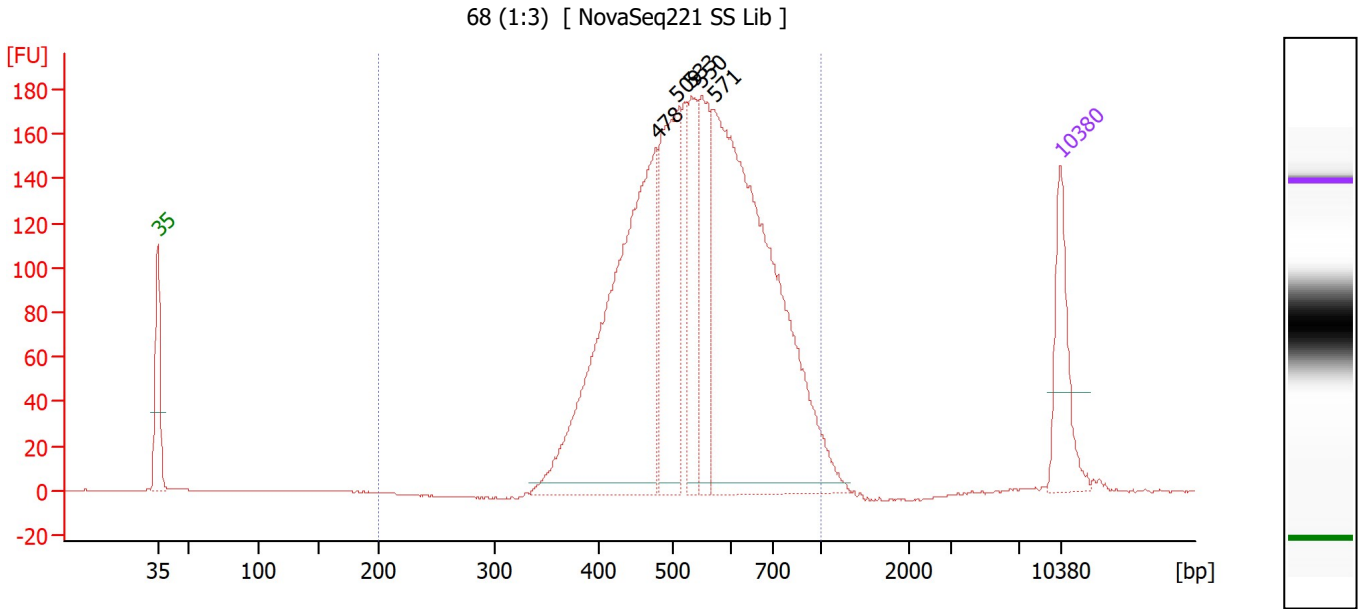
Region table for sample 5 : 27

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	2,600.2	96	600	22.8	1,776.18	4,772.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
 Modified: 6/25/2020 5:55:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 68 (1:3)

Number of peaks found: 5 Corr. Area 1: 2,738.7
 Noise: 0.3

Peak table for sample 6 : 68 (1:3)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	478	587.54	1,861.4	
3	509	239.17	712.3	
4	533	116.04	330.0	
5	550	132.11	363.7	
6	571	734.06	1,946.9	
7	10,380	75.00	10.9	Upper Marker

