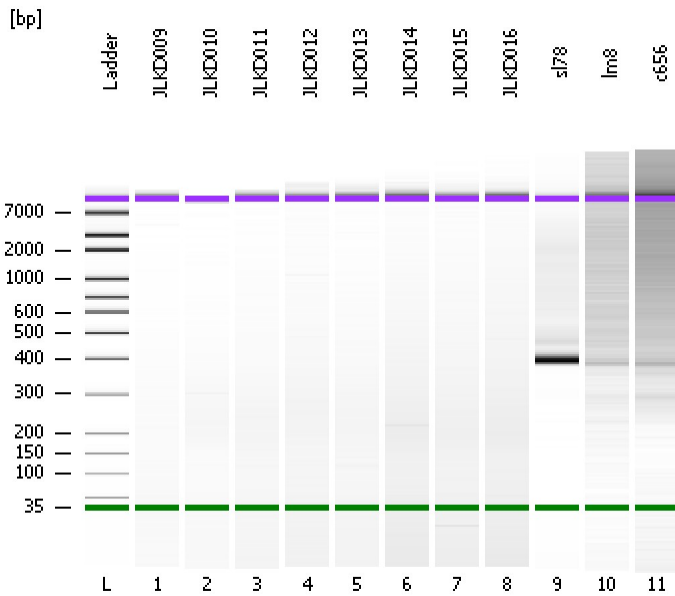


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
Modified: 3/24/2014 10:28:32 AM

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

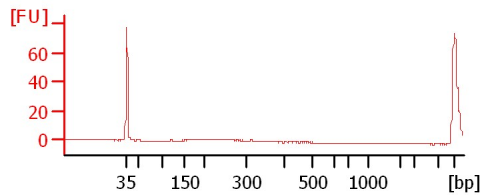
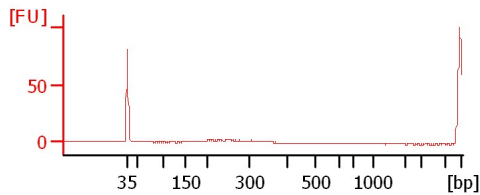
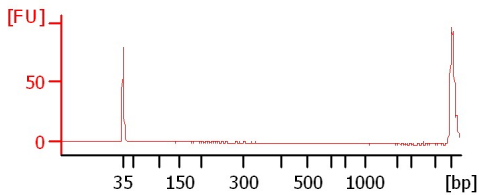
Chip Information:

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

JLKD009

JLKD010

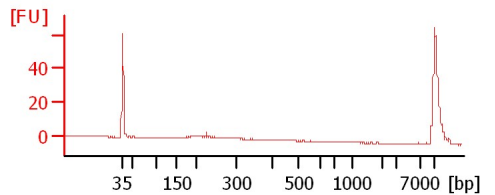
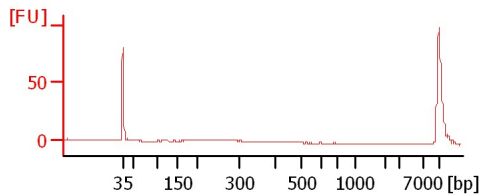
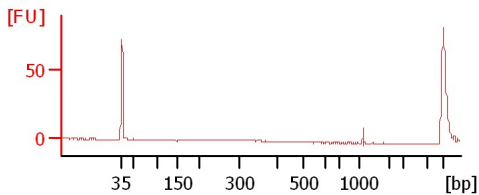
JLKD011



JLKD012

JLKD013

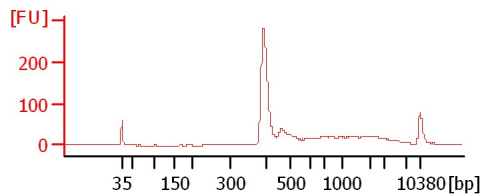
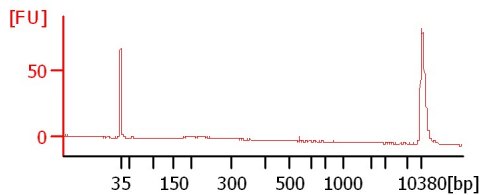
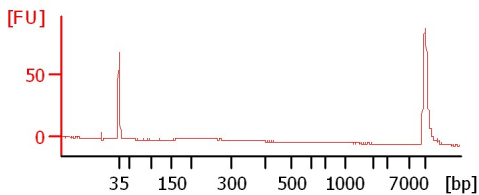
JLKD014



JLKD015

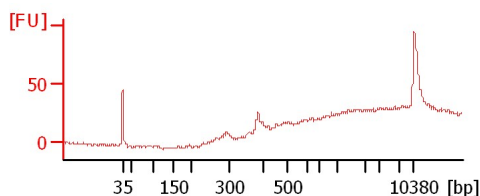
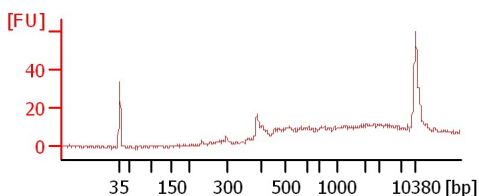
JLKD016

sl78



lm8

c656



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
Modified: 3/24/2014 10:28:32 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
JLKD009		<input type="checkbox"/>	✓			
JLKD010		<input type="checkbox"/>	✓			
JLKD011		<input type="checkbox"/>	✓			
JLKD012		<input type="checkbox"/>	✓			
JLKD013		<input type="checkbox"/>	✓			
JLKD014		<input type="checkbox"/>	✓			
JLKD015		<input type="checkbox"/>	✓			
JLKD016		<input type="checkbox"/>	✓			
sl78		<input type="checkbox"/>	✓			
lm8		<input type="checkbox"/>	✓			
c656		<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\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
Modified: 3/24/2014 10:28:32 AM

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

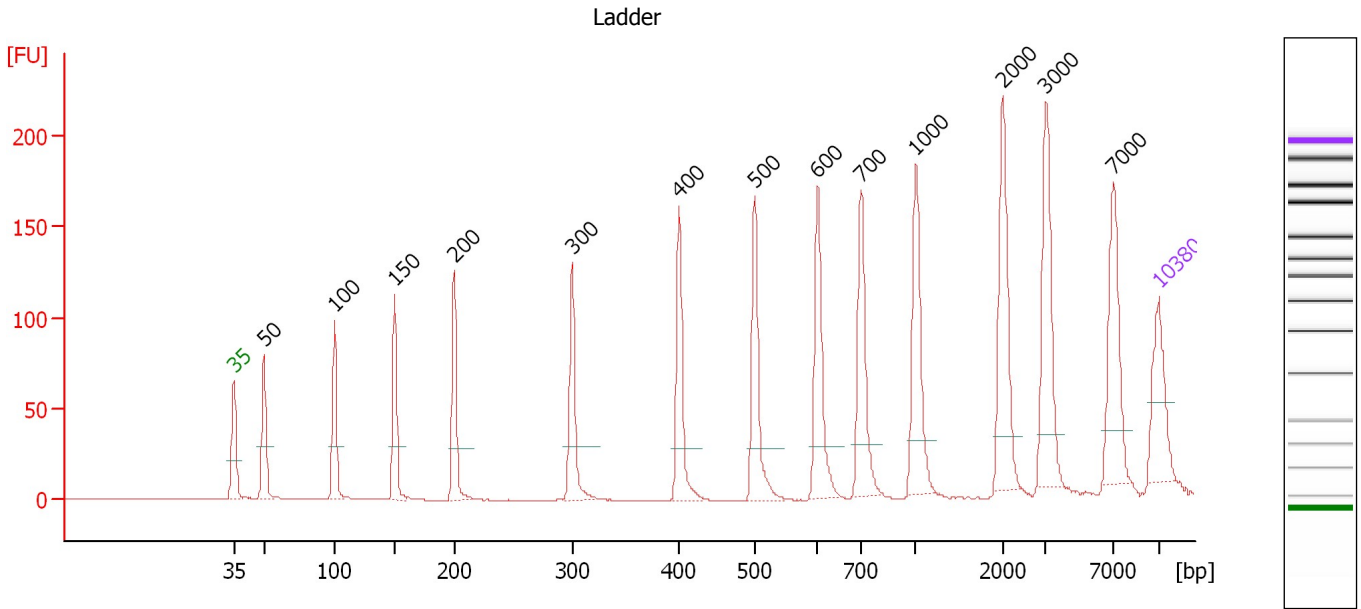
Ladder

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\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
 Modified: 3/24/2014 10:28:32 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

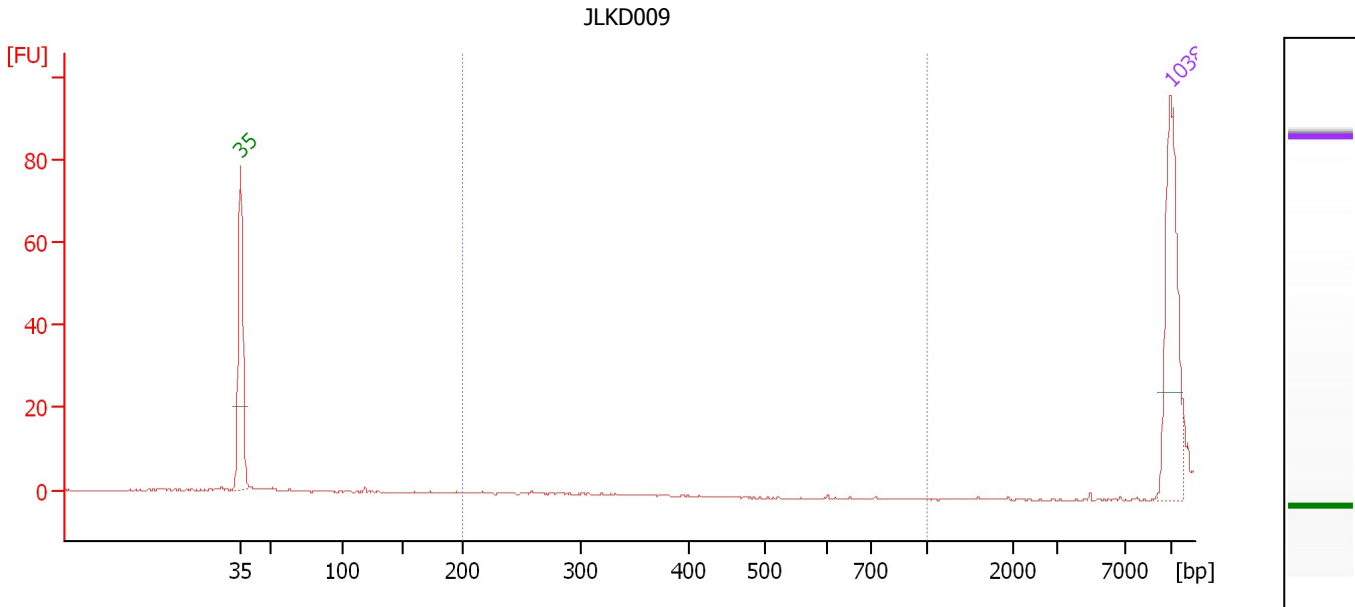
Peak table for Ladder

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	45.26	50	150.00	4,545.5	Ladder Peak
3	50.63	100	150.00	2,272.7	Ladder Peak
4	55.18	150	150.00	1,515.2	Ladder Peak
5	59.66	200	150.00	1,136.4	Ladder Peak
6	68.62	300	150.00	757.6	Ladder Peak
7	76.69	400	150.00	568.2	Ladder Peak
8	82.42	500	150.00	454.5	Ladder Peak
9	87.18	600	150.00	378.8	Ladder Peak
10	90.45	700	150.00	324.7	Ladder Peak
11	94.60	1,000	150.00	227.3	Ladder Peak
12	101.18	2,000	150.00	113.6	Ladder Peak
13	104.41	3,000	150.00	75.8	Ladder Peak
14	109.57	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\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
 Modified: 3/24/2014 10:28:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : JLKD009

Number of peaks found: 0 Corr. Area 1: 0.0
 Noise: 0.2

Peak table for sample 1 : JLKD009

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	113.00	10,380	75.00	10.9	Upper Marker

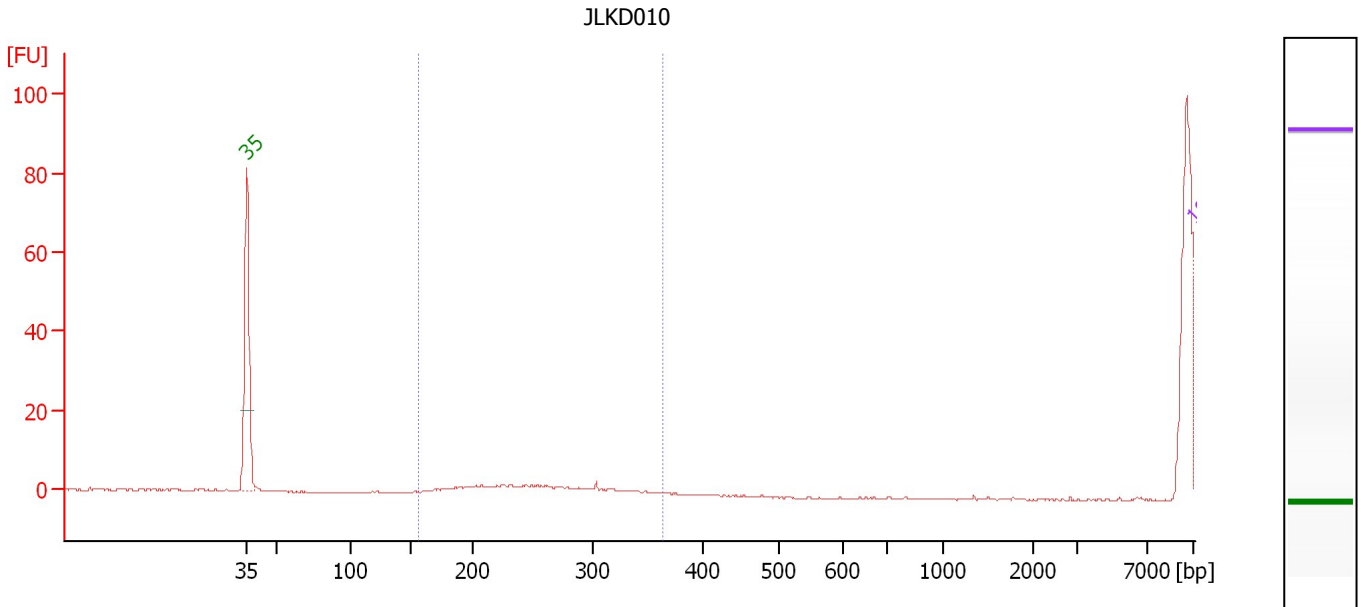
Region table for sample 1 : JLKD009

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	0	0.0	0.00	0.0	0	0.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
 Modified: 3/24/2014 10:28:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : JLKD010

Number of peaks found: 0 Corr. Area 1: 0.0
 Noise: 0.2

Peak table for sample 2 : JLKD010

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	113.00	10,380	75.00	10.9	Upper Marker

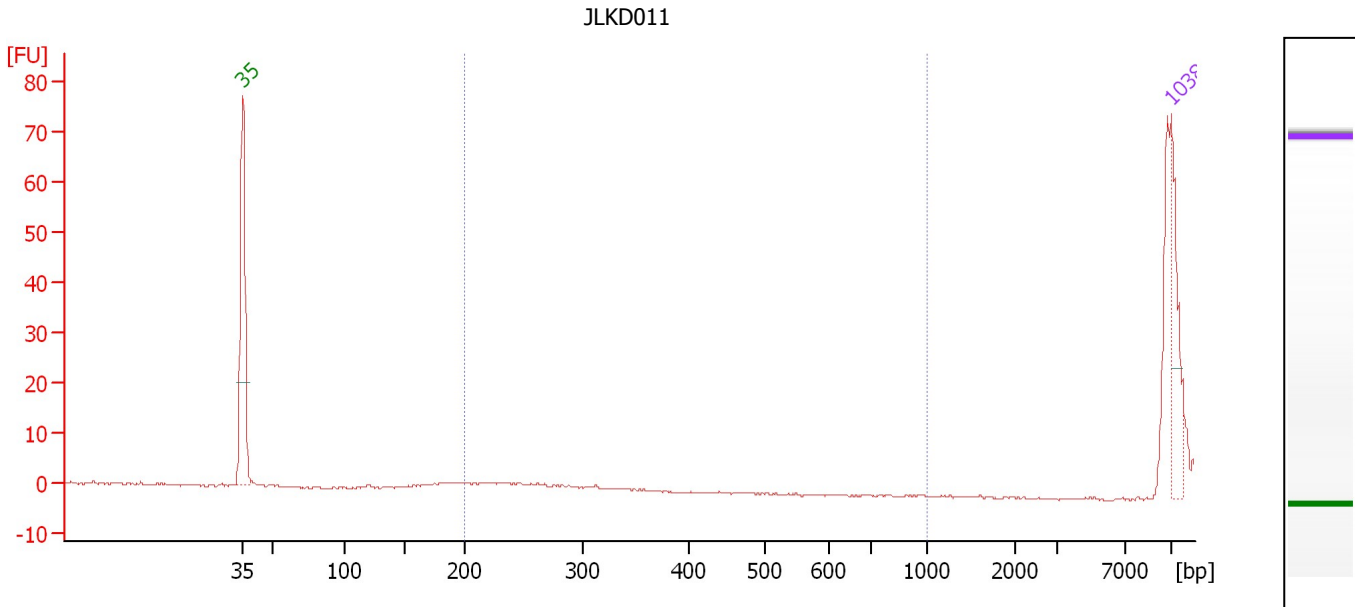
Region table for sample 2 : JLKD010

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
156	364	0	0.0	0.00	0.0	0	0.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
 Modified: 3/24/2014 10:28:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : JLKD011

Number of peaks found: 0 Corr. Area 1: 0.0
 Noise: 0.2

Peak table for sample 3 : JLKD011

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	113.00	10,380	75.00	10.9	Upper Marker

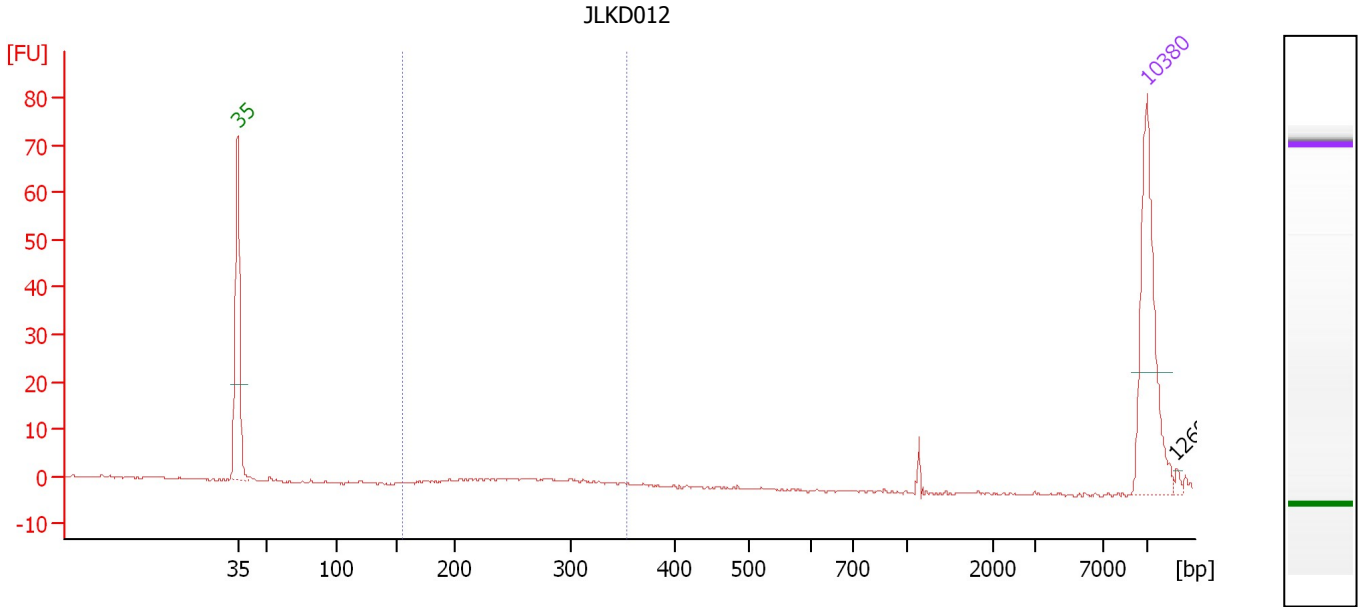
Region table for sample 3 : JLKD011

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	0	0.0	0.00	0.0	0	0.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
 Modified: 3/24/2014 10:28:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : JLKD012

Number of peaks found: 1 Corr. Area 1: 1.2
 Noise: 0.2

Peak table for sample 4 : JLKD012

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	113.00	10,380	75.00	10.9	Upper Marker
3	115.26	12,606	0.00	0.0	

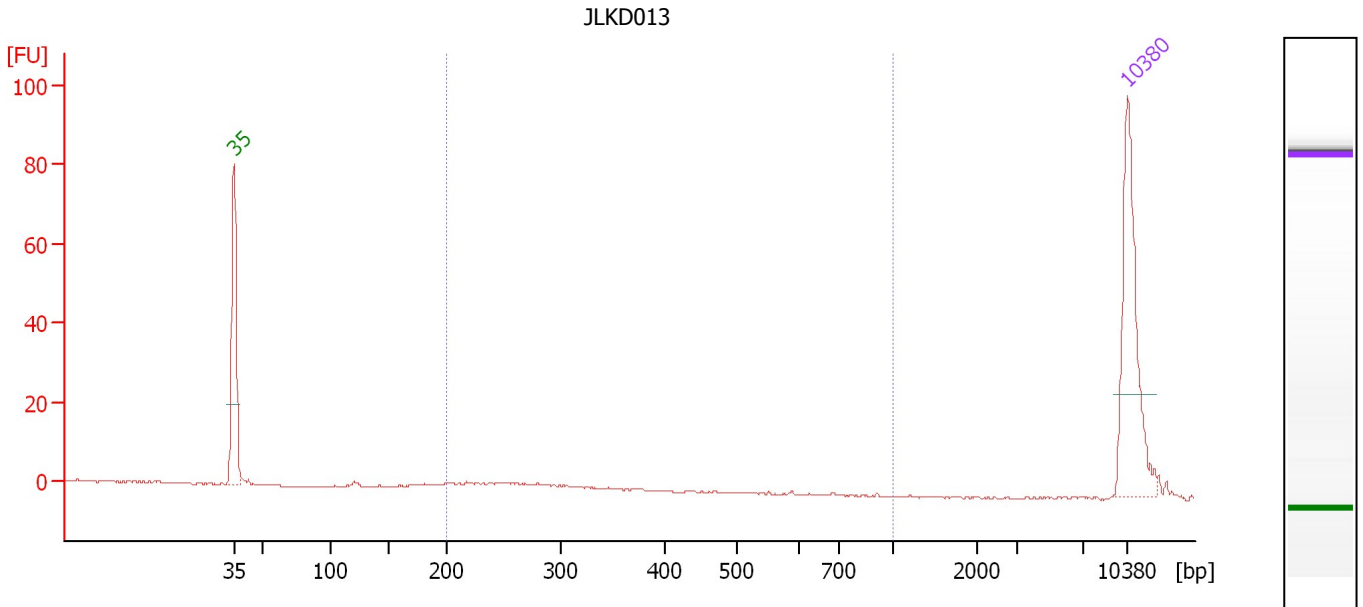
Region table for sample 4 : JLKD012

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
155	354	257	9.6	1.63	1.2	26	8.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
 Modified: 3/24/2014 10:28:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : JLKD013

Number of peaks found: 0 Corr. Area 1: 24.1
 Noise: 0.2

Peak table for sample 5 : JLKD013

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	113.00	10,380	75.00	10.9	Upper Marker

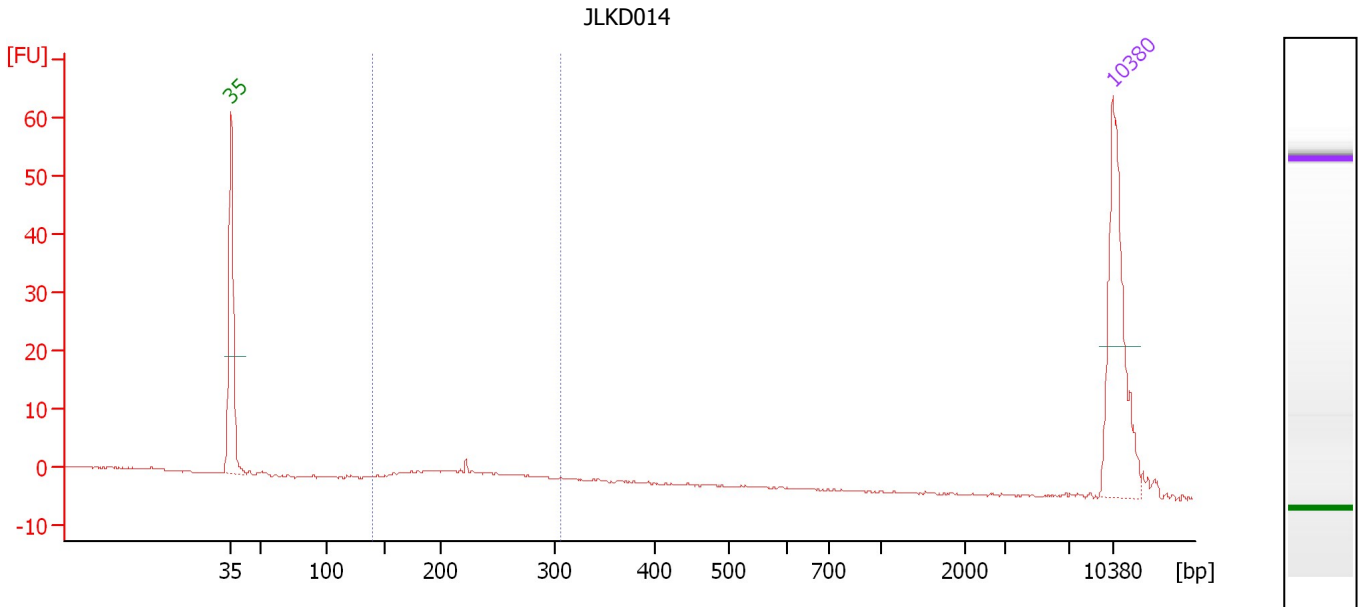
Region table for sample 5 : JLKD013

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	288	145.3	25.89	24.1	60	29.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
 Modified: 3/24/2014 10:28:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : JLKD014

Number of peaks found: 0 Corr. Area 1: 17.8
 Noise: 0.1

Peak table for sample 6 : JLKD014

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	113.00	10,380	75.00	10.9	Upper Marker

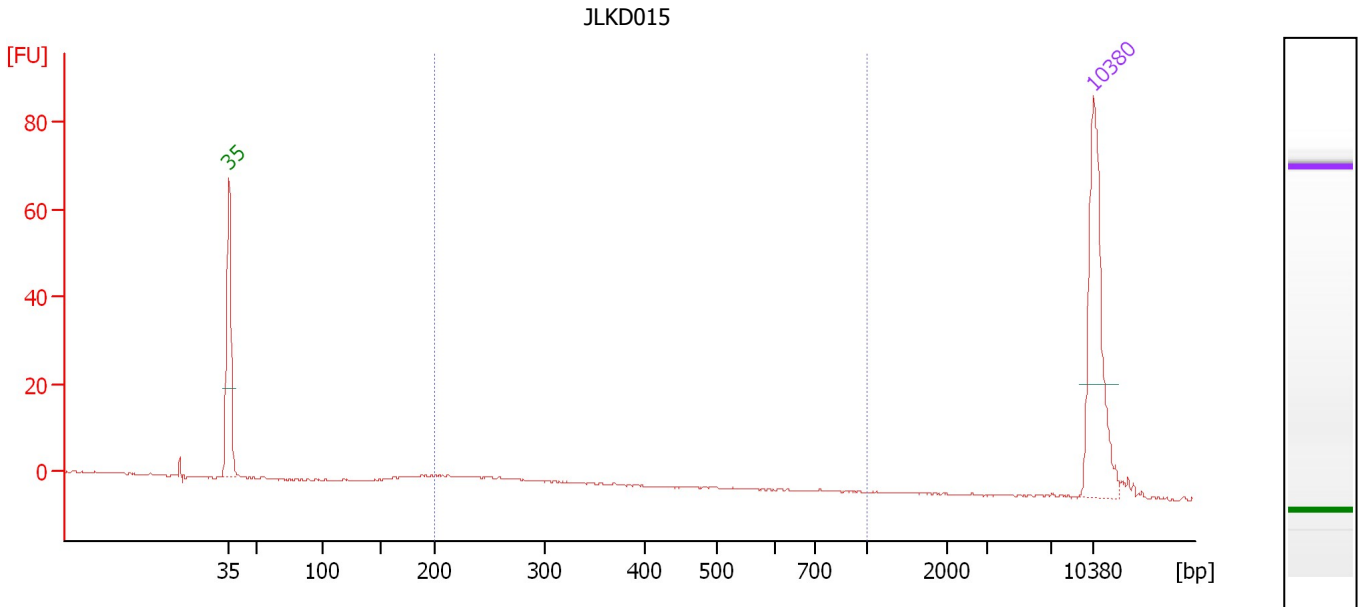
Region table for sample 6 : JLKD014

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
139	306	226	187.3	27.19	17.8	73	16.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
 Modified: 3/24/2014 10:28:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : JLKD015

Number of peaks found: 0 Corr. Area 1: 21.4
 Noise: 0.2

Peak table for sample 7 : JLKD015

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	113.00	10,380	75.00	10.9	Upper Marker

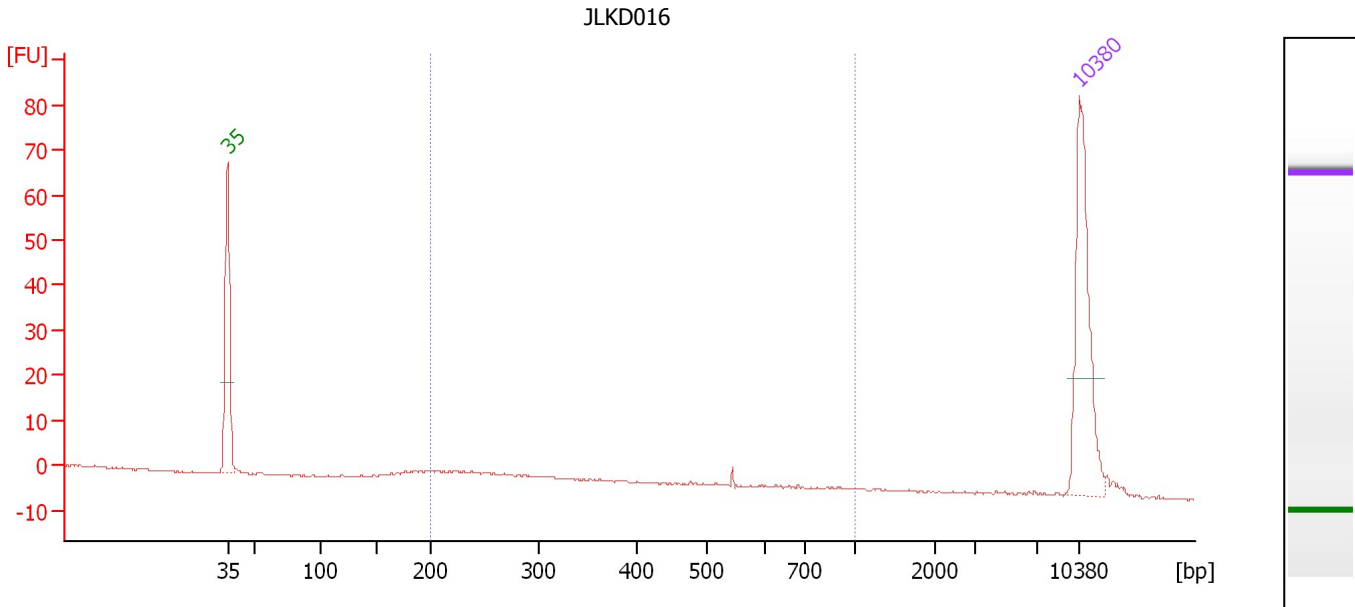
Region table for sample 7 : JLKD015

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	311	146.0	26.16	21.4	56	42.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
 Modified: 3/24/2014 10:28:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : JLKD016

Number of peaks found: 0 Corr. Area 1: 23.9
 Noise: 0.2

Peak table for sample 8 : JLKD016

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	113.00	10,380	75.00	10.9	Upper Marker

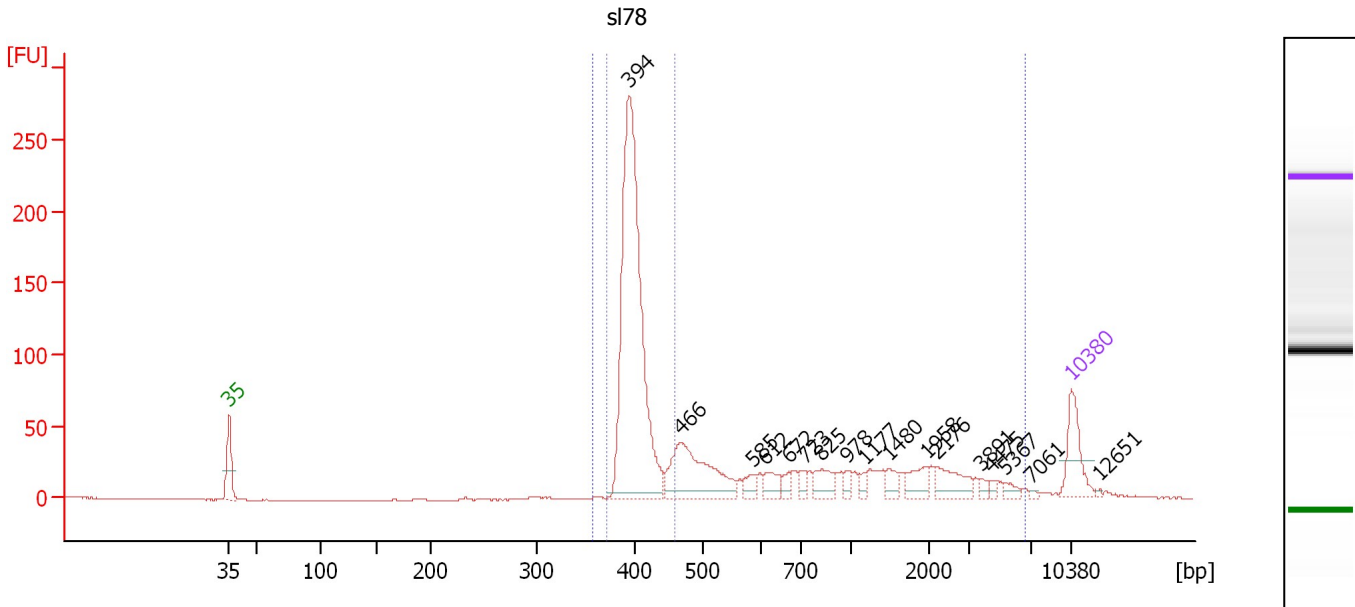
Region table for sample 8 : JLKD016

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	338	153.9	28.63	23.9	61	46.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
 Modified: 3/24/2014 10:28:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sl78

Number of peaks found: 17 Corr. Area 1: 706.4
 Noise: 0.2 Corr. Area 2: 1,276.6

Peak table for sample 9 : sl78

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	76.23	394	884.27	3,398.0	
3	80.48	466	237.27	771.1	
4	86.46	585	26.01	67.4	
5	87.57	612	34.18	84.6	
6	89.52	672	17.46	39.4	
7	90.76	723	14.61	30.6	
8	92.18	825	45.85	84.2	
9	94.30	978	14.43	22.3	
10	95.77	1,177	11.25	14.5	
11	97.76	1,480	21.37	21.9	
12	100.91	1,958	36.52	28.3	
13	101.75	2,176	51.12	35.6	
14	105.56	3,891	8.71	3.4	
15	106.31	4,475	6.57	2.2	
16	107.46	5,367	11.41	3.2	
17	109.63	7,061	2.91	0.6	
18	113.00	10,380	75.00	10.9	Upper Marker
19	115.30	12,651	0.00	0.0	

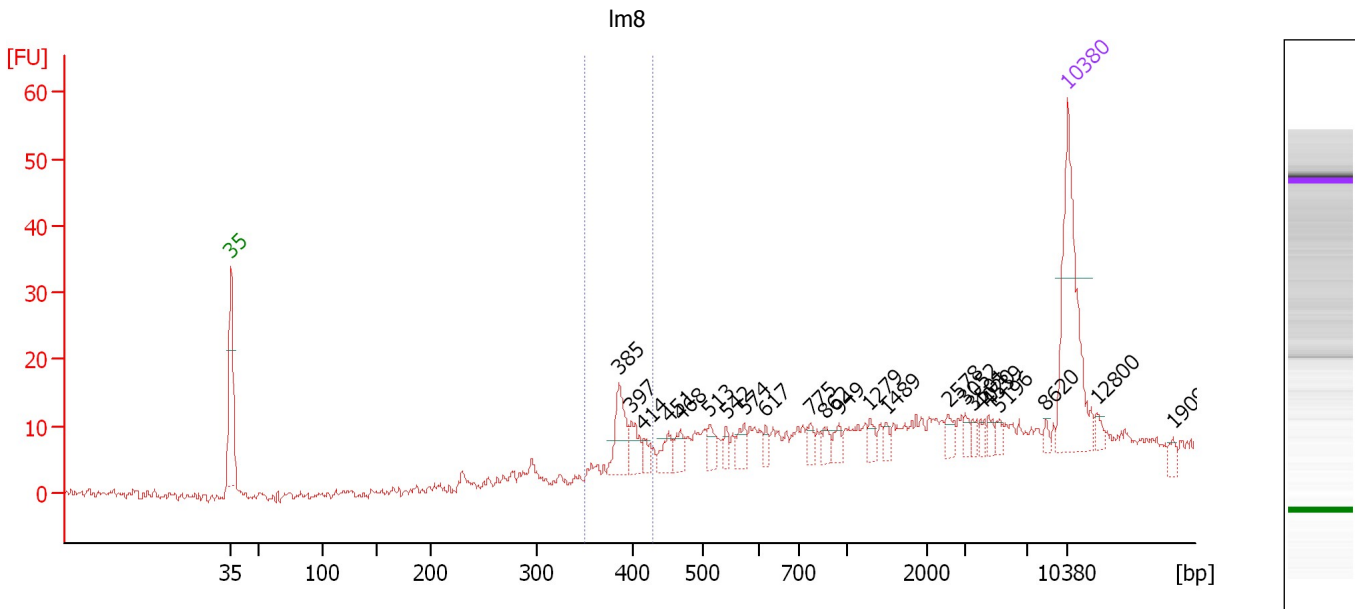
Region table for sample 9 : sl78

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
356	6,676	915	4,642.4	1,541.58	1,276.6	98	100.0
370	459	402	3,424.7	907.54	706.4	54	3.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
 Modified: 3/24/2014 10:28:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : lm8

Number of peaks found: 23 Corr. Area 1: 28.9
 Noise: 0.8


Peak table for sample 10 : lm8

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	75.46	385	31.24	123.0	
3	76.48	397	16.20	61.7	
4	77.51	414	6.52	23.8	
5	79.61	451	13.04	43.8	
6	80.59	468	10.16	32.9	
7	83.04	513	9.76	28.8	
8	84.43	542	6.38	17.8	
9	85.95	574	10.33	27.3	
10	87.73	617	5.60	13.7	
11	91.48	775	6.81	13.3	
12	92.69	862	6.68	11.7	
13	93.89	949	7.02	11.2	
14	96.44	1,279	5.86	6.9	
15	97.82	1,489	4.15	4.2	
16	103.04	2,578	6.64	3.9	
17	104.47	3,052	4.68	2.3	
18	105.05	3,501	3.69	1.6	
19	105.72	4,020	3.60	1.4	
20	106.39	4,539	4.69	1.6	
21	107.24	5,196	3.43	1.0	
22	111.21	8,620	2.74	0.5	
23	113.00	10,380	75.00	10.9	Upper Marker
24	115.46	12,800	0.00	0.0	
25	121.84	19,092	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
Modified: 3/24/2014 10:28:32 AM

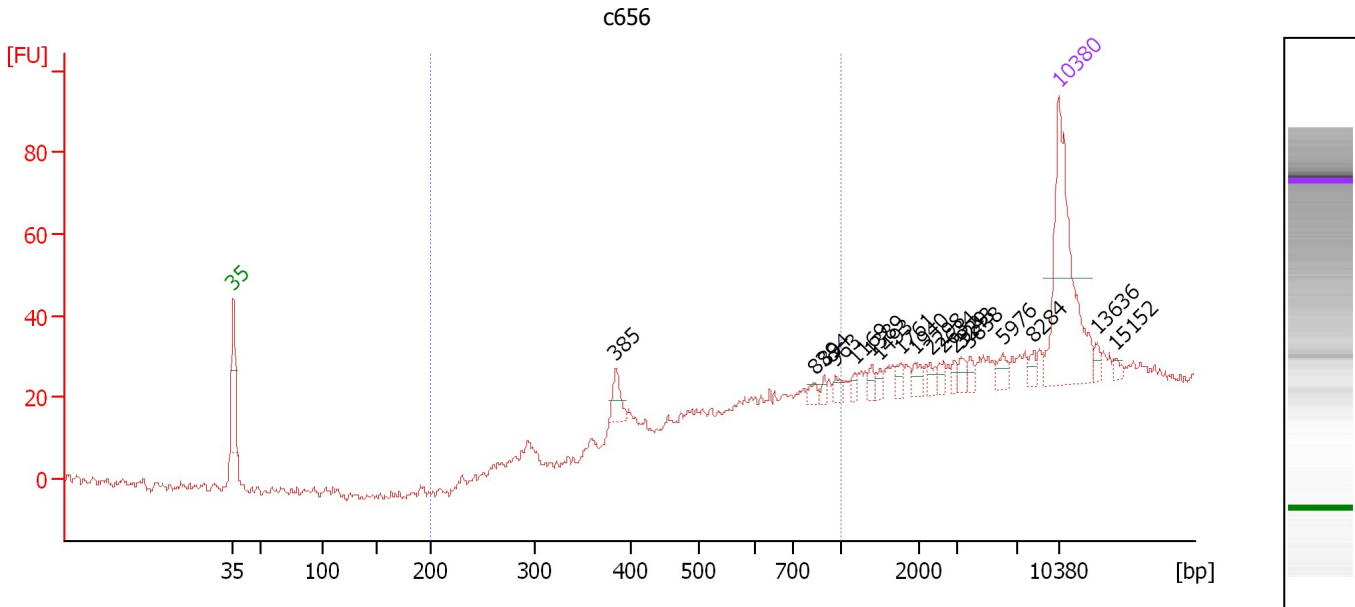
Electropherogram Summary Continued ...**... Region table for sample 10 : Im8**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
349	429	395	191.0	49.77	 28.9	15	3.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
 Modified: 3/24/2014 10:28:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : c656

Number of peaks found: 18 Corr. Area 1: 99.3
 Noise: 1.2

Peak table for sample 11 : c656

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	75.44	385	13.09	51.6	
3	92.37	839	4.72	8.5	
4	93.14	894	2.96	5.0	
5	94.09	963	4.36	6.9	
6	95.71	1,169	3.34	4.3	
7	97.16	1,389	4.13	4.5	
8	97.84	1,493	3.24	3.3	
9	99.61	1,761	4.14	3.6	
10	100.78	1,940	5.43	4.2	
11	102.14	2,298	3.72	2.4	
12	103.23	2,634	4.28	2.5	
13	104.18	2,929	3.16	1.6	
14	104.72	3,243	4.38	2.0	
15	105.49	3,838	3.47	1.4	
16	108.25	5,976	5.59	1.4	
17	110.87	8,284	3.74	0.7	
18	113.00	10,380	75.00	10.9	Upper Marker
19	116.30	13,636	0.00	0.0	
20	117.84	15,152	0.00	0.0	

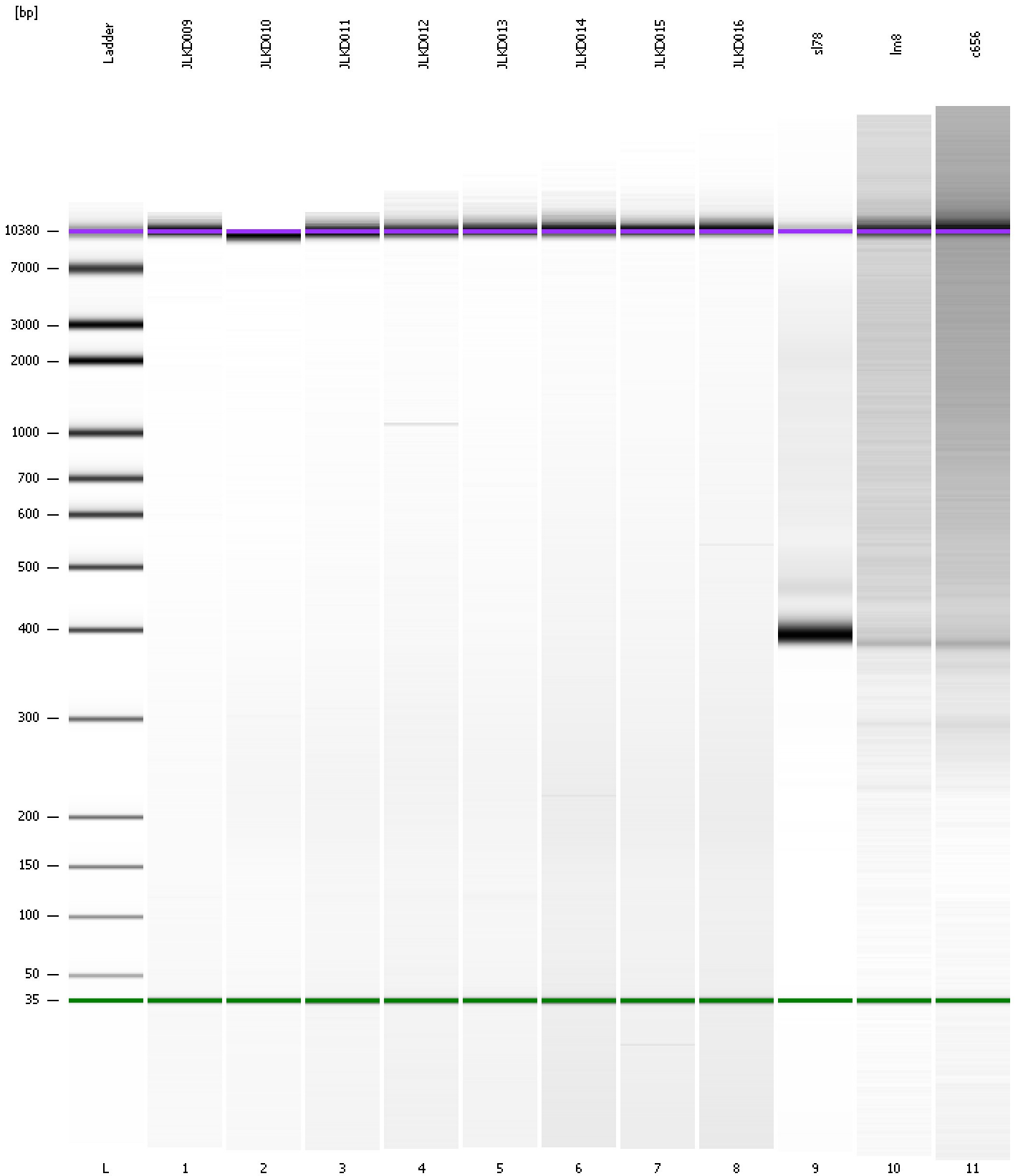
Region table for sample 11 : c656

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	633	254.2	93.67	99.3	34	29.7

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
Modified: 3/24/2014 10:28:32 AM

Gel Image

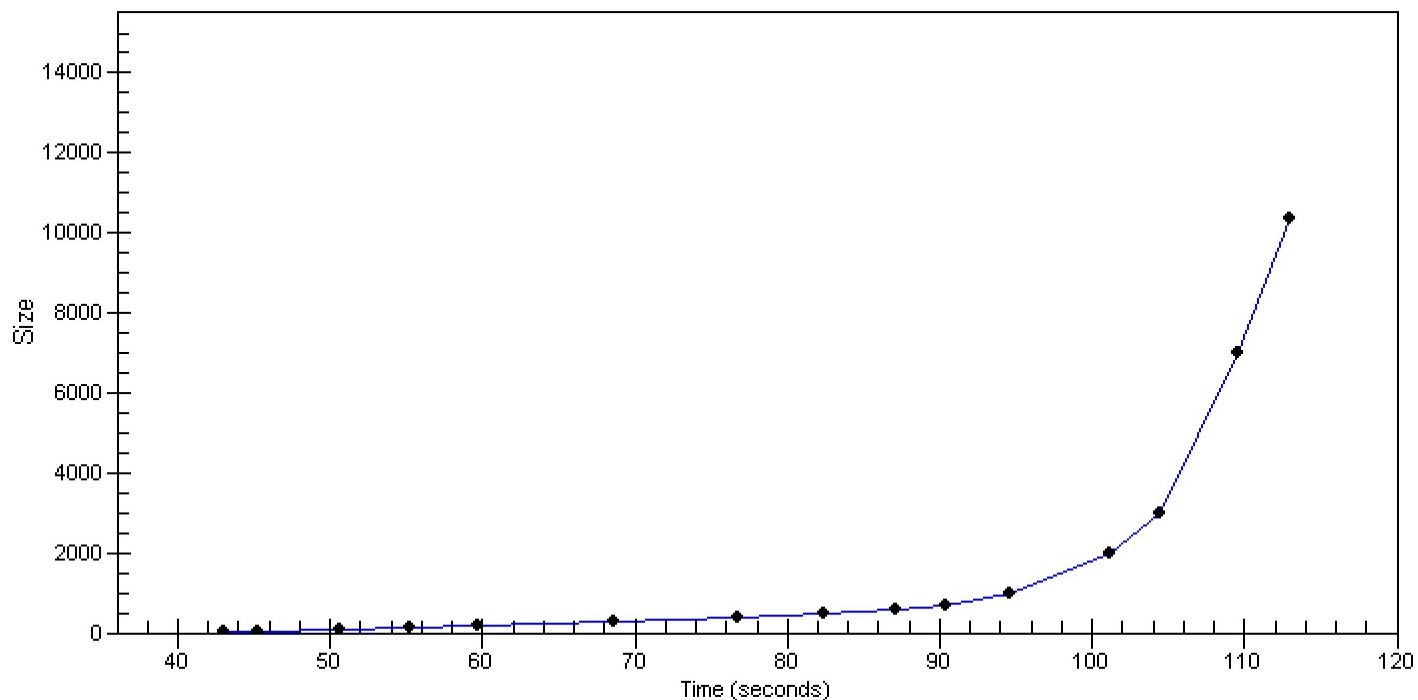


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
Modified: 3/24/2014 10:28:32 AM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad

Created: 3/24/2014 9:43:21 AM
 Modified: 3/24/2014 10:28:32 AM

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		3/24/2014 10:24:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-03-24\2014-03-24_001.xad)		Instrument	Run		3/24/2014 9:43:26 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/24/2014 9:43:26 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/24/2014 9:43:26 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/24/2014 9:43:26 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/24/2014 9:43:26 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/24/2014 9:43:26 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/24/2014 9:43:26 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1