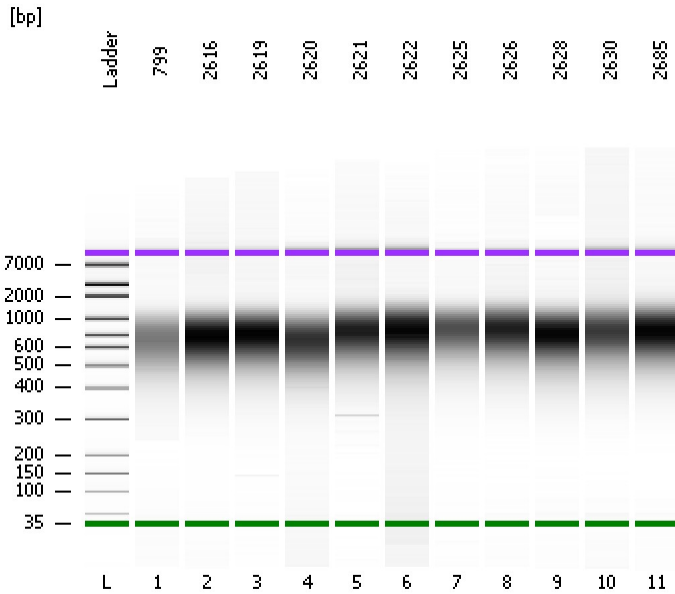


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
Modified: 10/20/2016 4:03:57 PM

Electrophoresis File Run Summary



Instrument Information:

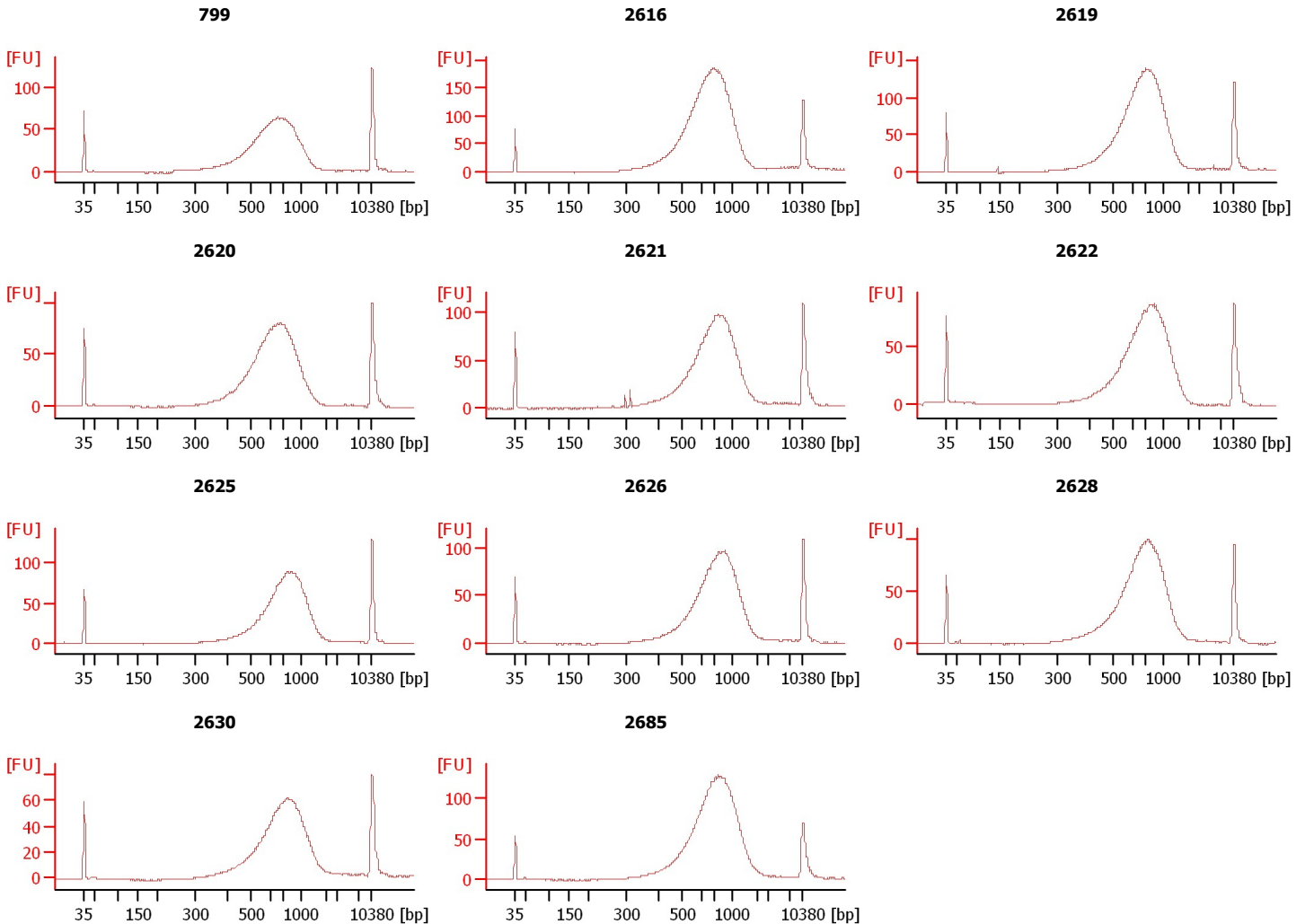
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
 Modified: 10/20/2016 4:03:57 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
799		<input type="checkbox"/>	✓			
2616		<input type="checkbox"/>	✓			
2619		<input type="checkbox"/>	✓			
2620		<input type="checkbox"/>	✓			
2621		<input type="checkbox"/>	✓			
2622		<input type="checkbox"/>	✓			
2625		<input type="checkbox"/>	✓			
2626		<input type="checkbox"/>	✓			
2628		<input type="checkbox"/>	✓			
2630		<input type="checkbox"/>	✓			
2685		<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\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
Modified: 10/20/2016 4:03:57 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

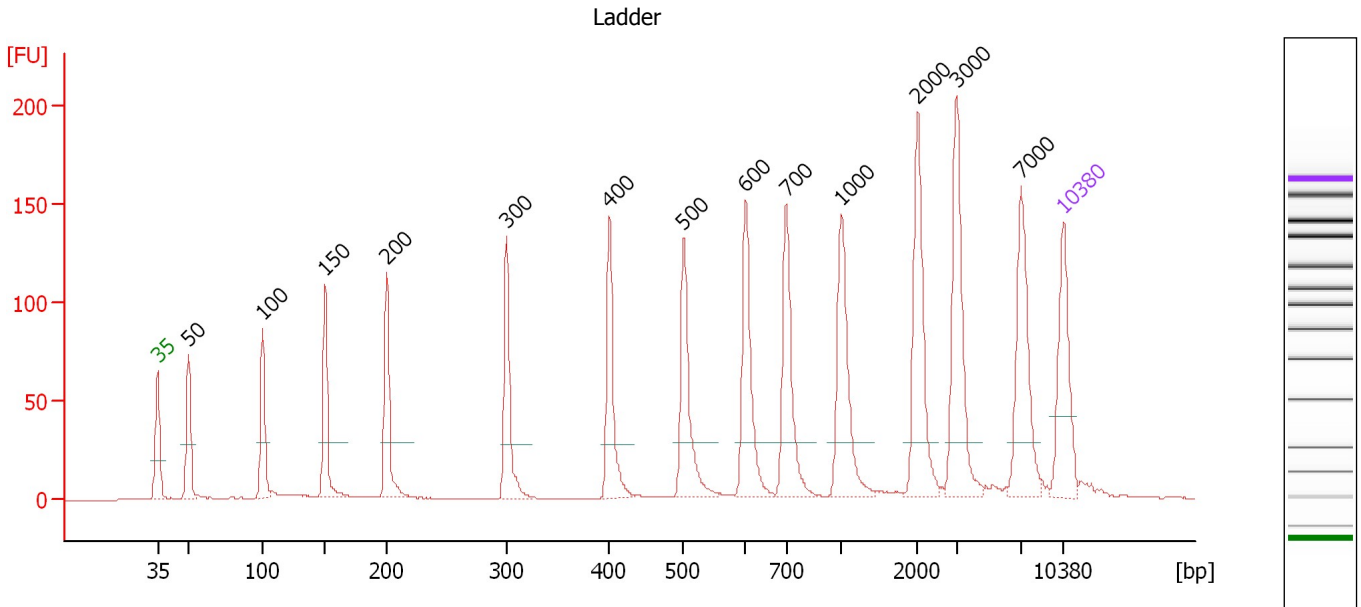
Ladder

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: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
 Modified: 10/20/2016 4:03:57 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

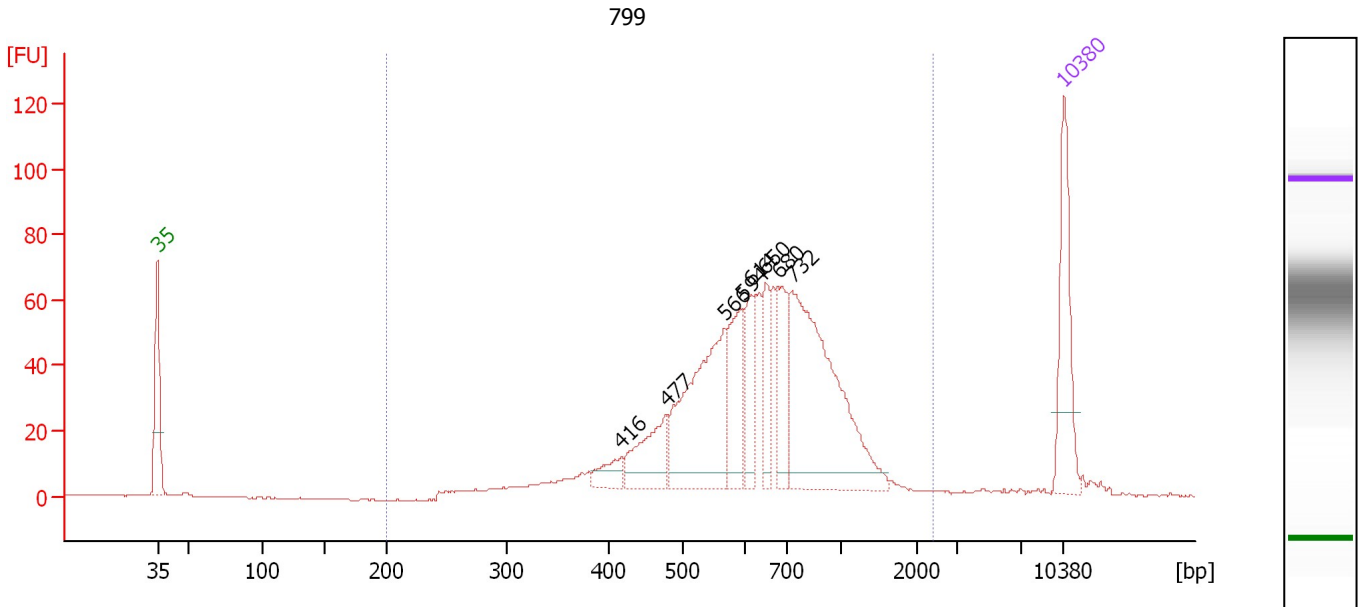
Peak table for Ladder

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	51.12
4	150	150.00	1,515.2	Ladder Peak	55.95
5	200	150.00	1,136.4	Ladder Peak	60.69
6	300	150.00	757.6	Ladder Peak	69.98
7	400	150.00	568.2	Ladder Peak	77.91
8	500	150.00	454.5	Ladder Peak	83.63
9	600	150.00	378.8	Ladder Peak	88.42
10	700	150.00	324.7	Ladder Peak	91.56
11	1,000	150.00	227.3	Ladder Peak	95.83
12	2,000	150.00	113.6	Ladder Peak	101.69
13	3,000	150.00	75.8	Ladder Peak	104.70
14	7,000	150.00	32.5	Ladder Peak	109.72
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
 Modified: 10/20/2016 4:03:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 799

Number of peaks found: 8 Corr. Area 1: 1,019.9
 Noise: 0.3

Peak table for sample 1 : 799

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	416	24.91	90.6		78.85
3	477	68.80	218.3		82.34
4	566	185.57	497.0		86.77
5	594	72.91	185.9		88.14
6	614	52.22	128.9		88.85
7	650	42.66	99.5		89.98
8	680	62.13	138.5		90.92
9	732	279.16	578.1		92.01
10	10,380	75.00	10.9	Upper Marker	113.00

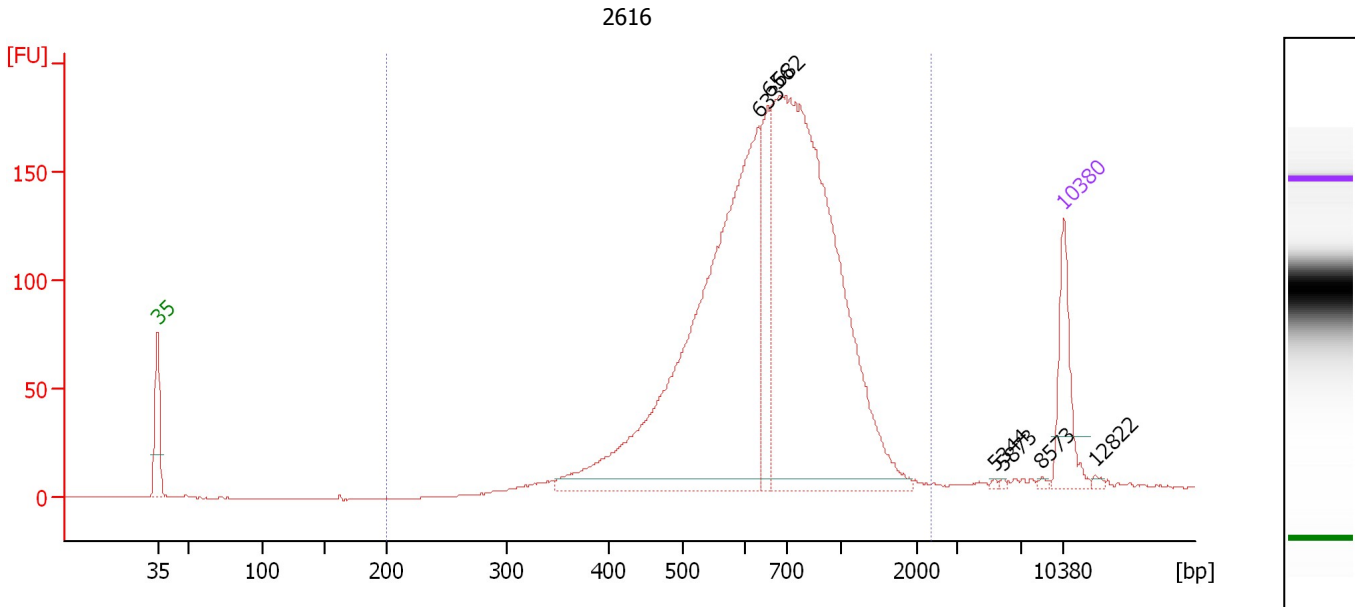
Region table for sample 1 : 799

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	2,403	685	1,019.9	2,644.3	1,025.83	95	38.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
 Modified: 10/20/2016 4:03:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 2616

Number of peaks found: 7 Corr. Area 1: 2,512.4
 Noise: 0.2

Peak table for sample 2 : 2616

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	633	924.83	2,212.8		89.46
3	656	127.94	295.5		90.17
4	682	1,053.24	2,341.4		90.98
5	5,344	2.05	0.6		107.64
6	5,873	1.90	0.5		108.30
7	8,573	2.48	0.4		111.24
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,822	0.00	0.0		115.37

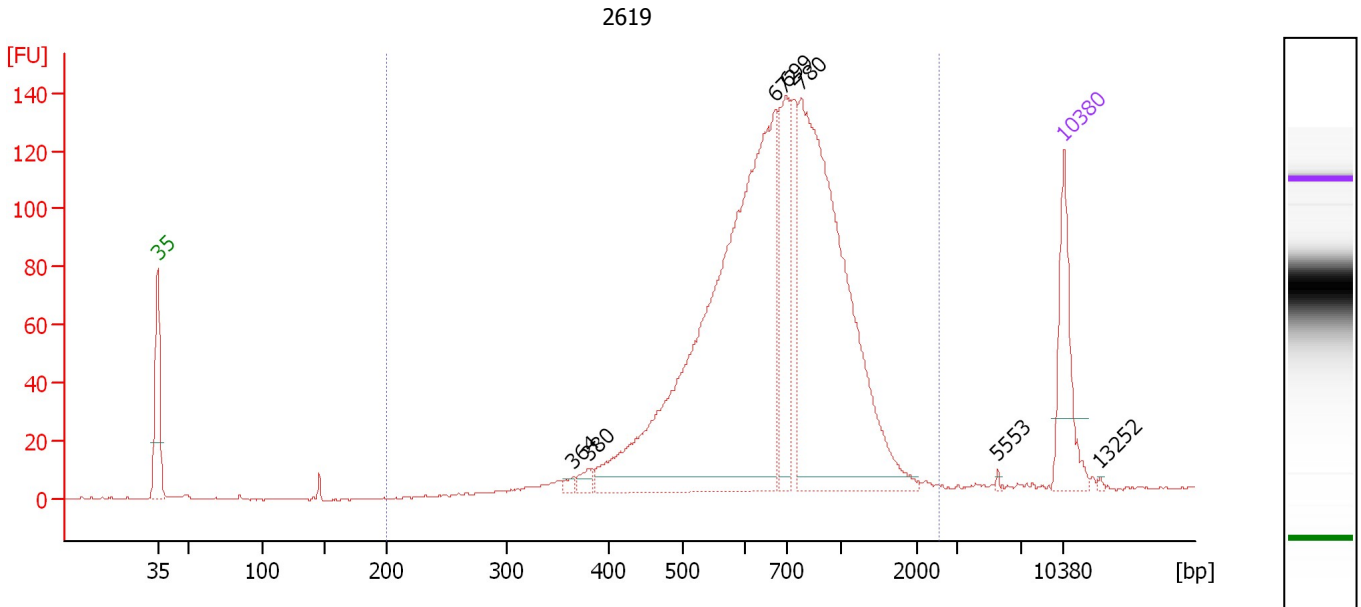
Region table for sample 2 : 2616

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	2,366	719	2,512.4	5,152.6	2,164.14	98	34.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
 Modified: 10/20/2016 4:03:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 2619

Number of peaks found: 7 Corr. Area 1: 1,838.7
 Noise: 0.4

Peak table for sample 3 : 2619

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	364	5.68	23.6		75.09
3	380	11.24	44.8		76.29
4	672	801.13	1,806.5		90.68
5	699	128.56	278.5		91.54
6	780	567.75	1,102.9		92.70
7	5,553	1.60	0.4		107.90
8	10,380	75.00	10.9	Upper Marker	113.00
9	13,252	0.00	0.0		115.79

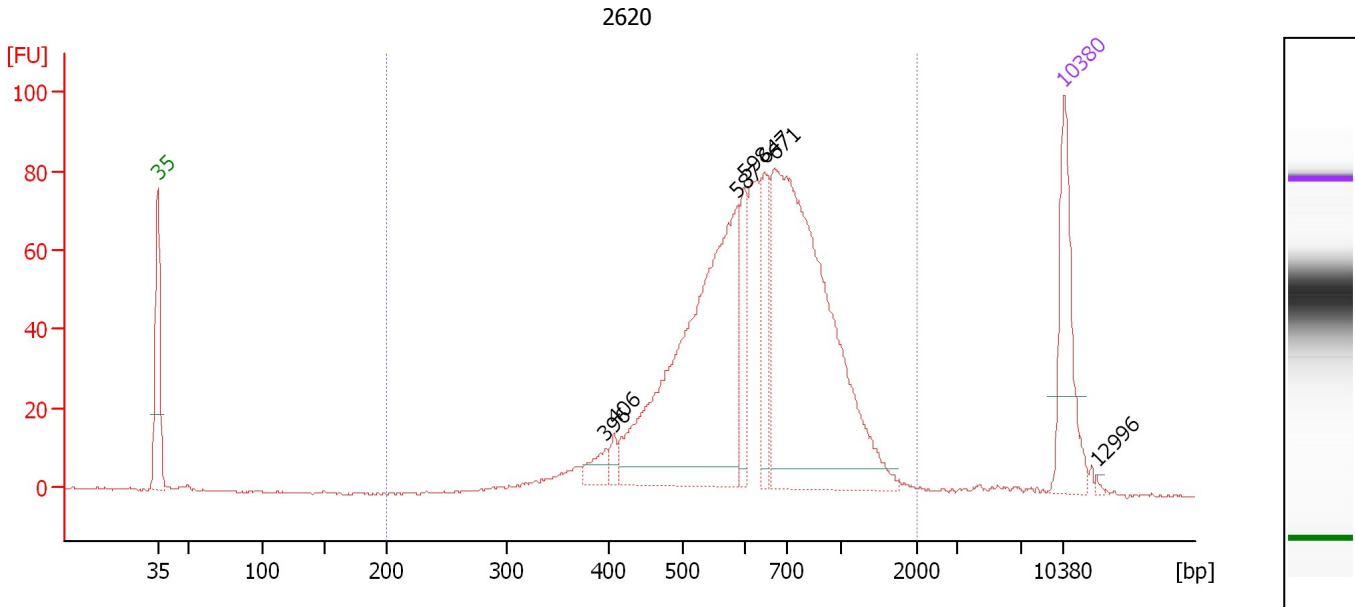
Region table for sample 3 : 2619

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	2,573	743	1,838.7	3,945.5	1,687.10	97	36.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
 Modified: 10/20/2016 4:03:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 2620

Number of peaks found: 7 Corr. Area 1: 1,194.7
 Noise: 0.4

Peak table for sample 4 : 2620

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	396	18.12	69.3		77.61
3	406	10.92	40.8		78.24
4	587	387.39	1,000.5		87.78
5	598	51.01	129.3		88.31
6	647	62.94	147.5		89.88
7	671	457.85	1,033.2		90.66
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,996	0.00	0.0		115.54

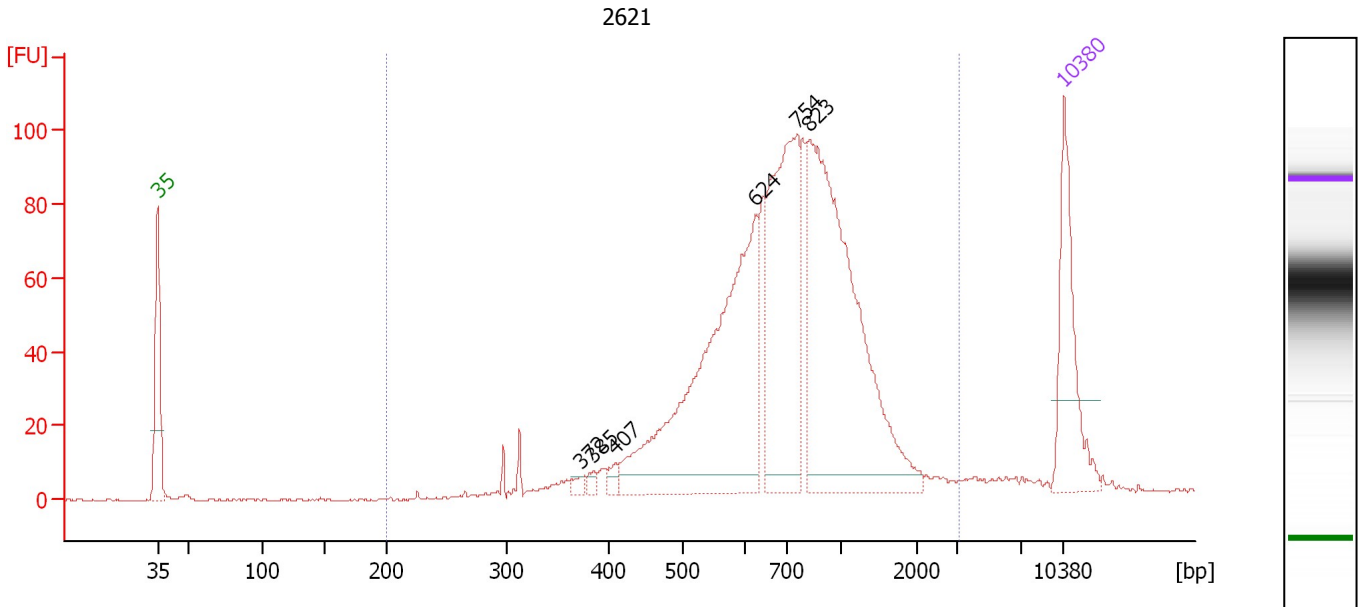
Region table for sample 4 : 2620

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,987	680	1,194.7	2,912.9	1,164.33	97	33.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
 Modified: 10/20/2016 4:03:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 2621

Number of peaks found: 6 Corr. Area 1: 1,313.6
 Noise: 0.3

Peak table for sample 5 : 2621

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	372	5.94	24.2		75.70
3	385	6.04	23.8		76.69
4	407	7.62	28.4		78.32
5	624	342.15	831.4		89.16
6	754	227.84	458.1		92.32
7	823	369.80	680.7		93.31
8	10,380	75.00	10.9	Upper Marker	113.00

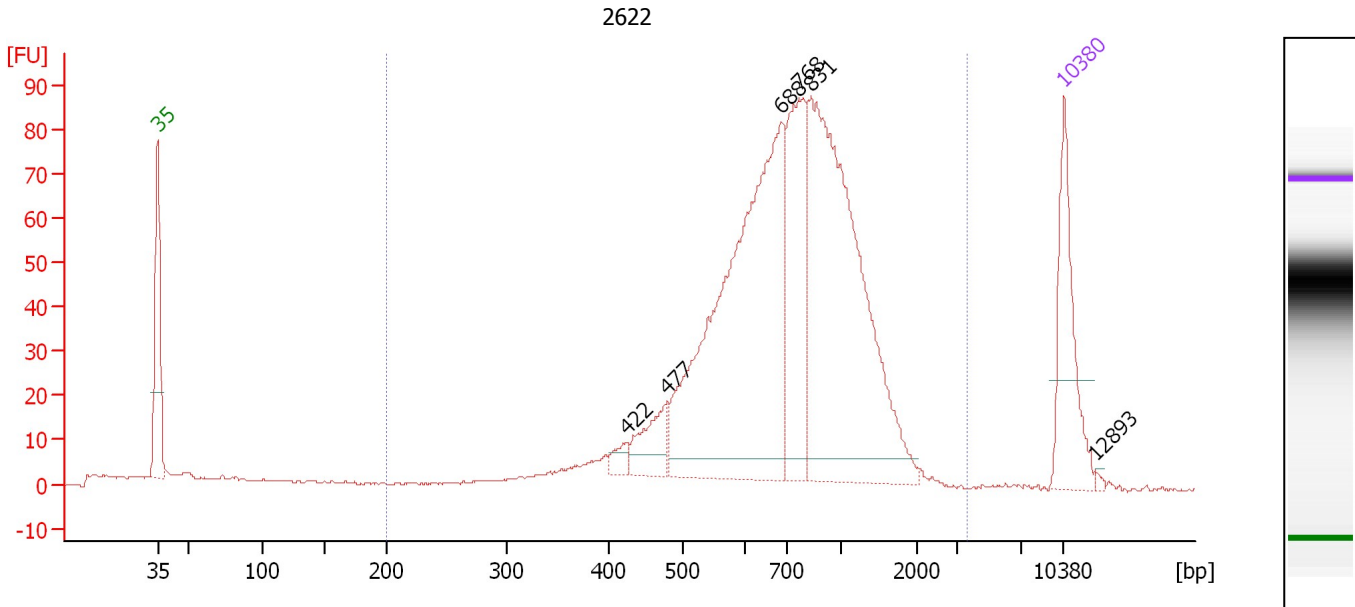
Region table for sample 5 : 2621

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	3,137	801	1,313.6	2,471.1	1,095.16	97	43.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
 Modified: 10/20/2016 4:03:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 2622

Number of peaks found: 6 Corr. Area 1: 1,265.0
 Noise: 0.2

Peak table for sample 6 : 2622

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	422	13.02	46.8		79.17
3	477	43.94	139.6		82.31
4	688	463.89	1,021.8		91.18
5	768	145.74	287.6		92.52
6	831	404.30	737.4		93.42
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,893	0.00	0.0		115.44

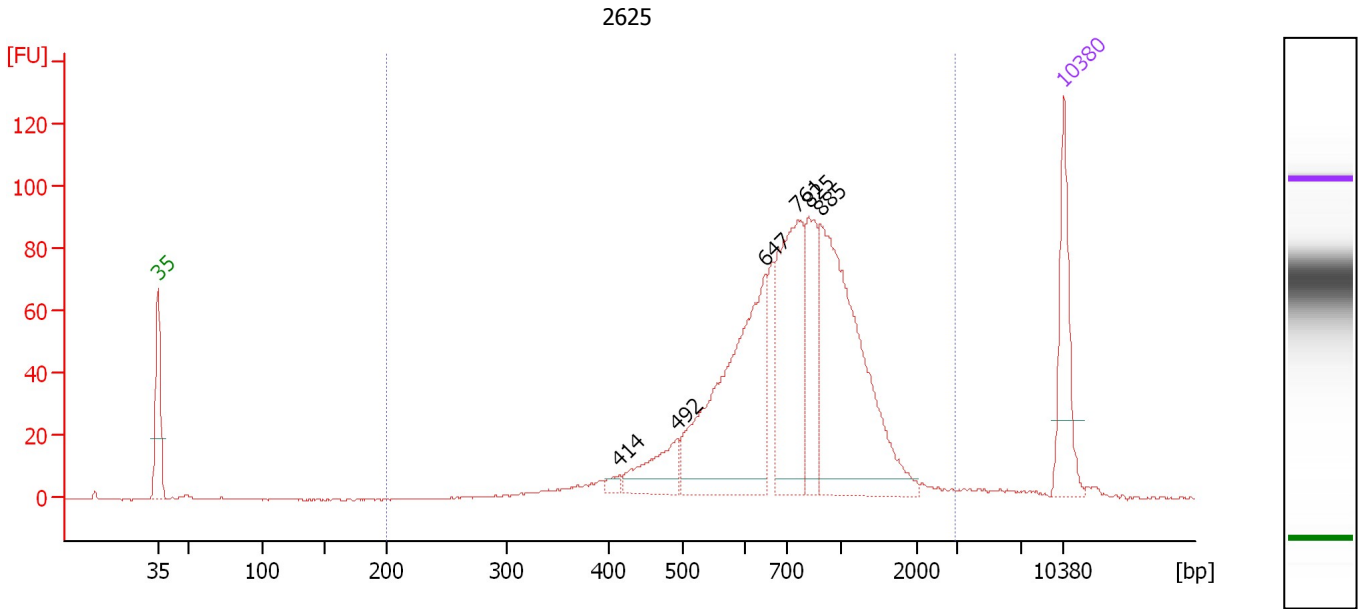
Region table for sample 6 : 2622

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	3,646	805	1,265.0	2,807.7	1,217.29	92	44.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
 Modified: 10/20/2016 4:03:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 2625

Number of peaks found: 6 Corr. Area 1: 1,153.1
 Noise: 0.2

Peak table for sample 7 : 2625

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	414	9.19	33.7		78.68
3	492	65.65	202.4		83.14
4	647	313.84	735.2		89.89
5	761	214.67	427.7		92.42
6	825	99.61	183.0		93.33
7	885	330.87	566.3		94.19
8	10,380	75.00	10.9	Upper Marker	113.00

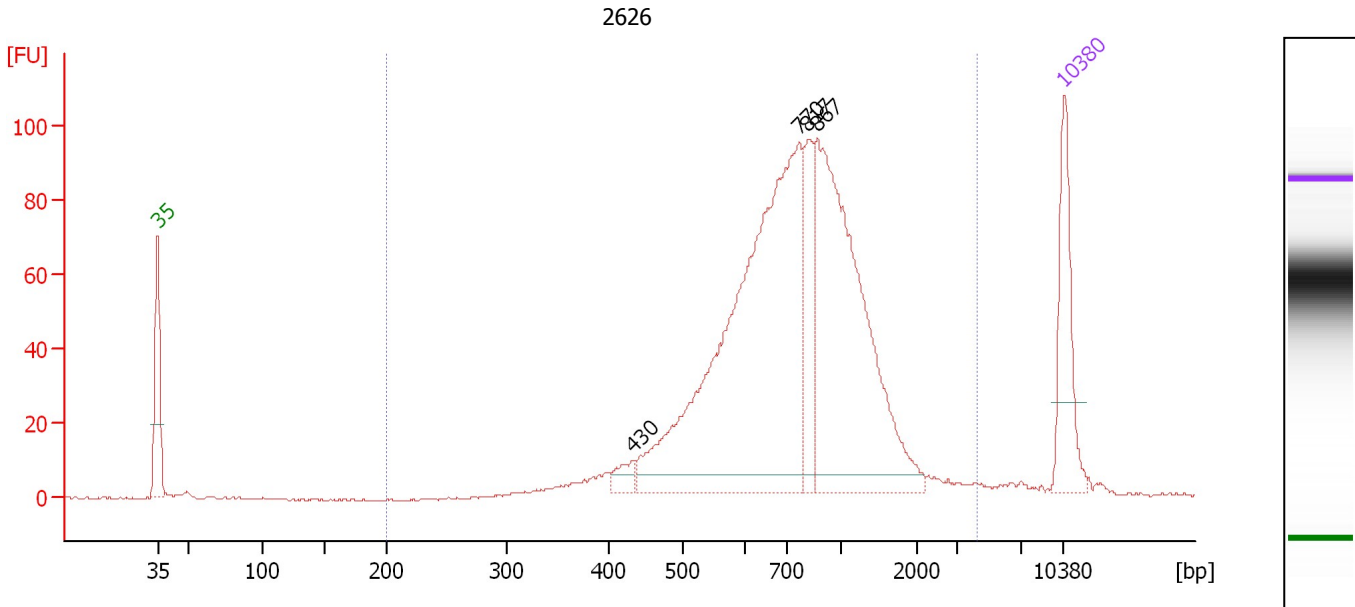
Region table for sample 7 : 2625

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,967	820	1,153.1	2,541.0	1,163.20	97	41.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
 Modified: 10/20/2016 4:03:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 2626

Number of peaks found: 4 Corr. Area 1: 1,248.2
 Noise: 0.3

Peak table for sample 8 : 2626

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	430	17.69	62.3		79.64
3	770	615.98	1,211.3		92.56
4	817	77.94	144.5		93.23
5	867	391.97	684.7		93.94
6	10,380	75.00	10.9	Upper Marker	113.00

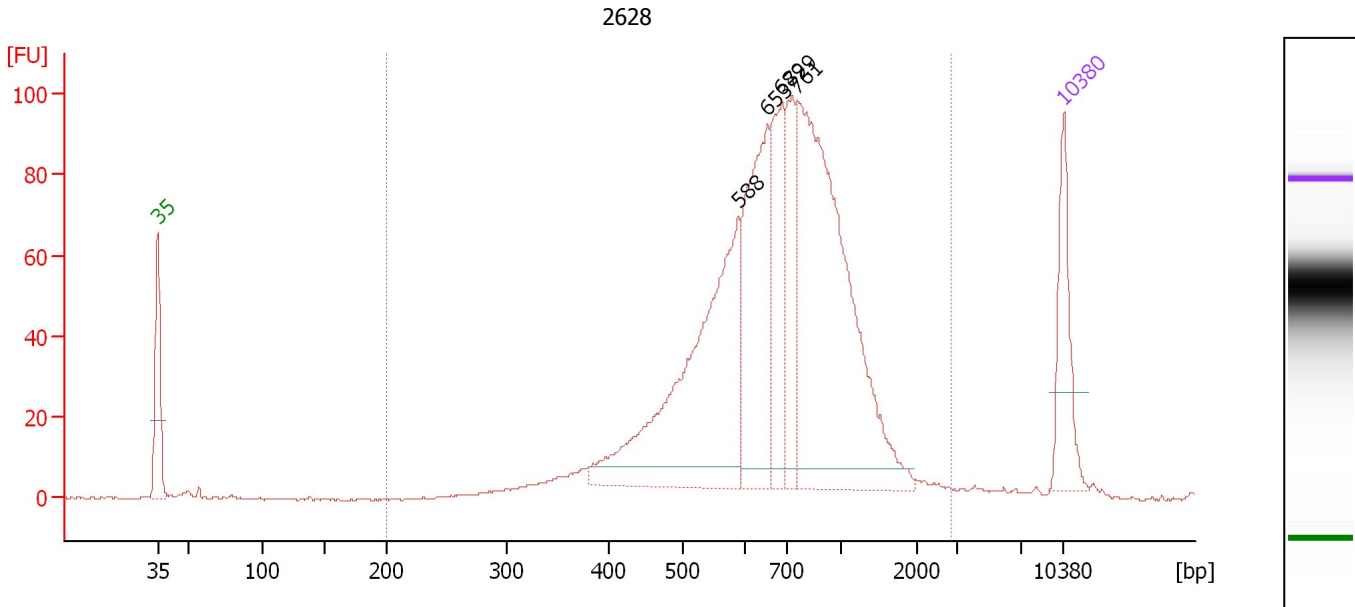
Region table for sample 8 : 2626

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	4,219	851	1,248.2	2,536.4	1,186.52	97	47.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
 Modified: 10/20/2016 4:03:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 2628

Number of peaks found: 5 Corr. Area 1: 1,343.2
 Noise: 0.2

Peak table for sample 9 : 2628

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	588	406.17	1,047.2		87.82
3	653	240.44	558.0		90.08
4	689	131.56	289.5		91.20
5	729	107.96	224.4		91.97
6	761	536.72	1,068.3		92.43
7	10,380	75.00	10.9	Upper Marker	113.00

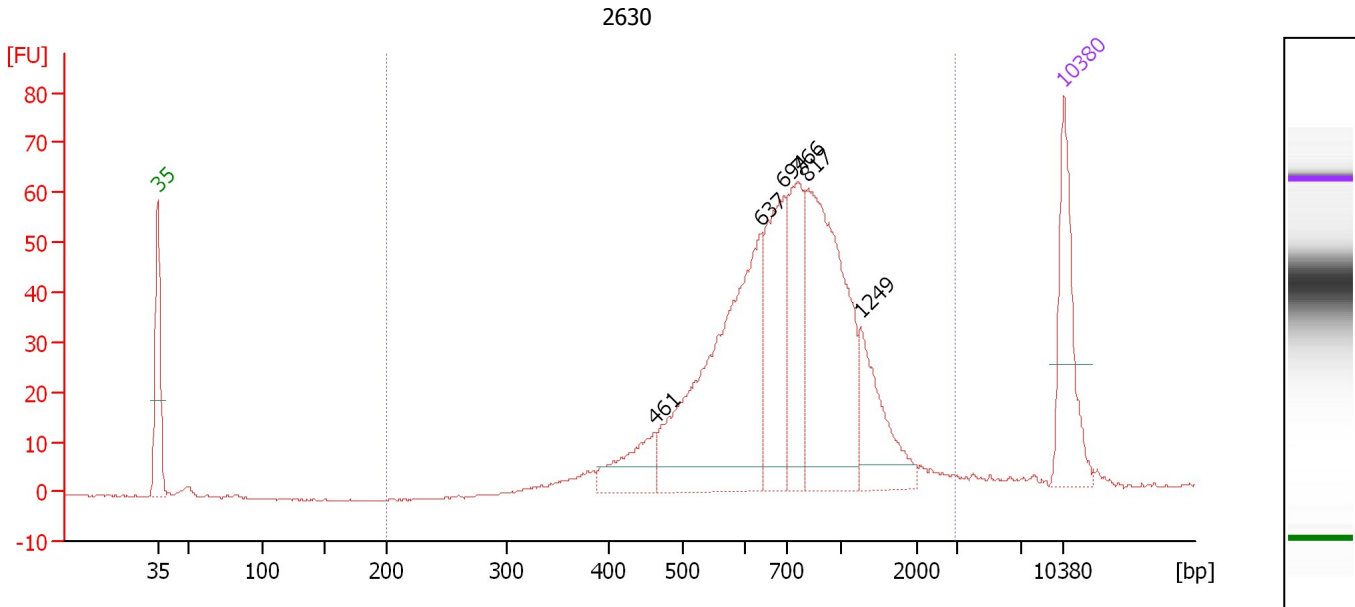
Region table for sample 9 : 2628

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,848	755	1,343.2	3,751.1	1,589.92	97	40.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
 Modified: 10/20/2016 4:03:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 2630

Number of peaks found: 6 Corr. Area 1: 815.6
 Noise: 0.2

Peak table for sample 10 : 2630

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	461	56.20	184.5		81.43
3	637	306.15	728.8		89.56
4	694	135.50	295.9		91.37
5	766	97.69	193.2		92.50
6	817	248.64	461.2		93.22
7	1,249	72.81	88.3		97.29
8	10,380	75.00	10.9	Upper Marker	113.00

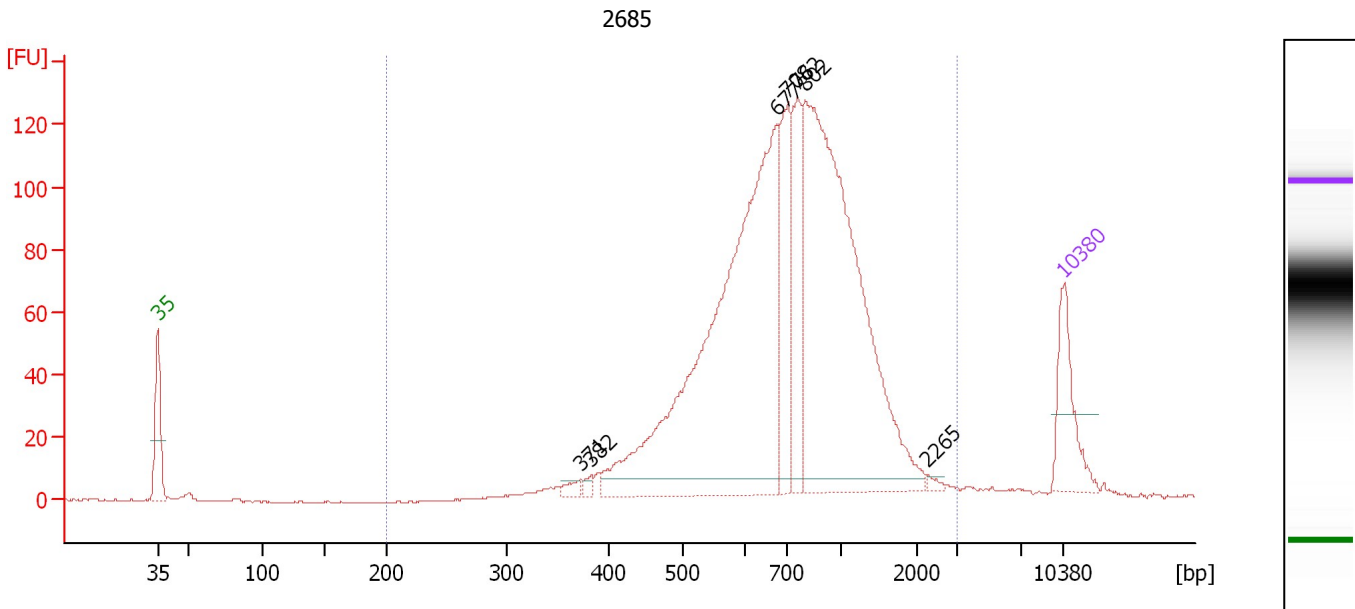
Region table for sample 10 : 2630

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	2,984	808	815.6	2,090.2	944.59	97	43.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
 Modified: 10/20/2016 4:03:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 2685

Number of peaks found: 7 Corr. Area 1: 1,704.2
 Noise: 0.2

Peak table for sample 11 : 2685

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	371	12.05	49.2		75.62
3	382	8.19	32.5		76.50
4	677	885.64	1,981.7		90.84
5	708	158.81	340.0		91.67
6	762	132.65	263.7		92.45
7	802	757.83	1,431.2		93.01
8	2,265	4.77	3.2		102.49
9	10,380	75.00	10.9	Upper Marker	113.00

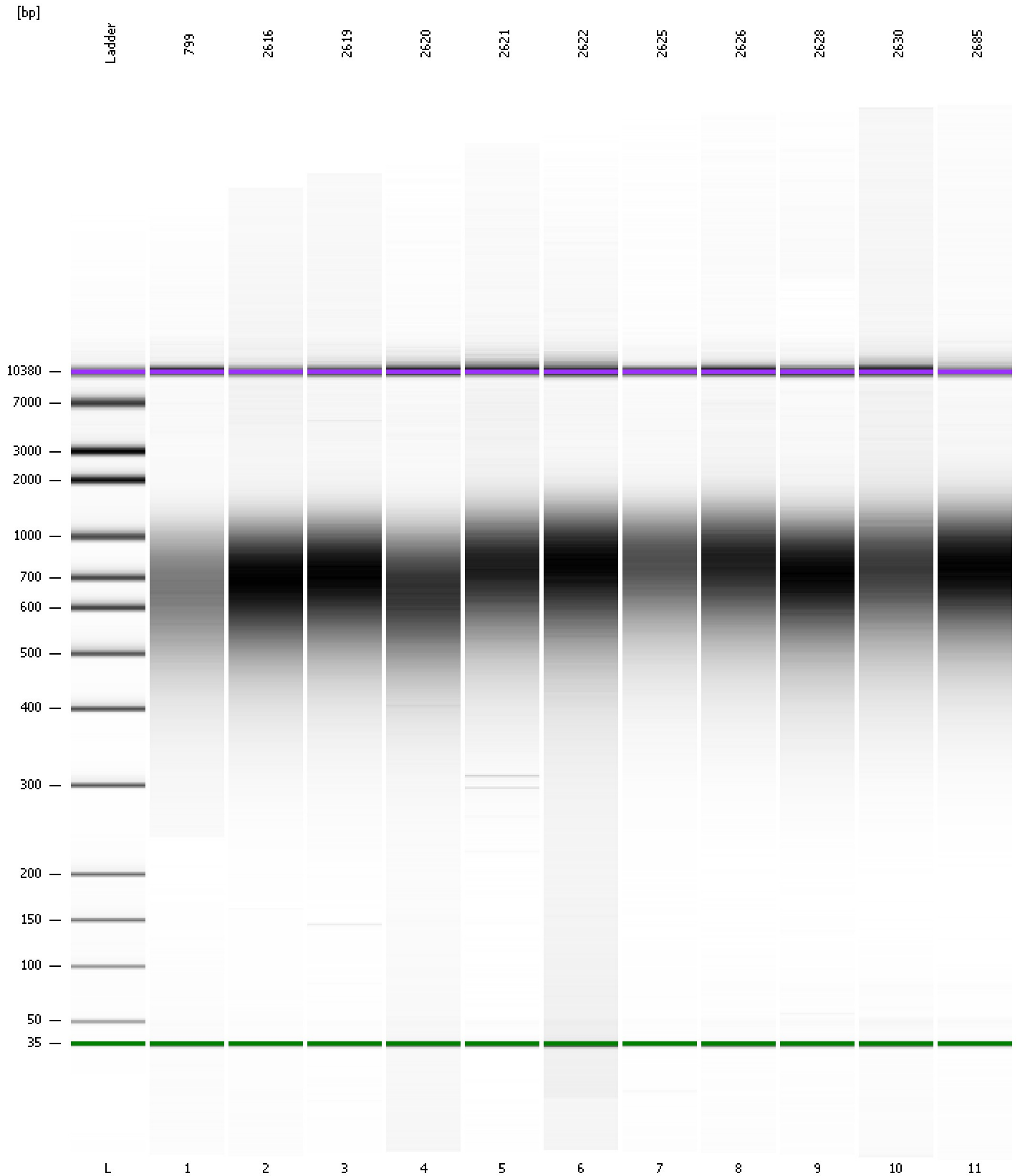
Region table for sample 11 : 2685

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	3,093	814	1,704.2	4,457.8	2,025.79	98	42.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
Modified: 10/20/2016 4:03:57 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-20\2016-10-20_005.xad

Created: 10/20/2016 3:09:58 PM
 Modified: 10/20/2016 4:03:57 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		10/20/2016 3:51:15 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\2016-10-20\2016-10-20_005.xad)		Instrument	Run		10/20/2016 3:10:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/20/2016 3:10:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/20/2016 3:10:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/20/2016 3:10:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/20/2016 3:10:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/20/2016 3:10:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/20/2016 3:10:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1