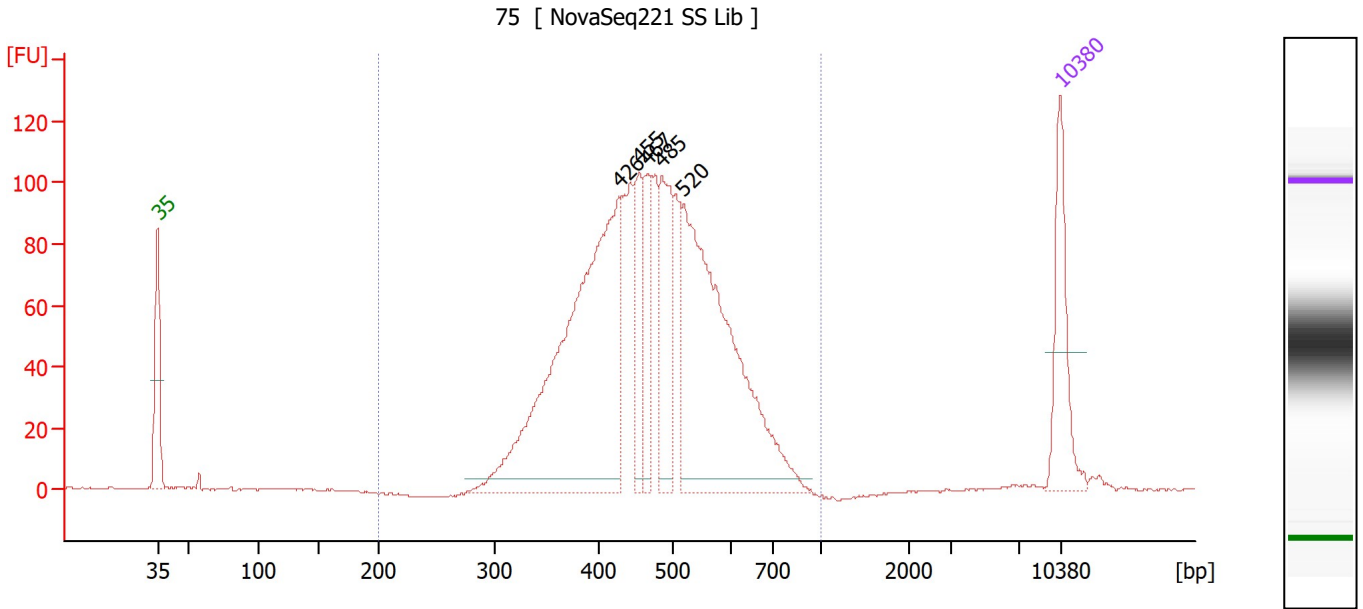
Region table for sample 6 : 68 (1:3)

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	2,738.7	99	556	22.1	1,849.95	5,338.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
 Modified: 6/25/2020 5:55:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 75

Number of peaks found: 5 Corr. Area 1: 1,666.9
 Noise: 0.2

Peak table for sample 7 : 75

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	426	561.13	1,993.7	
3	455	84.36	281.2	
4	467	72.72	236.2	
5	485	128.51	401.3	
6	520	447.29	1,304.5	
7	10,380	75.00	10.9	Upper Marker

