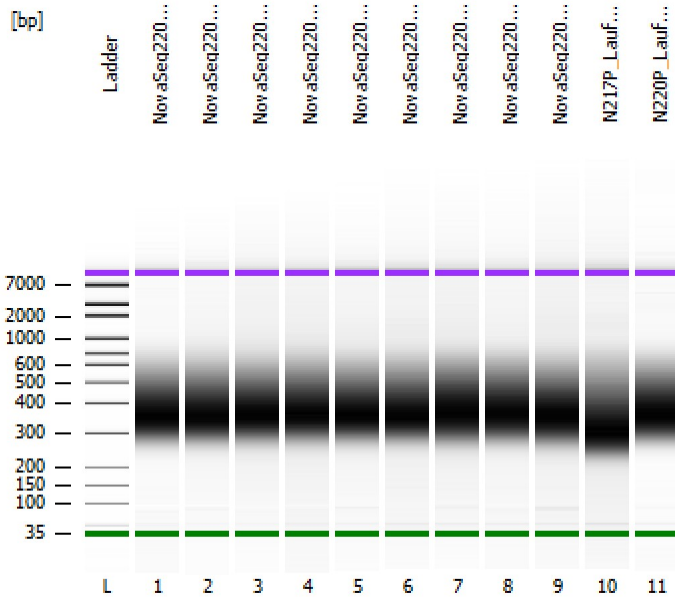


Assay Class: High Sensitivity DNA Assay
Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
Modified: 7/31/2020 5:07:49 PM

Electrophoresis File Run Summary



Instrument Information:

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

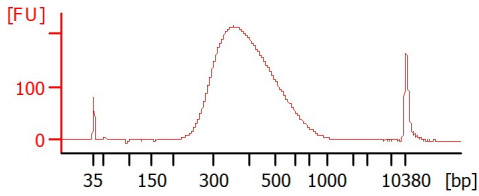
Assay Information:

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

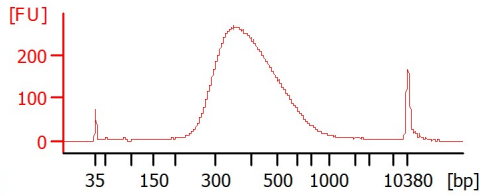
Chip Information:

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

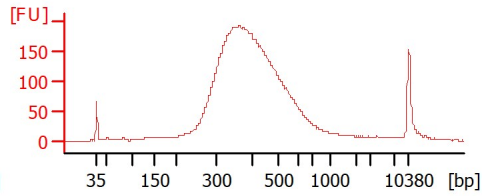
NovaSeq220-67 lib



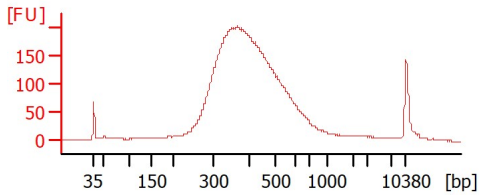
NovaSeq220-68 lib



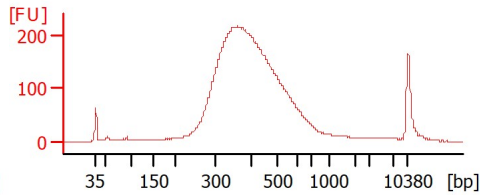
NovaSeq220-69 lib



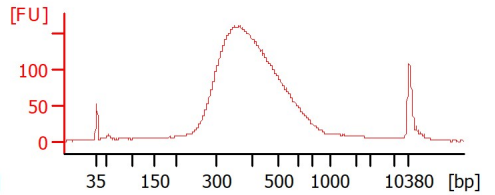
NovaSeq220-70 lib



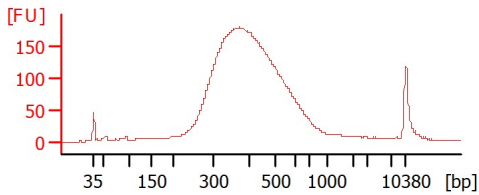
NovaSeq220-71 lib



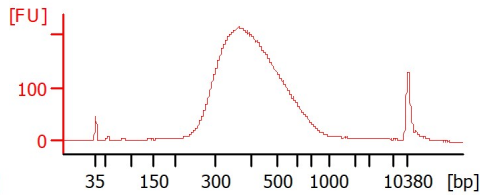
NovaSeq220-72 lib



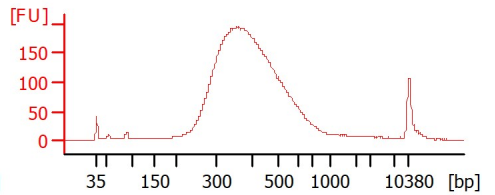
NovaSeq220-73 lib



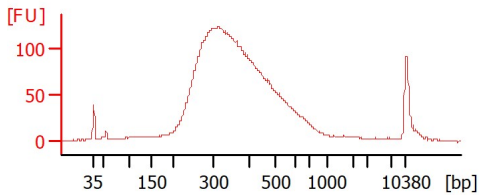
NovaSeq220-74 lib



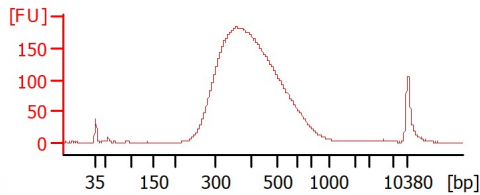
NovaSeq220-75 lib



N217P_Laufer (1XBC)



N220P_Laufer (1XBC)



Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
 Modified: 7/31/2020 5:07:49 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
NovaSeq220-67 lib		<input type="checkbox"/>	✓			
NovaSeq220-68 lib		<input type="checkbox"/>	✓			
NovaSeq220-69 lib		<input type="checkbox"/>	✓			
NovaSeq220-70 lib		<input type="checkbox"/>	✓			
NovaSeq220-71 lib		<input type="checkbox"/>	✓			
NovaSeq220-72 lib		<input type="checkbox"/>	✓			
NovaSeq220-73 lib		<input type="checkbox"/>	✓			
NovaSeq220-74 lib		<input type="checkbox"/>	✓			
NovaSeq220-75 lib		<input type="checkbox"/>	✓			
N217P_Laufer (1XBC)		<input type="checkbox"/>	✓			
N220P_Laufer (1XBC)		<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_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
 Modified: 7/31/2020 5:07:49 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

