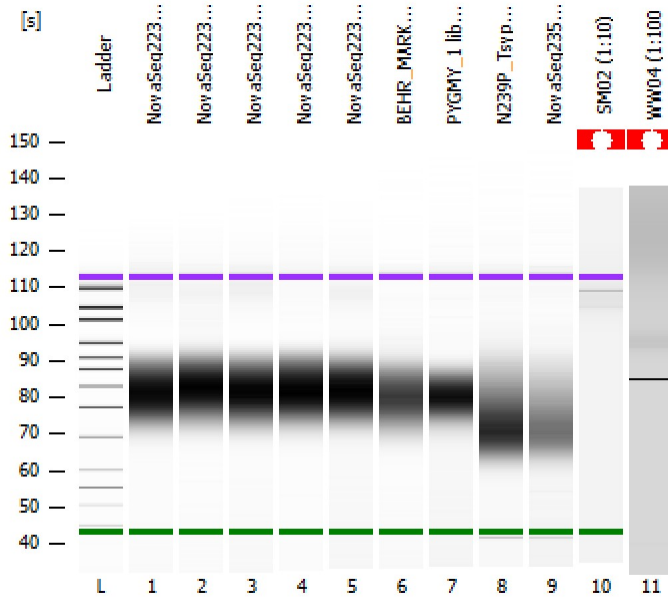


Assay Class: High Sensitivity DNA Assay  
Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-08-18\_001.xad

Created: 8/18/2020 11:31:35 AM  
Modified: 8/18/2020 12:12:58 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

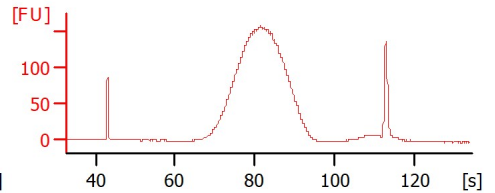
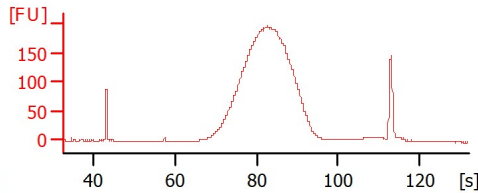
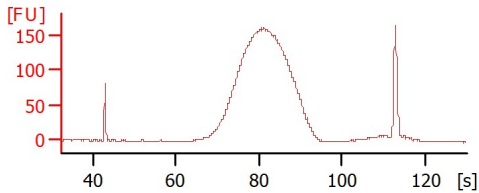
Chip Information:

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

NovaSeq223-B3 SS lib (1:2)

NovaSeq223-G4 SS lib

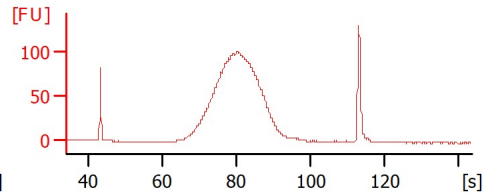
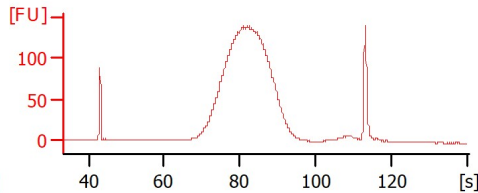
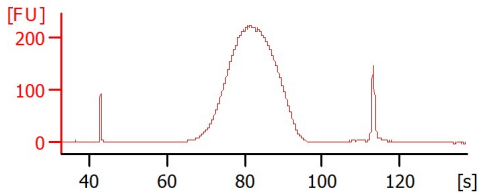
NovaSeq223-A6 SS lib (1:2)



NovaSeq223-D10 SS lib (1:2)

NovaSeq223-C12 SS lib (1:2)

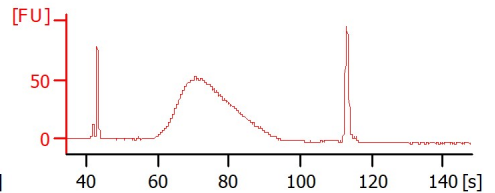
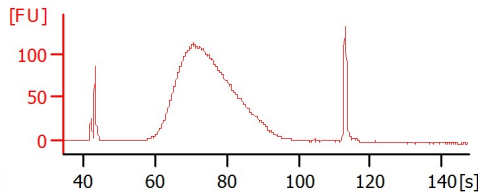
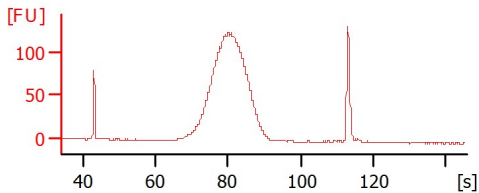
BEHR\_MARK\_1\_2 lib (1:2)



PYGMY\_1 lib (1:2)

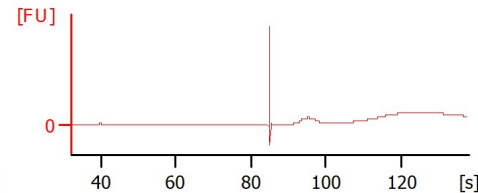
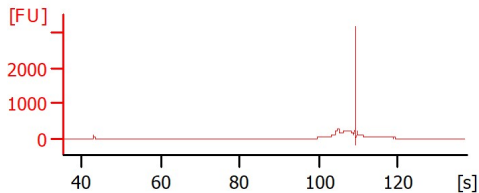
N239P\_Tsyporin

NovaSeq235-42 lib (1:2)



SM02 (1:10)

WW04 (1:100)



Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-08-18\_001.xad

Created: 8/18/2020 11:31:35 AM  
 Modified: 8/18/2020 12:12:58 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
NovaSeq223-B3 SS lib (1:2)		<input type="checkbox"/>	✓			
NovaSeq223-G4 SS lib		<input type="checkbox"/>	✓			
NovaSeq223-A6 SS lib (1:2)		<input type="checkbox"/>	✓			
NovaSeq223-D10 SS lib (1:2)		<input type="checkbox"/>	✓			
NovaSeq223-C12 SS lib (1:2)		<input type="checkbox"/>	✓			
BEHR_MARK_1_2 lib (1:2)		<input type="checkbox"/>	✓			
PYGMY_1 lib (1:2)		<input type="checkbox"/>	✓			
N239P_Tsyporin		<input type="checkbox"/>	✓			
NovaSeq235-42 lib (1:2)		<input type="checkbox"/>	✓			
SM02 (1:10)		<input type="checkbox"/>	✓			
WW04 (1:100)		<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\_2020-08-18\_001.xad

Created: 8/18/2020 11:31:35 AM  
 Modified: 8/18/2020 12:12:58 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

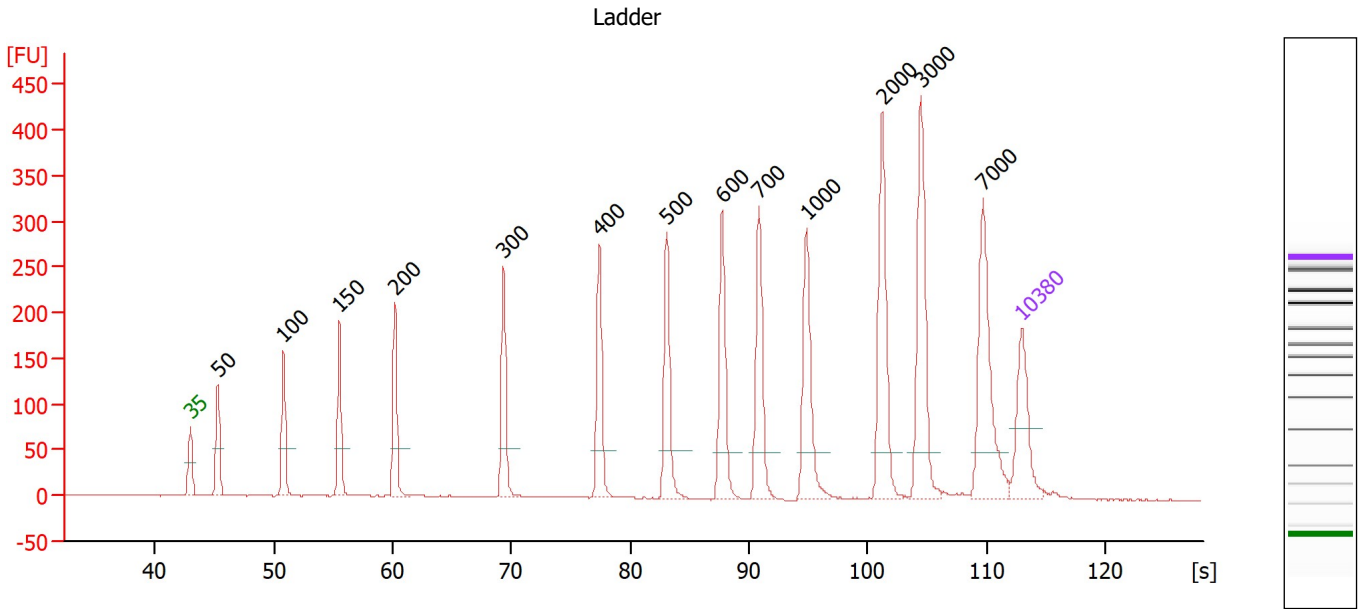
**Ladder**

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\_2020-08-18\_001.xad

Created: 8/18/2020 11:31:35 AM  
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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.3

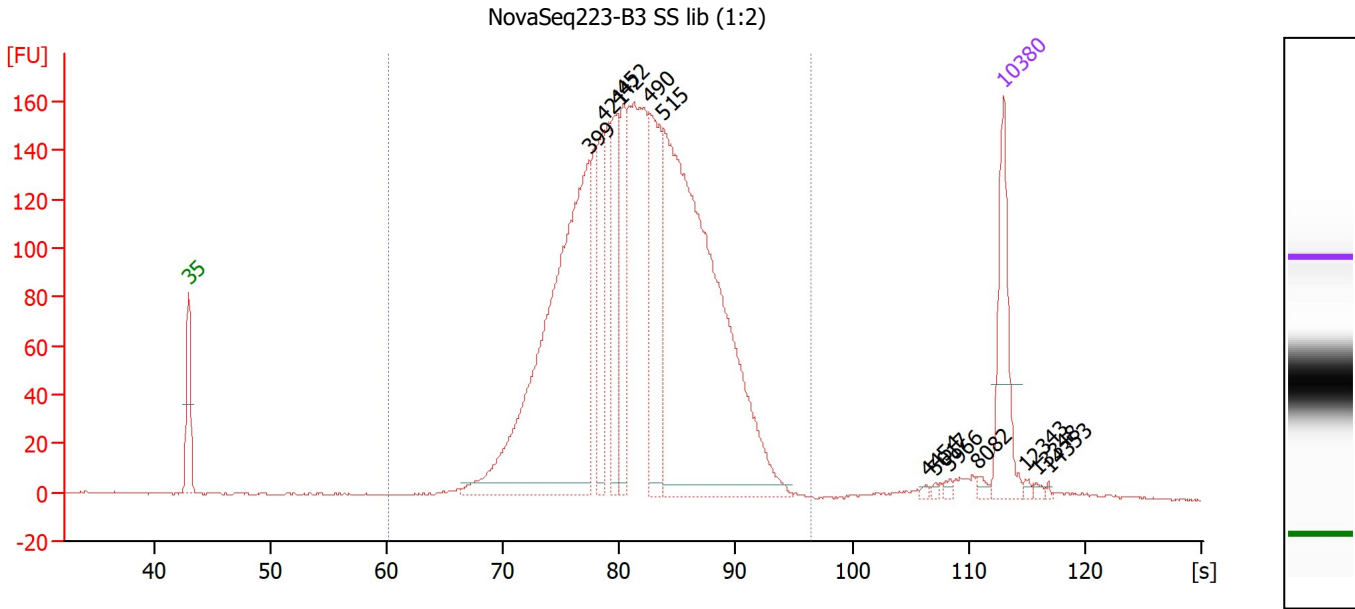
**Peak table for Ladder**

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\_2020-08-18\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : NovaSeq223-B3 SS lib (1:2)**

Number of peaks found: 13                      Corr. Area 1: 3,018.3  
 Noise: 0.4

**Peak table for sample 1 : NovaSeq223-B3 SS lib (1:2)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	399	561.60	2,131.1	
3	421	95.80	344.9	
4	442	93.03	319.0	
5	452	107.66	361.2	
6	490	170.65	527.2	
7	515	704.06	2,071.2	
8	4,454	2.10	0.7	
9	5,017	1.77	0.5	
10	5,966	3.10	0.8	
11	8,082	4.53	0.8	
12	10,380	75.00	10.9	Upper Marker
13	12,343	0.00	0.0	
14	13,348	0.00	0.0	
15	14,353	0.00	0.0	

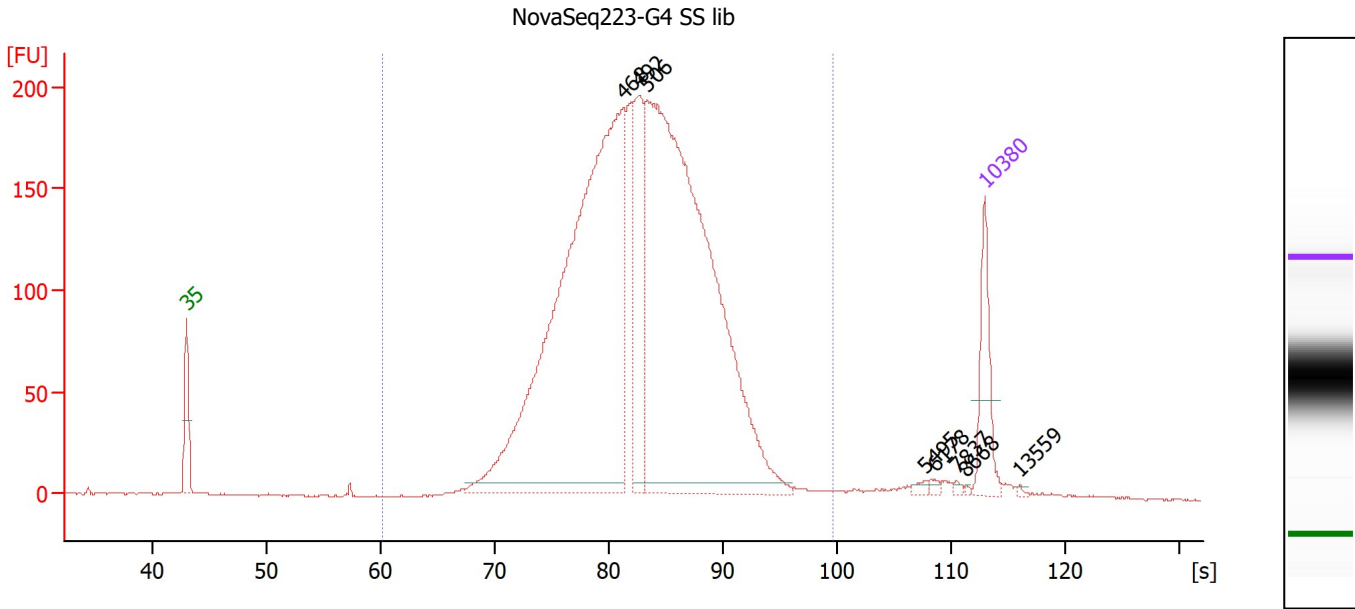
**Region table for sample 1 : NovaSeq223-B3 SS lib (1:2)**

From [s]	To [s]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
60.23	96.38	3,018.3	97	483	22.2	2,146.46	7,176.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-08-18\_001.xad

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 Modified: 8/18/2020 12:12:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : NovaSeq223-G4 SS lib**

Number of peaks found: 8                      Corr. Area 1: 3,574.7  
 Noise: 0.4

**Peak table for sample 2 : NovaSeq223-G4 SS lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	468	1,273.30	4,120.6	
3	492	202.54	623.5	
4	506	1,335.84	4,003.3	
5	5,495	5.71	1.6	
6	6,178	5.30	1.3	
7	7,837	3.36	0.7	
8	8,668	1.62	0.3	
9	10,380	75.00	10.9	Upper Marker
10	13,559	0.00	0.0	

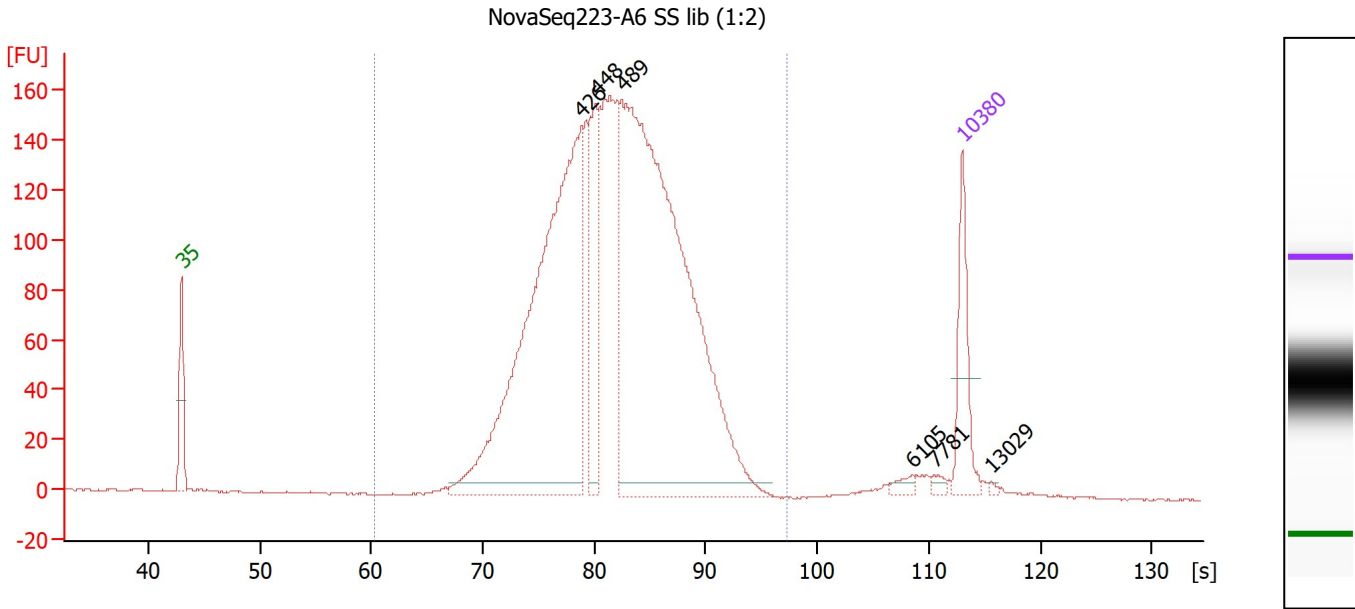
**Region table for sample 2 : NovaSeq223-G4 SS lib**

From [s]	To [s]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
60.23	99.62	3,574.7	97	510	26.5	2,990.02	9,560.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-08-18\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : NovaSeq223-A6 SS lib (1:2)**

Number of peaks found: 6                      Corr. Area 1: 2,891.4  
 Noise: 0.3

**Peak table for sample 3 : NovaSeq223-A6 SS lib (1:2)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	426	881.70	3,139.4	
3	448	167.90	567.4	
4	489	1,165.26	3,611.3	
5	6,105	8.58	2.1	
6	7,781	6.21	1.2	
7	10,380	75.00	10.9	Upper Marker
8	13,029	0.00	0.0	