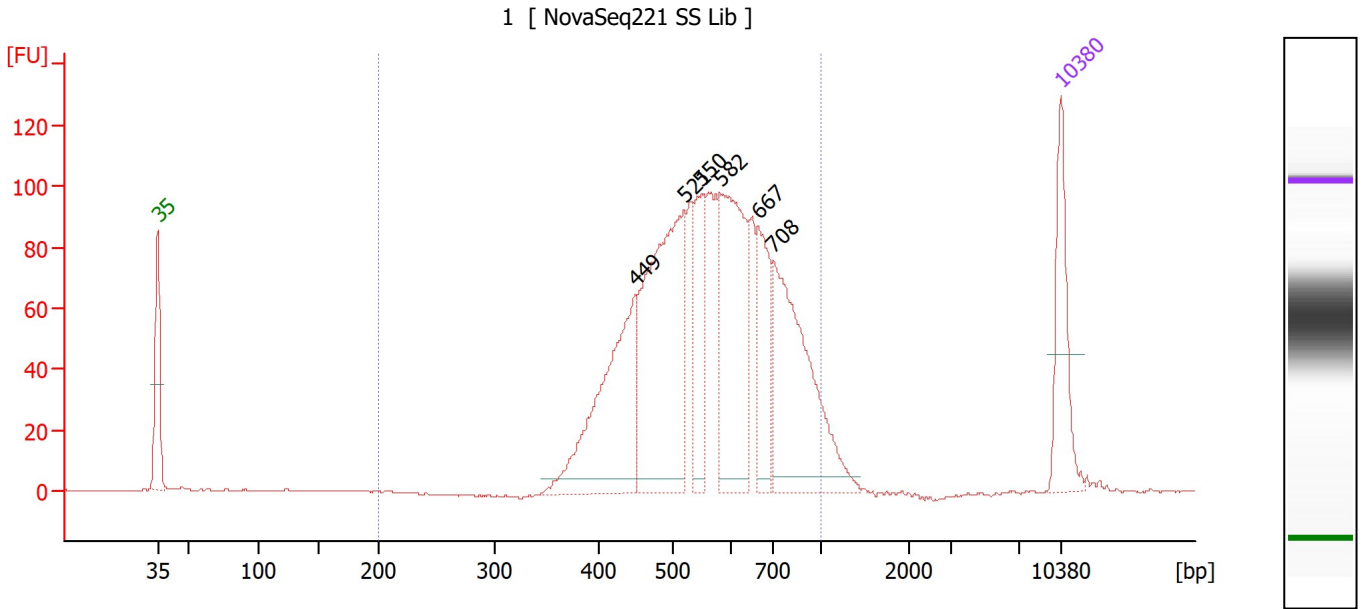
Region table for sample 7 : 75

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	1,666.9	99	475	19.6	1,505.27	5,040.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-06-25_002.xad

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 Modified: 6/25/2020 5:55:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 1

Number of peaks found: 6 Corr. Area 1: 1,555.9
 Noise: 0.2

Peak table for sample 8 : 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	449	240.70	811.9	
3	521	326.33	949.6	
4	550	92.82	255.7	
5	582	213.61	556.5	
6	667	96.99	220.3	
7	708	244.74	523.8	
8	10,380	75.00	10.9	Upper Marker

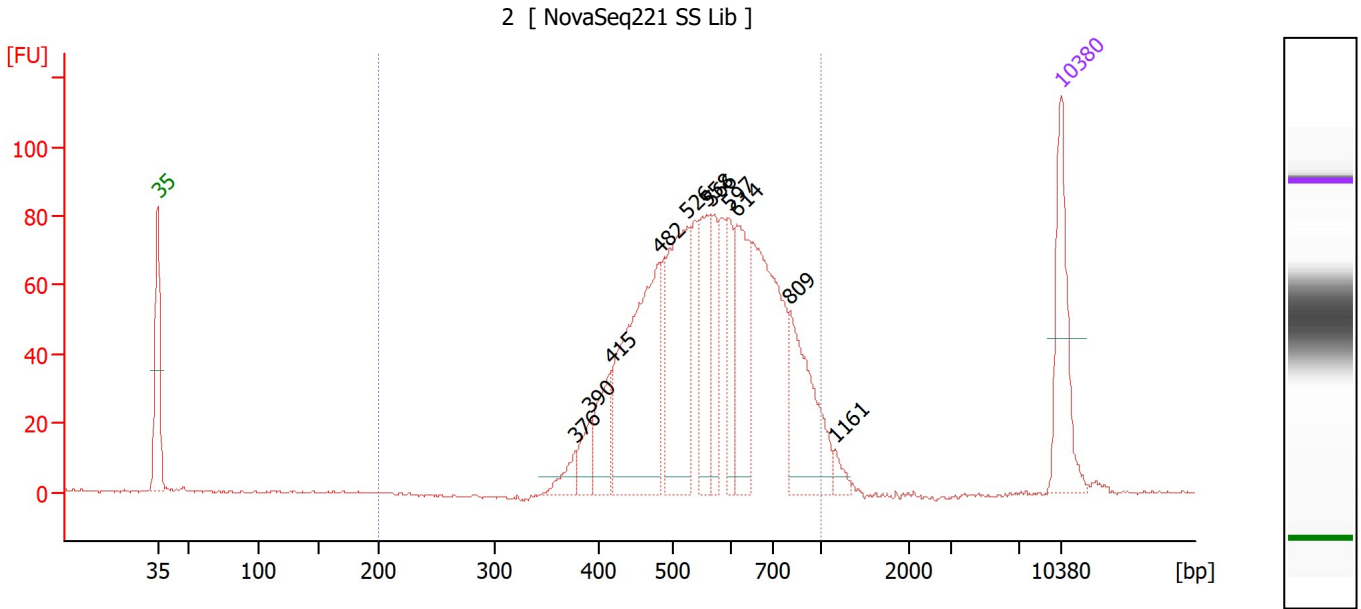
Region table for sample 8 : 1

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	1,555.9	97	583	23.1	1,386.57	3,838.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
 Modified: 6/25/2020 5:55:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 2

