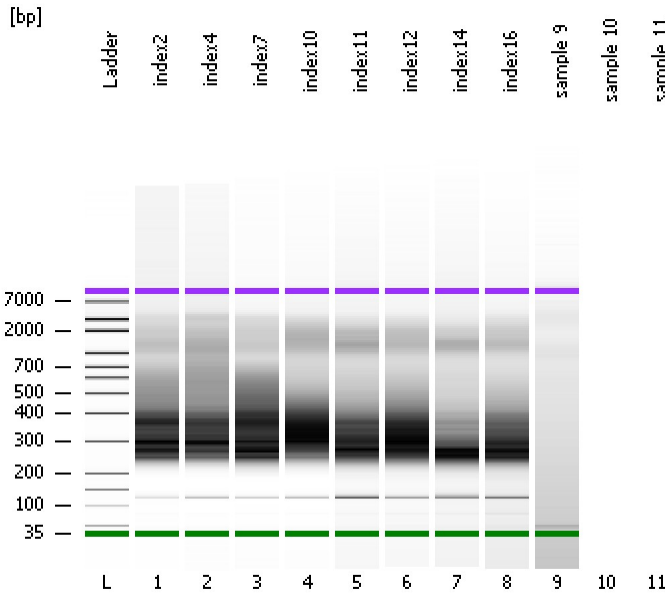


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_003.xad

Created: 7/25/2016 2:15:45 PM
Modified: 7/25/2016 2:51:19 PM

Electrophoresis File Run Summary



Instrument Information:

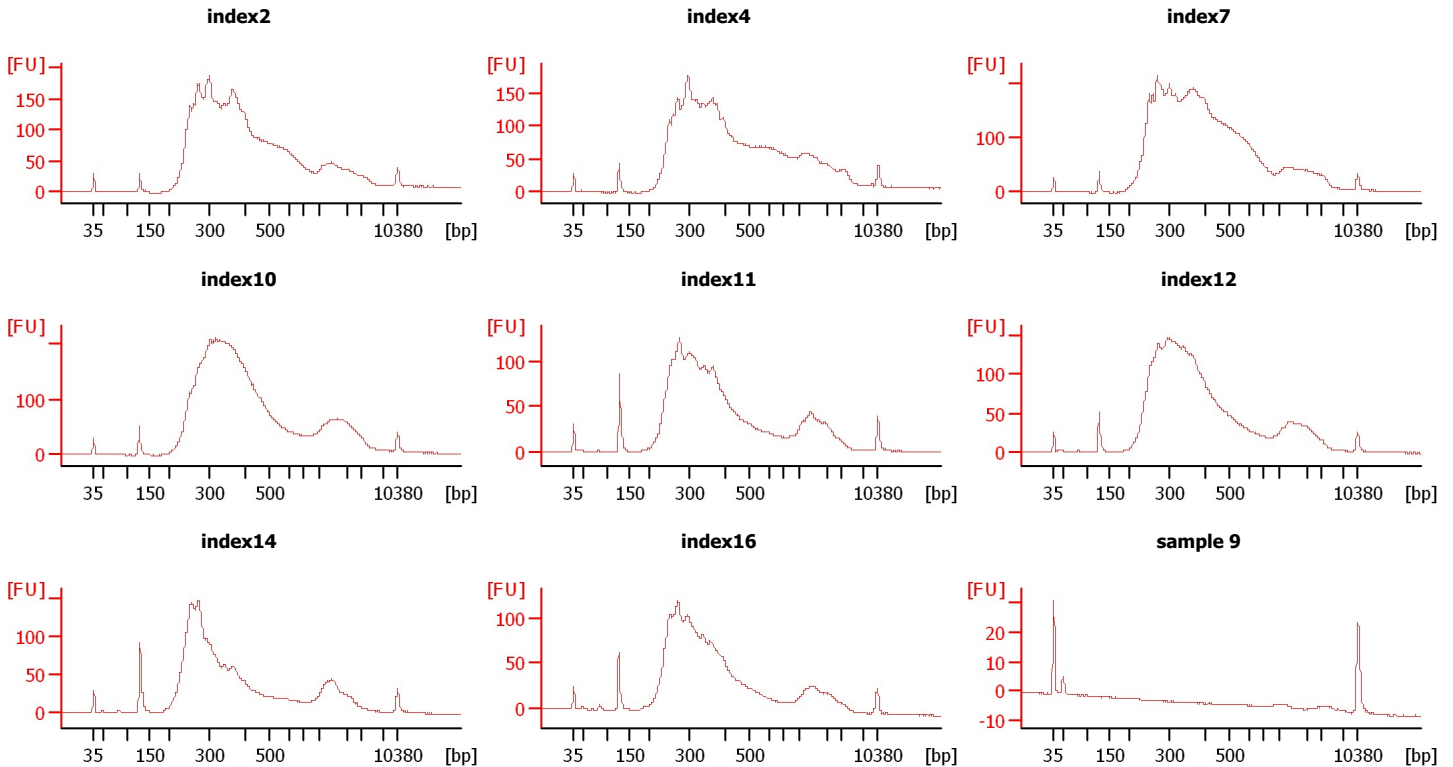
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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\2016-07-25\2016-07-25_003.xad

Created: 7/25/2016 2:15:45 PM
Modified: 7/25/2016 2:51:19 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
index2		<input type="checkbox"/>	✓			
index4		<input type="checkbox"/>	✓			
index7		<input type="checkbox"/>	✓			
index10		<input type="checkbox"/>	✓			
index11		<input type="checkbox"/>	✓			
index12		<input type="checkbox"/>	✓			
index14		<input type="checkbox"/>	✓			
index16		<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\2016-07-25\2016-07-25_003.xad

Created: 7/25/2016 2:15:45 PM
Modified: 7/25/2016 2:51:19 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

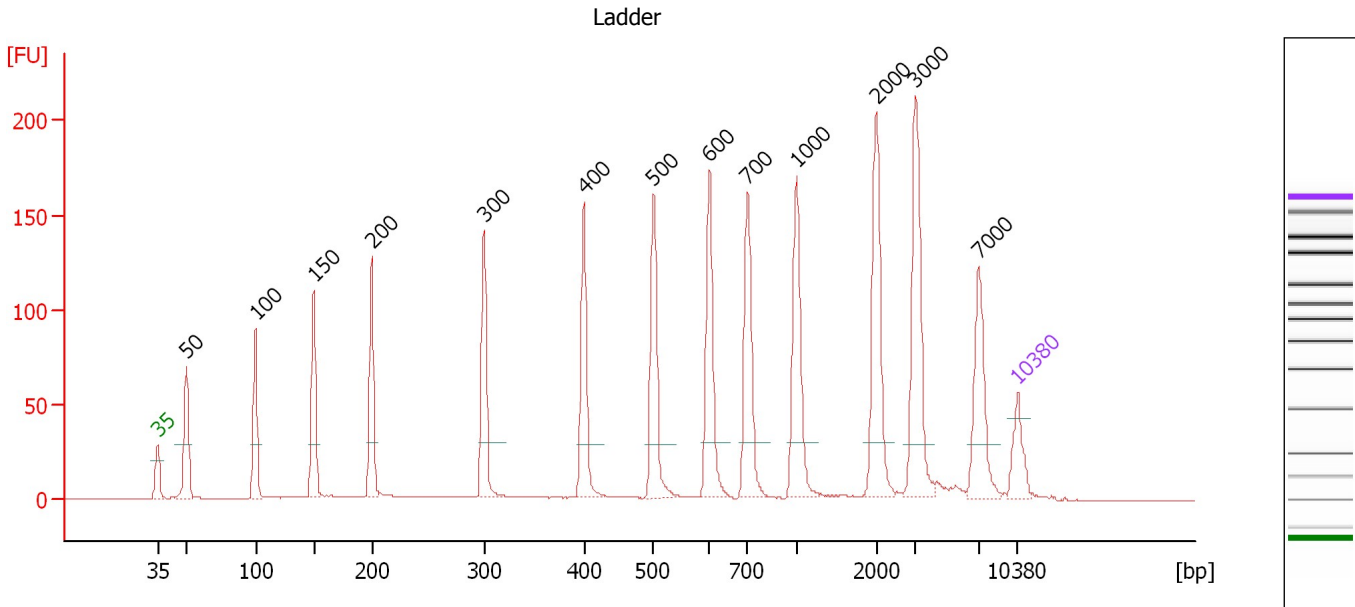
Ladder

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\2016-07-25\2016-07-25_003.xad

Created: 7/25/2016 2:15:45 PM
 Modified: 7/25/2016 2:51:19 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

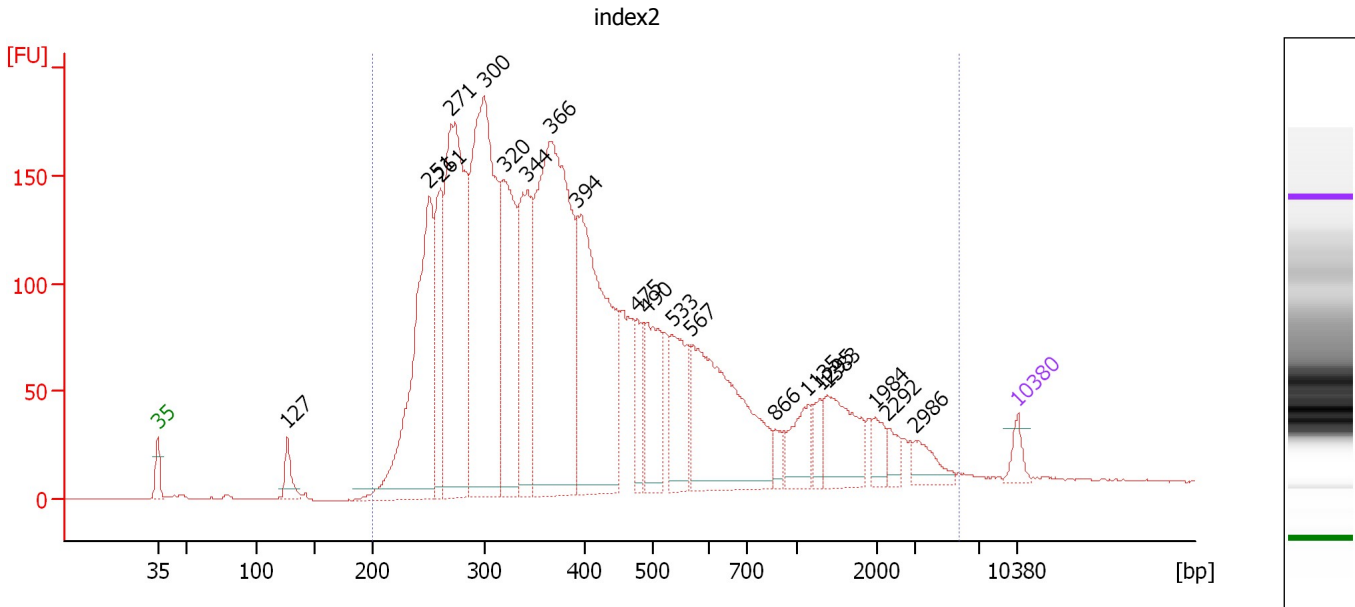
Peak table for Ladder

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	45.35
3	100	150.00	2,272.7	Ladder Peak	50.97
4	150	150.00	1,515.2	Ladder Peak	55.72
5	200	150.00	1,136.4	Ladder Peak	60.42
6	300	150.00	757.6	Ladder Peak	69.57
7	400	150.00	568.2	Ladder Peak	77.69
8	500	150.00	454.5	Ladder Peak	83.36
9	600	150.00	378.8	Ladder Peak	87.91
10	700	150.00	324.7	Ladder Peak	91.03
11	1,000	150.00	227.3	Ladder Peak	95.01
12	2,000	150.00	113.6	Ladder Peak	101.50
13	3,000	150.00	75.8	Ladder Peak	104.72
14	7,000	150.00	32.5	Ladder Peak	109.83
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_003.xad

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Electropherogram Summary Continued ...



Overall Results for sample 1 : index2

Number of peaks found: 20 Corr. Area 1: 4,594.6
 Noise: 0.3

Peak table for sample 1 : index2


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	127	172.63	2,056.0		53.56
3	251	1,958.91	11,817.3		65.10
4	261	660.96	3,839.6		65.99
5	271	2,336.86	13,062.3		66.92
6	300	2,692.45	13,595.1		69.58
7	320	1,262.23	5,978.0		71.19
8	344	960.95	4,237.4		73.11
9	366	2,920.01	12,087.9		74.93
10	394	1,862.65	7,171.5		77.17
11	475	258.60	824.7		81.95
12	490	510.27	1,578.6		82.78
13	533	511.16	1,453.1		84.86
14	567	1,378.44	3,681.6		86.42
15	866	84.45	147.7		93.24
16	1,135	231.10	308.5		95.89
17	1,295	109.73	128.4		96.93
18	1,383	408.42	447.3		97.50
19	1,984	103.42	79.0		101.40
20	2,292	83.38	55.1		102.44
21	2,986	140.45	71.3		104.68
22	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_003.xad

Created: 7/25/2016 2:15:45 PM
Modified: 7/25/2016 2:51:19 PM

Electropherogram Summary Continued ...

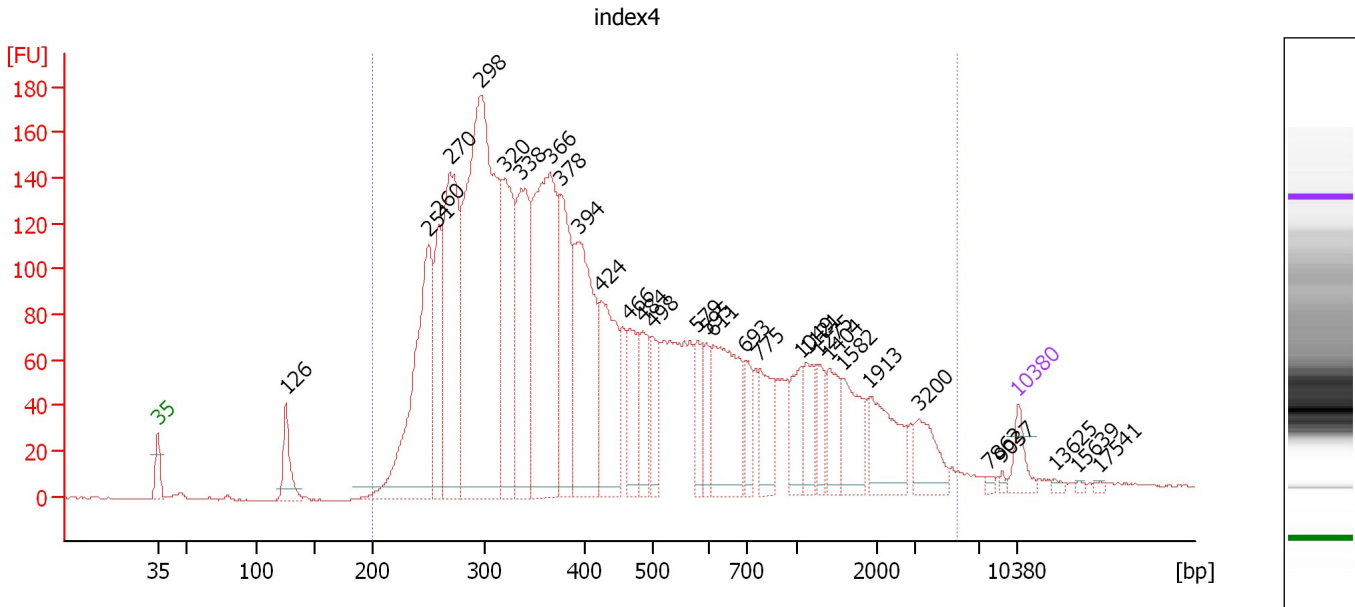
... Region table for sample 1 : index2

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	5,815	567	4,594.6	79,649.8	 18,999.27	98	100.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_003.xad

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Electropherogram Summary Continued ...



Overall Results for sample 2 : index4

Number of peaks found: 31 Corr. Area 1: 4,404.0
 Noise: 0.4

Peak table for sample 2 : index4

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	126	196.81	2,368.1		53.43
3	251	1,085.52	6,556.4		65.07
4	260	401.39	2,338.8		65.91
5	270	986.93	5,542.9		66.81
6	298	2,368.26	12,046.4		69.37
7	320	667.82	3,160.1		71.21
8	338	715.21	3,209.7		72.63
9	366	1,230.80	5,095.0		74.93
10	378	577.40	2,316.6		75.88
11	394	775.53	2,979.2		77.24
12	424	507.22	1,811.0		79.07
13	466	256.65	834.5		81.43
14	484	208.48	652.0		82.48
15	498	162.93	495.4		83.27
16	579	140.67	368.4		86.94
17	595	135.28	344.6		87.67
18	611	492.72	1,222.1		88.25
19	693	118.94	259.9		90.82
20	775	191.77	374.9		92.03
21	1,049	148.17	214.1		95.33
22	1,121	133.57	180.5		95.80
23	1,275	99.04	117.7		96.80
24	1,404	150.93	162.9		97.64
25	1,582	206.37	197.7		98.79

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_003.xad

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 Modified: 7/25/2016 2:51:19 PM

Electropherogram Summary Continued ...

... Peak table for sample 2 : index4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	1,913	236.40	187.2		100.94
27	3,200	144.49	68.4		104.98
28	7,862	10.80	2.1		110.64
29	9,037	10.98	1.8		111.74
30	10,380	75.00	10.9	Upper Marker	113.00
31	13,625	0.00	0.0		116.04
32	15,639	0.00	0.0		117.93
33	17,541	0.00	0.0		119.71

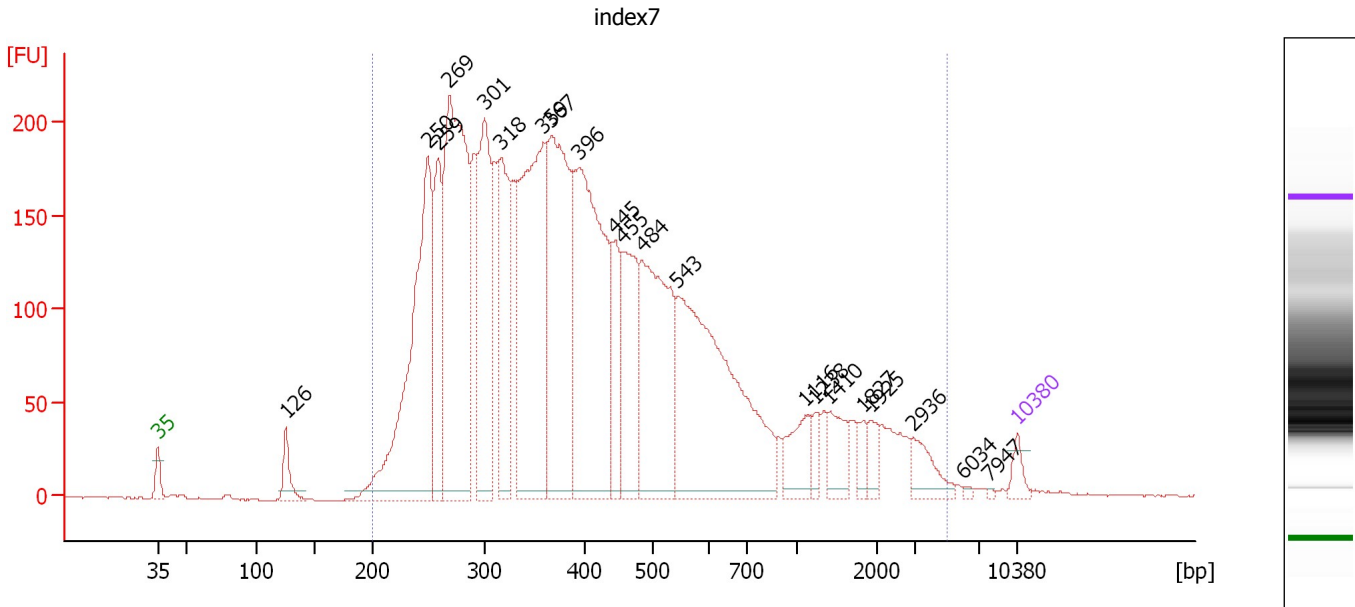
Region table for sample 2 : index4

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	5,592	648	4,404.0	52,429.4	13,121.87	97	100.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_003.xad

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Electropherogram Summary Continued ...



Overall Results for sample 3 : index7

Number of peaks found: 21 Corr. Area 1: 5,983.3
 Noise: 0.5

Peak table for sample 3 : index7

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	126	217.70	2,616.7		53.45
3	250	2,507.47	15,189.3		65.01
4	259	850.73	4,980.2		65.80
5	269	2,855.86	16,070.4		66.76
6	301	1,377.97	6,944.6		69.62
7	318	1,064.49	5,078.1		71.00
8	359	2,252.28	9,495.5		74.39
9	367	1,956.06	8,070.7		75.03
10	396	2,443.99	9,352.4		77.36
11	445	460.34	1,568.5		80.23
12	455	874.44	2,912.1		80.81
13	484	1,532.27	4,797.2		82.45
14	543	2,448.09	6,831.6		85.32
15	1,116	269.09	365.4		95.77
16	1,238	96.41	118.0		96.56
17	1,410	227.44	244.4		97.67
18	1,827	90.14	74.8		100.38
19	1,925	99.40	78.3		101.02
20	2,936	180.19	93.0		104.52
21	6,034	14.23	3.6		108.60
22	7,947	8.78	1.7		110.72
23	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_003.xad

Created: 7/25/2016 2:15:45 PM
Modified: 7/25/2016 2:51:19 PM

Electropherogram Summary Continued ...

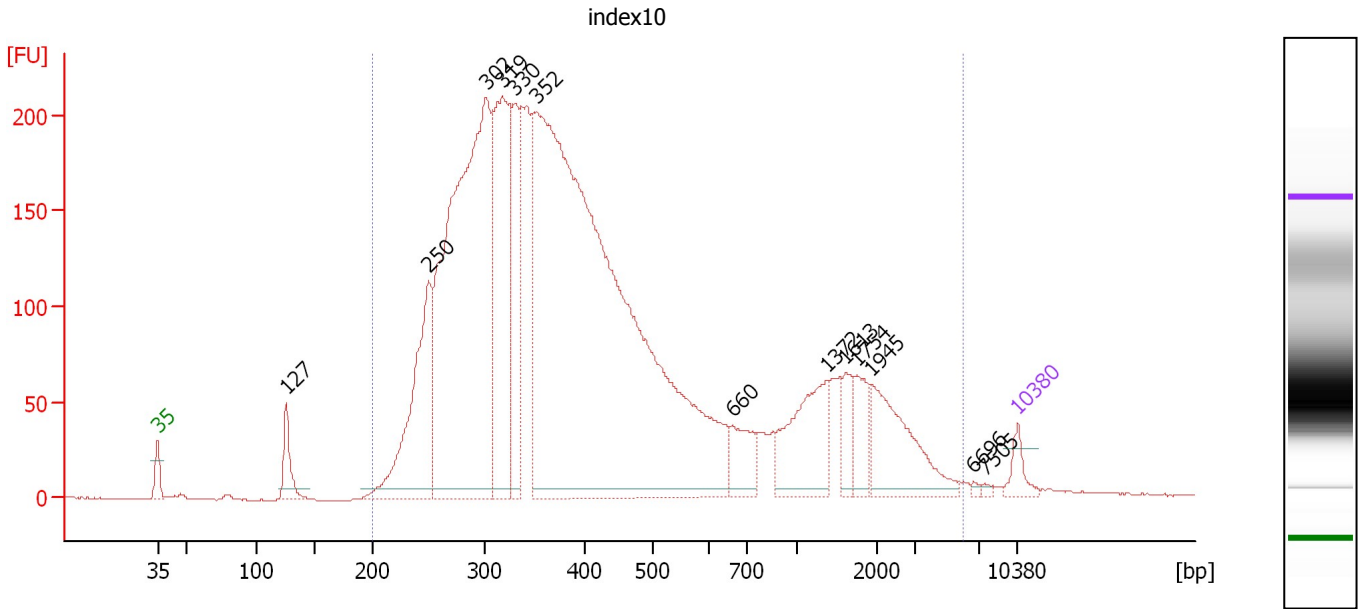
... Region table for sample 3 : index7

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	5,046	551	5,983.3	96,328.9	23,059.83	99	100.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_003.xad

Created: 7/25/2016 2:15:45 PM
 Modified: 7/25/2016 2:51:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : index10

Number of peaks found: 13 Corr. Area 1: 5,320.5
 Noise: 0.3

Peak table for sample 4 : index10

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	127	212.80	2,544.8		53.51
3	250	1,078.37	6,523.1		65.04
4	302	3,578.97	17,958.5		69.73
5	319	1,291.99	6,145.5		71.08
6	330	601.39	2,757.2		72.05
7	352	6,858.04	29,489.0		73.82
8	660	220.27	505.9		89.77
9	1,372	475.07	524.8		97.43
10	1,613	134.79	126.7		98.99
11	1,754	170.25	147.1		99.91
12	1,945	450.50	351.0		101.14
13	6,696	12.10	2.7		109.44
14	7,505	10.65	2.2		110.31
15	10,380	75.00	10.9	Upper Marker	113.00

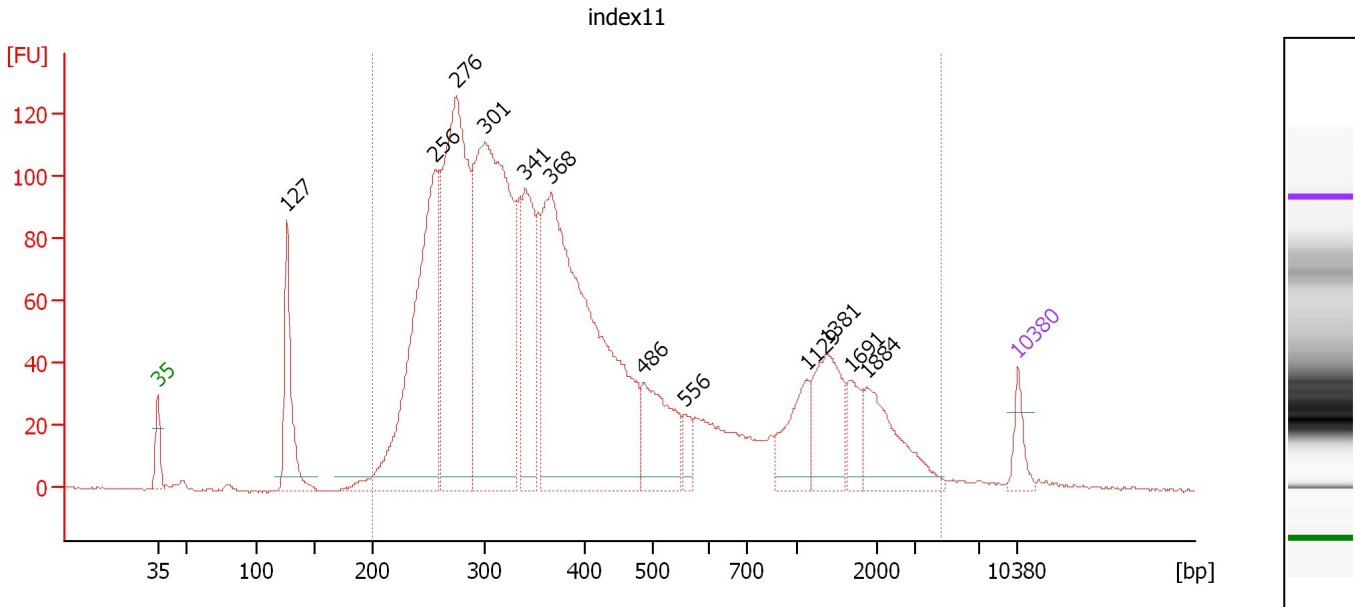
Region table for sample 4 : index10

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	5,958	616	5,320.5	63,553.5	15,521.78	98	100.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_003.xad

Created: 7/25/2016 2:15:45 PM
 Modified: 7/25/2016 2:51:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : index11

Number of peaks found: 12 Corr. Area 1: 2,878.0
 Noise: 0.4

Peak table for sample 5 : index11

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	127	499.55	5,948.4		53.56
3	256	1,541.95	9,108.9		65.59
4	276	1,721.07	9,464.2		67.33
5	301	2,069.27	10,407.1		69.67
6	341	611.50	2,713.4		72.94
7	368	2,300.55	9,482.5		75.06
8	486	398.71	1,243.0		82.57
9	556	78.99	215.4		85.89
10	1,129	225.86	303.0		95.85
11	1,381	316.16	346.9		97.49
12	1,691	117.96	105.7		99.50
13	1,884	295.16	237.3		100.75
14	10,380	75.00	10.9	Upper Marker	113.00

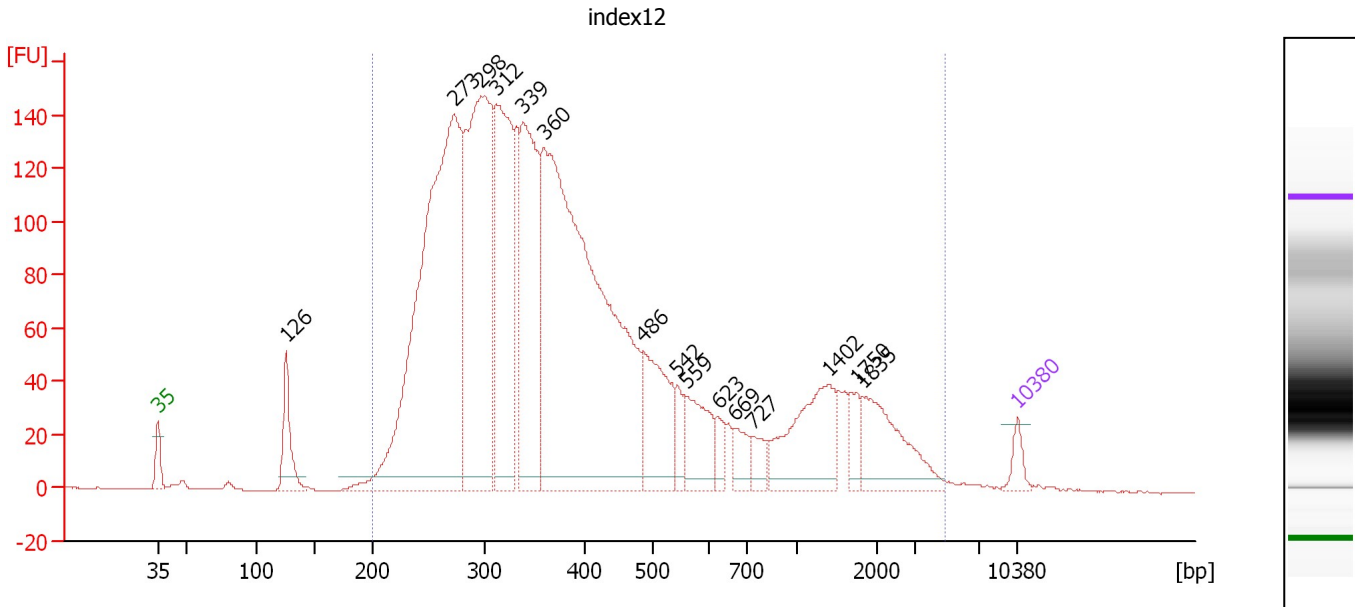
Region table for sample 5 : index11

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	4,653	585	2,878.0	45,069.1	10,453.07	94	99.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_003.xad

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 Modified: 7/25/2016 2:51:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : index12

Number of peaks found: 15 Corr. Area 1: 3,722.3
 Noise: 0.2

Peak table for sample 6 : index12

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	126	387.95	4,653.1		53.47
3	273	4,228.82	23,430.7		67.14
4	298	2,564.04	13,055.8		69.35
5	312	1,579.83	7,667.6		70.56
6	339	1,488.97	6,648.6		72.76
7	360	4,547.29	19,119.7		74.47
8	486	652.08	2,032.6		82.57
9	542	135.33	378.3		85.28
10	559	368.12	997.8		86.05
11	623	101.93	247.8		88.64
12	669	135.69	307.2		90.07
13	727	120.16	250.3		91.39
14	1,402	591.44	639.3		97.62
15	1,750	123.52	106.9		99.88
16	1,835	465.74	384.6		100.43
17	10,380	75.00	10.9	Upper Marker	113.00

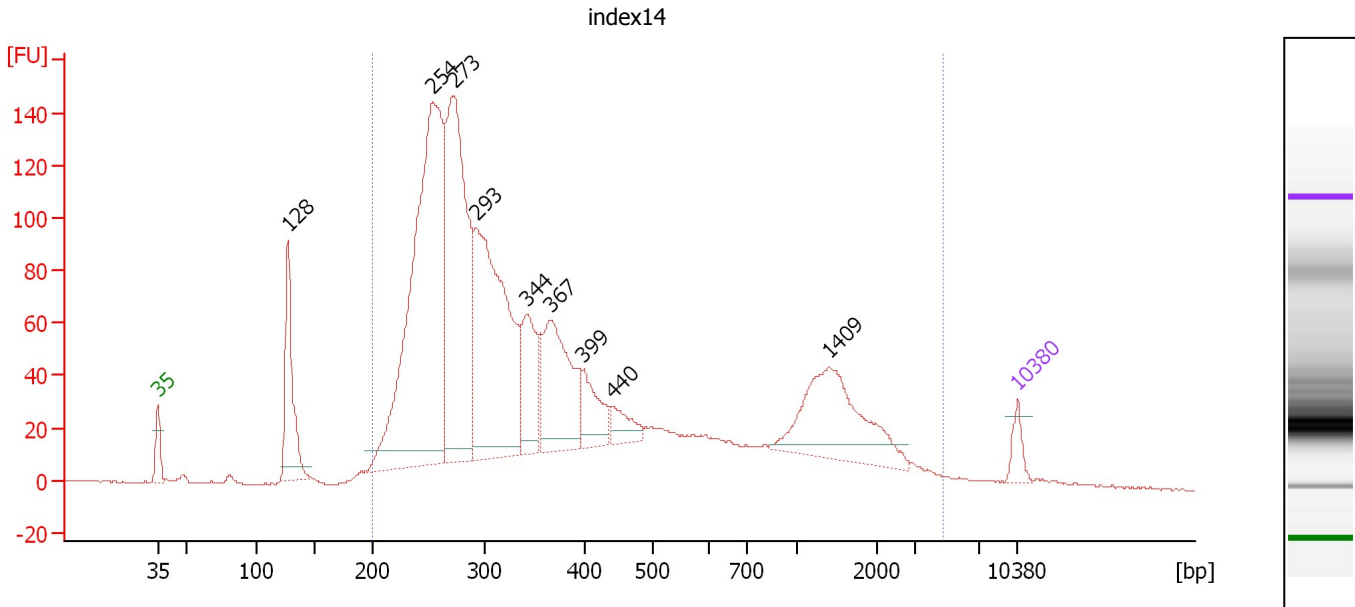
Region table for sample 6 : index12

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	4,864	558	3,722.3	76,403.9	17,761.60	96	100.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_003.xad

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Electropherogram Summary Continued ...



Overall Results for sample 7 : index14

Number of peaks found: 9 Corr. Area 1: 2,661.4
 Noise: 0.2

Peak table for sample 7 : index14

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	128	661.45	7,829.9		53.63
3	254	3,189.59	19,010.1		65.38
4	273	2,015.61	11,179.1		67.12
5	293	1,877.49	9,696.5		68.96
6	344	473.13	2,086.9		73.10
7	367	797.72	3,294.0		75.01
8	399	255.91	971.1		77.64
9	440	143.19	492.6		79.99
10	1,409	701.78	754.7		97.67
11	10,380	75.00	10.9	Upper Marker	113.00

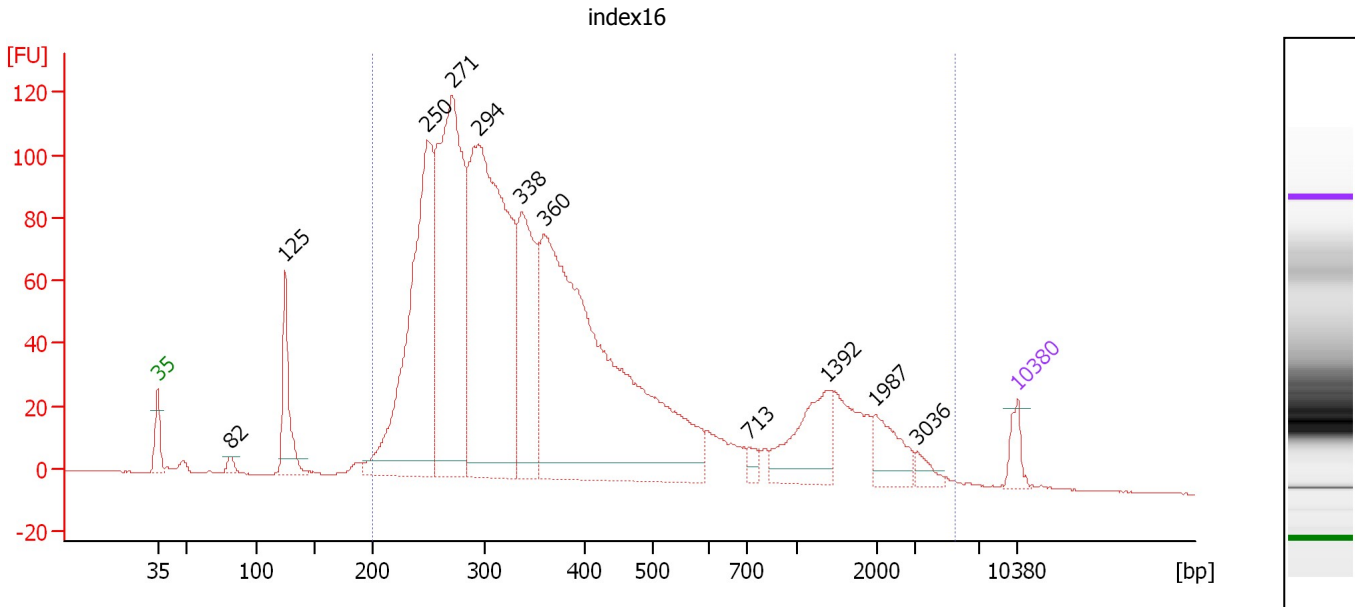
Region table for sample 7 : index14

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	4,748	574	2,661.4	57,631.3	12,607.29	92	100.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_003.xad

Created: 7/25/2016 2:15:45 PM
 Modified: 7/25/2016 2:51:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : index16

Number of peaks found: 11 Corr. Area 1: 2,513.2
 Noise: 0.2

Peak table for sample 8 : index16

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	82	42.26	784.5		48.90
3	125	432.06	5,218.4		53.39
4	250	1,909.55	11,586.0		64.97
5	271	2,094.03	11,688.4		66.96
6	294	2,643.04	13,602.0		69.06
7	338	851.59	3,820.4		72.64
8	360	3,280.60	13,803.5		74.45
9	713	49.88	106.0		91.20
10	1,392	356.94	388.5		97.56
11	1,987	179.90	137.2		101.42
12	3,036	52.90	26.4		104.77
13	10,380	75.00	10.9	Upper Marker	113.00

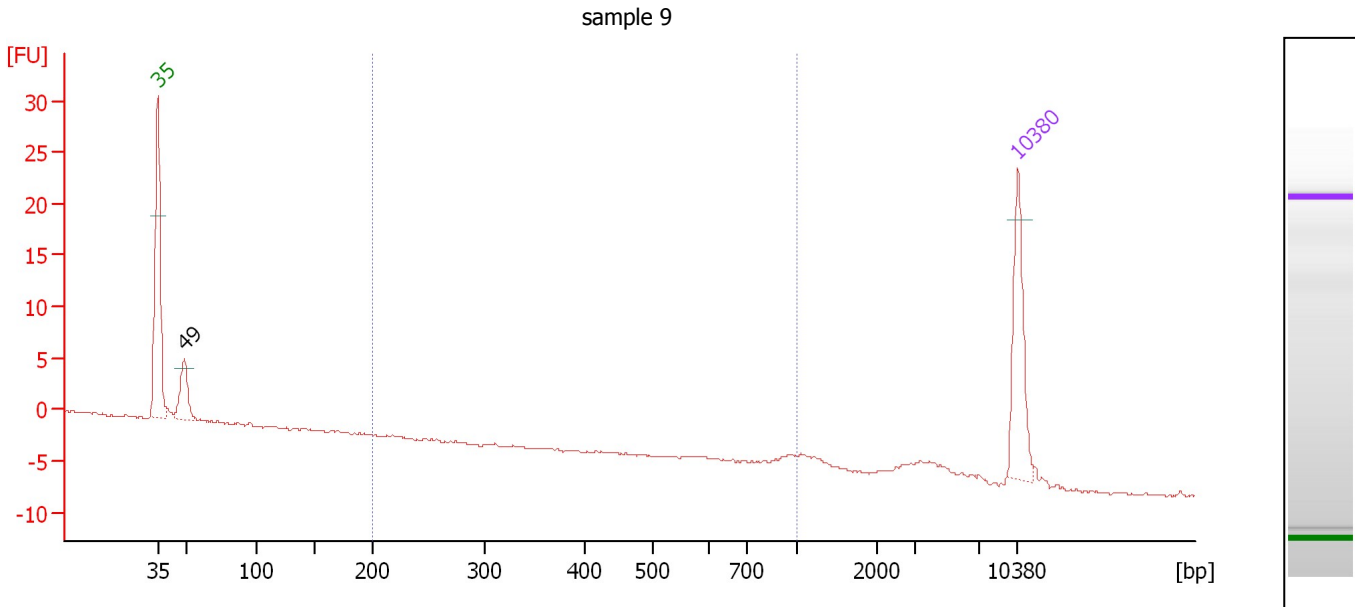
Region table for sample 8 : index16

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	5,479	549	2,513.2	52,878.7	11,752.72	96	100.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_003.xad

Created: 7/25/2016 2:15:45 PM
 Modified: 7/25/2016 2:51:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 1 Corr. Area 1: 0.0
 Noise: 0.1

Peak table for sample 9 : sample 9

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	49	54.25	1,678.7		45.19
3	10,380	75.00	10.9	Upper Marker	113.00

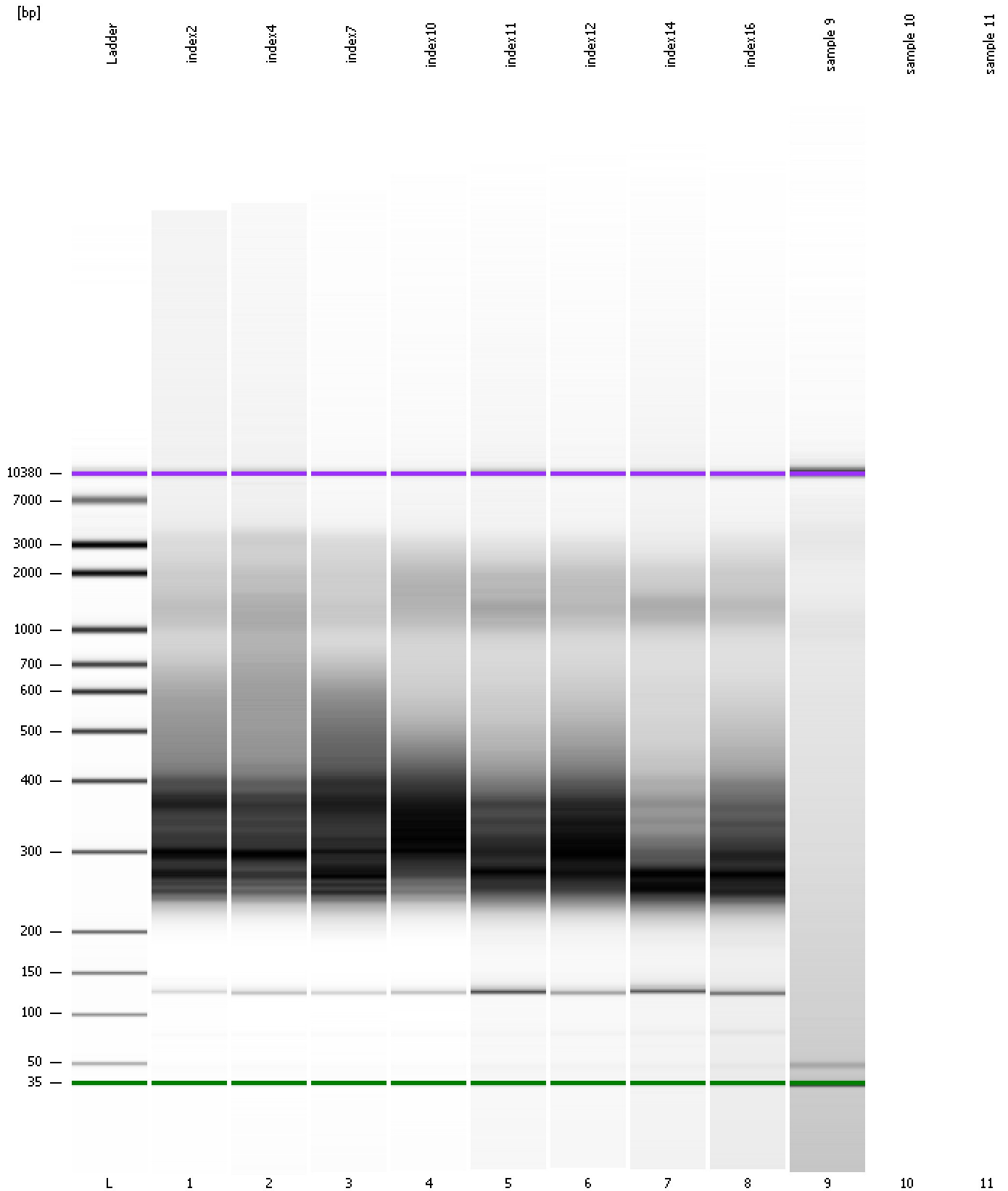
Region table for sample 9 : sample 9

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	957	0.0	0.1	0.04	0	0.4

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_003.xad

Created: 7/25/2016 2:15:45 PM
Modified: 7/25/2016 2:51:19 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_003.xad

Created: 7/25/2016 2:15:45 PM
Modified: 7/25/2016 2:51:19 PM

Invalid Samples

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\2016-07-25\2016-07-25_003.xad

Created: 7/25/2016 2:15:45 PM
 Modified: 7/25/2016 2:51:19 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 10)		Instrument	Run		7/25/2016 2:51:19 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\2016-07-25\2016-07-25_003.xad)		Instrument	Run		7/25/2016 2:15:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		7/25/2016 2:15:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/25/2016 2:15:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/25/2016 2:15:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		7/25/2016 2:15:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/25/2016 2:15:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/25/2016 2:15:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1