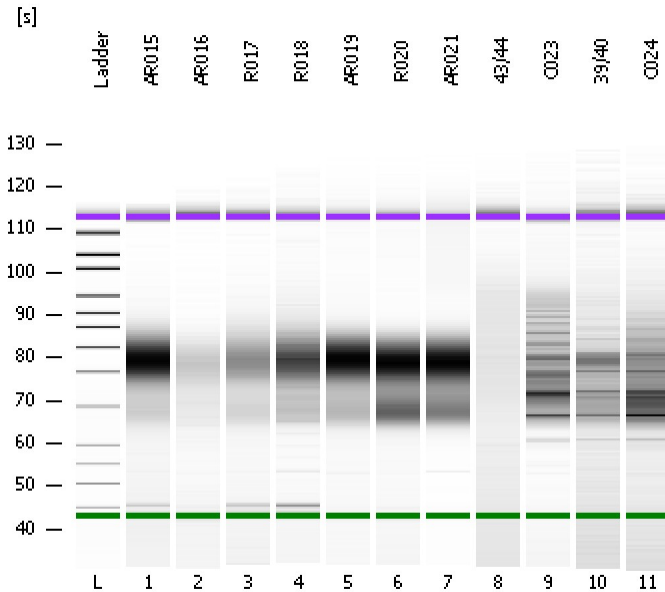


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
Modified: 3/6/2012 5:16:48 PM

### Electrophoresis File Run Summary



#### Instrument Information:

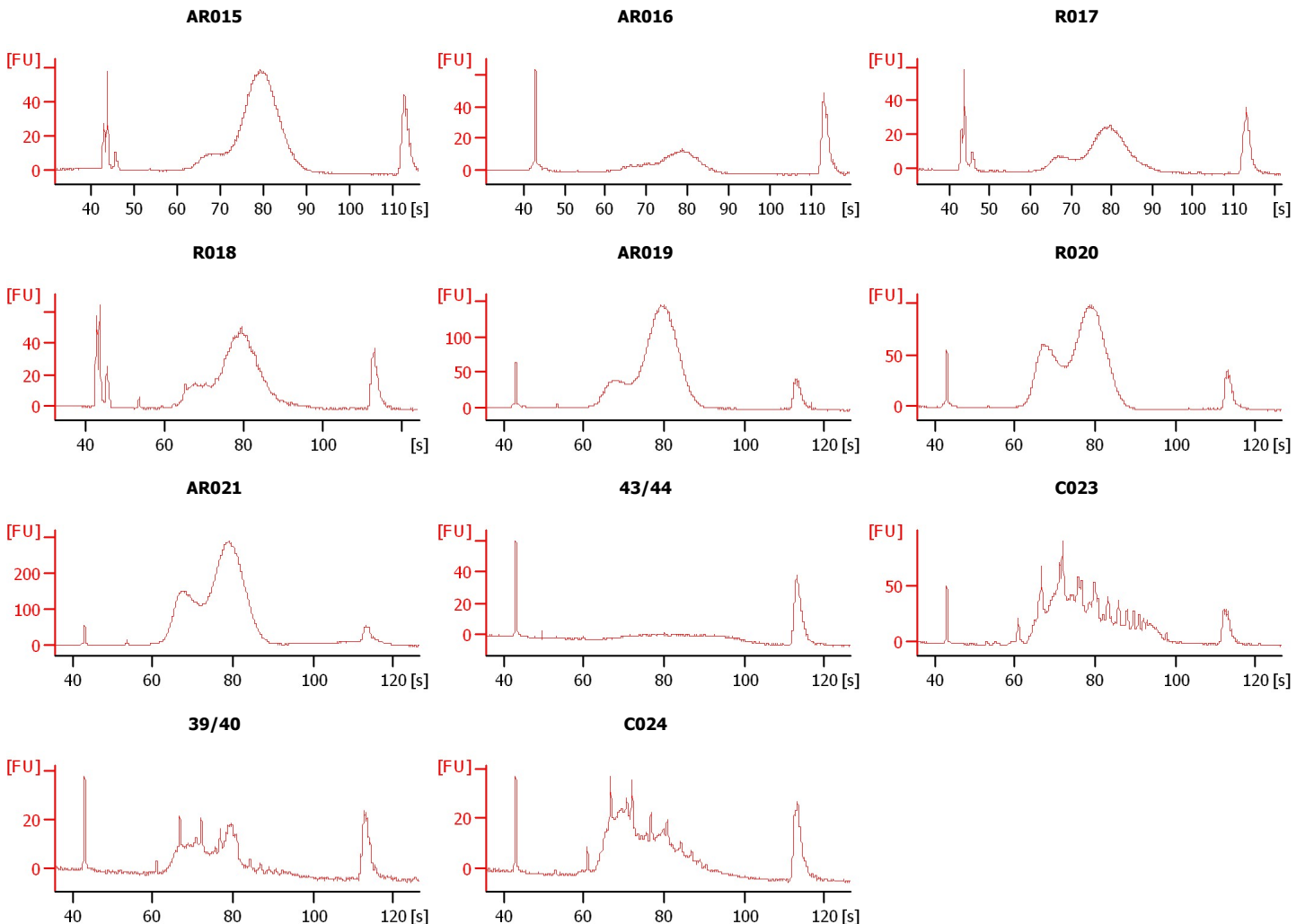
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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:



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
Modified: 3/6/2012 5:16:48 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
AR015		<input type="checkbox"/>	✓			
AR016		<input type="checkbox"/>	✓			
R017		<input type="checkbox"/>	✓			
R018		<input type="checkbox"/>	✓			
AR019		<input type="checkbox"/>	✓			
R020		<input type="checkbox"/>	✓			
AR021		<input type="checkbox"/>	✓			
43/44		<input type="checkbox"/>	✓			
C023		<input type="checkbox"/>	✓			
39/40		<input type="checkbox"/>	✓			
C024		<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\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
Modified: 3/6/2012 5:16:48 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

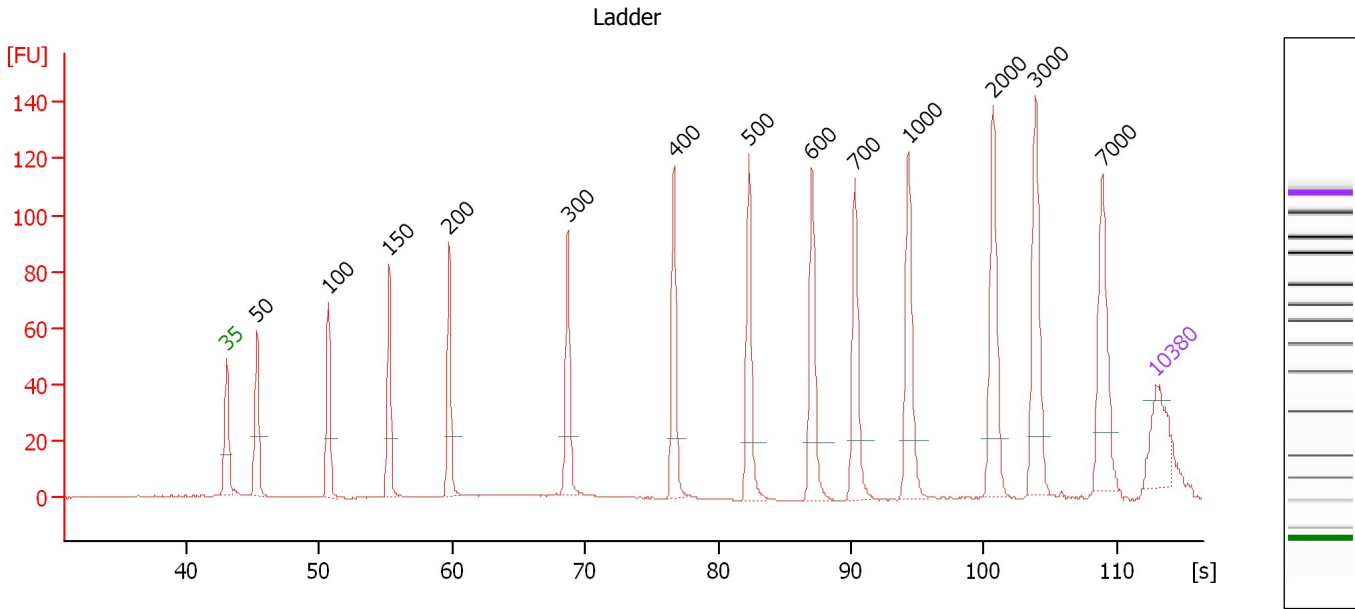
**Ladder**

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\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
 Modified: 3/6/2012 5:16:48 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

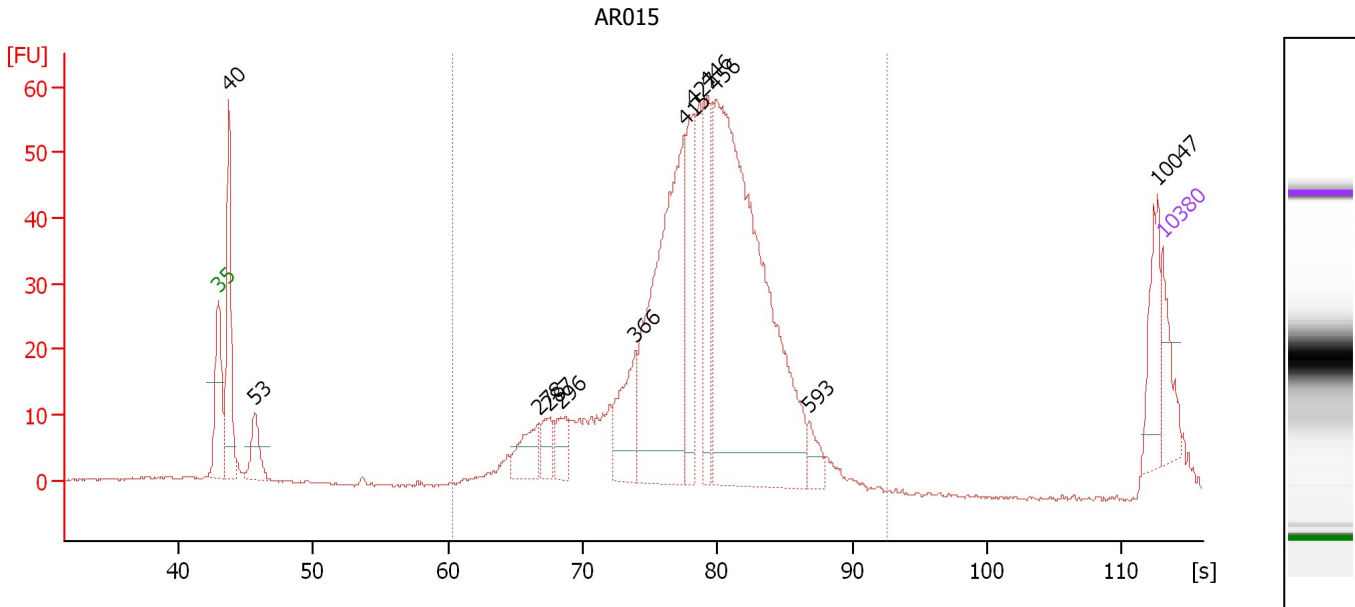
**Peak table for Ladder**

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\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
 Modified: 3/6/2012 5:16:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : AR015**

Number of peaks found: 12                      Corr. Area 1: 825.2  
 Noise: 0.2

**Peak table for sample 1 : AR015**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	400.51	15,200.0	
3	53	117.49	3,335.4	
4	278	108.92	594.2	
5	287	70.65	373.4	
6	296	76.83	393.3	
7	366	184.15	763.3	
8	415	789.00	2,877.3	
9	427	233.09	827.6	
10	446	214.66	729.7	
11	456	1,409.38	4,680.2	
12	593	47.50	121.3	
13	10,047	106.31	16.0	
14	10,380	75.00	10.9	Upper Marker

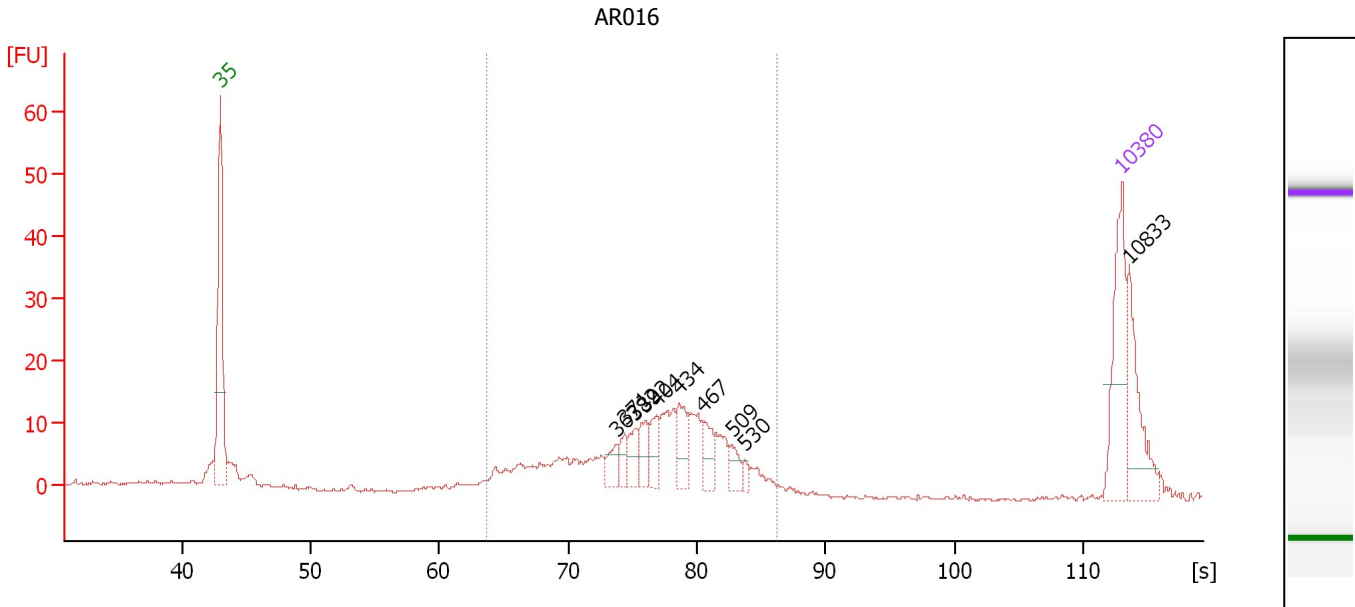
**Region table for sample 1 : AR015**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
60.37	12,944.1	436	3,543.76	92.61	825.2	86	17.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
 Modified: 3/6/2012 5:16:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : AR016**

Number of peaks found: 10      Corr. Area 1: 208.3  
 Noise: 0.2

**Peak table for sample 2 : AR016**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	363	18.03	75.2	
3	371	15.94	65.1	
4	382	21.95	87.0	
5	392	24.90	96.3	
6	404	23.88	89.6	
7	434	36.40	127.1	
8	467	29.12	94.5	
9	509	17.42	51.9	
10	530	6.73	19.2	
11	10,380	75.00	10.9	Upper Marker
12	10,833	0.00	0.0	

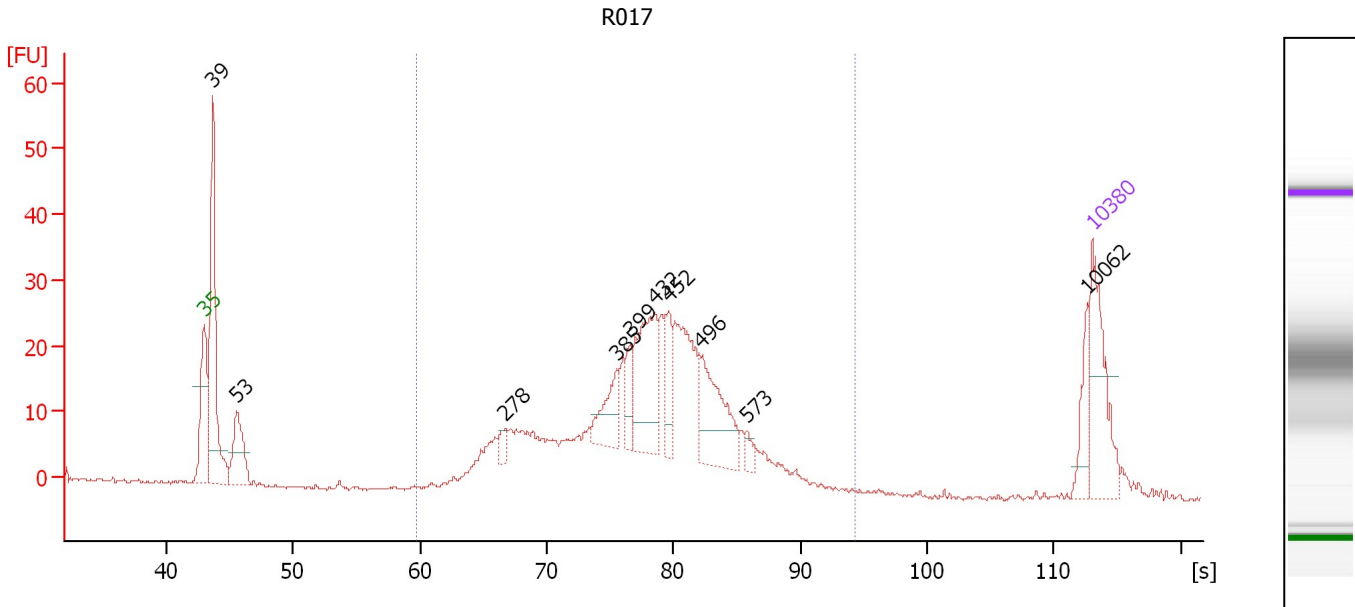
**Region table for sample 2 : AR016**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
63.66	1,861.1	406	471.57	86.27	208.3	76	18.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
 Modified: 3/6/2012 5:16:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : R017**

Number of peaks found: 10      Corr. Area 1: 458.3  
 Noise: 0.3

**Peak table for sample 3 : R017**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	253.07	9,730.3	
3	53	78.29	2,256.4	
4	278	13.18	71.9	
5	385	46.81	184.2	
6	399	25.21	95.7	
7	432	114.18	400.3	
8	452	36.40	122.1	
9	496	96.51	295.0	
10	573	9.98	26.4	
11	10,062	27.26	4.1	
12	10,380	75.00	10.9	Upper Marker

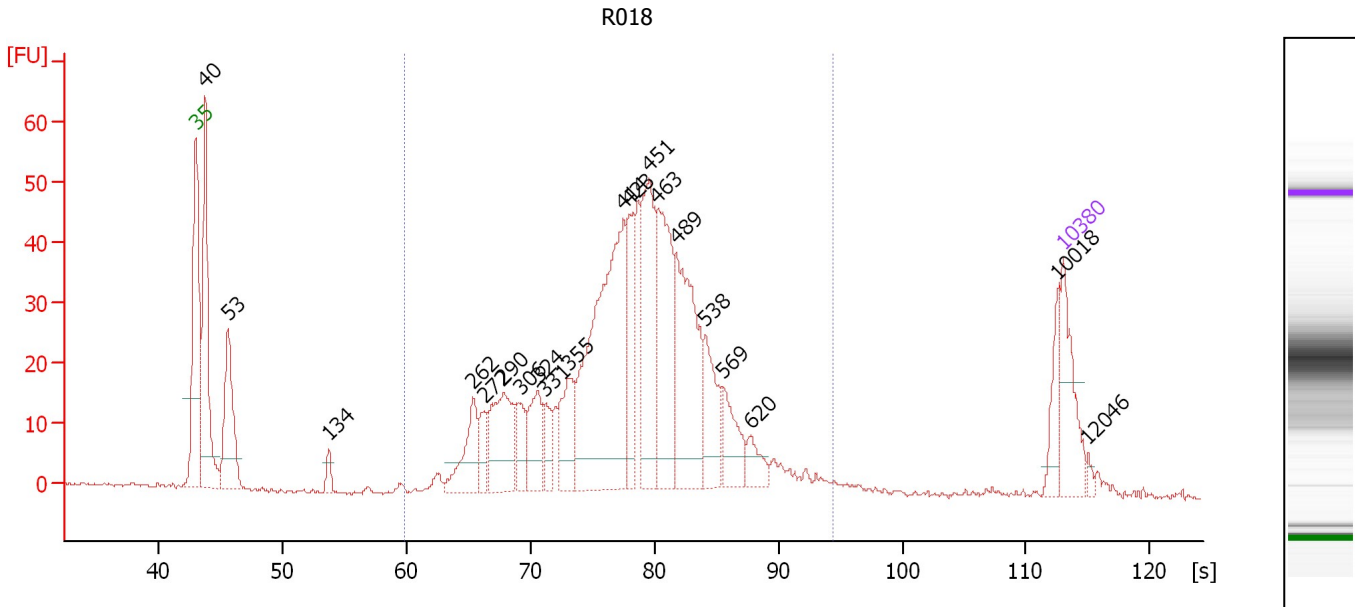
**Region table for sample 3 : R017**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.78	3,821.4	433	1,005.81	94.36	458.3	79	23.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
 Modified: 3/6/2012 5:16:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : R018**

Number of peaks found: 20                      Corr. Area 1: 833.3  
 Noise: 0.3

**Peak table for sample 4 : R018**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	309.31	11,776.6	
3	53	182.12	5,231.2	
4	134	19.81	224.7	
5	262	93.55	540.0	
6	272	35.95	200.1	
7	290	140.47	733.6	
8	306	48.96	242.6	
9	324	77.69	363.6	
10	331	37.68	172.3	
11	355	89.38	381.8	
12	414	429.95	1,574.9	
13	423	96.66	346.4	
14	451	196.51	659.9	
15	463	198.41	649.8	
16	489	234.04	724.5	
17	538	87.41	246.3	
18	569	62.33	166.0	
19	620	29.89	73.0	
20	10,018	37.51	5.7	
21	10,380	75.00	10.9	Upper Marker
22	12,046	0.00	0.0	

**Region table for sample 4 : R018**

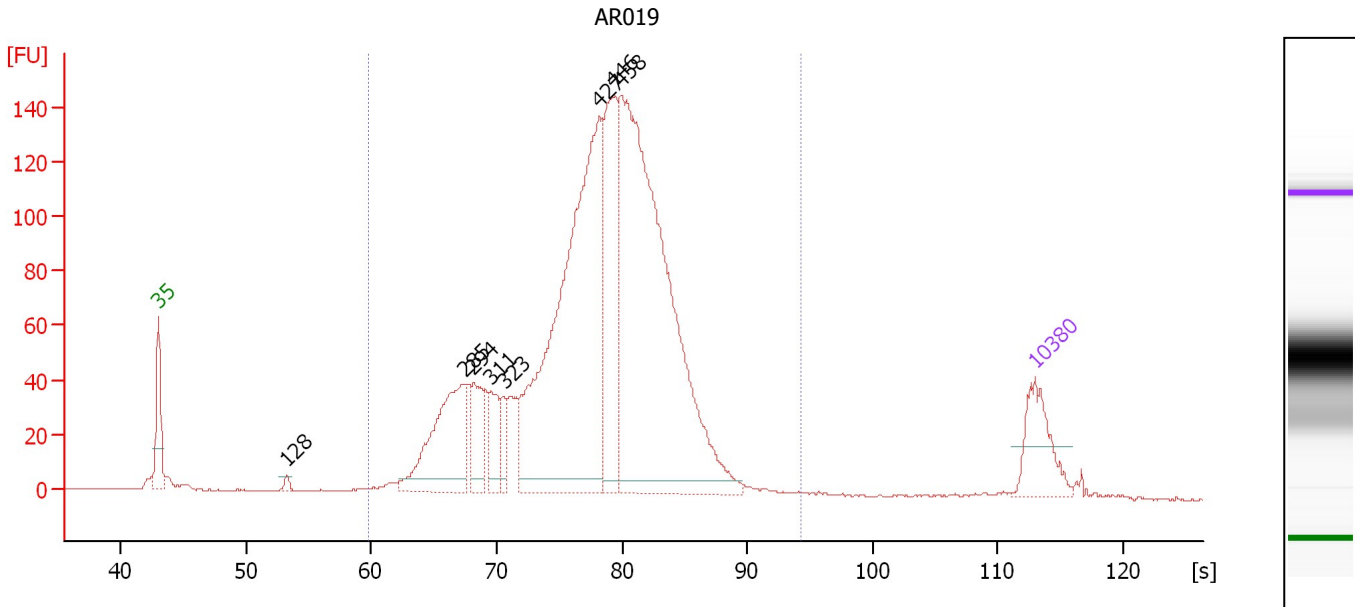
From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.78	7,733.2	437	2,053.39	94.36	833.3	82	24.2	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
 Modified: 3/6/2012 5:16:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : AR019**

Number of peaks found: 8                      Corr. Area 1: 2,245.9  
 Noise: 0.4

**Peak table for sample 5 : AR019**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	128	9.17	108.4	
3	285	255.57	1,357.1	
4	294	82.00	422.8	
5	311	60.24	293.9	
6	323	38.86	182.0	
7	427	833.95	2,960.7	
8	446	258.31	878.0	
9	458	1,003.74	3,323.3	
10	10,380	75.00	10.9	Upper Marker

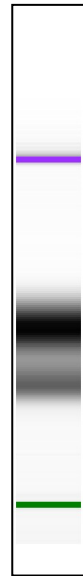
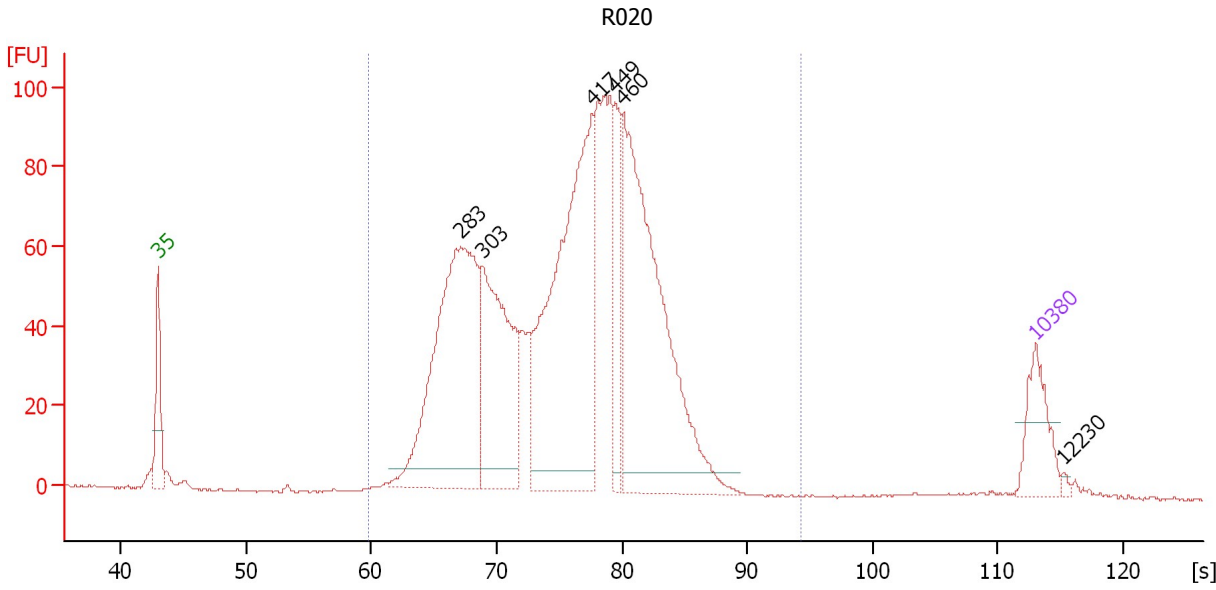
**Region table for sample 5 : AR019**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.78	10,323.4	428	2,716.75	94.36	2,245.9	97	20.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
 Modified: 3/6/2012 5:16:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : R020**

Number of peaks found: 6                      Corr. Area 1: 1,807.4  
 Noise: 0.3

**Peak table for sample 6 : R020**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	283	698.73	3,746.7	
3	303	397.19	1,989.1	
4	417	700.16	2,545.0	
5	449	119.28	402.7	
6	460	690.18	2,273.8	
7	10,380	75.00	10.9	Upper Marker
8	12,230	0.00	0.0	

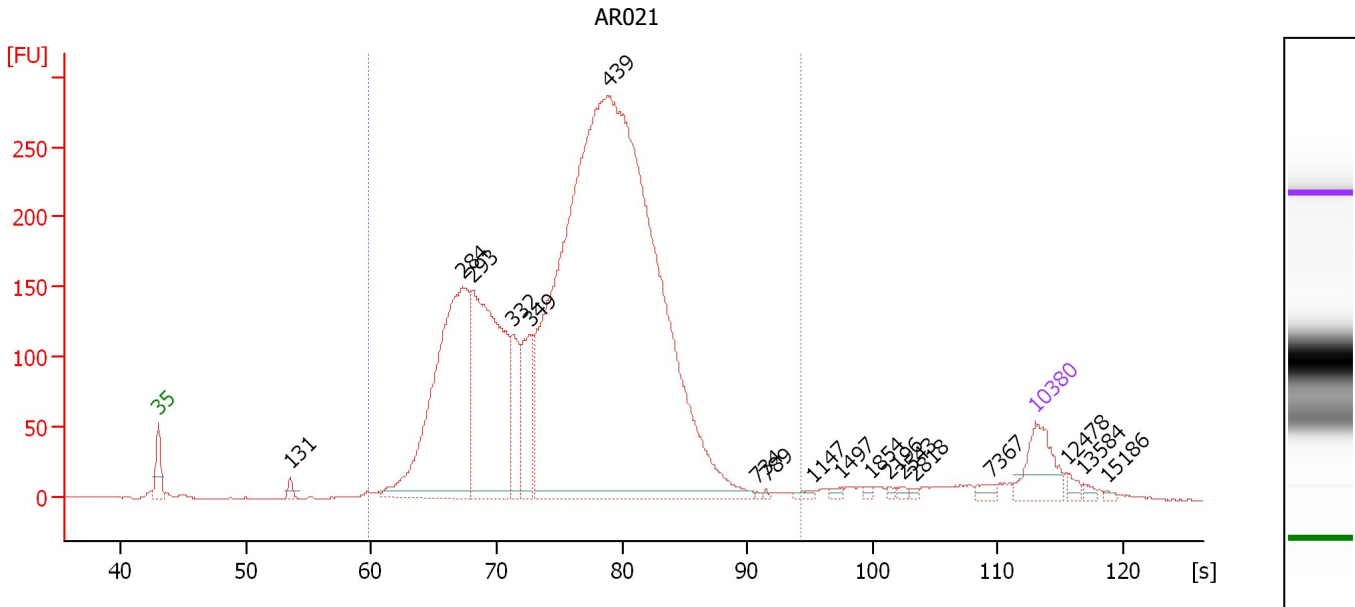
**Region table for sample 6 : R020**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.78	12,639.6	396	3,058.70	94.36	1,807.4	98	21.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
 Modified: 3/6/2012 5:16:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : AR021**

Number of peaks found: 18                      Corr. Area 1: 5,122.0  
 Noise: 0.2

**Peak table for sample 7 : AR021**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	131	15.50	178.9	
3	284	749.33	3,999.7	
4	293	620.37	3,213.1	
5	332	133.96	610.8	
6	349	142.27	616.8	
7	439	2,914.20	10,050.3	
8	734	2.89	6.0	
9	789	2.77	5.3	
10	1,147	7.45	9.8	
11	1,497	6.38	6.5	
12	1,854	4.25	3.5	
13	2,196	3.54	2.4	
14	2,543	5.28	3.1	
15	2,818	3.53	1.9	
16	7,367	11.36	2.3	
17	10,380	75.00	10.9	Upper Marker
18	12,478	0.00	0.0	
19	13,584	0.00	0.0	
20	15,186	0.00	0.0	

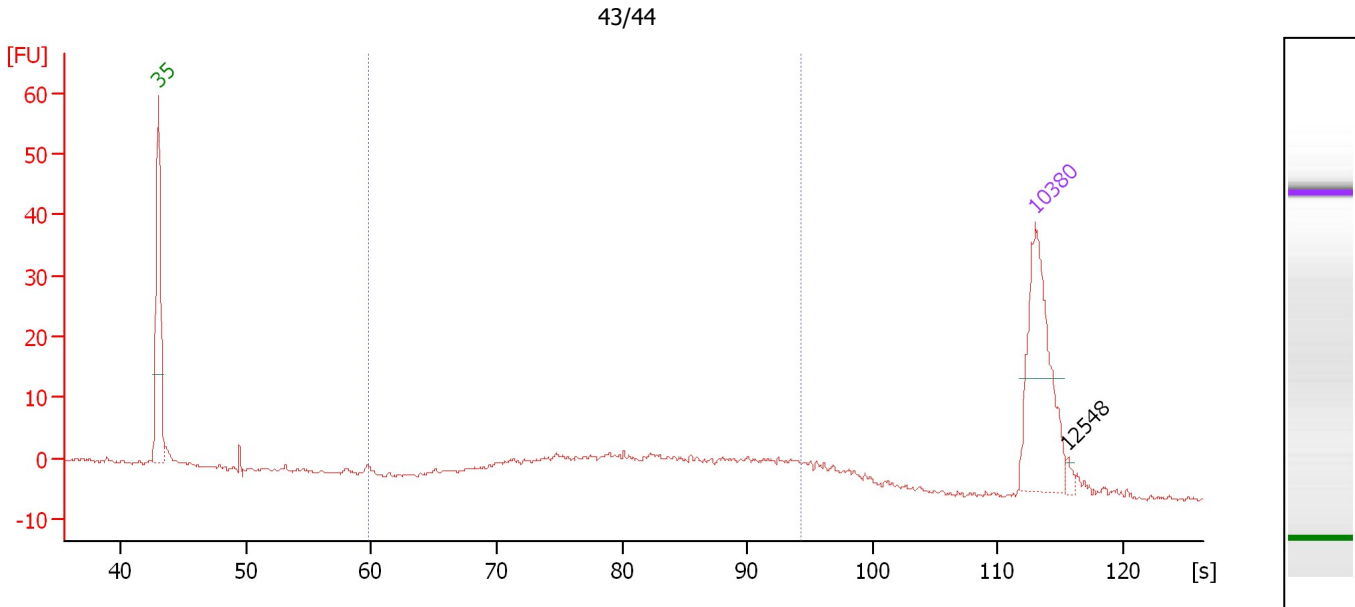
**Region table for sample 7 : AR021**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.78	18,667.3	406	4,609.74	94.36	5,122.0	96	23.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
 Modified: 3/6/2012 5:16:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 43/44**

Number of peaks found: 1      Corr. Area 1: 110.3  
 Noise: 0.2

**Peak table for sample 8 : 43/44**

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	12,548	0.00	0.0	

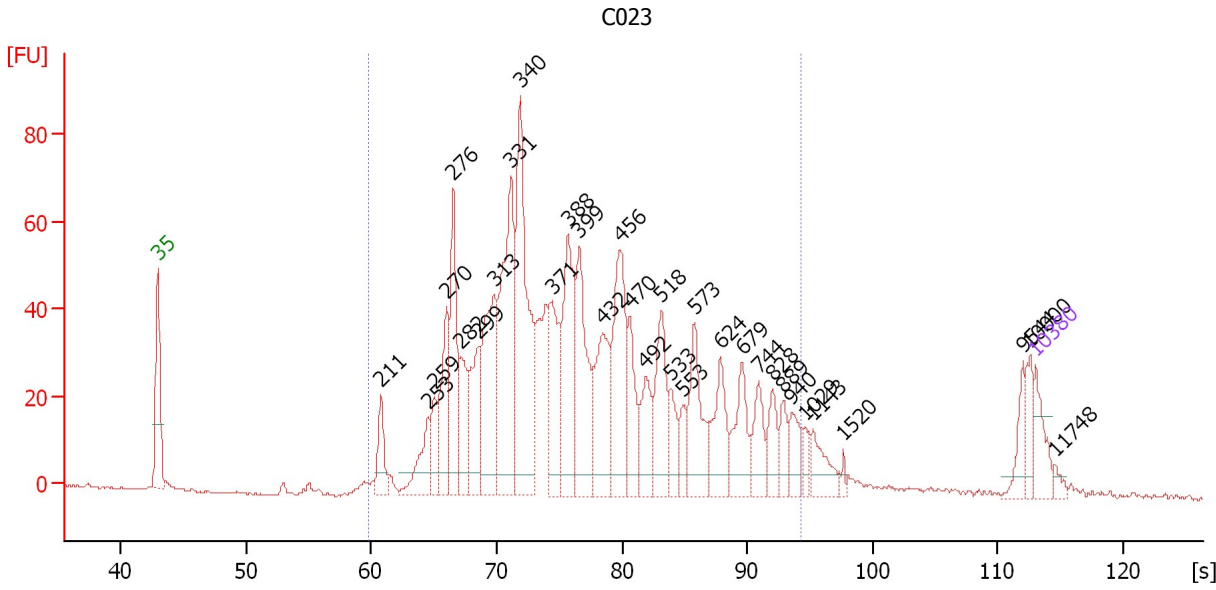
**Region table for sample 8 : 43/44**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.78	458.6	543	142.49	94.36	110.3	76	32.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
 Modified: 3/6/2012 5:16:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : C023**

Number of peaks found: 33                      Corr. Area 1: 1,325.1  
 Noise: 0.2

**Peak table for sample 9 : C023**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	211	111.97	803.7	
3	253	139.98	837.3	
4	259	97.12	568.4	
5	270	228.63	1,282.6	
6	276	305.94	1,681.5	
7	282	154.62	829.9	
8	299	212.67	1,077.4	
9	313	394.02	1,906.0	
10	331	540.50	2,474.8	
11	340	604.74	2,694.6	
12	371	219.66	896.1	
13	388	361.92	1,413.4	
14	399	318.78	1,209.4	
15	432	265.72	931.9	
16	456	345.80	1,148.6	
17	470	152.98	493.4	
18	492	139.39	429.0	
19	518	204.52	598.6	
20	533	83.60	237.6	
21	553	61.01	167.1	
22	573	202.62	535.4	
23	624	162.74	395.0	
24	679	149.97	334.6	
25	744	109.21	222.4	
26	828	85.98	157.3	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-06\2012-03-06\_008.xad


Created: 3/6/2012 4:16:39 PM  
 Modified: 3/6/2012 5:16:48 PM

### Electropherogram Summary Continued ...

#### ... Peak table for sample 9 : C023

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	889	60.69	103.4	
28	940	72.65	117.1	
29	1,029	34.67	51.0	
30	1,143	83.95	111.3	
31	1,520	13.07	13.0	
32	9,544	61.26	9.7	
33	10,000	53.22	8.1	
34	10,380	75.00	10.9	Upper Marker
35	11,748	0.00	0.0	

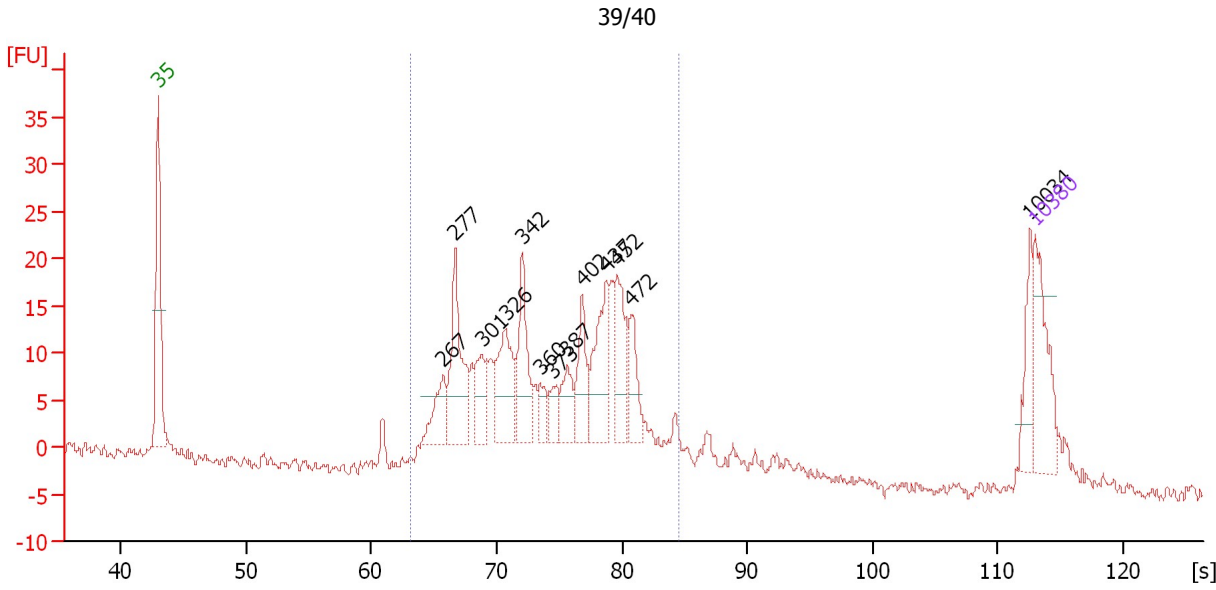
#### Region table for sample 9 : C023

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.78	23,466.4	435	5,806.07	94.36	1,325.1	94	36.4	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
 Modified: 3/6/2012 5:16:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 39/40**

Number of peaks found: 13                      Corr. Area 1: 303.3  
 Noise: 0.7

**Peak table for sample 10 : 39/40**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	267	53.22	302.4	
3	277	125.38	684.8	
4	301	51.22	257.6	
5	326	93.80	436.6	
6	342	86.51	383.0	
7	360	23.26	98.0	
8	373	27.31	111.0	
9	387	41.24	161.3	
10	402	57.03	214.7	
11	437	97.91	339.7	
12	452	72.47	242.9	
13	472	47.01	150.8	
14	10,034	41.61	6.3	
15	10,380	75.00	10.9	Upper Marker

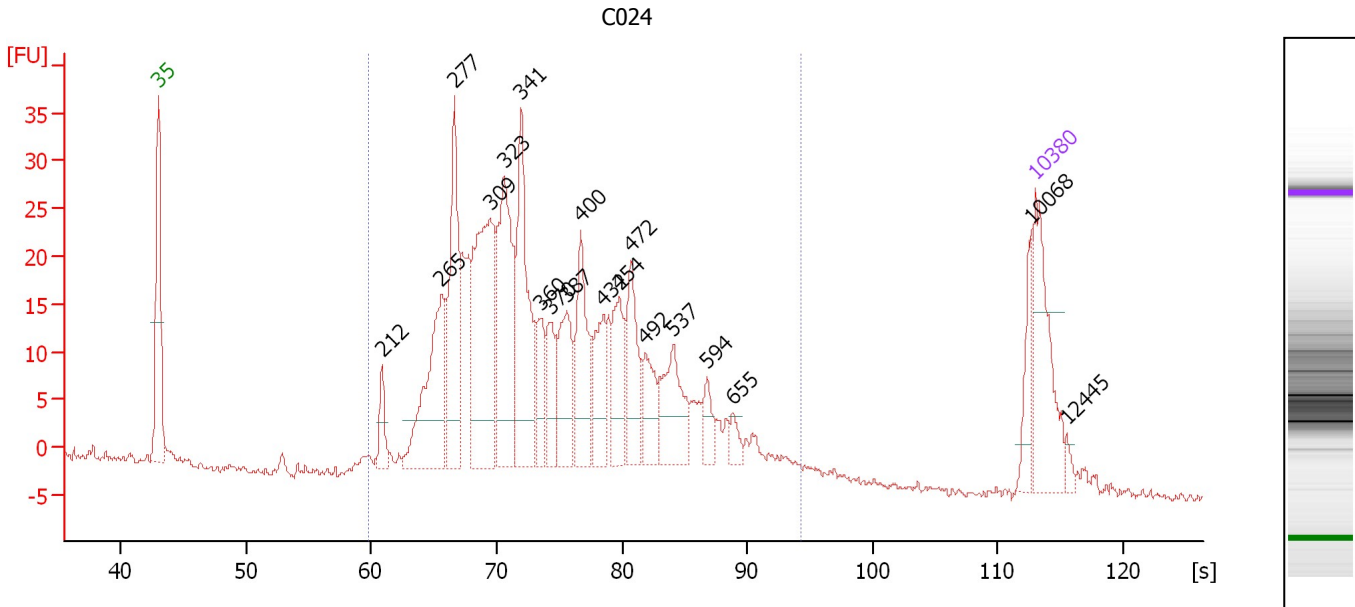
**Region table for sample 10 : 39/40**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
63.07	5,120.6	374	1,192.01	84.48	303.3	86	19.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
 Modified: 3/6/2012 5:16:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : C024**

Number of peaks found: 19      Corr. Area 1: 595.6  
 Noise: 0.5

**Peak table for sample 11 : C024**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	212	27.19	194.4	
3	265	138.97	794.2	
4	277	140.90	771.8	
5	309	197.76	968.3	
6	323	160.62	752.3	
7	341	138.66	616.0	
8	360	41.19	173.5	
9	370	43.46	178.1	
10	387	66.48	260.5	
11	400	80.94	306.4	
12	432	50.90	178.4	
13	454	58.26	194.2	
14	472	63.63	204.4	
15	492	40.59	125.1	
16	537	65.73	185.4	
17	594	19.68	50.2	
18	655	11.10	25.7	
19	10,068	26.38	4.0	
20	10,380	75.00	10.9	Upper Marker
21	12,445	0.00	0.0	

**Region table for sample 11 : C024**

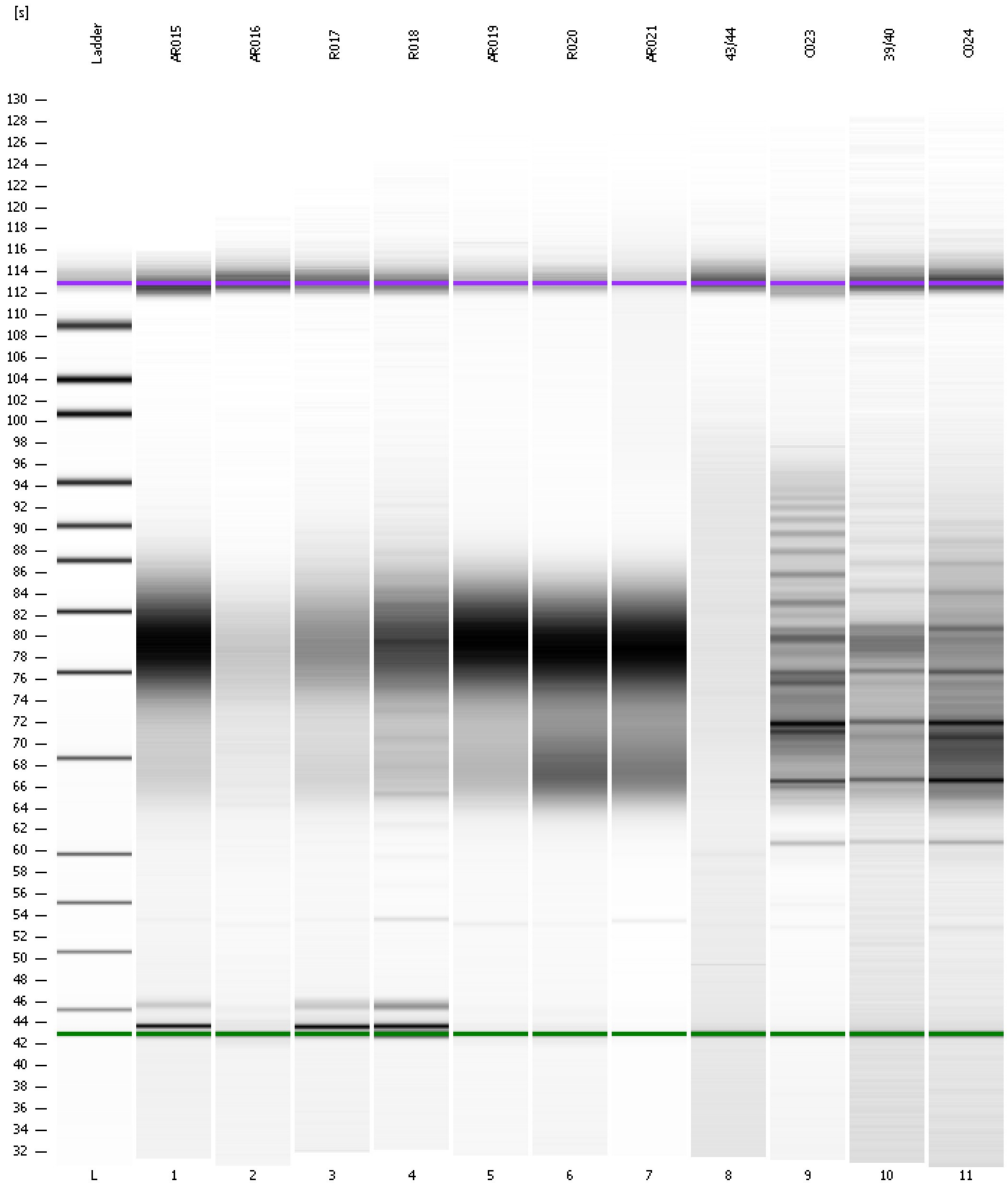
From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.78	6,887.5	394	1,595.81	94.36	595.6	95	31.7	Blue



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-06\2012-03-06\_008.xad

Created: 3/6/2012 4:16:39 PM  
Modified: 3/6/2012 5:16:48 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay Created: 3/6/2012 4:16:39 PM  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-06\2012-03-06\_008.xad Modified: 3/6/2012 5:16:48 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		3/6/2012 4:57:52 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-03-06\2012-03-06_008.xad)		Instrument	Run		3/6/2012 4:16:39 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/6/2012 4:16:39 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/6/2012 4:16:39 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/6/2012 4:16:39 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/6/2012 4:16:39 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/6/2012 4:16:39 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/6/2012 4:16:39 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1