

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...s and Settings\Bioanalyzer\2015-10-26\2015-10-26\_001\_QC.xad

Created: 10/26/2015 2:52:59 PM  
Modified: 10/26/2015 3:43:29 PM

**Electrophoresis File Run Summary**

Instrument Information:

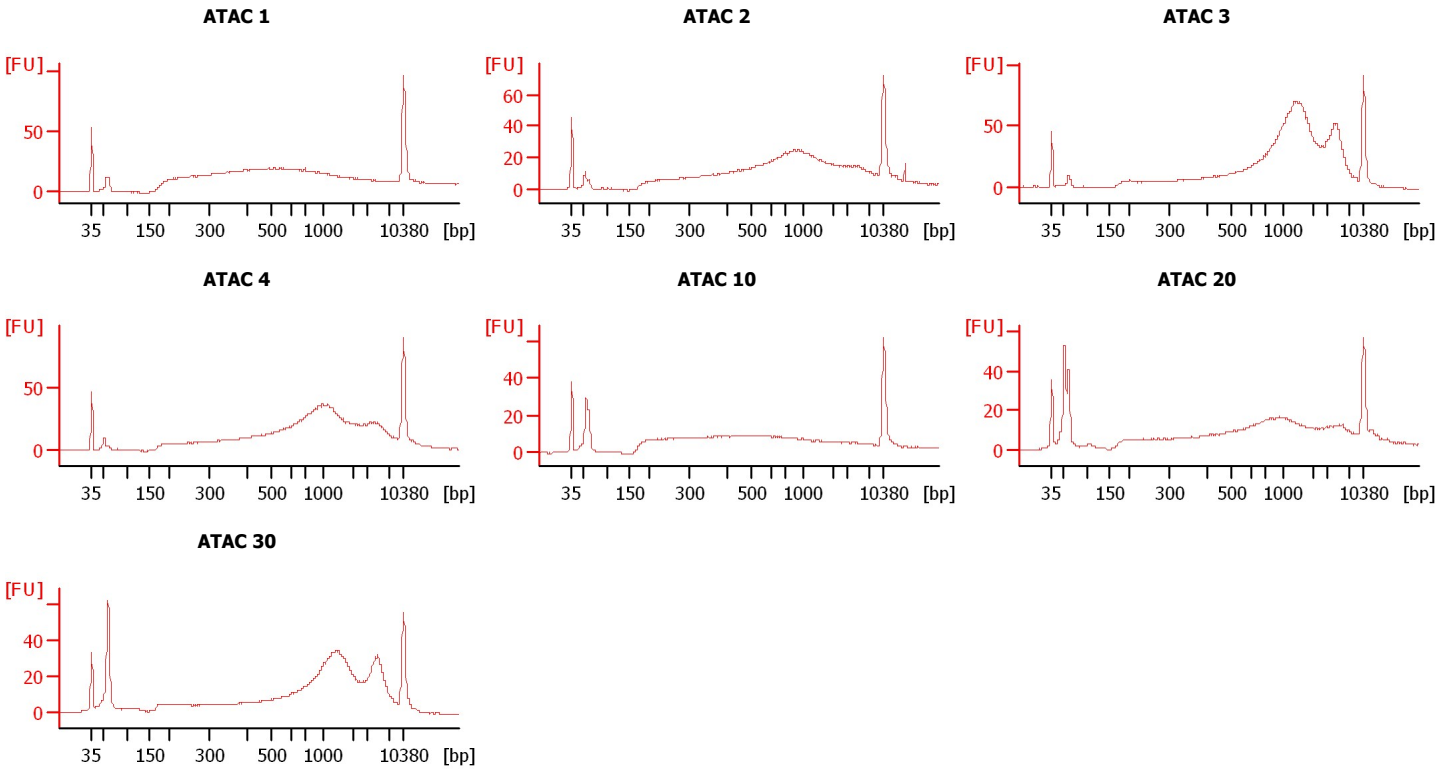
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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:



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Created: 10/26/2015 2:52:59 PM  
 Modified: 10/26/2015 3:43:29 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
ATAC 1		<input type="checkbox"/>	✓			
ATAC 2		<input type="checkbox"/>	✓			
ATAC 3		<input type="checkbox"/>	✓			
ATAC 4		<input type="checkbox"/>	✓			
ATAC 10		<input type="checkbox"/>	✓			
ATAC 20		<input type="checkbox"/>	✓			
ATAC 30		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

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**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

