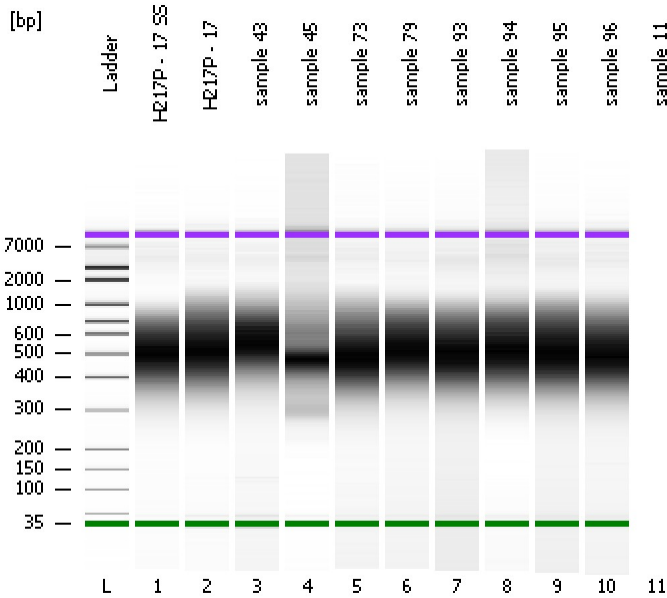


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
Modified: 11/11/2015 1:09:12 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

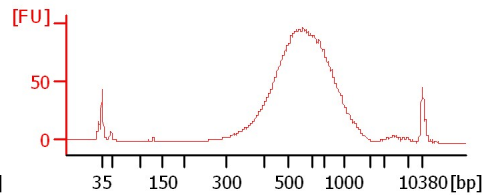
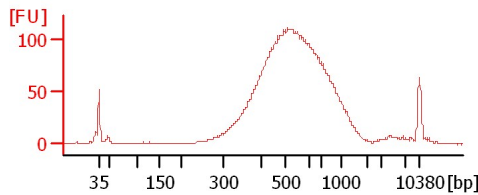
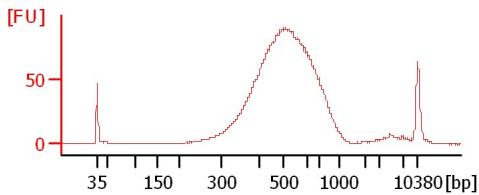
Chip Information:

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

**H217P - 17 SS**

**H217P - 17**

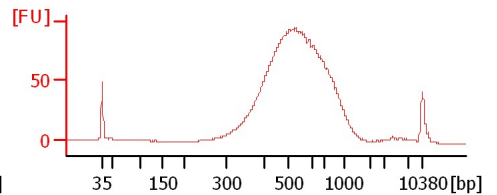
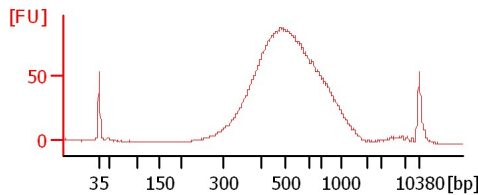
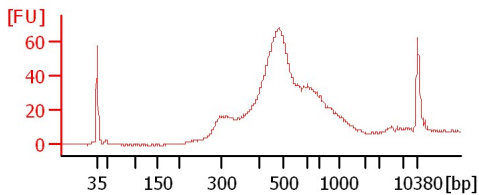
**sample 43**



**sample 45**

**sample 73**

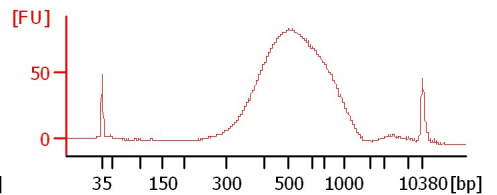
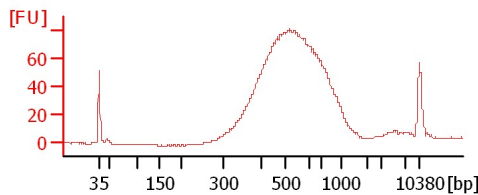
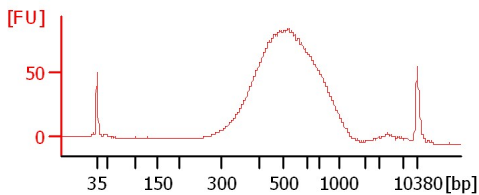
**sample 79**



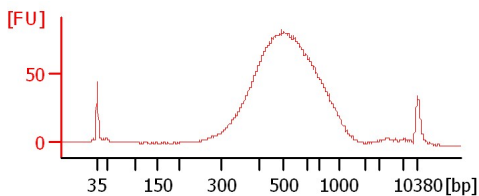
**sample 93**

**sample 94**

**sample 95**



**sample 96**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
 Modified: 11/11/2015 1:09:12 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
H217P - 17 SS		<input type="checkbox"/>	✓			
H217P - 17		<input type="checkbox"/>	✓			
sample 43		<input type="checkbox"/>	✓			
sample 45		<input type="checkbox"/>	✓			
sample 73		<input type="checkbox"/>	✓			
sample 79		<input type="checkbox"/>	✓			
sample 93		<input type="checkbox"/>	✓			
sample 94		<input type="checkbox"/>	✓			
sample 95		<input type="checkbox"/>	✓			
sample 96		<input type="checkbox"/>	✓			
sample 11		<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\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
 Modified: 11/11/2015 1:09:12 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

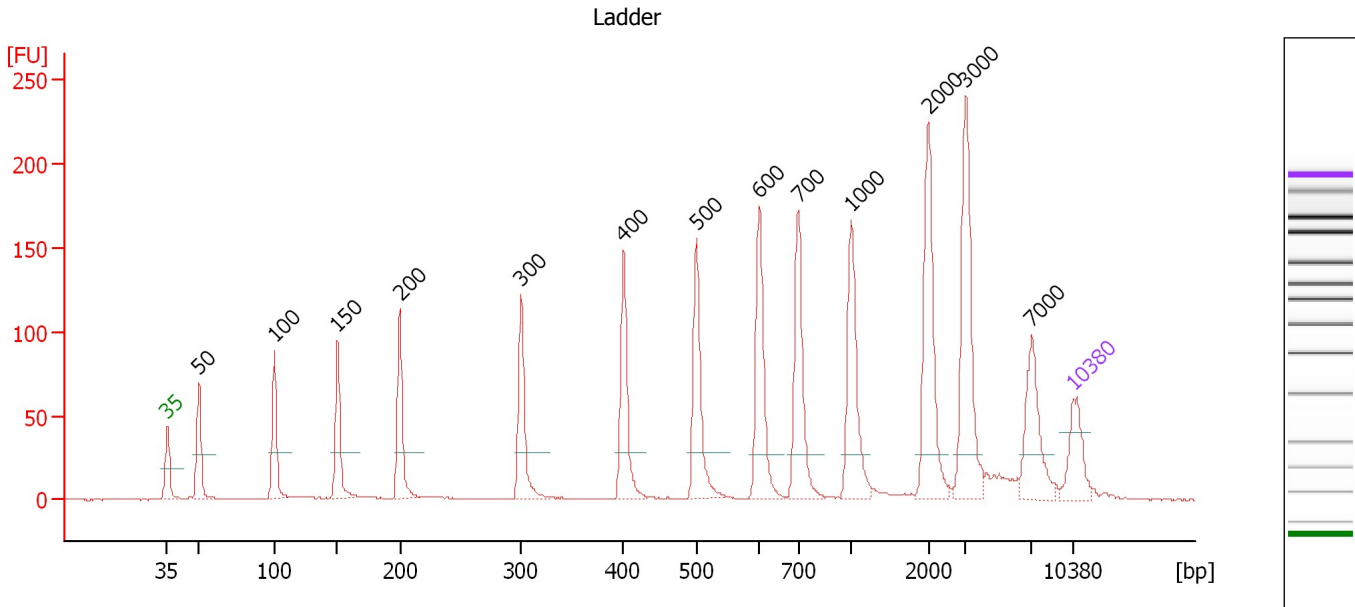
**Ladder**

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\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
 Modified: 11/11/2015 1:09:12 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

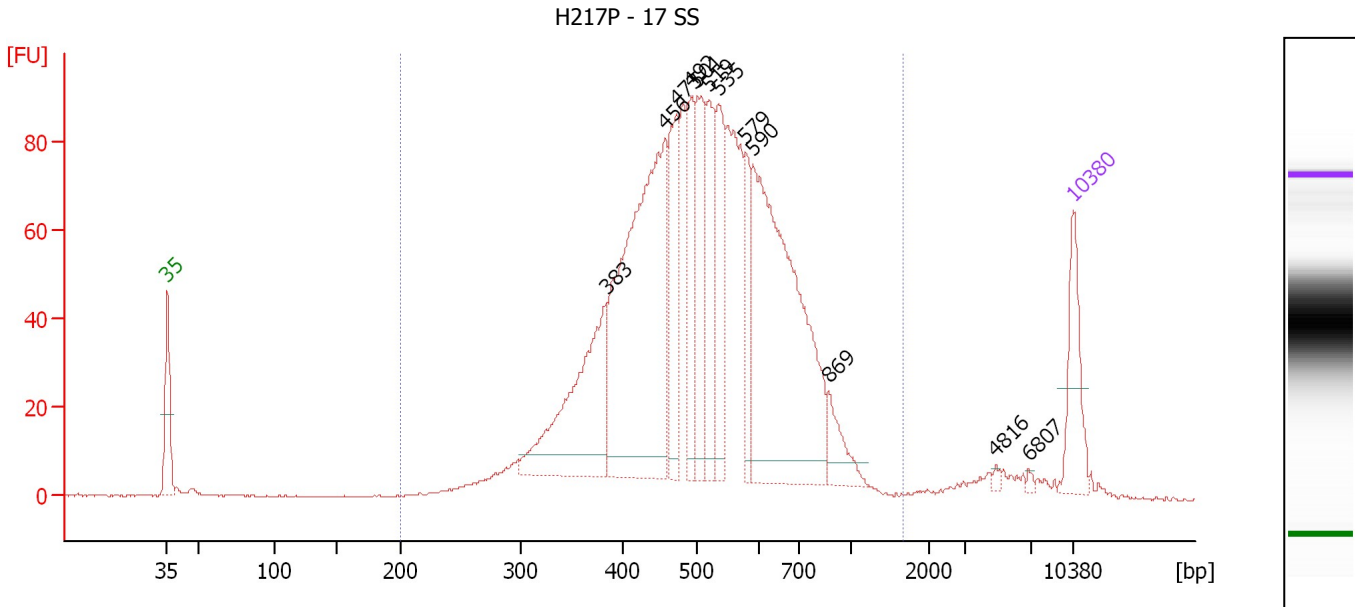
**Peak table for Ladder**

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	45.45
3	100	150.00	2,272.7	Ladder Peak	51.27
4	150	150.00	1,515.2	Ladder Peak	56.16
5	200	150.00	1,136.4	Ladder Peak	60.96
6	300	150.00	757.6	Ladder Peak	70.34
7	400	150.00	568.2	Ladder Peak	78.28
8	500	150.00	454.5	Ladder Peak	83.91
9	600	150.00	378.8	Ladder Peak	88.76
10	700	150.00	324.7	Ladder Peak	91.76
11	1,000	150.00	227.3	Ladder Peak	95.87
12	2,000	150.00	113.6	Ladder Peak	101.83
13	3,000	150.00	75.8	Ladder Peak	104.69
14	7,000	150.00	32.5	Ladder Peak	109.81
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
 Modified: 11/11/2015 1:09:12 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : H217P - 17 SS**

Number of peaks found: 12      Corr. Area 1: 1,718.2  
 Noise: 0.2

**Peak table for sample 1 : H217P - 17 SS**

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	383	290.18	1,148.6		76.91
3	456	621.80	2,064.1		81.46
4	473	156.77	502.3		82.38
5	492	122.05	376.0		83.45
6	501	147.33	445.5		83.96
7	519	124.80	364.2		84.84
8	535	135.30	383.5		85.58
9	579	84.68	221.8		87.72
10	590	539.44	1,385.2		88.28
11	869	48.83	85.1		94.07
12	4,816	4.10	1.3		107.02
13	6,807	3.69	0.8		109.57
14	10,380	75.00	10.9	Upper Marker	113.00

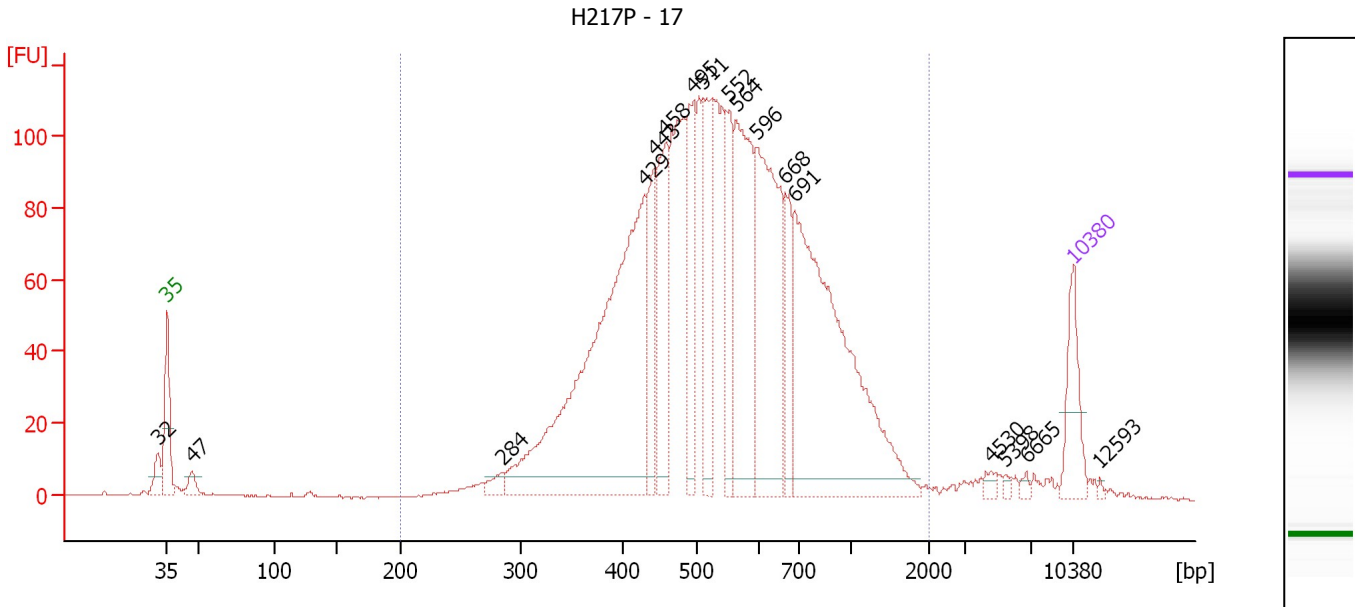
**Region table for sample 1 : H217P - 17 SS**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,660	524	1,718.2	9,490.9	2,987.65	96	27.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
 Modified: 11/11/2015 1:09:12 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : H217P - 17**

Number of peaks found: 17                      Corr. Area 1: 2,340.0  
 Noise: 0.2

**Peak table for sample 2 : H217P - 17**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.26
2	35	125.00	5,411.3	Lower Marker	43.00
3	47	25.03	813.0		44.90
4	284	21.40	114.0		68.87
5	429	893.33	3,156.4		79.90
6	443	127.14	435.0		80.69
7	458	193.84	641.8		81.52
8	495	171.39	525.0		83.61
9	511	203.56	603.6		84.44
10	552	125.42	344.2		86.44
11	564	315.57	848.4		86.99
12	596	380.22	966.4		88.57
13	668	98.51	223.5		90.79
14	691	685.59	1,503.3		91.49
15	4,530	10.33	3.5		106.65
16	5,398	4.63	1.3		107.76
17	6,665	6.12	1.4		109.38
18	10,380	75.00	10.9	Upper Marker	113.00
19	12,593	0.00	0.0		115.09

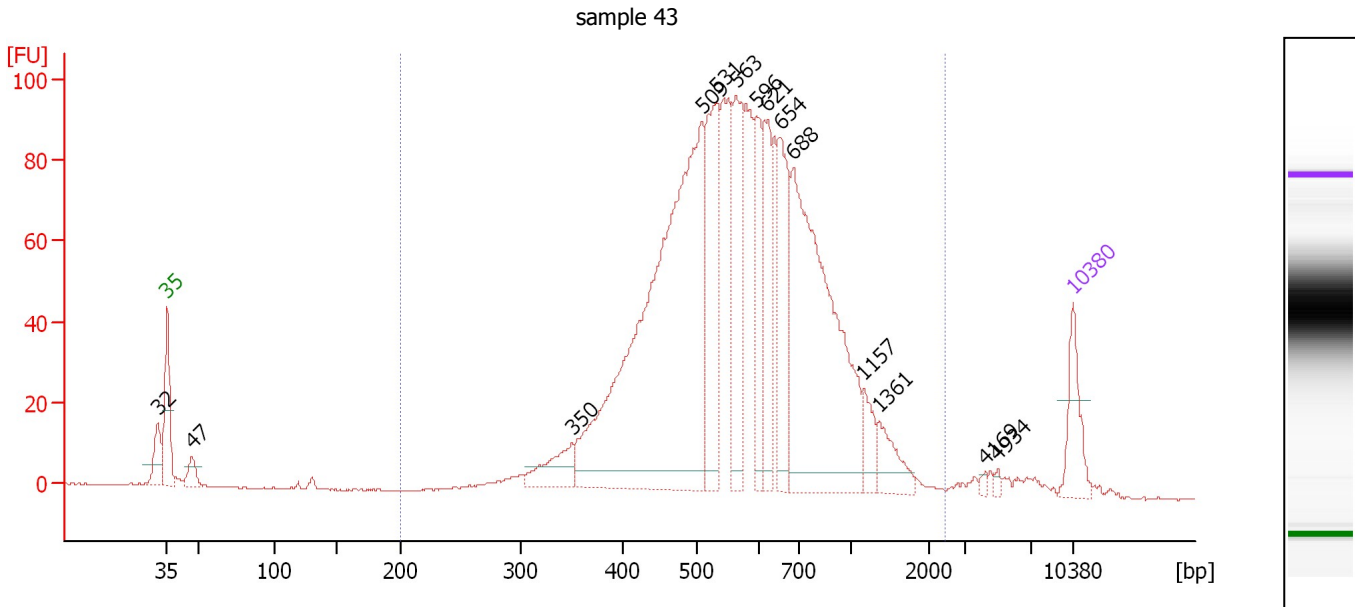
**Region table for sample 2 : H217P - 17**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	2,000	584	2,340.0	11,824.0	3,936.36	96	39.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
 Modified: 11/11/2015 1:09:12 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 43**

Number of peaks found: 14                      Corr. Area 1: 1,744.2  
 Noise: 0.2

**Peak table for sample 3 : sample 43**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.25
2	35	125.00	5,411.3	Lower Marker	43.00
3	47	44.38	1,439.1		44.91
4	350	91.26	395.6		74.27
5	509	1,326.51	3,948.6		84.35
6	531	307.60	877.5		85.42
7	563	228.51	615.1		86.96
8	596	153.14	389.6		88.55
9	621	181.64	443.2		89.39
10	654	209.70	486.1		90.37
11	688	751.87	1,656.3		91.39
12	1,157	48.84	63.9		96.81
13	1,361	66.17	73.7		98.02
14	4,169	5.77	2.1		106.19
15	4,934	5.84	1.8		107.17
16	10,380	75.00	10.9	Upper Marker	113.00

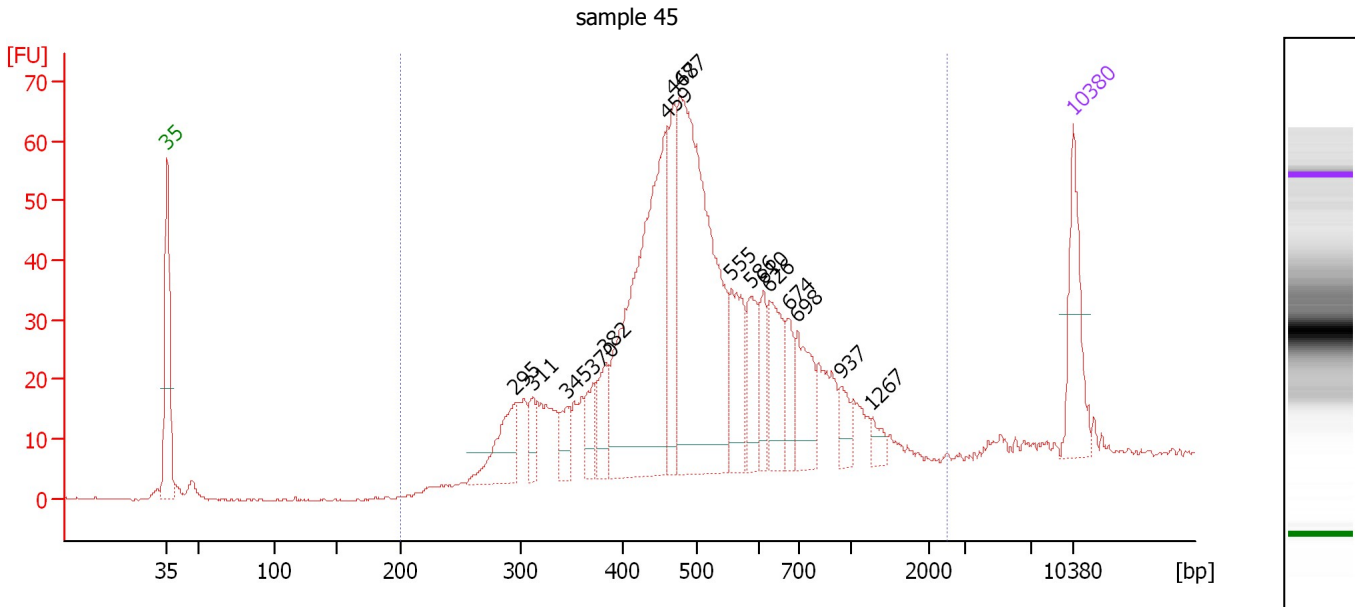
**Region table for sample 3 : sample 43**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,433	621	1,744.2	11,219.5	4,027.95	96	38.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
 Modified: 11/11/2015 1:09:12 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 :** sample 45

