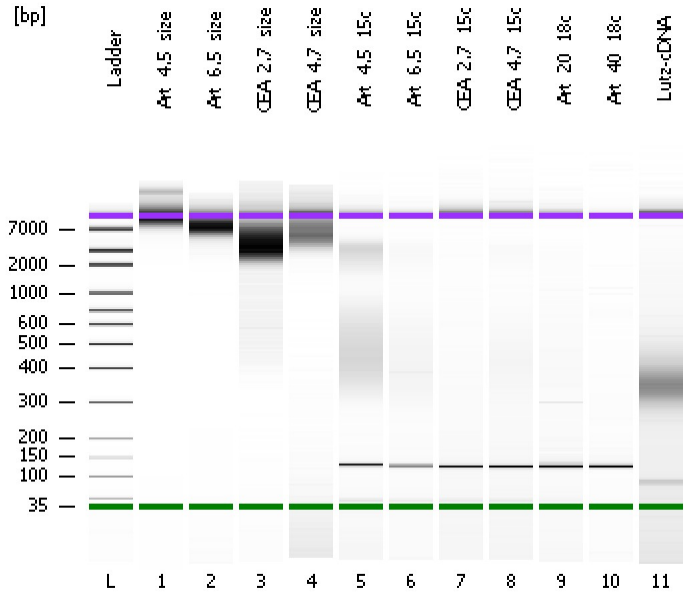
Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Electrophoresis File Run Summary



Instrument Information:

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

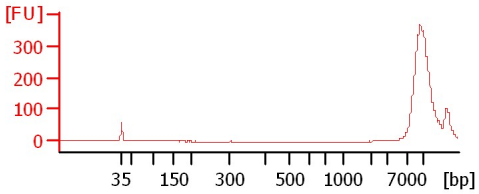
Assay Information:

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

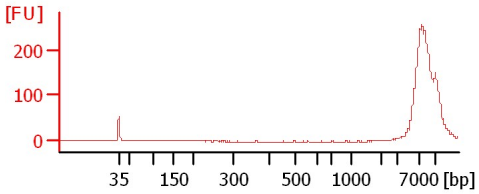
Chip Information:

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

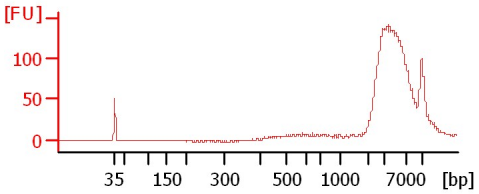
Art_4.5_size



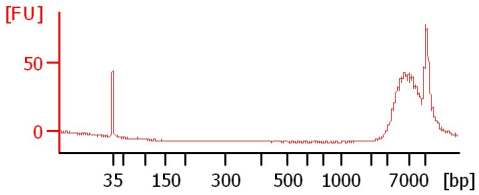
Art_6.5_size



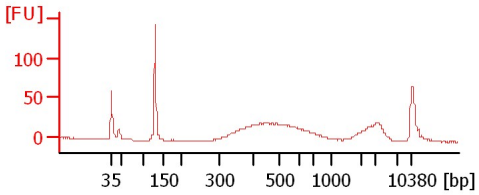
CEA_2.7_size



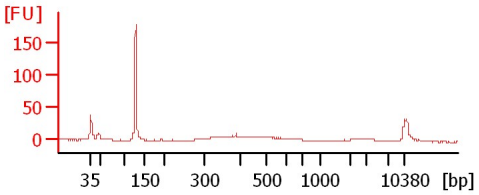
CEA_4.7_size



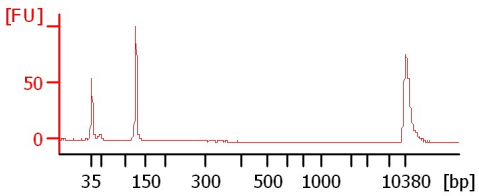
Art_4.5_15c



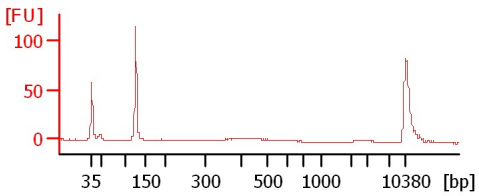
Art_6.5_15c



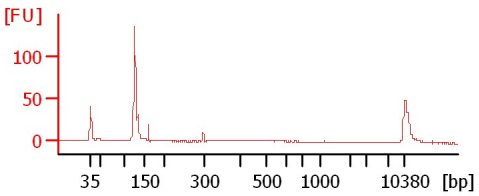
CEA_2.7_15c



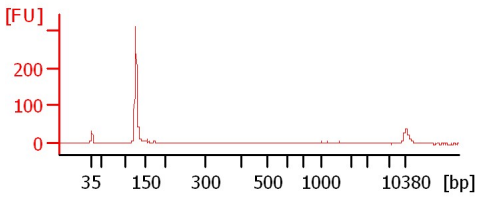
CEA_4.7_15c



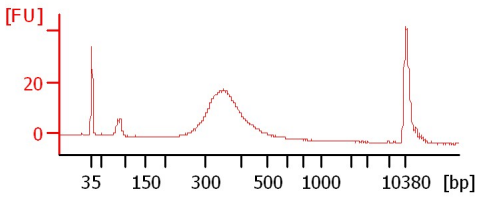
Art_20_18c



Art_40_18c



Lutz-cDNA



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Art_4.5_size		☐	✔			
Art_6.5_size		☐	✔			
CEA_2.7_size		☐	✔			
CEA_4.7_size		☐	✔			
Art_4.5_15c		☐	✔			
Art_6.5_15c		☐	✔			
CEA_2.7_15c		☐	✔			
CEA_4.7_15c		☐	✔			
Art_20_18c		☐	✔			
Art_40_18c		☐	✔			
Lutz-cDNA		☐	✔			
Ladder		☐	✔			

Chip Lot # **Reagent Kit Lot #**

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 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

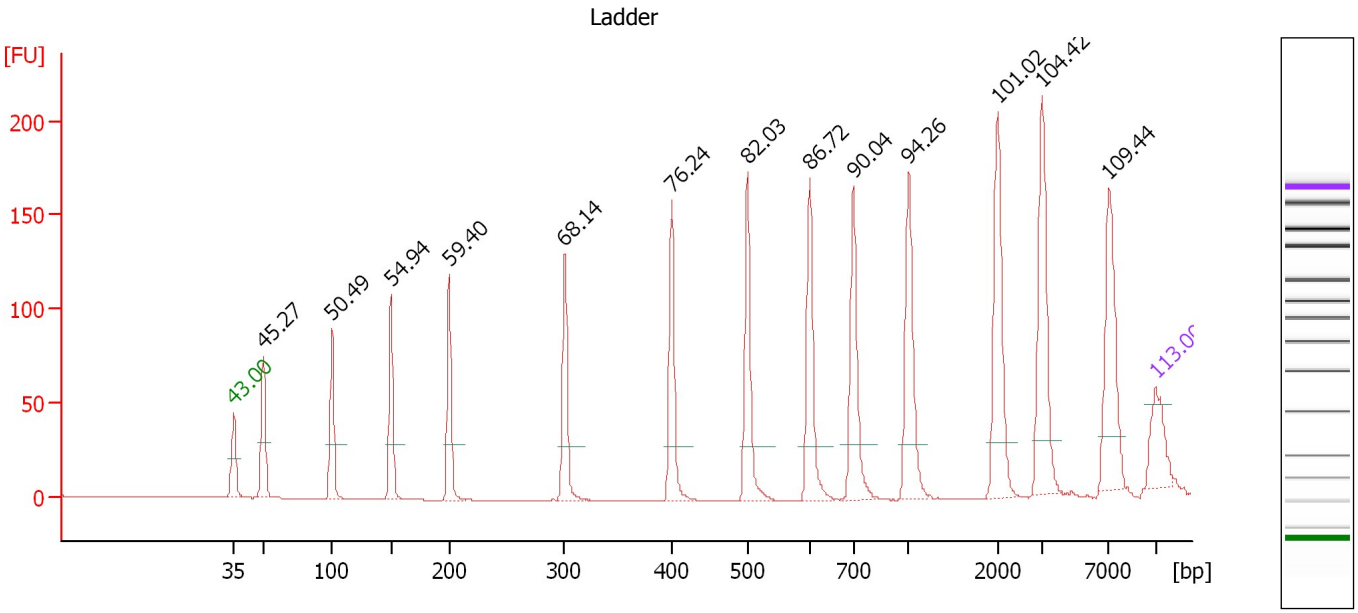
Ladder

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\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

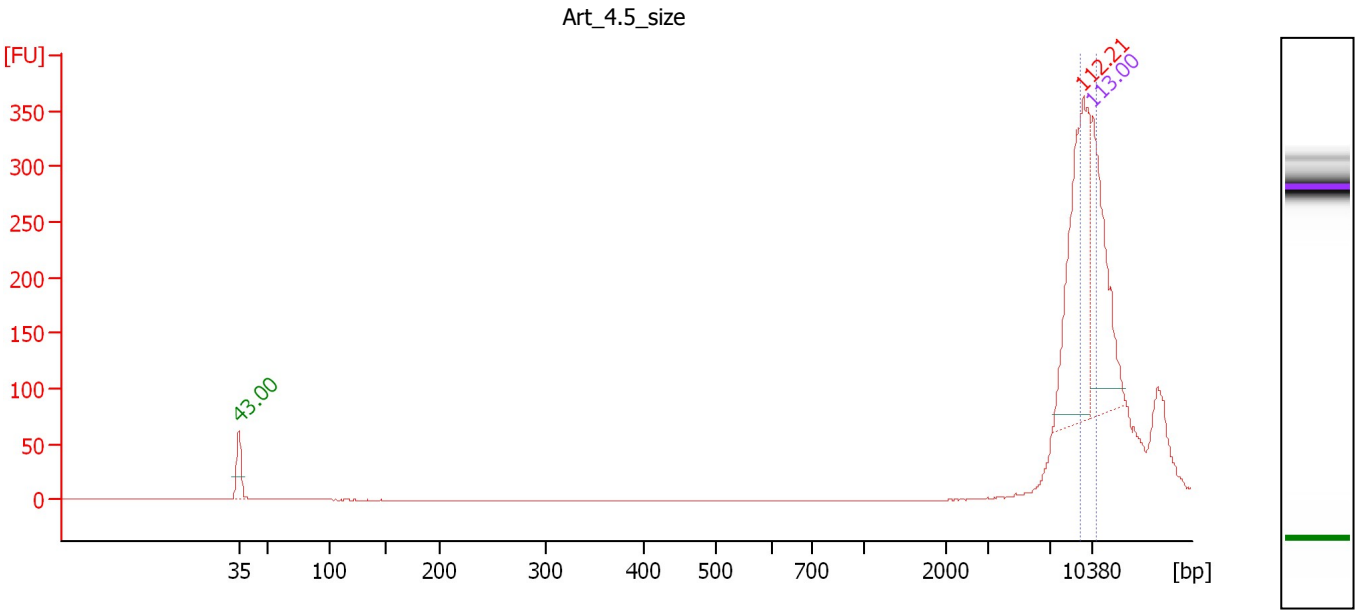
Peak table for Ladder

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\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Art_4.5_size

Number of peaks found:	0	Corr. Area 1:	264.7
Noise:	0.2		

Peak table for sample 1 : Art_4.5_size

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	9,633	112.75	17.7	excluded peak
3	10,380	75.00	10.9	Upper Marker

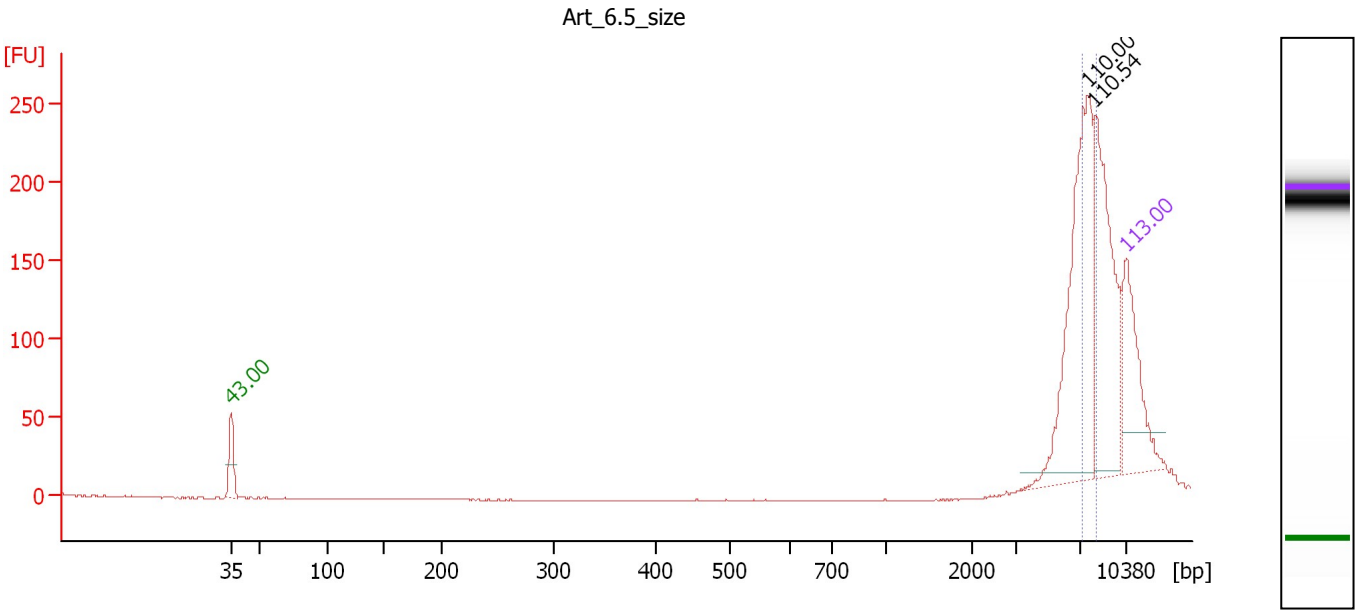
Region table for sample 1 : Art_4.5_size

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/µl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
9,398	9.2	9,979	59.83	10,657	264.7	31	3.8	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Art_6.5_size

Number of peaks found:	2	Corr. Area 1:	252.7
Noise:	0.2		

Peak table for sample 2 : Art_6.5_size

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	7,530	202.34	40.7	
3	8,045	142.53	26.8	
4	10,380	75.00	10.9	Upper Marker

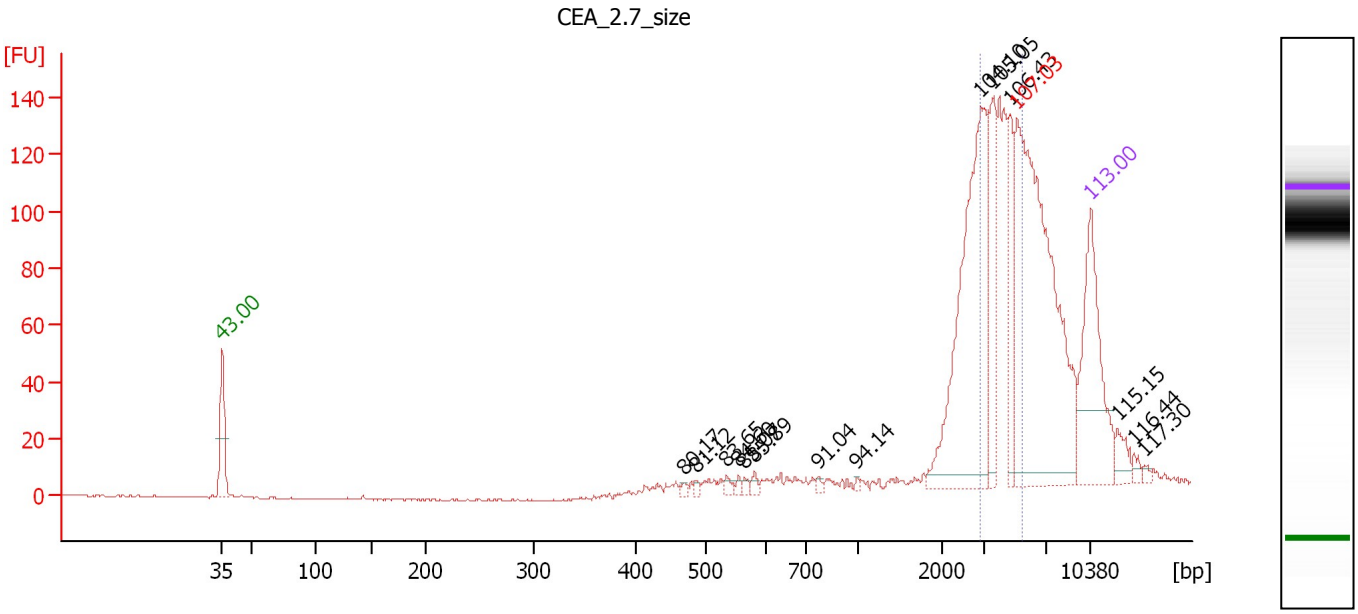
Region table for sample 2 : Art_6.5_size

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/µl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
7,099	21.5	7,590	107.61	8,151	252.7	30	4.2	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : CEA_2.7_size

Number of peaks found:	14	Corr. Area 1:	410.6
Noise:	0.3		

Peak table for sample 3 : CEA_2.7_size

Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	◀	35	125.00	5,411.3	Lower Marker
2		468	2.88	9.3	
3		484	2.60	8.1	
4		535	4.05	11.5	
5		555	2.57	7.0	
6		565	2.71	7.3	
7		582	3.34	8.7	
8		771	2.11	4.1	
9		991	1.49	2.3	
10		2,908	174.48	90.9	
11		3,505	52.66	22.8	
12		4,600	38.29	12.6	
13		5,080	232.56	69.4	excluded peak
14	▶	10,380	75.00	10.9	Upper Marker
15		12,418	0.00	0.0	
16		13,641	0.00	0.0	
17		14,457	0.00	0.0	

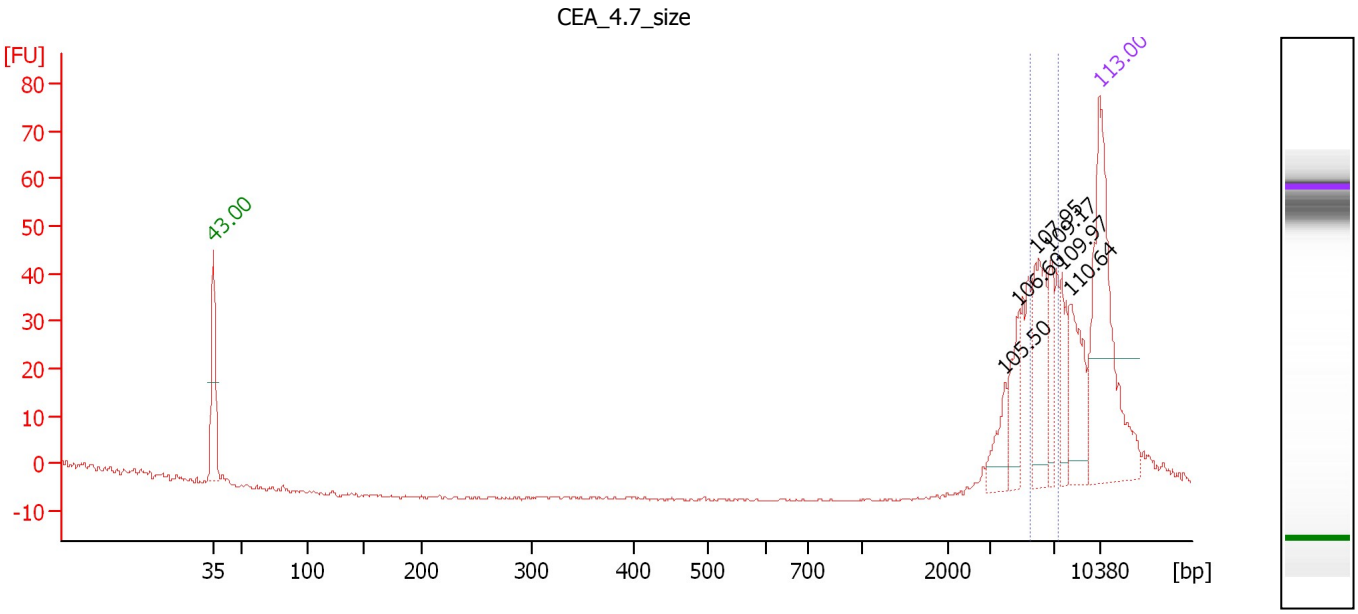
Region table for sample 3 : CEA_2.7_size

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/µl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
2,913	86.4	4,014	226.54	5,363	410.6	39	18.5	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : CEA_4.7_size

Number of peaks found:	6	Corr. Area 1:	91.1
Noise:	0.2		

Peak table for sample 4 : CEA_4.7_size

Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1		35	125.00	5,411.3	Lower Marker
2		3,865	13.91	5.5	
3		4,738	17.68	5.7	
4		5,812	36.18	9.4	
5		6,785	14.99	3.3	
6		7,503	16.86	3.4	
7		8,142	27.95	5.2	
8		10,380	75.00	10.9	Upper Marker

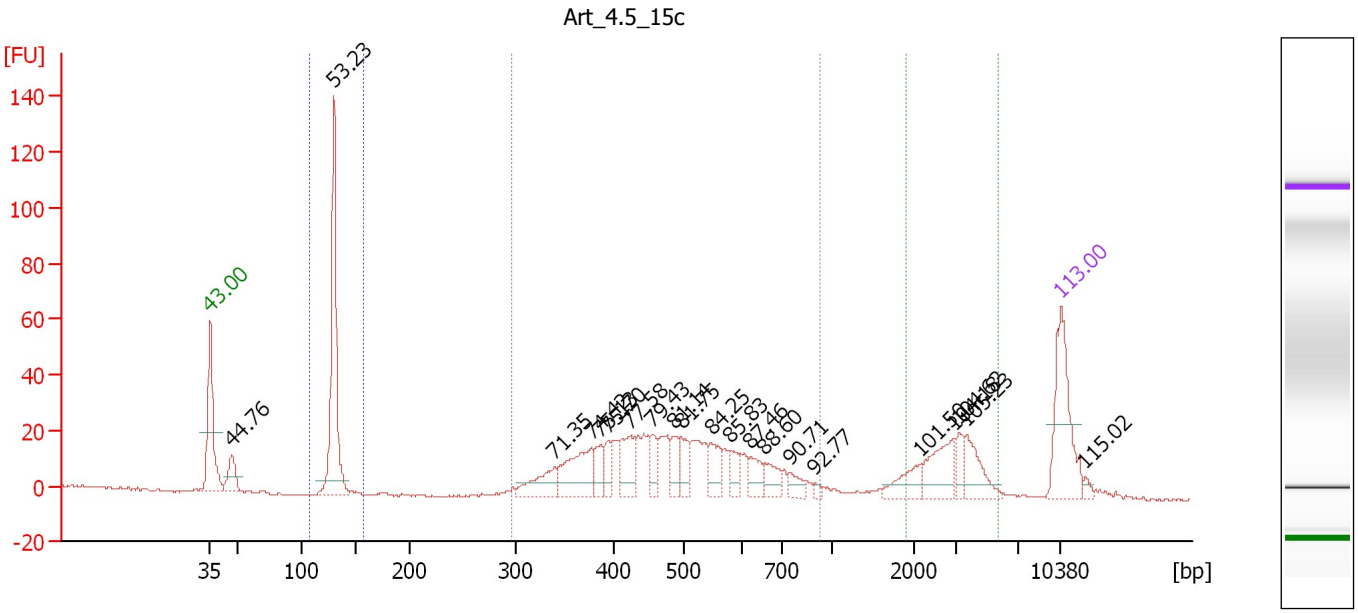
Region table for sample 4 : CEA_4.7_size

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/µl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
5,424	14.0	6,286	57.86	7,246	91.1	39	8.4	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Art_4.5_15c

Number of peaks found:	21	Corr. Area 2:	132.5
Noise:	0.3	Corr. Area 3:	111.2
Corr. Area 1:	441.1		

Peak table for sample 5 : Art_4.5_15c

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	47	38.90	1,264.3	
3	131	249.43	2,891.1	
4	340	43.13	192.4	
5	378	74.33	298.3	
6	386	24.95	97.9	
7	393	20.70	79.8	
8	423	46.10	165.0	
9	455	24.76	82.4	
10	485	23.70	74.1	
11	495	24.25	74.2	
12	547	30.58	84.7	
13	581	18.80	49.0	
14	622	21.49	52.3	
15	656	22.50	51.9	
16	747	13.14	26.7	
17	894	3.81	6.5	
18	2,143	23.50	16.6	
19	2,930	42.33	21.9	
20	3,160	14.38	6.9	
21	3,649	31.25	13.0	
22	10,380	75.00	10.9	Upper Marker
23	12,295	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Electropherogram Summary Continued ...

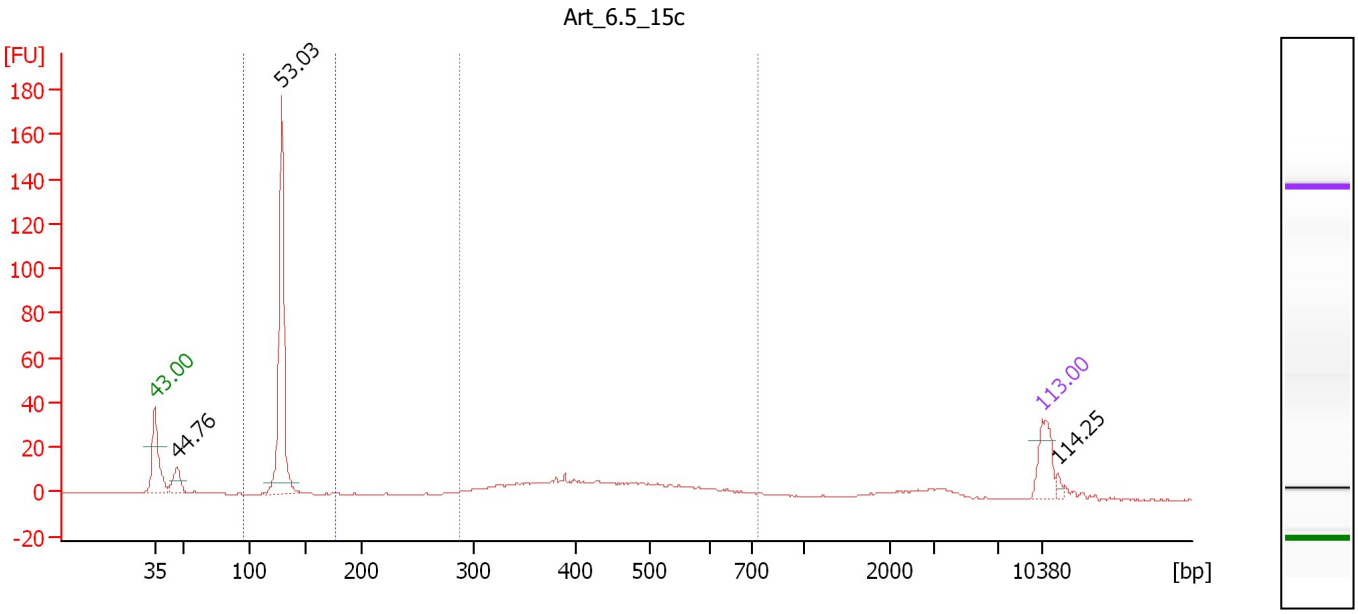
... Region table for sample 5 : Art_4.5_15c

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/µl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
109	2,685.6	130	231.20	157	132.5	18	2.1	
296	1,775.5	495	539.08	930	441.1	59	24.2	
1,890	52.4	3,146	102.28	5,801	111.2	15	28.8	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Art_6.5_15c

Number of peaks found:	3	Corr. Area 1:	148.4
Noise:	0.2	Corr. Area 2:	164.3

Peak table for sample 6 : Art_6.5_15c

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	47	75.03	2,438.6	
3	128	617.59	7,283.2	
4	10,380	75.00	10.9	Upper Marker
5	11,564	0.00	0.0	

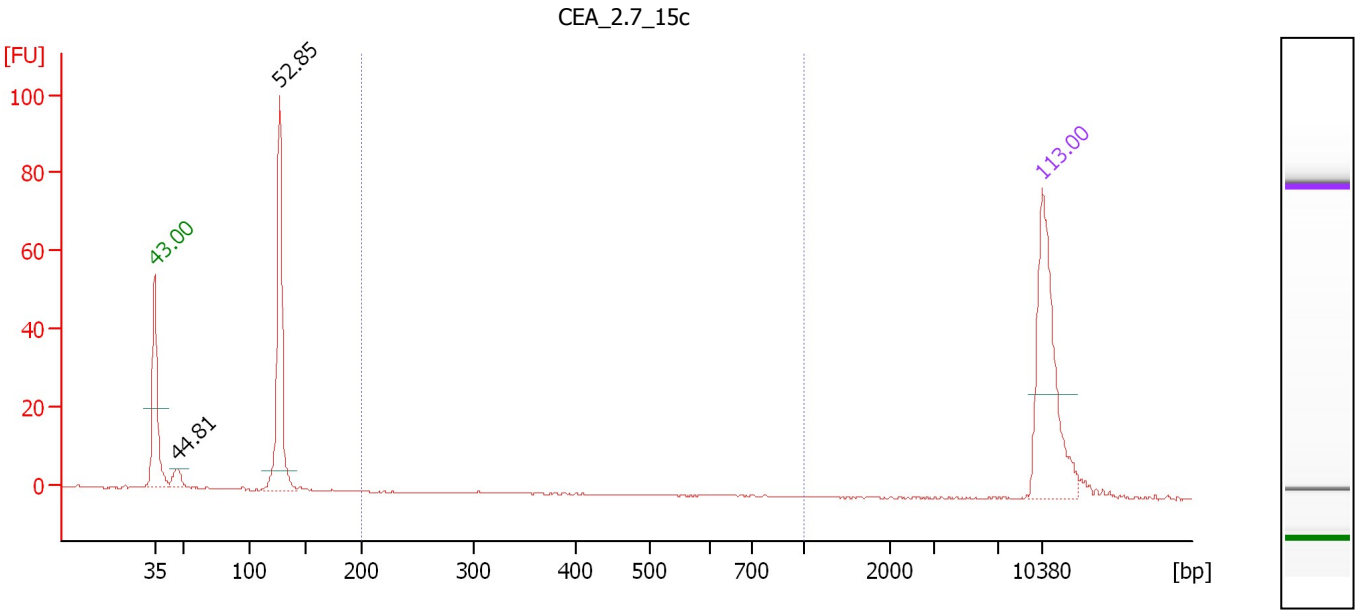
Region table for sample 6 : Art_6.5_15c

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/µl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
95	7,455.2	129	632.69	176	164.3	42	3.5	
288	1,475.3	448	408.09	732	148.4	38	22.4	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : CEA_2.7_15c

Number of peaks found:	2	Corr. Area 1:	0.0
Noise:	0.1		

Peak table for sample 7 : CEA_2.7_15c

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	47	11.94	385.0	
3	127	123.43	1,477.9	
4	10,380	75.00	10.9	Upper Marker

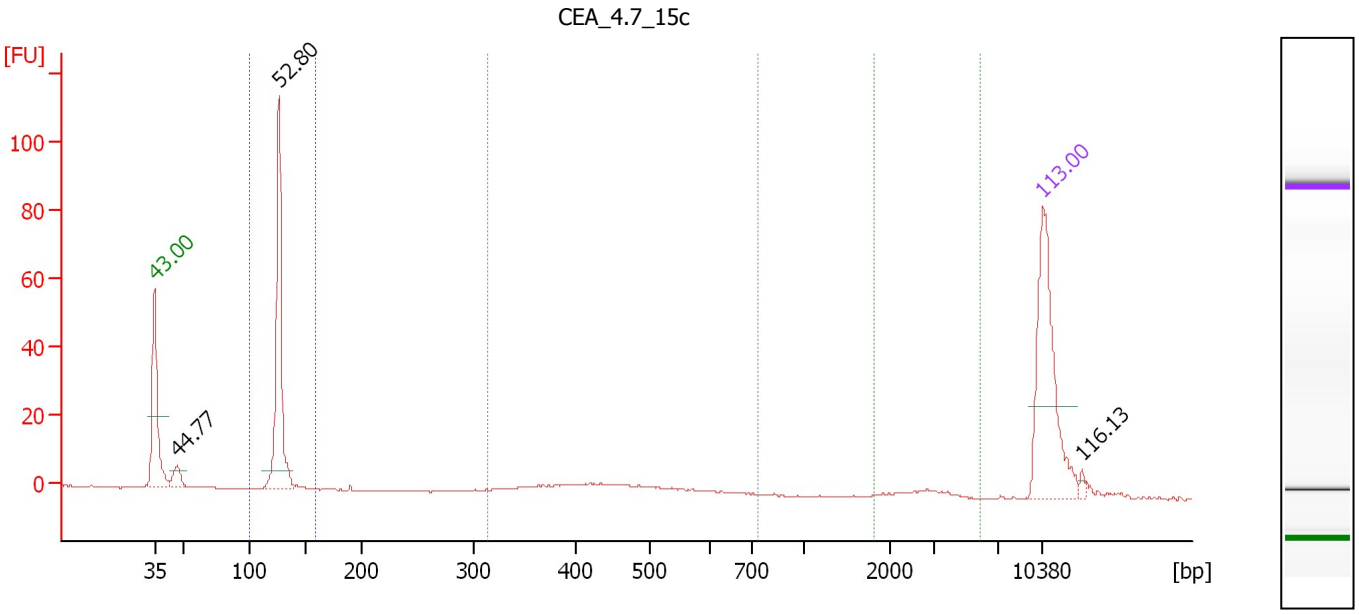
Region table for sample 7 : CEA_2.7_15c

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

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : CEA_4.7_15c

Number of peaks found:	3	Corr. Area 2:	107.0
Noise:	0.2	Corr. Area 3:	3.8
Corr. Area 1:	27.5		

Peak table for sample 8 : CEA_4.7_15c

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	47	13.74	445.4	
3	126	140.68	1,692.5	
4	10,380	75.00	10.9	Upper Marker
5	13,346	0.00	0.0	

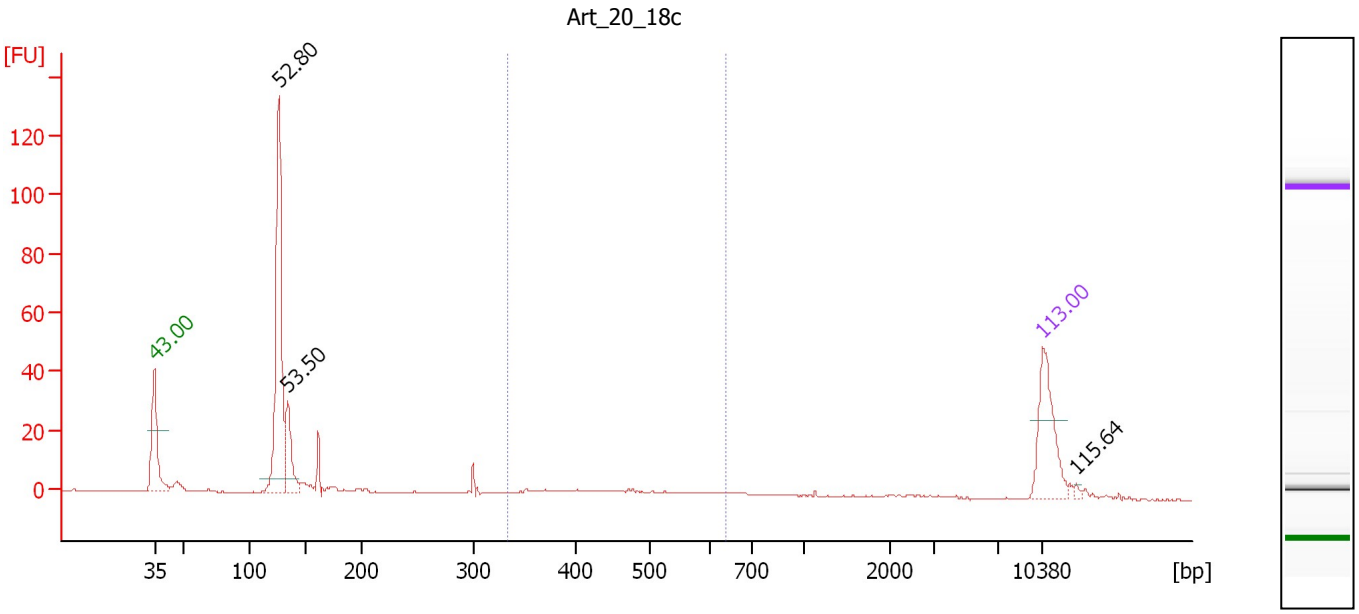
Region table for sample 8 : CEA_4.7_15c

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/µl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
101	1,672.6	126	139.26	158	107.0	69	2.6	
314	89.0	444	25.32	736	27.5	18	15.2	
1,815	1.4	2,887	2.57	5,956	3.8	2	17.9	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : Art_20_18c

Number of peaks found:	3	Corr. Area 1:	23.1
Noise:	0.2		

Peak table for sample 9 : Art_20_18c

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	126	315.99	3,802.3	
3	134	77.72	879.8	
4	10,380	75.00	10.9	Upper Marker
5	12,883	0.00	0.0	

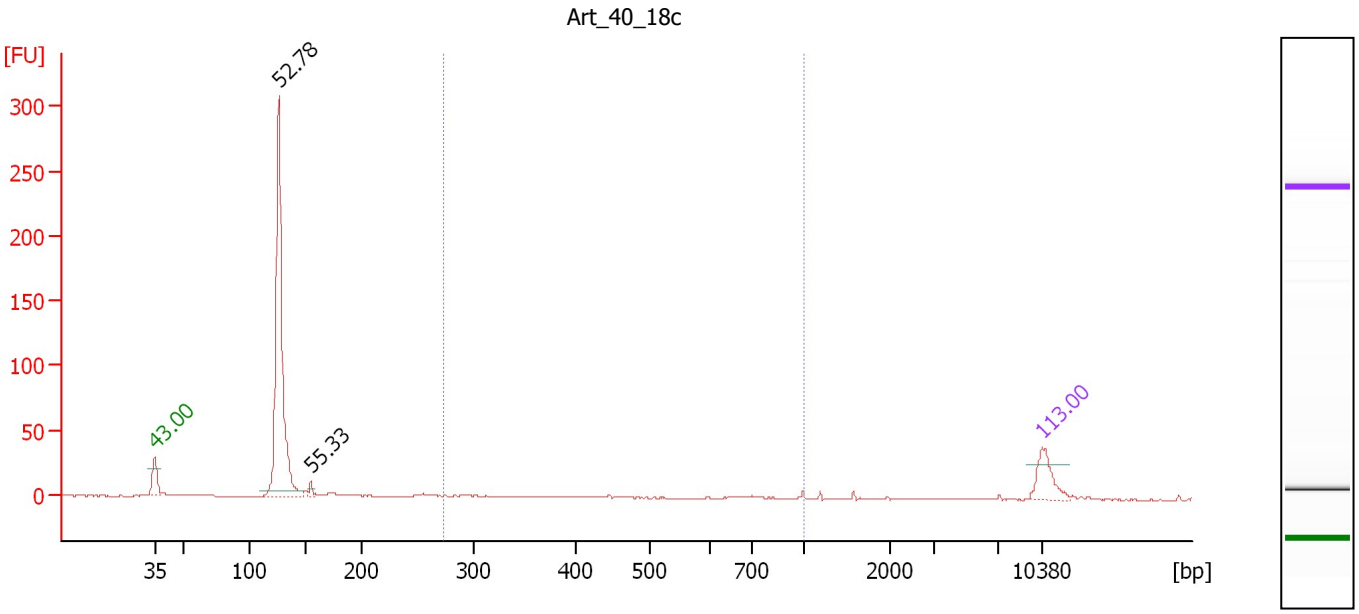
Region table for sample 9 : Art_20_18c

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/µl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
333	134.2	459	38.98	638	23.1	10	17.4	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : Art_40_18c

Number of peaks found:	2	Corr. Area 1:	14.6
Noise:	0.2		

Peak table for sample 10 : Art_40_18c

Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	◀	35	125.00	5,411.3	Lower Marker
2		126	1,015.65	12,244.1	
3		154	16.79	164.8	
4	▶	10,380	75.00	10.9	Upper Marker

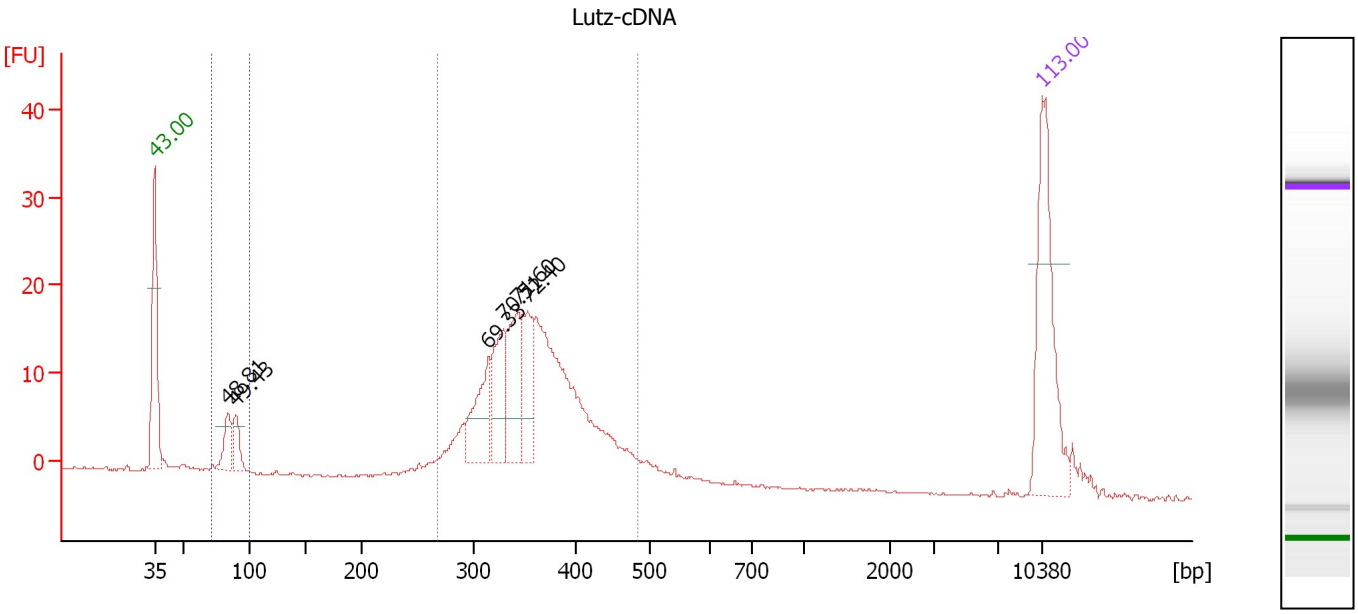
Region table for sample 10 : Art_40_18c

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/µl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
272	119.6	529	31.85	1,000	14.6	4	44.6	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : Lutz-cDNA

Number of peaks found:	6	Corr. Area 1:	216.5
Noise:	0.1	Corr. Area 2:	16.5

Peak table for sample 11 : Lutz-cDNA

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	84	24.06	434.2	
3	90	20.07	338.6	
4	315	45.49	219.1	
5	329	46.83	215.5	
6	343	50.72	224.3	
7	353	36.50	156.9	
8	10,380	75.00	10.9	Upper Marker

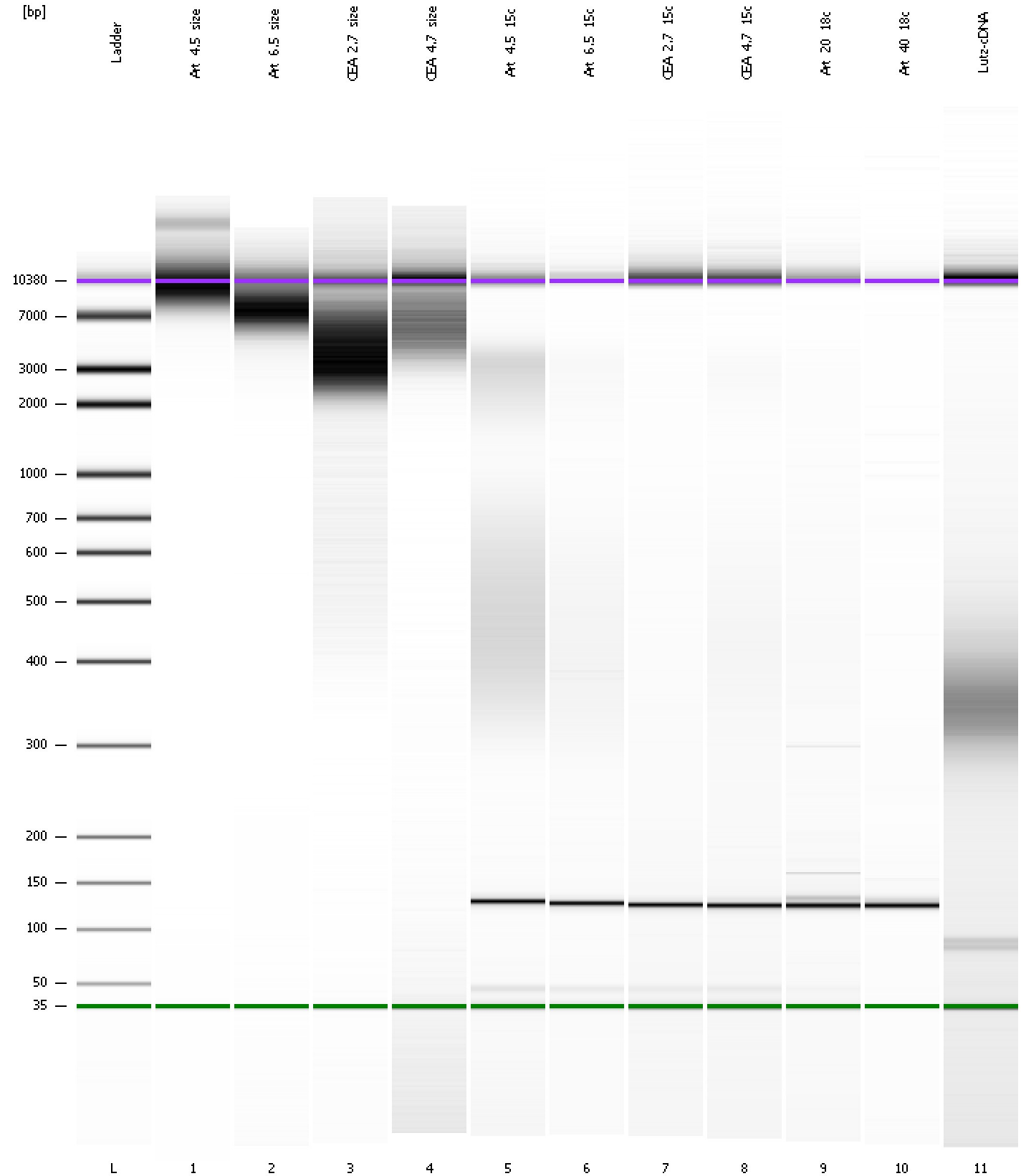
Region table for sample 11 : Lutz-cDNA

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/µl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
71	793.1	86	45.03	100	16.5	7	5.2	
268	1,843.1	359	428.87	485	216.5	86	12.4	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Gel Image

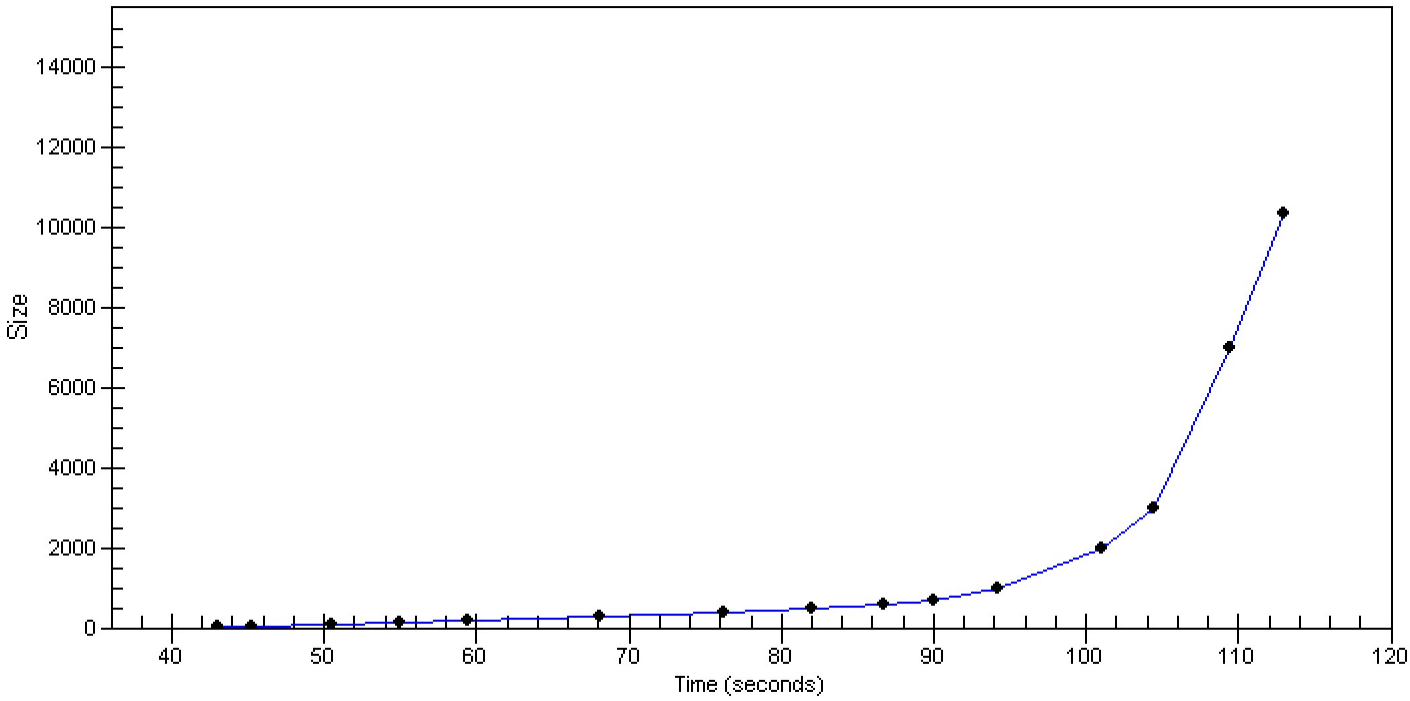


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad

Created: 2/22/2012 2:18:45 PM
Modified: 2/23/2012 2:04:58 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		2/22/2012 3:03:45 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-02-22\2012-02-22_005.xad)		Instrument	Run		2/22/2012 2:18:45 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		2/22/2012 2:18:45 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		2/22/2012 2:18:45 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		2/22/2012 2:18:45 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		2/22/2012 2:18:45 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		2/22/2012 2:18:45 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		2/22/2012 2:18:45 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1