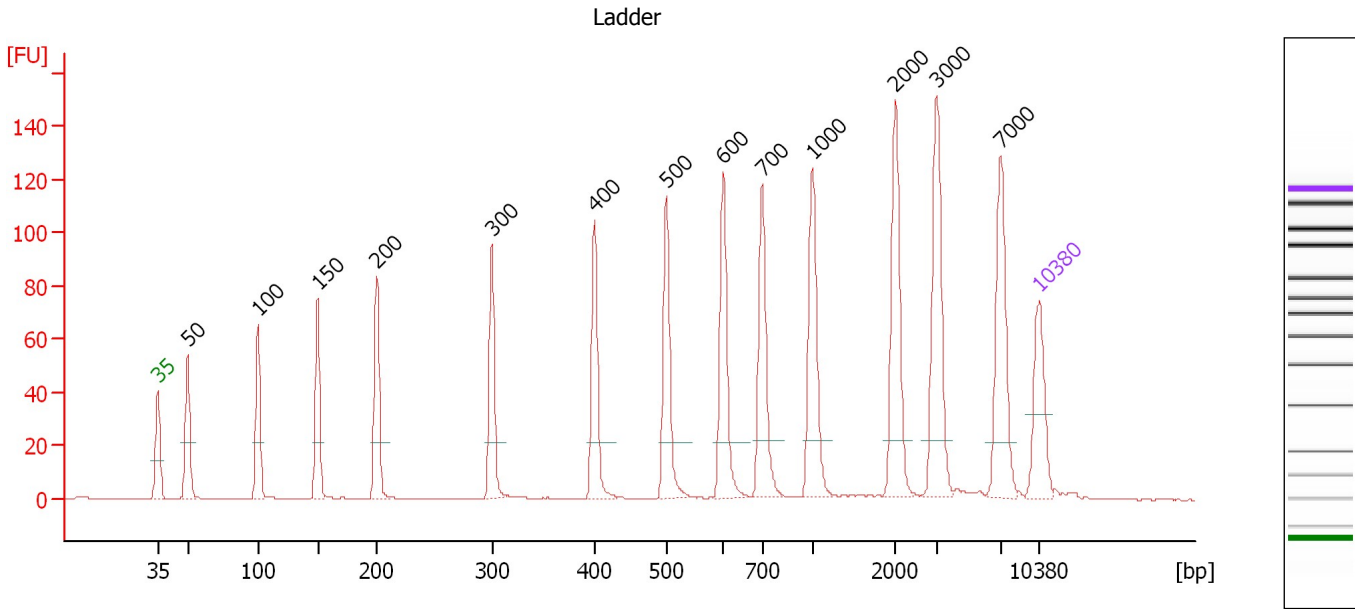
**Ladder**

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

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 Modified: 10/26/2015 3:43:29 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

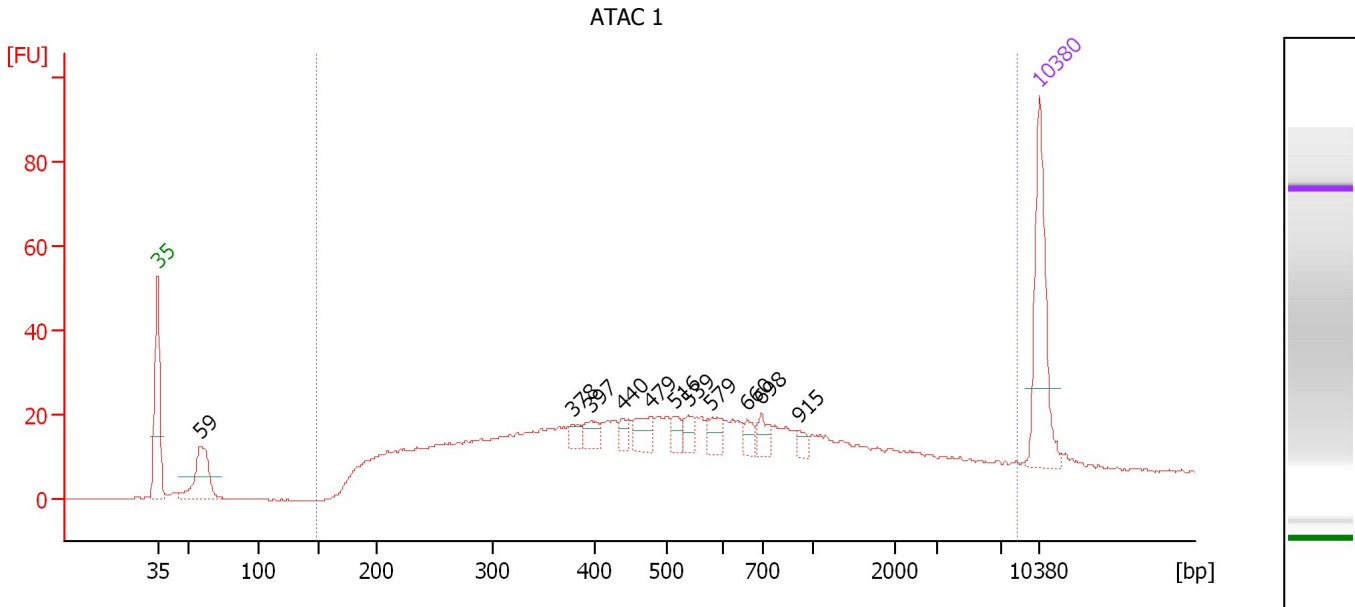
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	150.00	4,545.5	Ladder Peak	45.42
3	100	150.00	2,272.7	Ladder Peak	50.96
4	150	150.00	1,515.2	Ladder Peak	55.74
5	200	150.00	1,136.4	Ladder Peak	60.42
6	300	150.00	757.6	Ladder Peak	69.56
7	400	150.00	568.2	Ladder Peak	77.73
8	500	150.00	454.5	Ladder Peak	83.38
9	600	150.00	378.8	Ladder Peak	87.95
10	700	150.00	324.7	Ladder Peak	91.01
11	1,000	150.00	227.3	Ladder Peak	94.99
12	2,000	150.00	113.6	Ladder Peak	101.60
13	3,000	150.00	75.8	Ladder Peak	104.88
14	7,000	150.00	32.5	Ladder Peak	109.94
15	10,380	75.00	10.9	Upper Marker	113.00

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Created: 10/26/2015 2:52:59 PM  
 Modified: 10/26/2015 3:43:29 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : ATAC 1**

Number of peaks found: 11                      Corr. Area 1: 838.0  
 Noise: 0.1

**Peak table for sample 5 : ATAC 1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	59	68.20	1,763.4		46.37
3	378	10.90	43.6		75.97
4	397	15.27	58.3		77.46
5	440	9.14	31.5		79.97
6	479	21.23	67.1		82.20
7	516	12.07	35.5		84.09
8	539	13.45	37.8		85.17
9	579	16.59	43.4		87.00
10	660	9.46	21.7		89.80
11	698	13.17	28.6		90.94
12	915	7.73	12.8		93.86
13	10,380	75.00	10.9	Upper Marker	113.00

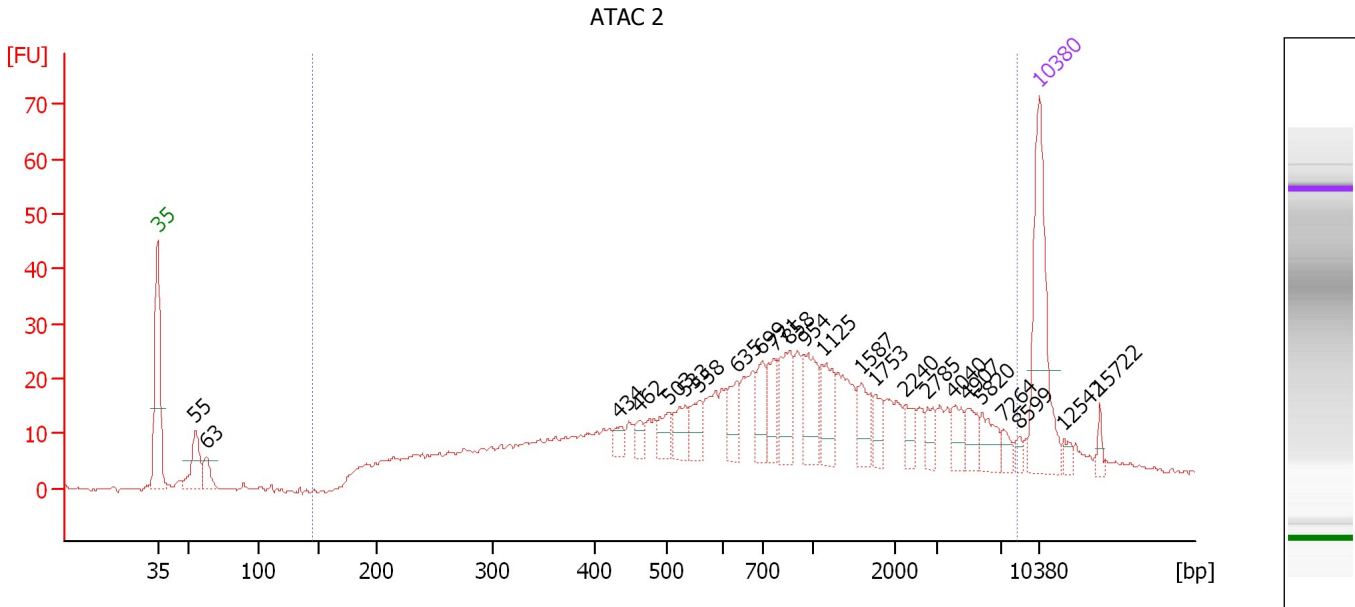
**Region table for sample 5 : ATAC 1**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
148	8,409	1,004	838.0	4,497.5	1,190.82	85	100.0

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 Modified: 10/26/2015 3:43:29 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 24                      Corr. Area 1: 800.8  
 Noise: 0.4

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	55	37.74	1,035.3		46.00
3	63	16.77	403.0		46.86
4	434	8.51	29.7		79.67
5	462	8.79	28.8		81.23
6	503	15.72	47.3		83.54
7	533	19.83	56.4		84.86
8	558	18.49	50.2		86.01
9	635	22.12	52.8		89.01
10	699	22.16	48.1		90.97
11	771	20.61	40.5		91.95
12	858	33.80	59.7		93.11
13	954	31.31	49.7		94.38
14	1,125	24.70	33.3		95.82
15	1,587	18.10	17.3		98.87
16	1,753	12.47	10.8		99.97
17	2,240	8.94	6.0		102.39
18	2,785	9.38	5.1		104.18
19	4,040	12.98	4.9		106.20
20	4,907	11.83	3.7		107.29
21	5,820	15.69	4.1		108.44
22	7,264	6.89	1.4		110.17
23	8,599	4.51	0.8		111.39
24	10,380	75.00	10.9	Upper Marker	113.00
25	12,542	0.00	0.0		114.96

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Created: 10/26/2015 2:52:59 PM  
 Modified: 10/26/2015 3:43:29 PM

### Electropherogram Summary Continued ...

#### ... Peak table for sample 6 : ATAC 2

Peak	Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	15,722	0.00	0.0		117.84

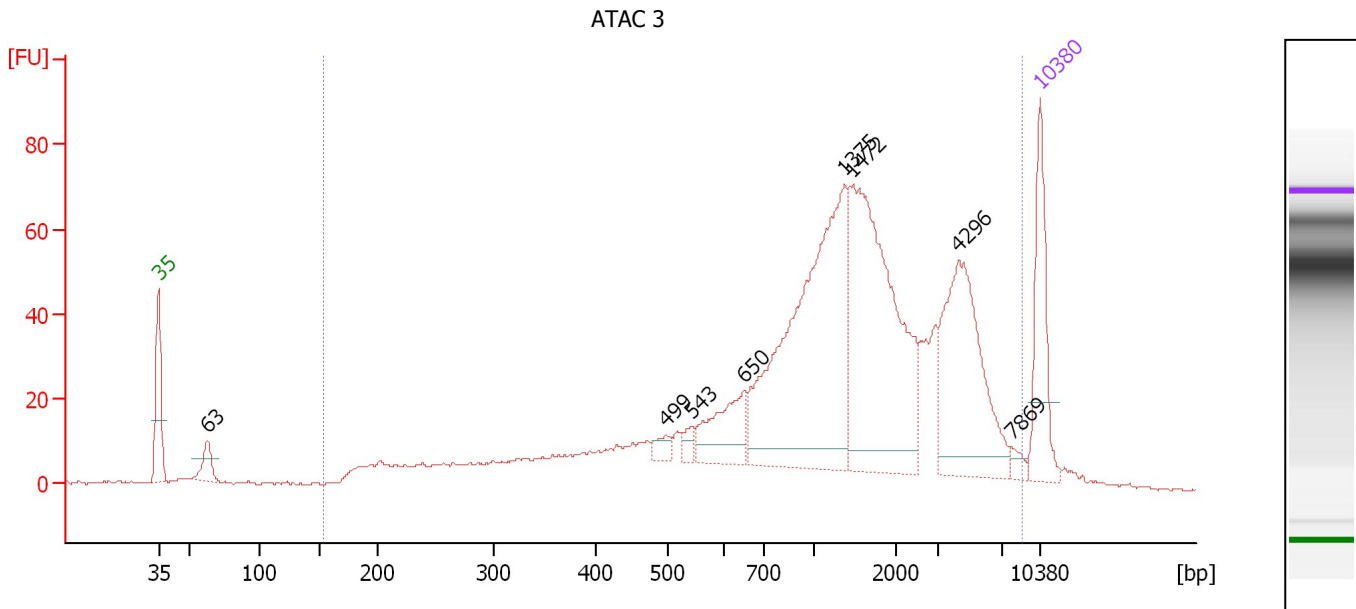
#### Region table for sample 6 : ATAC 2

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/ $\mu$ l]	% of Total	Size distribution in CV [%]
145	8,409	1,423	800.8	3,415.6	1,152.72	85	100.0

