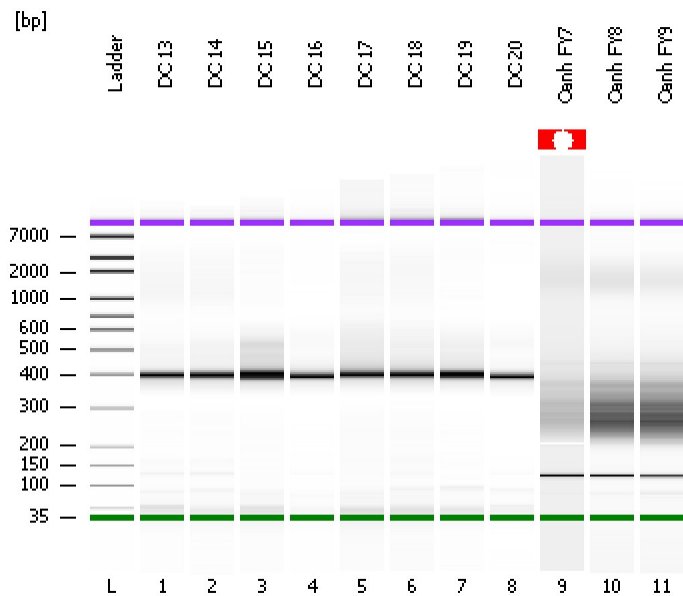


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
Modified: 3/31/2014 4:50:06 PM

Electrophoresis File Run Summary



Instrument Information:

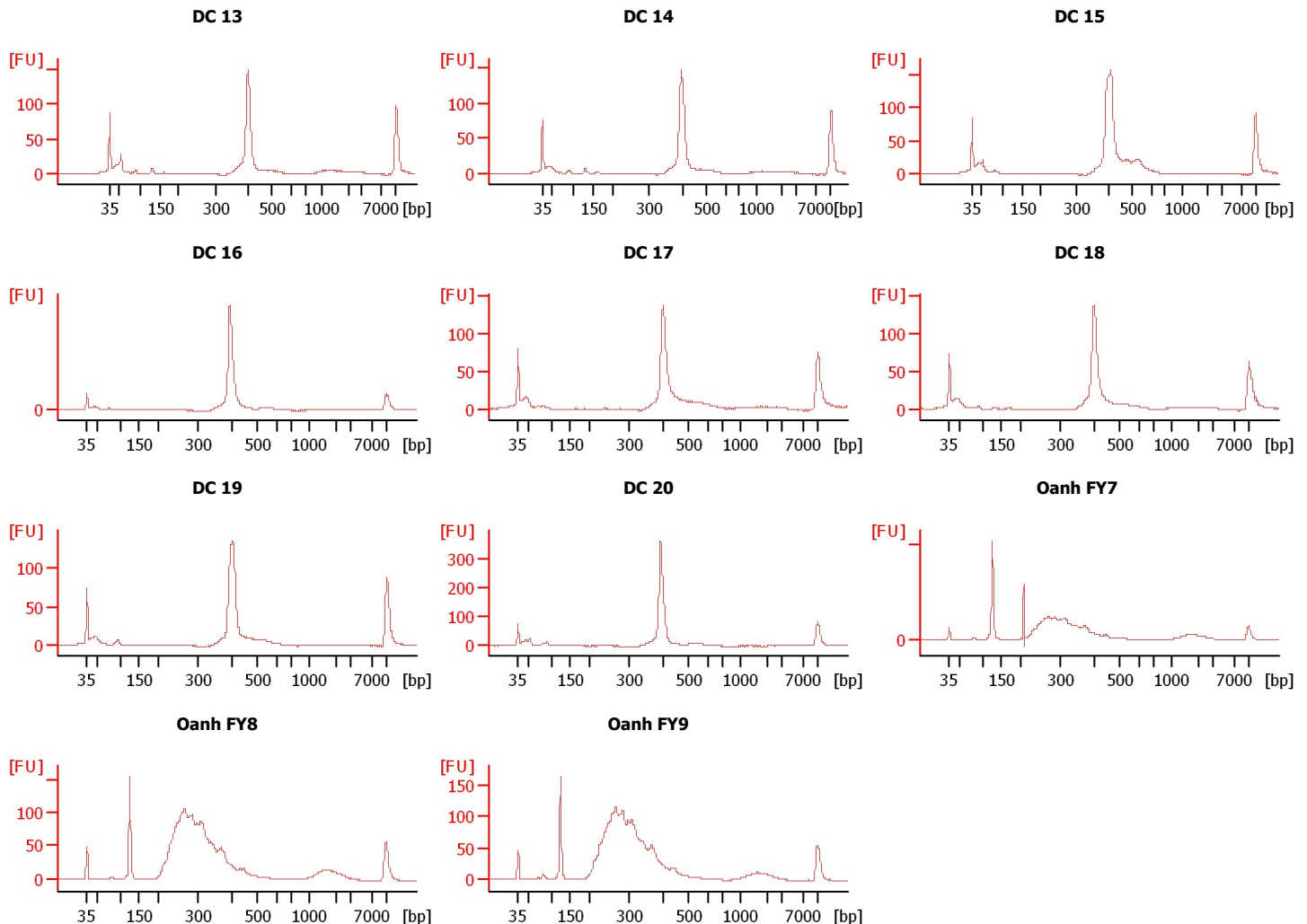
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
 Modified: 3/31/2014 4:50:06 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
DC 13		<input type="checkbox"/>	✓			
DC 14		<input type="checkbox"/>	✓			
DC 15		<input type="checkbox"/>	✓			
DC 16		<input type="checkbox"/>	✓			
DC 17		<input type="checkbox"/>	✓			
DC 18		<input type="checkbox"/>	✓			
DC 19		<input type="checkbox"/>	✓			
DC 20		<input type="checkbox"/>	✓			
Oanh FY7		<input type="checkbox"/>	⚠			
Oanh FY8		<input type="checkbox"/>	✓			
Oanh FY9		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
Modified: 3/31/2014 4:50:06 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

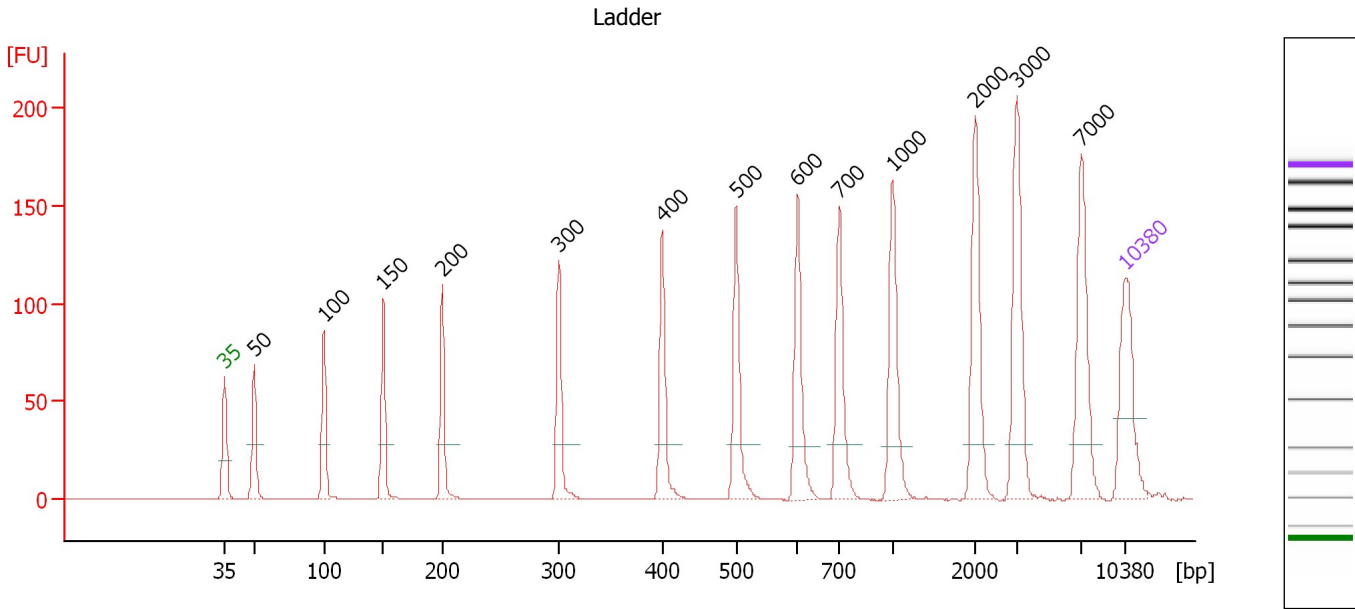
Ladder

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:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
 Modified: 3/31/2014 4:50:06 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

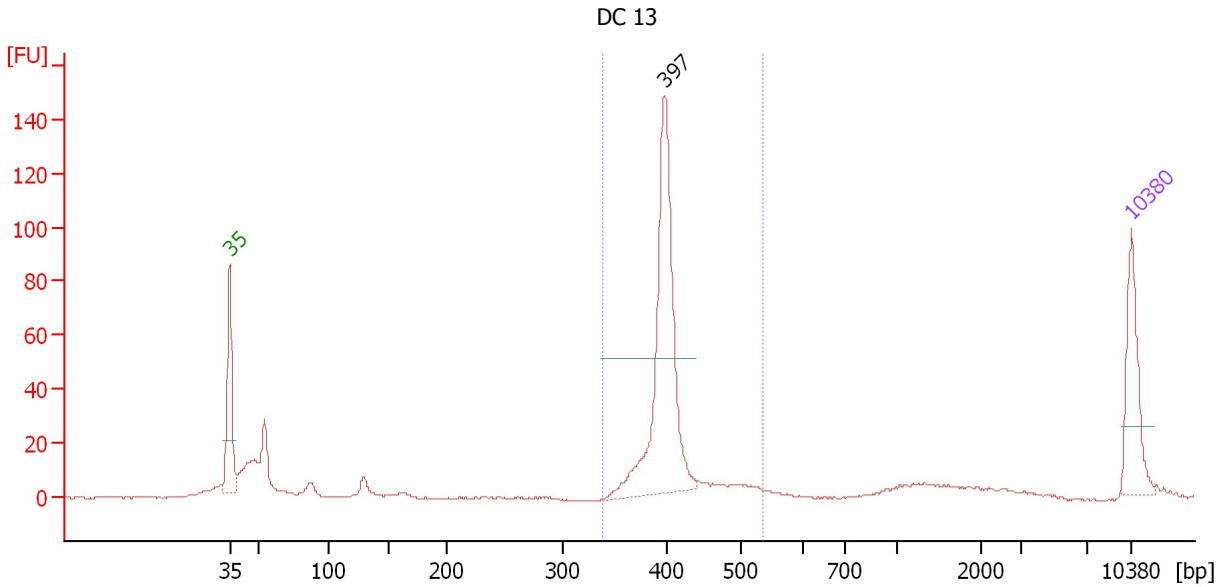
Peak table for Ladder

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	45.28	50	150.00	4,545.5	Ladder Peak
3	50.70	100	150.00	2,272.7	Ladder Peak
4	55.30	150	150.00	1,515.2	Ladder Peak
5	59.90	200	150.00	1,136.4	Ladder Peak
6	68.93	300	150.00	757.6	Ladder Peak
7	76.96	400	150.00	568.2	Ladder Peak
8	82.72	500	150.00	454.5	Ladder Peak
9	87.49	600	150.00	378.8	Ladder Peak
10	90.72	700	150.00	324.7	Ladder Peak
11	94.86	1,000	150.00	227.3	Ladder Peak
12	101.28	2,000	150.00	113.6	Ladder Peak
13	104.51	3,000	150.00	75.8	Ladder Peak
14	109.52	7,000	150.00	32.5	Ladder Peak
15	113.00	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
 Modified: 3/31/2014 4:50:06 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 1 : DC 13

Height Threshold [FU] : 50

Overall Results for sample 1 : DC 13

Number of peaks found: 1 Corr. Area 1: 351.1
 Noise: 0.2

Peak table for sample 1 : DC 13

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	76.74	397	363.14	1,385.3	
3	113.00	10,380	75.00	10.9	Upper Marker

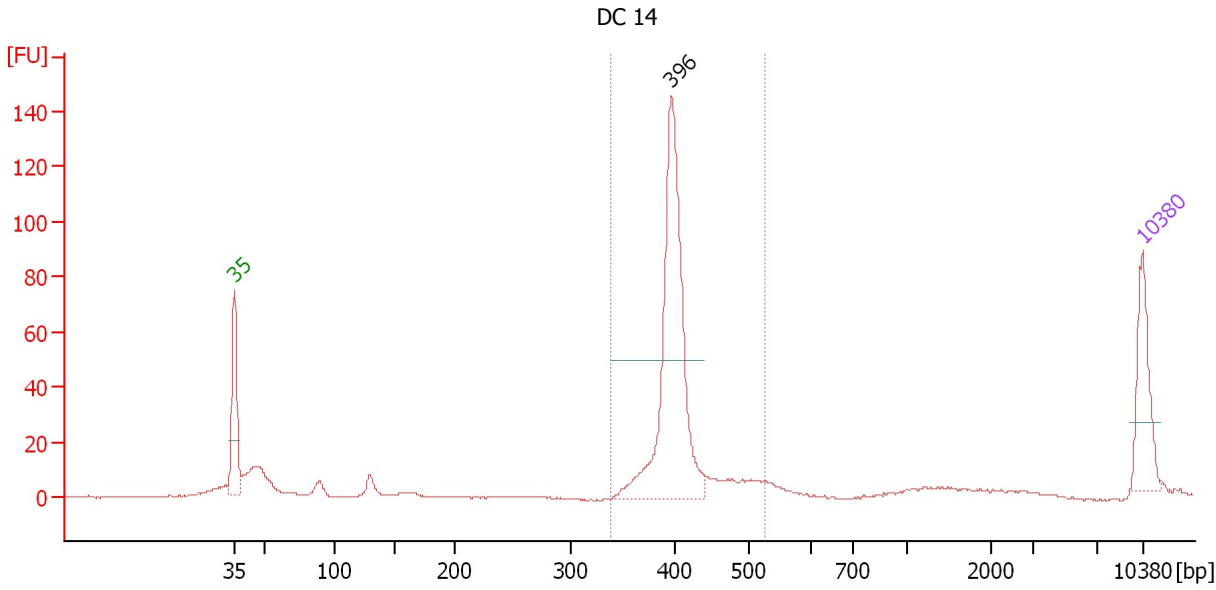
Region table for sample 1 : DC 13

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
337	535	405	1,563.8	416.15	351.1	61	7.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
 Modified: 3/31/2014 4:50:06 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 2 : DC 14

Height Threshold [FU] : 50

Overall Results for sample 2 : DC 14

Number of peaks found: 1 Corr. Area 1: 364.3
 Noise: 0.3

Peak table for sample 2 : DC 14

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	76.66	396	454.88	1,739.3	
3	113.00	10,380	75.00	10.9	Upper Marker

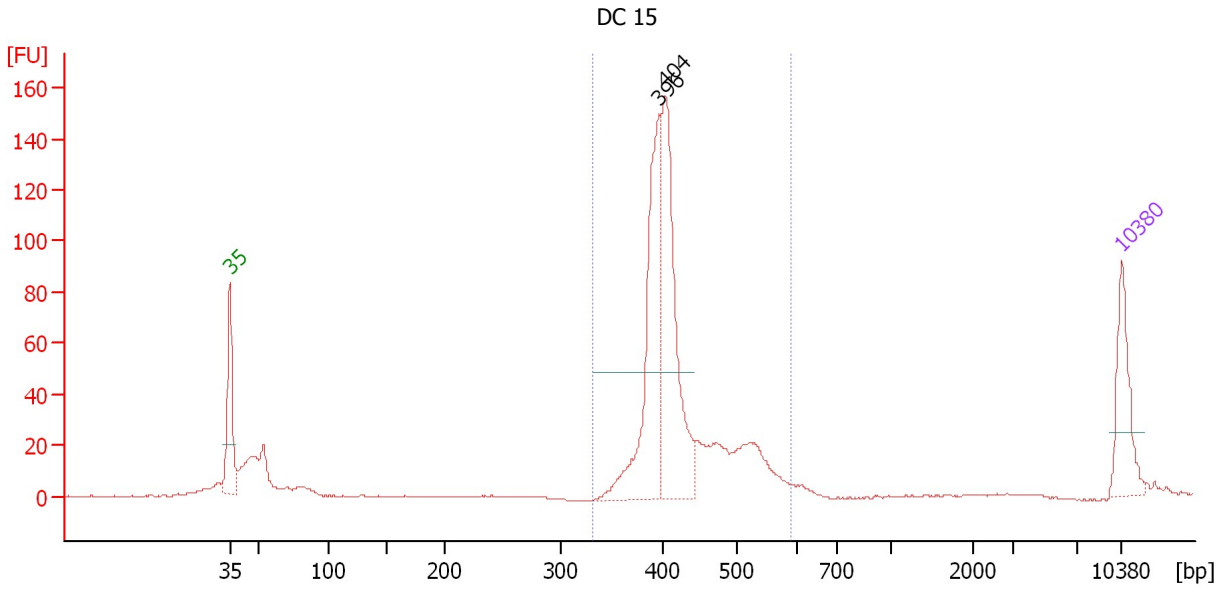
Region table for sample 2 : DC 14

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
338	526	405	1,796.7	478.90	364.3	74	6.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
 Modified: 3/31/2014 4:50:06 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 3 : DC 15

Height Threshold [FU] : 50

Overall Results for sample 3 : DC 15

Number of peaks found: 2 Corr. Area 1: 678.4
 Noise: 0.3

Peak table for sample 3 : DC 15

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	76.64	396	312.76	1,196.8	
3	77.18	404	317.96	1,193.0	
4	113.00	10,380	75.00	10.9	Upper Marker

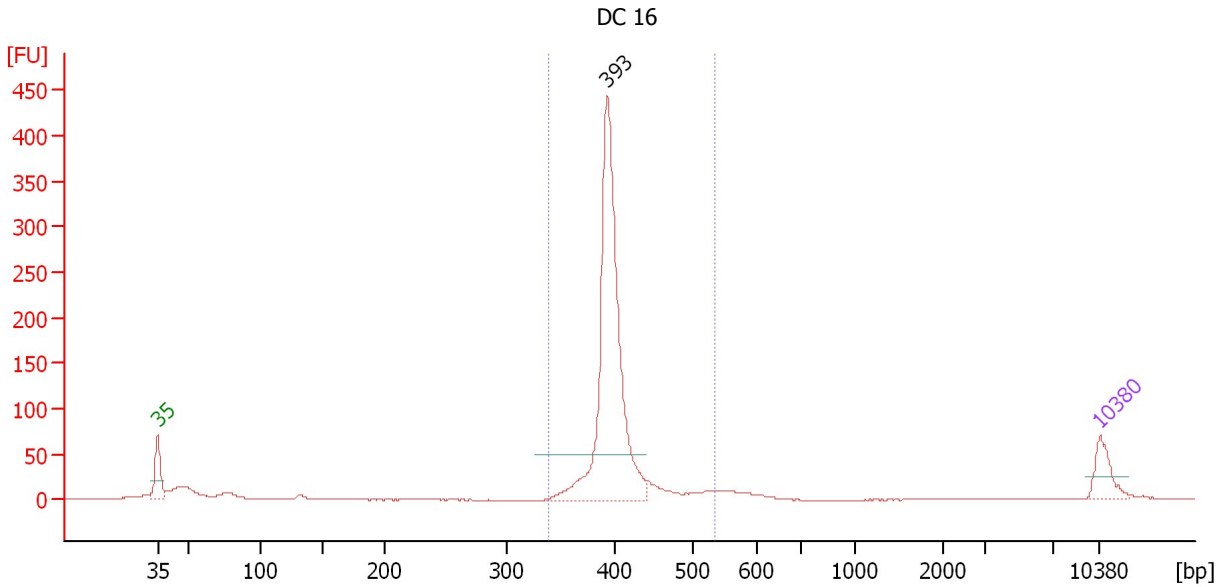
Region table for sample 3 : DC 15

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. for Area	% of Total	Size distribution in CV [%]
333	591	424	2,843.3	785.46	678.4	82	11.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
 Modified: 3/31/2014 4:50:06 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 4 : DC 16

Height Threshold [FU] : 50

Overall Results for sample 4 : DC 16

Number of peaks found: 1 Corr. Area 1: 998.0
 Noise: 0.3

Peak table for sample 4 : DC 16

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	76.38	393	1,214.65	4,686.7	
3	113.00	10,380	75.00	10.9	Upper Marker

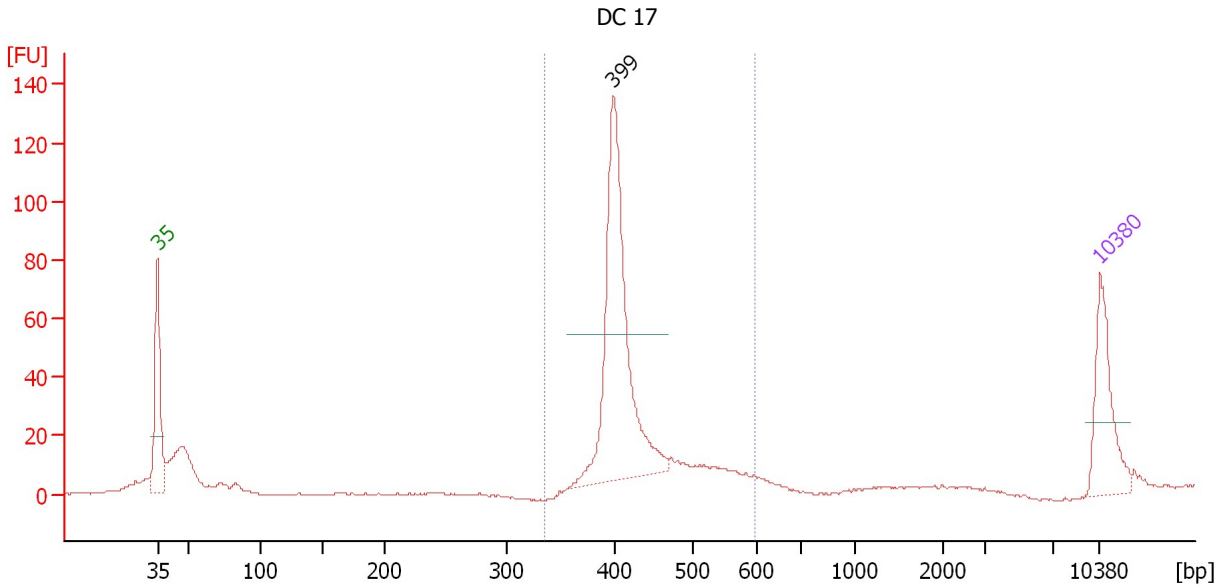
Region table for sample 4 : DC 16

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
338	536	402	4,797.9	1,267.47	998.0	83	6.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
 Modified: 3/31/2014 4:50:06 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 5 : DC 17

Height Threshold [FU] : 50

Overall Results for sample 5 : DC 17

Number of peaks found: 1 Corr. Area 1: 399.6
 Noise: 0.3

Peak table for sample 5 : DC 17

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	76.87	399	354.72	1,347.8	
3	113.00	10,380	75.00	10.9	Upper Marker

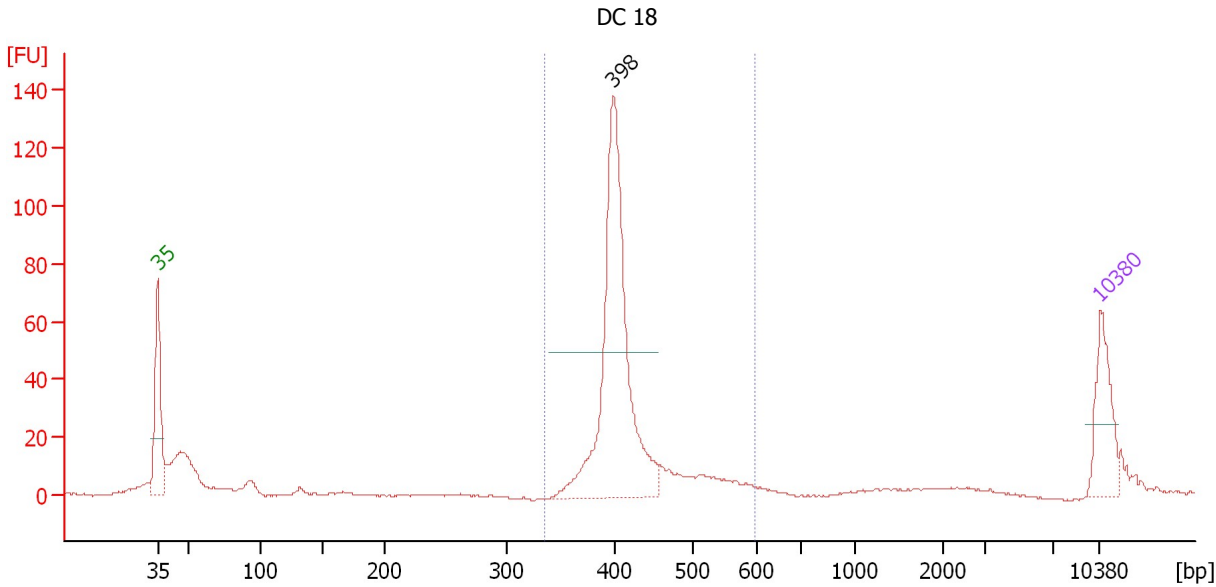
Region table for sample 5 : DC 17

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
334	596	425	1,649.0	457.29	399.6	76	11.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
 Modified: 3/31/2014 4:50:06 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 6 : DC 18

Height Threshold [FU] : 50

Overall Results for sample 6 : DC 18

Number of peaks found: 1 Corr. Area 1: 395.7
 Noise: 0.4

Peak table for sample 6 : DC 18

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	76.83	398	505.35	1,922.4	
3	113.00	10,380	75.00	10.9	Upper Marker

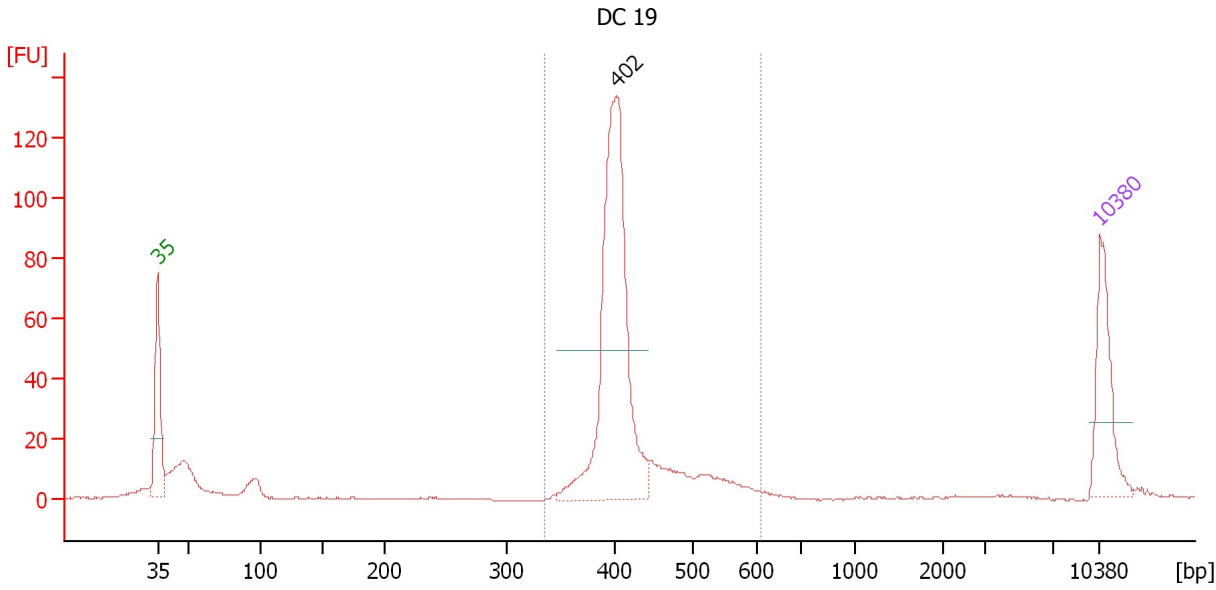
Region table for sample 6 : DC 18

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
335	599	418	2,032.5	554.71	395.7	73	10.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
 Modified: 3/31/2014 4:50:06 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 7 : DC 19

Height Threshold [FU] : 50

Overall Results for sample 7 : DC 19

Number of peaks found: 1 Corr. Area 1: 440.8
 Noise: 0.2

Peak table for sample 7 : DC 19

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	77.07	402	420.64	1,586.0	
3	113.00	10,380	75.00	10.9	Upper Marker

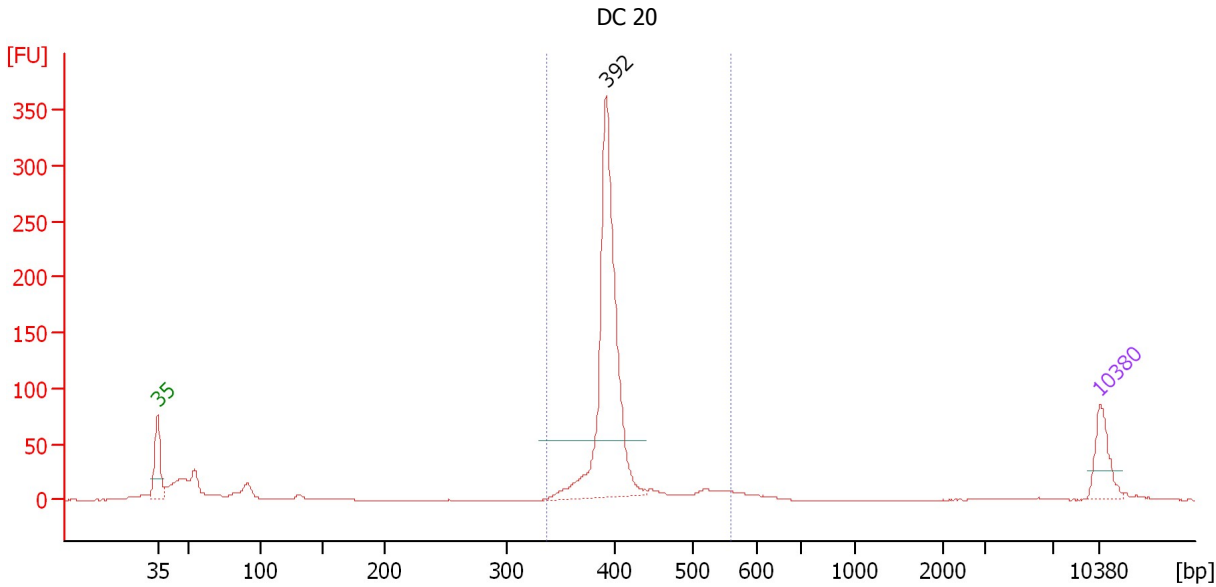
Region table for sample 7 : DC 19

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
335	609	418	1,797.6	490.63	440.8	81	10.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
 Modified: 3/31/2014 4:50:06 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 8 : DC 20

Height Threshold [FU] : 50

Overall Results for sample 8 : DC 20

Number of peaks found: 1 Corr. Area 1: 721.0
 Noise: 0.2

Peak table for sample 8 : DC 20

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	76.30	392	795.39	3,076.2	
3	113.00	10,380	75.00	10.9	Upper Marker

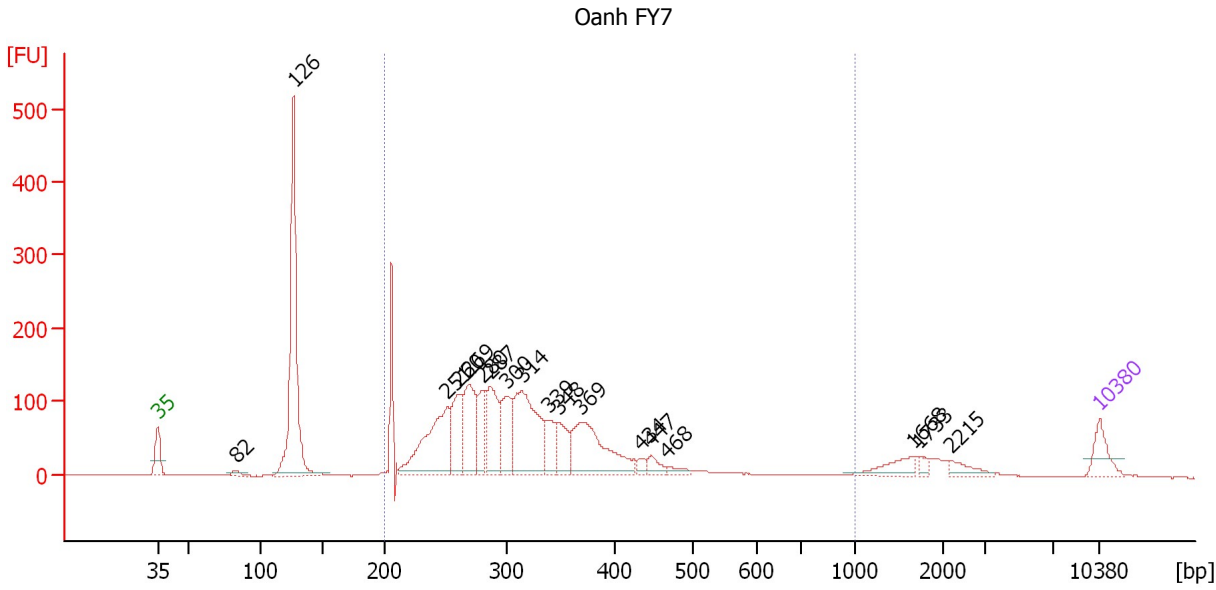
Region table for sample 8 : DC 20

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
336	560	402	3,334.1	878.62	721.0	77	8.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
 Modified: 3/31/2014 4:50:06 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : Oanh FY7

Number of peaks found: 18 Corr. Area 1: 2,167.1
 Noise: 0.2

Peak table for sample 9 : Oanh FY7

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	48.79	82	20.76	382.0	
3	53.10	126	992.52	11,930.6	
4	64.54	251	466.73	2,812.7	
5	65.33	260	217.45	1,266.5	
6	66.12	269	299.62	1,688.5	
7	67.09	280	154.47	837.0	
8	67.74	287	264.48	1,397.2	
9	68.90	300	199.16	1,007.0	
10	70.05	314	473.58	2,285.1	
11	72.09	339	120.48	537.9	
12	72.79	348	129.34	563.1	
13	74.50	369	390.18	1,600.6	
14	78.90	434	27.58	96.4	
15	79.69	447	43.05	145.8	
16	80.90	468	24.15	78.1	
17	99.15	1,668	69.63	63.2	
18	99.57	1,733	20.89	18.3	
19	101.97	2,215	38.44	26.3	
20	113.00	10,380	75.00	10.9	Upper Marker

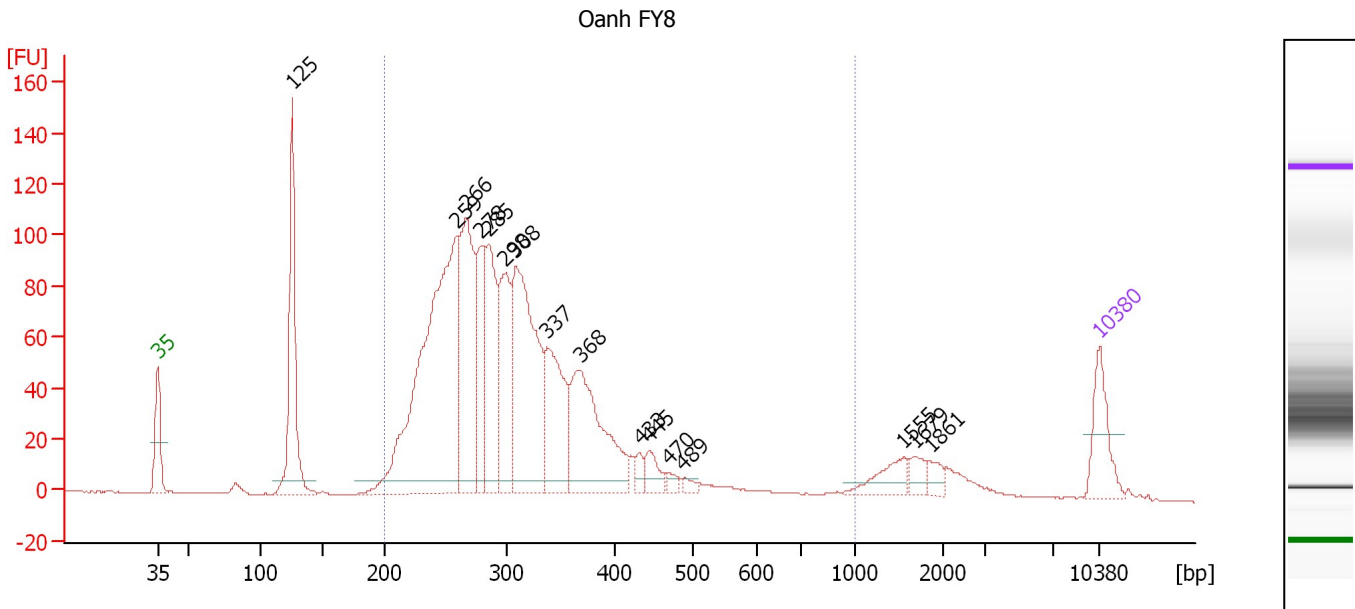
Region table for sample 9 : Oanh FY7

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	318	16,016.0	3,139.70	2,167.1	74	26.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
 Modified: 3/31/2014 4:50:06 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : Oanh FY8

Number of peaks found: 16 Corr. Area 1: 1,714.9
 Noise: 0.2

Peak table for sample 10 : Oanh FY8

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	53.00	125	353.77	4,289.2	
3	65.20	259	862.03	5,049.5	
4	65.90	266	394.59	2,244.1	
5	66.97	278	162.61	885.2	
6	67.58	285	257.96	1,371.1	
7	68.75	298	219.39	1,115.5	
8	69.59	308	453.21	2,228.0	
9	71.93	337	222.31	998.7	
10	74.40	368	309.24	1,272.9	
11	78.84	433	20.79	72.8	
12	79.54	445	37.40	127.4	
13	80.99	470	11.67	37.6	
14	82.07	489	10.62	32.9	
15	98.42	1,555	46.92	45.7	
16	99.21	1,679	22.03	19.9	
17	100.38	1,861	20.14	16.4	
18	113.00	10,380	75.00	10.9	Upper Marker

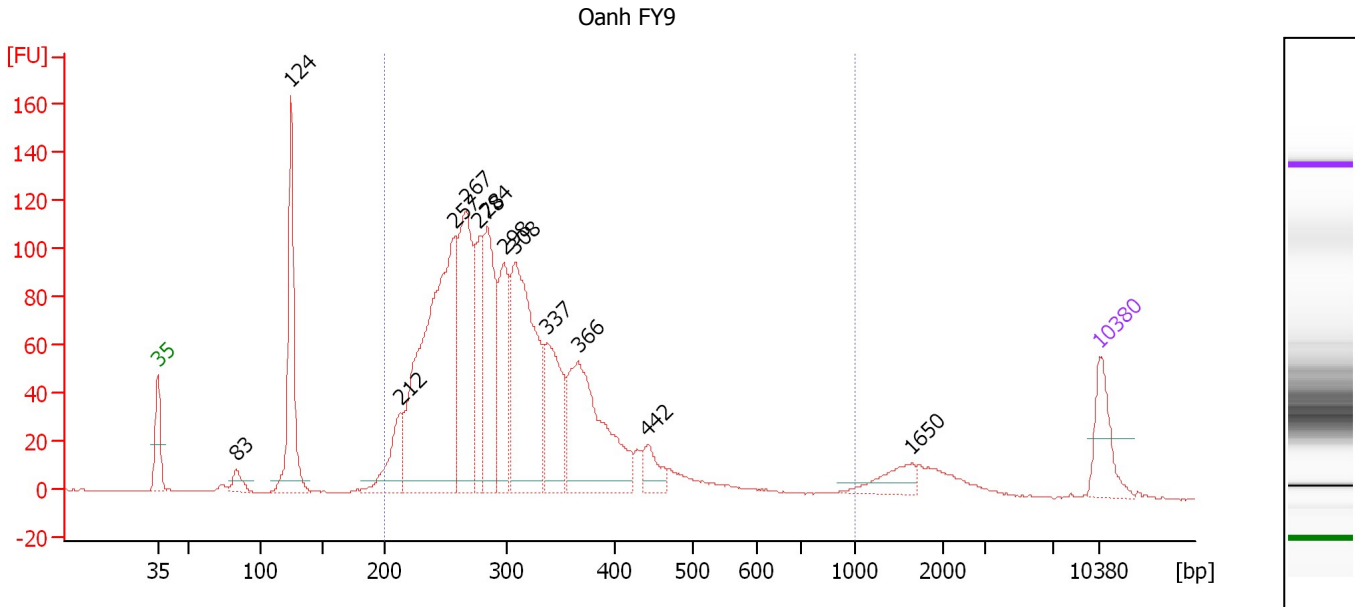
Region table for sample 10 : Oanh FY8

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	312	16,022.8	3,093.64	1,714.9	85	27.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
 Modified: 3/31/2014 4:50:06 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : Oanh FY9

Number of peaks found: 13 Corr. Area 1: 1,857.2
 Noise: 0.3

Peak table for sample 11 : Oanh FY9

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	48.87	83	34.21	623.5	
3	52.90	124	359.06	4,392.2	
4	61.00	212	120.82	862.9	
5	65.07	257	820.96	4,835.0	
6	65.92	267	370.50	2,104.8	
7	66.92	278	171.87	937.7	
8	67.49	284	274.90	1,466.5	
9	68.72	298	209.06	1,064.2	
10	69.57	308	483.63	2,379.3	
11	71.94	337	208.25	935.1	
12	74.21	366	366.28	1,517.4	
13	79.37	442	51.54	176.7	
14	99.03	1,650	46.83	43.0	
15	113.00	10,380	75.00	10.9	Upper Marker

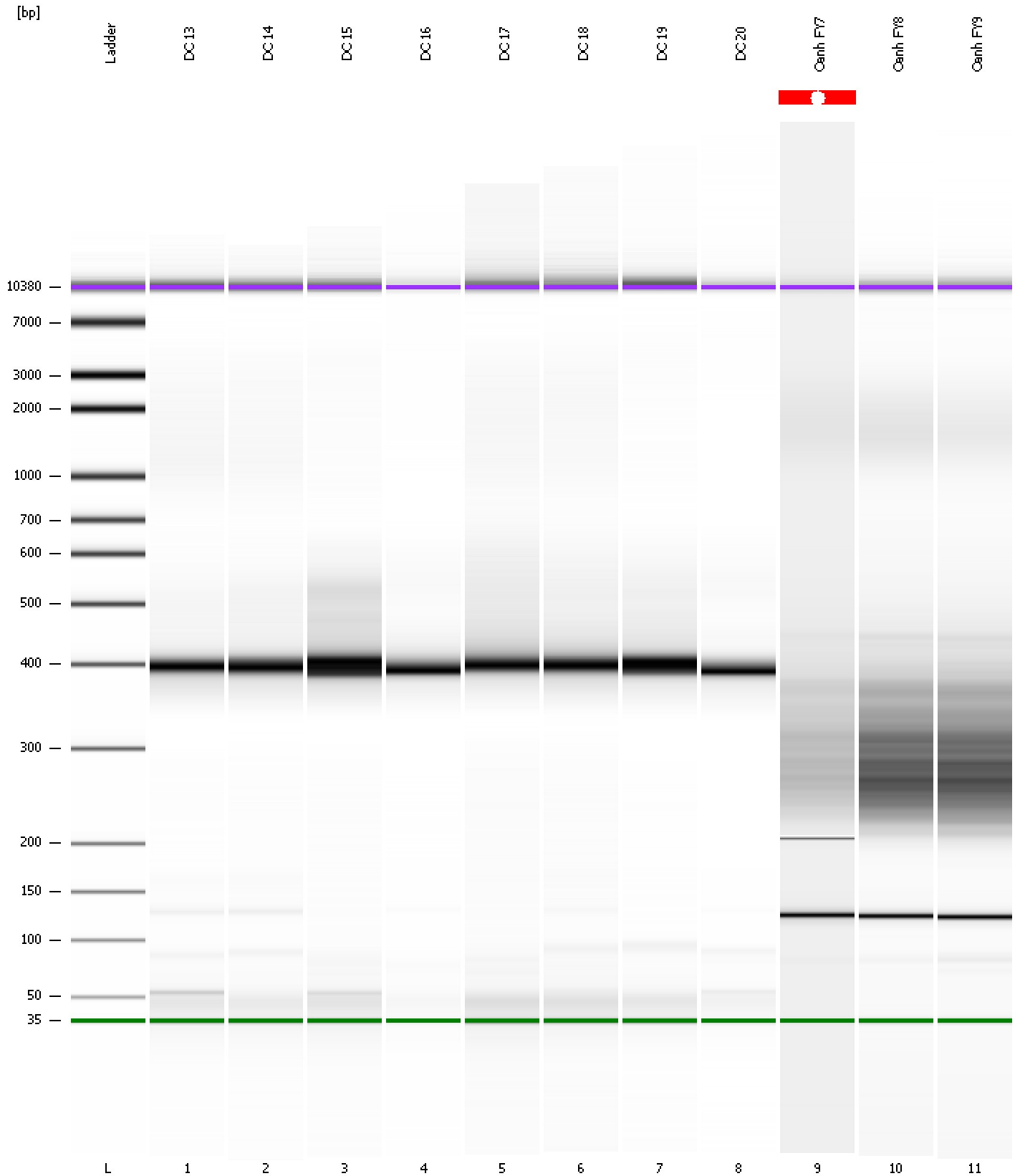
Region table for sample 11 : Oanh FY9

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	310	16,814.2	3,229.95	1,857.2	87	25.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
Modified: 3/31/2014 4:50:06 PM

Gel Image

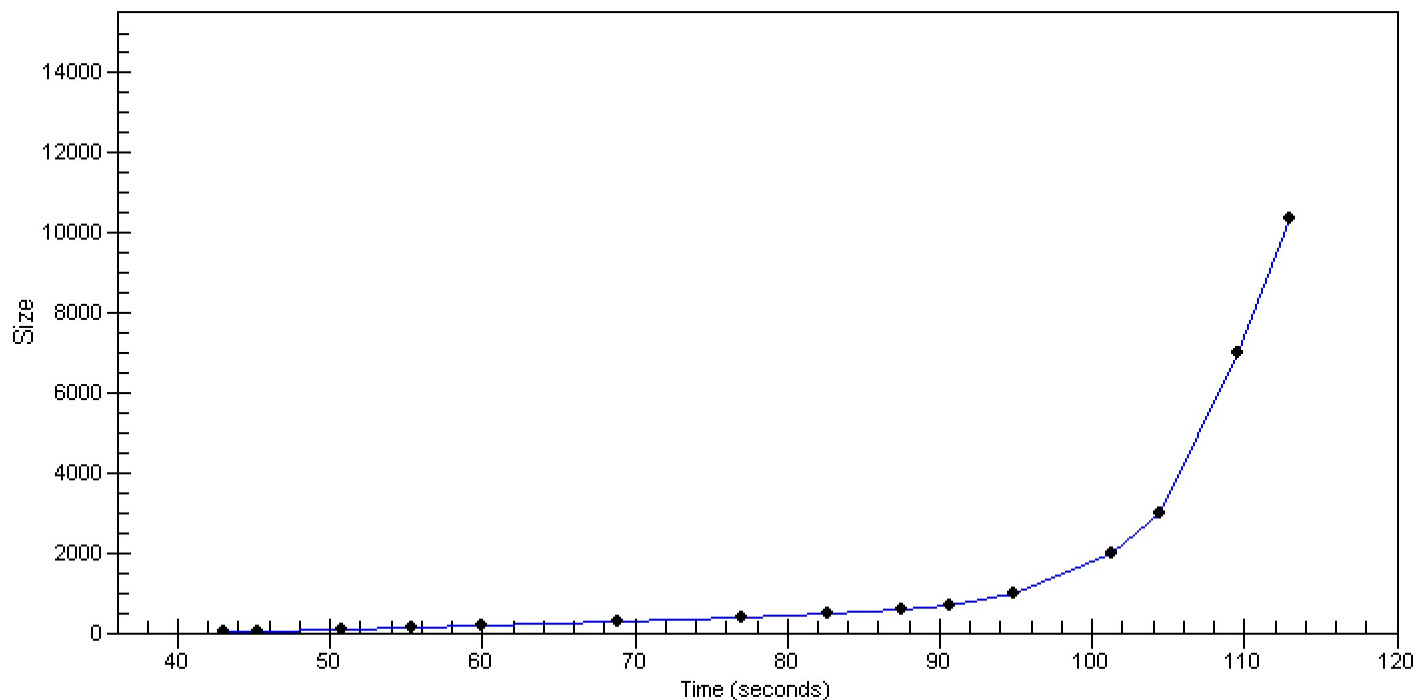


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
Modified: 3/31/2014 4:50:06 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad

Created: 3/31/2014 4:09:38 PM
 Modified: 3/31/2014 4:50:06 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		3/31/2014 4:50:01 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Instrument error occurred on port 1, Optical signal too high (1605h)	559	Instrument	Run	Sample 9	3/31/2014 4:42:56 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-03-31\2014-03-31_003.xad)		Instrument	Run		3/31/2014 4:09:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/31/2014 4:09:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/31/2014 4:09:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/31/2014 4:09:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/31/2014 4:09:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/31/2014 4:09:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/31/2014 4:09:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1