Number of peaks found: 11 Corr. Area 1: 1,276.6
 Noise: 0.4

Peak table for sample 9 : 2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	376	19.77	79.7	
3	390	27.06	105.1	
4	415	55.64	203.2	
5	482	240.15	755.0	
6	526	168.85	486.1	
7	558	80.67	219.1	
8	566	54.66	146.2	
9	597	51.44	130.6	
10	614	102.34	252.7	
11	809	111.40	208.6	
12	1,161	9.70	12.7	
13	10,380	75.00	10.9	Upper Marker

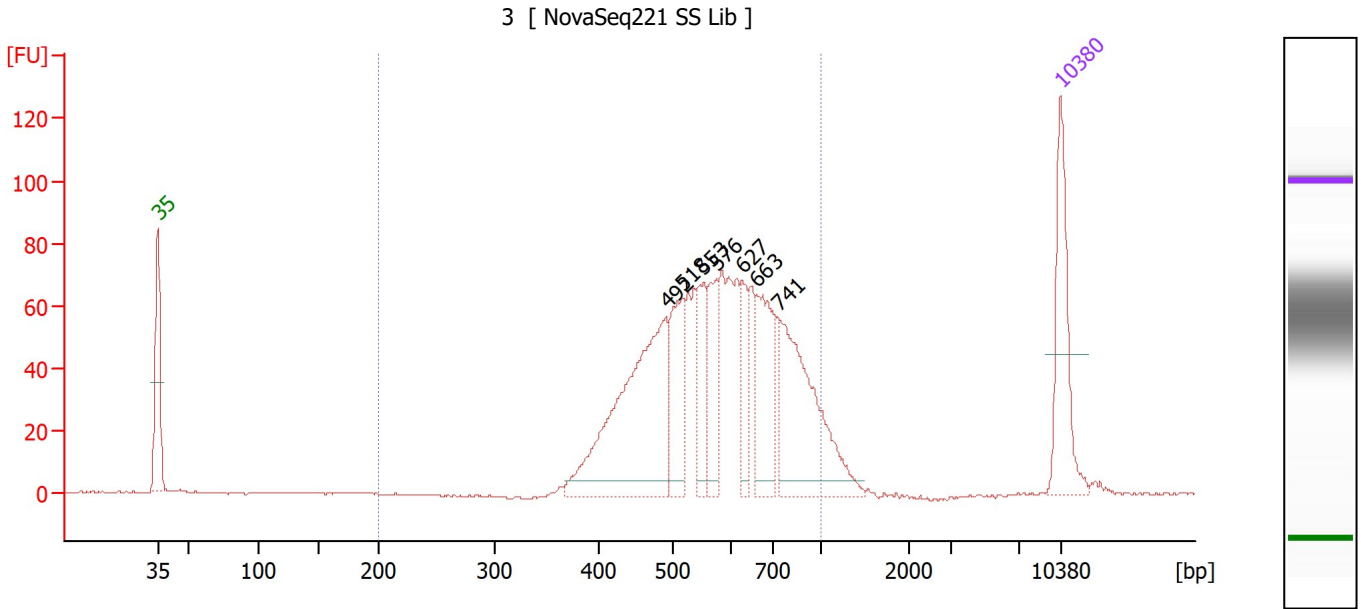
Region table for sample 9 : 2

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	1,276.6	97	582	23.0	1,212.59	3,361.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
 Modified: 6/25/2020 5:55:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 3

Number of peaks found: 7 Corr. Area 1: 1,076.5
 Noise: 0.2

Peak table for sample 10 : 3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	492	272.17	838.8	
3	518	82.08	240.0	
4	553	56.21	154.1	
5	576	55.22	145.3	
6	627	40.57	98.0	
7	663	91.25	208.4	
8	741	177.82	363.7	
9	10,380	75.00	10.9	Upper Marker