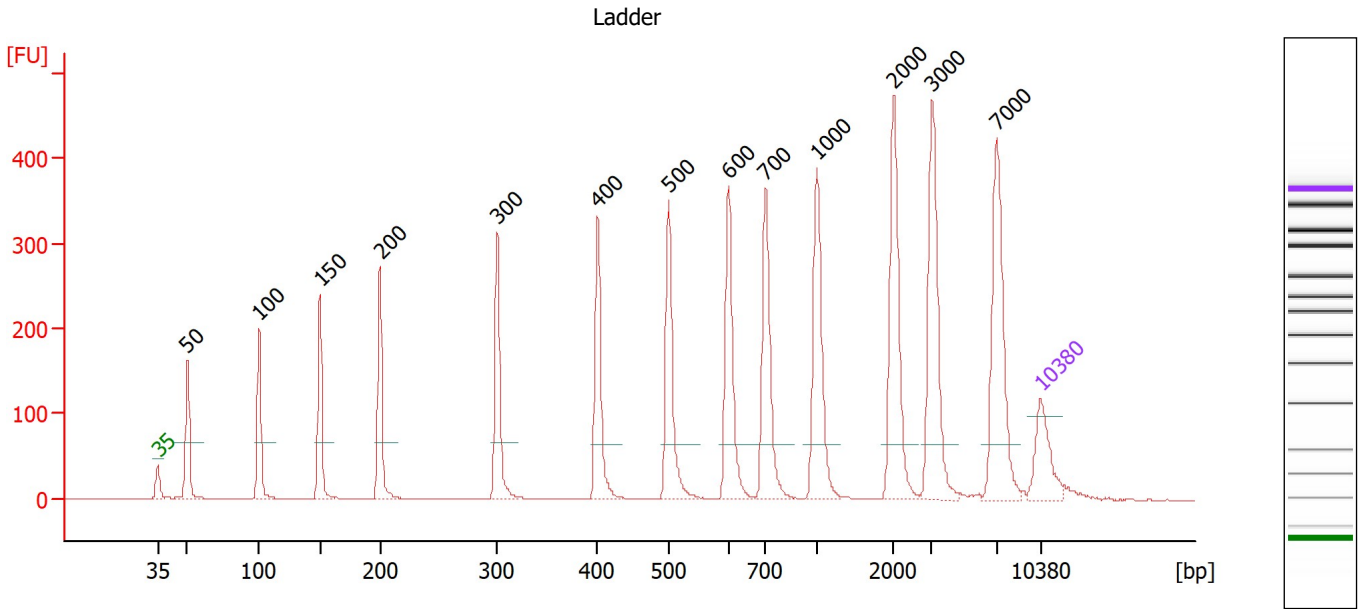
Ladder

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_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
 Modified: 7/31/2020 5:07:49 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.3

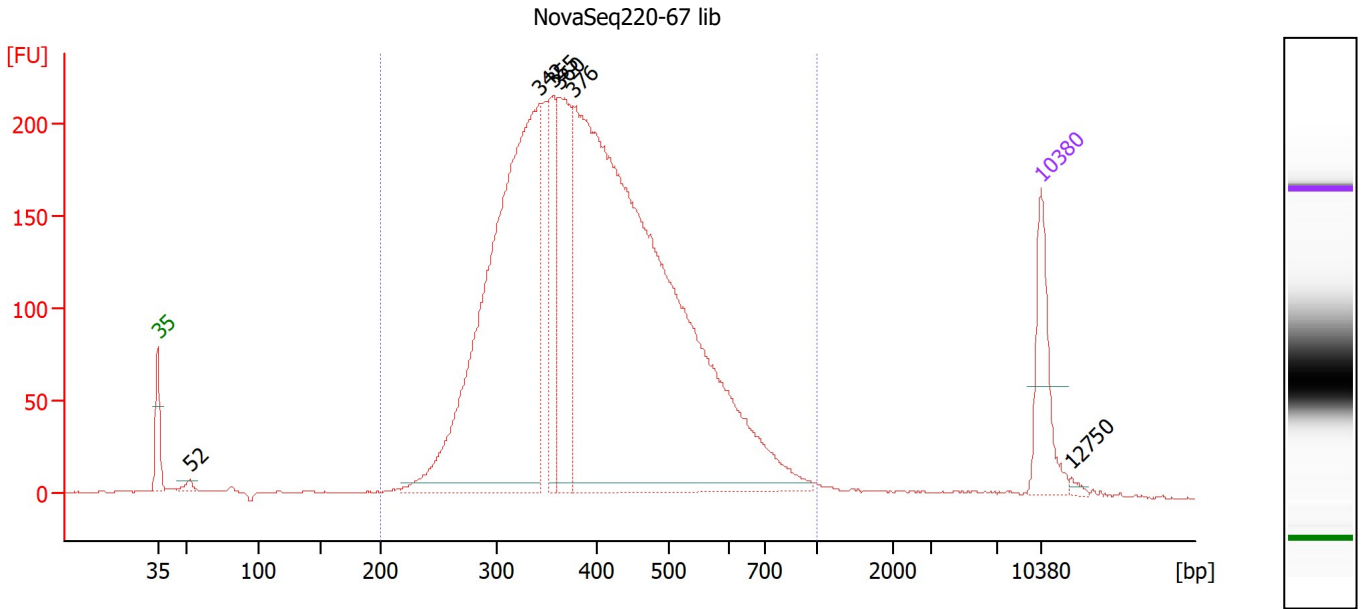
Peak table for Ladder

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_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
 Modified: 7/31/2020 5:07:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : NovaSeq220-67 lib

Number of peaks found: 6 Corr. Area 1: 4,639.5
 Noise: 0.4

Peak table for sample 1 : NovaSeq220-67 lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	52	9.78	287.3	
3	342	929.05	4,118.7	
4	355	133.24	569.4	
5	360	234.82	987.2	
6	376	1,558.85	6,279.8	
7	10,380	75.00	10.9	Upper Marker
8	12,750	0.00	0.0	

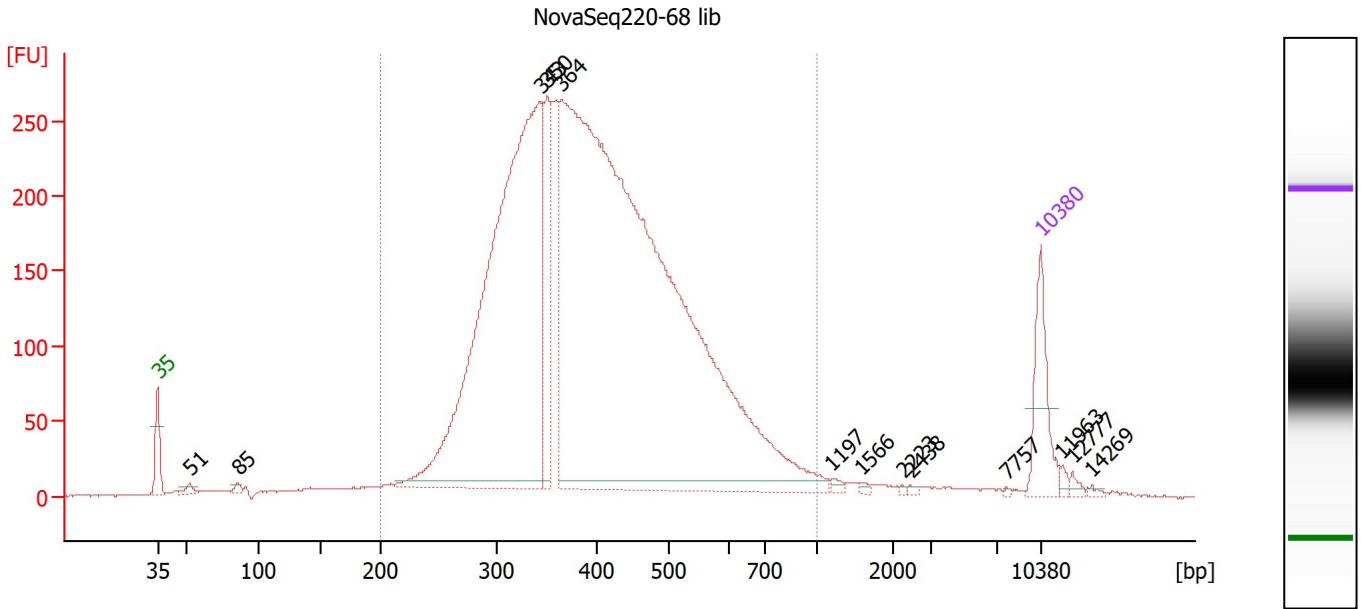
Region table for sample 1 : NovaSeq220-67 lib

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	4,639.5	97	409	26.3	2,936.79	11,814.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
 Modified: 7/31/2020 5:07:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : NovaSeq220-68 lib

Number of peaks found: 13 Corr. Area 1: 5,852.6
 Noise: 0.5

Peak table for sample 2 : NovaSeq220-68 lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	51	11.04	325.2	
3	85	7.44	132.3	
4	343	1,233.94	5,457.8	
5	350	149.75	649.0	
6	364	2,369.45	9,853.7	
7	1,197	4.90	6.2	
8	1,566	2.88	2.8	
9	2,223	1.64	1.1	
10	2,438	2.17	1.3	
11	7,757	1.23	0.2	
12	10,380	75.00	10.9	Upper Marker
13	11,963	0.00	0.0	
14	12,777	0.00	0.0	
15	14,269	0.00	0.0	

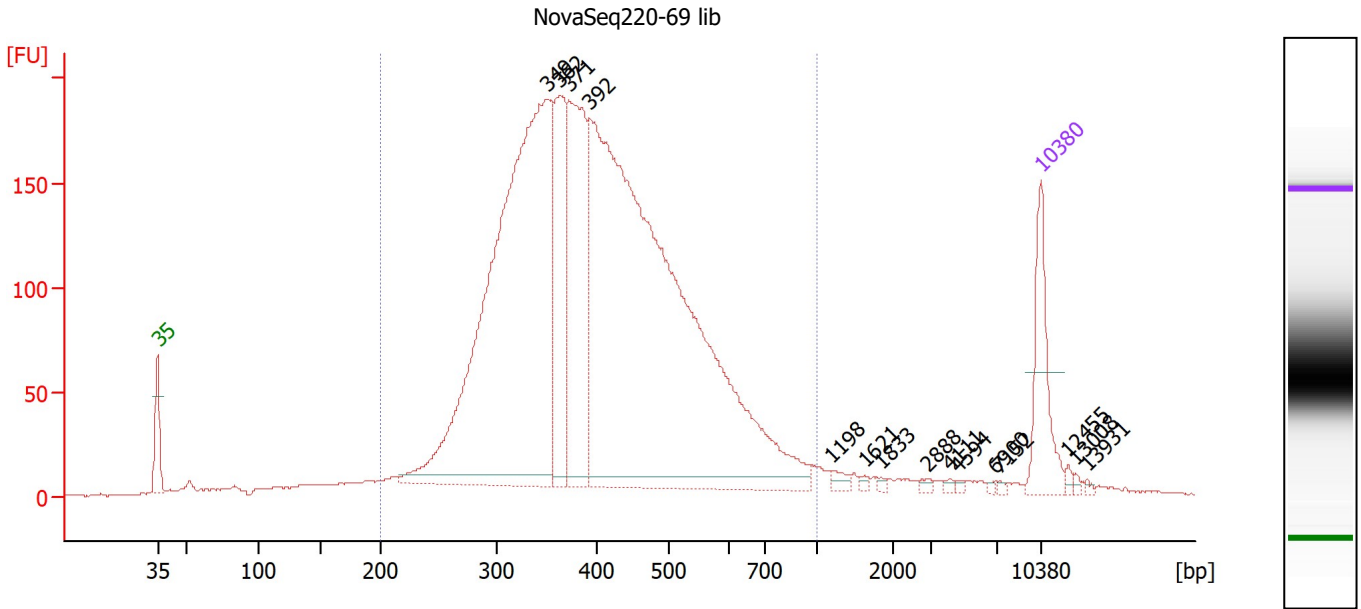
Region table for sample 2 : NovaSeq220-68 lib

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	5,852.6	94	412	27.9	3,894.60	15,687.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
 Modified: 7/31/2020 5:07:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : NovaSeq220-69 lib

Number of peaks found: 15 Corr. Area 1: 4,247.2
 Noise: 0.4

Peak table for sample 3 : NovaSeq220-69 lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	349	1,037.01	4,495.8	
3	362	204.35	855.1	
4	371	289.33	1,181.3	
5	392	1,377.05	5,321.1	
6	1,198	8.36	10.6	
7	1,621	3.46	3.2	
8	1,833	2.88	2.4	
9	2,888	3.28	1.7	
10	4,111	2.53	0.9	
11	4,594	2.46	0.8	
12	6,900	2.12	0.5	
13	7,152	2.10	0.4	
14	10,380	75.00	10.9	Upper Marker
15	12,455	0.00	0.0	
16	13,008	0.00	0.0	
17	13,931	0.00	0.0	

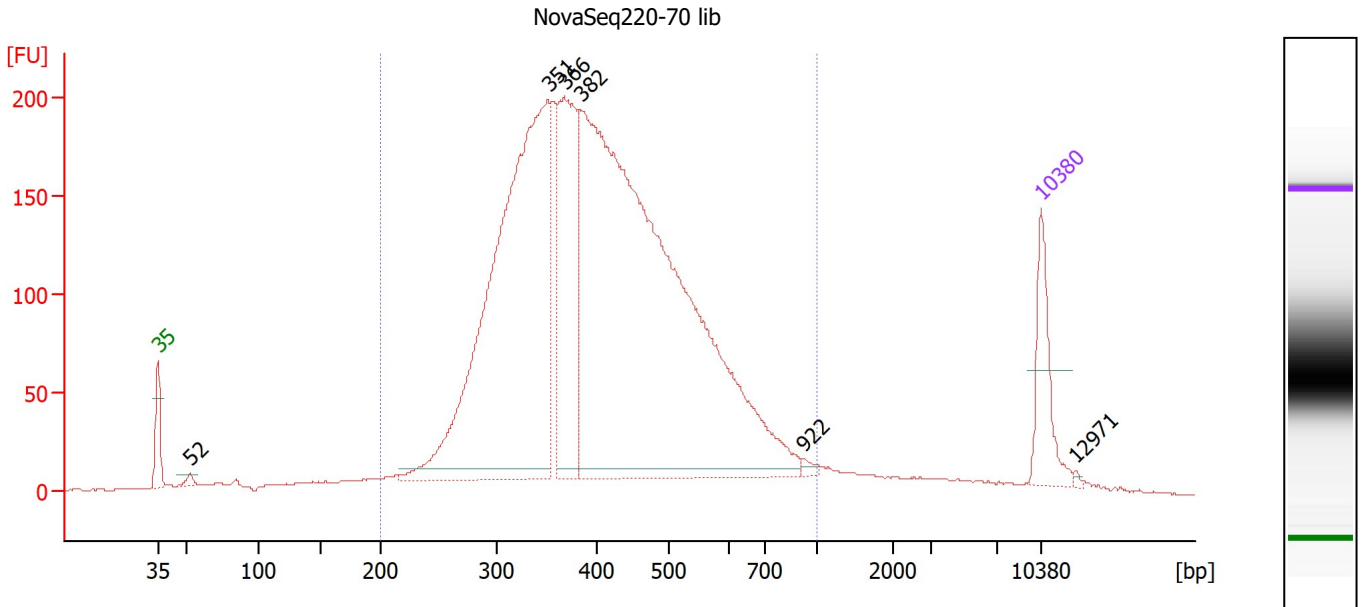
Region table for sample 3 : NovaSeq220-69 lib

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	4,247.2	91	415	28.5	3,076.93	12,342.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
 Modified: 7/31/2020 5:07:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : NovaSeq220-70 lib

Number of peaks found: 6 Corr. Area 1: 4,455.1
 Noise: 0.4

Peak table for sample 4 : NovaSeq220-70 lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	52	9.79	285.4	
3	351	1,063.05	4,595.3	
4	366	345.38	1,428.0	
5	382	1,630.17	6,459.1	
6	922	6.61	10.9	
7	10,380	75.00	10.9	Upper Marker
8	12,971	0.00	0.0	

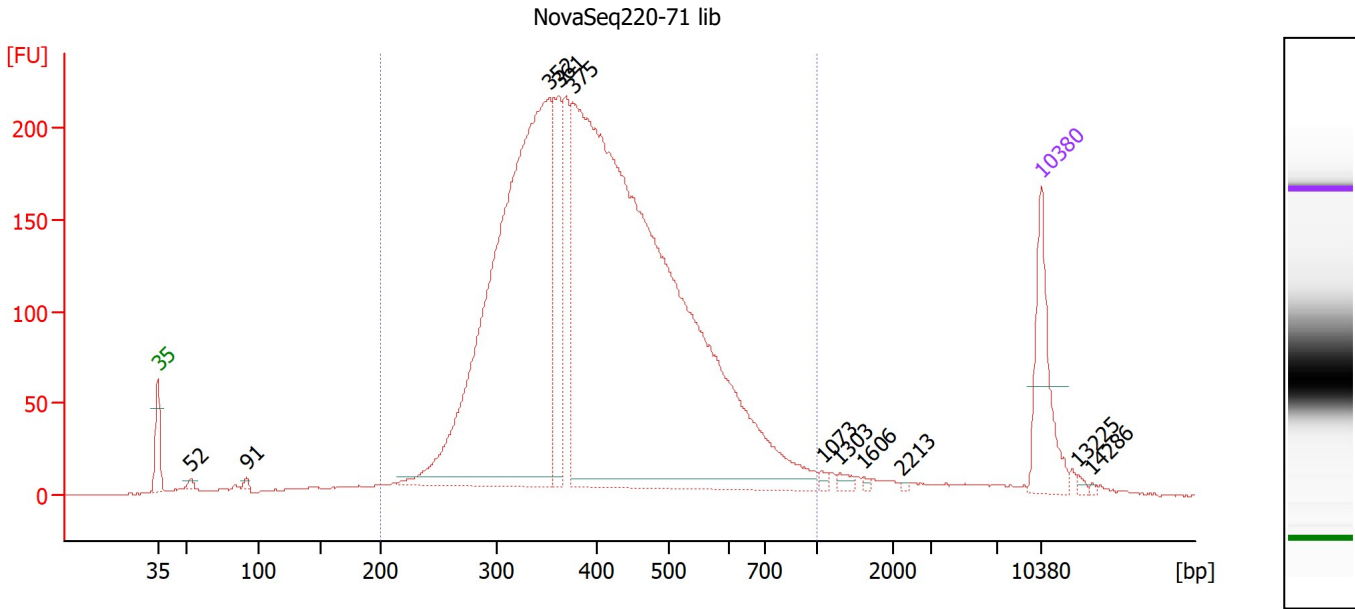
Region table for sample 4 : NovaSeq220-70 lib

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	4,455.1	92	419	28.6	3,370.89	13,402.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
 Modified: 7/31/2020 5:07:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : NovaSeq220-71 lib

