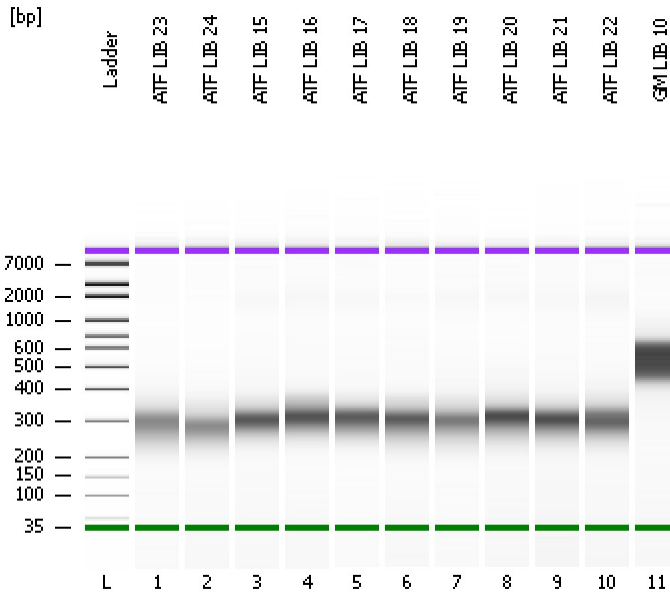


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
Modified: 6/4/2019 2:31:50 PM

Electrophoresis File Run Summary



Instrument Information:

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

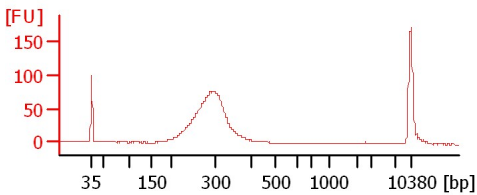
Assay Information:

Assay Origin Path: C:\Program Files\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

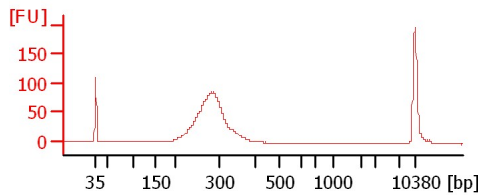
Chip Information:

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

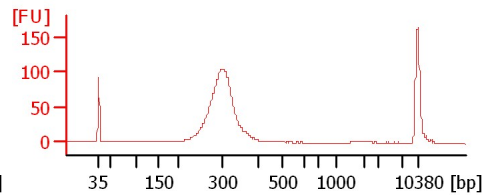
ATF LIB 23



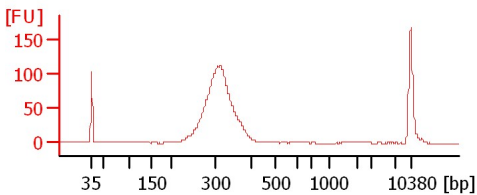
ATF LIB 24



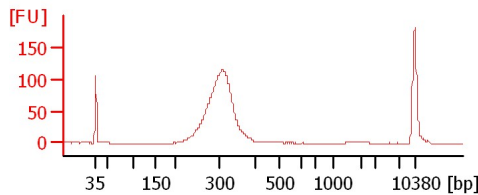
ATF LIB 15



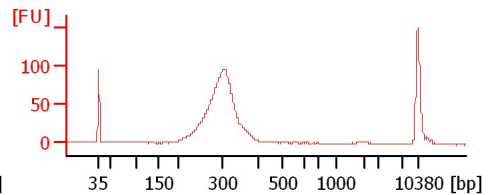
ATF LIB 16



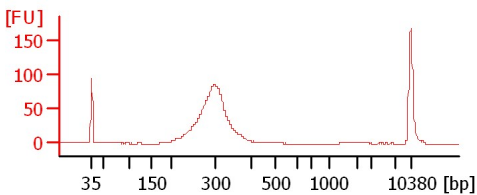
ATF LIB 17



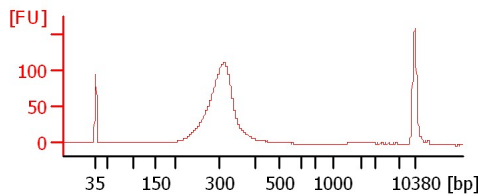
ATF LIB 18



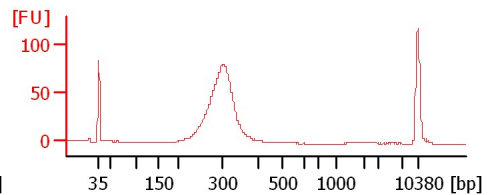
ATF LIB 19



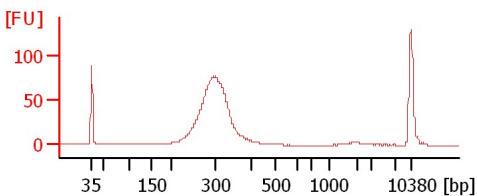
ATF LIB 20



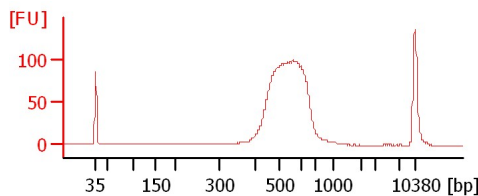
ATF LIB 21



ATF LIB 22



GM LIB 10



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
 Modified: 6/4/2019 2:31:50 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
ATF LIB 23		<input type="checkbox"/>	✓			
ATF LIB 24		<input type="checkbox"/>	✓			
ATF LIB 15		<input type="checkbox"/>	✓			
ATF LIB 16		<input type="checkbox"/>	✓			
ATF LIB 17		<input type="checkbox"/>	✓			
ATF LIB 18		<input type="checkbox"/>	✓			
ATF LIB 19		<input type="checkbox"/>	✓			
ATF LIB 20		<input type="checkbox"/>	✓			
ATF LIB 21		<input type="checkbox"/>	✓			
ATF LIB 22		<input type="checkbox"/>	✓			
GM LIB 10		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
Modified: 6/4/2019 2:31:50 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/ μ l] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/ μ l] : 125
Upper Marker Concentration [pg/ μ l] : 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

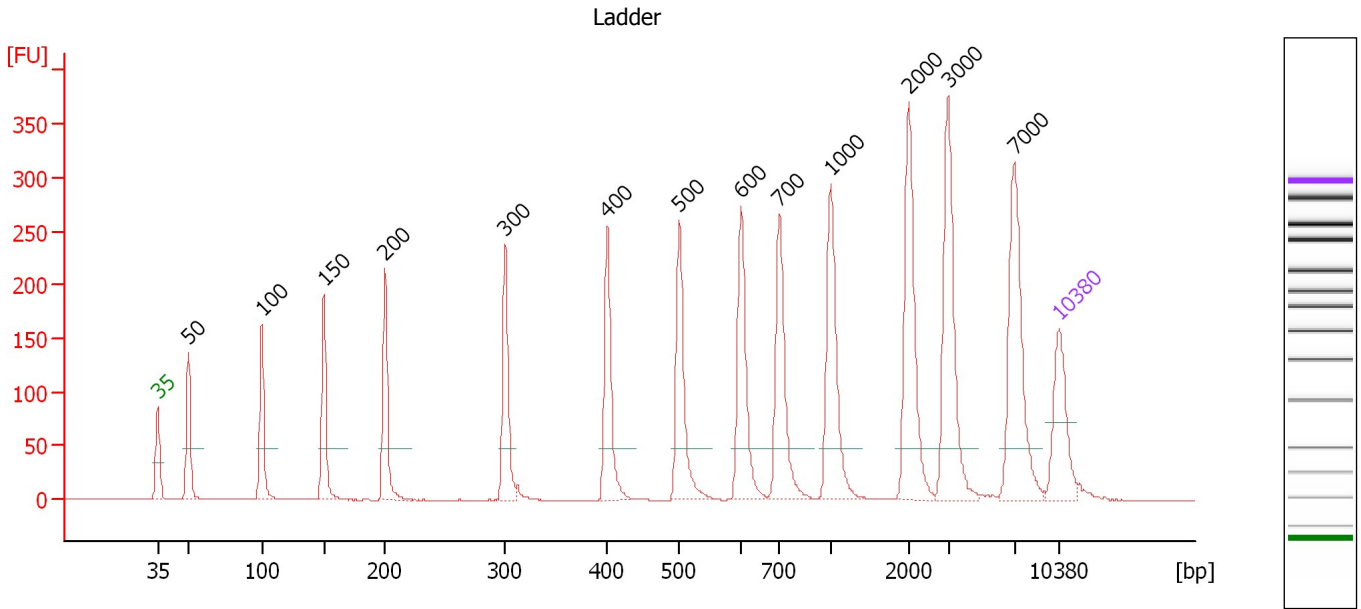
Ladder

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: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
 Modified: 6/4/2019 2:31:50 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

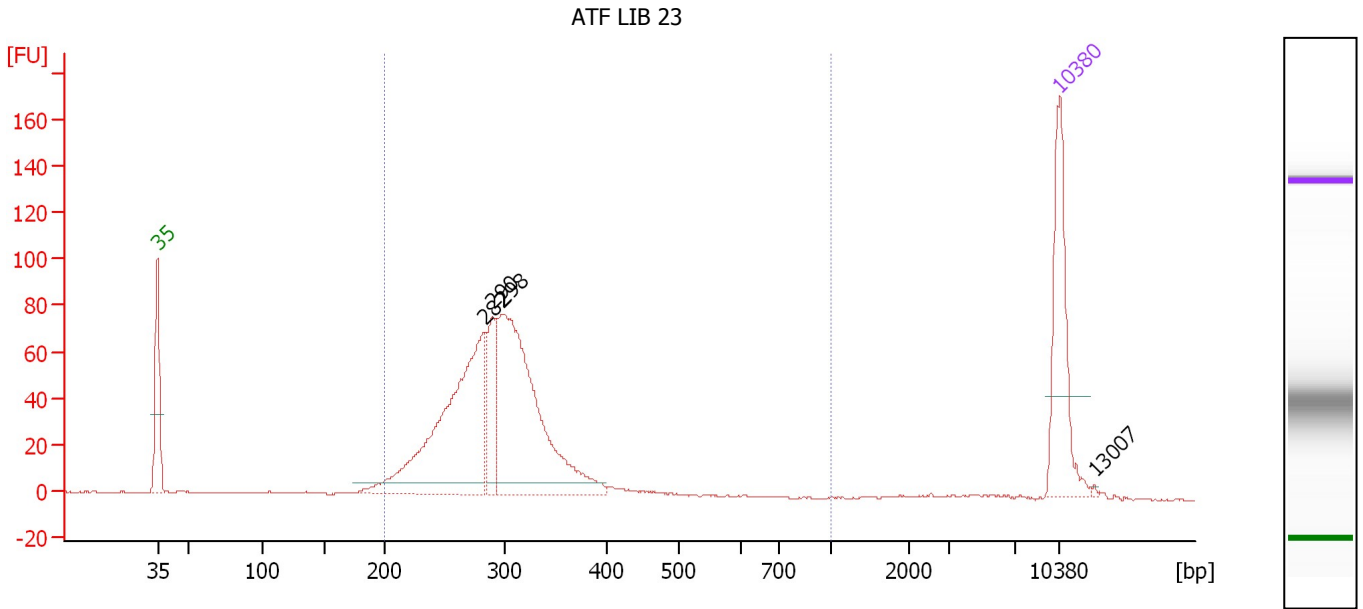
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	150.00	4,545.5	Ladder Peak	45.39
3	100	150.00	2,272.7	Ladder Peak	51.10
4	150	150.00	1,515.2	Ladder Peak	55.92
5	200	150.00	1,136.4	Ladder Peak	60.65
6	300	150.00	757.6	Ladder Peak	69.99
7	400	150.00	568.2	Ladder Peak	77.91
8	500	150.00	454.5	Ladder Peak	83.49
9	600	150.00	378.8	Ladder Peak	88.31
10	700	150.00	324.7	Ladder Peak	91.27
11	1,000	150.00	227.3	Ladder Peak	95.26
12	2,000	150.00	113.6	Ladder Peak	101.32
13	3,000	150.00	75.8	Ladder Peak	104.37
14	7,000	150.00	32.5	Ladder Peak	109.50
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
 Modified: 6/4/2019 2:31:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : ATF LIB 23

Number of peaks found: 4 Corr. Area 1: 931.9
 Noise: 0.3

Peak table for sample 1 : ATF LIB 23

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	282	268.13	1,438.2		68.36
3	290	55.62	290.8		69.03
4	298	292.33	1,486.3		69.80
5	10,380	75.00	10.9	Upper Marker	113.00
6	13,007	0.00	0.0		115.72

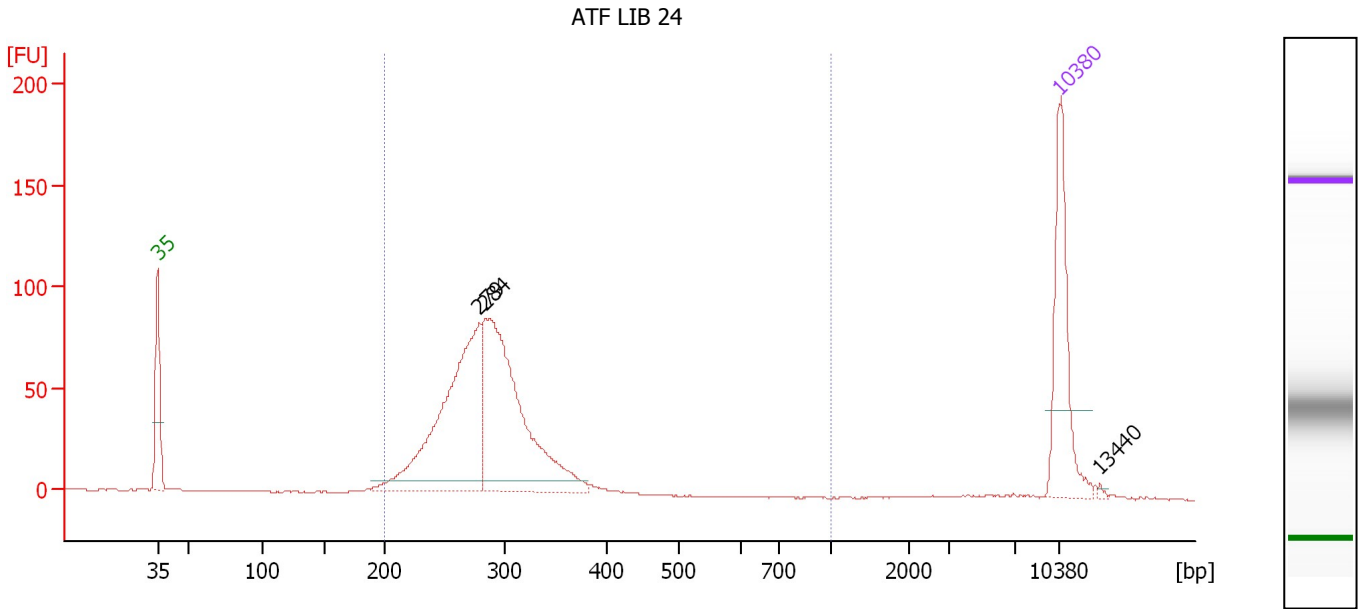
Region table for sample 1 : ATF LIB 23

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	294	632.19	931.9	3,328.8	97	14.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
 Modified: 6/4/2019 2:31:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : ATF LIB 24

Number of peaks found: 3 Corr. Area 1: 930.6
 Noise: 0.3

Peak table for sample 2 : ATF LIB 24

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	279	261.20	1,420.2		68.00
3	284	274.83	1,468.4		68.46
4	10,380	75.00	10.9	Upper Marker	113.00
5	13,440	0.00	0.0		116.17

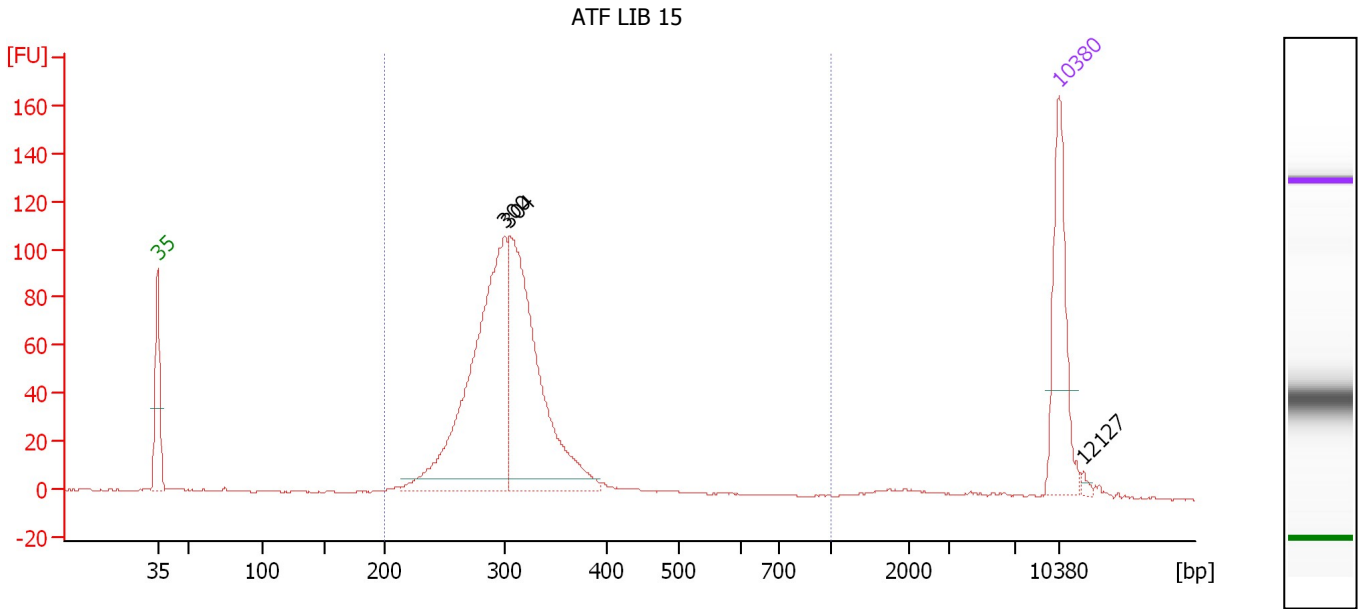
Region table for sample 2 : ATF LIB 24

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	285	553.53	930.6	2,986.7	96	13.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
 Modified: 6/4/2019 2:31:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : ATF LIB 15

Number of peaks found: 3 Corr. Area 1: 999.7
 Noise: 0.3

Peak table for sample 3 : ATF LIB 15

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	300	345.33	1,745.9		69.96
3	304	301.31	1,503.1		70.29
4	10,380	75.00	10.9	Upper Marker	113.00
5	12,127	0.00	0.0		114.81

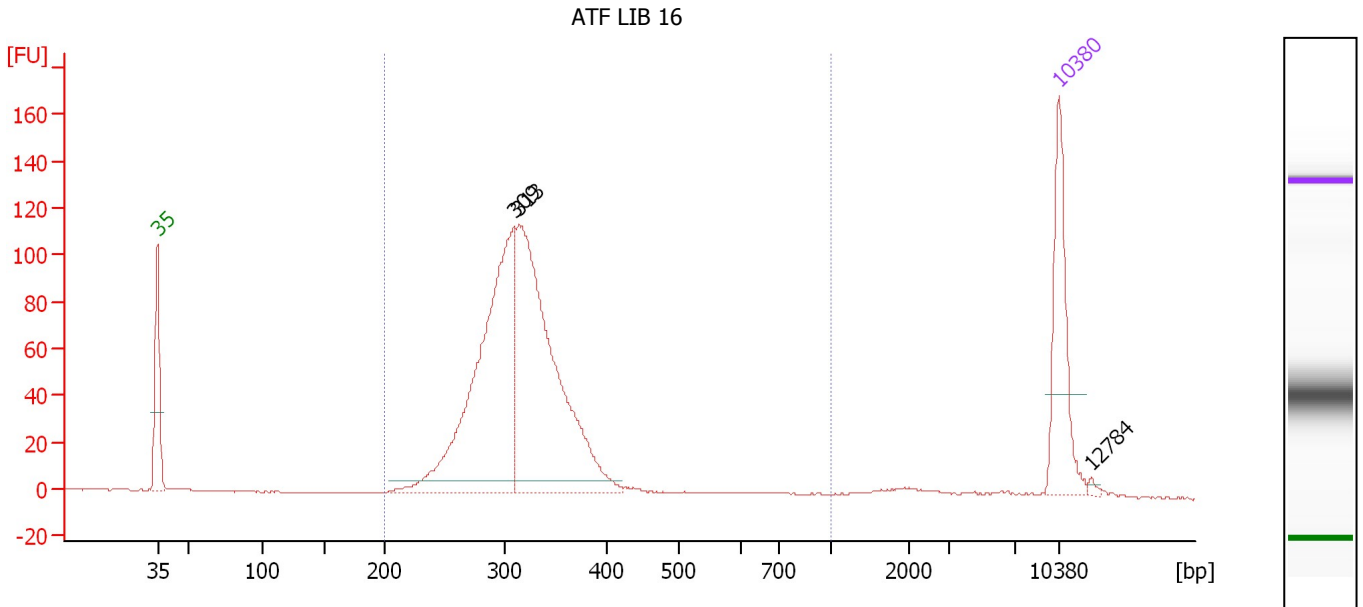
Region table for sample 3 : ATF LIB 15

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	309	688.93	999.7	3,468.7	93	17.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
 Modified: 6/4/2019 2:31:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : ATF LIB 16

Number of peaks found: 3 Corr. Area 1: 1,147.1
 Noise: 0.2

Peak table for sample 4 : ATF LIB 16

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	309	368.77	1,809.9		70.68
3	313	392.71	1,898.3		71.06
4	10,380	75.00	10.9	Upper Marker	113.00
5	12,784	0.00	0.0		115.49

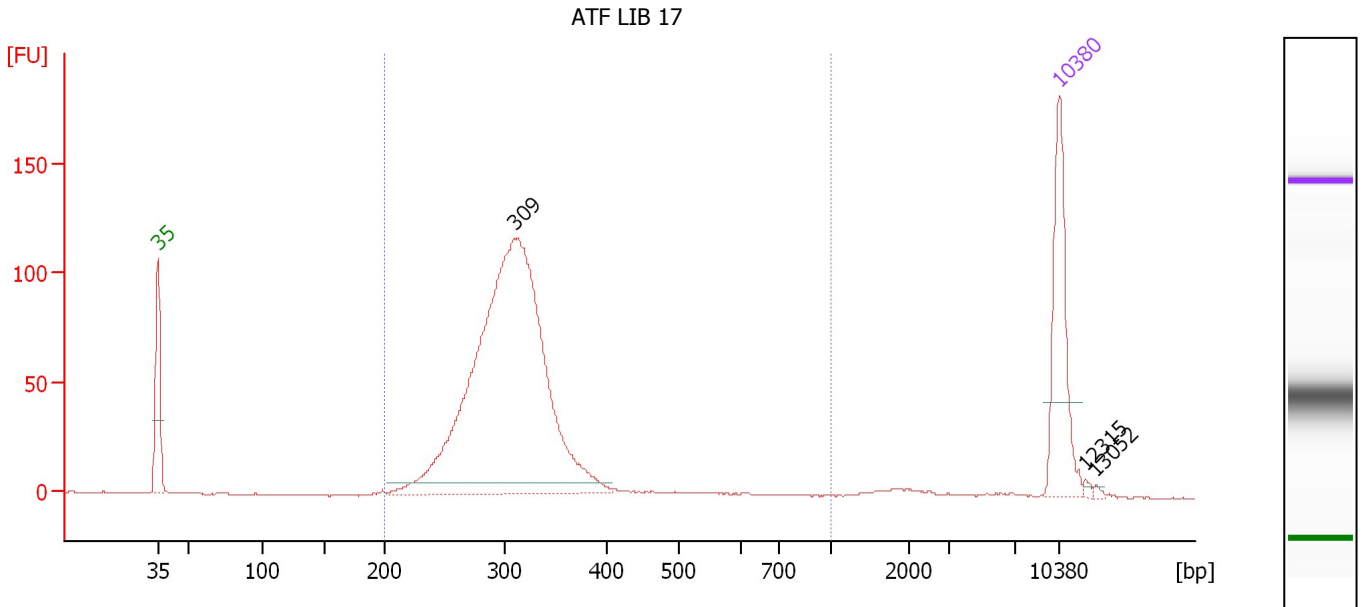
Region table for sample 4 : ATF LIB 16

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	320	780.73	1,147.1	3,800.8	96	18.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
 Modified: 6/4/2019 2:31:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : ATF LIB 17

Number of peaks found: 3 Corr. Area 1: 1,129.5
 Noise: 0.2

Peak table for sample 5 : ATF LIB 17

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	309	679.02	3,332.0		70.69
3	10,380	75.00	10.9	Upper Marker	113.00
4	12,315	0.00	0.0		115.00
5	13,052	0.00	0.0		115.76

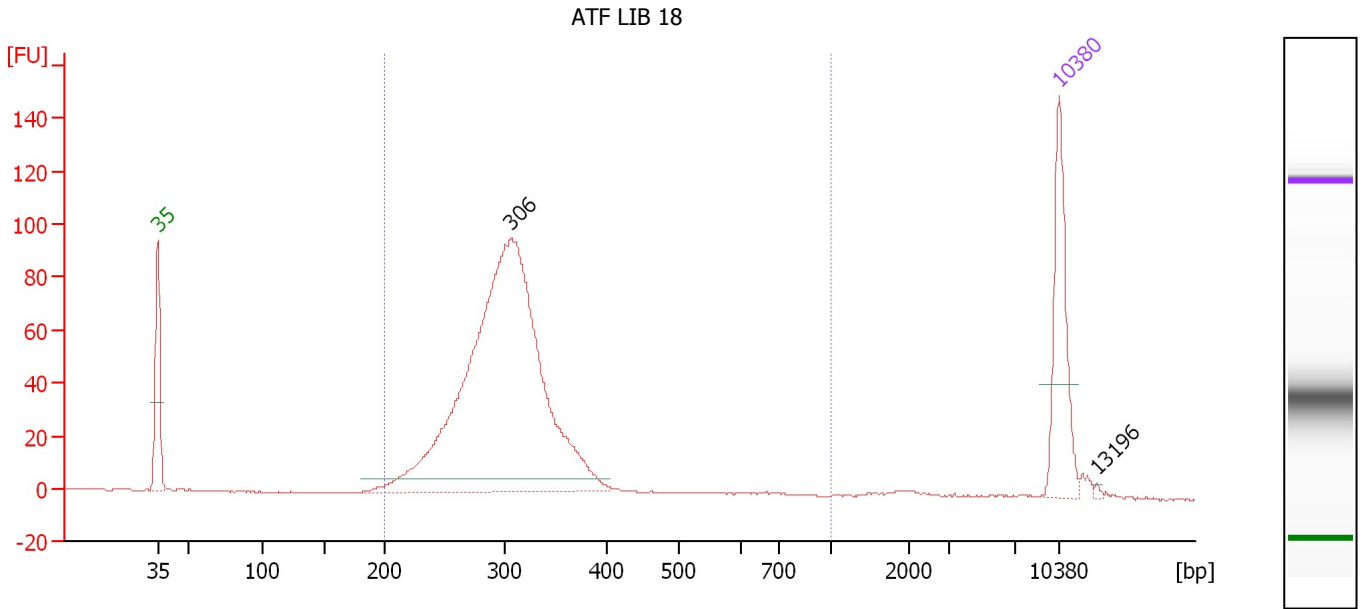
Region table for sample 5 : ATF LIB 17

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	312	713.14	1,129.5	3,559.0	96	18.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
 Modified: 6/4/2019 2:31:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : ATF LIB 18

Number of peaks found: 2 Corr. Area 1: 964.5
 Noise: 0.2

Peak table for sample 6 : ATF LIB 18

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	306	745.22	3,688.5		70.48
3	10,380	75.00	10.9	Upper Marker	113.00
4	13,196	0.00	0.0		115.91

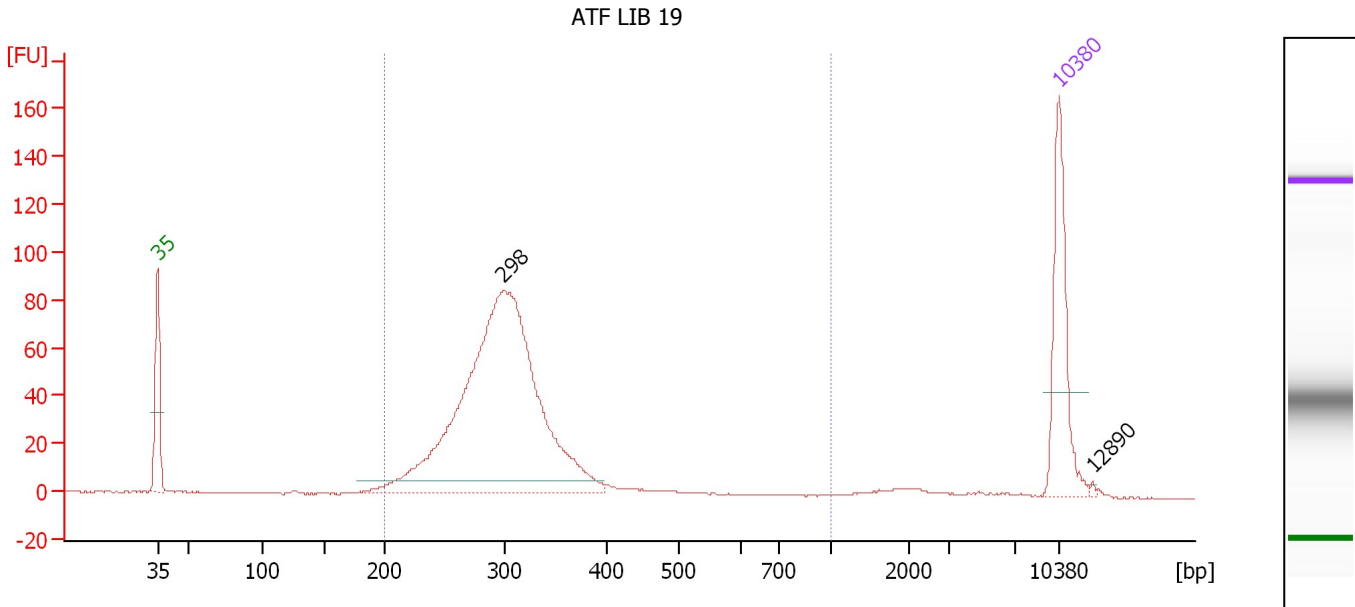
Region table for sample 6 : ATF LIB 18

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	306	780.95	964.5	3,974.8	96	18.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
 Modified: 6/4/2019 2:31:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : ATF LIB 19

Number of peaks found: 2 Corr. Area 1: 890.3
 Noise: 0.2

Peak table for sample 7 : ATF LIB 19

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	298	601.50	3,053.9		69.84
3	10,380	75.00	10.9	Upper Marker	113.00
4	12,890	0.00	0.0		115.60

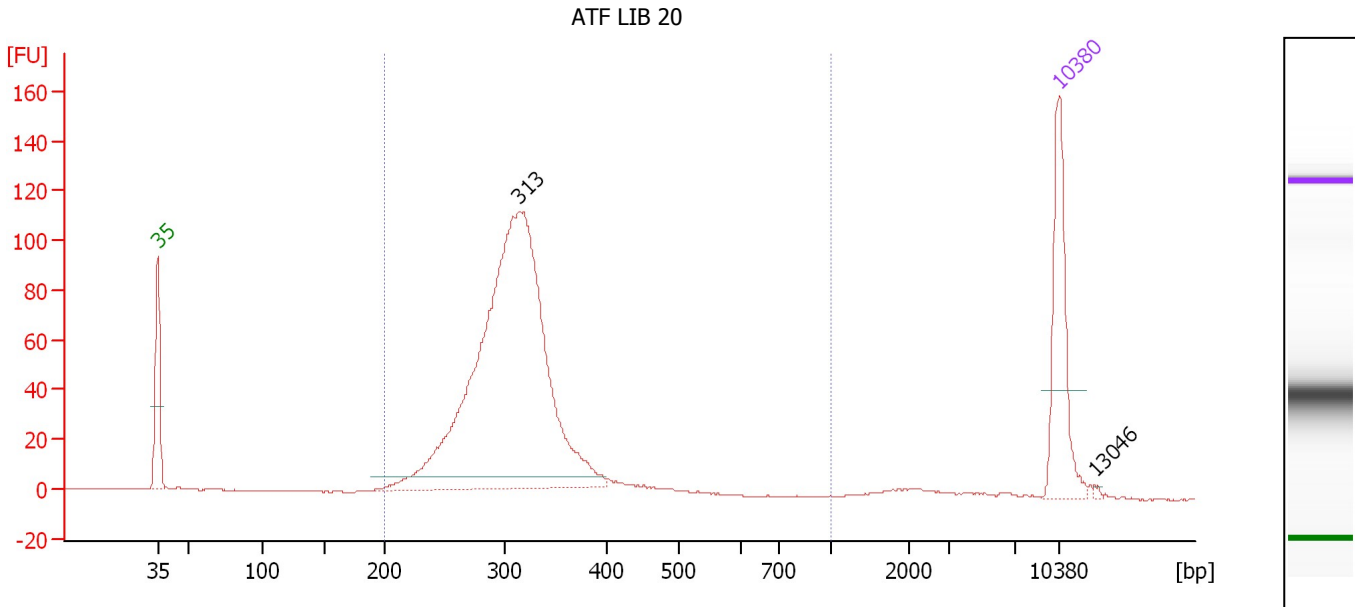
Region table for sample 7 : ATF LIB 19

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	306	633.88	890.3	3,243.9	94	20.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
 Modified: 6/4/2019 2:31:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : ATF LIB 20

Number of peaks found: 2 Corr. Area 1: 1,056.3
 Noise: 0.2

Peak table for sample 8 : ATF LIB 20

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	313	692.91	3,349.0		71.06
3	10,380	75.00	10.9	Upper Marker	113.00
4	13,046	0.00	0.0		115.76

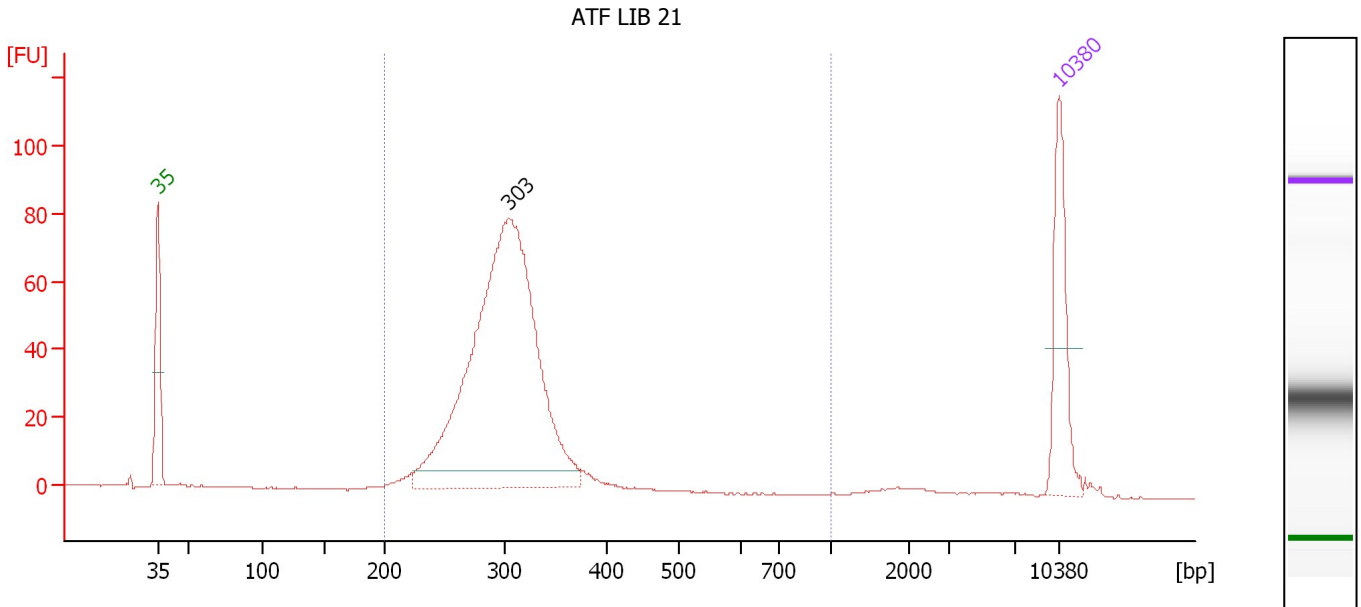
Region table for sample 8 : ATF LIB 20

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	310	754.06	1,056.3	3,764.8	96	13.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
 Modified: 6/4/2019 2:31:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : ATF LIB 21

Number of peaks found: 1 Corr. Area 1: 724.7
 Noise: 0.2

Peak table for sample 9 : ATF LIB 21

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	303	707.22	3,537.0		70.22
3	10,380	75.00	10.9	Upper Marker	113.00

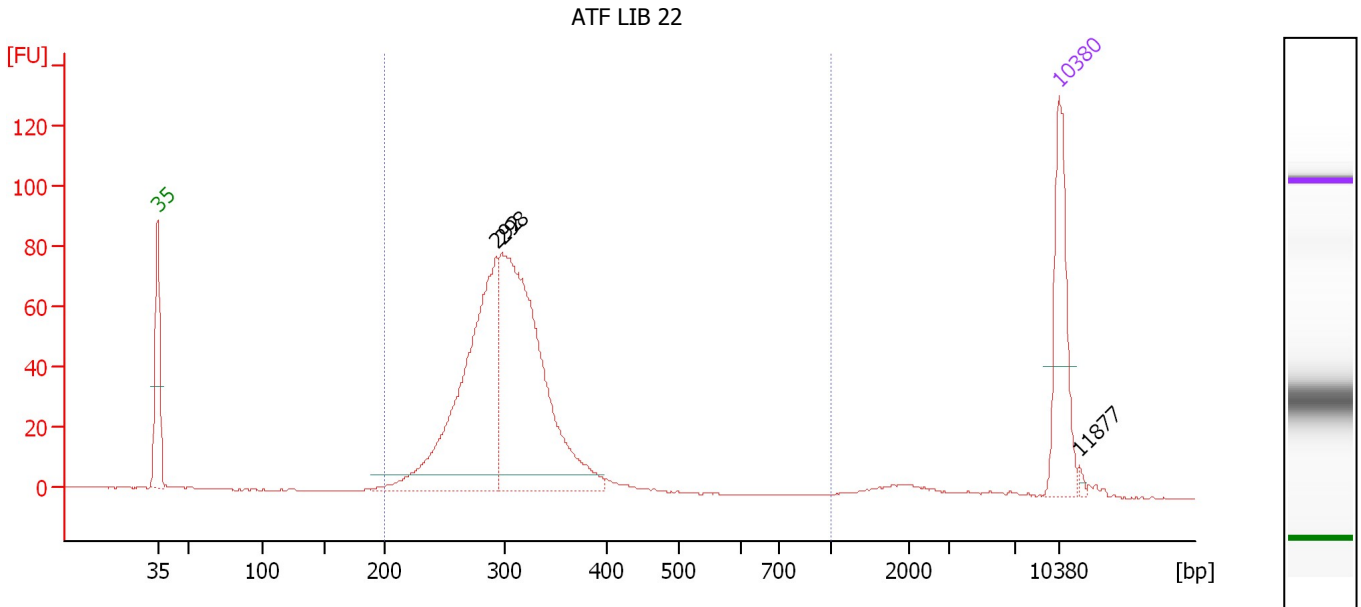
Region table for sample 9 : ATF LIB 21

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	302	764.72	724.7	3,900.8	96	12.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
 Modified: 6/4/2019 2:31:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : ATF LIB 22

Number of peaks found: 3 Corr. Area 1: 820.6
 Noise: 0.2

Peak table for sample 10 : ATF LIB 22

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	292	327.94	1,700.5		69.26
3	298	406.36	2,069.3		69.76
4	10,380	75.00	10.9	Upper Marker	113.00
5	11,877	0.00	0.0		114.55

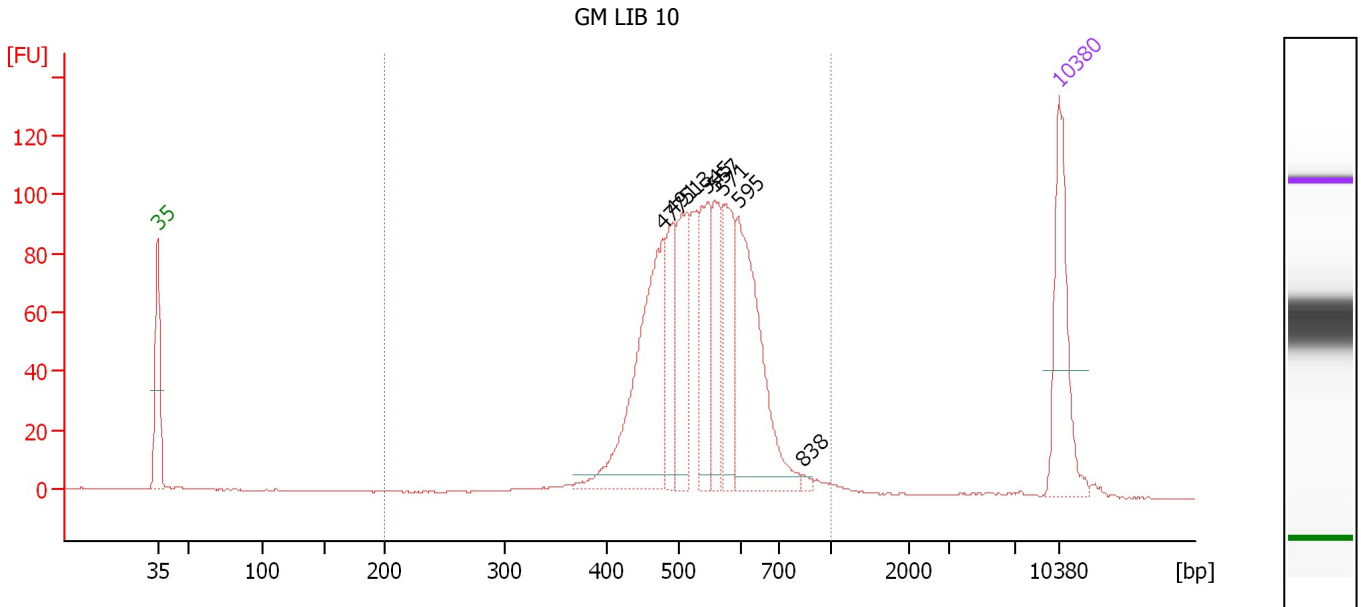
Region table for sample 10 : ATF LIB 22

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	303	749.37	820.6	3,813.2	95	13.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
 Modified: 6/4/2019 2:31:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : GM LIB 10

Number of peaks found: 8 Corr. Area 1: 1,178.5
 Noise: 0.1

Peak table for sample 11 : GM LIB 10

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	477	201.41	640.0		82.20
3	491	53.95	166.4		83.00
4	513	97.09	286.9		84.11
5	545	87.62	243.5		85.66
6	557	62.20	169.3		86.22
7	571	79.65	211.3		86.92
8	595	167.90	427.4		88.08
9	838	3.06	5.5		93.10
10	10,380	75.00	10.9	Upper Marker	113.00

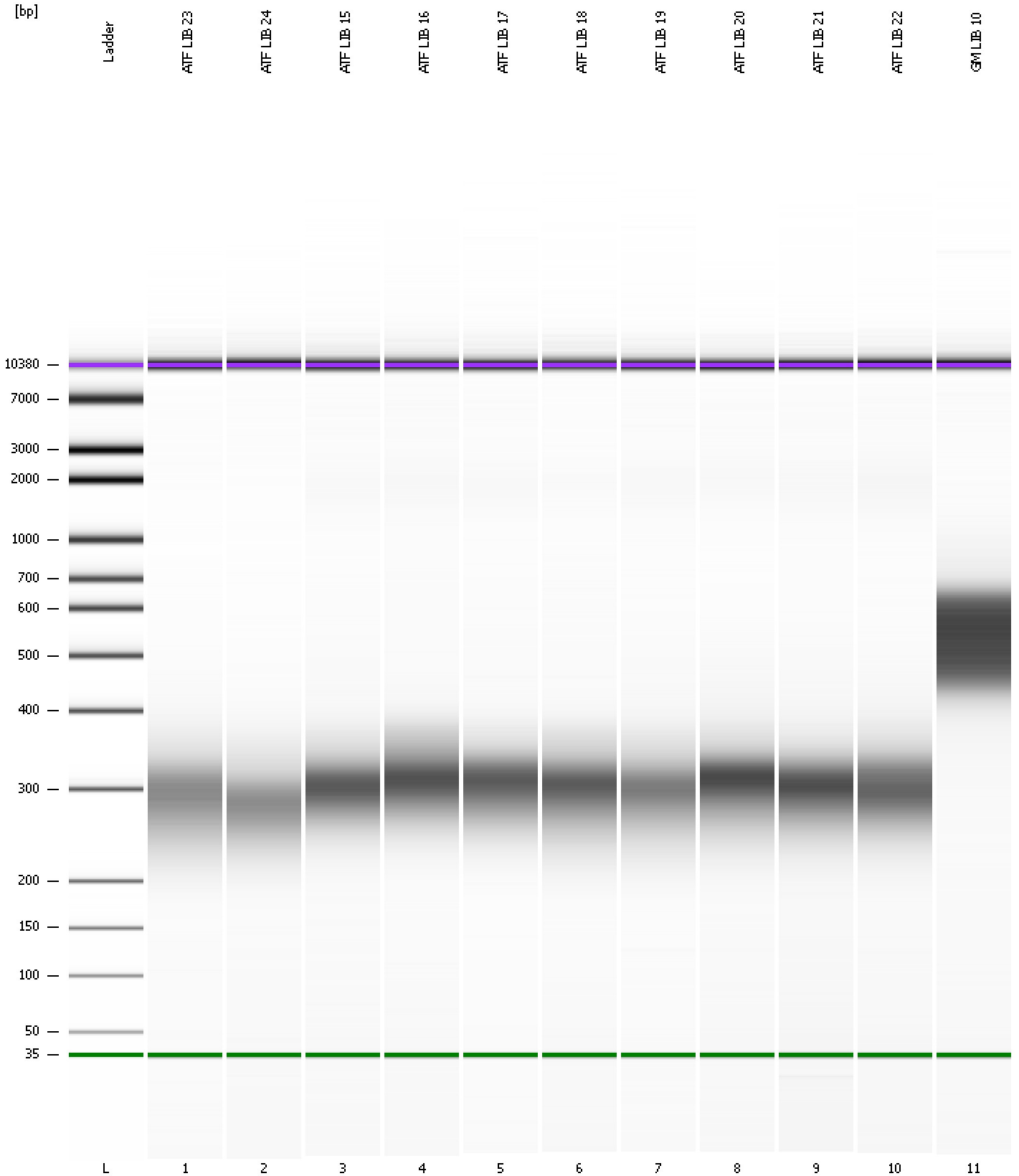
Region table for sample 11 : GM LIB 10

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	540	870.04	1,178.5	2,519.6	97	15.8

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
Modified: 6/4/2019 2:31:50 PM

Gel Image

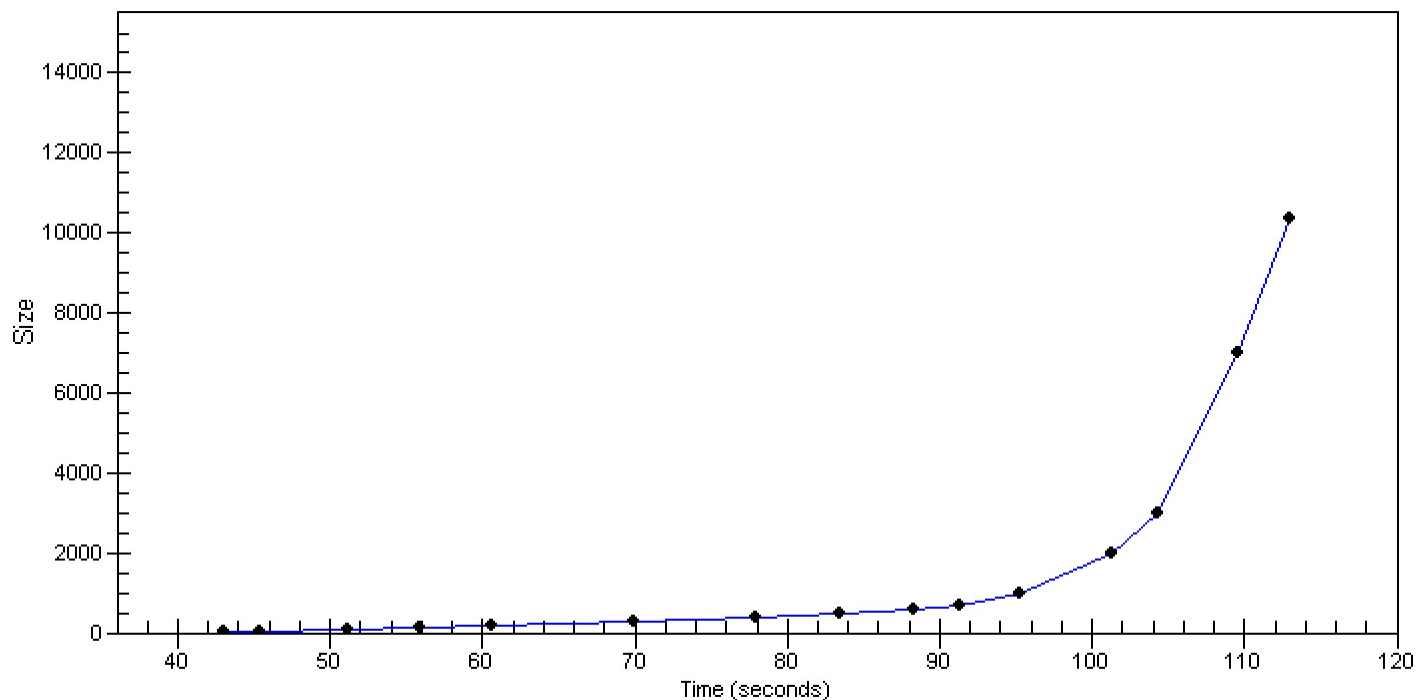


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
Modified: 6/4/2019 2:31:50 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad

Created: 6/4/2019 1:50:34 PM
 Modified: 6/4/2019 2:31:50 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		6/4/2019 2:31:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2019-06-04\2019-06-04_002.xad)		Instrument	Run		6/4/2019 1:50:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		6/4/2019 1:50:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/4/2019 1:50:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/4/2019 1:50:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		6/4/2019 1:50:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/4/2019 1:50:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/4/2019 1:50:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1