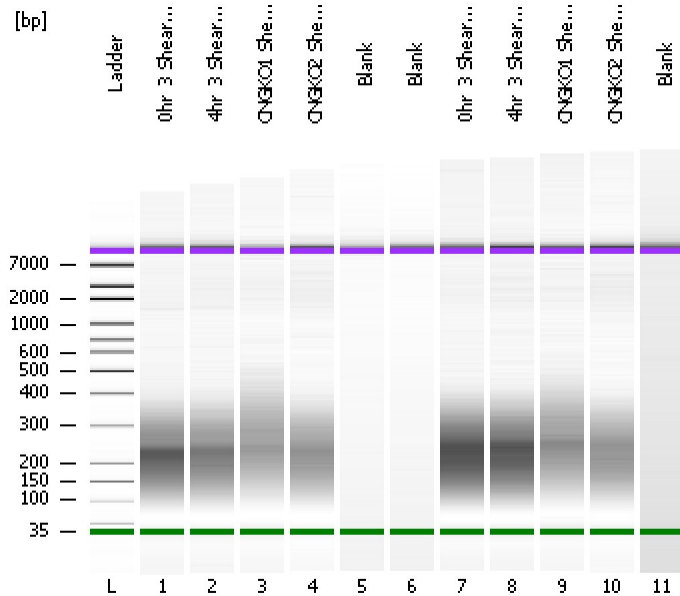


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
Modified: 6/29/2012 5:03:54 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

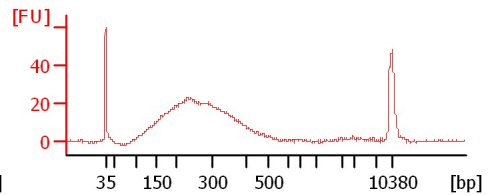
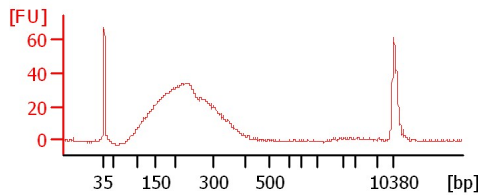
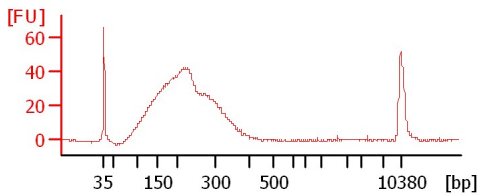
Chip Information:

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

0hr\_3 Sheared DNA

4hr\_3 Sheared DNA

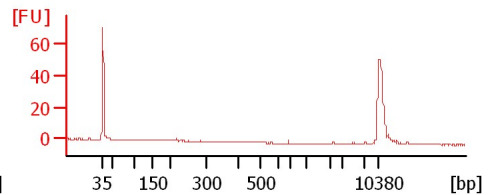
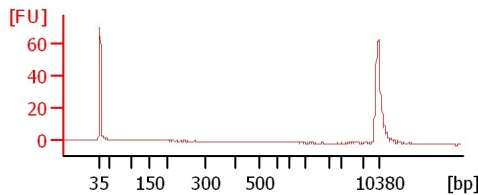
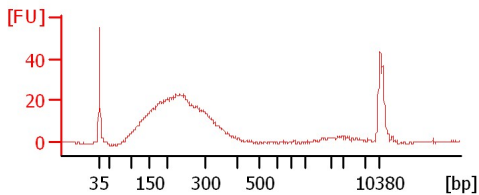
CNGK01 Sheared DNA



CNGK02 Sheared DNA

Blank

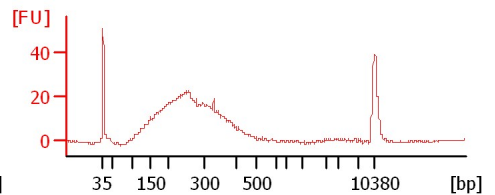
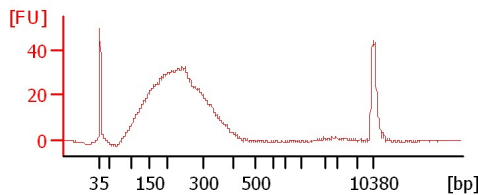
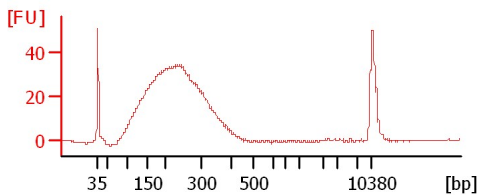
Blank



0hr\_3 Sheared DNA

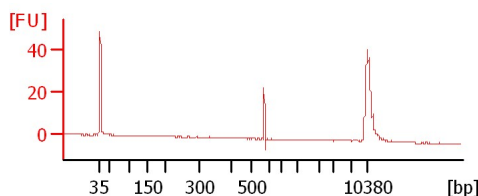
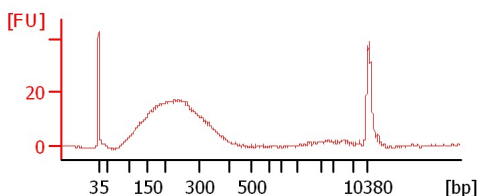
4hr\_3 Sheared DNA

CNGK01 Sheared DNA



CNGK02 Sheared DNA

Blank



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
 Modified: 6/29/2012 5:03:54 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
0hr_3 Sheared DNA		<input type="checkbox"/>	✓			
4hr_3 Sheared DNA		<input type="checkbox"/>	✓			
CNGKO1 Sheared DNA		<input type="checkbox"/>	✓			
CNGKO2 Sheared DNA		<input type="checkbox"/>	✓			
Blank		<input type="checkbox"/>	✓			
Blank		<input type="checkbox"/>	✓			
0hr_3 Sheared DNA		<input type="checkbox"/>	✓			
4hr_3 Sheared DNA		<input type="checkbox"/>	✓			
CNGKO1 Sheared DNA		<input type="checkbox"/>	✓			
CNGKO2 Sheared DNA		<input type="checkbox"/>	✓			
Blank		<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\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
Modified: 6/29/2012 5:03:54 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

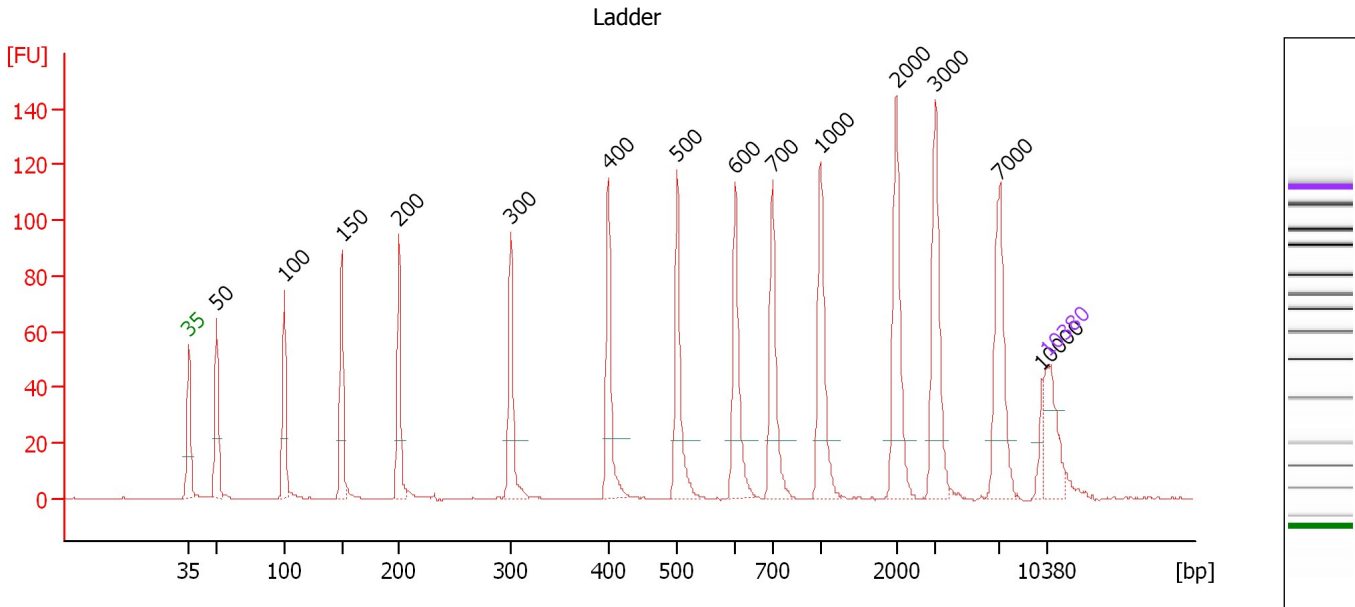
**Ladder**

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\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
 Modified: 6/29/2012 5:03:54 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

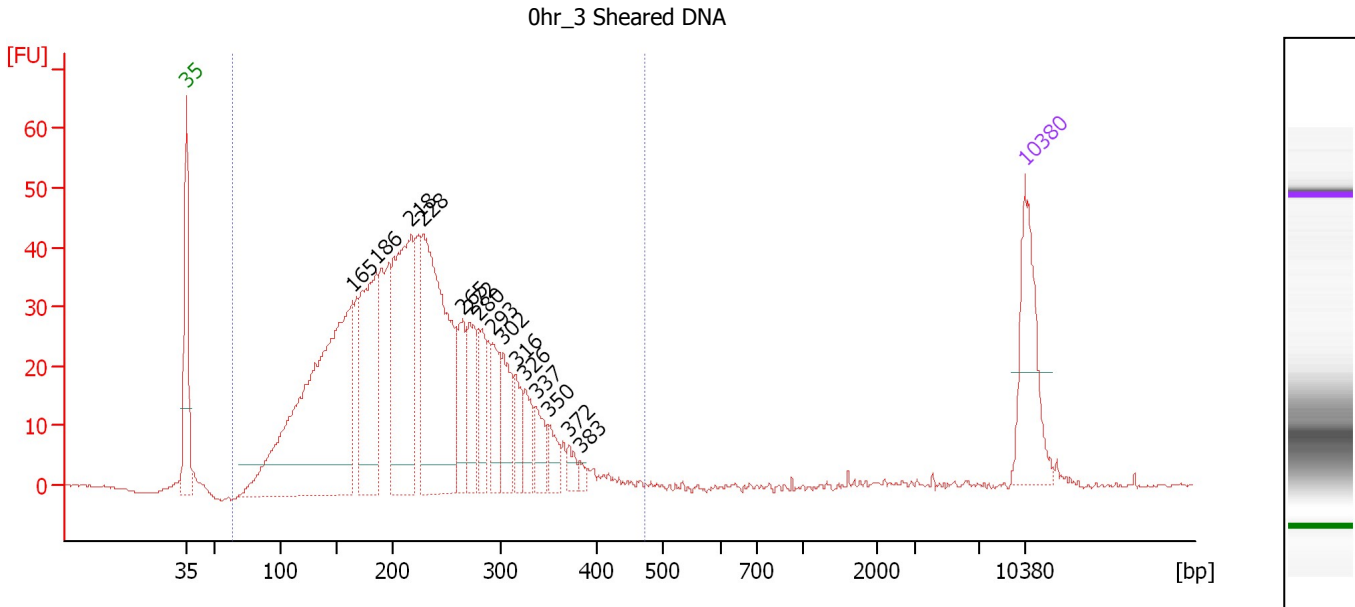
**Peak table for Ladder**

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	10,000	0.00	0.0	
16	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
 Modified: 6/29/2012 5:03:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : Ohr\_3 Sheared DNA**

Number of peaks found: 15                      Corr. Area 1: 1,087.4  
 Noise: 0.2

**Peak table for sample 1 : Ohr\_3 Sheared DNA**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	165	553.37	5,089.8	
3	186	190.45	1,549.2	
4	218	248.25	1,723.9	
5	228	324.01	2,149.1	
6	265	66.48	380.8	
7	272	61.50	342.8	
8	280	48.32	261.8	
9	293	53.11	274.8	
10	302	48.84	244.7	
11	316	34.14	163.8	
12	326	32.01	148.8	
13	337	32.00	144.1	
14	350	22.99	99.6	
15	372	13.12	53.5	
16	383	5.80	23.0	
17	10,380	75.00	10.9	Upper Marker

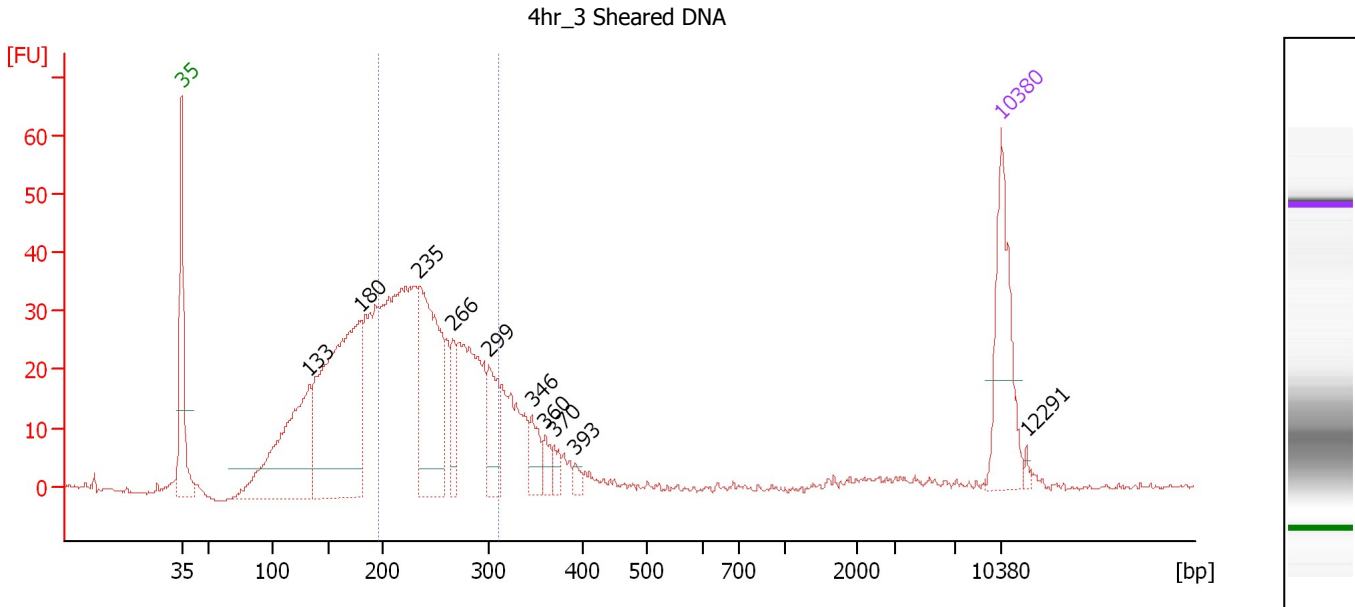
**Region table for sample 1 : Ohr\_3 Sheared DNA**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
64	472	224	15,651.2	1,994.45	1,087.4	99	30.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
 Modified: 6/29/2012 5:03:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 4hr 3 Sheared DNA**

Number of peaks found: 10                      Corr. Area 1: 465.9  
 Noise: 0.2

**Peak table for sample 2 : 4hr 3 Sheared DNA**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	133	229.04	2,607.1	
3	180	357.34	3,000.2	
4	235	203.34	1,311.0	
5	266	39.62	225.3	
6	299	57.44	290.7	
7	346	26.47	115.8	
8	360	15.05	63.3	
9	370	11.60	47.5	
10	393	7.40	28.5	
11	10,380	75.00	10.9	Upper Marker
12	12,291	0.00	0.0	

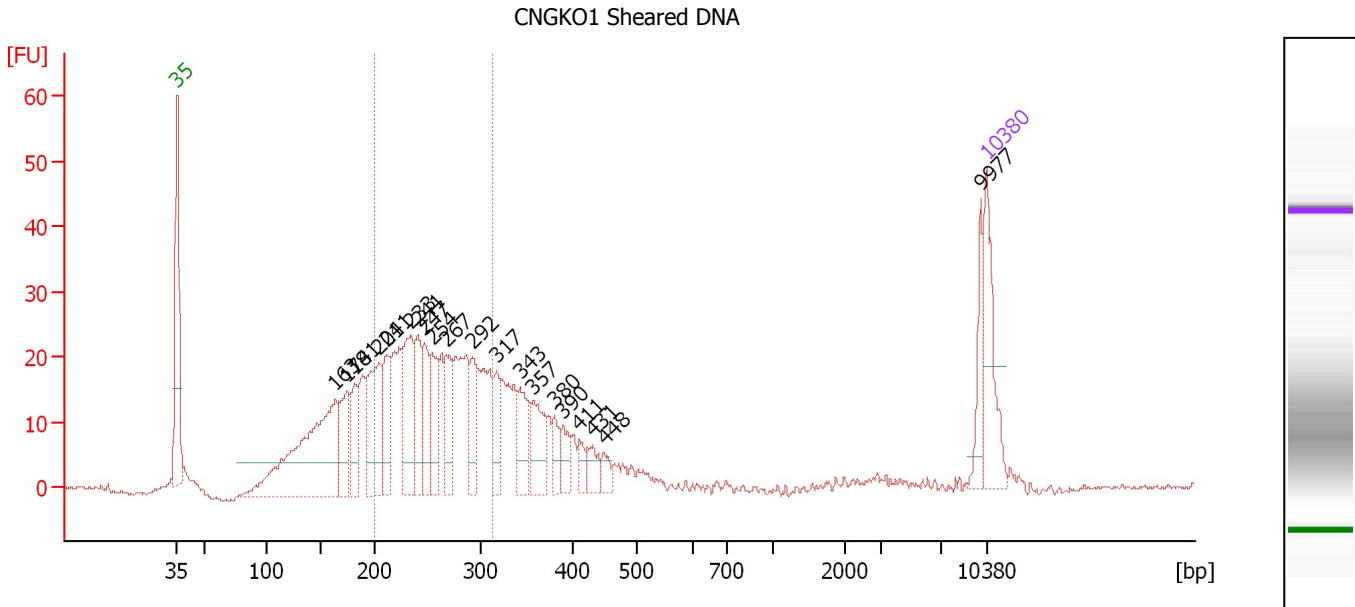
**Region table for sample 2 : 4hr 3 Sheared DNA**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
197	310	247	4,674.6	755.85	465.9	49	12.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
 Modified: 6/29/2012 5:03:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : CNGKO1 Sheared DNA**

Number of peaks found: 20                      Corr. Area 1: 336.9  
 Noise: 0.3

**Peak table for sample 3 : CNGKO1 Sheared DNA**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	163	349.59	3,247.9	
3	174	78.81	686.3	
4	181	57.91	483.6	
5	204	139.32	1,035.8	
6	211	66.38	475.8	
7	233	129.95	844.7	
8	241	74.37	467.2	
9	247	69.57	427.2	
10	254	68.73	410.3	
11	267	70.49	399.3	
12	292	60.07	311.5	
13	317	50.32	240.4	
14	343	56.02	247.7	
15	357	61.84	262.4	
16	380	29.27	116.6	
17	390	28.22	109.8	
18	411	17.92	66.1	
19	431	26.36	92.6	
20	448	15.82	53.5	
21	9,977	36.98	5.6	
22	10,380	75.00	10.9	Upper Marker

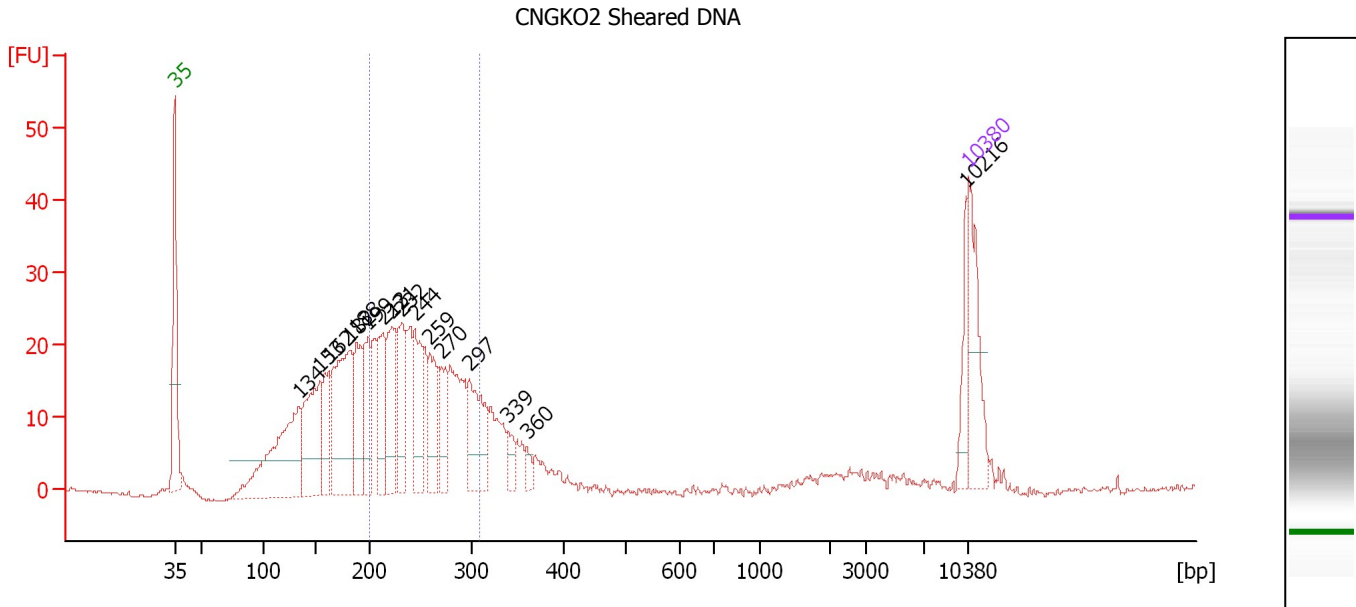
**Region table for sample 3 : CNGKO1 Sheared DNA**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	313	254	5,828.3	971.01	336.9	46	12.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
 Modified: 6/29/2012 5:03:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : CNGKO2 Sheared DNA**

Number of peaks found: 16                      Corr. Area 1: 300.4  
 Noise: 0.3

**Peak table for sample 4 : CNGKO2 Sheared DNA**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	134	260.63	2,952.1	
3	153	174.20	1,721.5	
4	162	78.84	737.7	
5	182	225.70	1,882.9	
6	188	99.19	798.6	
7	199	87.04	663.4	
8	213	86.95	618.0	
9	221	105.52	722.1	
10	232	93.15	609.0	
11	244	93.66	581.4	
12	259	81.60	477.4	
13	270	58.87	330.6	
14	297	111.32	567.7	
15	339	22.20	99.2	
16	360	13.95	58.6	
17	10,216	37.74	5.6	
18	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : CNGKO2 Sheared DNA**

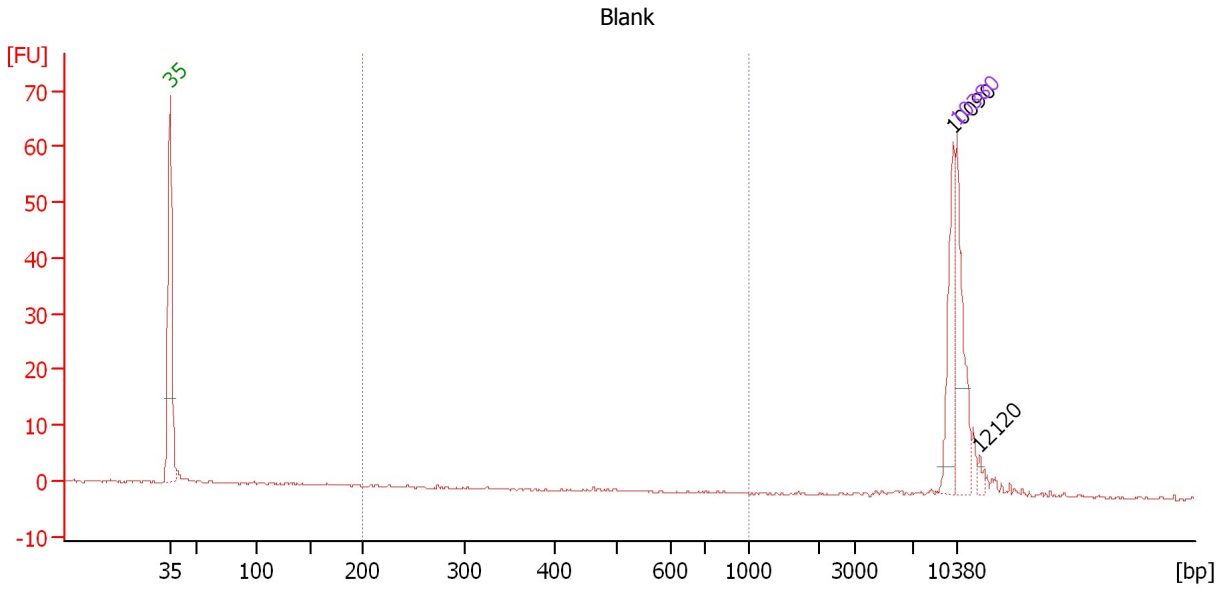
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	308	249	5,794.7	947.65	300.4	46	12.1	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
 Modified: 6/29/2012 5:03:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : Blank**

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

**Peak table for sample 5 : Blank**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,090	64.54	9.7	
3	10,380	75.00	10.9	Upper Marker
4	12,120	0.00	0.0	

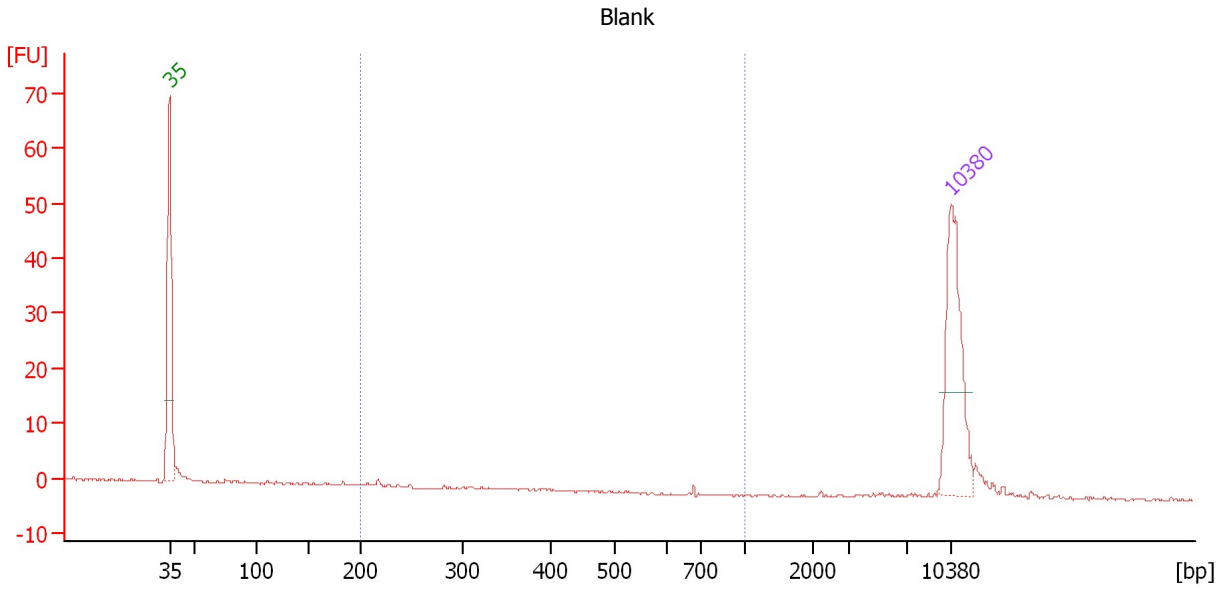
**Region table for sample 5 : Blank**

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	387	1.9	0.40	0.2	0	40.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
 Modified: 6/29/2012 5:03:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : Blank**

Number of peaks found: 0                      Corr. Area 1: 0.4  
 Noise: 0.1

**Peak table for sample 6 : Blank**

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

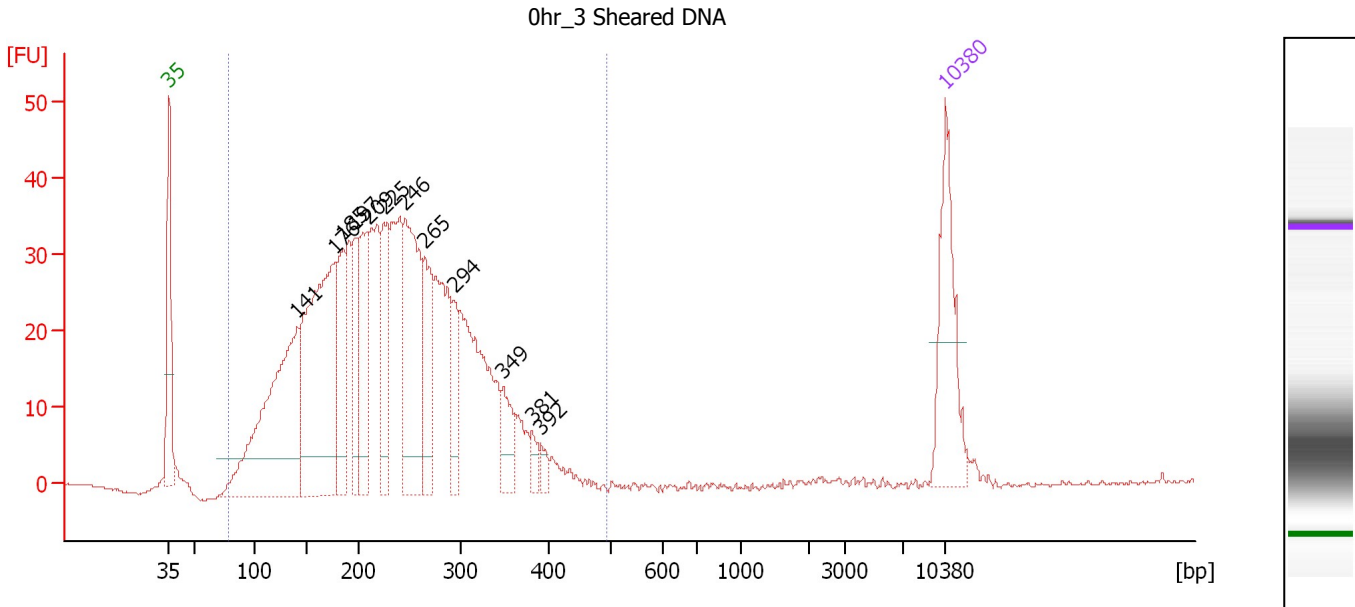
**Region table for sample 6 : Blank**

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	405	3.9	0.67	0.4	4	56.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
 Modified: 6/29/2012 5:03:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 0hr\_3 Sheared DNA**

Number of peaks found: 12      Corr. Area 1: 995.4  
 Noise: 0.1

**Peak table for sample 7 : 0hr\_3 Sheared DNA**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	141	318.43	3,433.8	
3	176	328.44	2,826.4	
4	185	97.60	800.0	
5	197	71.99	554.4	
6	209	92.61	672.1	
7	225	75.45	509.0	
8	246	170.81	1,053.6	
9	265	78.13	447.4	
10	294	44.46	229.1	
11	349	33.99	147.6	
12	381	11.21	44.5	
13	392	8.71	33.7	
14	10,380	75.00	10.9	Upper Marker

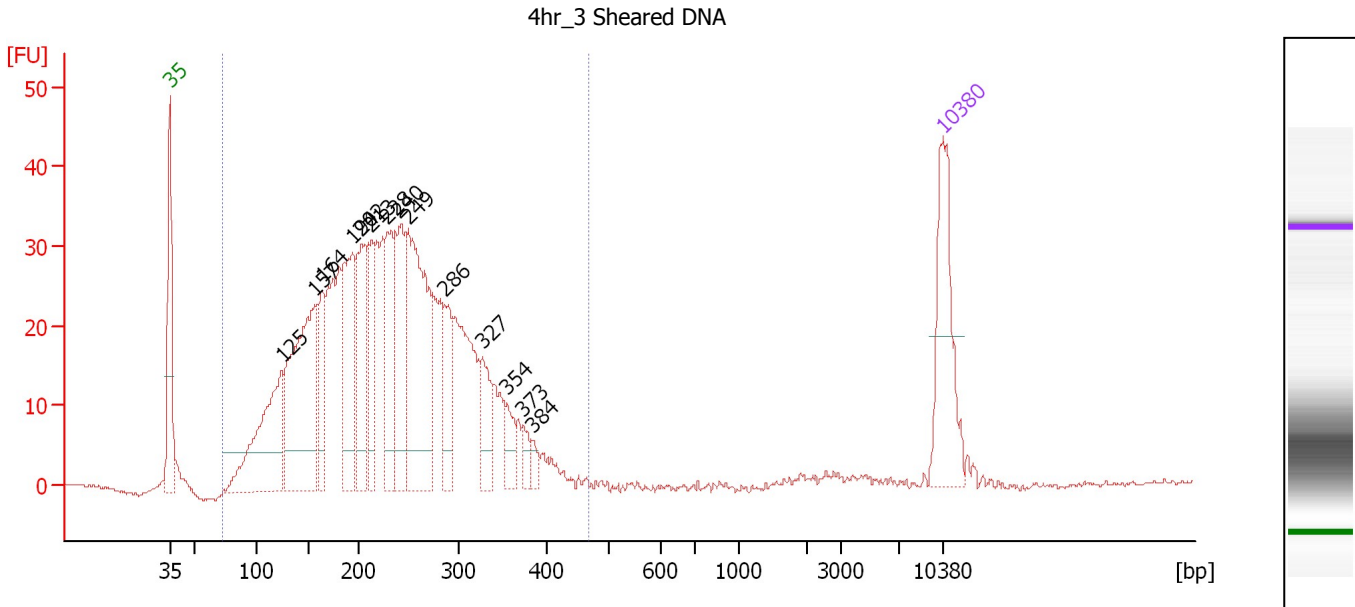
**Region table for sample 7 : 0hr\_3 Sheared DNA**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
79	493	231	14,652.7	1,912.15	995.4	99	30.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
 Modified: 6/29/2012 5:03:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 4hr 3 Sheared DNA**

Number of peaks found: 14                      Corr. Area 1: 890.3  
 Noise: 0.2

**Peak table for sample 8 : 4hr 3 Sheared DNA**

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	125	170.83	2,066.9	
3	157	251.40	2,431.0	
4	164	68.28	631.0	
5	194	135.66	1,061.8	
6	202	111.56	834.8	
7	213	68.96	491.6	
8	228	99.74	661.7	
9	240	98.28	620.3	
10	249	218.54	1,332.3	
11	286	51.56	273.0	
12	327	46.22	214.4	
13	354	24.36	104.3	
14	373	13.37	54.4	
15	384	9.02	35.6	
16	10,380	75.00	10.9	Upper Marker

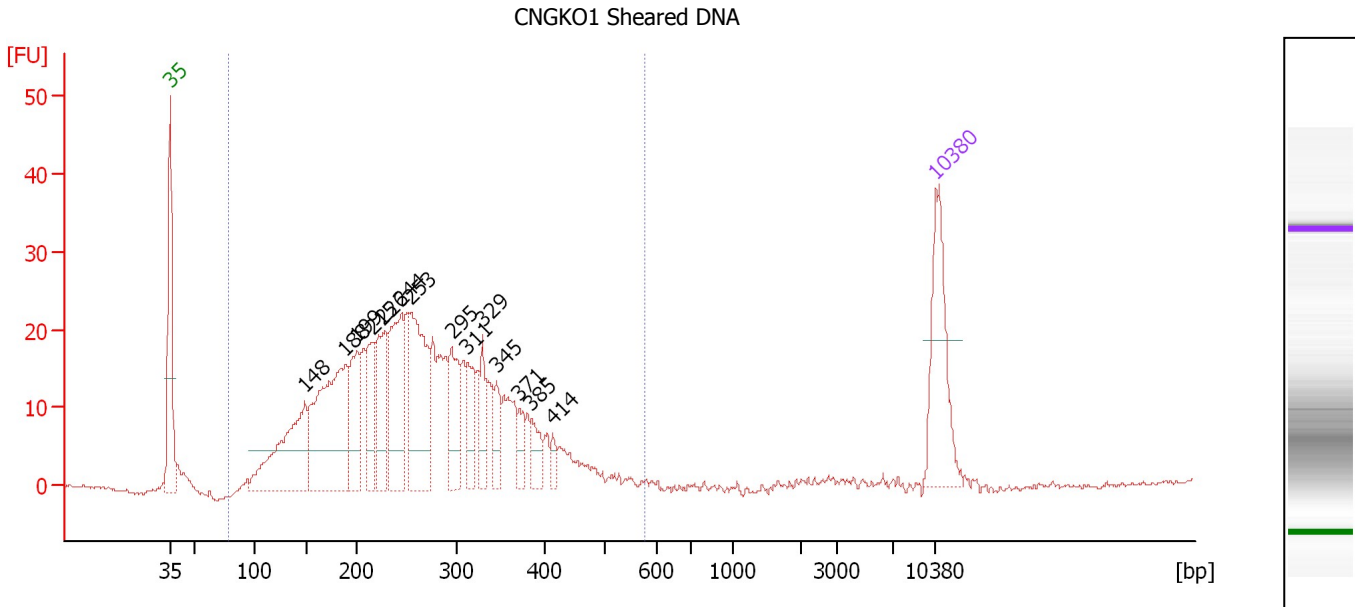
**Region table for sample 8 : 4hr 3 Sheared DNA**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
72	467	231	14,043.9	1,838.17	890.3	99	30.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
 Modified: 6/29/2012 5:03:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : CNGKO1 Sheared DNA**

Number of peaks found: 14      Corr. Area 1: 595.4  
 Noise: 0.3

**Peak table for sample 9 : CNGKO1 Sheared DNA**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	148	164.29	1,676.8	
3	188	223.75	1,800.8	
4	199	76.07	578.4	
5	215	53.21	375.4	
6	226	82.11	550.6	
7	244	121.07	751.5	
8	253	143.41	858.3	
9	295	64.83	333.2	
10	311	42.77	208.3	
11	329	32.05	147.6	
12	345	28.03	123.1	
13	371	18.98	77.5	
14	385	21.91	86.2	
15	414	10.11	37.0	
16	10,380	75.00	10.9	Upper Marker

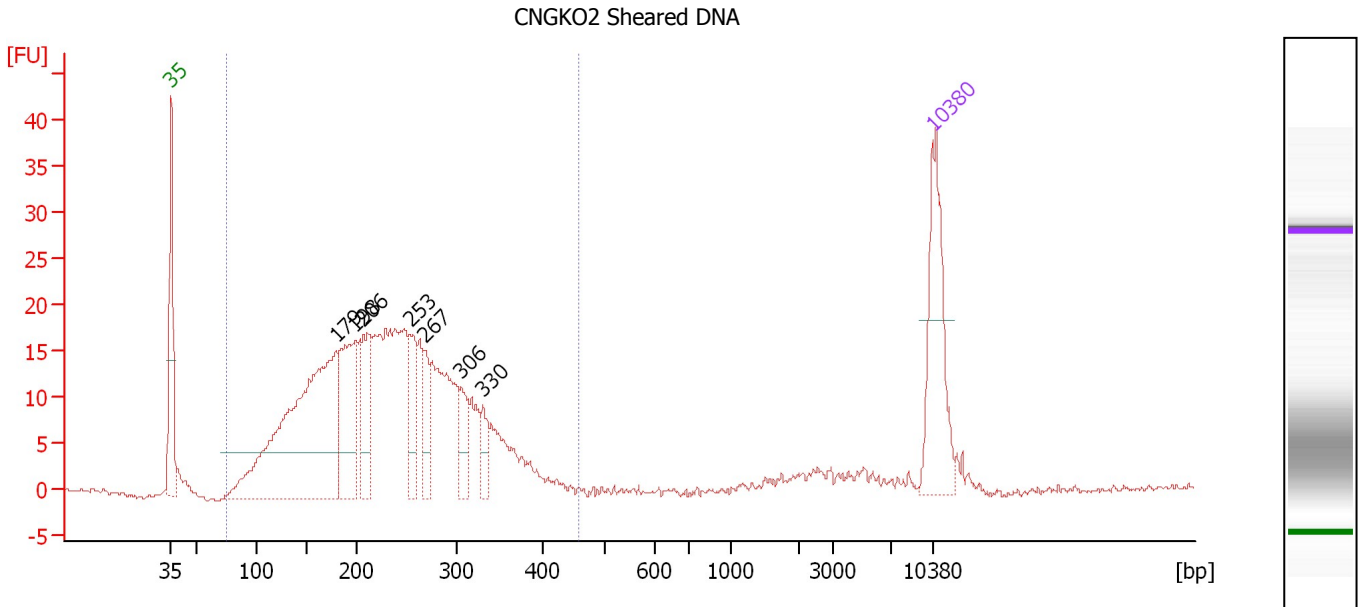
**Region table for sample 9 : CNGKO1 Sheared DNA**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
79	575	262	9,627.4	1,428.00	595.4	99	31.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
 Modified: 6/29/2012 5:03:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : CNGKO2 Sheared DNA**

Number of peaks found: 7                      Corr. Area 1: 481.4  
 Noise: 0.3

**Peak table for sample 10 : CNGKO2 Sheared DNA**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	179	381.10	3,231.6	
3	198	113.01	864.0	
4	206	70.94	521.3	
5	253	46.97	281.4	
6	267	34.74	197.2	
7	306	30.33	150.3	
8	330	21.38	98.0	
9	10,380	75.00	10.9	Upper Marker

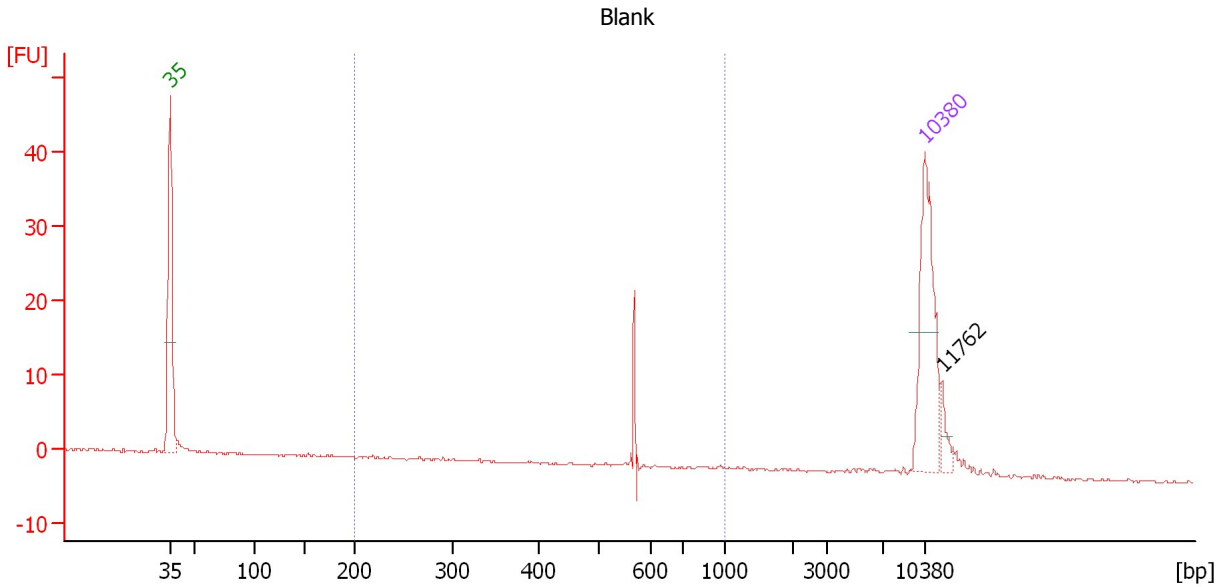
**Region table for sample 10 : CNGKO2 Sheared DNA**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
75	458	232	8,795.8	1,163.74	481.4	95	29.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
 Modified: 6/29/2012 5:03:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : Blank**

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

**Peak table for sample 11 : Blank**

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	11,762	0.00	0.0	

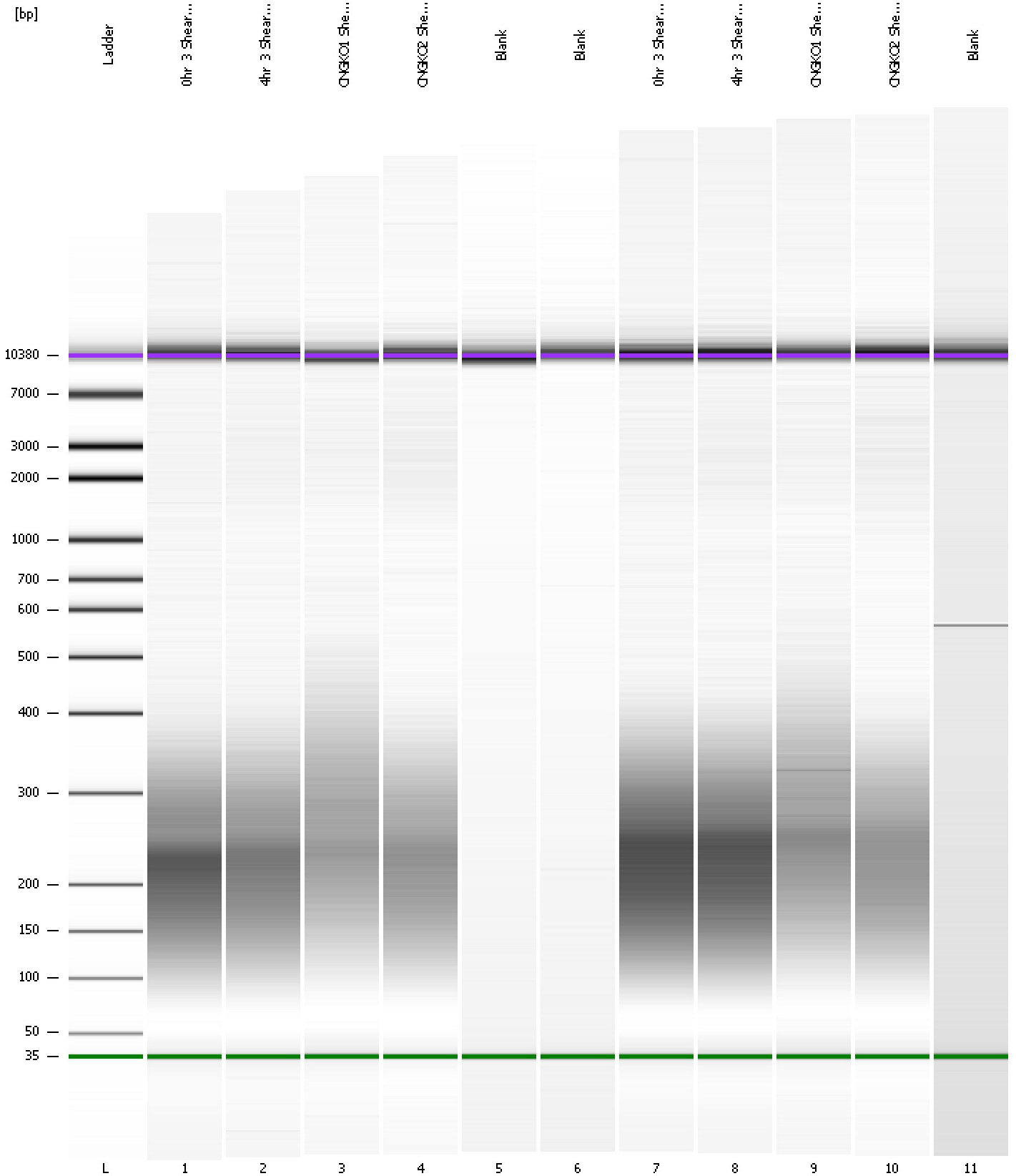
**Region table for sample 11 : Blank**

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	536	44.0	13.45	7.4	28	22.1	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
Modified: 6/29/2012 5:03:54 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-29\2012-06-29\_002.xad

Created: 6/29/2012 4:08:13 PM  
 Modified: 6/29/2012 5:03:54 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		6/29/2012 4:49:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-06-29\2012-06-29_002.xad)		Instrument	Run		6/29/2012 4:08:18 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		6/29/2012 4:08:18 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/29/2012 4:08:18 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/29/2012 4:08:18 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		6/29/2012 4:08:18 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/29/2012 4:08:18 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/29/2012 4:08:18 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1