Number of peaks found: 11 Corr. Area 1: 4,679.2
 Noise: 0.4

Peak table for sample 5 : NovaSeq220-71 lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	52	6.41	186.5	
3	91	5.03	83.6	
4	352	942.43	4,062.4	
5	361	122.92	516.0	
6	375	1,554.05	6,273.1	
7	1,073	3.84	5.4	
8	1,303	6.03	7.0	
9	1,606	2.12	2.0	
10	2,213	1.37	0.9	
11	10,380	75.00	10.9	Upper Marker
12	13,225	0.00	0.0	
13	14,286	0.00	0.0	

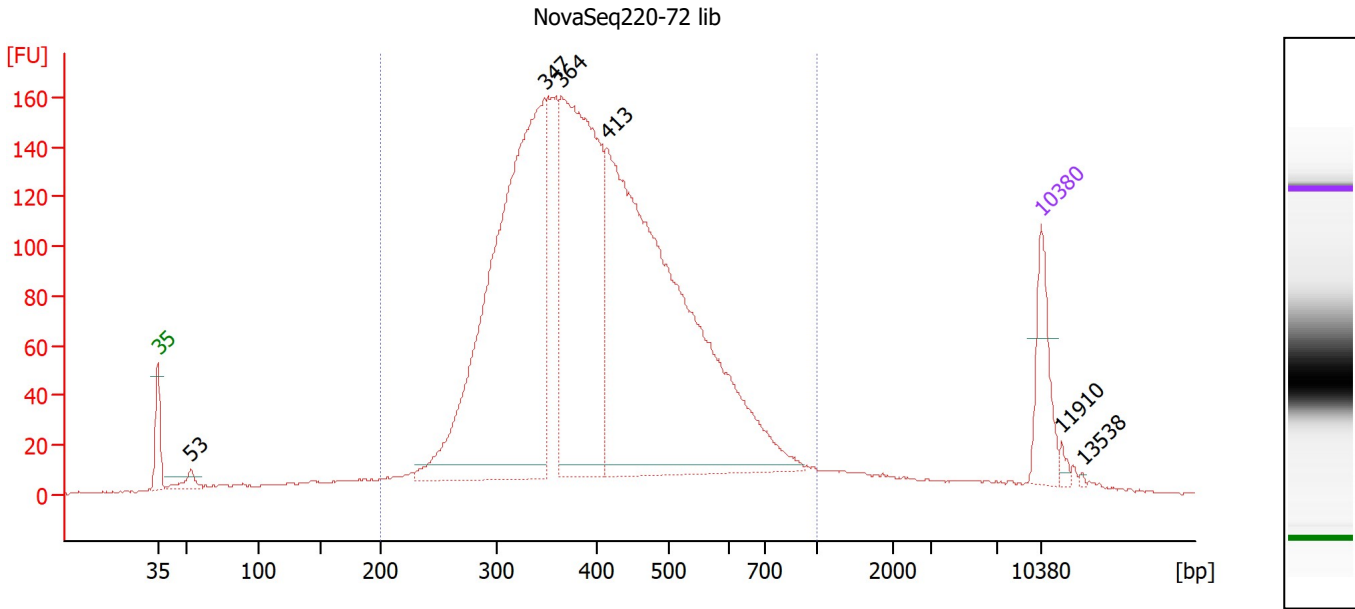
Region table for sample 5 : NovaSeq220-71 lib

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	4,679.2	93	415	27.8	2,826.50	11,284.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
 Modified: 7/31/2020 5:07:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : NovaSeq220-72 lib

Number of peaks found: 6 Corr. Area 1: 3,468.6
 Noise: 0.4

Peak table for sample 6 : NovaSeq220-72 lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	53	27.17	782.9	
3	347	1,082.03	4,723.0	
4	364	718.54	2,992.4	
5	413	1,172.57	4,298.6	
6	10,380	75.00	10.9	Upper Marker
7	11,910	0.00	0.0	
8	13,538	0.00	0.0	

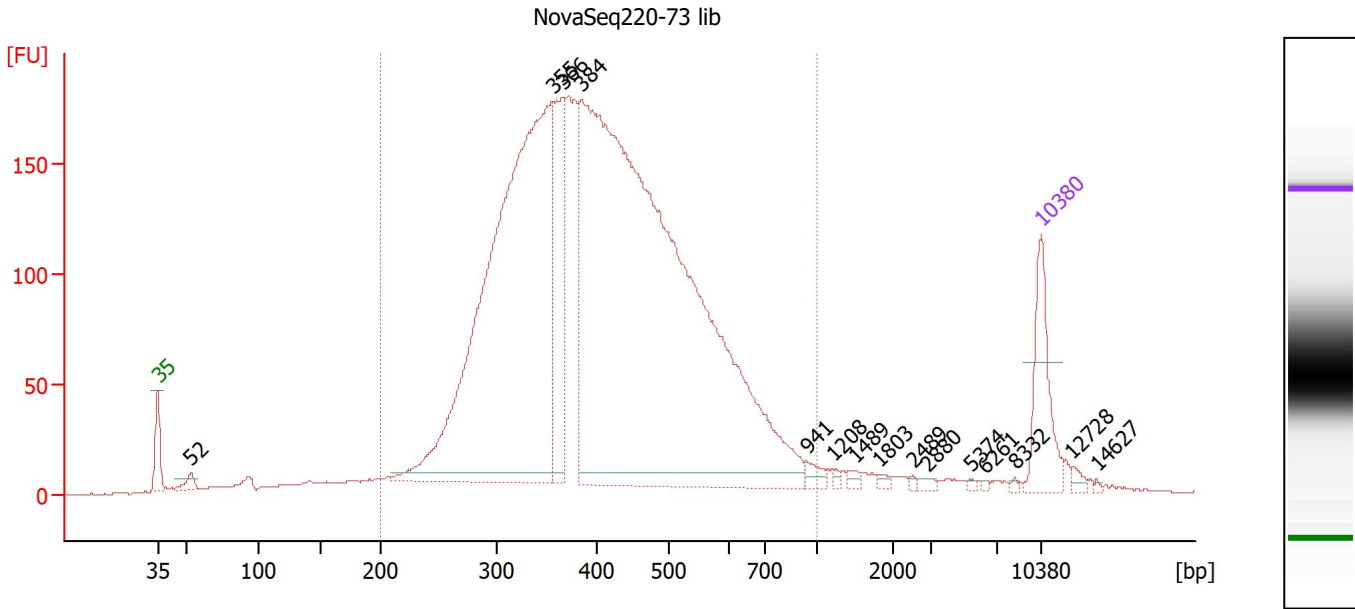
Region table for sample 6 : NovaSeq220-72 lib

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	3,468.6	90	416	28.3	3,517.81	14,079.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
 Modified: 7/31/2020 5:07:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : NovaSeq220-73 lib

Number of peaks found: 15 Corr. Area 1: 4,189.1
 Noise: 0.4

Peak table for sample 7 : NovaSeq220-73 lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	52	14.98	433.1	
3	355	1,114.85	4,764.1	
4	366	188.76	782.2	
5	384	1,774.95	7,006.6	
6	941	12.35	19.9	
7	1,208	3.83	4.8	
8	1,489	5.48	5.6	
9	1,803	3.87	3.2	
10	2,489	2.20	1.3	
11	2,880	4.65	2.4	
12	5,374	1.88	0.5	
13	6,261	1.78	0.4	
14	8,332	1.90	0.3	
15	10,380	75.00	10.9	Upper Marker
16	12,728	0.00	0.0	
17	14,627	0.00	0.0	

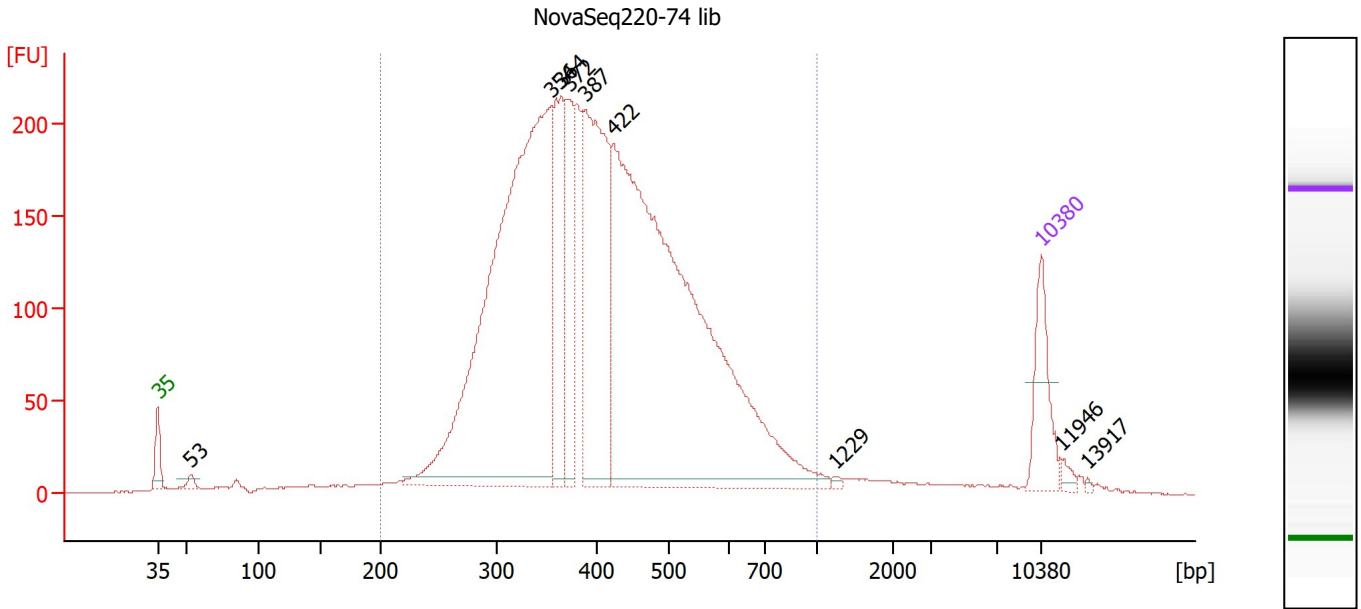
Region table for sample 7 : NovaSeq220-73 lib

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	4,189.1	91	421	28.9	3,448.50	13,724.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
 Modified: 7/31/2020 5:07:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : NovaSeq220-74 lib

Number of peaks found: 9 Corr. Area 1: 4,698.5
 Noise: 0.4

Peak table for sample 8 : NovaSeq220-74 lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	53	11.11	319.6	
3	354	1,178.47	5,048.2	
4	364	227.21	946.9	
5	372	145.11	590.8	
6	387	424.97	1,662.7	
7	422	1,339.96	4,812.0	
8	1,229	3.84	4.7	
9	10,380	75.00	10.9	Upper Marker
10	11,946	0.00	0.0	
11	13,917	0.00	0.0	

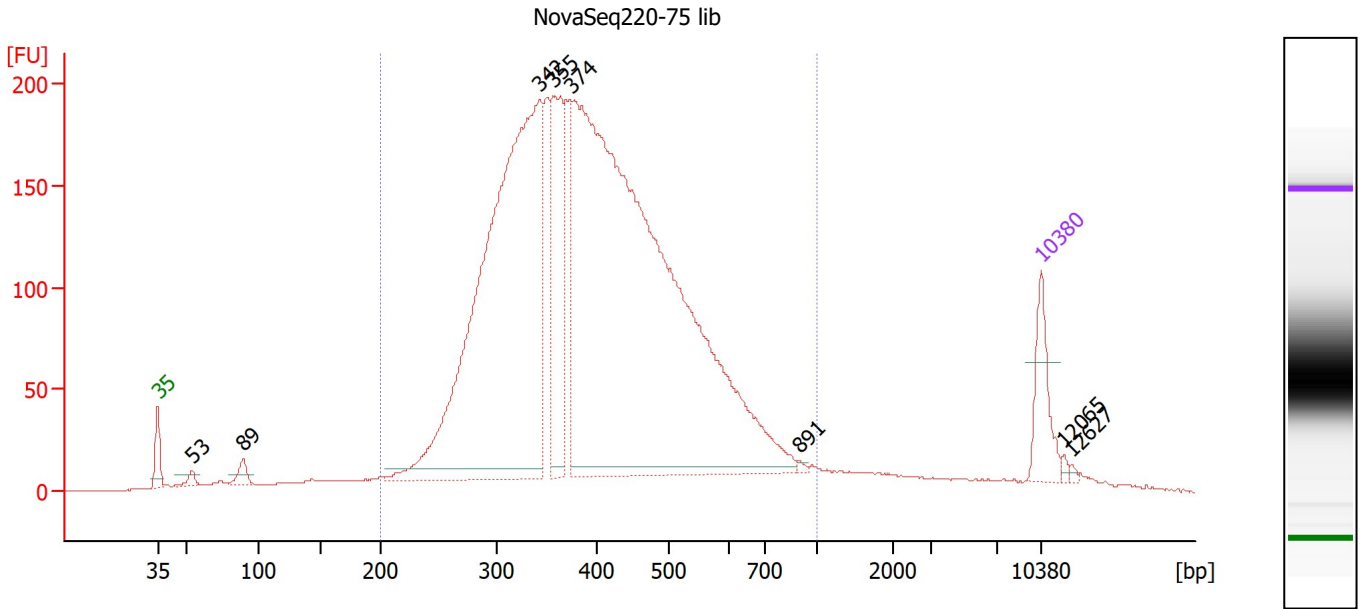
Region table for sample 8 : NovaSeq220-74 lib

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	4,698.5	93	420	27.8	3,618.67	14,325.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
 Modified: 7/31/2020 5:07:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : NovaSeq220-75 lib

Number of peaks found: 8 Corr. Area 1: 4,335.0
 Noise: 0.3

Peak table for sample 9 : NovaSeq220-75 lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	53	16.34	467.6	
3	89	29.86	509.8	
4	342	1,481.49	6,565.4	
5	355	311.40	1,328.4	
6	374	2,245.36	9,101.3	
7	891	4.55	7.7	
8	10,380	75.00	10.9	Upper Marker
9	12,065	0.00	0.0	
10	12,627	0.00	0.0	

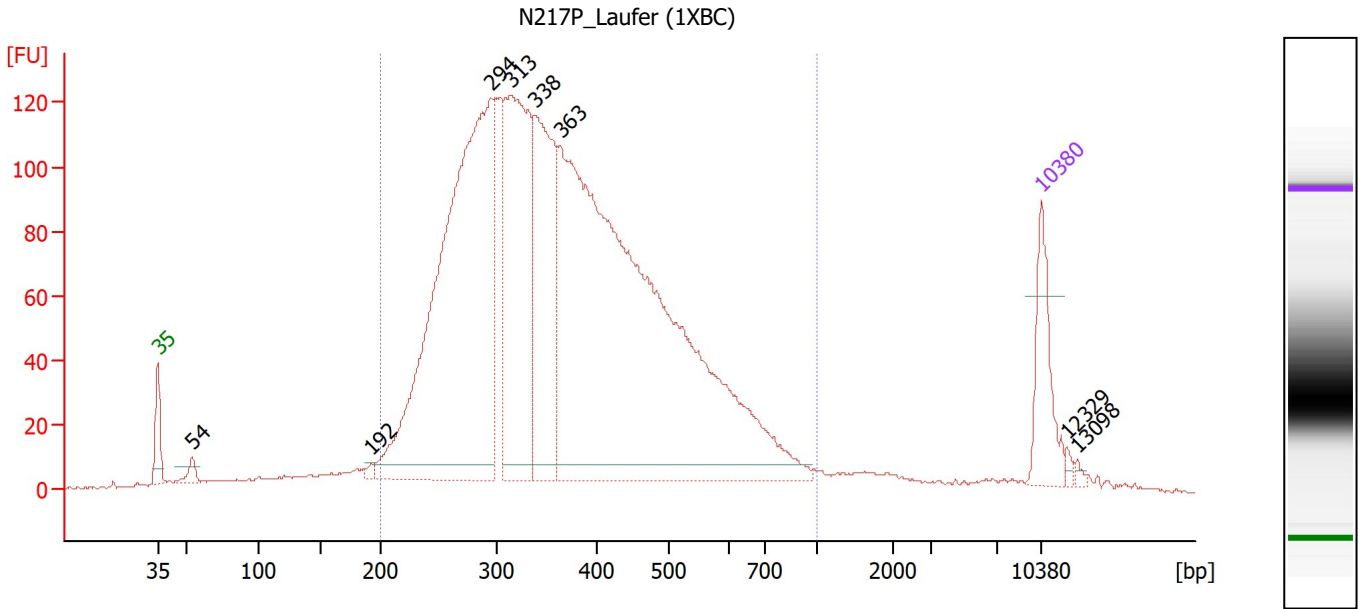
Region table for sample 9 : NovaSeq220-75 lib

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	4,335.0	90	410	28.8	4,616.24	18,789.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
 Modified: 7/31/2020 5:07:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : N217P Laufer (1XBC)

Number of peaks found: 8 Corr. Area 1: 3,020.2
 Noise: 0.4

Peak table for sample 10 : N217P Laufer (1XBC)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	54	18.45	522.4	
3	192	6.92	54.5	
4	294	1,002.24	5,156.9	
5	313	468.11	2,266.6	
6	338	328.23	1,470.1	
7	363	1,449.33	6,049.7	
8	10,380	75.00	10.9	Upper Marker
9	12,329	0.00	0.0	
10	13,098	0.00	0.0	

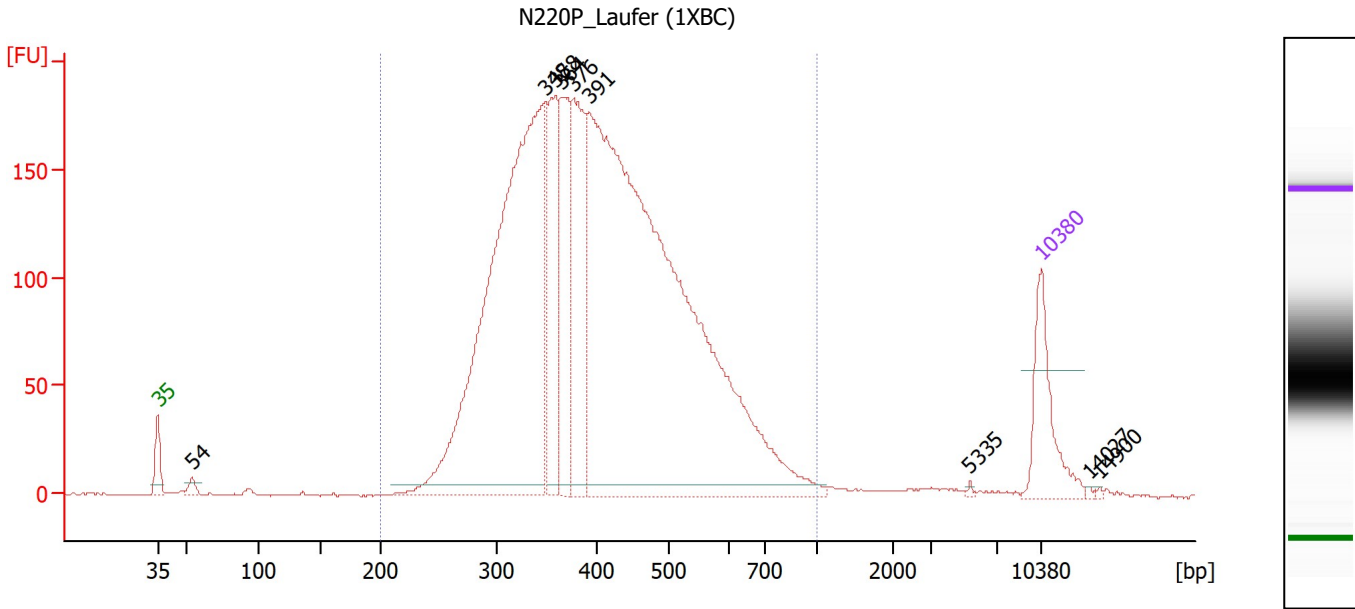
Region table for sample 10 : N217P Laufer (1XBC)

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	3,020.2	90	382	32.3	3,494.58	15,606.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
 Modified: 7/31/2020 5:07:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : N220P Laufer (1XBC)

Number of peaks found: 9 Corr. Area 1: 3,833.8
 Noise: 0.4

Peak table for sample 11 : N220P Laufer (1XBC)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	54	11.33	320.5	
3	348	928.16	4,046.3	
4	358	178.86	756.5	
5	364	157.45	656.1	
6	376	206.70	833.7	
7	391	1,430.68	5,543.8	
8	5,335	1.64	0.5	
9	10,380	75.00	10.9	Upper Marker
10	14,027	0.00	0.0	
11	14,900	0.00	0.0	

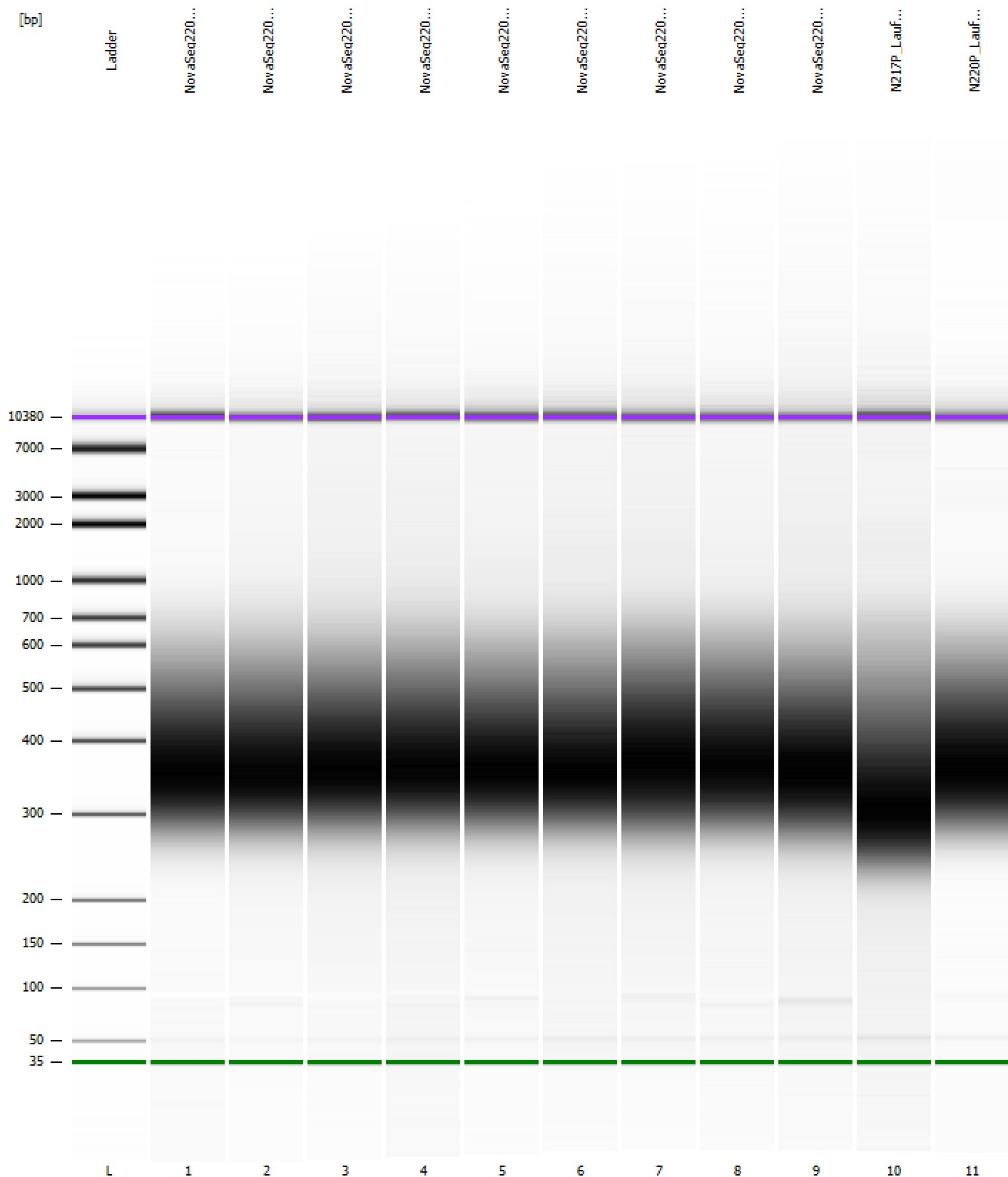
Region table for sample 11 : N220P Laufer (1XBC)

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	3,833.8	97	415	26.0	2,892.26	11,436.2	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
Modified: 7/31/2020 5:07:49 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-07-31_004.xad

Created: 7/31/2020 4:22:36 PM
 Modified: 7/31/2020 5:07:49 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		7/31/2020 5:03:05 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Run started on port 1 (File: Z:\XADs\2020-07-31\Bioanalyze r1_High Sensitivity DNA Assay_2020-07-31_004.xad)		Instrument	Run		7/31/2020 4:22:41 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Product Number : G2938C		Instrument	Run		7/31/2020 4:22:41 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Name :		Instrument	Run		7/31/2020 4:22:41 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Vendor : Agilent Technologies		Instrument	Run		7/31/2020 4:22:41 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Serial# : DE34903152		Instrument	Run		7/31/2020 4:22:41 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Firmware : C.01.069		Instrument	Run		7/31/2020 4:22:41 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Cartridge : Electrode		Instrument	Run		7/31/2020 4:22:41 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB