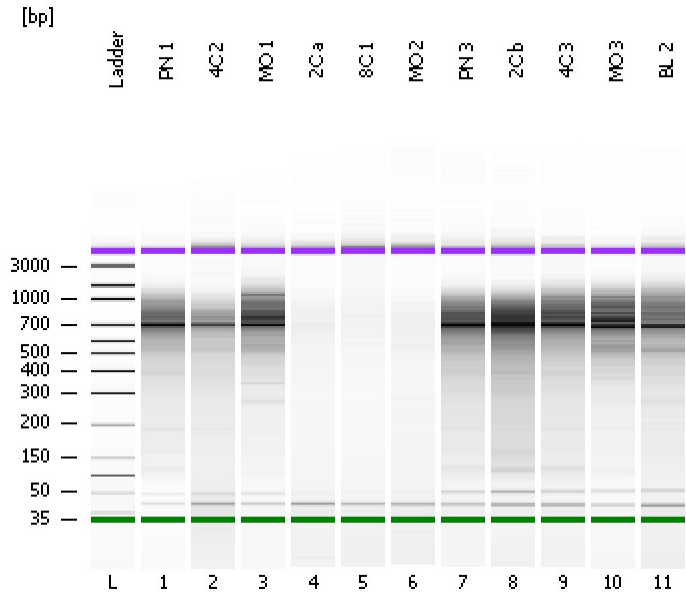


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
Modified: 3/8/2012 9:32:59 AM

### Electrophoresis File Run Summary



#### Instrument Information:

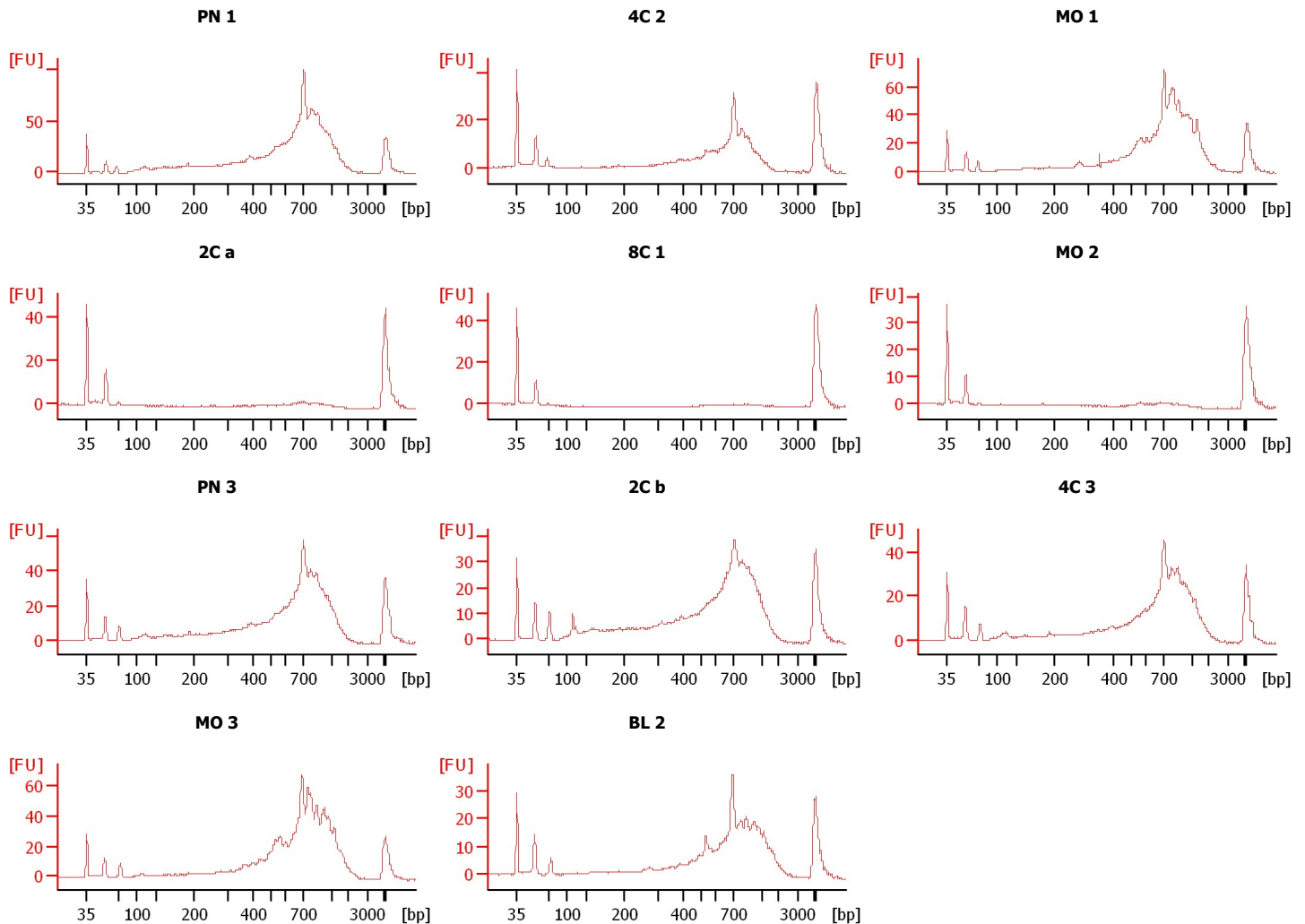
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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:



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
Modified: 3/8/2012 9:32:59 AM

**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
PN 1		<input type="checkbox"/>	✓			
4C 2		<input type="checkbox"/>	✓			
MO 1		<input type="checkbox"/>	✓			
2C a		<input type="checkbox"/>	✓			
8C 1		<input type="checkbox"/>	✓			
MO 2		<input type="checkbox"/>	✓			
PN 3		<input type="checkbox"/>	✓			
2C b		<input type="checkbox"/>	✓			
4C 3		<input type="checkbox"/>	✓			
MO 3		<input type="checkbox"/>	✓			
BL 2		<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\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
Modified: 3/8/2012 9:32:59 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

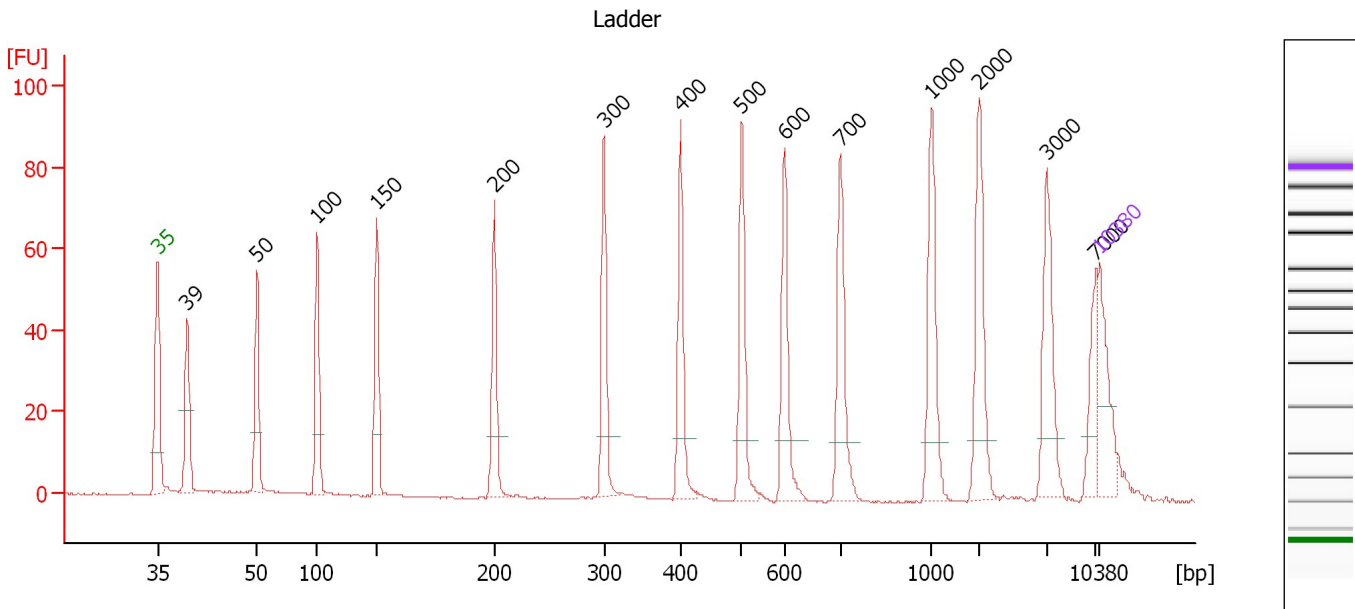
**Ladder**

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\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
 Modified: 3/8/2012 9:32:59 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

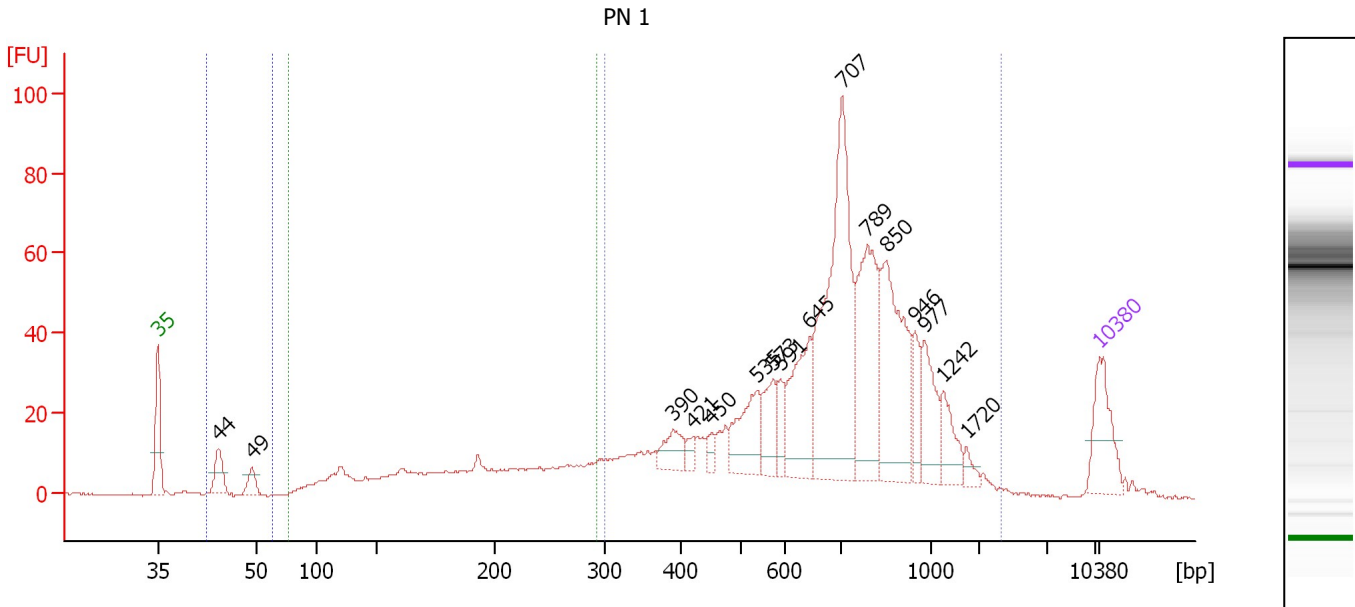
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	0.00	0.0	
3	50	150.00	4,545.5	Ladder Peak
4	100	150.00	2,272.7	Ladder Peak
5	150	150.00	1,515.2	Ladder Peak
6	200	150.00	1,136.4	Ladder Peak
7	300	150.00	757.6	Ladder Peak
8	400	150.00	568.2	Ladder Peak
9	500	150.00	454.5	Ladder Peak
10	600	150.00	378.8	Ladder Peak
11	700	150.00	324.7	Ladder Peak
12	1,000	150.00	227.3	Ladder Peak
13	2,000	150.00	113.6	Ladder Peak
14	3,000	150.00	75.8	Ladder Peak
15	7,000	150.00	32.5	Ladder Peak
16	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
 Modified: 3/8/2012 9:32:59 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : PN 1**

Number of peaks found:	16	Corr. Area 2:	23.5
Noise:	0.2	Corr. Area 3:	188.8
Corr. Area 1:	917.4		

**Peak table for sample 1 : PN 1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	44	54.93	1,882.6	
3	49	30.17	927.4	
4	390	48.44	188.0	
5	421	15.13	54.5	
6	450	15.82	53.2	
7	535	101.56	287.5	
8	573	60.92	161.1	
9	591	36.91	94.7	
10	645	138.18	324.6	
11	707	439.36	941.6	
12	789	226.69	435.4	
13	850	231.30	412.2	
14	946	47.25	75.7	
15	977	82.25	127.6	
16	1,242	51.58	62.9	
17	1,720	12.95	11.4	
18	10,380	75.00	10.9	Upper Marker

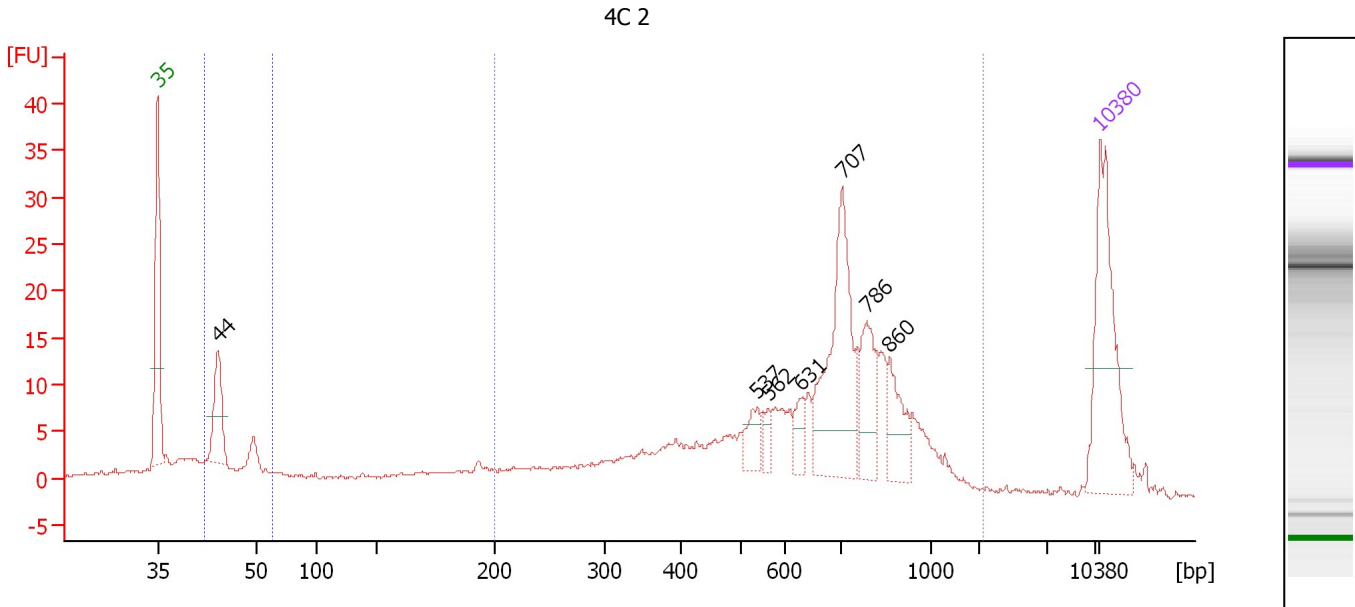
**Region table for sample 1 : PN 1**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
42	2,672.2	46	81.14	63	23.5	2	5.3	Blue
76	4,918.8	197	567.66	293	188.8	16	26.7	Green
300	4,728.6	744	1,978.55	2,326	917.4	80	37.8	Purple

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
 Modified: 3/8/2012 9:32:59 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 4C 2**

Number of peaks found: 7                      Corr. Area 1: 261.0  
 Noise: 0.2                                      Corr. Area 2: 37.0

**Peak table for sample 2 : 4C 2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	44	51.37	1,765.9	
3	537	16.09	45.4	
4	562	9.08	24.5	
5	631	12.50	30.0	
6	707	112.91	242.1	
7	786	39.91	76.9	
8	860	29.32	51.7	
9	10,380	75.00	10.9	Upper Marker

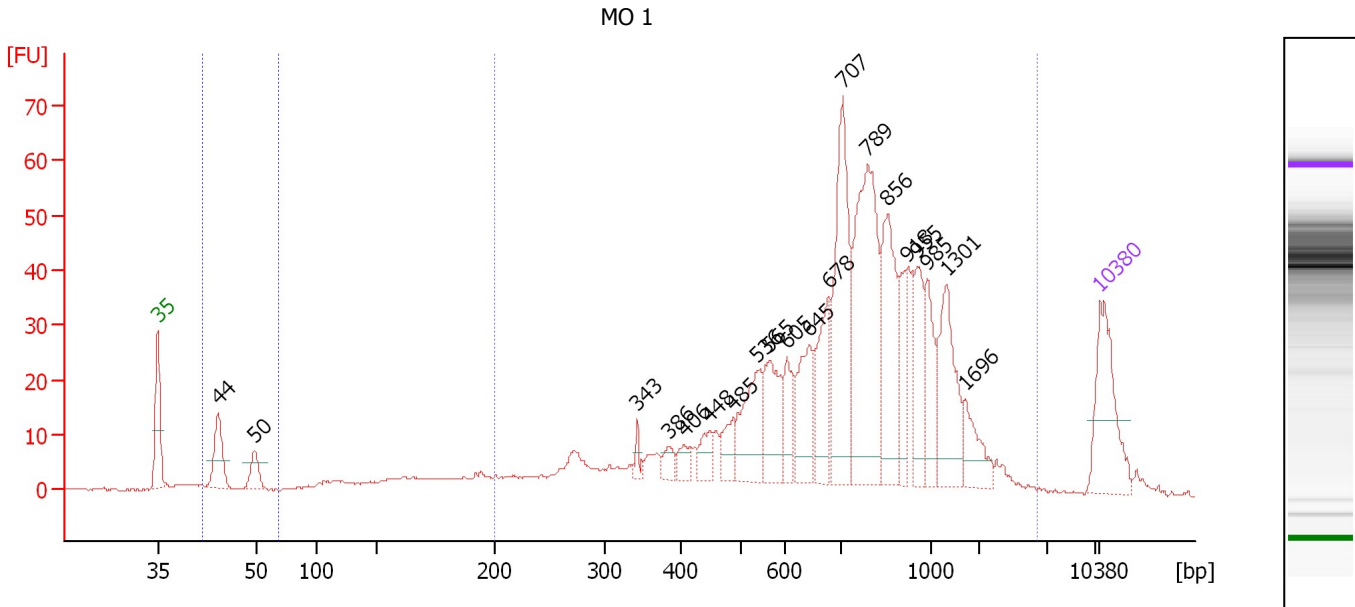
**Region table for sample 2 : 4C 2**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
42	3,602.4	46	109.08	62	37.0	10	7.8	Blue
200	1,426.1	656	496.55	2,049	261.0	74	34.9	Dark Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
 Modified: 3/8/2012 9:32:59 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : MO 1**

Number of peaks found: 20                      Corr. Area 1: 806.0  
 Noise: 0.2    Corr. Area 2: 35.1

**Peak table for sample 3 : MO 1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	44	61.04	2,097.1	
3	50	30.00	915.7	
4	343	9.92	43.8	
5	386	15.24	59.9	
6	406	15.48	57.8	
7	448	23.61	79.9	
8	485	26.61	83.1	
9	536	76.67	216.9	
10	565	67.56	181.2	
11	605	32.58	81.6	
12	645	64.68	152.0	
13	678	69.50	155.2	
14	707	178.86	383.0	
15	789	222.91	427.9	
16	856	112.79	199.7	
17	918	45.45	75.0	
18	955	54.43	86.4	
19	985	52.67	81.0	
20	1,301	85.56	99.7	
21	1,696	33.65	30.1	
22	10,380	75.00	10.9	Upper Marker

**Region table for sample 3 : MO 1**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
42	3,607.1	47	110.28	69	35.1	4	8.3	Blue


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
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**Electropherogram Summary Continued ...**

... Region table for sample 3 :

MO 1

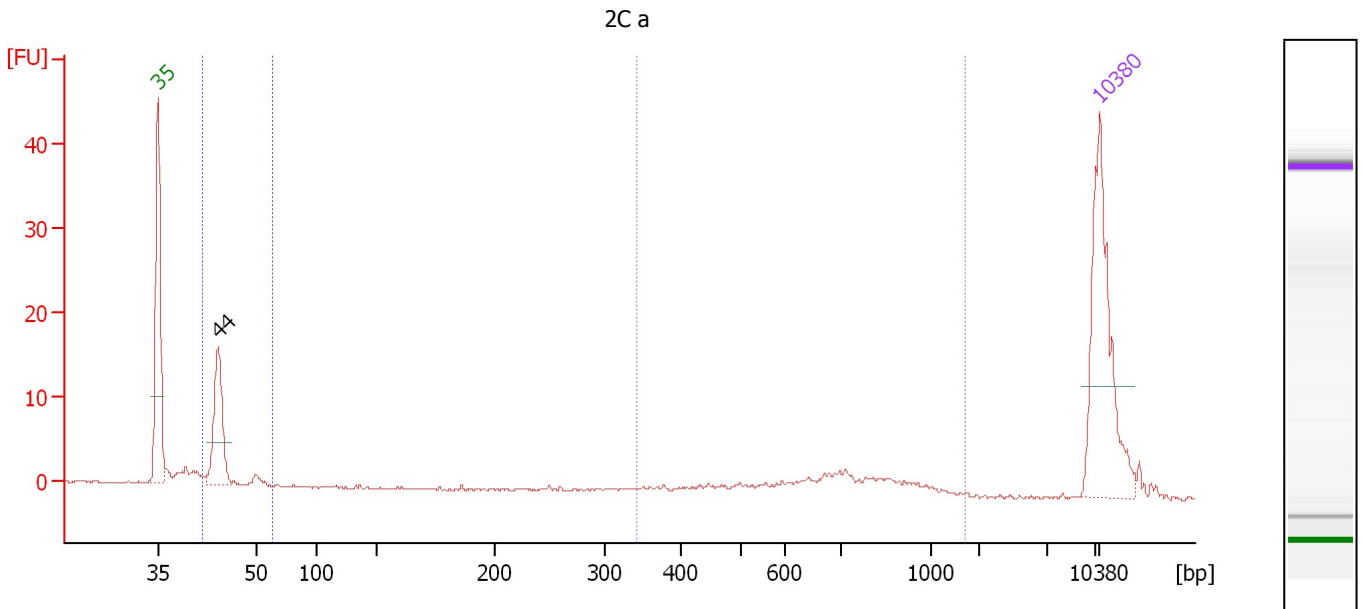
From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	3,928.6	806	1,579.52	2,858	806.0	88	48.4	



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
 Modified: 3/8/2012 9:32:59 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 2C a**

Number of peaks found: 1                      Corr. Area 1: 26.1  
 Noise: 0.2                                      Corr. Area 2: 27.4

**Peak table for sample 4 : 2C a**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	44	66.19	2,268.9	
3	10,380	75.00	10.9	Upper Marker

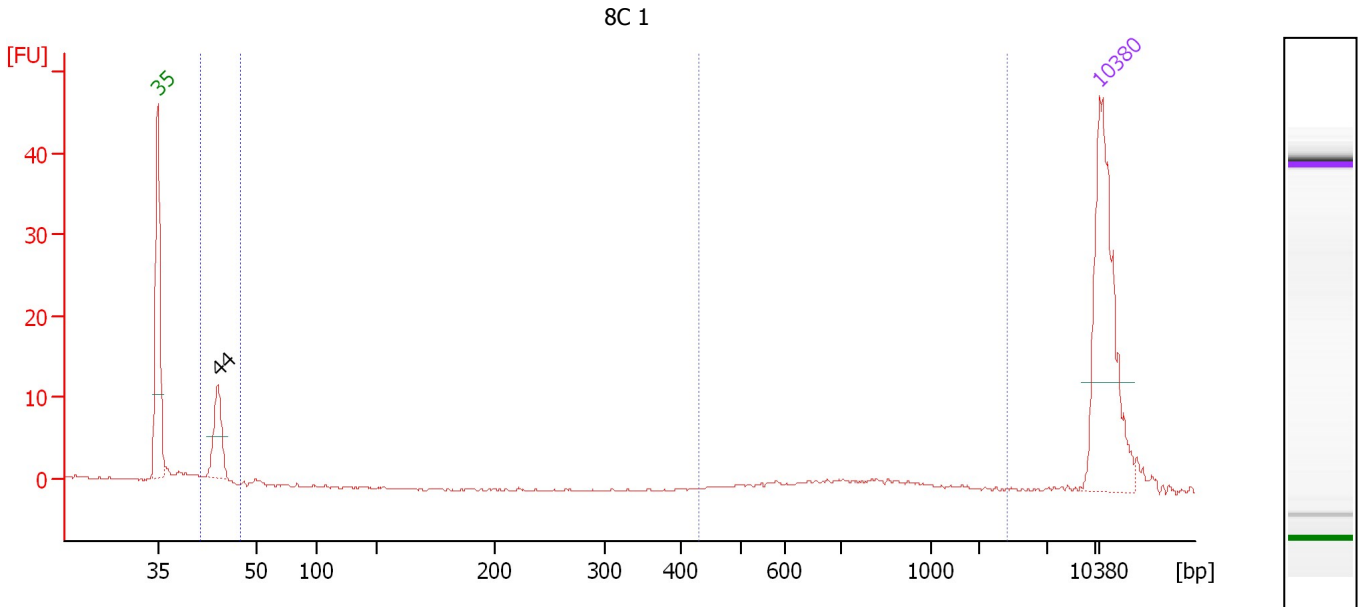
**Region table for sample 4 : 2C a**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
42	2,457.1	45	72.16	62	27.4	41	4.4	Blue
343	99.4	712	42.52	1,708	26.1	39	26.4	Dark Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
 Modified: 3/8/2012 9:32:59 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 8C 1**

Number of peaks found: 1                      Corr. Area 1: 20.4  
 Noise: 0.2                                      Corr. Area 2: 17.9

**Peak table for sample 5 : 8C 1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	44	36.32	1,248.8	
3	10,380	75.00	10.9	Upper Marker

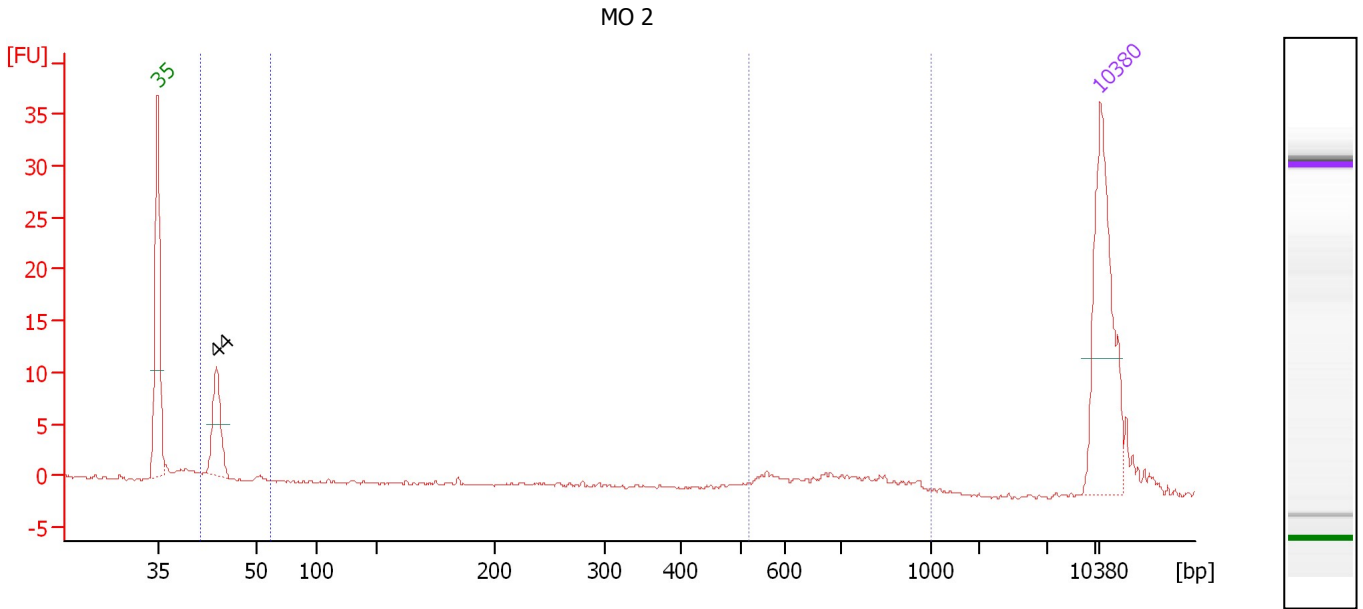
**Region table for sample 5 : 8C 1**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
42	1,403.6	44	40.76	48	17.9	31	1.5	Blue
431	54.9	910	27.51	2,407	20.4	35	47.5	Dark Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
 Modified: 3/8/2012 9:32:59 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : MO 2**

Number of peaks found: 1                      Corr. Area 1: 9.9  
 Noise: 0.1                                      Corr. Area 2: 17.5

**Peak table for sample 6 : MO 2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	44	47.76	1,647.9	
3	10,380	75.00	10.9	Upper Marker

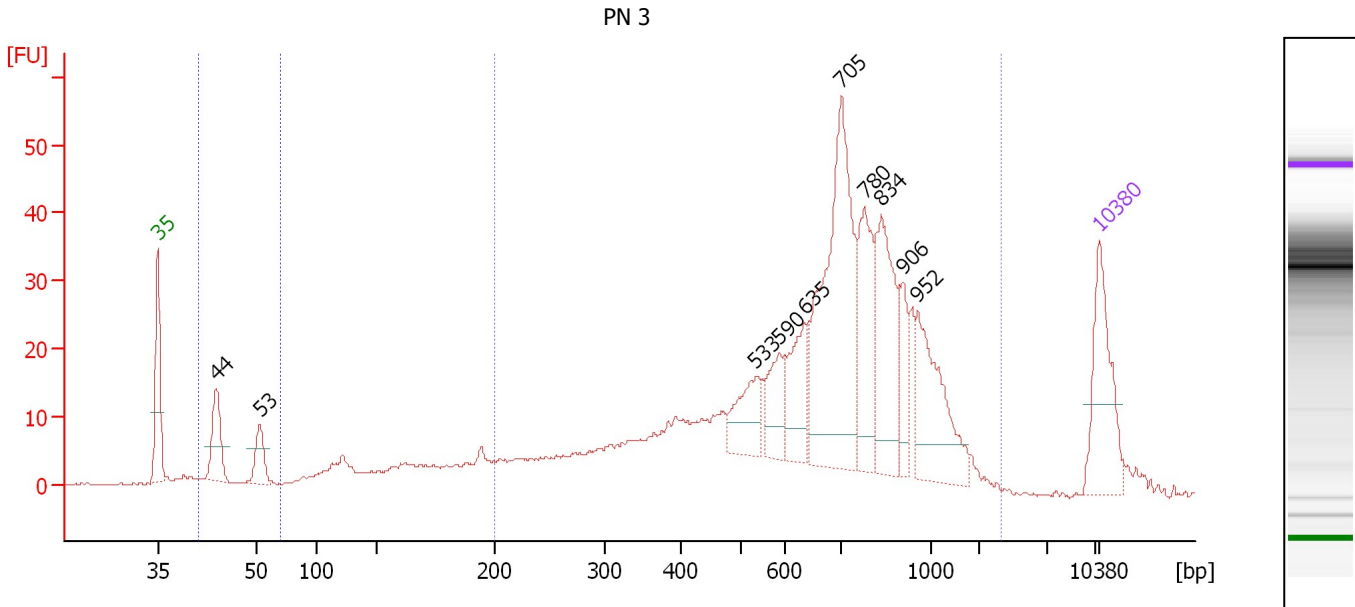
**Region table for sample 6 : MO 2**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
41	1,857.1	44	53.94	62	17.5	45	3.3	Blue
515	41.4	704	18.66	1,000	9.9	25	16.4	Dark Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
 Modified: 3/8/2012 9:32:59 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : PN 3**

Number of peaks found: 10      Corr. Area 1: 633.3  
 Noise: 0.2      Corr. Area 2: 37.2

**Peak table for sample 7 : PN 3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	44	63.09	2,180.4	
3	53	36.77	1,057.0	
4	533	53.89	153.1	
5	590	44.90	115.3	
6	635	64.45	153.7	
7	705	265.92	571.5	
8	780	98.07	190.6	
9	834	120.26	218.5	
10	906	36.62	61.2	
11	952	101.77	162.0	
12	10,380	75.00	10.9	Upper Marker

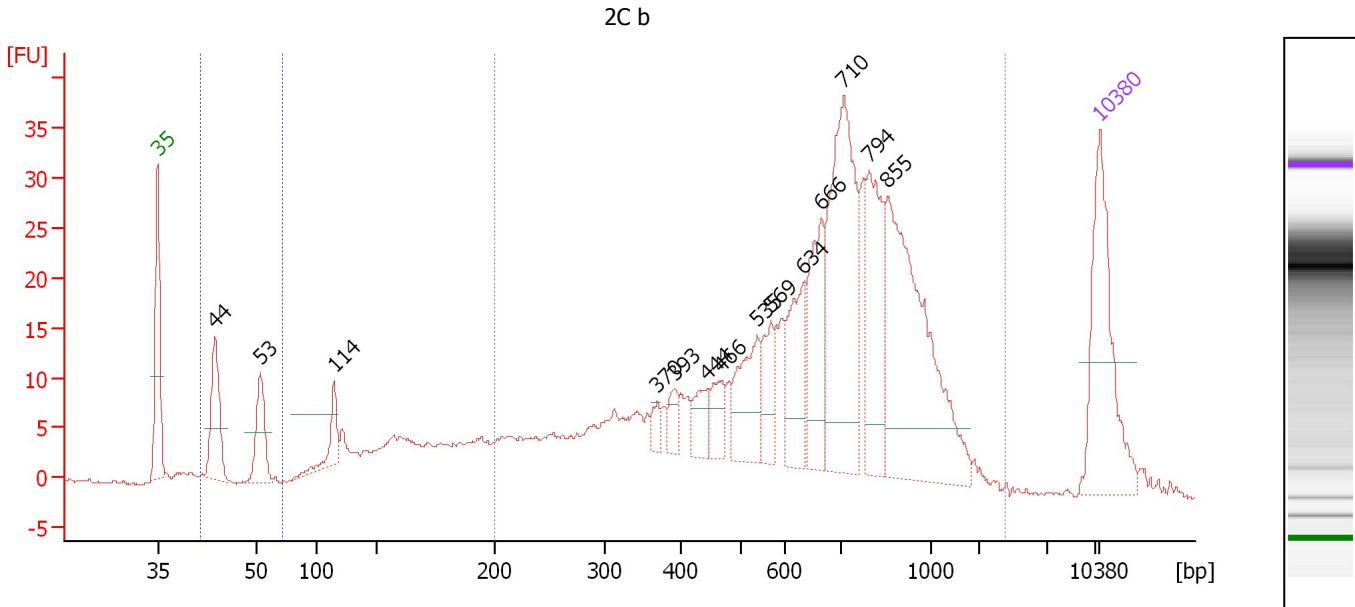
**Region table for sample 7 : PN 3**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
41	3,850.7	47	119.03	69	37.2	5	10.7	Blue
200	3,604.6	701	1,297.20	2,309	633.3	84	40.2	Dark Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
 Modified: 3/8/2012 9:32:59 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 2C b**

Number of peaks found: 14      Corr. Area 1: 546.5  
 Noise: 0.3      Corr. Area 2: 38.6

**Peak table for sample 8 : 2C b**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	44	60.79	2,106.3	
3	53	43.20	1,230.0	
4	114	27.17	361.7	
5	370	9.01	36.9	
6	393	12.37	47.7	
7	444	18.95	64.7	
8	466	20.09	65.3	
9	535	48.84	138.2	
10	569	27.80	74.0	
11	634	48.99	117.0	
12	666	58.97	134.1	
13	710	156.11	333.1	
14	794	73.93	141.1	
15	855	174.59	309.5	
16	10,380	75.00	10.9	Upper Marker

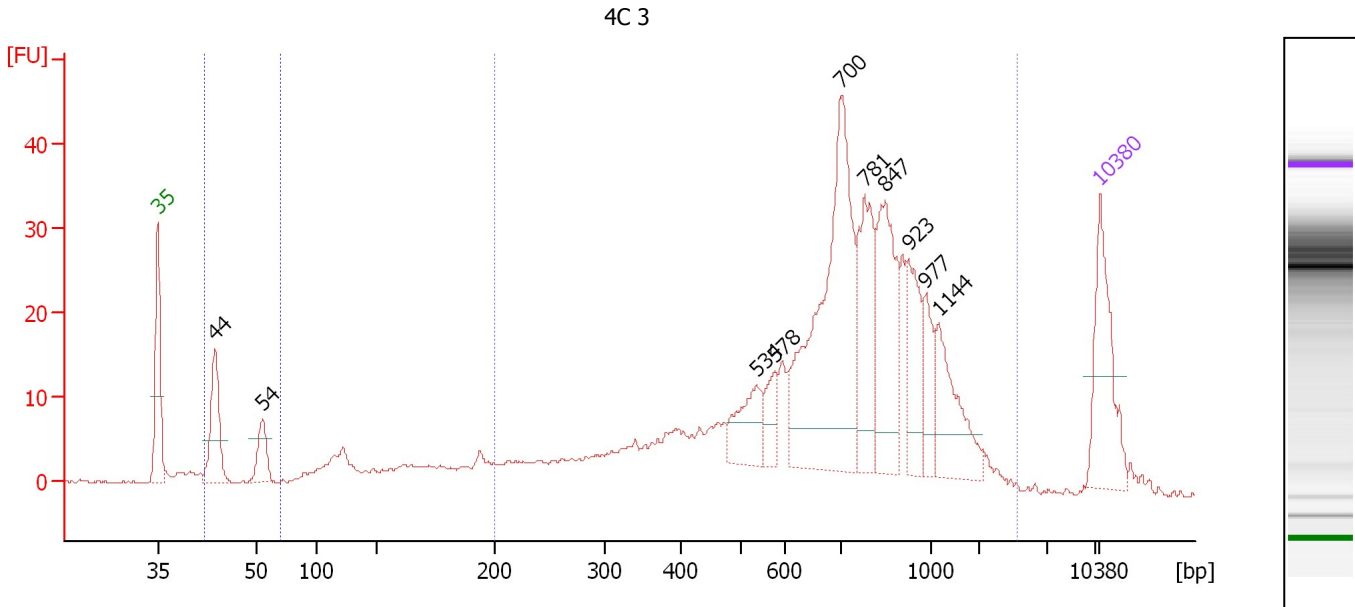
**Region table for sample 8 : 2C b**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
41	3,632.3	48	113.33	71	38.6	6	11.3	Blue
200	3,058.9	675	1,037.36	2,373	546.5	80	41.7	Dark Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
 Modified: 3/8/2012 9:32:59 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 4C 3**

Number of peaks found:	10	Corr. Area 1:	506.3
Noise:	0.2	Corr. Area 2:	35.3

**Peak table for sample 9 : 4C 3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	44	91.51	3,173.5	
3	54	36.84	1,025.8	
4	534	52.47	148.8	
5	578	25.67	67.2	
6	700	300.41	650.6	
7	781	103.56	200.8	
8	847	119.53	213.7	
9	923	57.50	94.4	
10	977	38.06	59.0	
11	1,144	70.07	92.8	
12	10,380	75.00	10.9	Upper Marker

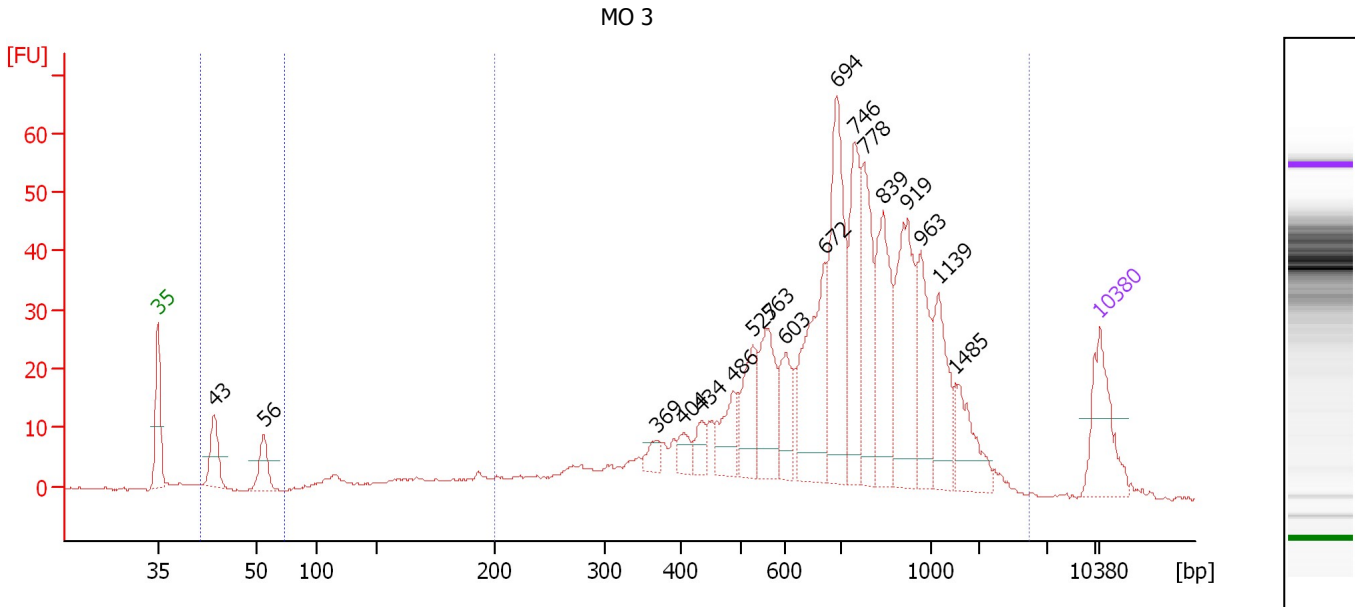
**Region table for sample 9 : 4C 3**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
42	4,325.1	47	132.82	69	35.3	6	11.4	Blue
200	3,108.5	762	1,195.01	2,561	506.3	84	44.5	Dark Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
 Modified: 3/8/2012 9:32:59 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : MO 3**

Number of peaks found: 18                      Corr. Area 1: 770.4  
 Noise: 0.2    Corr. Area 2: 32.3

**Peak table for sample 10 : MO 3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	43	71.64	2,495.9	
3	56	51.32	1,396.1	
4	369	19.32	79.4	
5	404	22.28	83.6	
6	434	24.53	85.5	
7	486	57.13	178.3	
8	527	77.59	223.2	
9	563	94.20	253.7	
10	603	54.93	138.1	
11	672	163.92	369.7	
12	694	205.60	448.9	
13	746	139.08	282.5	
14	778	116.97	227.8	
15	839	135.52	244.6	
16	919	152.99	252.2	
17	963	87.47	137.7	
18	1,139	85.20	113.4	
19	1,485	61.91	63.2	
20	10,380	75.00	10.9	Upper Marker

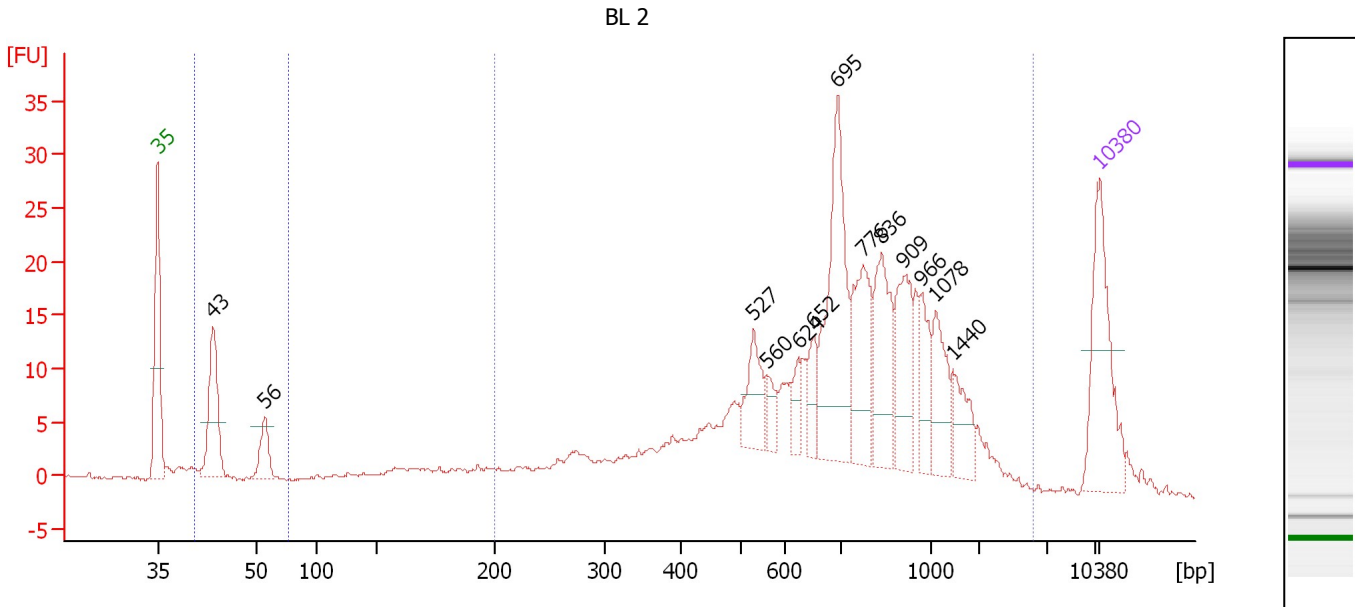
**Region table for sample 10 : MO 3**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
41	4,061.9	48	127.32	72	32.3	4	12.8	Blue
200	4,704.0	774	1,896.77	2,732	770.4	91	44.1	Dark Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
 Modified: 3/8/2012 9:32:59 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : BL 2**

Number of peaks found: 13                      Corr. Area 1: 354.5  
 Noise: 0.2                                      Corr. Area 2: 30.2

**Peak table for sample 11 : BL 2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	43	87.28	3,044.9	
3	56	31.65	854.2	
4	527	39.82	114.4	
5	560	13.99	37.8	
6	624	16.79	40.7	
7	652	22.96	53.4	
8	695	133.98	292.0	
9	776	70.69	138.0	
10	836	67.62	122.6	
11	909	56.75	94.6	
12	966	30.18	47.3	
13	1,078	39.92	56.1	
14	1,440	28.62	30.1	
15	10,380	75.00	10.9	Upper Marker

**Region table for sample 11 : BL 2**

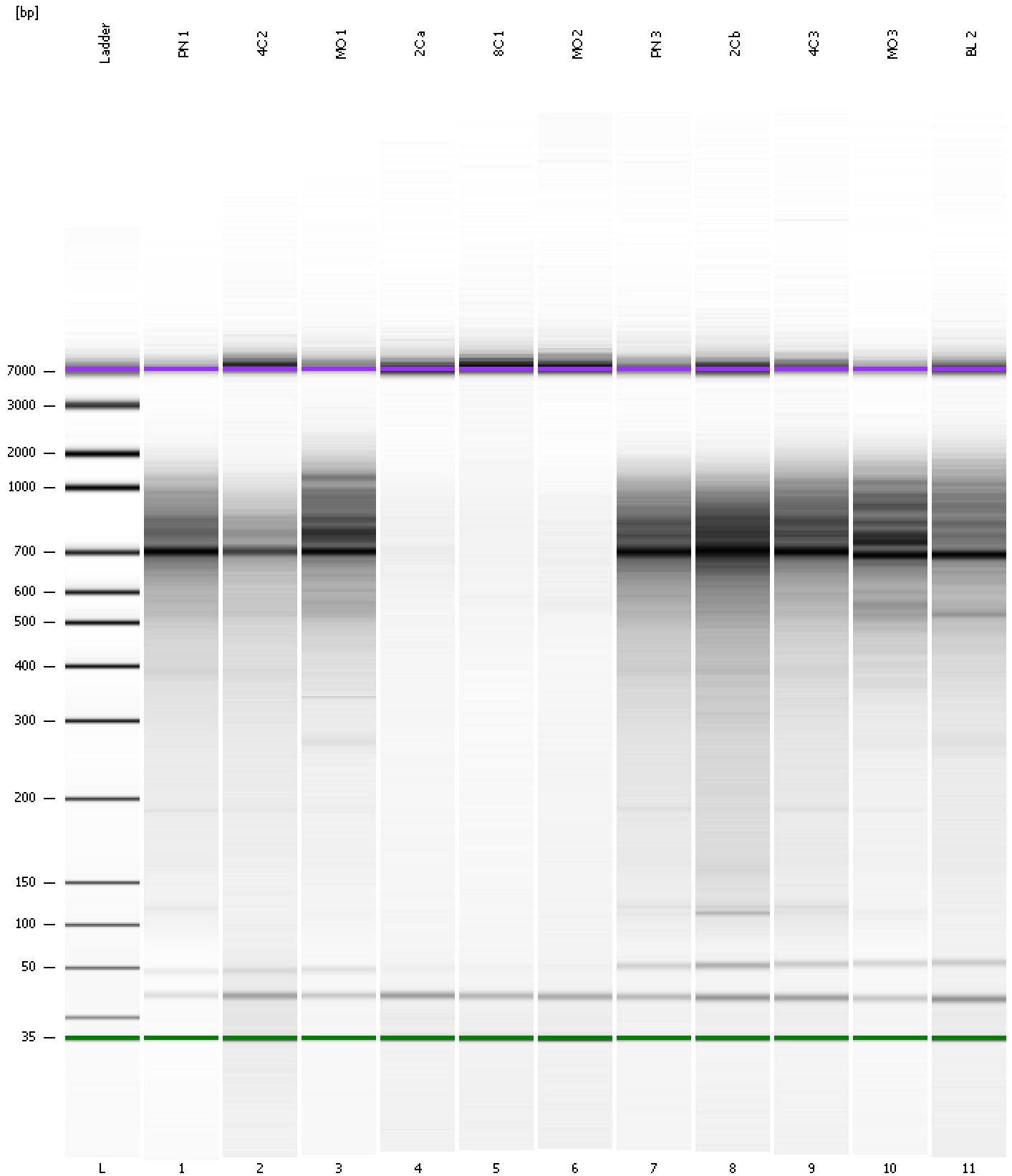
From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
41	4,070.8	47	123.58	76	30.2	7	12.9	Blue
200	2,268.6	794	901.54	2,798	354.5	86	48.5	Dark Blue



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad

Created: 3/8/2012 8:50:42 AM  
Modified: 3/8/2012 9:32:59 AM

**Gel Image**



Assay Class: High Sensitivity DNA Assay Created: 3/8/2012 8:50:42 AM  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-08\2012-03-08\_001.xad Modified: 3/8/2012 9:32:59 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		3/8/2012 9:32:00 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-03-08\2012-03-08_001.xad)		Instrument	Run		3/8/2012 8:50:48 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/8/2012 8:50:48 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/8/2012 8:50:48 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/8/2012 8:50:48 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/8/2012 8:50:47 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/8/2012 8:50:47 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/8/2012 8:50:47 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1