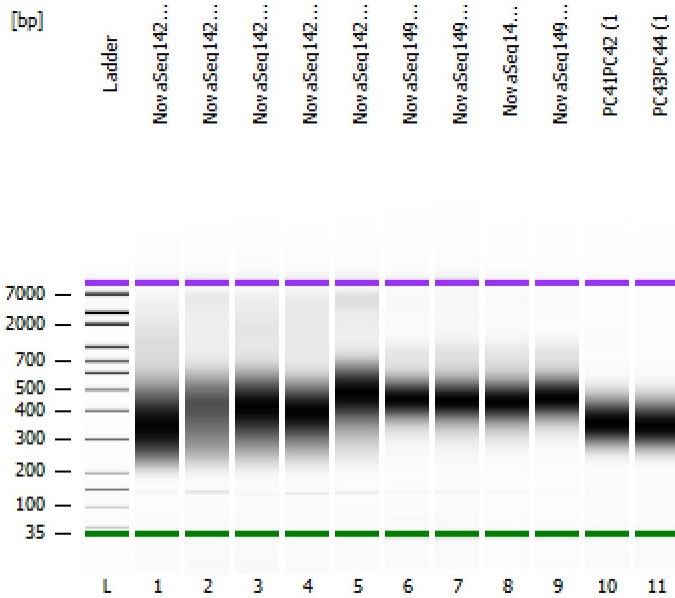


Assay Class: High Sensitivity DNA Assay
Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
Modified: 2/5/2020 4:46:48 PM

Electrophoresis File Run Summary



Instrument Information:

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

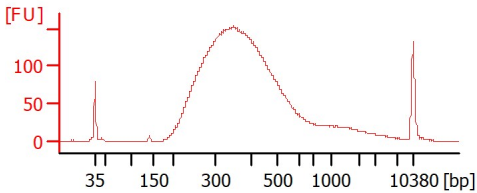
Assay Information:

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

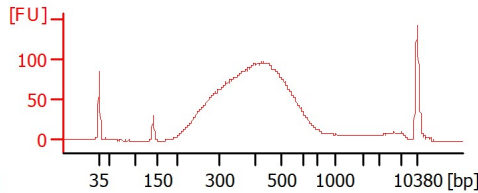
Chip Information:

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

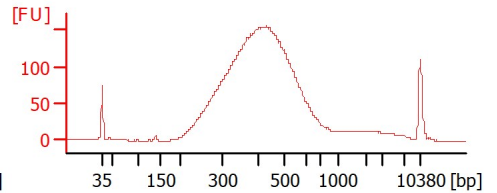
NovaSeq142-12 (1:10)



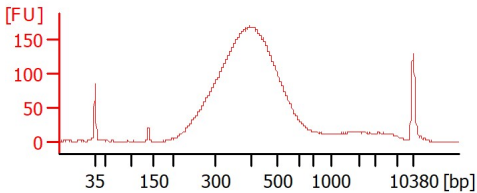
NovaSeq142-13 (1:10)



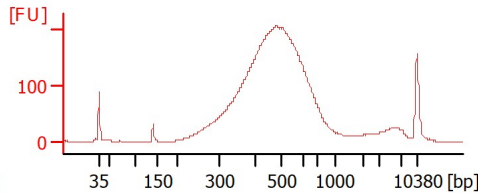
NovaSeq142-14 (1:10)



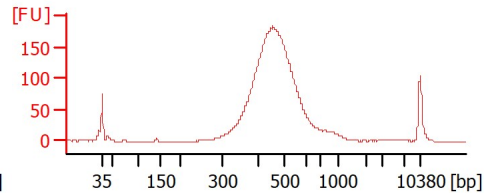
NovaSeq142-15 (1:10)



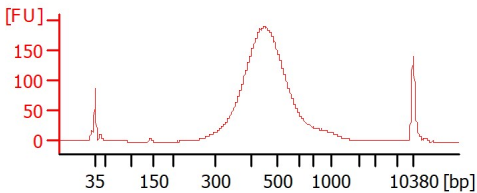
NovaSeq142-16 (1:10)



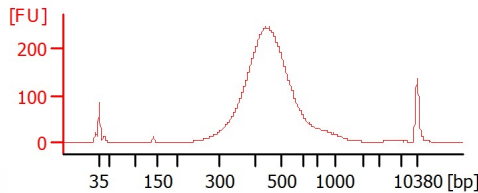
NovaSeq149-1 (1:3)



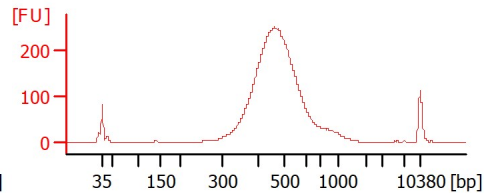
NovaSeq149-2 (1:3)



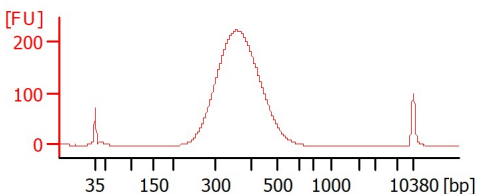
NovaSeq149-3 (1:3)



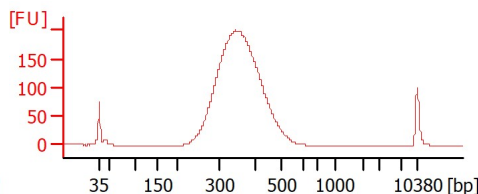
NovaSeq149-4 (1:3)



PC41PC42 (1:3)



PC43PC44 (1:3)



Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
 Modified: 2/5/2020 4:46:48 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
NovaSeq142-12 (1:10)		<input type="checkbox"/>	✓			
NovaSeq142-13 (1:10)		<input type="checkbox"/>	✓			
NovaSeq142-14 (1:10)		<input type="checkbox"/>	✓			
NovaSeq142-15 (1:10)		<input type="checkbox"/>	✓			
NovaSeq142-16 (1:10)		<input type="checkbox"/>	✓			
NovaSeq149-1 (1:3)		<input type="checkbox"/>	✓			
NovaSeq149-2 (1:3)		<input type="checkbox"/>	✓			
NovaSeq149-3 (1:3)		<input type="checkbox"/>	✓			
NovaSeq149-4 (1:3)		<input type="checkbox"/>	✓			
PC41PC42 (1:3)		<input type="checkbox"/>	✓			
PC43PC44 (1:3)		<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_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
 Modified: 2/5/2020 4:46:48 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

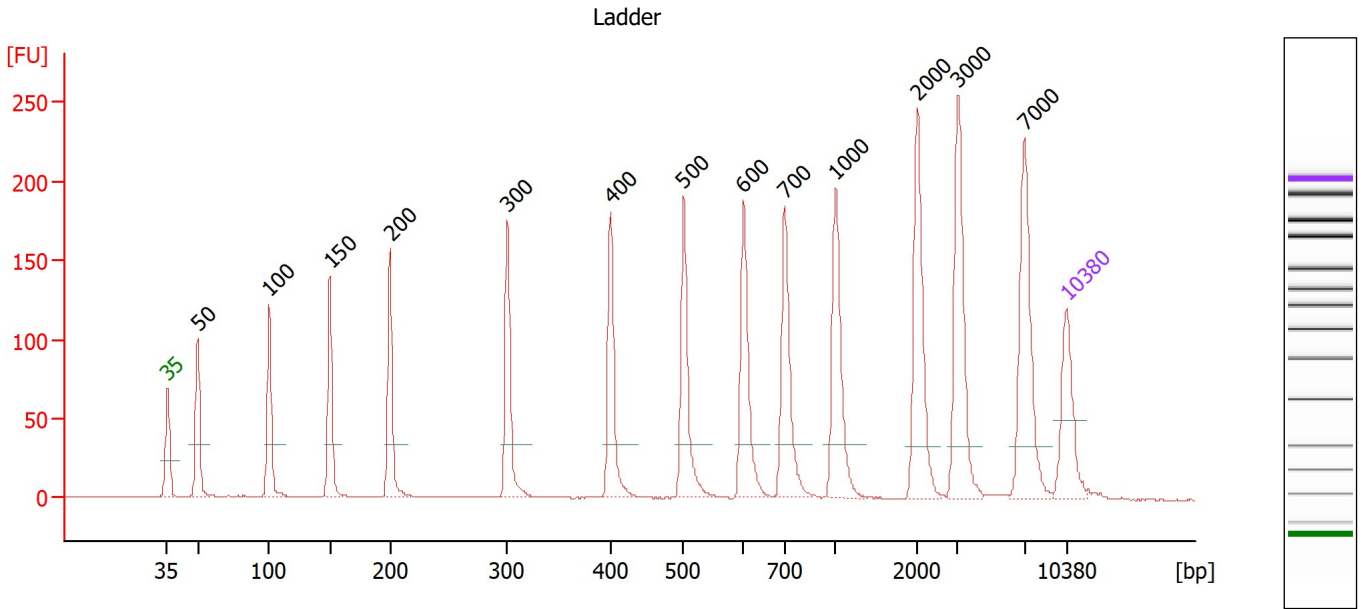
Ladder

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_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
 Modified: 2/5/2020 4:46:48 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

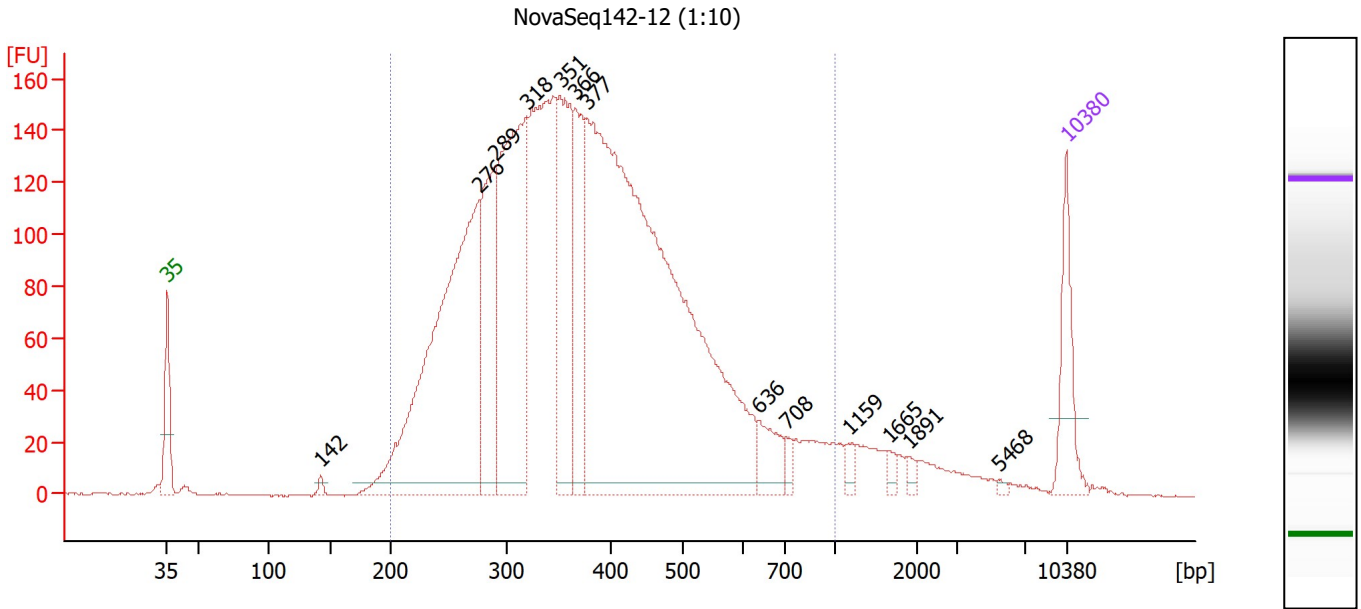
Peak table for Ladder

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_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
 Modified: 2/5/2020 4:46:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : NovaSeq142-12 (1:10)

Number of peaks found: 13 Corr. Area 1: 4,045.7
 Noise: 0.3

Peak table for sample 1 : NovaSeq142-12 (1:10)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	142	9.04	96.2	
3	276	804.71	4,421.6	
4	289	254.40	1,332.1	
5	318	527.89	2,513.4	
6	351	273.63	1,181.5	
7	366	177.68	736.0	
8	377	1,586.72	6,375.9	
9	636	57.38	136.8	
10	708	14.30	30.6	
11	1,159	12.92	16.9	
12	1,665	10.41	9.5	
13	1,891	8.63	6.9	
14	5,468	3.43	1.0	
15	10,380	75.00	10.9	Upper Marker

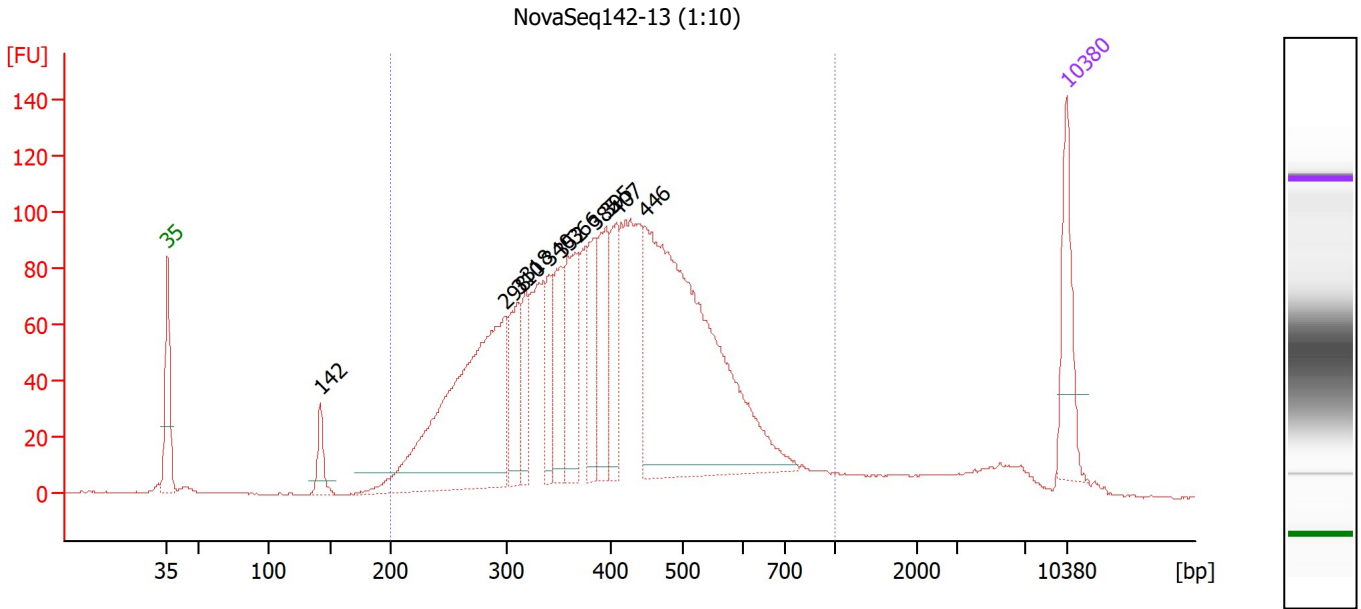
Region table for sample 1 : NovaSeq142-12 (1:10)

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	4,045.7	93	389	33.0	4,238.52	18,655.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
 Modified: 2/5/2020 4:46:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : NovaSeq142-13 (1:10)

Number of peaks found: 11 Corr. Area 1: 2,520.5
 Noise: 0.2

Peak table for sample 2 : NovaSeq142-13 (1:10)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	142	43.58	464.3	
3	298	509.93	2,591.0	
4	310	100.85	493.1	
5	318	65.33	311.6	
6	340	67.60	301.0	
7	352	94.44	406.9	
8	366	128.87	533.6	
9	385	92.87	365.5	
10	395	110.68	424.4	
11	407	83.32	309.8	
12	446	671.70	2,284.4	
13	10,380	75.00	10.9	Upper Marker

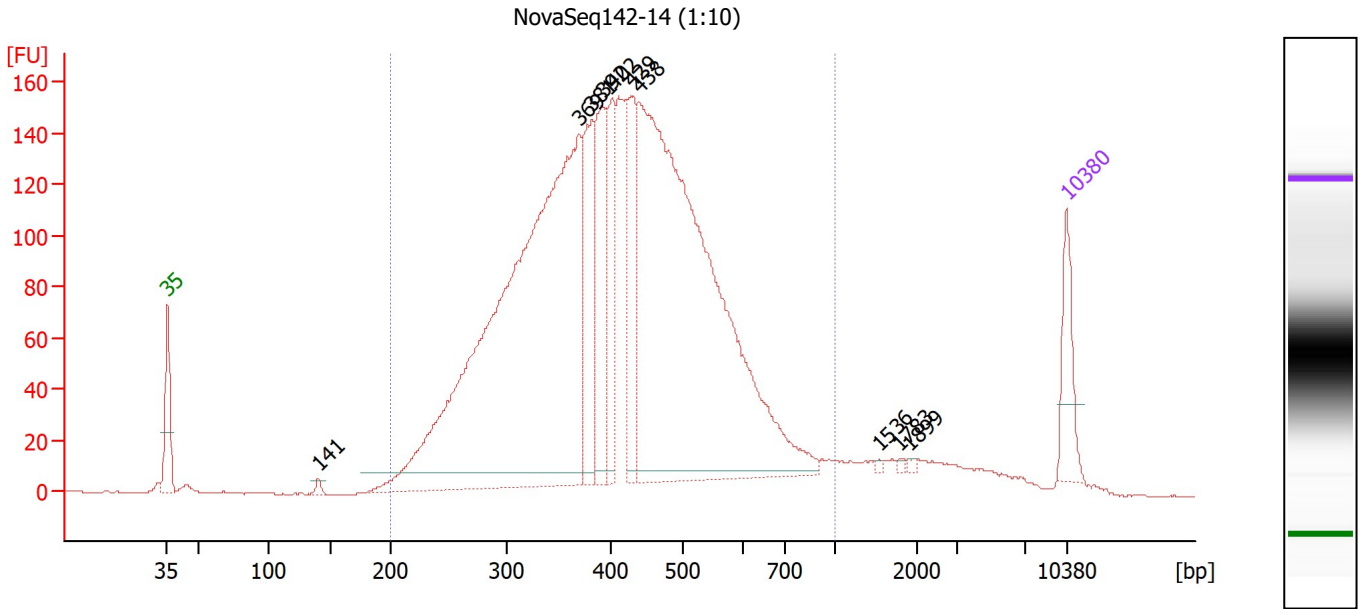
Region table for sample 2 : NovaSeq142-13 (1:10)

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	2,520.5	92	413	29.5	2,571.94	10,581.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
 Modified: 2/5/2020 4:46:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : NovaSeq142-14 (1:10)

Number of peaks found: 10 Corr. Area 1: 3,655.3
 Noise: 0.2

Peak table for sample 3 : NovaSeq142-14 (1:10)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	141	9.53	102.7	
3	369	1,722.64	7,071.9	
4	381	221.70	881.1	
5	392	213.06	824.4	
6	402	165.86	625.3	
7	429	187.45	662.7	
8	438	1,562.21	5,403.2	
9	1,536	3.48	3.4	
10	1,783	3.11	2.6	
11	1,899	3.88	3.1	
12	10,380	75.00	10.9	Upper Marker

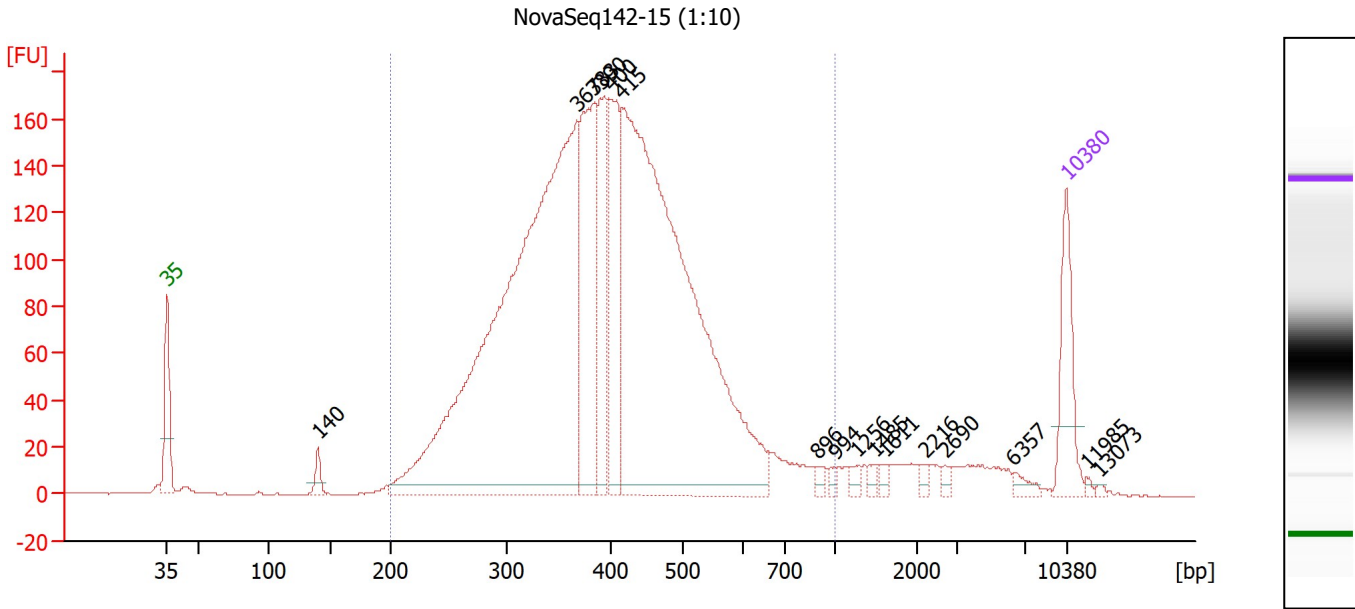
Region table for sample 3 : NovaSeq142-14 (1:10)

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	3,655.3	94	424	28.3	4,691.16	18,639.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
 Modified: 2/5/2020 4:46:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : NovaSeq142-15 (1:10)

Number of peaks found: 16 Corr. Area 1: 3,588.8
 Noise: 0.2

Peak table for sample 4 : NovaSeq142-15 (1:10)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	140	23.32	252.0	
3	367	1,333.44	5,500.2	
4	383	280.06	1,106.5	
5	390	162.18	630.5	
6	400	177.08	671.3	
7	415	1,174.30	4,292.5	
8	896	6.91	11.7	
9	994	6.38	9.7	
10	1,256	8.80	10.6	
11	1,485	6.72	6.9	
12	1,611	8.16	7.7	
13	2,216	6.22	4.3	
14	2,690	6.27	3.5	
15	6,357	9.51	2.3	
16	10,380	75.00	10.9	Upper Marker
17	11,985	0.00	0.0	
18	13,073	0.00	0.0	

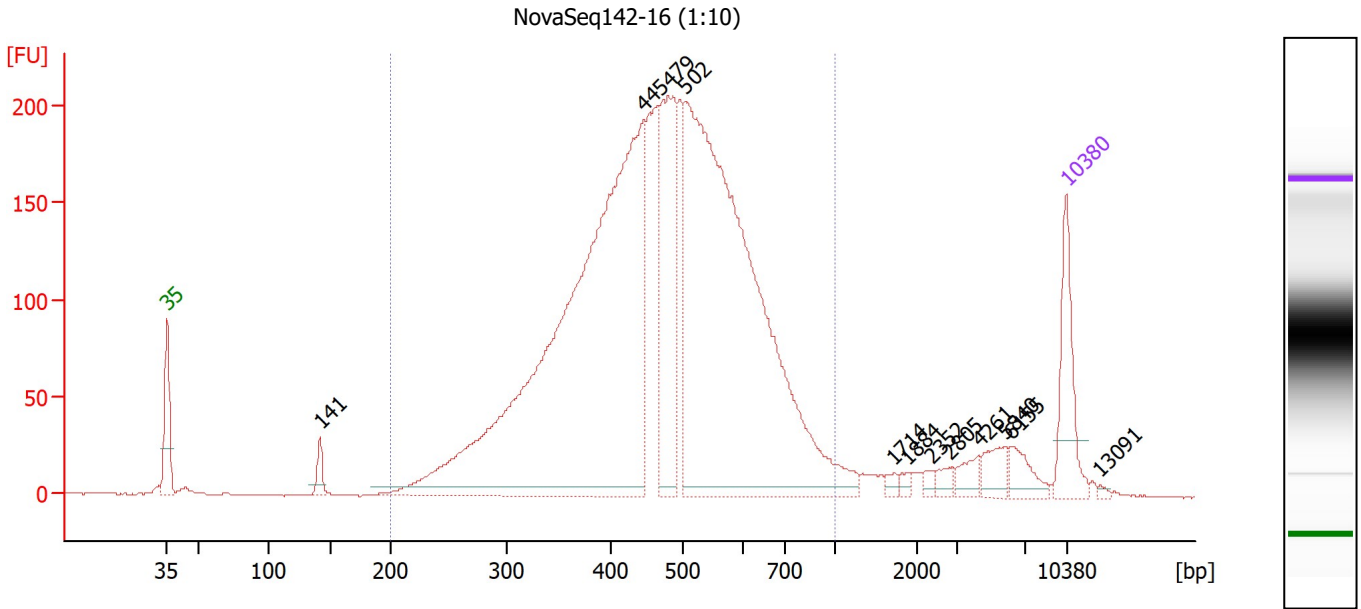
Region table for sample 4 : NovaSeq142-15 (1:10)

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	3,588.8	93	408	27.1	3,343.79	13,572.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
 Modified: 2/5/2020 4:46:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : NovaSeq142-16 (1:10)

Number of peaks found: 12 Corr. Area 1: 4,086.4
 Noise: 0.3

Peak table for sample 5 : NovaSeq142-16 (1:10)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	141	27.13	290.9	
3	445	1,278.18	4,356.9	
4	479	275.41	871.4	
5	502	1,151.22	3,476.2	
6	1,714	7.04	6.2	
7	1,884	5.98	4.8	
8	2,352	7.53	4.8	
9	2,805	10.48	5.7	
10	4,261	18.74	6.7	
11	5,840	26.38	6.8	
12	6,155	27.50	6.8	
13	10,380	75.00	10.9	Upper Marker
14	13,091	0.00	0.0	

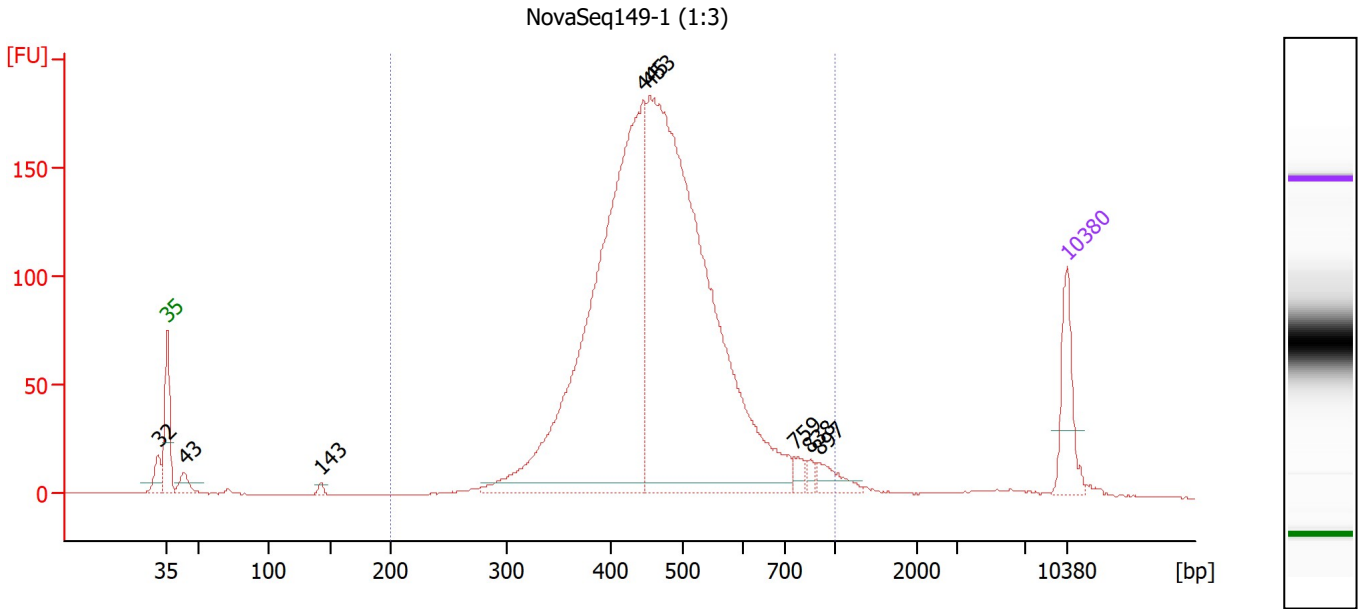
Region table for sample 5 : NovaSeq142-16 (1:10)

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	4,086.4	92	479	26.0	3,033.53	10,581.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
 Modified: 2/5/2020 4:46:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : NovaSeq149-1 (1:3)

Number of peaks found: 8 Corr. Area 1: 2,430.5
 Noise: 0.2

Peak table for sample 6 : NovaSeq149-1 (1:3)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	32	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	43	32.98	1,162.8	
4	143	7.90	83.8	
5	445	1,189.80	4,048.7	
6	453	1,429.10	4,783.7	
7	759	14.15	28.3	
8	838	10.74	19.4	
9	897	30.91	52.2	
10	10,380	75.00	10.9	Upper Marker

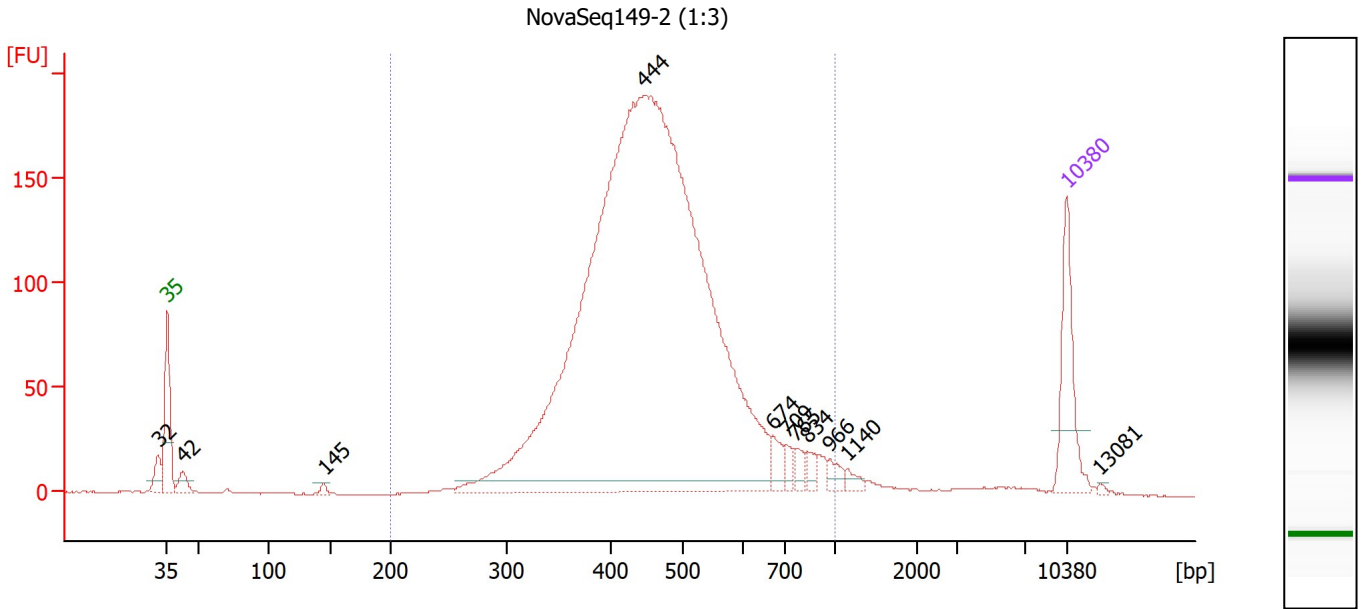
Region table for sample 6 : NovaSeq149-1 (1:3)

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	2,430.5	95	474	21.6	2,728.52	9,194.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
 Modified: 2/5/2020 4:46:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : NovaSeq149-2 (1:3)

Number of peaks found: 11 Corr. Area 1: 2,731.3
 Noise: 0.2

Peak table for sample 7 : NovaSeq149-2 (1:3)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	32	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	42	22.15	791.1	
4	145	6.20	64.9	
5	444	2,113.25	7,219.5	
6	674	19.68	44.3	
7	709	12.56	26.8	
8	765	11.99	23.7	
9	834	10.65	19.3	
10	966	12.08	18.9	
11	1,140	8.08	10.7	
12	10,380	75.00	10.9	Upper Marker
13	13,081	0.00	0.0	

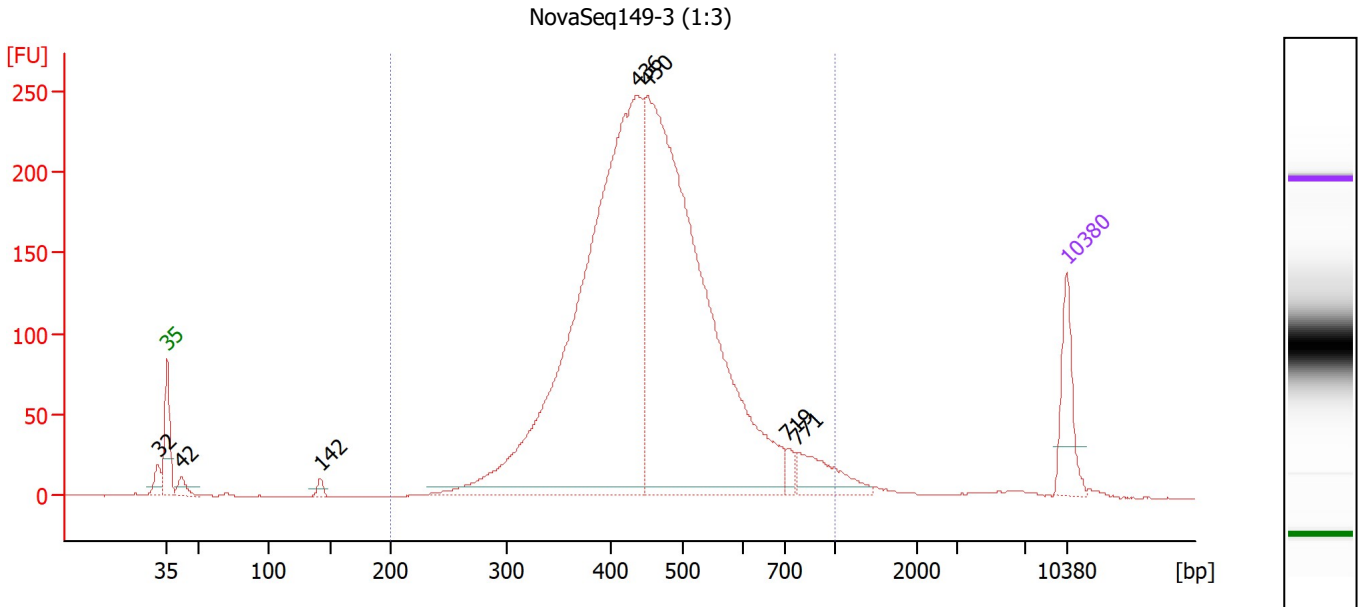
Region table for sample 7 : NovaSeq149-2 (1:3)

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	2,731.3	94	469	23.2	2,267.40	7,791.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
 Modified: 2/5/2020 4:46:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : NovaSeq149-3 (1:3)

Number of peaks found: 7 Corr. Area 1: 3,566.5
 Noise: 0.2

Peak table for sample 8 : NovaSeq149-3 (1:3)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	32	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	42	27.51	996.5	
4	142	12.72	136.0	
5	436	1,498.80	5,210.3	
6	450	1,419.68	4,779.2	
7	719	18.53	39.1	
8	771	82.15	161.4	
9	10,380	75.00	10.9	Upper Marker

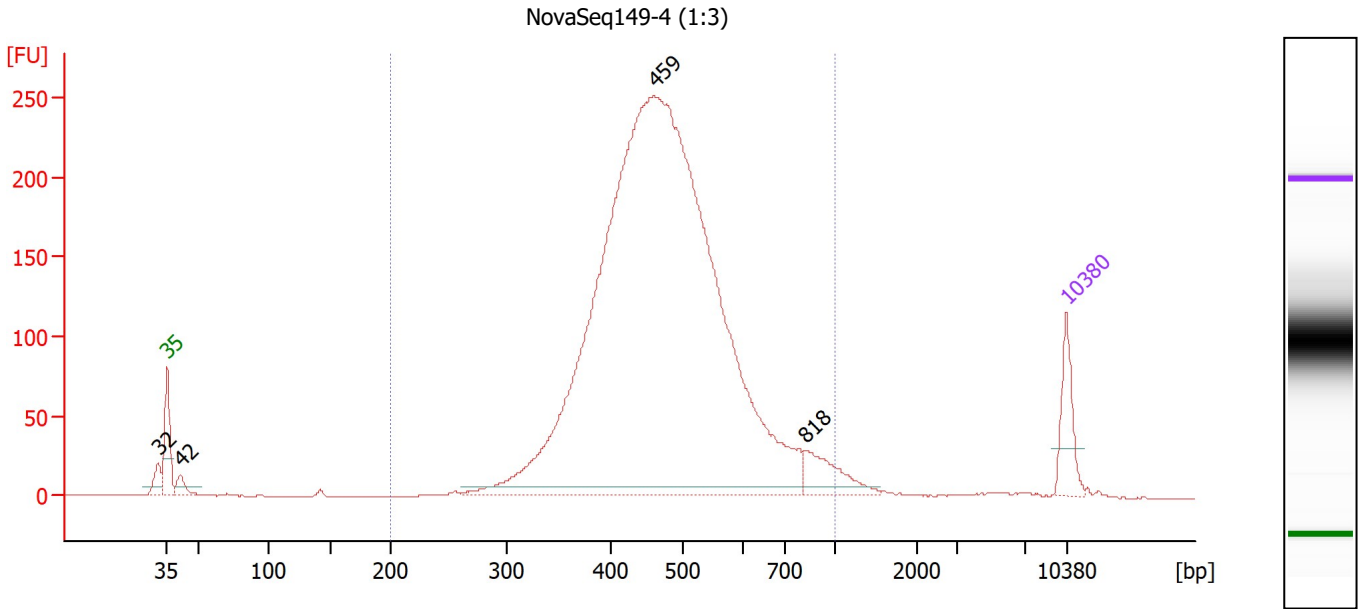
Region table for sample 8 : NovaSeq149-3 (1:3)

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	3,566.5	95	463	23.3	3,081.13	10,727.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
 Modified: 2/5/2020 4:46:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : NovaSeq149-4 (1:3)

Number of peaks found: 4 Corr. Area 1: 3,411.5
 Noise: 0.2

Peak table for sample 9 : NovaSeq149-4 (1:3)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	32	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	42	37.53	1,369.1	
4	459	3,557.20	11,730.9	
5	818	95.51	177.0	
6	10,380	75.00	10.9	Upper Marker

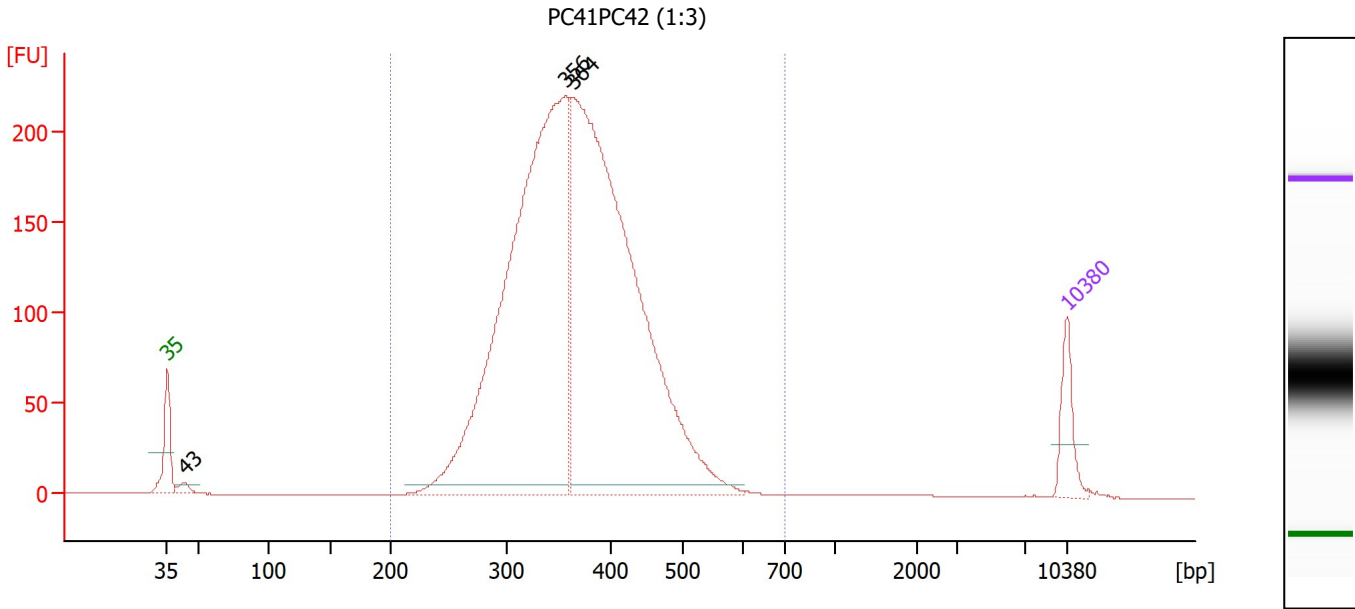
Region table for sample 9 : NovaSeq149-4 (1:3)

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	3,411.5	96	482	22.1	3,658.26	12,145.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
 Modified: 2/5/2020 4:46:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : PC41PC42 (1:3)

Number of peaks found: 3 Corr. Area 1: 3,316.2
 Noise: 0.1

Peak table for sample 10 : PC41PC42 (1:3)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	43	25.92	907.0	
3	356	1,978.35	8,417.9	
4	364	2,046.52	8,529.4	
5	10,380	75.00	10.9	Upper Marker

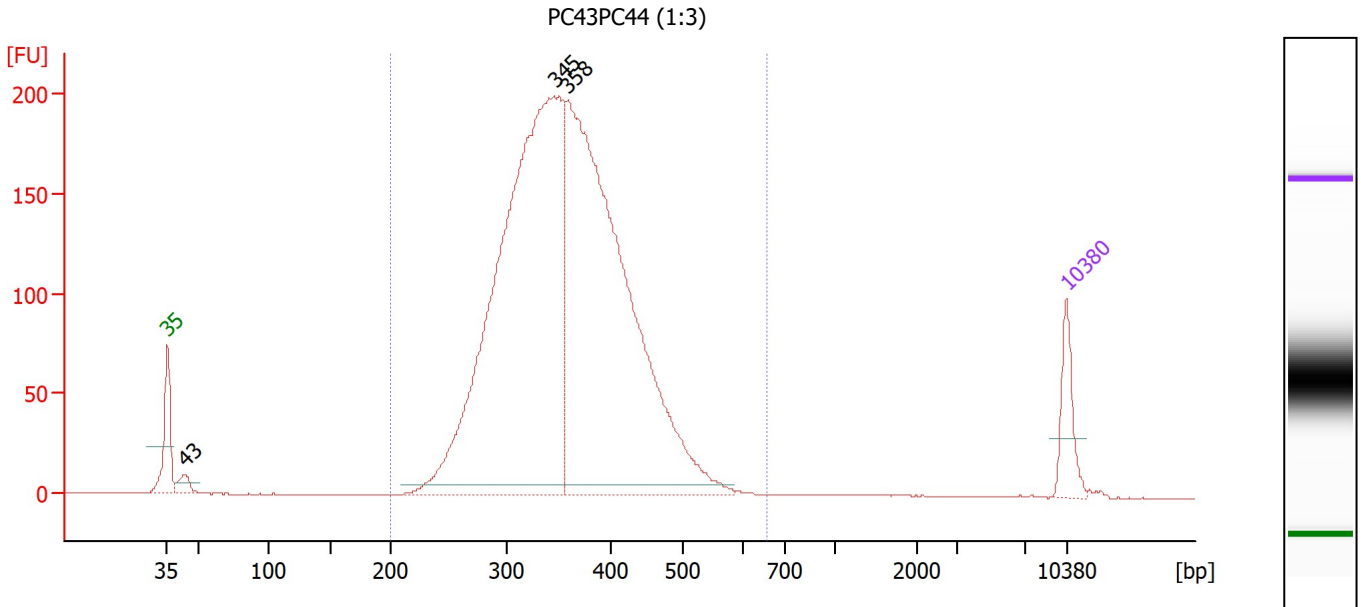
Region table for sample 10 : PC41PC42 (1:3)

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	704	3,316.2	99	369	16.7	4,106.28	17,482.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
 Modified: 2/5/2020 4:46:48 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : PC43PC44 (1:3)

Number of peaks found: 3 Corr. Area 1: 3,024.2
 Noise: 0.2

Peak table for sample 11 : PC43PC44 (1:3)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	43	41.38	1,446.0	
3	345	2,004.01	8,807.0	
4	358	1,786.87	7,567.9	
5	10,380	75.00	10.9	Upper Marker

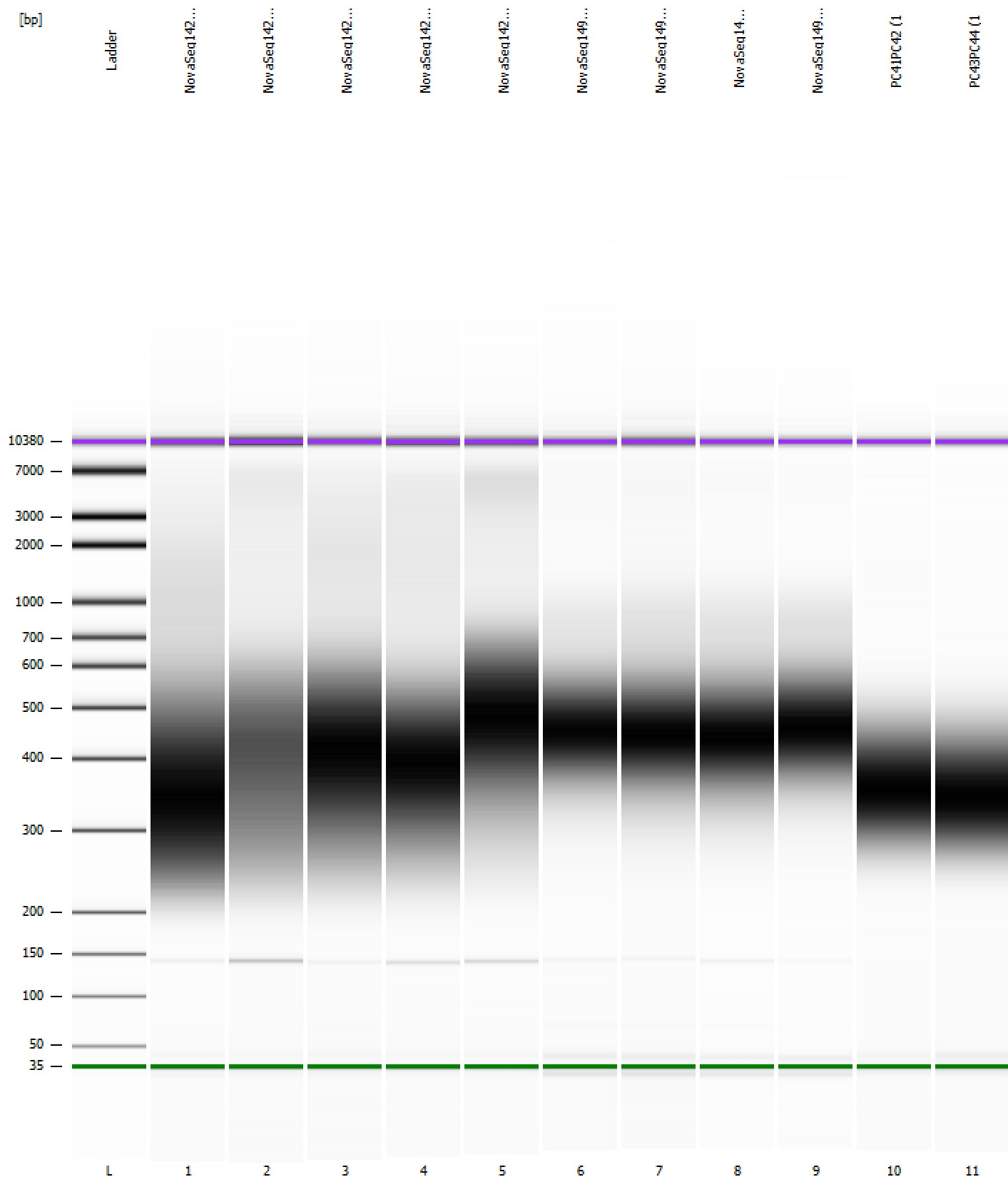
Region table for sample 11 : PC43PC44 (1:3)

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	655	3,024.2	98	359	16.7	3,868.91	16,925.0	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-02-05_001.xad

Created: 2/5/2020 3:57:01 PM
Modified: 2/5/2020 4:46:48 PM

Gel Image



Assay Class: High Sensitivity DNA Assay Created: 2/5/2020 3:57:01 PM
 Data Path: Z:\...\Bioanalyzer1_High Sensitivity DNA Assay_2020-02-05_001.xad Modified: 2/5/2020 4:46:48 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		2/5/2020 4:38:22 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Run started on port 1 (File: Z:\XADs\2020-02-05\Bioanalyze r1_High Sensitivity DNA Assay_2020-02-05_001.xad)		Instrument	Run		2/5/2020 3:57:06 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Product Number : G2938C		Instrument	Run		2/5/2020 3:57:06 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Name :		Instrument	Run		2/5/2020 3:57:06 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Vendor : Agilent Technologies		Instrument	Run		2/5/2020 3:57:06 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Serial# : DE34903152		Instrument	Run		2/5/2020 3:57:06 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Firmware : C.01.069		Instrument	Run		2/5/2020 3:57:06 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Cartridge : Electrode		Instrument	Run		2/5/2020 3:57:06 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB