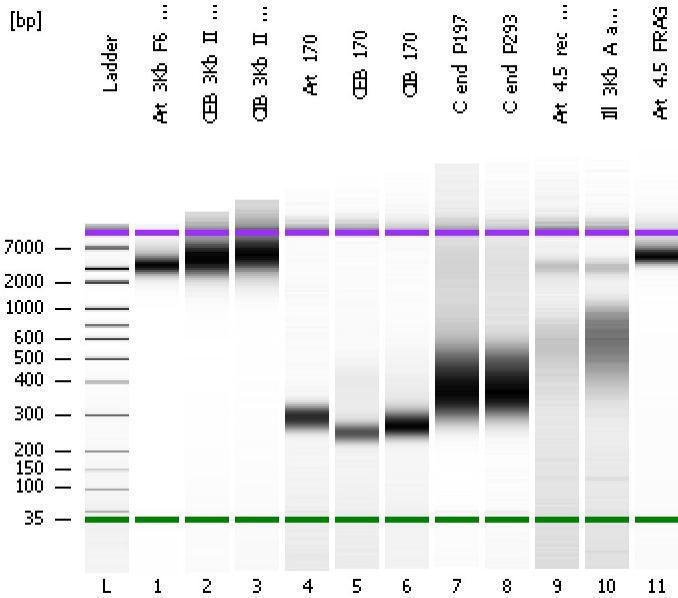


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
Modified: 3/1/2012 4:00:00 PM

Electrophoresis File Run Summary



Instrument Information:

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

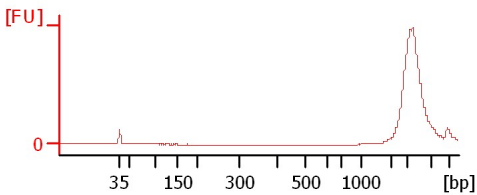
Assay Information:

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

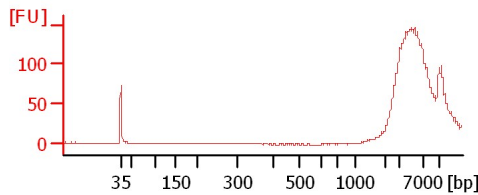
Chip Information:

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

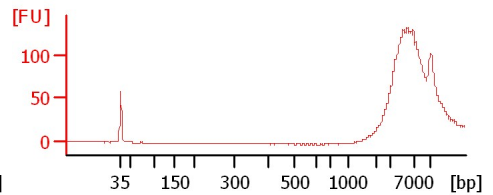
Art_3Kb_F6_frag



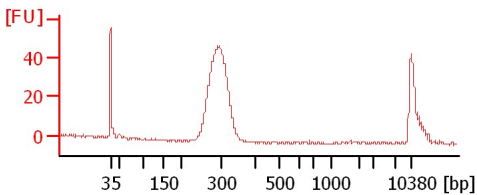
CEB_3Kb_II_frag



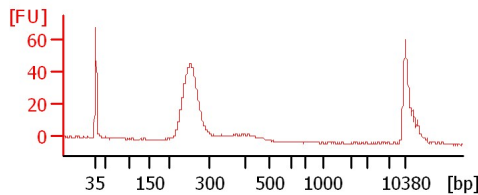
CIB_3Kb_II_frag



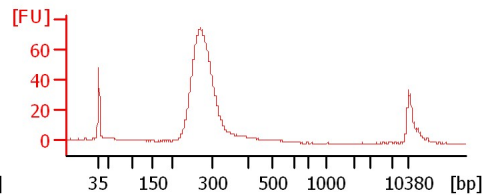
Art_170



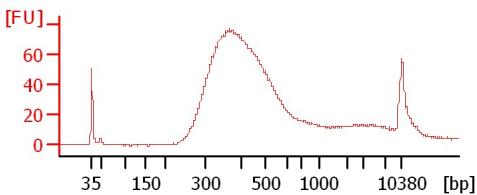
CEB_170



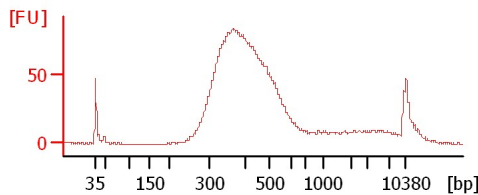
CIB_170



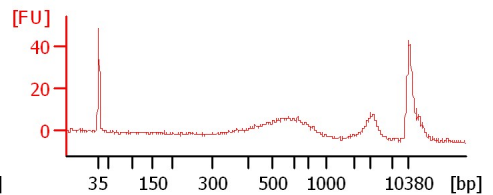
C_end_P197



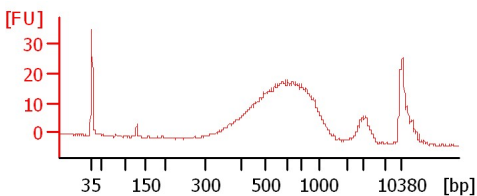
C_end_P293



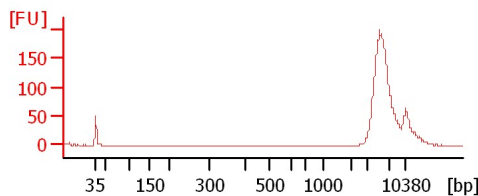
Art_4.5_rec_extraAmpure



III_3Kb_A_again



Art_4.5_FRAG



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
Modified: 3/1/2012 4:00:00 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Art_3Kb_F6_frag		<input type="checkbox"/>	✓			
CEB_3Kb_II_frag		<input type="checkbox"/>	✓			
CIB_3Kb_II_frag		<input type="checkbox"/>	✓			
Art_170		<input type="checkbox"/>	✓			
CEB_170		<input type="checkbox"/>	✓			
CIB_170		<input type="checkbox"/>	✓			
C_end_P197		<input type="checkbox"/>	✓			
C_end_P293		<input type="checkbox"/>	✓			
Art_4.5_rec_extraAmpure		<input type="checkbox"/>	✓			
III_3Kb_A_again		<input type="checkbox"/>	✓			
Art_4.5_FRAG		<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\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
Modified: 3/1/2012 4:00:00 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

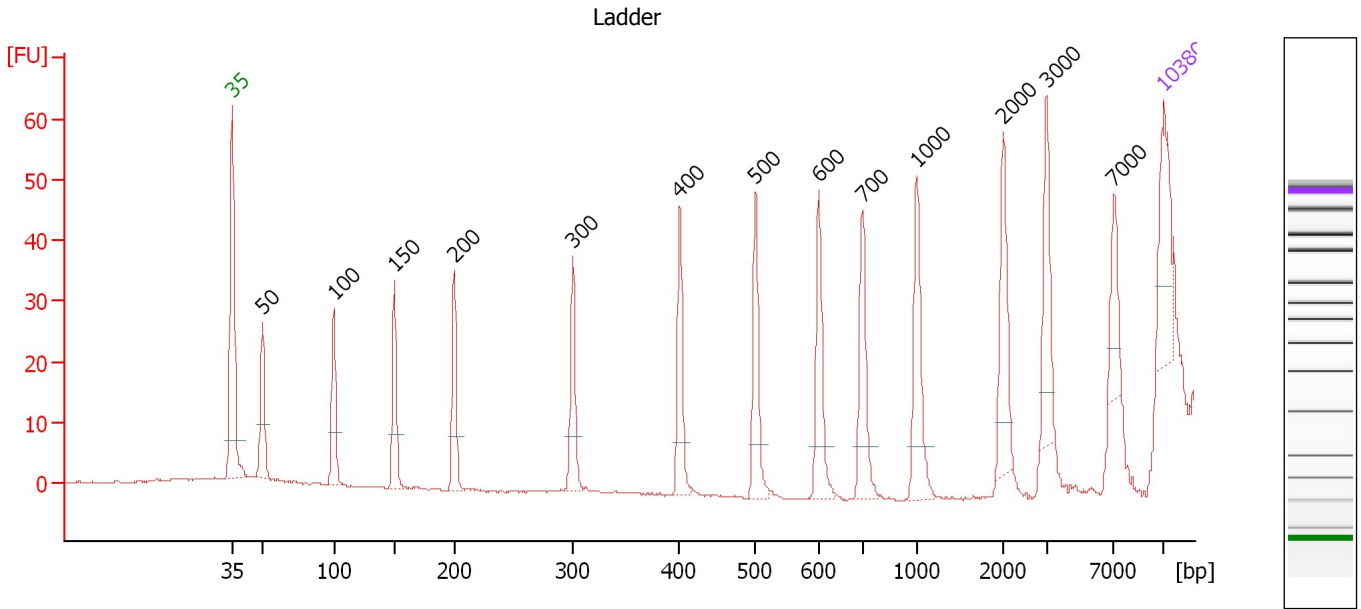
Ladder

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\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
 Modified: 3/1/2012 4:00:00 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

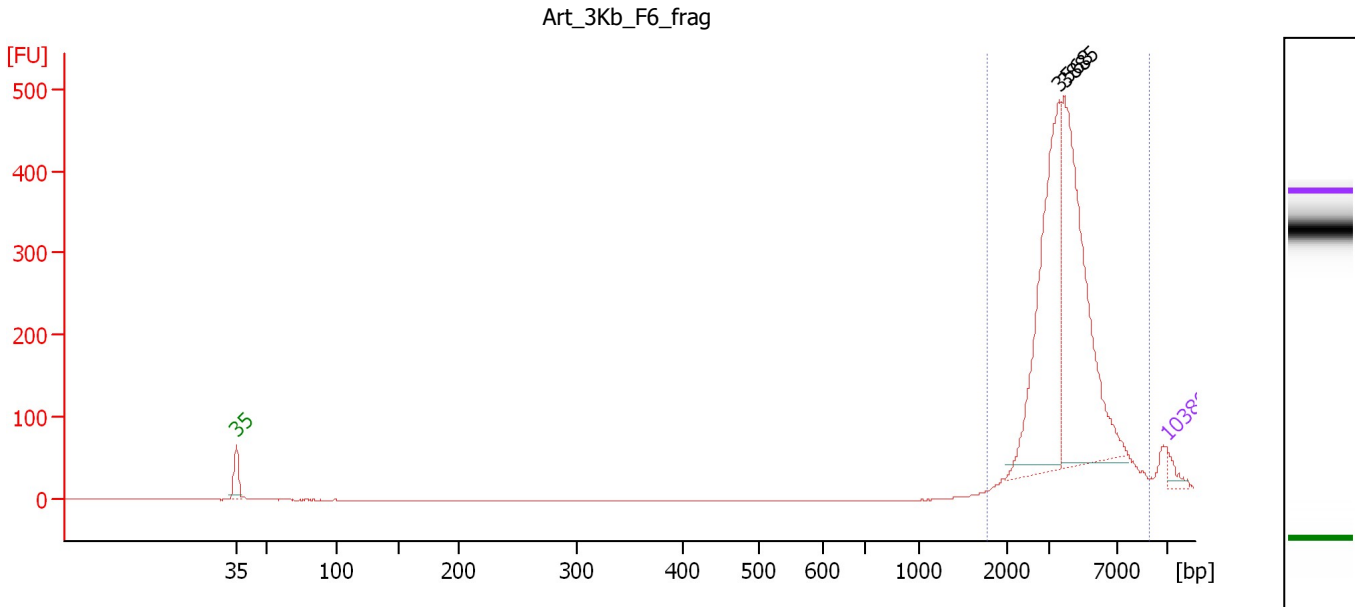
Peak table for Ladder

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	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
 Modified: 3/1/2012 4:00:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Art 3Kb F6 frag

Number of peaks found: 2 Corr. Area 1: 1,905.4
 Noise: 0.2

Peak table for sample 1 : Art 3Kb F6 frag

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	3,568	2,043.04	867.6	
3	3,885	2,219.56	865.5	
4	10,380	75.00	10.9	Upper Marker

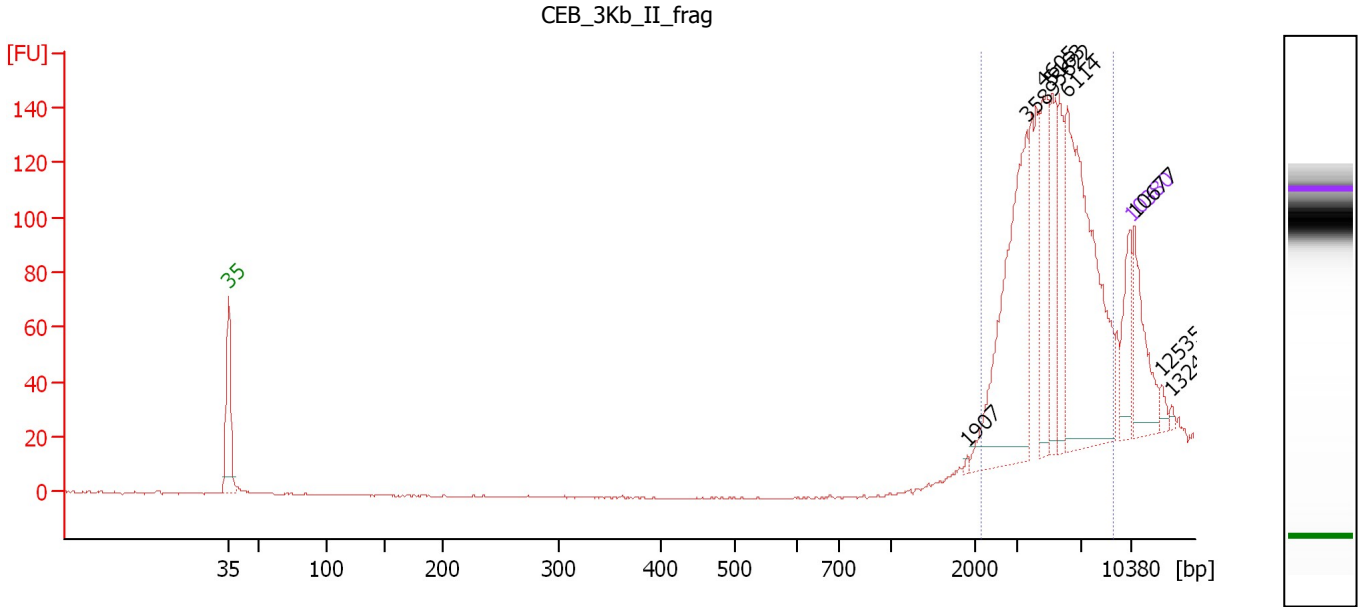
Region table for sample 1 : Art 3Kb F6 frag

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
1,766	1,870.4	4,069	4,736.02	9,199	1,905.4	99	31.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
 Modified: 3/1/2012 4:00:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : CEB 3Kb II frag

Number of peaks found: 9 Corr. Area 1: 871.5
 Noise: 0.3

Peak table for sample 2 : CEB 3Kb II frag

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	1,907	3.78	3.0	
3	3,589	392.34	165.7	
4	4,605	151.09	49.7	
5	5,163	103.07	30.2	
6	5,622	99.80	26.9	
7	6,114	473.53	117.3	
8	10,380	75.00	10.9	Upper Marker
9	10,677	0.00	0.0	
10	12,535	0.00	0.0	
11	13,240	0.00	0.0	

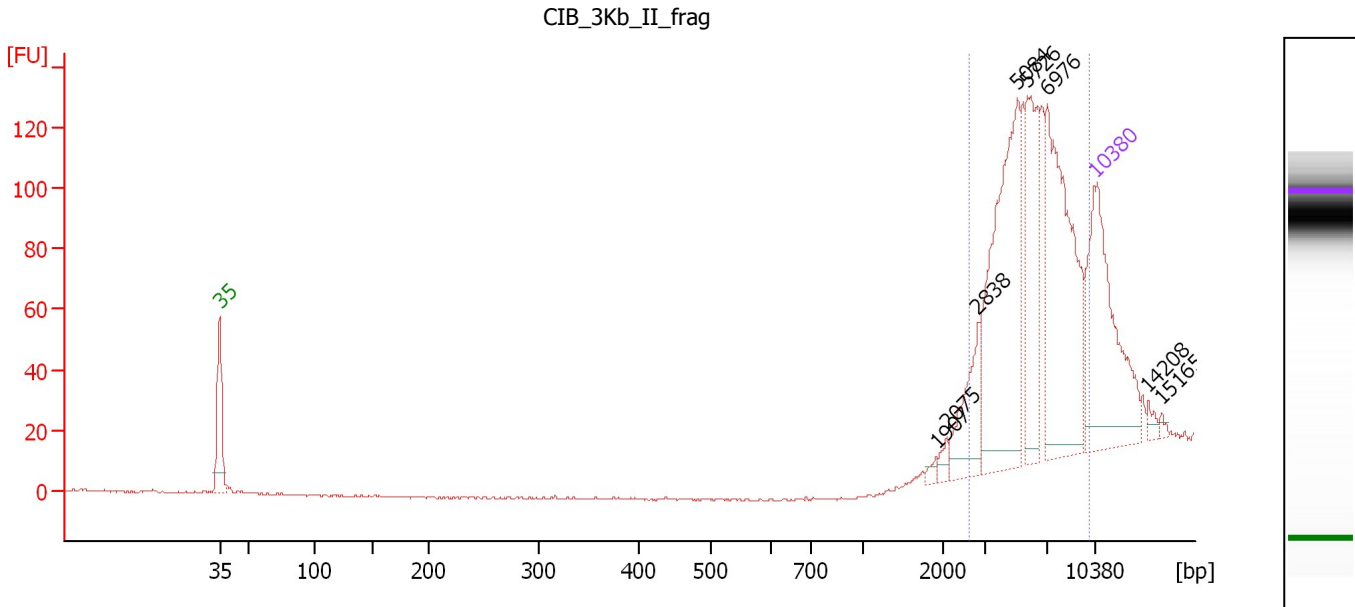
Region table for sample 2 : CEB 3Kb II frag

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
2,155	428.2	5,189	1,325.10	9,225	871.5	87	34.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
 Modified: 3/1/2012 4:00:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : CIB 3Kb II frag

Number of peaks found: 8 Corr. Area 1: 742.1
 Noise: 0.4

Peak table for sample 3 : CIB 3Kb II frag

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	1,907	2.52	2.0	
3	2,075	3.95	2.9	
4	2,838	28.22	15.1	
5	5,084	112.72	33.6	
6	5,726	56.14	14.9	
7	6,976	102.25	22.2	
8	10,380	75.00	10.9	Upper Marker
9	14,208	0.00	0.0	
10	15,165	0.00	0.0	

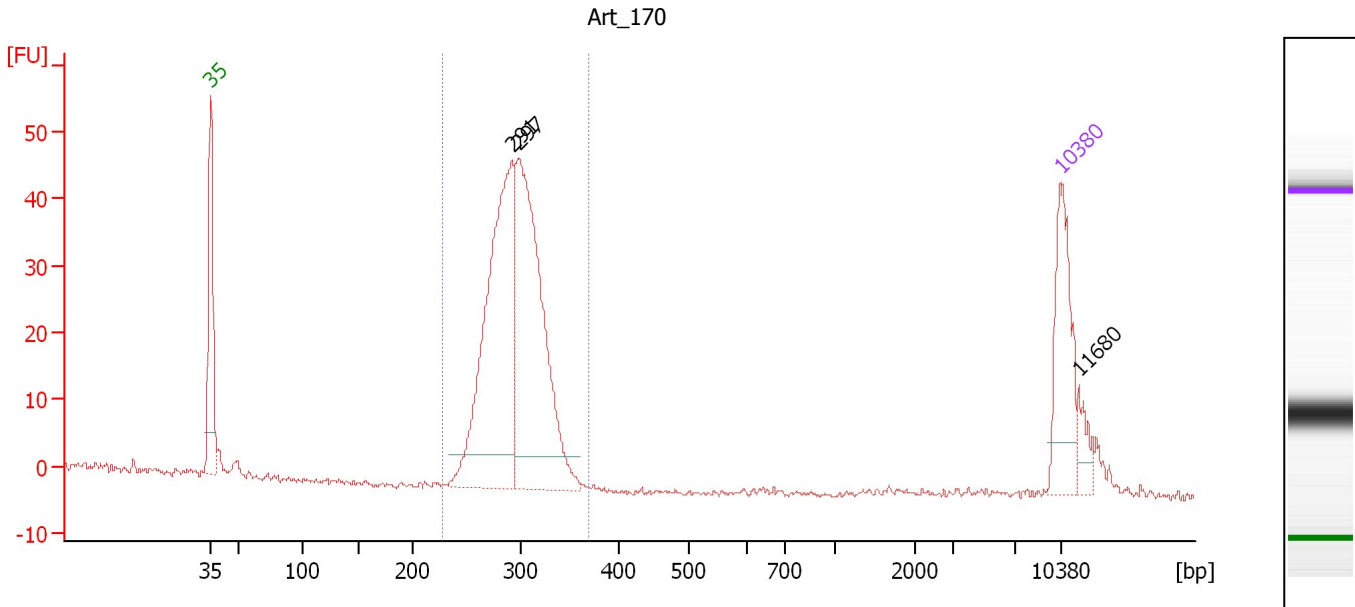
Region table for sample 3 : CIB 3Kb II frag

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
2,647	79.9	6,064	292.57	9,964	742.1	94	31.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
 Modified: 3/1/2012 4:00:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Art_170

Number of peaks found: 3 Corr. Area 1: 363.7
 Noise: 0.4

Peak table for sample 4 : Art_170

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	291	376.56	1,960.9	
3	297	366.48	1,870.5	
4	10,380	75.00	10.9	Upper Marker
5	11,680	0.00	0.0	

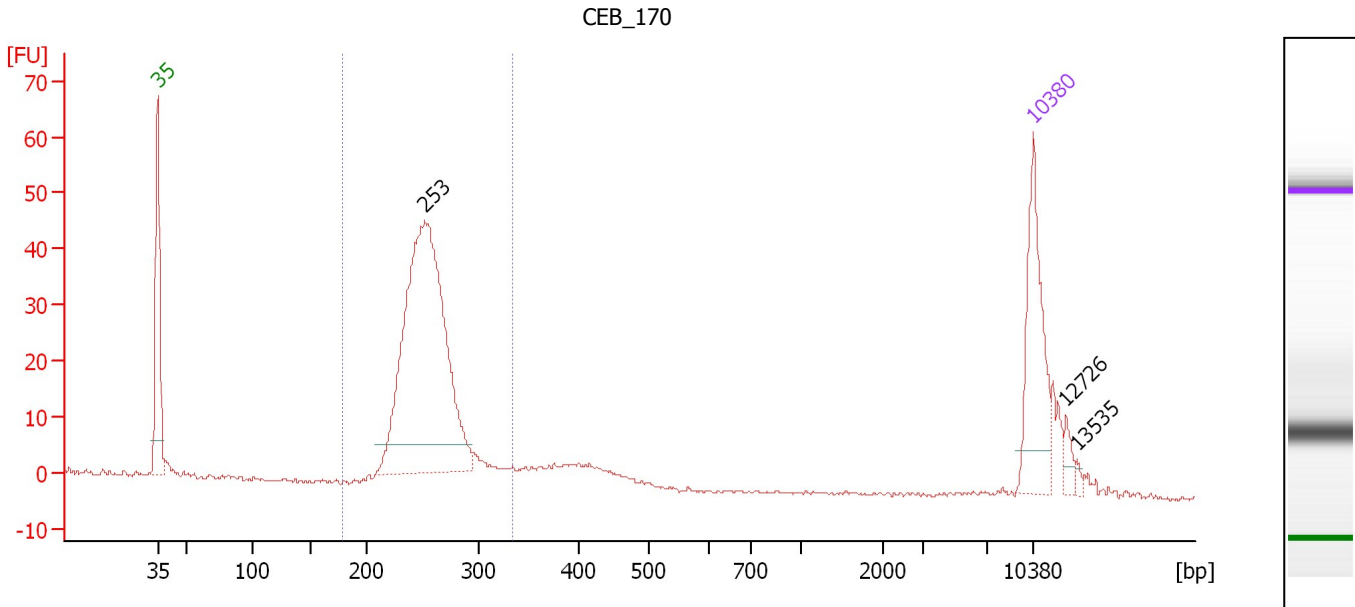
Region table for sample 4 : Art_170

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
227	3,583.9	294	692.20	368	363.7	92	7.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
 Modified: 3/1/2012 4:00:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : CEB_170

Number of peaks found: 3 Corr. Area 1: 317.8
 Noise: 0.3

Peak table for sample 5 : CEB_170

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	253	454.39	2,725.9	
3	10,380	75.00	10.9	Upper Marker
4	12,726	0.00	0.0	
5	13,535	0.00	0.0	

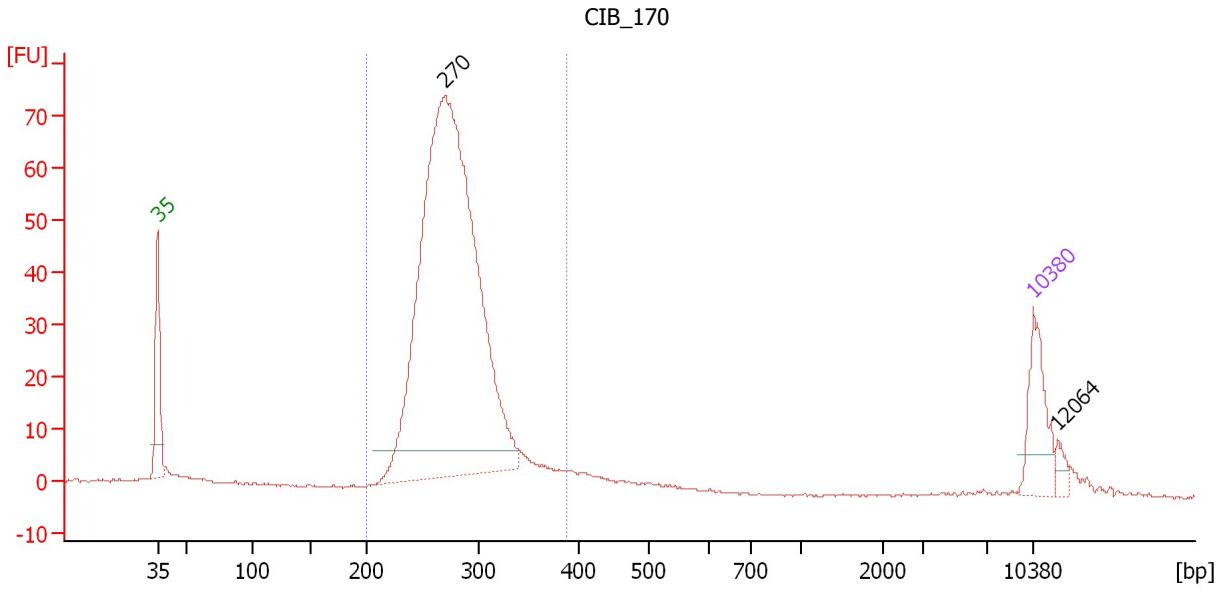
Region table for sample 5 : CEB_170

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
179	3,041.8	256	512.46	334	317.8	77	8.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
 Modified: 3/1/2012 4:00:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : CIB_170

Number of peaks found: 2 Corr. Area 1: 658.0
 Noise: 0.2

Peak table for sample 6 : CIB_170

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	270	1,522.01	8,536.3	
3	10,380	75.00	10.9	Upper Marker
4	12,064	0.00	0.0	

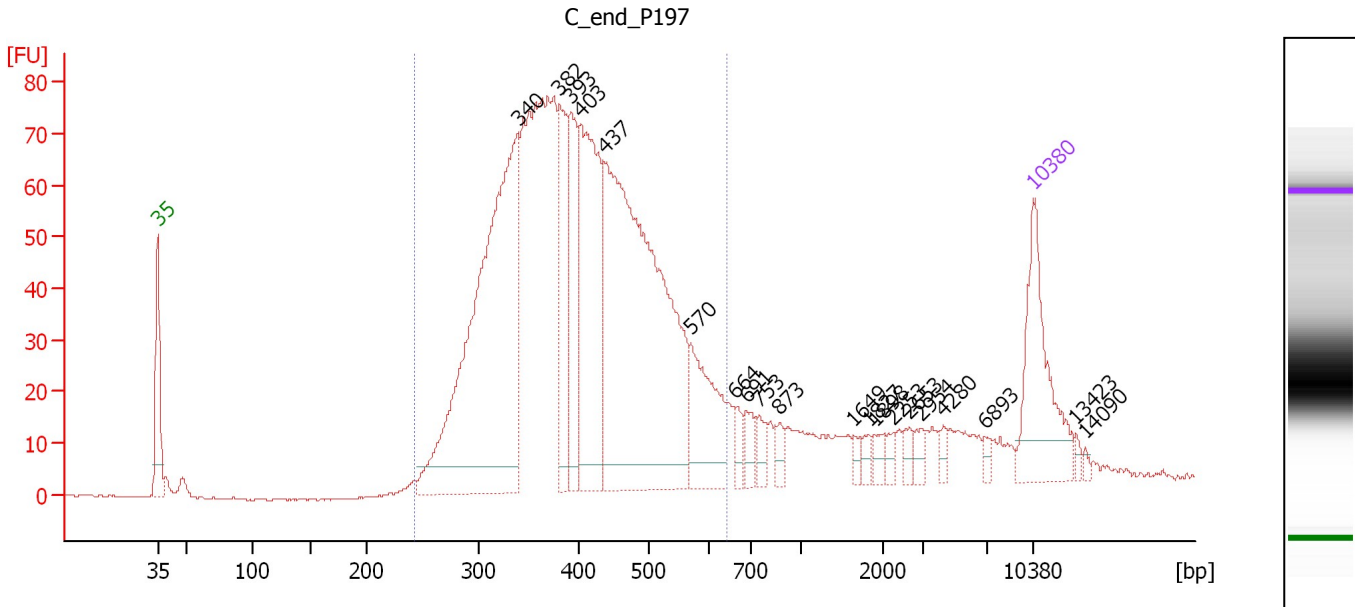
Region table for sample 6 : CIB_170

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	9,045.3	280	1,654.23	389	658.0	91	10.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
 Modified: 3/1/2012 4:00:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : C_end P197

Number of peaks found: 20 Corr. Area 1: 1,517.6
 Noise: 0.2

Peak table for sample 7 : C_end P197

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	340	456.60	2,035.5	
3	382	88.45	351.2	
4	393	84.22	324.5	
5	403	182.55	685.5	
6	437	463.16	1,606.0	
7	570	77.32	205.6	
8	664	11.47	26.2	
9	691	15.48	34.0	
10	753	12.36	24.9	
11	873	9.35	16.2	
12	1,649	5.67	5.2	
13	1,827	6.68	5.5	
14	1,898	8.20	6.5	
15	2,253	5.92	4.0	
16	2,653	7.09	4.0	
17	2,954	6.90	3.5	
18	4,280	5.08	1.8	
19	6,893	4.68	1.0	
20	10,380	75.00	10.9	Upper Marker
21	13,423	0.00	0.0	
22	14,090	0.00	0.0	

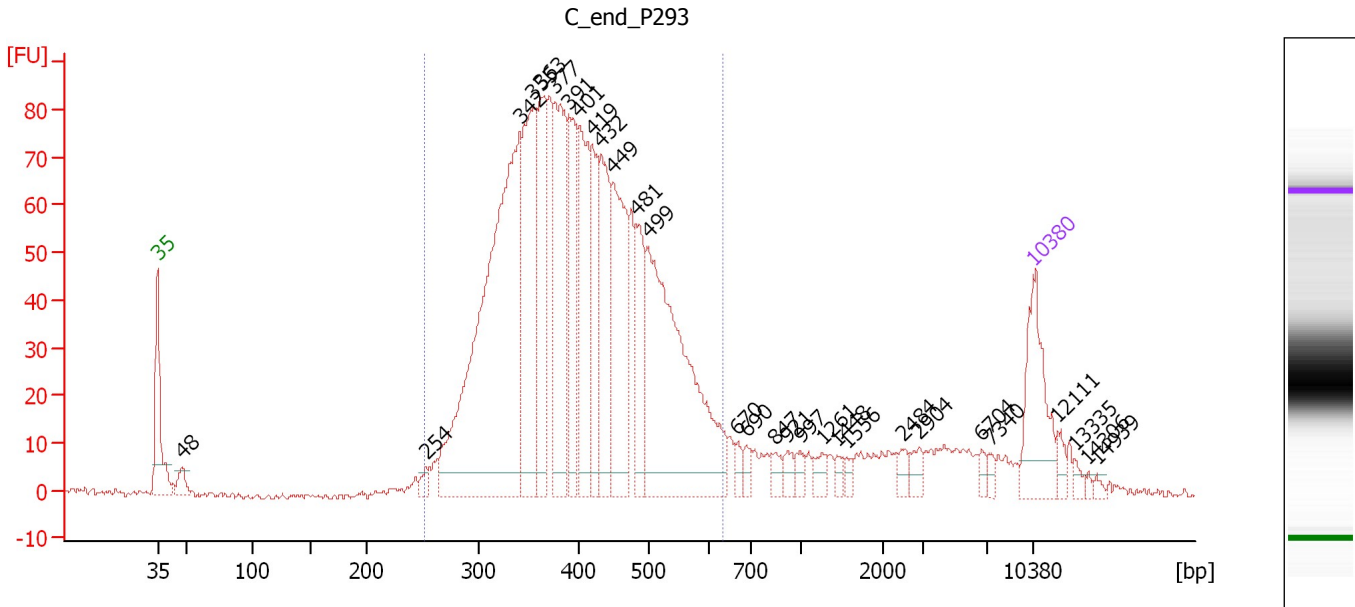
Region table for sample 7 : C_end P197

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
243	6,684.4	409	1,702.05	644	1,517.6	85	20.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
 Modified: 3/1/2012 4:00:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : C_end_P293

Number of peaks found: 29 Corr. Area 1: 1,577.8
 Noise: 0.7

Peak table for sample 8 : C_end_P293

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	19.44	618.1	
3	254	10.16	60.7	
4	342	599.69	2,655.9	
5	355	220.72	942.0	
6	363	142.56	594.6	
7	377	174.86	702.2	
8	391	104.50	404.5	
9	401	147.03	555.4	
10	419	92.51	334.3	
11	432	119.11	418.0	
12	449	167.95	566.6	
13	481	81.95	257.9	
14	499	368.48	1,119.5	
15	670	10.44	23.6	
16	690	11.54	25.3	
17	847	10.99	19.7	
18	921	11.33	18.6	
19	997	10.31	15.7	
20	1,261	10.83	13.0	
21	1,448	6.34	6.6	
22	1,556	6.44	6.3	
23	2,484	9.87	6.0	
24	2,904	11.33	5.9	
25	6,704	6.93	1.6	
26	7,340	5.67	1.2	


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
Modified: 3/1/2012 4:00:00 PM

Electropherogram Summary Continued ...**... Peak table for sample 8 : C_end_P293**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
27	10,380	75.00	10.9	Upper Marker
28	12,111	0.00	0.0	
29	13,335	0.00	0.0	
30	14,306	0.00	0.0	
31	14,939	0.00	0.0	

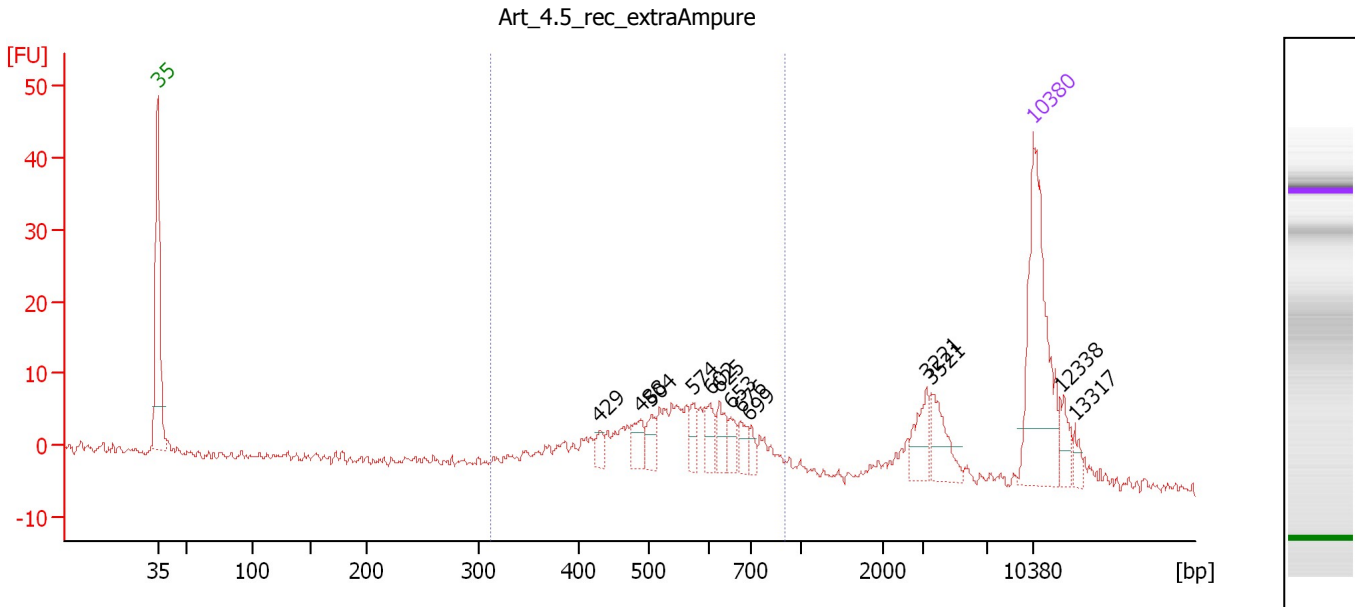
Region table for sample 8 : C_end_P293

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/ μ l]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
252	9,420.3	409	2,412.68	636	1,577.8	85	19.8	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
 Modified: 3/1/2012 4:00:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : Art 4.5 rec extraAmpure

Number of peaks found: 13 Corr. Area 1: 150.2
 Noise: 0.8

Peak table for sample 9 : Art 4.5 rec extraAmpure

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	429	7.24	25.6	
3	488	13.34	41.4	
4	504	10.81	32.5	
5	574	9.11	24.1	
6	602	11.84	29.8	
7	625	12.43	30.1	
8	653	9.24	21.5	
9	676	8.07	18.1	
10	699	5.37	11.6	
11	3,221	15.71	7.4	
12	3,521	19.42	8.4	
13	10,380	75.00	10.9	Upper Marker
14	12,338	0.00	0.0	
15	13,317	0.00	0.0	

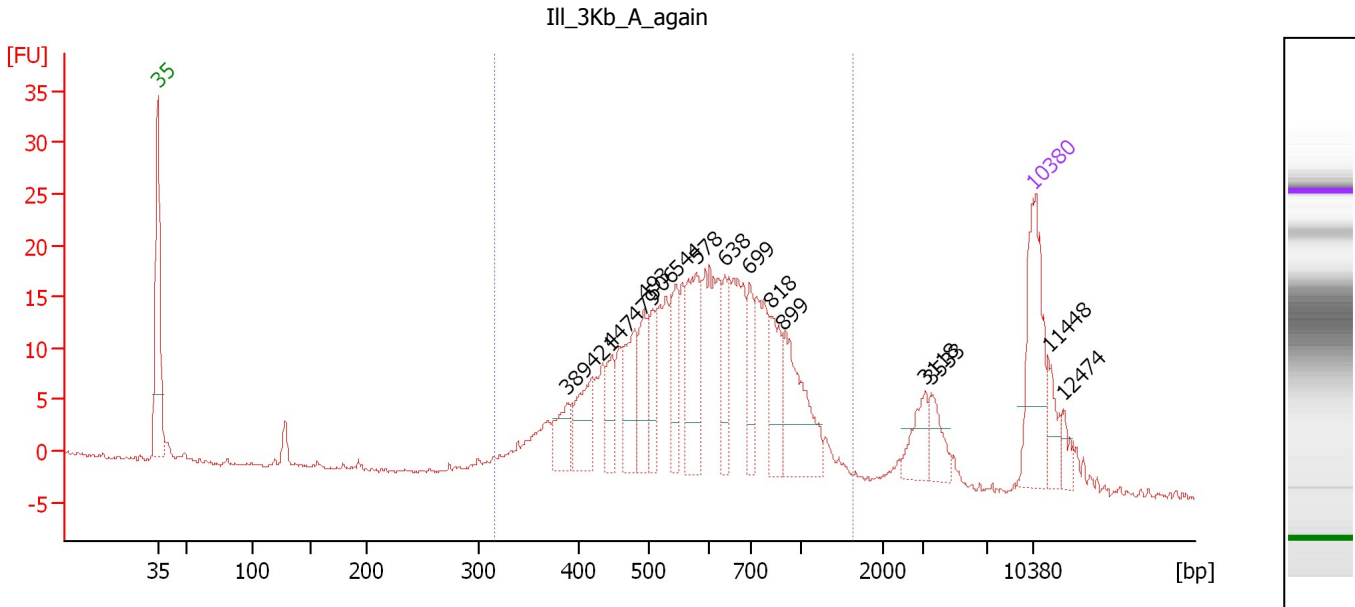
Region table for sample 9 : Art 4.5 rec extraAmpure

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
313	634.5	549	214.88	911	150.2	60	21.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
 Modified: 3/1/2012 4:00:00 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : III 3Kb A again

Number of peaks found: 16 Corr. Area 1: 376.4
 Noise: 0.2

Peak table for sample 10 : III 3Kb A again

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	389	34.00	132.3	
3	421	48.13	173.2	
4	447	30.35	102.9	
5	479	51.36	162.6	
6	493	42.91	131.9	
7	506	36.67	109.9	
8	544	42.07	117.1	
9	578	76.85	201.3	
10	638	35.95	85.3	
11	699	33.98	73.6	
12	818	44.27	82.0	
13	899	76.56	129.0	
14	3,118	25.31	12.3	
15	3,533	20.66	8.9	
16	10,380	75.00	10.9	Upper Marker
17	11,448	0.00	0.0	
18	12,474	0.00	0.0	

Region table for sample 10 : III 3Kb A again

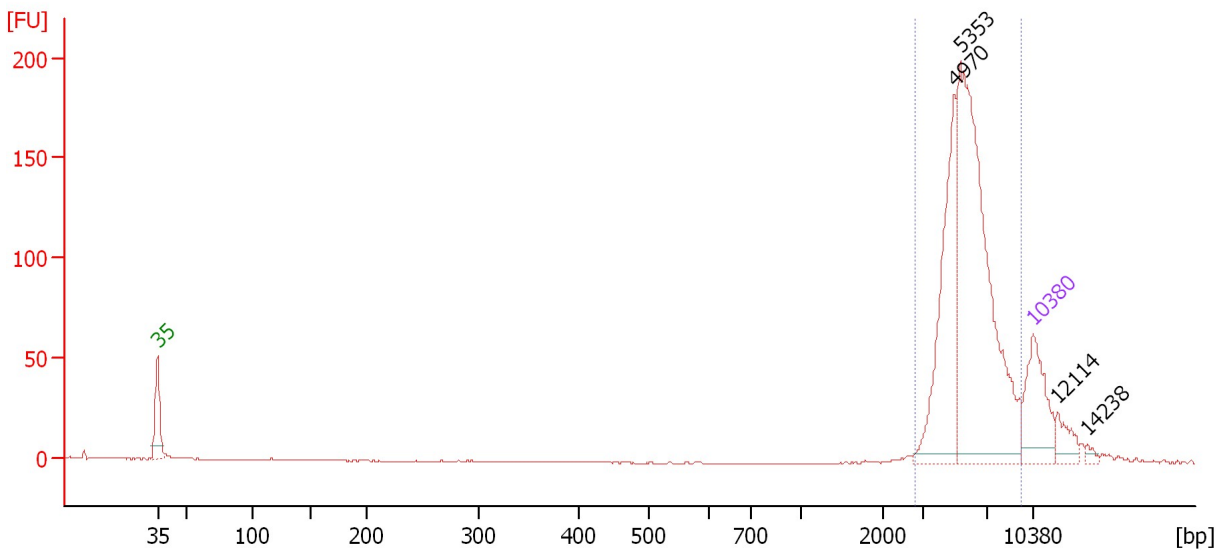
From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
317	2,825.2	628	1,038.29	1,643	376.4	86	33.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
 Modified: 3/1/2012 4:00:00 PM

Electropherogram Summary Continued ...

Art_4.5_FRAG



Overall Results for sample 11 : Art 4.5 FRAG

Number of peaks found: 4 Corr. Area 1: 749.5
 Noise: 0.1

Peak table for sample 11 : Art 4.5 FRAG

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	4,970	181.41	55.3	
3	5,353	401.96	113.8	
4	10,380	75.00	10.9	Upper Marker
5	12,114	0.00	0.0	
6	14,238	0.00	0.0	

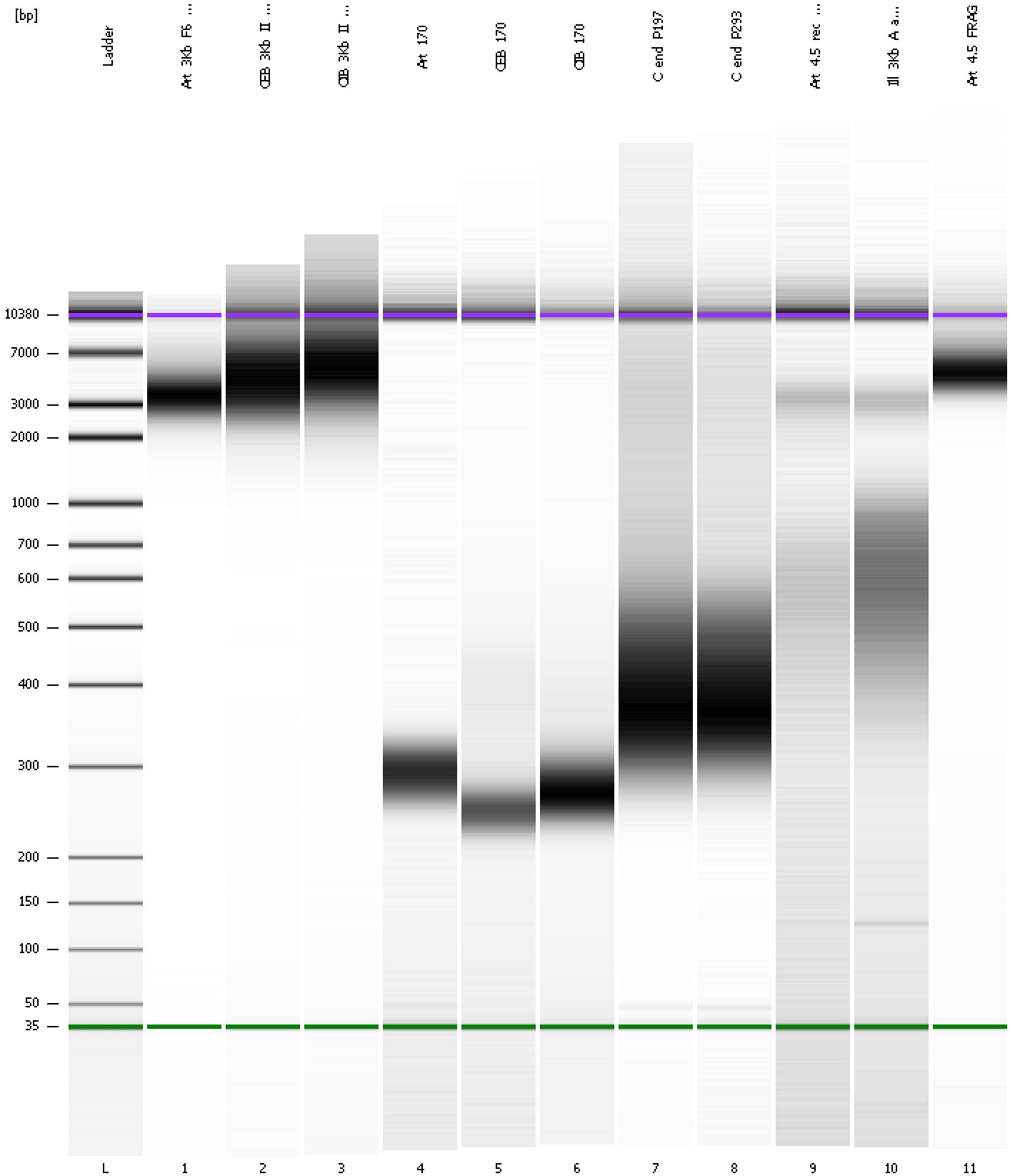
Region table for sample 11 : Art 4.5 FRAG

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
2,806	153.5	5,877	577.92	9,487	749.5	90	23.2	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
Modified: 3/1/2012 4:00:00 PM

Gel Image

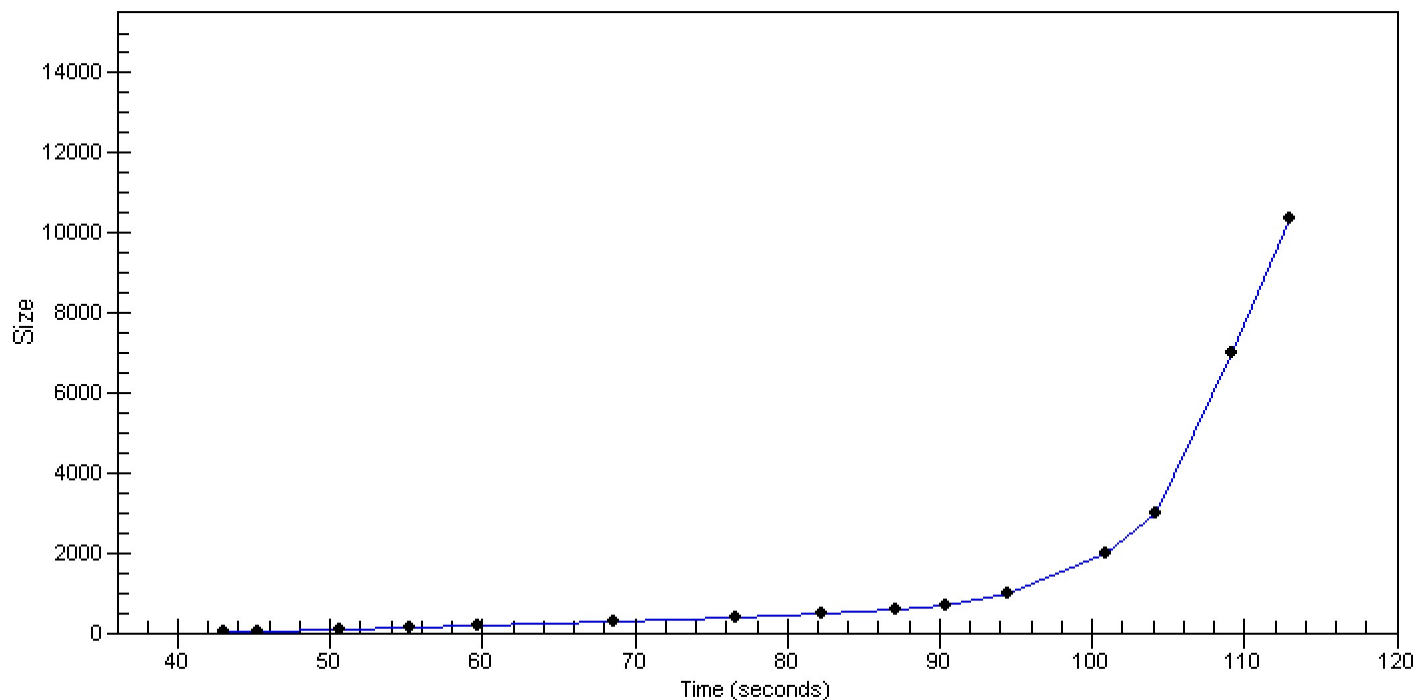


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
Modified: 3/1/2012 4:00:00 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad

Created: 3/1/2012 12:20:13 PM
 Modified: 3/1/2012 4:00:00 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		3/1/2012 1:01:33 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-03-01\2012-03-01_002.xad)		Instrument	Run		3/1/2012 12:20:19 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/1/2012 12:20:19 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/1/2012 12:20:19 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/1/2012 12:20:19 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/1/2012 12:20:19 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/1/2012 12:20:19 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/1/2012 12:20:19 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1