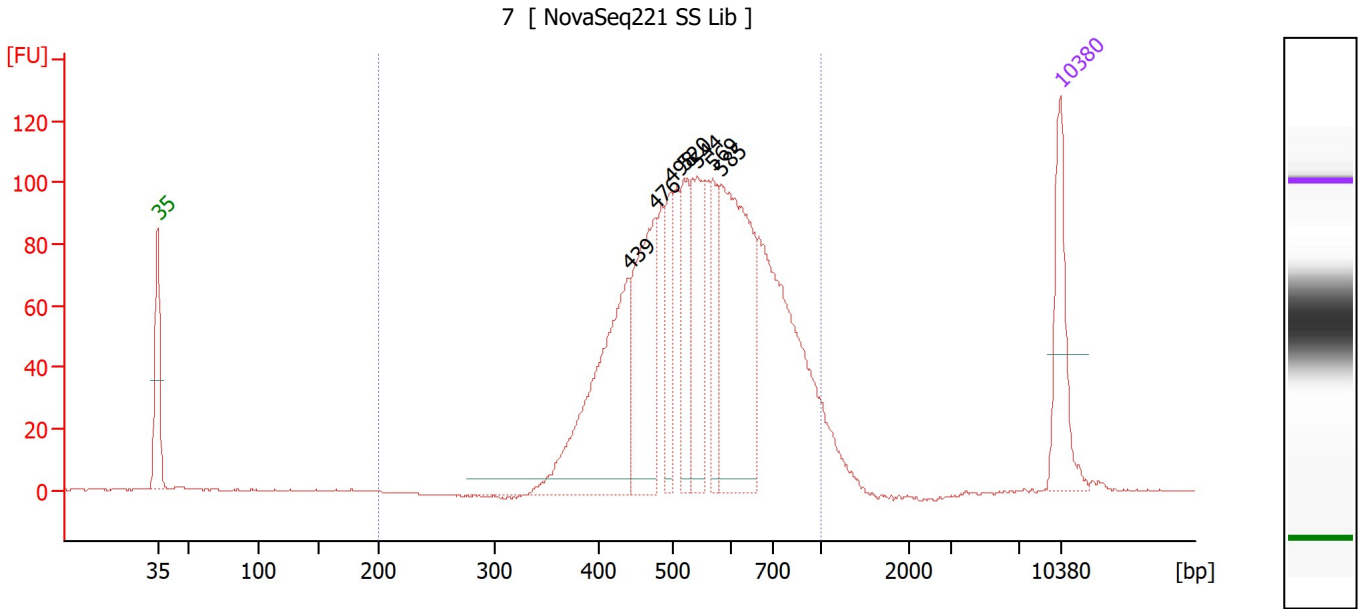
Region table for sample 10 : 3

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	1,076.5	96	597	23.2	937.14	2,534.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
 Modified: 6/25/2020 5:55:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 7

Number of peaks found: 7 Corr. Area 1: 1,664.2
 Noise: 0.2

Peak table for sample 11 : 7

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	439	269.54	929.4	
3	476	189.86	603.9	
4	498	72.38	220.3	
5	520	88.91	258.9	
6	544	117.16	326.6	
7	569	63.24	168.5	
8	585	276.18	715.9	
9	10,380	75.00	10.9	Upper Marker

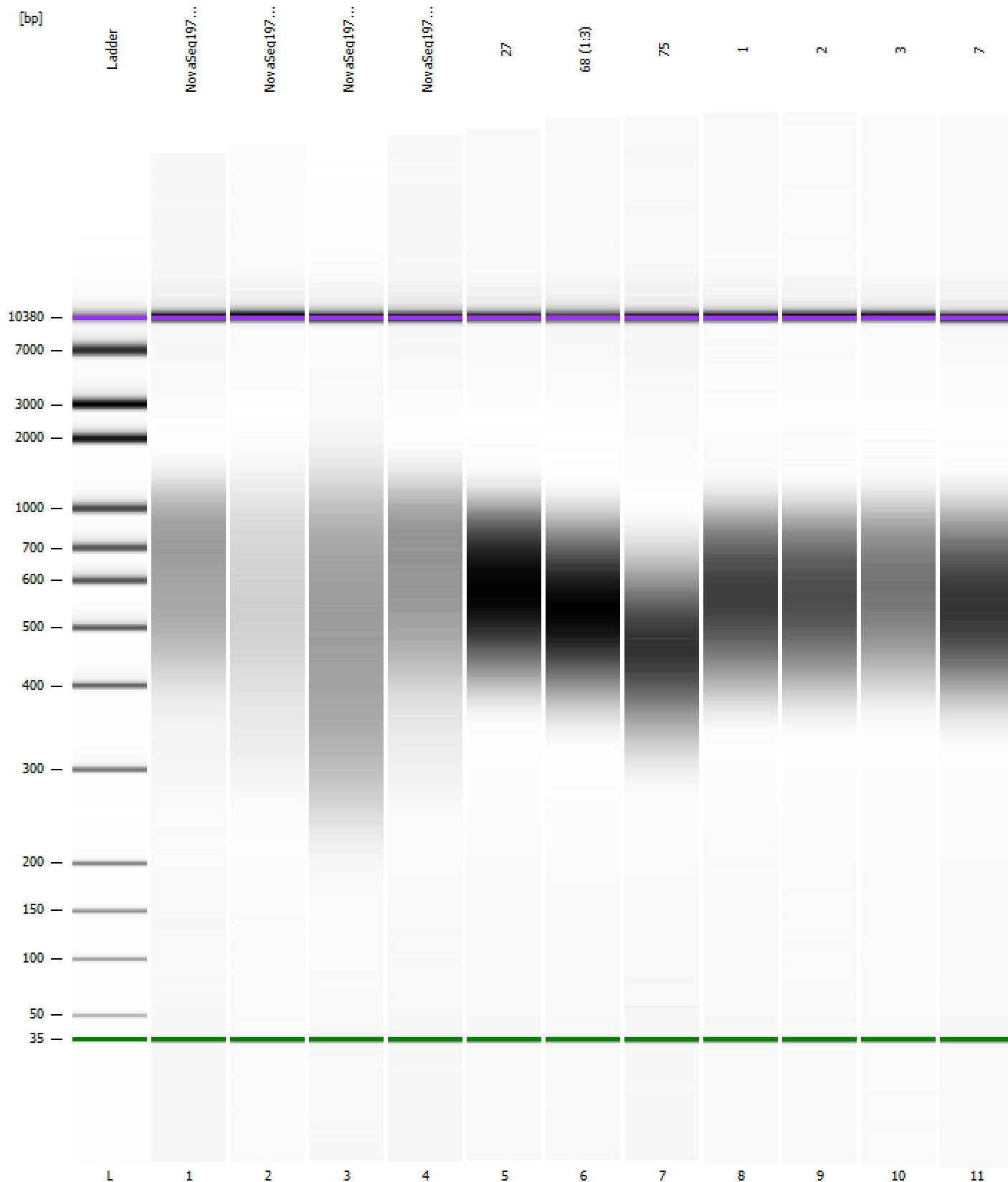
Region table for sample 11 : 7

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	1,664.2	97	569	23.4	1,473.38	4,184.0	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
Modified: 6/25/2020 5:55:48 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-06-25_002.xad

Created: 6/25/2020 5:12:37 PM
 Modified: 6/25/2020 5:55:48 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		6/25/2020 5:53:59 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Run started on port 1 (File: Z:\XADs\2020-06-25\Bioanalyze r1_High Sensitivity DNA Assay_2020-06-25_002.xad)		Instrument	Run		6/25/2020 5:12:42 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Product Number : G2938C		Instrument	Run		6/25/2020 5:12:42 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Name :		Instrument	Run		6/25/2020 5:12:42 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Vendor : Agilent Technologies		Instrument	Run		6/25/2020 5:12:42 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Serial# : DE34903152		Instrument	Run		6/25/2020 5:12:42 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Firmware : C.01.069		Instrument	Run		6/25/2020 5:12:42 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Cartridge : Electrode		Instrument	Run		6/25/2020 5:12:42 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB