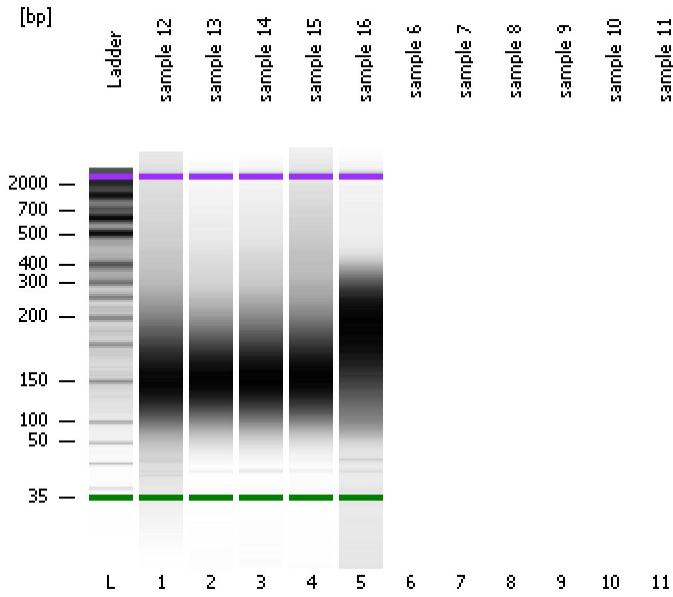


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-16\2016-03-16_003.xad

Created: 3/16/2016 11:57:43 AM
Modified: 3/16/2016 12:22:27 PM

Electrophoresis File Run Summary



Instrument Information:

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

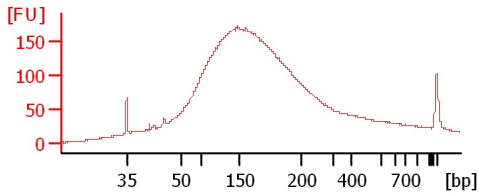
Assay Information:

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

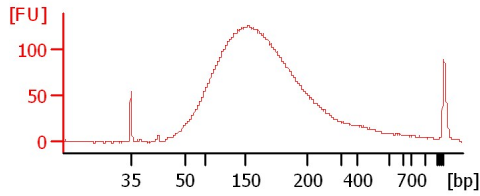
Chip Information:

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

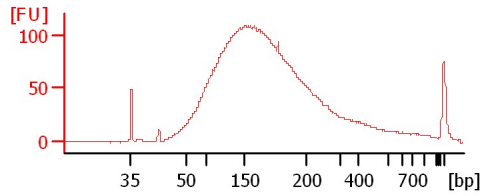
sample 12



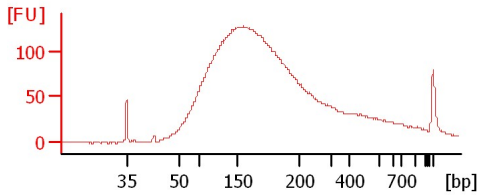
sample 13



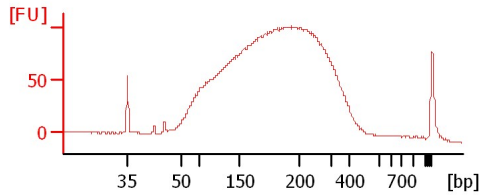
sample 14



sample 15



sample 16



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-16\2016-03-16_003.xad

Created: 3/16/2016 11:57:43 AM
 Modified: 3/16/2016 12:22:27 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 12		<input type="checkbox"/>	✓			
sample 13		<input type="checkbox"/>	✓			
sample 14		<input type="checkbox"/>	✓			
sample 15		<input type="checkbox"/>	✓			
sample 16		<input type="checkbox"/>	✓			
sample 6		<input type="checkbox"/>				
sample 7		<input type="checkbox"/>				
sample 8		<input type="checkbox"/>				
sample 9		<input type="checkbox"/>				
sample 10		<input type="checkbox"/>				
sample 11		<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\2016-03-16\2016-03-16_003.xad

Created: 3/16/2016 11:57:43 AM
Modified: 3/16/2016 12:22:27 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

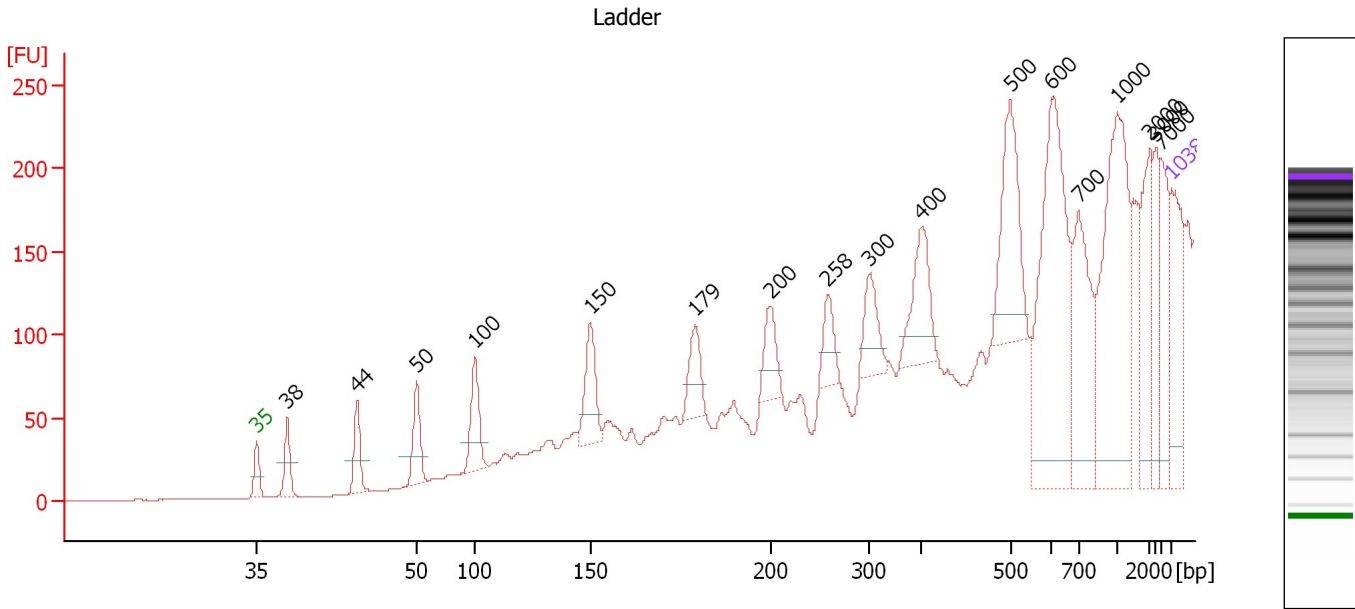
Ladder

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\2016-03-16\2016-03-16_003.xad

Created: 3/16/2016 11:57:43 AM
 Modified: 3/16/2016 12:22:27 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.3

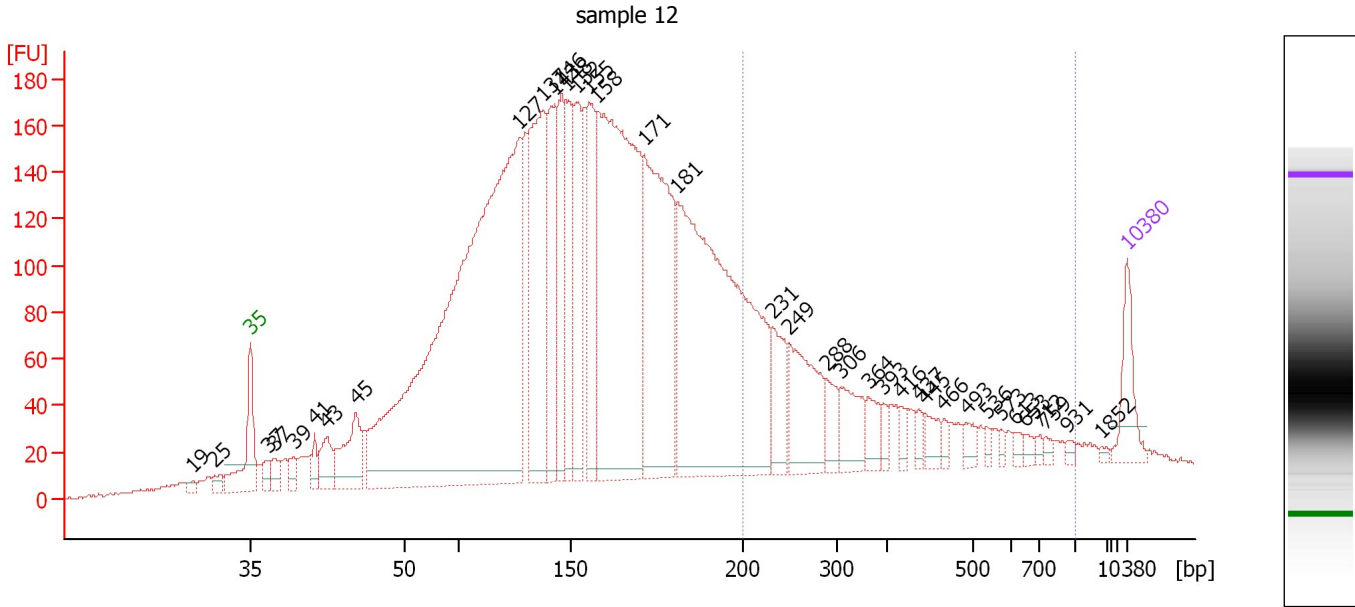
Peak table for Ladder

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	38	0.00	0.0		45.33
3	44	0.00	0.0		50.67
4	50	150.00	4,545.5	Ladder Peak	55.24
5	100	150.00	2,272.7	Ladder Peak	59.69
6	150	150.00	1,515.2	Ladder Peak	68.55
7	179	0.00	0.0		76.55
8	200	150.00	1,136.4	Ladder Peak	82.35
9	258	0.00	0.0		86.67
10	300	150.00	757.6	Ladder Peak	89.86
11	400	150.00	568.2	Ladder Peak	93.78
12	500	150.00	454.5	Ladder Peak	100.67
13	600	150.00	378.8	Ladder Peak	103.78
14	700	150.00	324.7	Ladder Peak	105.90
15	1,000	150.00	227.3	Ladder Peak	108.88
16	2,000	150.00	113.6	Ladder Peak	111.37
17	3,000	150.00	75.8	Ladder Peak	111.78
18	7,000	150.00	32.5	Ladder Peak	112.22
19	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-16\2016-03-16_003.xad

Created: 3/16/2016 11:57:43 AM
 Modified: 3/16/2016 12:22:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 12

Number of peaks found: 37 Corr. Area 1: 913.3
 Noise: 0.8

Peak table for sample 1 : sample 12


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	19	0.00	0.0		38.40
2	25	0.00	0.0		40.19
3	35	125.00	5,411.3	Lower Marker	43.00
4	37	42.04	1,734.8		44.41
5	37	45.90	1,862.0		44.92
6	39	45.16	1,744.3		46.45
7	41	43.34	1,591.6		48.11
8	43	99.92	3,561.4		49.13
9	45	199.58	6,671.3		51.43
10	127	2,914.31	34,794.8		64.46
11	137	683.68	7,534.7		66.33
12	143	345.82	3,670.0		67.27
13	146	328.77	3,414.4		67.82
14	148	267.36	2,736.1		68.21
15	152	316.76	3,164.1		69.02
16	155	362.47	3,537.9		70.00
17	158	1,428.41	13,710.2		70.72
18	171	810.12	7,159.7		74.47
19	181	1,564.36	13,094.9		77.11
20	231	153.97	1,011.8		84.64
21	249	261.68	1,590.6		86.05
22	288	65.05	341.8		88.99
23	306	121.10	599.6		90.09
24	364	55.10	229.6		92.35
25	393	23.17	89.3		93.50

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-16\2016-03-16_003.xad


Created: 3/16/2016 11:57:43 AM
 Modified: 3/16/2016 12:22:27 PM

Electropherogram Summary Continued ...

... Peak table for sample 1 : sample 12

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	416	26.06	94.9		94.90
27	437	21.05	73.0		96.31
28	445	39.30	133.7		96.91
29	466	19.24	62.5		98.35
30	493	27.77	85.4		100.18
31	536	12.97	36.6		101.80
32	573	10.52	27.8		102.95
33	613	11.39	28.1		104.06
34	653	13.96	32.4		104.91
35	712	10.23	21.8		106.02
36	759	10.33	20.6		106.49
37	931	8.13	13.2		108.19
38	1,852	5.48	4.5		111.00
39	 10,380	75.00	10.9	Upper Marker	113.00

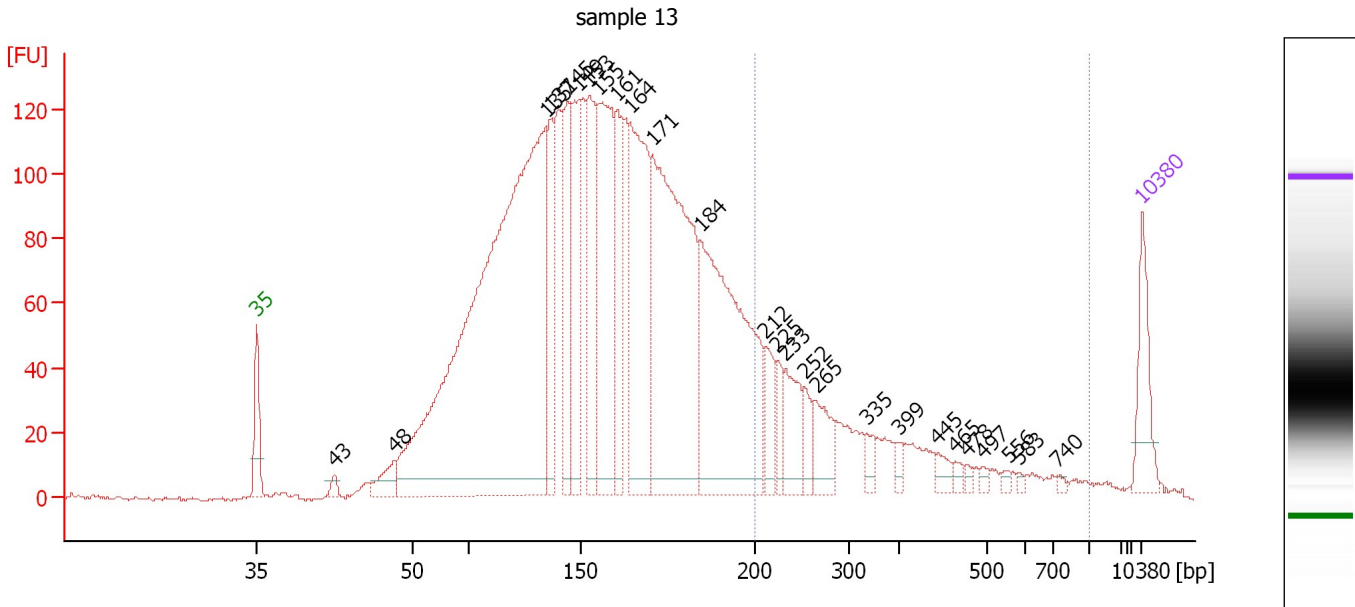
Region table for sample 1 : sample 12

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	356	913.3	6,964.6	 1,364.88	14	43.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-16\2016-03-16_003.xad

Created: 3/16/2016 11:57:43 AM
 Modified: 3/16/2016 12:22:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 13

Number of peaks found: 26 Corr. Area 1: 522.9
 Noise: 0.5

Peak table for sample 2 : sample 13


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	43	17.51	623.6		49.16
3	48	59.03	1,850.8		53.88
4	135	2,271.84	25,538.7		65.86
5	137	215.64	2,390.3		66.19
6	145	280.83	2,938.9		67.63
7	149	279.38	2,839.7		68.39
8	153	290.29	2,882.1		69.27
9	155	488.49	4,768.6		69.99
10	161	238.36	2,247.2		71.51
11	164	526.80	4,855.8		72.52
12	171	914.70	8,121.7		74.25
13	184	775.93	6,375.6		78.04
14	212	86.55	619.3		83.23
15	225	47.54	320.6		84.20
16	233	112.25	729.7		84.83
17	252	45.61	274.1		86.27
18	265	87.73	501.4		87.23
19	335	26.80	121.1		91.24
20	399	16.91	64.2		93.73
21	445	22.32	76.1		96.85
22	465	12.53	40.8		98.24
23	478	7.40	23.5		99.13
24	497	8.24	25.1		100.48
25	556	7.43	20.3		102.42

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-16\2016-03-16_003.xad


Created: 3/16/2016 11:57:43 AM
 Modified: 3/16/2016 12:22:27 PM

Electropherogram Summary Continued ...

... Peak table for sample 2 : sample 13

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	583	4.63	12.0		103.26
27	740	4.99	10.2		106.30
28	 10,380	75.00	10.9	Upper Marker	113.00

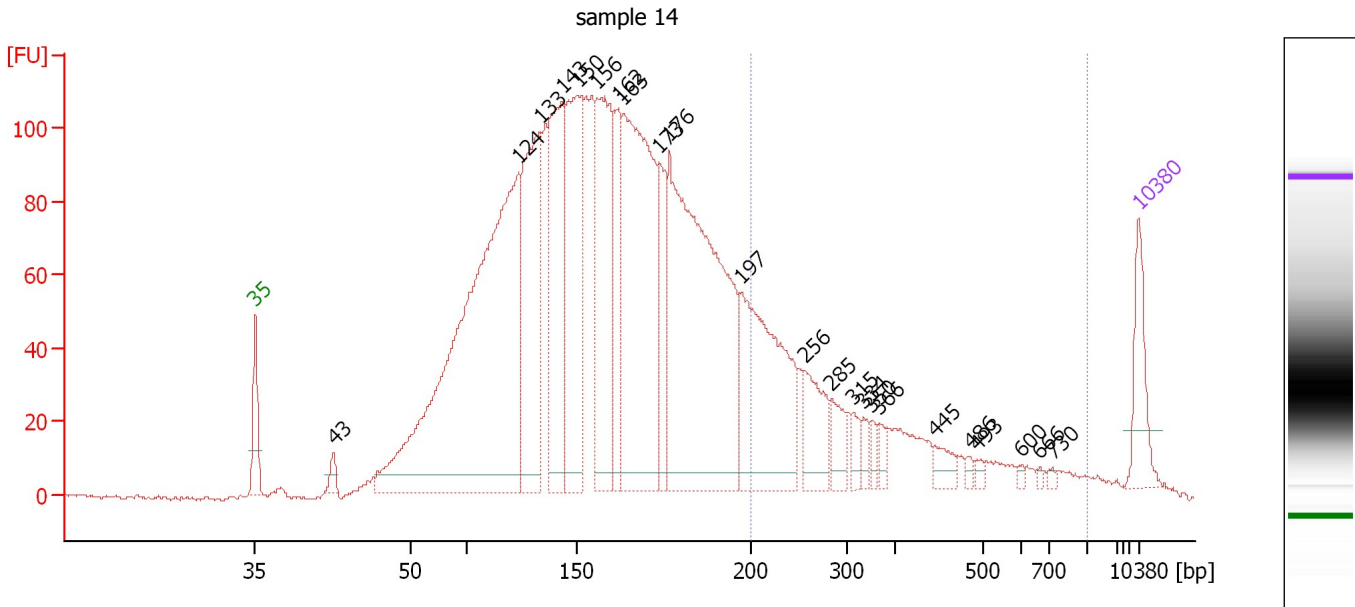
Region table for sample 2 : sample 13

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/ μ l]	% of Total	Size distribution in CV [%]
200	1,000	341	522.9	4,547.0	 865.95	13	42.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-16\2016-03-16_003.xad

Created: 3/16/2016 11:57:43 AM
 Modified: 3/16/2016 12:22:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 14

Number of peaks found: 23 Corr. Area 1: 565.9
 Noise: 0.5

Peak table for sample 3 : sample 14

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	43	30.59	1,087.6		49.21
3	124	1,717.74	21,050.0		63.88
4	133	549.34	6,238.2		65.61
5	143	465.98	4,938.4		67.31
6	150	512.88	5,177.8		68.57
7	156	491.21	4,778.5		70.14
8	162	204.42	1,917.0		71.74
9	163	858.66	7,969.0		72.21
10	173	174.13	1,521.8		75.00
11	176	1,161.05	9,970.8		75.84
12	197	517.80	3,980.2		81.55
13	256	133.98	791.8		86.58
14	285	62.22	331.3		88.69
15	315	32.78	157.9		90.43
16	334	25.37	115.1		91.19
17	350	19.37	83.8		91.82
18	366	20.68	85.5		92.46
19	445	32.90	112.1		96.85
20	486	8.94	27.9		99.68
21	493	9.72	29.9		100.19
22	600	5.25	13.2		103.79
23	666	4.21	9.6		105.18
24	730	5.58	11.6		106.19
25	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-16\2016-03-16_003.xad

Created: 3/16/2016 11:57:43 AM
Modified: 3/16/2016 12:22:27 PM

Electropherogram Summary Continued ...

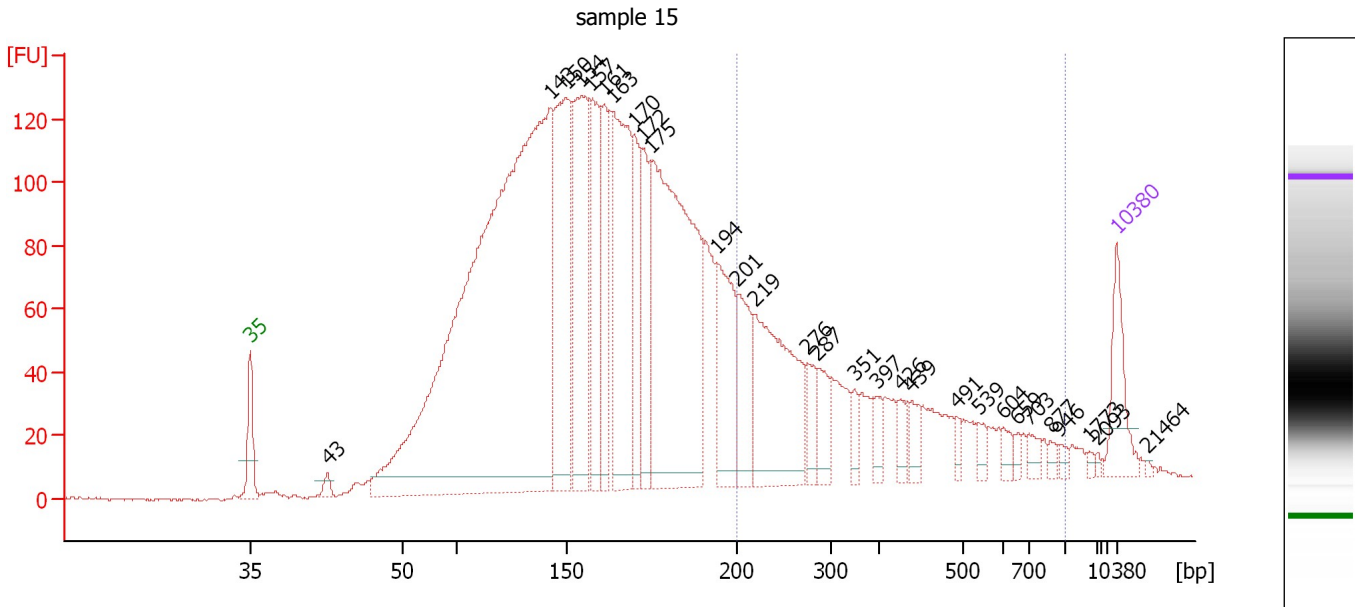
... Region table for sample 3 : sample 14

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	349	565.9	5,358.5	1,035.31	15	43.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-16\2016-03-16_003.xad

Created: 3/16/2016 11:57:43 AM
 Modified: 3/16/2016 12:22:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 15

Number of peaks found: 29 Corr. Area 1: 803.3
 Noise: 0.4

Peak table for sample 4 : sample 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	43	22.35	793.9		49.25
3	143	2,728.80	29,012.4		67.22
4	150	491.99	4,963.3		68.60
5	154	455.29	4,472.1		69.72
6	157	294.92	2,845.0		70.50
7	161	227.95	2,143.6		71.62
8	163	511.21	4,738.3		72.27
9	170	185.11	1,651.0		74.03
10	172	187.45	1,650.6		74.64
11	175	984.79	8,532.5		75.41
12	194	254.88	1,991.3		80.67
13	201	155.01	1,170.4		82.40
14	219	408.93	2,828.8		83.78
15	276	58.82	323.1		88.04
16	287	68.63	362.6		88.86
17	351	31.45	136.0		91.84
18	397	30.88	117.9		93.65
19	426	26.94	95.9		95.54
20	439	38.50	133.0		96.45
21	491	17.36	53.6		100.07
22	539	20.85	58.6		101.88
23	604	19.31	48.4		103.86
24	659	10.36	23.8		105.03
25	703	20.21	43.5		105.93

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-16\2016-03-16_003.xad


Created: 3/16/2016 11:57:43 AM
 Modified: 3/16/2016 12:22:27 PM

Electropherogram Summary Continued ...

... Peak table for sample 4 : sample 15

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	877	10.35	17.9		107.66
27	946	10.01	16.0		108.34
28	1,773	5.35	4.6		110.80
29	2,093	3.68	2.7		111.41
30	 10,380	75.00	10.9	Upper Marker	113.00
31	21,464	0.00	0.0		115.54

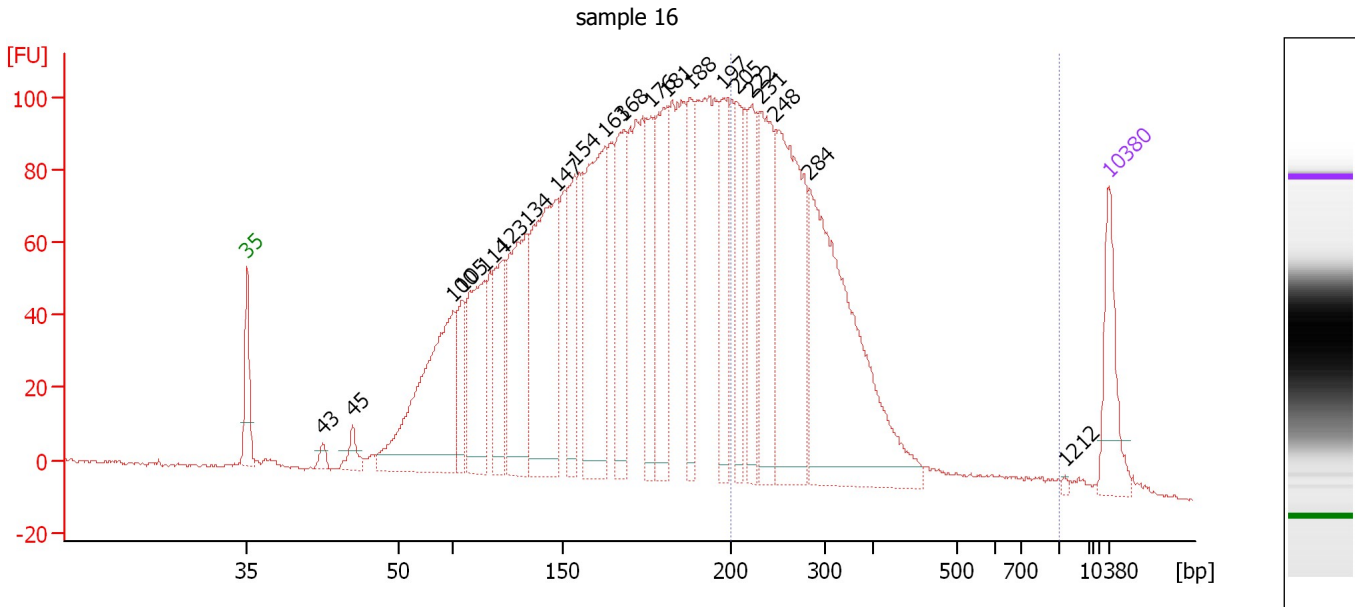
Region table for sample 4 : sample 15

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	373	803.3	6,257.3	 1,269.71	19	43.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-16\2016-03-16_003.xad

Created: 3/16/2016 11:57:43 AM
 Modified: 3/16/2016 12:22:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 16

Number of peaks found: 21 Corr. Area 1: 1,173.3
 Noise: 0.5

Peak table for sample 5 : sample 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	43	16.72	595.5		49.15
3	45	35.79	1,193.1		51.53
4	100	462.13	6,974.6		59.76
5	105	104.45	1,513.8		60.50
6	114	253.23	3,355.9		62.23
7	123	170.24	2,099.0		63.75
8	134	304.91	3,456.7		65.65
9	147	450.57	4,633.3		68.08
10	154	157.92	1,554.2		69.64
11	163	405.73	3,777.5		72.07
12	168	226.58	2,040.6		73.58
13	176	161.34	1,387.0		75.79
14	181	245.52	2,055.8		77.09
15	188	169.07	1,363.7		79.00
16	197	161.46	1,239.1		81.64
17	205	147.14	1,087.6		82.72
18	222	132.84	907.8		83.98
19	231	228.67	1,500.2		84.67
20	248	423.28	2,589.5		85.93
21	284	597.77	3,189.1		88.66
22	1,212	2.67	3.3		109.40
23	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-16\2016-03-16_003.xad

Created: 3/16/2016 11:57:43 AM
Modified: 3/16/2016 12:22:27 PM

Electropherogram Summary Continued ...

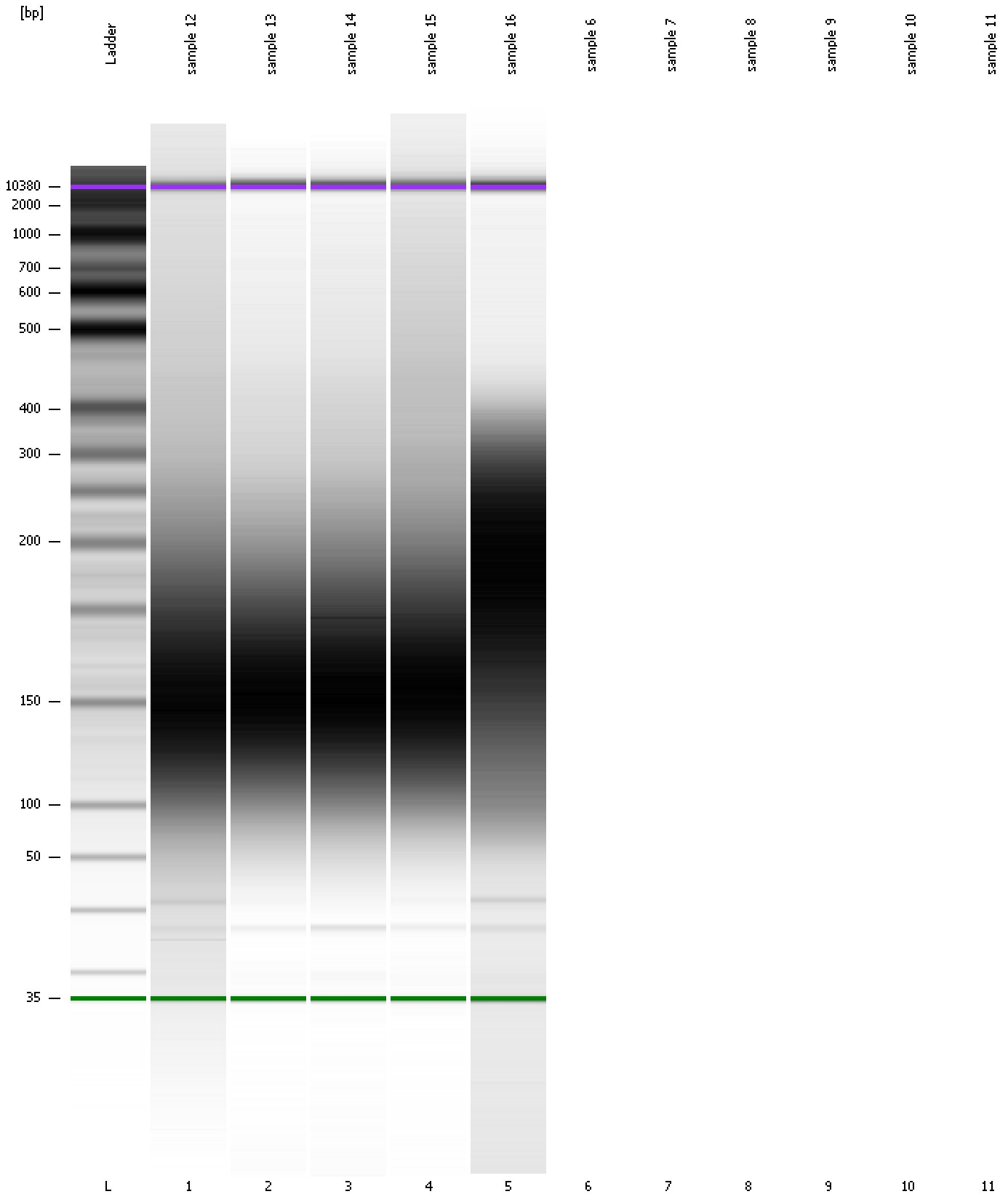
... Region table for sample 5 : sample 16

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	295	1,173.3	9,509.4	1,701.42	29	34.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-16\2016-03-16_003.xad

Created: 3/16/2016 11:57:43 AM
Modified: 3/16/2016 12:22:27 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-16\2016-03-16_003.xad

Created: 3/16/2016 11:57:43 AM
Modified: 3/16/2016 12:22:27 PM

Invalid Samples

Sample 6 has not been run, no results available.

Sample 7 has not been run, no results available.

Sample 8 has not been run, no results available.

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-16\2016-03-16_003.xad

Created: 3/16/2016 11:57:43 AM
 Modified: 3/16/2016 12:22:27 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 6)		Instrument	Run		3/16/2016 12:21:54 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\2016-03-16\2016-03-16_003.xad)		Instrument	Run		3/16/2016 11:57:49 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/16/2016 11:57:49 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/16/2016 11:57:49 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/16/2016 11:57:49 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/16/2016 11:57:49 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/16/2016 11:57:49 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/16/2016 11:57:49 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1