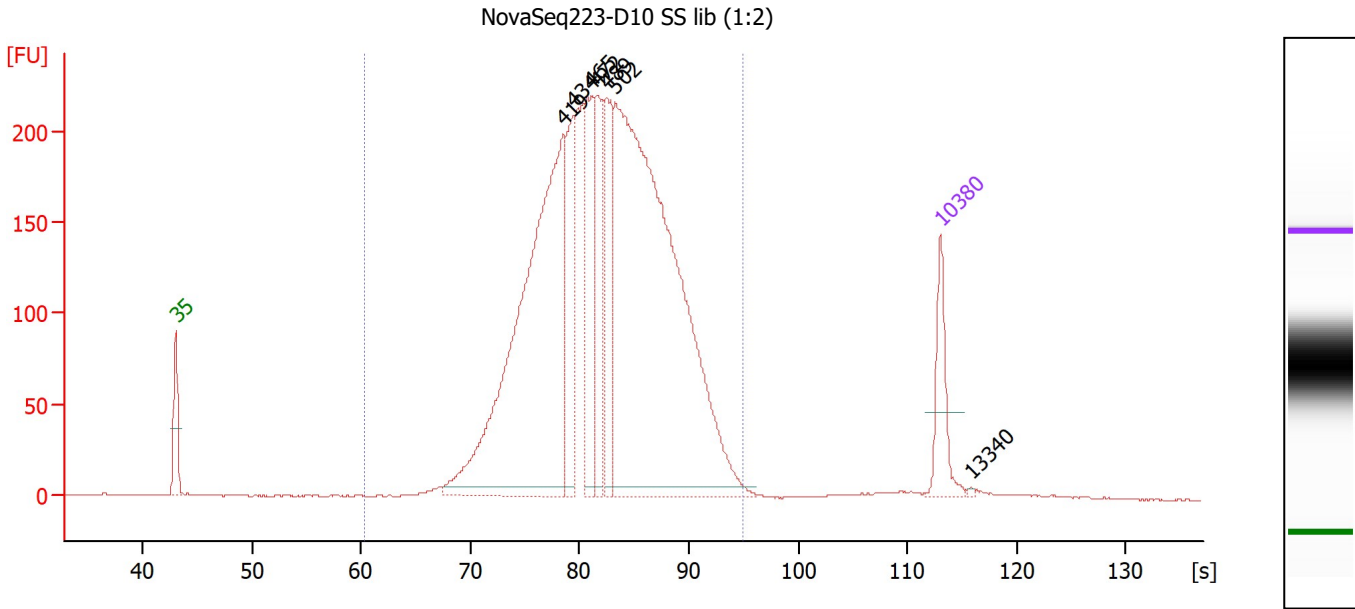
**Region table for sample 3 : NovaSeq223-A6 SS lib (1:2)**

From [s]	To [s]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
60.23	97.35	2,891.4	97	487	22.2	2,558.72	8,468.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-08-18\_001.xad

Created: 8/18/2020 11:31:35 AM  
 Modified: 8/18/2020 12:12:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : NovaSeq223-D10 SS lib (1:2)**

Number of peaks found: 7                      Corr. Area 1: 4,116.8  
 Noise: 0.3

**Peak table for sample 4 : NovaSeq223-D10 SS lib (1:2)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	419	973.06	3,519.2	
3	434	177.77	619.9	
4	465	207.67	677.2	
5	472	174.34	559.1	
6	489	191.74	594.3	
7	502	1,384.68	4,177.9	
8	10,380	75.00	10.9	Upper Marker
9	13,340	0.00	0.0	

**Region table for sample 4 : NovaSeq223-D10 SS lib (1:2)**

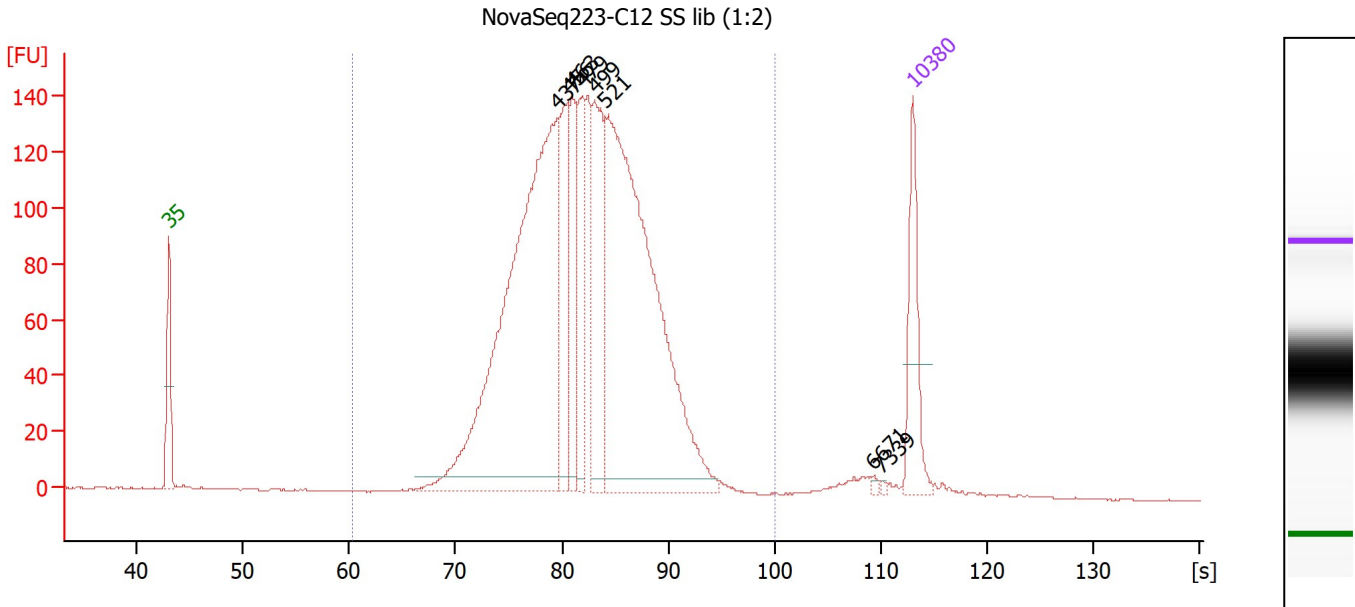
From [s]	To [s]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
60.23	94.87	4,116.8	98	496	22.8	3,298.86	10,770.2	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-08-18\_001.xad

Created: 8/18/2020 11:31:35 AM  
 Modified: 8/18/2020 12:12:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : NovaSeq223-C12 SS lib (1:2)**

Number of peaks found: 8                      Corr. Area 1: 2,537.3  
 Noise: 0.2

**Peak table for sample 5 : NovaSeq223-C12 SS lib (1:2)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	437	789.66	2,738.4	
3	456	134.19	446.3	
4	463	98.20	321.6	
5	479	119.93	379.7	
6	499	172.97	525.2	
7	521	718.69	2,088.1	
8	6,671	2.73	0.6	
9	7,339	1.83	0.4	
10	10,380	75.00	10.9	Upper Marker

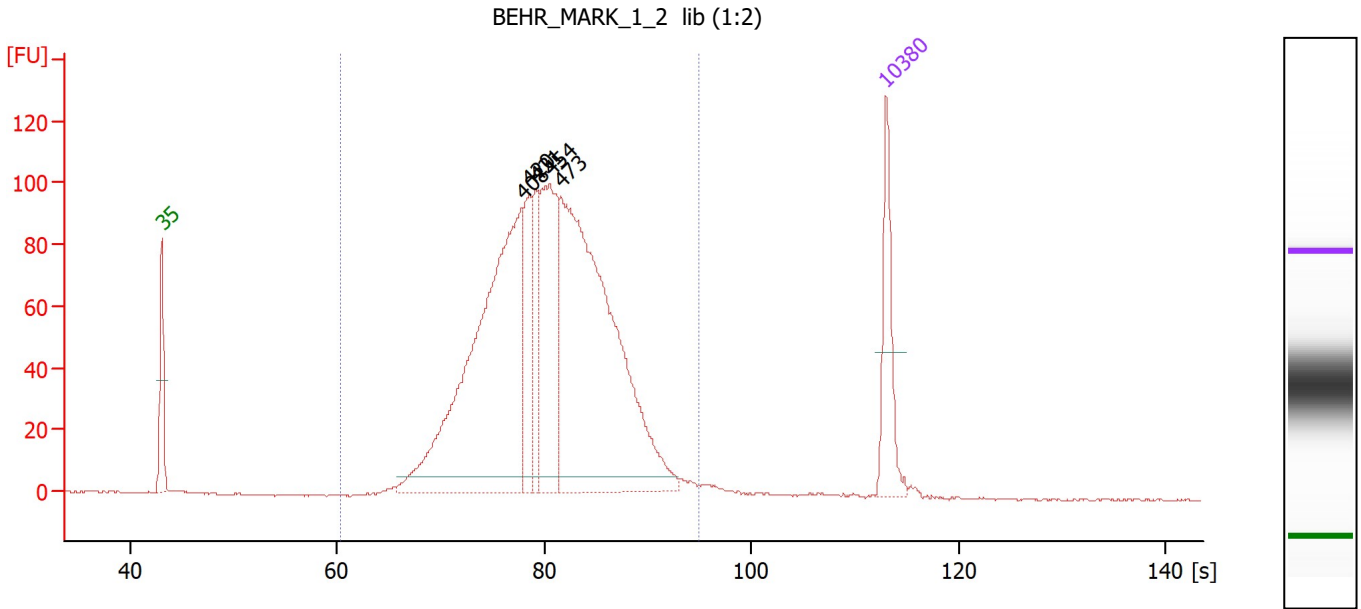
**Region table for sample 5 : NovaSeq223-C12 SS lib (1:2)**

From [s]	To [s]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
60.23	100.08	2,537.3	97	494	23.8	2,159.08	7,059.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-08-18\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : BEHR\_MARK\_1\_2 lib (1:2)**

Number of peaks found: 5                      Corr. Area 1: 1,811.0  
 Noise: 0.3

**Peak table for sample 6 : BEHR\_MARK\_1\_2 lib (1:2)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	408	621.42	2,307.5	
3	420	97.25	350.9	
4	431	80.15	281.9	
5	454	219.21	730.8	
6	473	675.91	2,166.5	
7	10,380	75.00	10.9	Upper Marker

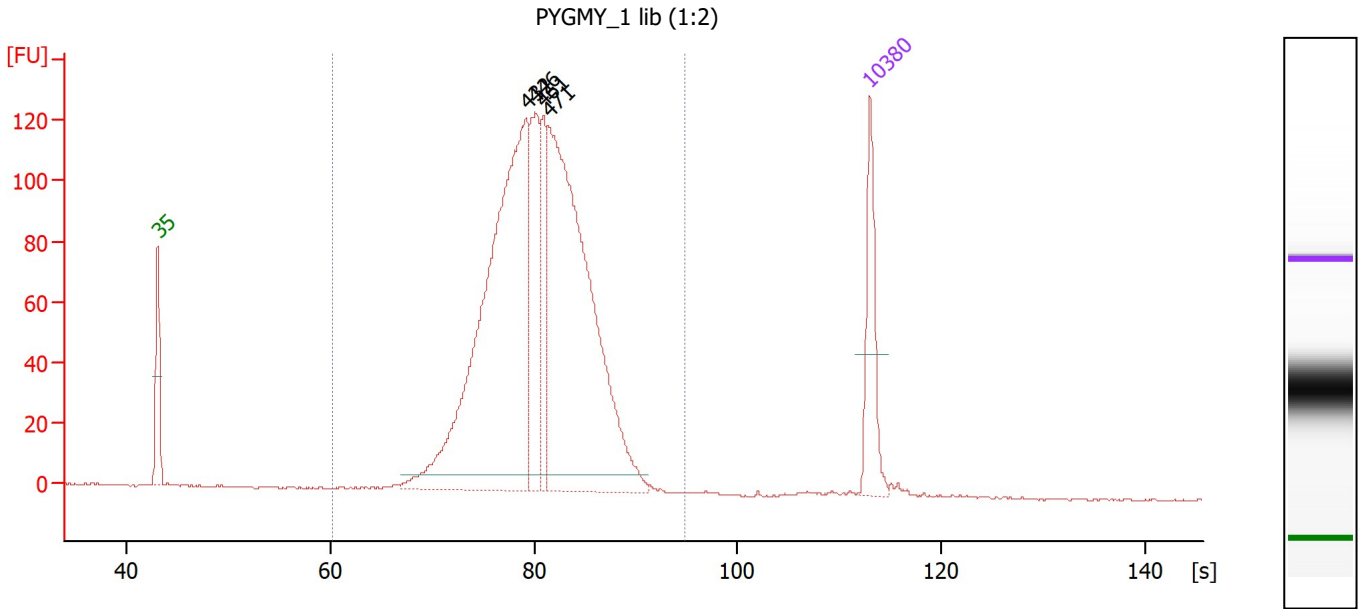
**Region table for sample 6 : BEHR\_MARK\_1\_2 lib (1:2)**

From [s]	To [s]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
60.23	94.87	1,811.0	98	460	22.4	1,750.59	6,142.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-08-18\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : PYGMY\_1 lib (1:2)**

Number of peaks found: 4                      Corr. Area 1: 1,745.6  
 Noise: 0.3

**Peak table for sample 7 : PYGMY\_1 lib (1:2)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	432	703.15	2,468.3	
3	446	158.43	537.7	
4	461	96.22	316.0	
5	471	648.48	2,088.1	
6	10,380	75.00	10.9	Upper Marker

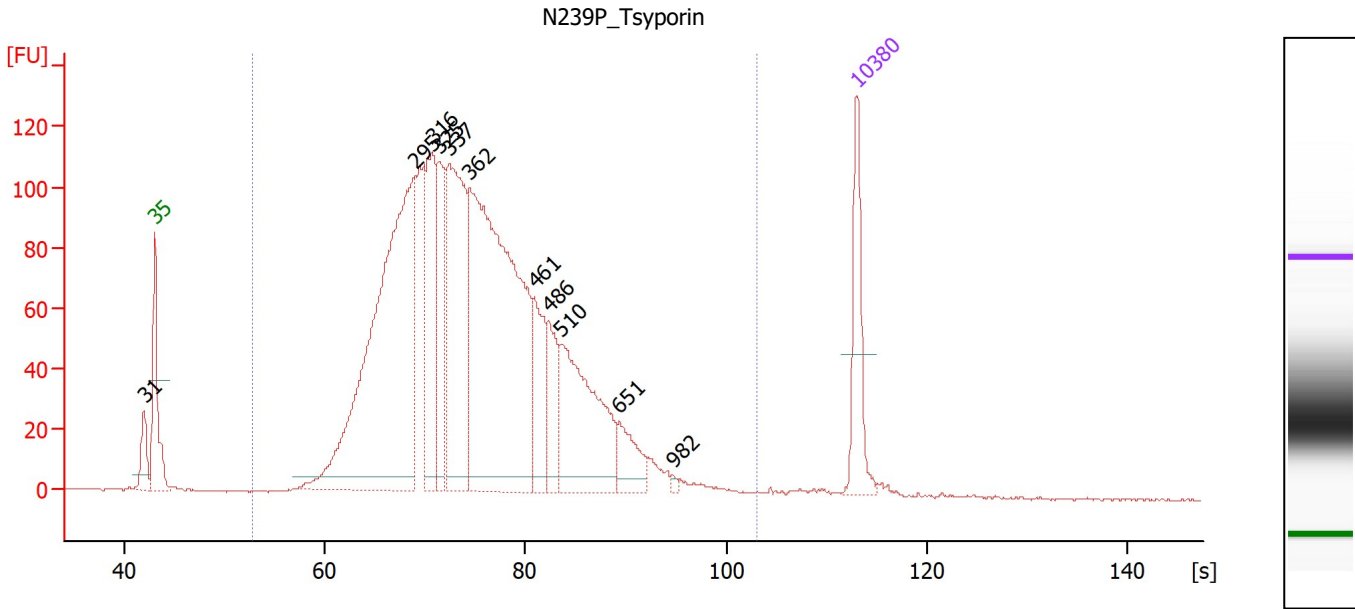
**Region table for sample 7 : PYGMY\_1 lib (1:2)**

From [s]	To [s]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
60.23	94.87	1,745.6	99	456	16.6	1,628.10	5,613.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-08-18\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : N239P Tsyporin**

Number of peaks found: 11                      Corr. Area 1: 2,766.9  
 Noise: 0.3

**Peak table for sample 8 : N239P Tsyporin**

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	295	734.30	3,769.2	
4	316	175.13	838.4	
5	325	120.78	562.9	
6	337	310.55	1,395.8	
7	362	673.80	2,817.2	
8	461	97.74	321.5	
9	486	68.46	213.4	
10	510	223.44	663.2	
11	651	50.60	117.8	
12	982	3.32	5.1	
13	10,380	75.00	10.9	Upper Marker

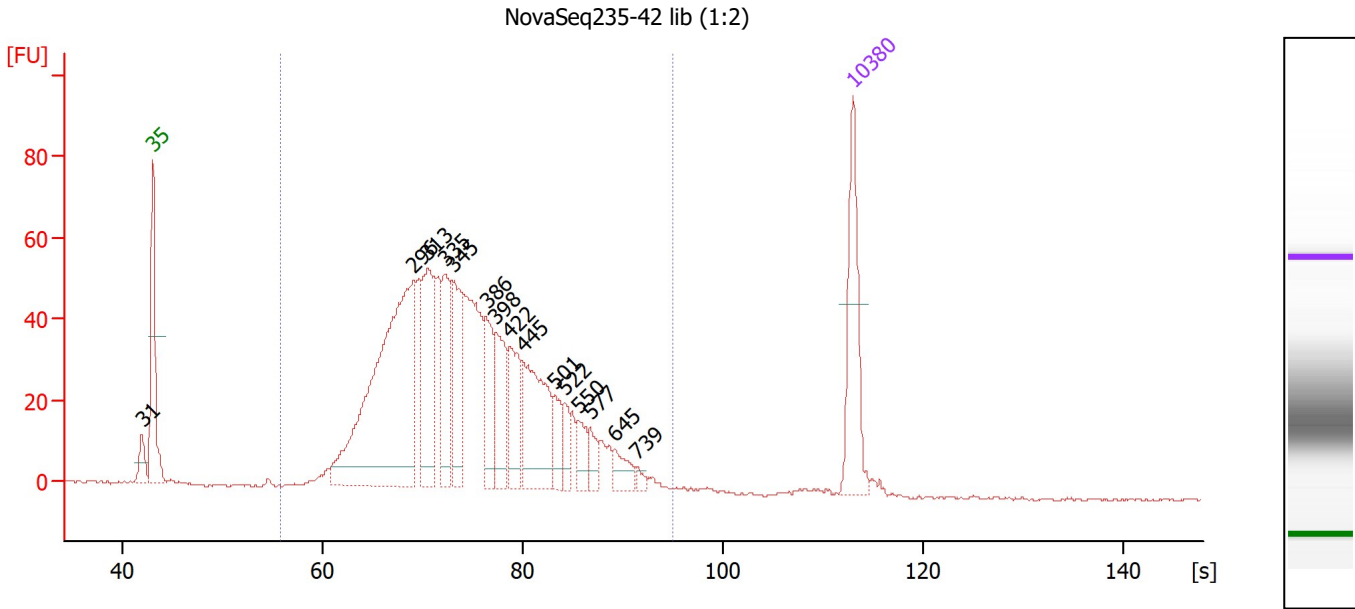
**Region table for sample 8 : N239P Tsyporin**

From [s]	To [s]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/µl]	Molarity [pmol/l]	Color
52.79	103.03	2,766.9	97	395	43.2	2,693.78	11,943.1	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-08-18\_001.xad

Created: 8/18/2020 11:31:35 AM  
 Modified: 8/18/2020 12:12:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : NovaSeq235-42 lib (1:2)**

Number of peaks found: 15      Corr. Area 1: 1,241.9  
 Noise: 0.3

**Peak table for sample 9 : NovaSeq235-42 lib (1:2)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	296	411.27	2,102.3	
4	313	109.94	531.8	
5	335	80.26	363.4	
6	345	87.53	384.8	
7	386	59.29	232.8	
8	398	66.14	251.8	
9	422	59.10	212.4	
10	445	111.10	378.1	
11	501	27.73	83.9	
12	522	19.25	55.9	
13	550	22.79	62.7	
14	577	16.03	42.1	
15	645	19.68	46.2	
16	739	5.26	10.8	
17	10,380	75.00	10.9	Upper Marker

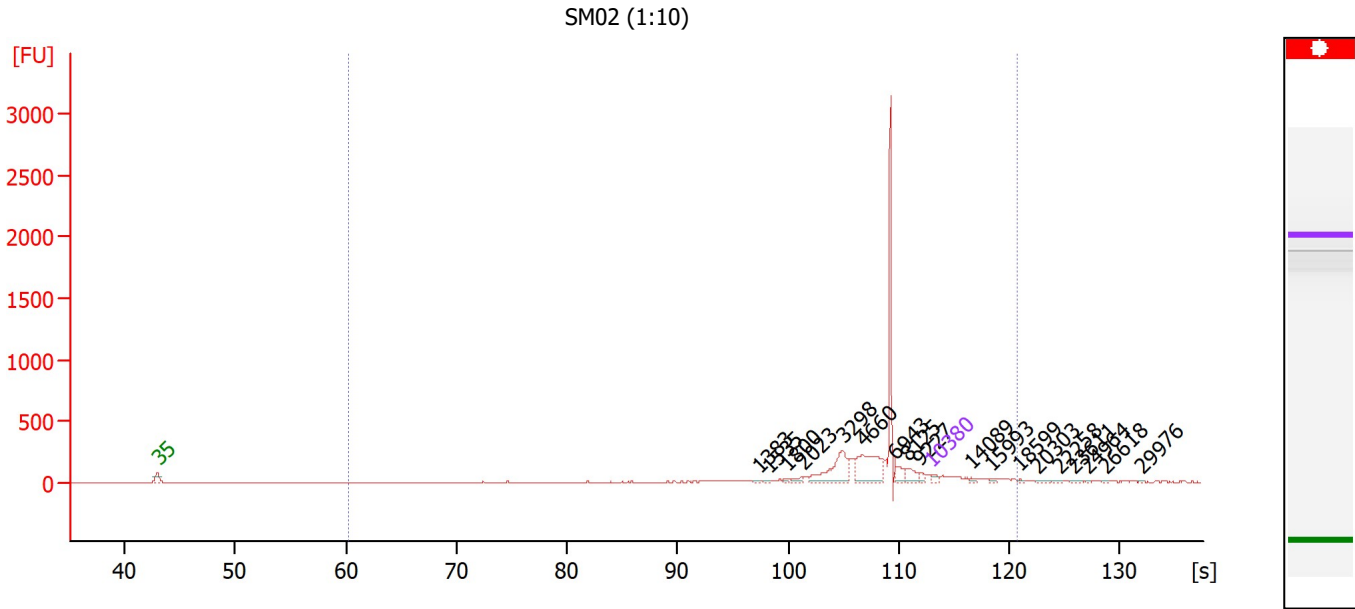
**Region table for sample 9 : NovaSeq235-42 lib (1:2)**

From [s]	To [s]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
55.65	94.87	1,241.9	98	376	29.4	1,437.44	6,424.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-08-18\_001.xad

Created: 8/18/2020 11:31:35 AM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : SM02 (1:10)**

Number of peaks found: 18                      Corr. Area 1: 2,418.7  
 Noise: 0.8

**Peak table for sample 10 : SM02 (1:10)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	1,383	11.84	13.0	
3	1,535	15.59	15.4	
4	1,800	28.67	24.1	
5	2,023	70.62	52.9	
6	3,298	778.35	357.6	
7	4,660	941.41	306.1	
8	6,943	210.87	46.0	
9	8,125	178.54	33.3	
10	9,227	77.37	12.7	
11	10,380	75.00	10.9	Upper Marker
12	14,089	0.00	0.0	
13	15,993	0.00	0.0	
14	18,599	0.00	0.0	
15	20,303	0.00	0.0	
16	22,258	0.00	0.0	
17	23,611	0.00	0.0	
18	24,964	0.00	0.0	
19	26,618	0.00	0.0	
20	29,976	0.00	0.0	

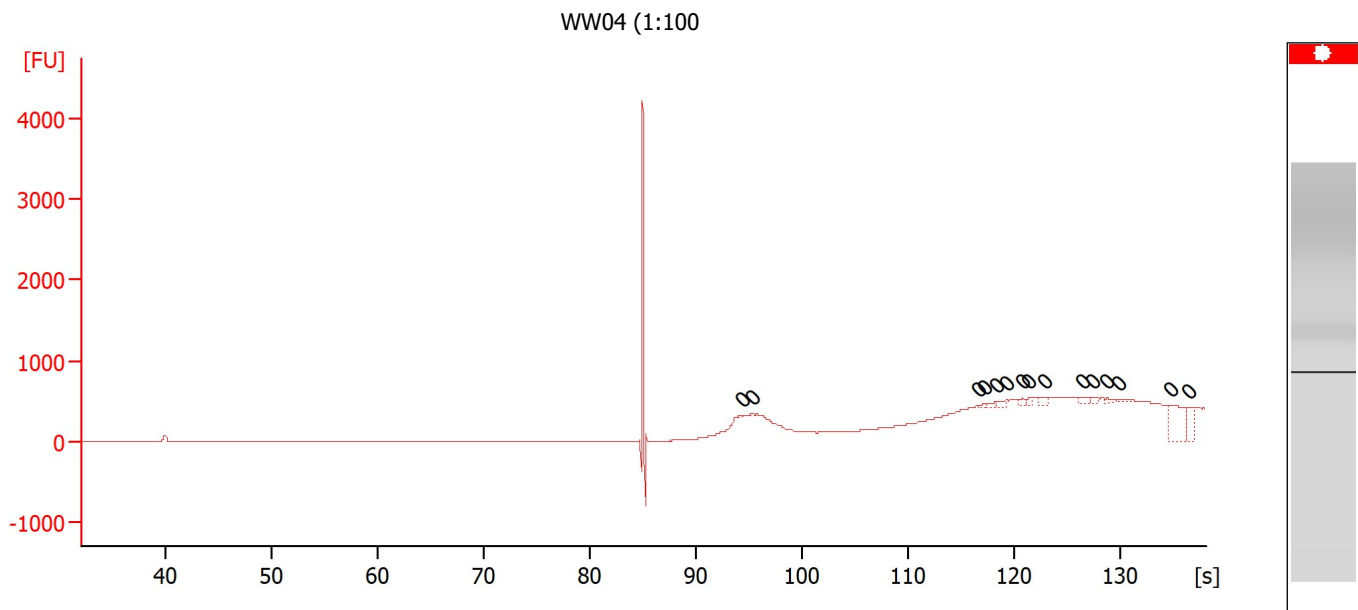
**Region table for sample 10 : SM02 (1:10)**

From [s]	To [s]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
60.23	120.70	2,418.7	97	6,186	51.8	4,373.49	1,573.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-08-18\_001.xad

Created: 8/18/2020 11:31:35 AM  
 Modified: 8/18/2020 12:12:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : WW04 (1:100)**

Number of peaks found: 0                      Noise: 1.2

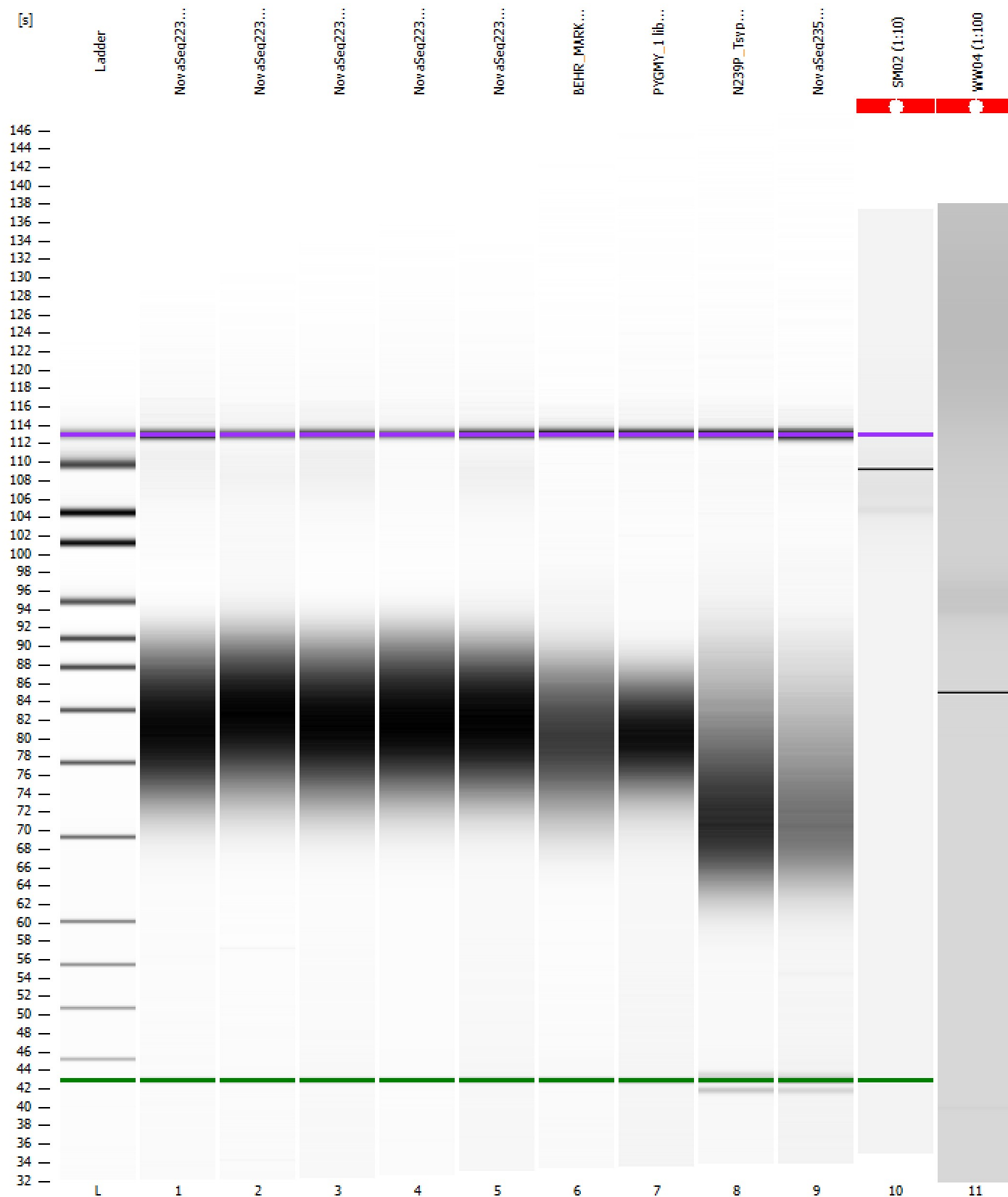
**Peak table for sample 11 : WW04 (1:100)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	0	0.00	0.0	
3	0	0.00	0.0	
4	0	0.00	0.0	
5	0	0.00	0.0	
6	0	0.00	0.0	
7	0	0.00	0.0	
8	0	0.00	0.0	
9	0	0.00	0.0	
10	0	0.00	0.0	
11	0	0.00	0.0	
12	0	0.00	0.0	
13	0	0.00	0.0	
14	0	0.00	0.0	
15	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-08-18\_001.xad

Created: 8/18/2020 11:31:35 AM  
Modified: 8/18/2020 12:12:58 PM

Gel Image





Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-08-18\_001.xad

Created: 8/18/2020 11:31:35 AM  
 Modified: 8/18/2020 12:12:58 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		8/18/2020 12:12:54 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Instrument error occurred on port 1, Optical signal too high (1605h)	559	Instrument	Run	Sample 11	8/18/2020 12:11:47 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Instrument error occurred on port 1, Optical signal too high (1605h)	559	Instrument	Run	Sample 10	8/18/2020 12:09:23 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Run started on port 1 (File: Z:\XADs\2020-08-18\Bioanalyzer1_High Sensitivity DNA Assay_2020-08-18_001.xad)		Instrument	Run		8/18/2020 11:31:40 AM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Product Number : G2938C		Instrument	Run		8/18/2020 11:31:40 AM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Name :		Instrument	Run		8/18/2020 11:31:40 AM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Vendor : Agilent Technologies		Instrument	Run		8/18/2020 11:31:40 AM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Serial# : DE34903152		Instrument	Run		8/18/2020 11:31:40 AM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Firmware : C.01.069		Instrument	Run		8/18/2020 11:31:40 AM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Cartridge : Electrode		Instrument	Run		8/18/2020 11:31:40 AM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB