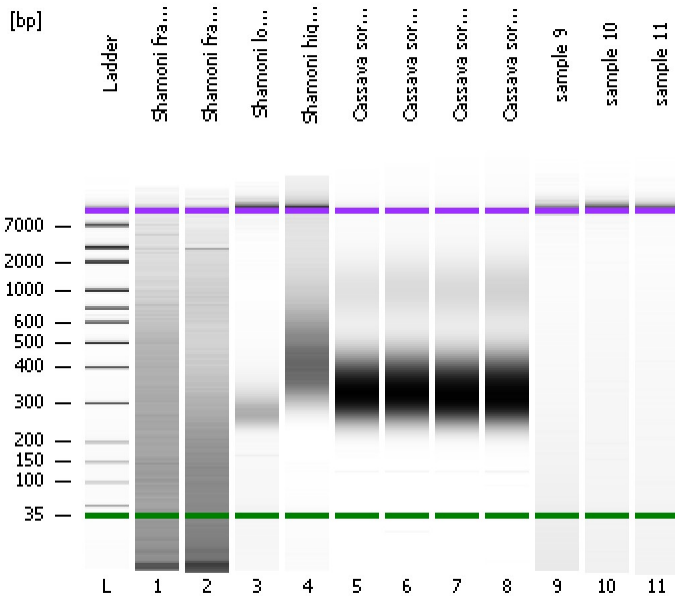


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
Modified: 10/10/2013 3:16:32 PM

Electrophoresis File Run Summary



Instrument Information:

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

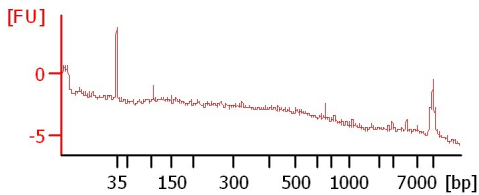
Assay Information:

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

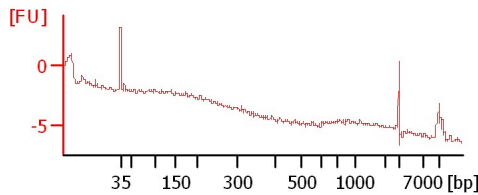
Chip Information:

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

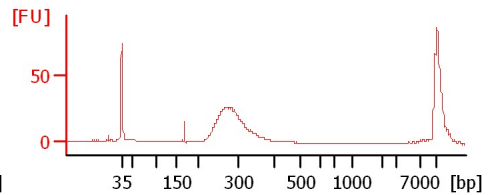
Shamoni fragmentase 15 min1



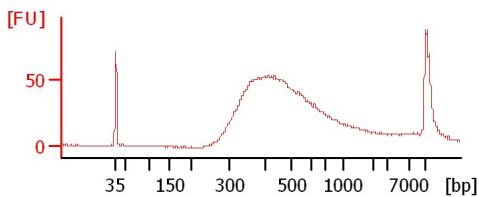
Shamoni fragmentase 30 min



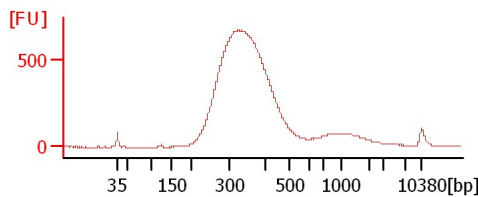
Shamoni low cut



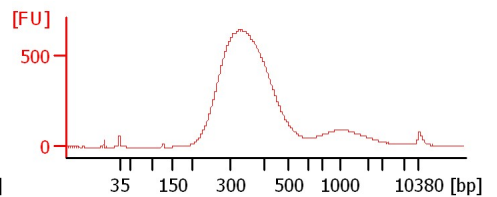
Shamoni high cut



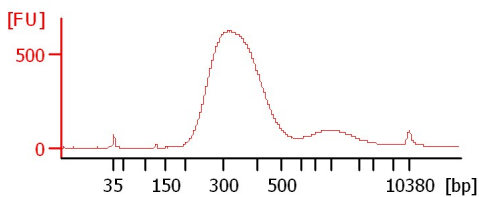
Cassava sorghum 1



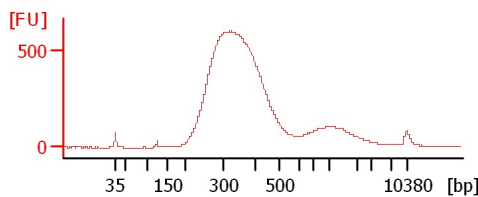
Cassava sorghum 9



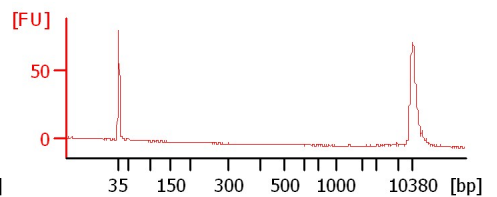
Cassava sorghum 17



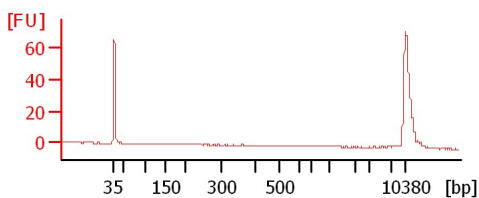
Cassava sorghum 25



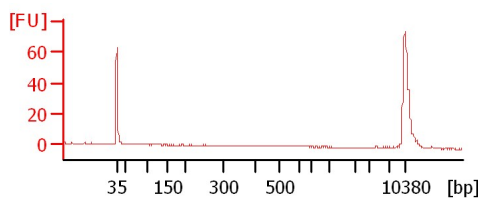
sample 9



sample 10



sample 11



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
Modified: 10/10/2013 3:16:32 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Shamoni fragmentase 15 min1		<input type="checkbox"/>	✓			
Shamoni fragmentase 30 min		<input type="checkbox"/>	✓			
Shamoni low cut		<input type="checkbox"/>	✓			
Shamoni high cut		<input type="checkbox"/>	✓			
Cassava sorghum 1		<input type="checkbox"/>	✓			
Cassava sorghum 9		<input type="checkbox"/>	✓			
Cassava sorghum 17		<input type="checkbox"/>	✓			
Cassava sorghum 25		<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:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
Modified: 10/10/2013 3:16:32 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

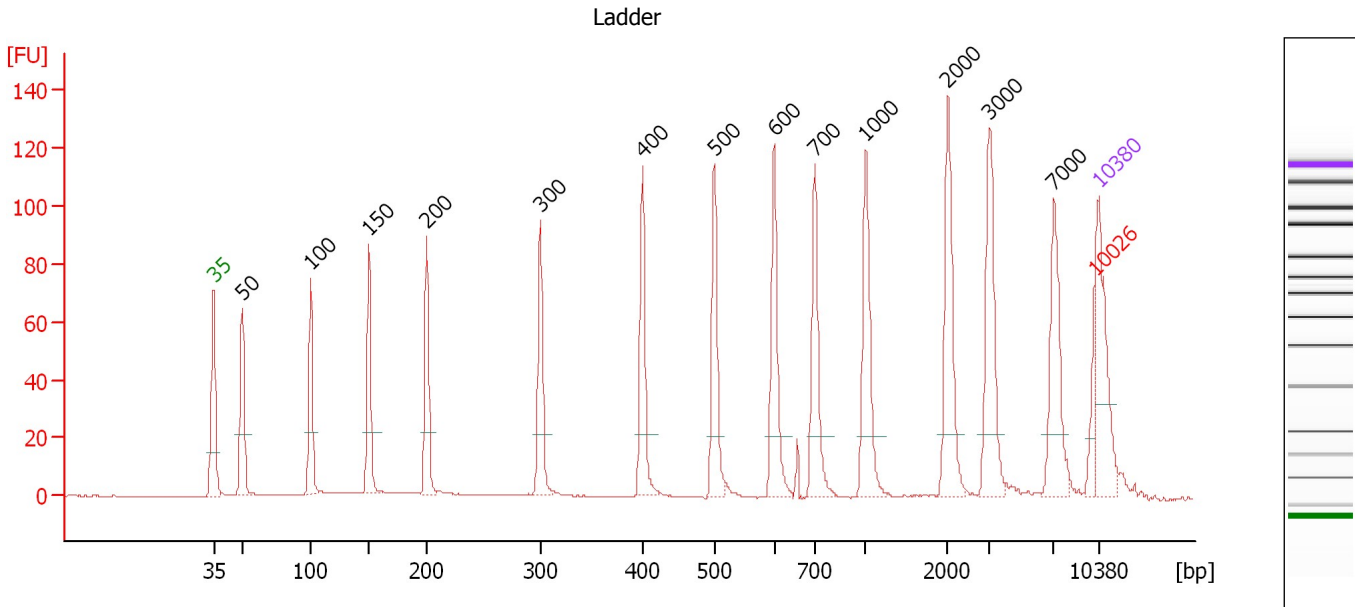
Ladder

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\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
 Modified: 10/10/2013 3:16:32 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

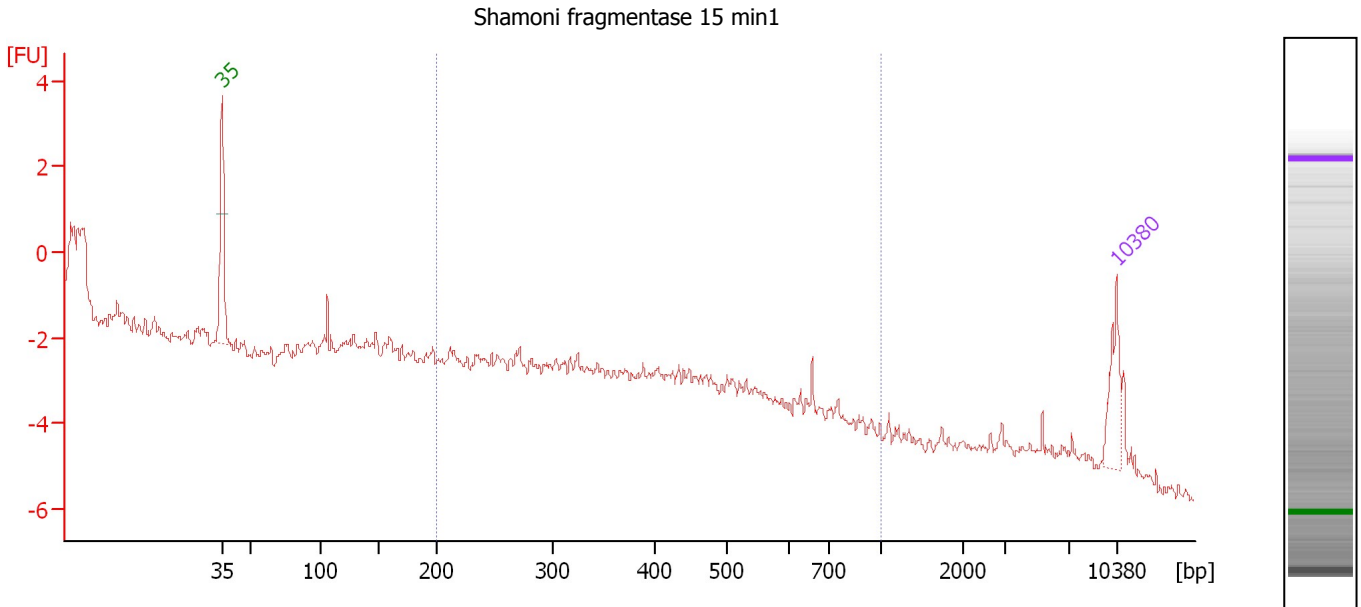
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,026	0.00	0.0	excluded peak
16	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
 Modified: 10/10/2013 3:16:32 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 1 : Shamoni fragmentase 15 min1

Height Threshold [FU] : 3

Overall Results for sample 1 : Shamoni fragmentase 15 min1

Number of peaks found: 0 Corr. Area 1: 0.7
 Noise: 0.2

Peak table for sample 1 : Shamoni fragmentase 15 min1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker

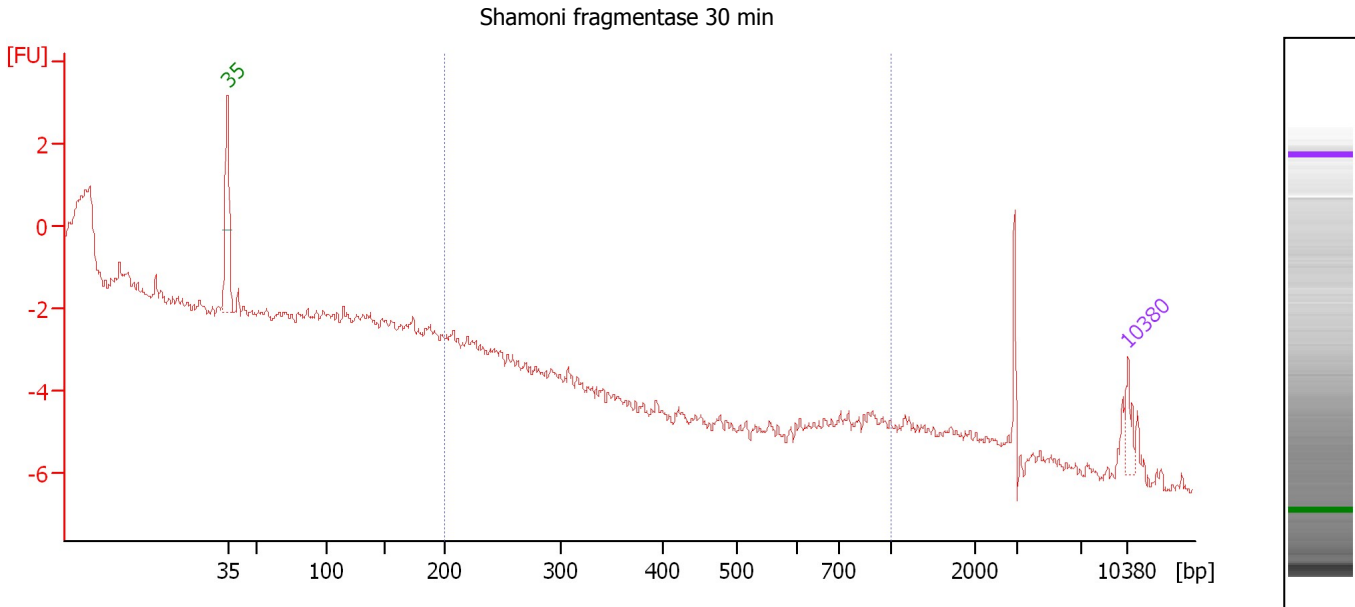
Region table for sample 1 : Shamoni fragmentase 15 min1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	586	63.0	23.44	0.7	16	17.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
 Modified: 10/10/2013 3:16:32 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 2 : Shamoni fragmentase 30 min

Height Threshold [FU] : 2

Overall Results for sample 2 : Shamoni fragmentase 30 min

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

Peak table for sample 2 : Shamoni fragmentase 30 min

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker

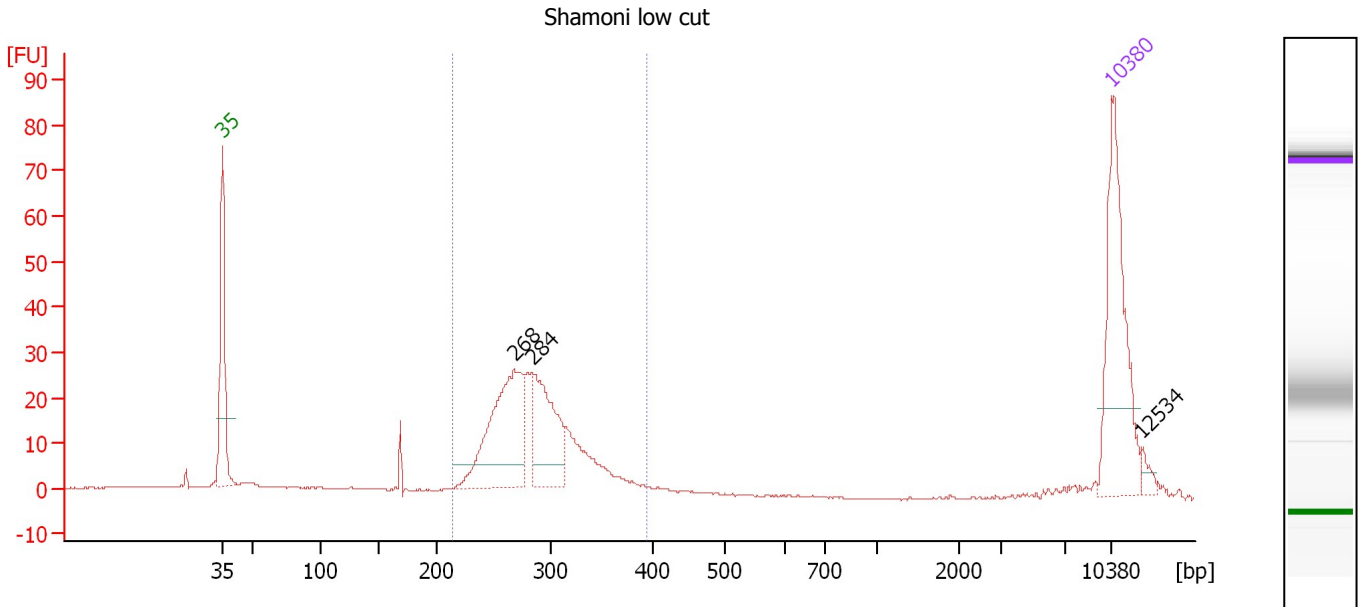
Region table for sample 2 : Shamoni fragmentase 30 min

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	0	0.0	0.00	0.0	0	0.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
 Modified: 10/10/2013 3:16:32 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Shamoni low cut

Number of peaks found: 3 Corr. Area 1: 290.4
 Noise: 0.2

Peak table for sample 3 : Shamoni low cut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	268	119.56	676.9	
3	284	75.07	400.5	
4	10,380	75.00	10.9	Upper Marker
5	12,534	0.00	0.0	

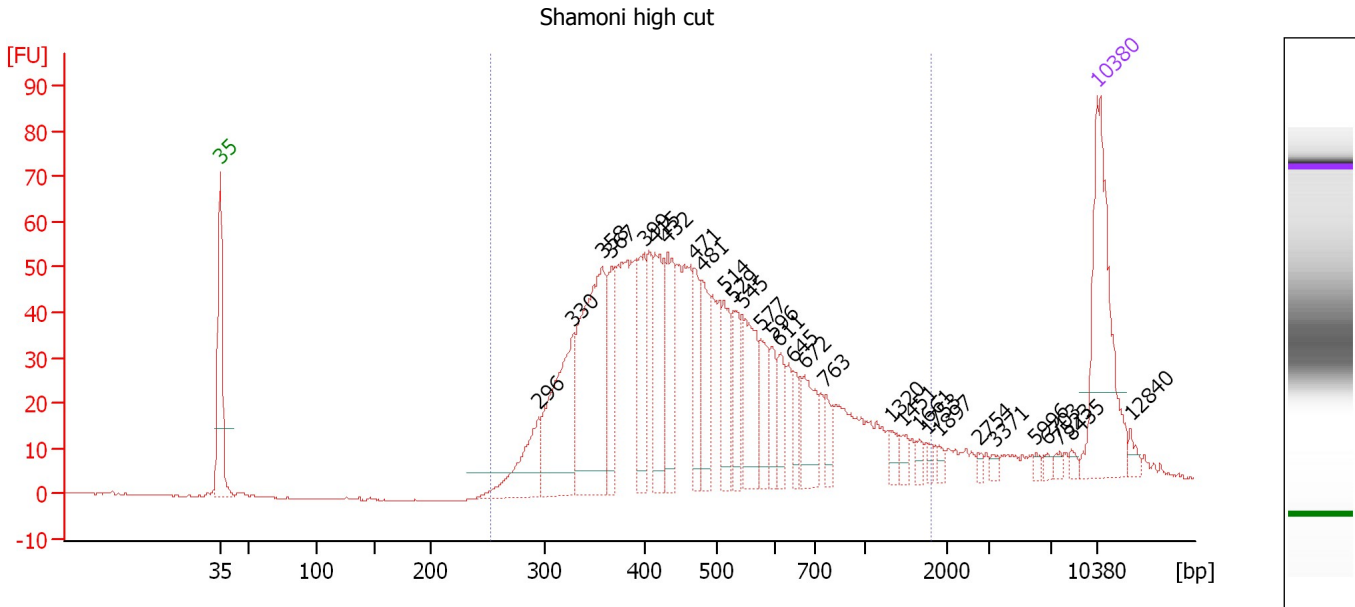
Region table for sample 3 : Shamoni low cut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
214	394	287	1,481.0	276.61	290.4	85	11.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
 Modified: 10/10/2013 3:16:32 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Shamoni high cut

Number of peaks found: 30 Corr. Area 1: 1,285.1
 Noise: 0.1

Peak table for sample 4 : Shamoni high cut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	296	49.56	253.9	
3	330	97.38	447.7	
4	358	141.02	596.7	
5	367	42.33	174.7	
6	399	44.07	167.2	
7	415	56.11	205.0	
8	432	52.10	182.7	
9	471	29.33	94.4	
10	481	37.74	119.0	
11	514	34.38	101.4	
12	529	27.44	78.6	
13	545	49.10	136.5	
14	577	24.98	65.6	
15	596	16.87	42.9	
16	611	18.09	44.9	
17	645	12.94	30.4	
18	672	32.28	72.8	
19	763	11.03	21.9	
20	1,320	6.46	7.4	
21	1,451	5.83	6.1	
22	1,661	4.16	3.8	
23	1,753	3.26	2.8	
24	1,897	3.76	3.0	
25	2,754	2.33	1.3	
26	3,371	2.47	1.1	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
 Modified: 10/10/2013 3:16:32 PM

Electropherogram Summary Continued ...

... Peak table for sample 4 : Shamoni high cut

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	5,996	2.03	0.5	
28	6,703	2.71	0.6	
29	7,523	2.45	0.5	
30	8,435	2.88	0.5	
31	10,380	75.00	10.9	Upper Marker
32	12,840	0.00	0.0	

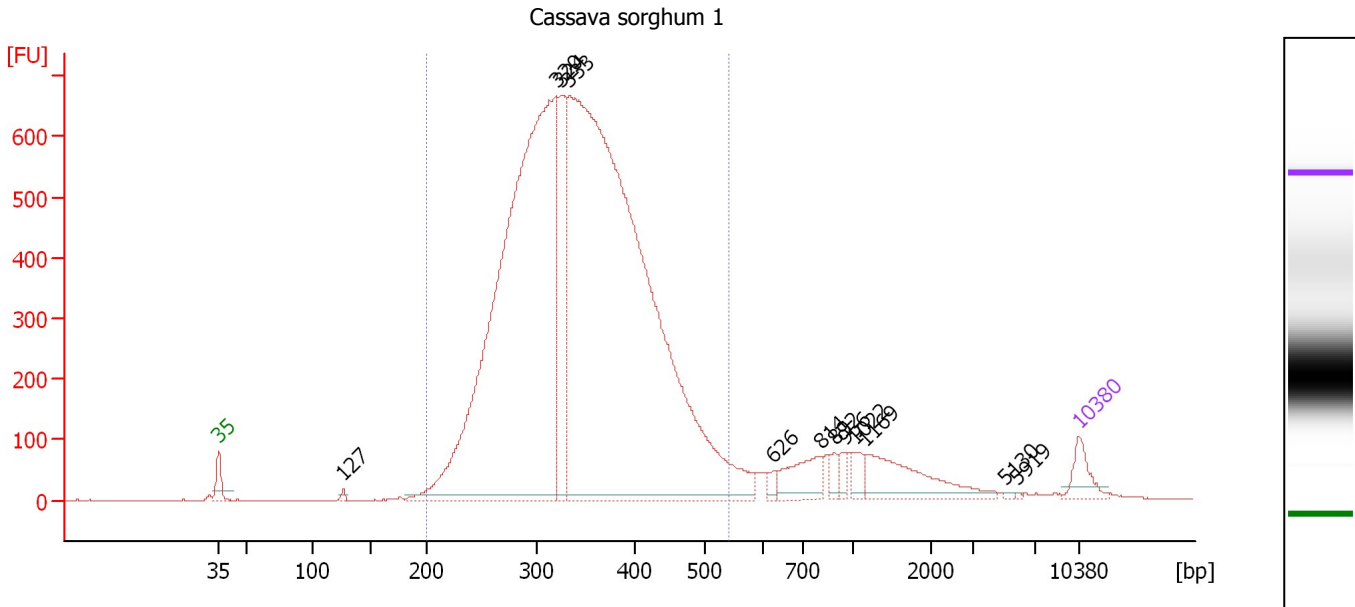
Region table for sample 4 : Shamoni high cut

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
253	1,809	526	3,776.3	1,096.82	1,285.1	94	48.4	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
 Modified: 10/10/2013 3:16:32 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 5 : Cassava sorghum 1

Height Threshold [FU] : 10

Overall Results for sample 5 : Cassava sorghum 1

Number of peaks found: 12 Corr. Area 1: 12,833.2
 Noise: 0.5

Peak table for sample 5 : Cassava sorghum 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	127	16.49	197.4	
3	320	4,301.50	20,380.0	
4	324	589.02	2,758.1	
5	333	5,837.34	26,538.1	
6	626	30.56	73.9	
7	814	167.42	311.5	
8	892	37.74	64.1	
9	956	39.39	62.4	
10	1,022	51.59	76.5	
11	1,169	281.60	364.8	
12	5,130	5.08	1.5	
13	5,919	3.25	0.8	
14	10,380	75.00	10.9	Upper Marker

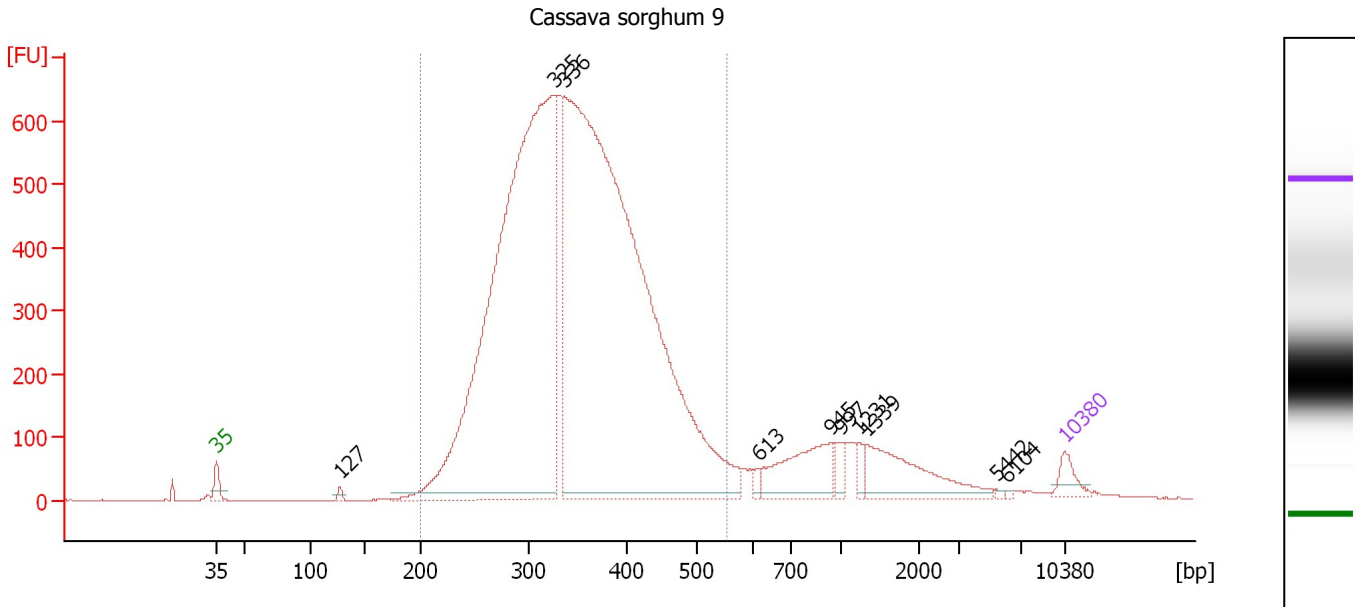
Region table for sample 5 : Cassava sorghum 1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	539	344	47,733.9	10,355.77	12,833.2	91	18.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
 Modified: 10/10/2013 3:16:32 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 6 : Cassava sorghum 9

Height Threshold [FU] : 10

Overall Results for sample 6 : Cassava sorghum 9

Number of peaks found: 10 Corr. Area 1: 12,448.9
 Noise: 0.4

Peak table for sample 6 : Cassava sorghum 9

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	127	25.25	300.6	
3	325	6,071.28	28,309.5	
4	336	7,537.32	33,944.8	
5	613	29.37	72.6	
6	945	392.92	630.3	
7	997	69.06	105.0	
8	1,231	50.31	61.9	
9	1,339	402.67	455.5	
10	5,442	7.57	2.1	
11	6,104	4.72	1.2	
12	10,380	75.00	10.9	Upper Marker

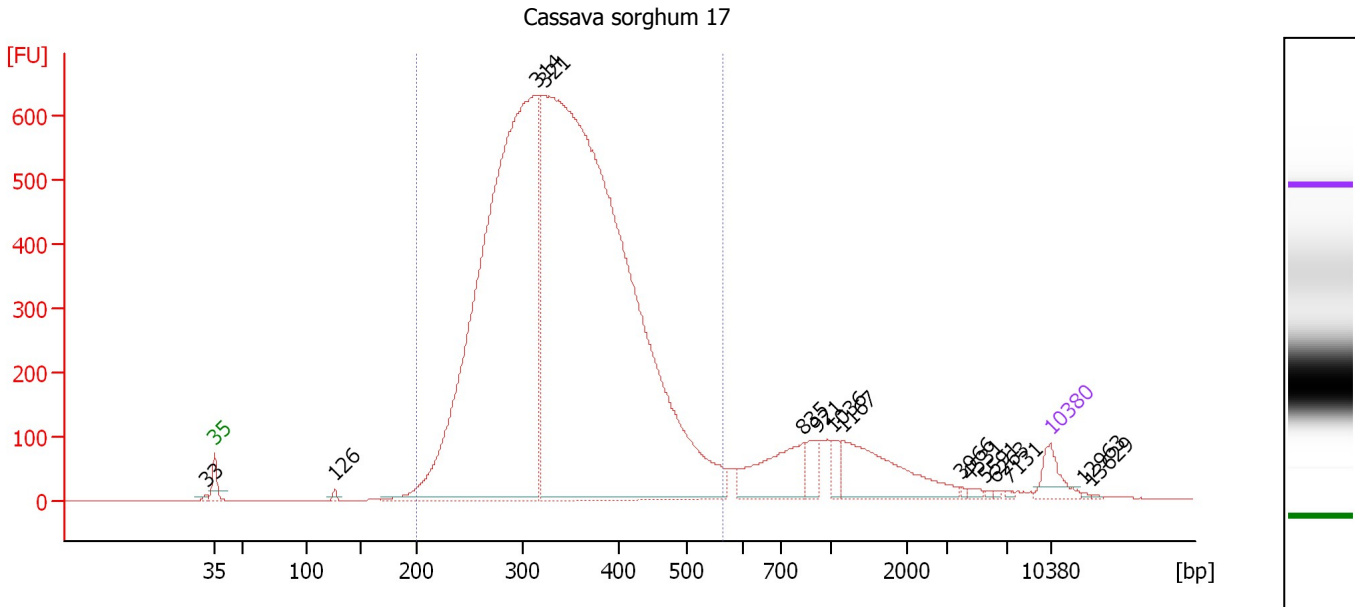
Region table for sample 6 : Cassava sorghum 9

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	554	348	62,789.0	13,739.37	12,448.9	89	19.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
 Modified: 10/10/2013 3:16:32 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Cassava sorghum 17

Number of peaks found: 15 Corr. Area 1: 12,620.1
 Noise: 0.4

Peak table for sample 7 : Cassava sorghum 17

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	33	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	126	14.73	177.2	
4	314	4,410.93	21,266.7	
5	321	6,490.95	30,592.9	
6	835	284.54	516.3	
7	921	76.54	125.9	
8	1,036	50.78	74.3	
9	1,167	347.58	451.4	
10	3,966	5.76	2.2	
11	4,531	11.57	3.9	
12	5,591	4.34	1.2	
13	6,263	5.44	1.3	
14	7,131	5.00	1.1	
15	10,380	75.00	10.9	Upper Marker
16	12,963	0.00	0.0	
17	13,629	0.00	0.0	

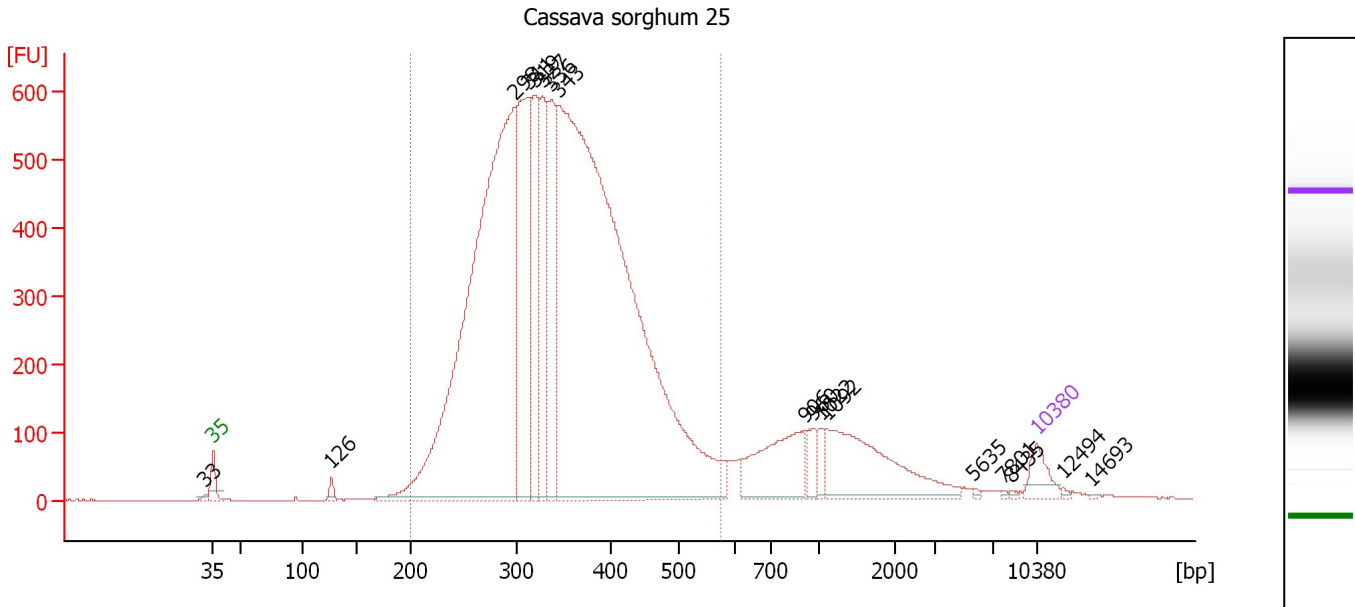
Region table for sample 7 : Cassava sorghum 17

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	563	342	49,238.5	10,567.91	12,620.1	89	19.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
 Modified: 10/10/2013 3:16:32 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : Cassava sorghum 25

Number of peaks found: 17 Corr. Area 1: 12,313.0
 Noise: 0.5

Peak table for sample 8 : Cassava sorghum 25

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	33	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	126	33.10	397.8	
4	298	3,654.72	18,609.2	
5	311	1,058.62	5,151.4	
6	319	542.06	2,577.1	
7	327	494.03	2,288.1	
8	336	582.85	2,631.5	
9	343	5,219.48	23,024.7	
10	906	349.14	583.7	
11	960	67.83	107.0	
12	1,022	49.18	72.9	
13	1,092	497.60	690.5	
14	5,635	5.69	1.5	
15	7,801	4.19	0.8	
16	8,435	4.44	0.8	
17	10,380	75.00	10.9	Upper Marker
18	12,494	0.00	0.0	
19	14,693	0.00	0.0	

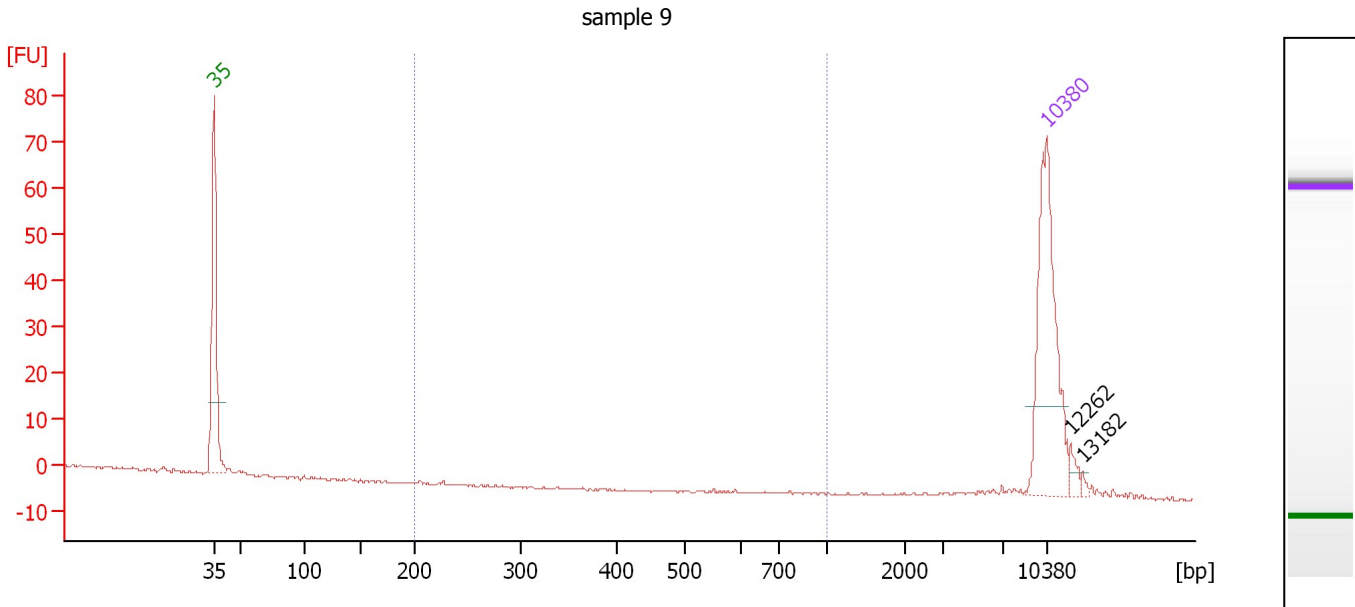
Region table for sample 8 : Cassava sorghum 25

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	576	345	52,265.1	11,258.96	12,313.0	88	20.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
 Modified: 10/10/2013 3:16:32 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 2 Corr. Area 1: 0.0
 Noise: 0.2

Peak table for sample 9 : sample 9

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker
3	12,262	0.00	0.0	
4	13,182	0.00	0.0	

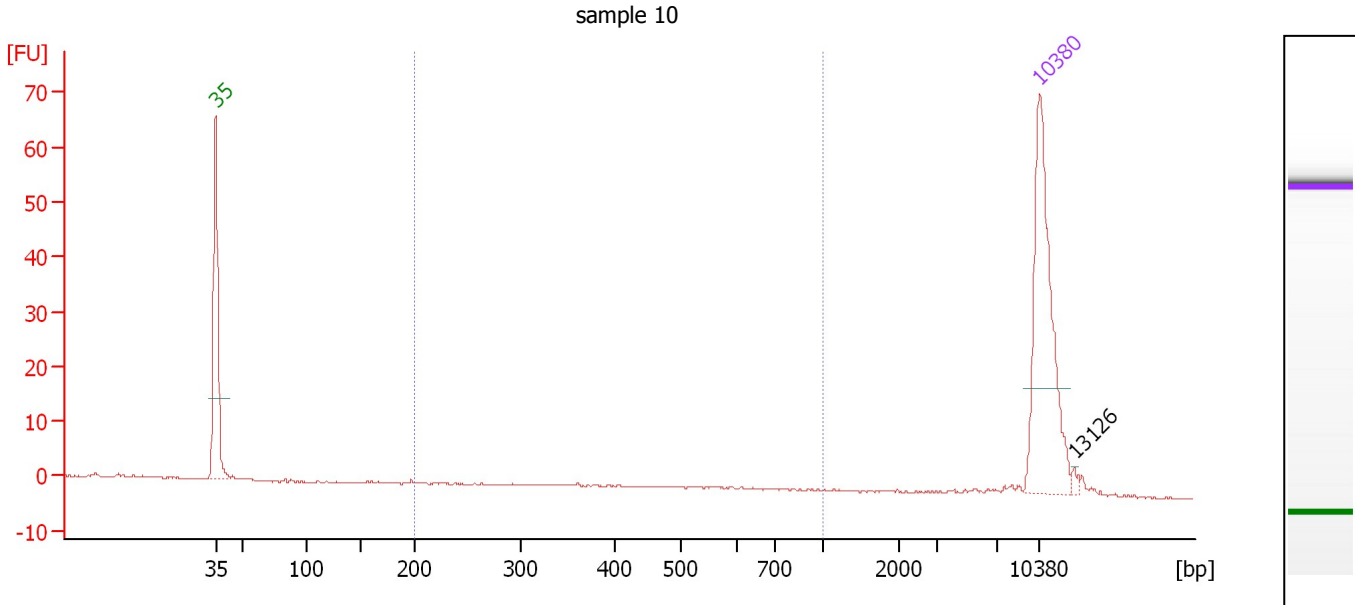
Region table for sample 9 : sample 9

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	0	0.0	0.00	0.0	0	0.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
 Modified: 10/10/2013 3:16:32 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 1 Corr. Area 1: 7.4
 Noise: 0.1

Peak table for sample 10 : sample 10

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker
3	13,126	0.00	0.0	

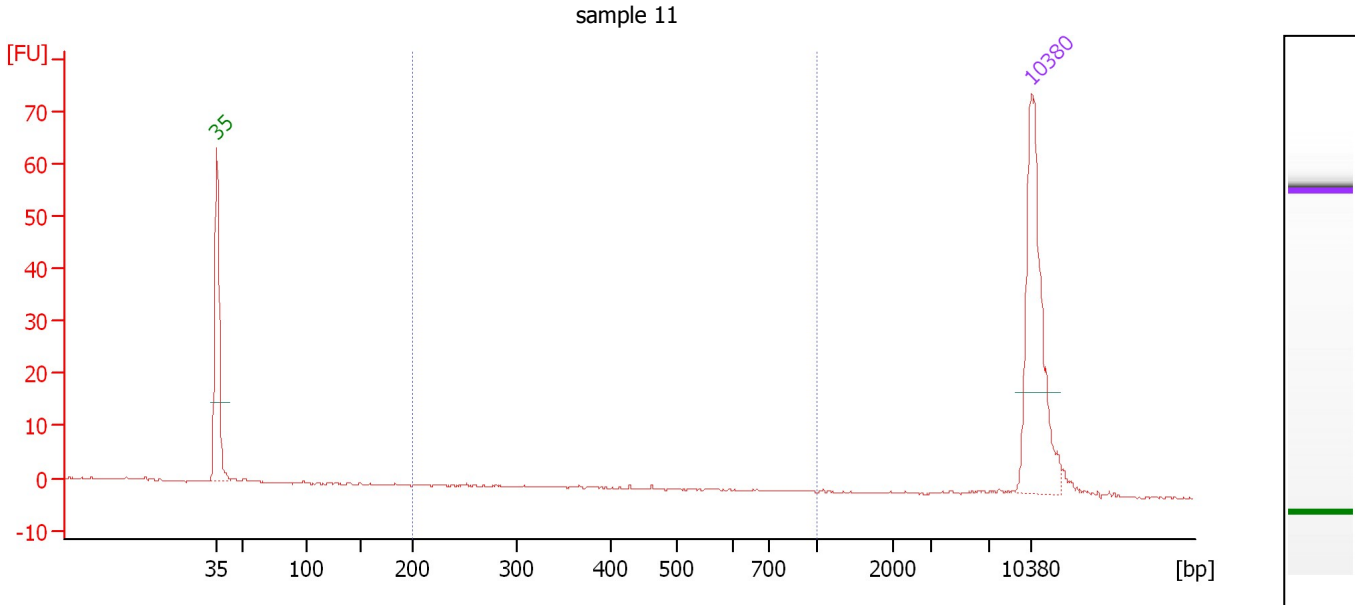
Region table for sample 10 : sample 10

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	530	23.8	7.09	7.4	28	33.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
 Modified: 10/10/2013 3:16:32 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found: 0 Corr. Area 1: 1.5
 Noise: 0.2

Peak table for sample 11 : sample 11

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker

Region table for sample 11 : sample 11

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	515	5.3	1.48	1.5	11	38.2	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-10\2013-10-10_003.xad

Created: 10/10/2013 2:33:14 PM
Modified: 10/10/2013 3:16:32 PM

Gel Image