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Created: 10/26/2015 2:52:59 PM  
 Modified: 10/26/2015 3:43:29 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 8                      Corr. Area 1: 1,248.9  
 Noise: 0.3

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	63	29.52	710.6		46.85
3	499	13.44	40.8		83.34
4	543	11.59	32.4		85.33
5	650	70.95	165.4		89.47
6	1,375	356.82	393.1		97.47
7	1,472	298.59	307.3		98.11
8	4,296	173.27	61.1		106.52
9	7,869	7.74	1.5		110.72
10	10,380	75.00	10.9	Upper Marker	113.00

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

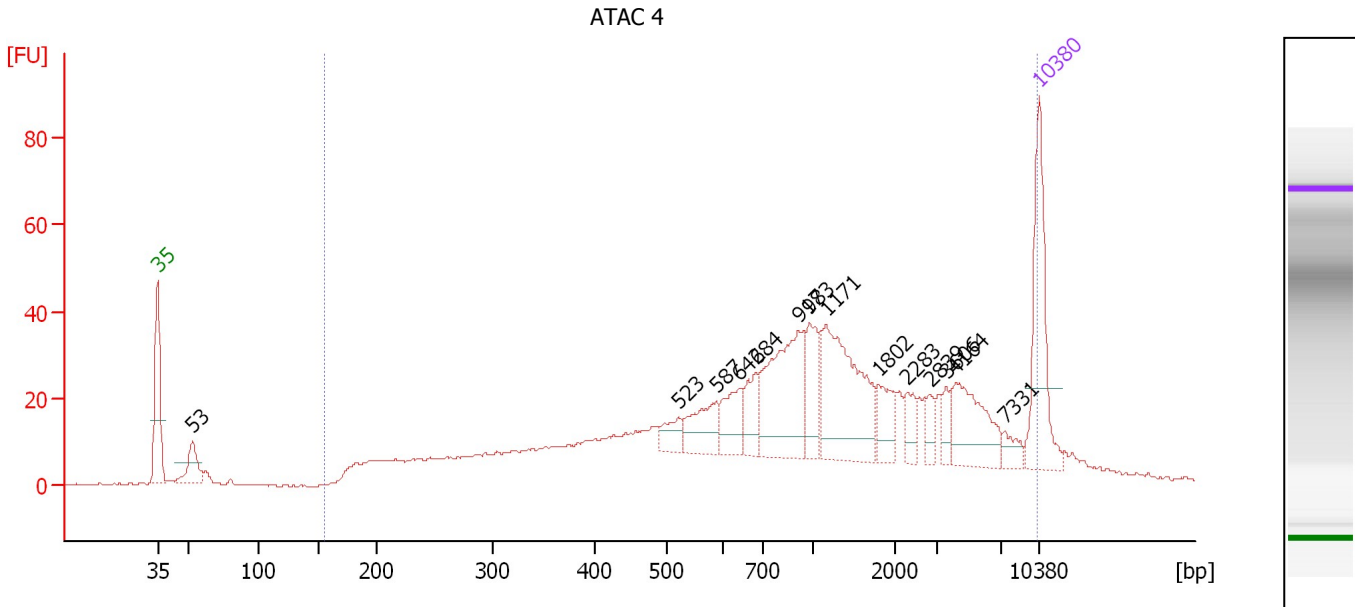
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
155	8,858	1,856	1,248.9	3,174.0	1,516.16	95	89.3



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Created: 10/26/2015 2:52:59 PM  
 Modified: 10/26/2015 3:43:29 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : ATAC 4**

Number of peaks found: 14                      Corr. Area 1: 991.3  
 Noise: 0.2

**Peak table for sample 8 : ATAC 4**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	53	34.91	995.8		45.76
3	523	18.62	54.0		84.41
4	587	38.41	99.1		87.35
5	642	34.19	80.7		89.24
6	684	27.86	61.7		90.53
7	917	105.23	174.0		93.88
8	983	40.63	62.6		94.76
9	1,171	115.89	150.0		96.12
10	1,802	23.49	19.7		100.29
11	2,283	15.66	10.4		102.53
12	2,839	11.95	6.4		104.35
13	3,606	12.11	5.1		105.65
14	4,164	54.10	19.7		106.35
15	7,331	10.57	2.2		110.24
16	10,380	75.00	10.9	Upper Marker	113.00

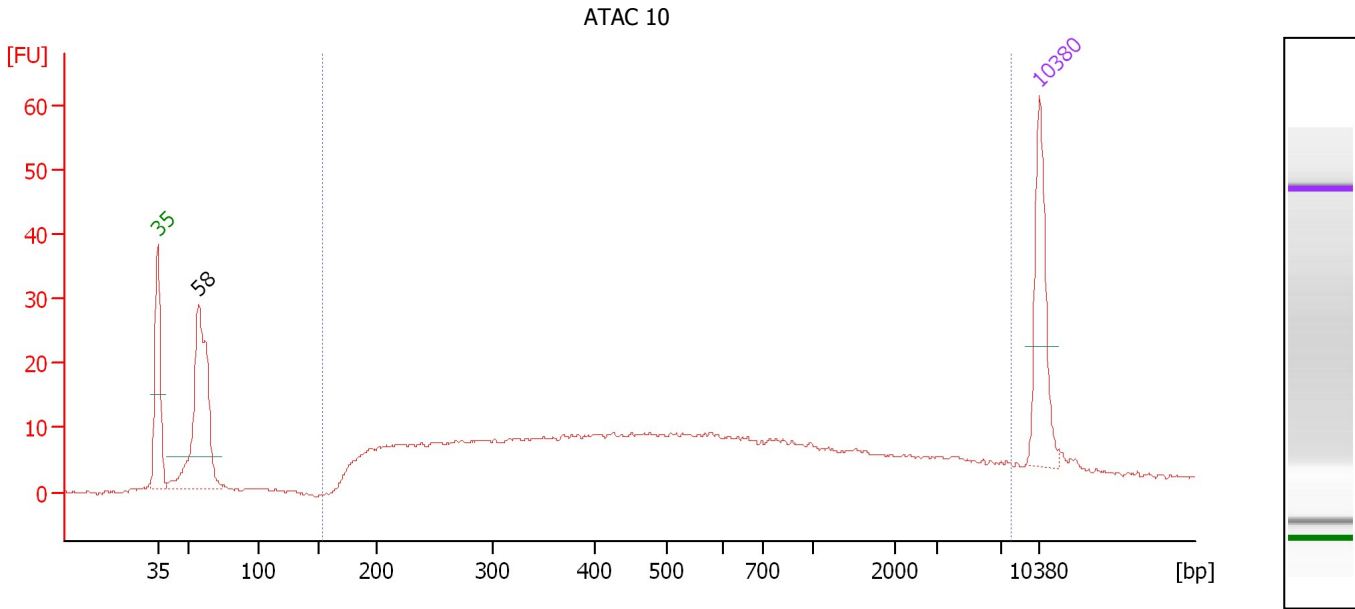
**Region table for sample 8 : ATAC 4**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
156	10,201	1,869	991.3	3,380.9	1,231.33	90	100.0

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Created: 10/26/2015 2:52:59 PM  
 Modified: 10/26/2015 3:43:29 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : ATAC 10**

Number of peaks found: 1                      Corr. Area 1: 472.4  
 Noise: 0.3

**Peak table for sample 9 : ATAC 10**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	58	241.13	6,335.6		46.27
3	10,380	75.00	10.9	Upper Marker	113.00

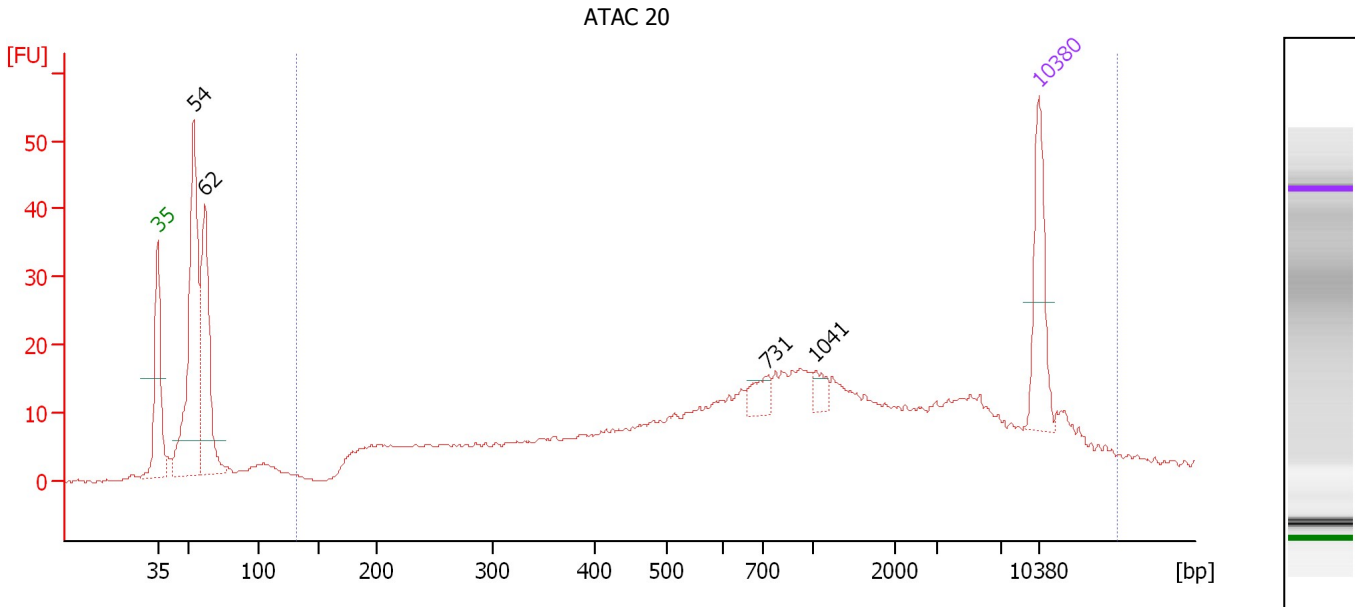
**Region table for sample 9 : ATAC 10**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
155	7,873	1,038	472.4	4,125.7	1,045.57	75	100.0

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 Data Path: C:\...s and Settings\Bioanalyzer\2015-10-26\2015-10-26\_001\_QC.xad

Created: 10/26/2015 2:52:59 PM  
 Modified: 10/26/2015 3:43:29 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : ATAC 20**

Number of peaks found: 4                      Corr. Area 1: 650.5  
 Noise: 0.2

**Peak table for sample 10 : ATAC 20**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	54	335.21	9,383.0		45.88
3	62	226.04	5,502.2		46.78
4	731	24.81	51.4		91.42
5	1,041	14.15	20.6		95.26
6	10,380	75.00	10.9	Upper Marker	113.00

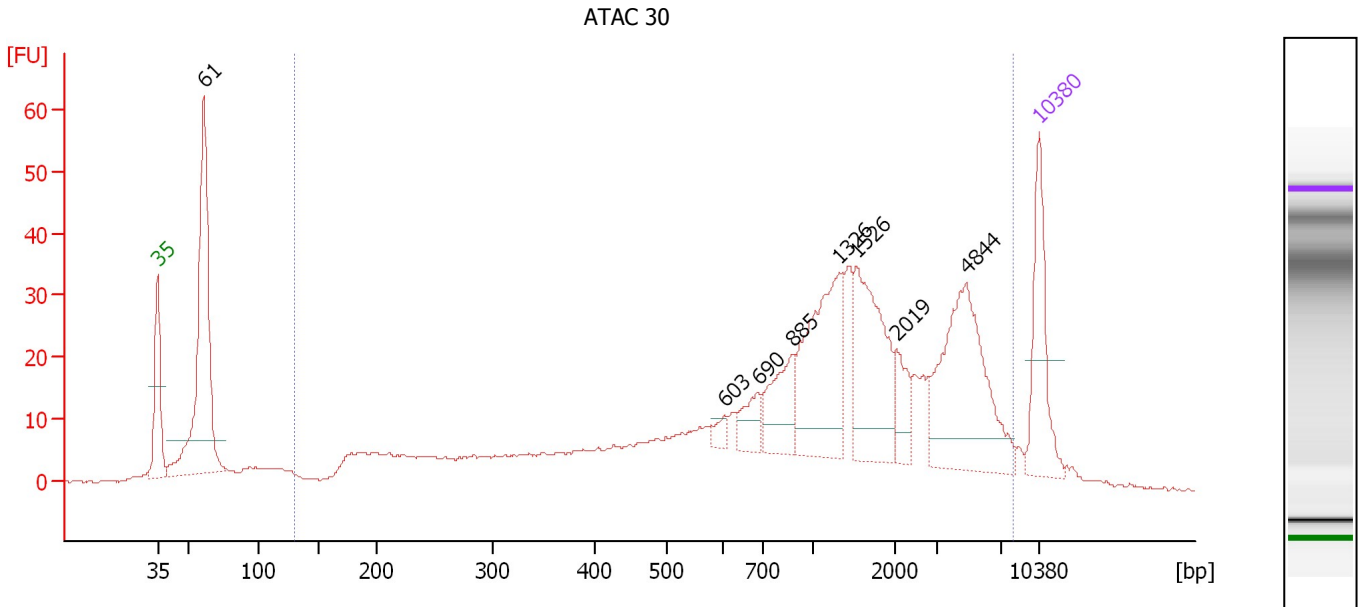
**Region table for sample 10 : ATAC 20**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
132	17,274	3,261	650.5	4,939.5	1,593.81	71	100.0

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Created: 10/26/2015 2:52:59 PM  
 Modified: 10/26/2015 3:43:29 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : ATAC 30**

Number of peaks found: 8                      Corr. Area 1: 736.7  
 Noise: 0.2

**Peak table for sample 11 : ATAC 30**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	61	340.88	8,416.9		46.68
3	603	10.91	27.4		88.04
4	690	30.18	66.3		90.69
5	885	60.32	103.3		93.47
6	1,326	144.75	165.4		97.14
7	1,526	129.19	128.3		98.47
8	2,019	30.36	22.8		101.66
9	4,844	164.95	51.6		107.21
10	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 11 : ATAC 30**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
130	8,042	1,806	736.7	3,590.7	1,359.54	80	95.4

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Created: 10/26/2015 2:52:59 PM  
Modified: 10/26/2015 3:43:29 PM

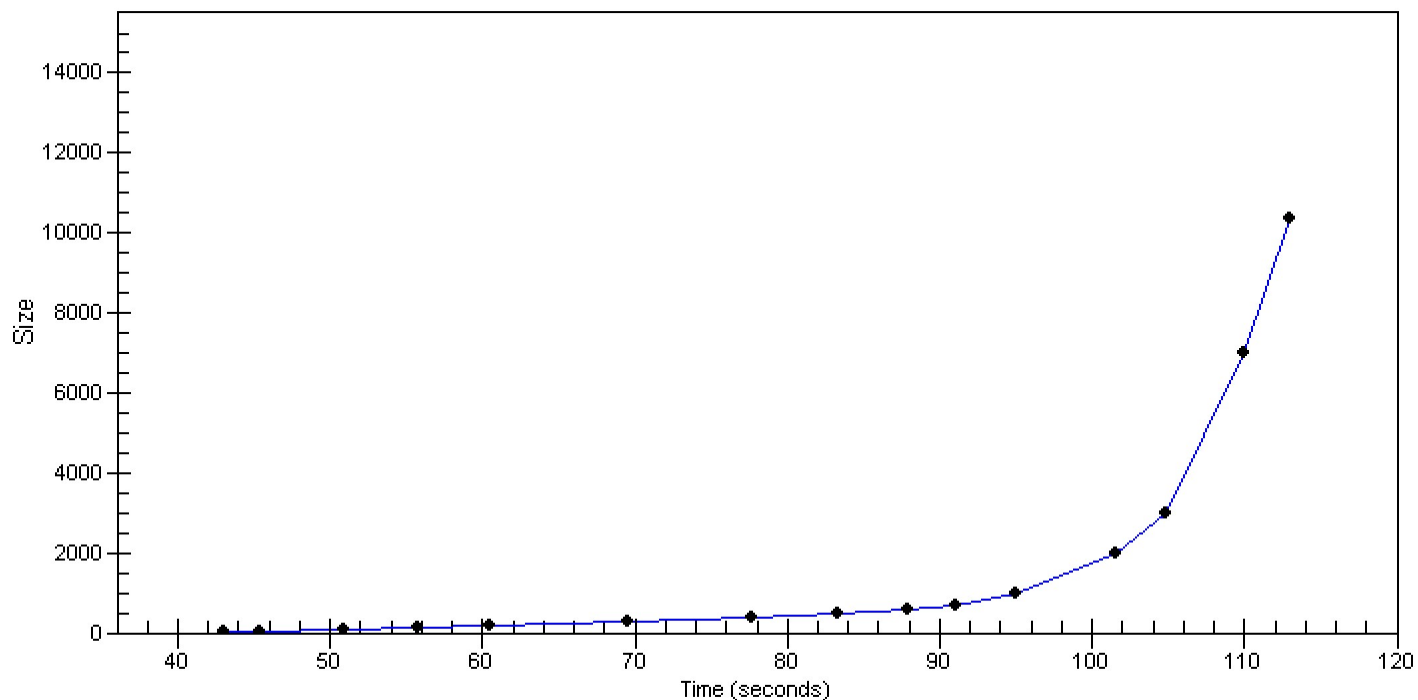
**Gel Image**

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**Curves**

**Standard Curve**



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 Modified: 10/26/2015 3:43:29 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		10/26/2015 3:34:15 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-10-26\2015-10-26_001.xad)		Instrument	Run		10/26/2015 2:53:04 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/26/2015 2:53:04 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/26/2015 2:53:04 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/26/2015 2:53:04 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/26/2015 2:53:04 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/26/2015 2:53:04 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/26/2015 2:53:04 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1