Number of peaks found: 16                      Corr. Area 1: 975.7  
 Noise: 0.2

**Peak table for sample 4 :** sample 45

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	295	89.20	458.0		69.88
3	311	33.04	160.7		71.25
4	345	32.18	141.4		73.89
5	370	38.39	157.1		75.92
6	382	49.56	196.4		76.87
7	459	447.38	1,477.4		81.59
8	468	106.92	346.1		82.11
9	477	514.45	1,633.2		82.63
10	555	86.64	236.4		86.60
11	586	65.01	168.2		88.06
12	610	42.89	106.6		89.05
13	626	77.44	187.6		89.52
14	674	38.77	87.1		90.99
15	698	75.09	163.0		91.70
16	937	25.40	41.1		95.00
17	1,267	14.86	17.8		97.46
18	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 :** sample 45

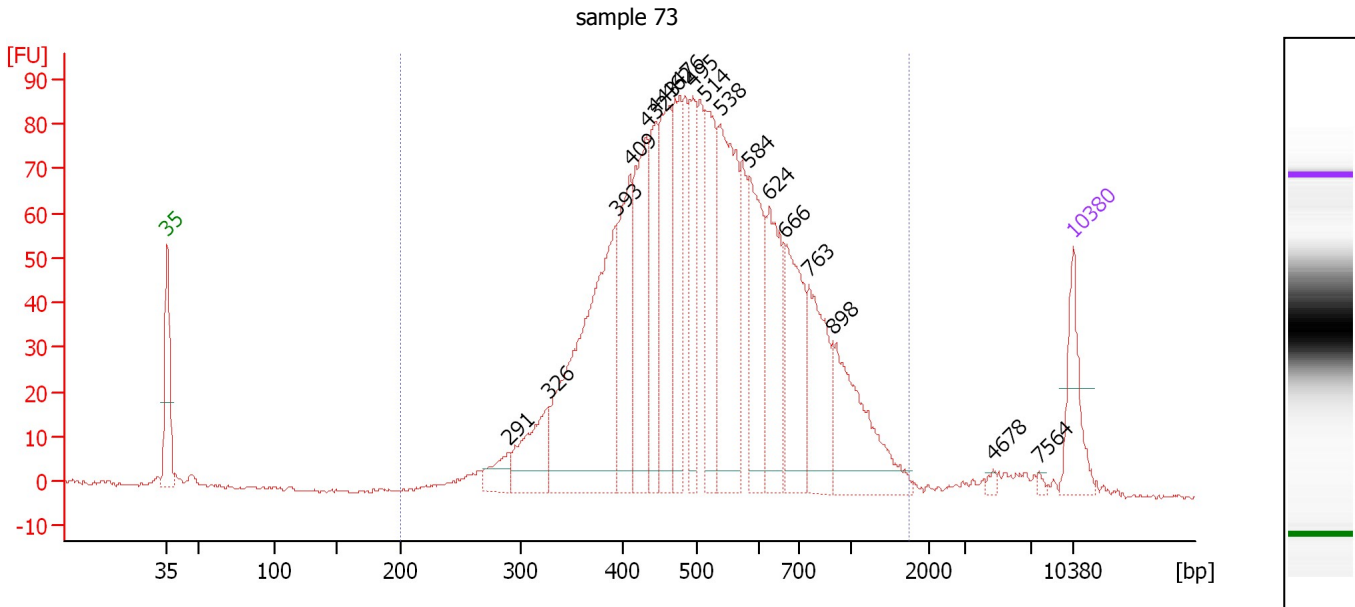
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,514	554	975.7	6,611.6	2,055.57	95	45.6



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
 Modified: 11/11/2015 1:09:12 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 73**

Number of peaks found: 18                      Corr. Area 1: 1,832.5  
 Noise: 0.3

**Peak table for sample 5 : sample 73**

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	291	50.53	263.5		69.45
3	326	126.95	589.3		72.43
4	393	541.04	2,084.7		77.74
5	409	197.84	733.0		78.78
6	432	248.98	873.9		80.06
7	443	149.48	510.7		80.73
8	462	214.95	705.0		81.77
9	476	187.57	596.7		82.57
10	495	134.05	410.5		83.62
11	514	192.35	566.5		84.61
12	538	319.50	899.9		85.75
13	584	197.91	513.6		87.98
14	624	175.07	424.8		89.49
15	666	190.91	434.6		90.73
16	763	165.97	329.6		92.62
17	898	193.93	327.3		94.47
18	4,678	5.57	1.8		106.84
19	7,564	4.13	0.8		110.35
20	10,380	75.00	10.9	Upper Marker	113.00

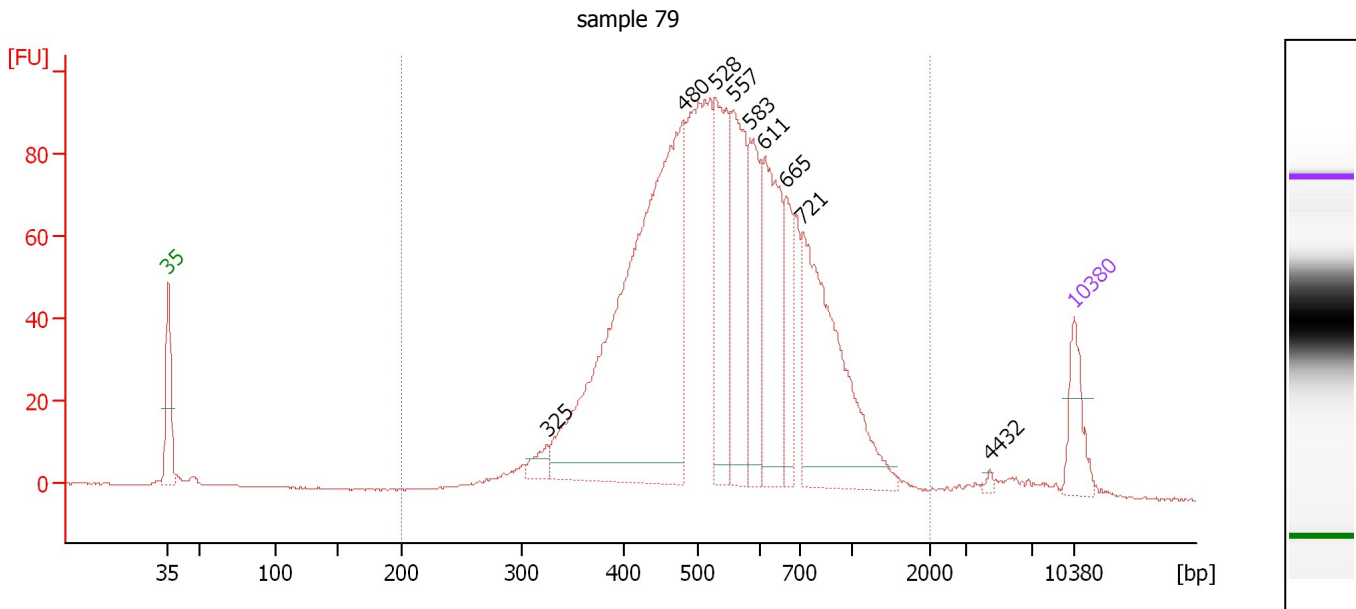
**Region table for sample 5 : sample 73**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,755	551	1,832.5	11,446.3	3,641.69	97	37.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : sample 79**

Number of peaks found: 9                      Corr. Area 1: 1,833.4  
 Noise: 0.2

**Peak table for sample 6 : sample 79**

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	325	38.13	178.0		72.29
3	480	1,342.84	4,234.7		82.81
4	528	316.79	908.4		85.29
5	557	321.75	875.5		86.67
6	583	202.78	526.7		87.95
7	611	310.85	770.6		89.10
8	665	127.30	290.0		90.71
9	721	522.57	1,098.1		92.05
10	4,432	5.68	1.9		106.52
11	10,380	75.00	10.9	Upper Marker	113.00

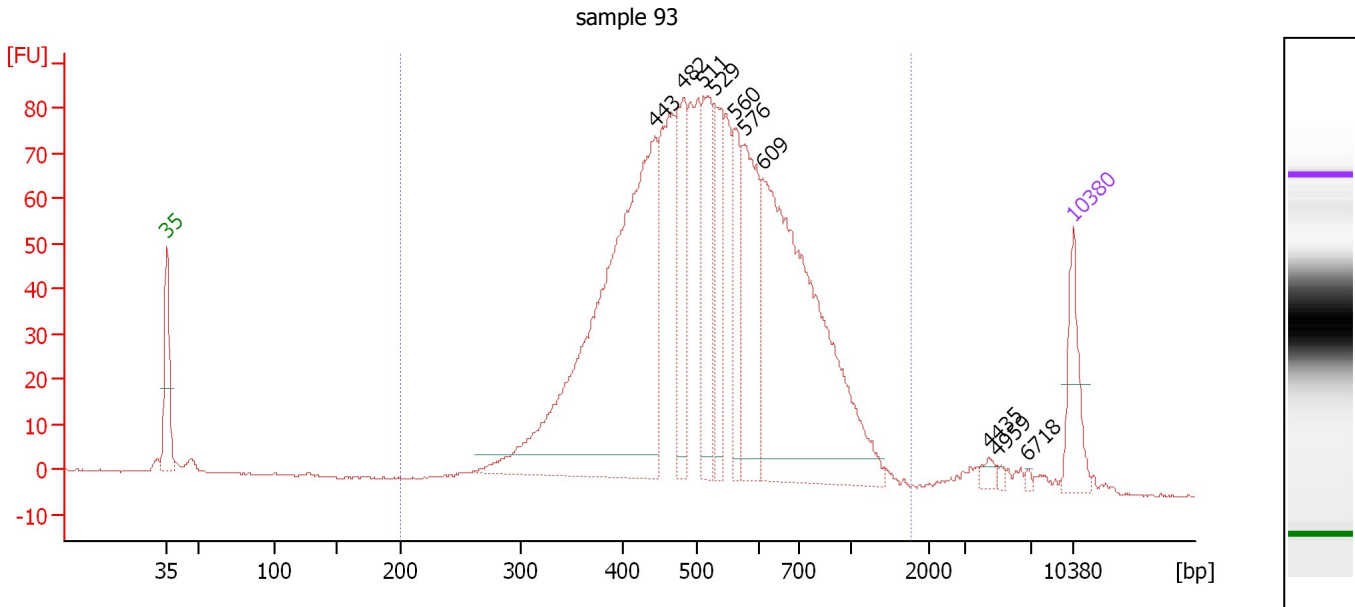
**Region table for sample 6 : sample 79**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,002	573	1,833.4	12,209.2	4,106.43	97	34.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : sample 93**

Number of peaks found: 10                      Corr. Area 1: 1,717.4  
 Noise: 0.2

**Peak table for sample 7 : sample 93**

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	443	1,037.88	3,551.8		80.68
3	482	192.94	606.6		82.89
4	511	191.00	566.8		84.42
5	529	142.87	408.9		85.34
6	560	118.50	320.6		86.82
7	576	238.76	628.2		87.59
8	609	755.33	1,879.3		89.03
9	4,435	12.46	4.3		106.53
10	4,959	5.06	1.5		107.20
11	6,718	3.70	0.8		109.45
12	10,380	75.00	10.9	Upper Marker	113.00

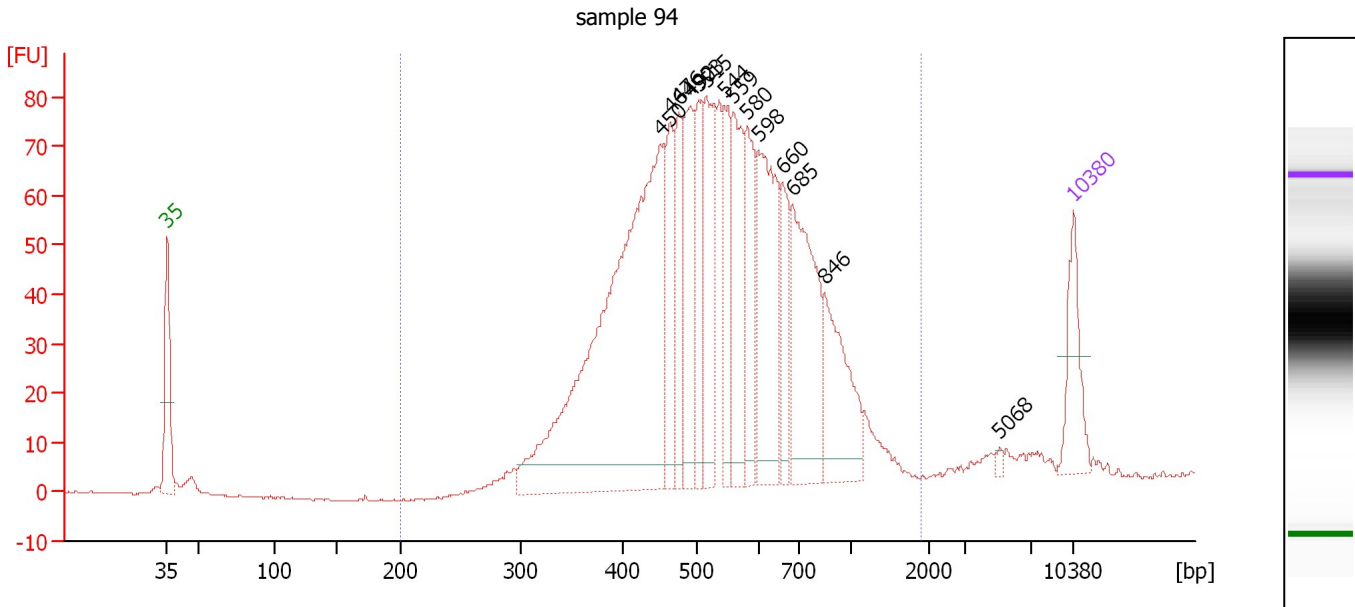
**Region table for sample 7 : sample 93**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,762	547	1,717.4	10,898.5	3,516.26	96	32.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
 Modified: 11/11/2015 1:09:12 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : sample 94**

Number of peaks found: 14                      Corr. Area 1: 1,487.6  
 Noise: 0.2

**Peak table for sample 8 : sample 94**

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	450	967.59	3,257.8		81.09
3	464	151.29	493.5		81.91
4	476	119.00	379.1		82.53
5	492	175.88	541.9		83.45
6	503	121.34	365.3		84.07
7	515	192.58	566.4		84.64
8	544	111.59	310.9		86.04
9	559	161.79	438.8		86.76
10	580	134.88	352.1		87.81
11	598	248.43	629.2		88.68
12	660	98.73	226.8		90.55
13	685	265.03	586.1		91.31
14	846	160.93	288.2		93.76
15	5,068	4.72	1.4		107.34
16	10,380	75.00	10.9	Upper Marker	113.00

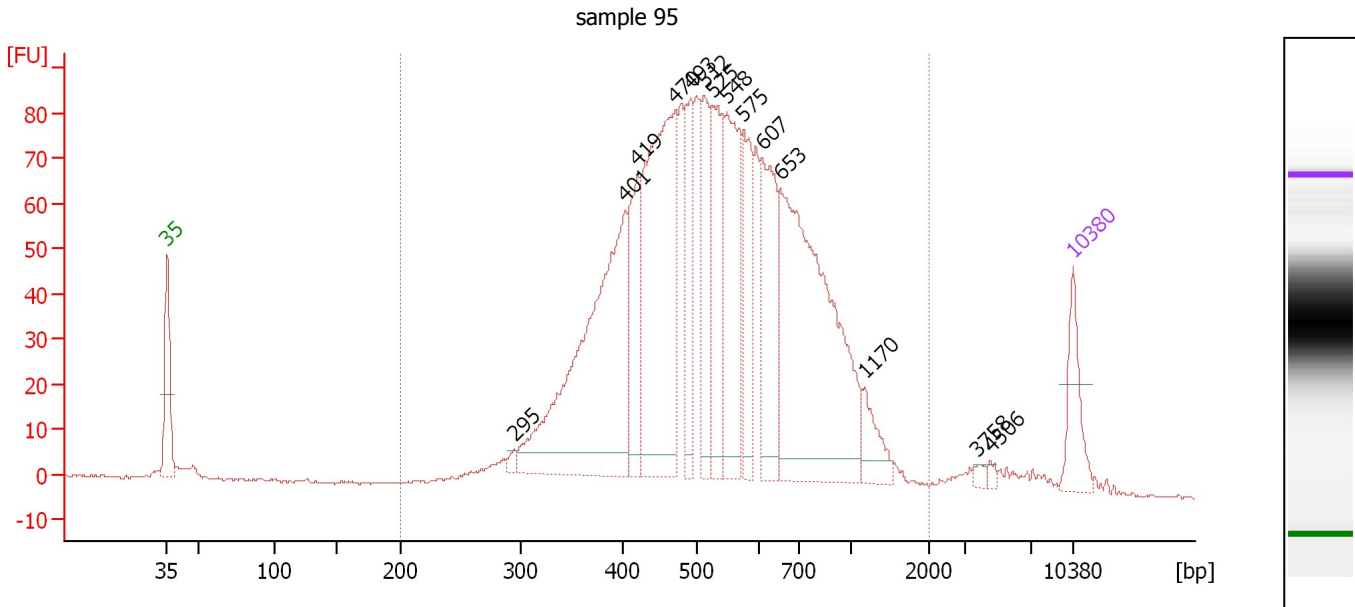
**Region table for sample 8 : sample 94**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,898	562	1,487.6	8,994.7	3,007.90	98	31.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
 Modified: 11/11/2015 1:09:12 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 :** sample 95

Number of peaks found: 14                      Corr. Area 1: 1,827.0  
 Noise: 0.3

**Peak table for sample 9 :** sample 95

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	295	12.49	64.3		69.82
3	401	703.31	2,654.3		78.36
4	419	189.93	687.6		79.32
5	470	588.35	1,894.9		82.25
6	493	157.26	483.7		83.49
7	512	176.33	521.6		84.50
8	525	201.05	580.2		85.12
9	548	286.21	791.6		86.23
10	575	153.10	403.8		87.52
11	607	222.18	554.8		88.96
12	653	699.05	1,621.6		90.35
13	1,170	58.60	75.9		96.88
14	3,758	7.97	3.2		105.66
15	4,506	6.98	2.3		106.62
16	10,380	75.00	10.9	Upper Marker	113.00

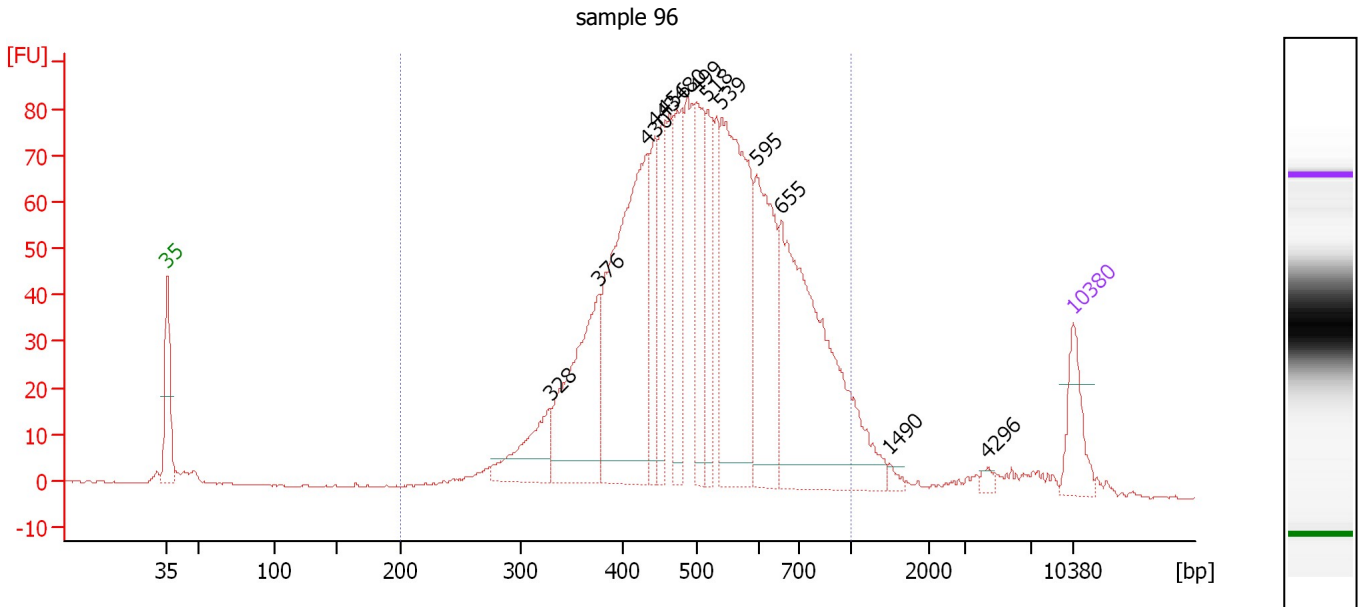
**Region table for sample 9 :** sample 95

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,023	568	1,827.0	12,667.3	4,146.15	97	37.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample 96**

Number of peaks found: 13                      Corr. Area 1: 1,645.0  
 Noise: 0.1

**Peak table for sample 10 : sample 96**

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	328	148.99	688.0		72.57
3	376	369.22	1,488.9		76.35
4	430	677.58	2,385.7		79.99
5	443	154.98	530.0		80.70
6	456	149.03	495.4		81.42
7	480	177.07	559.4		82.76
8	499	177.52	538.9		83.86
9	518	146.56	428.9		84.77
10	539	551.52	1,549.0		85.82
11	595	312.72	796.7		88.50
12	655	658.57	1,522.9		90.42
13	1,490	10.65	10.8		98.79
14	4,296	10.12	3.6		106.35
15	10,380	75.00	10.9	Upper Marker	113.00

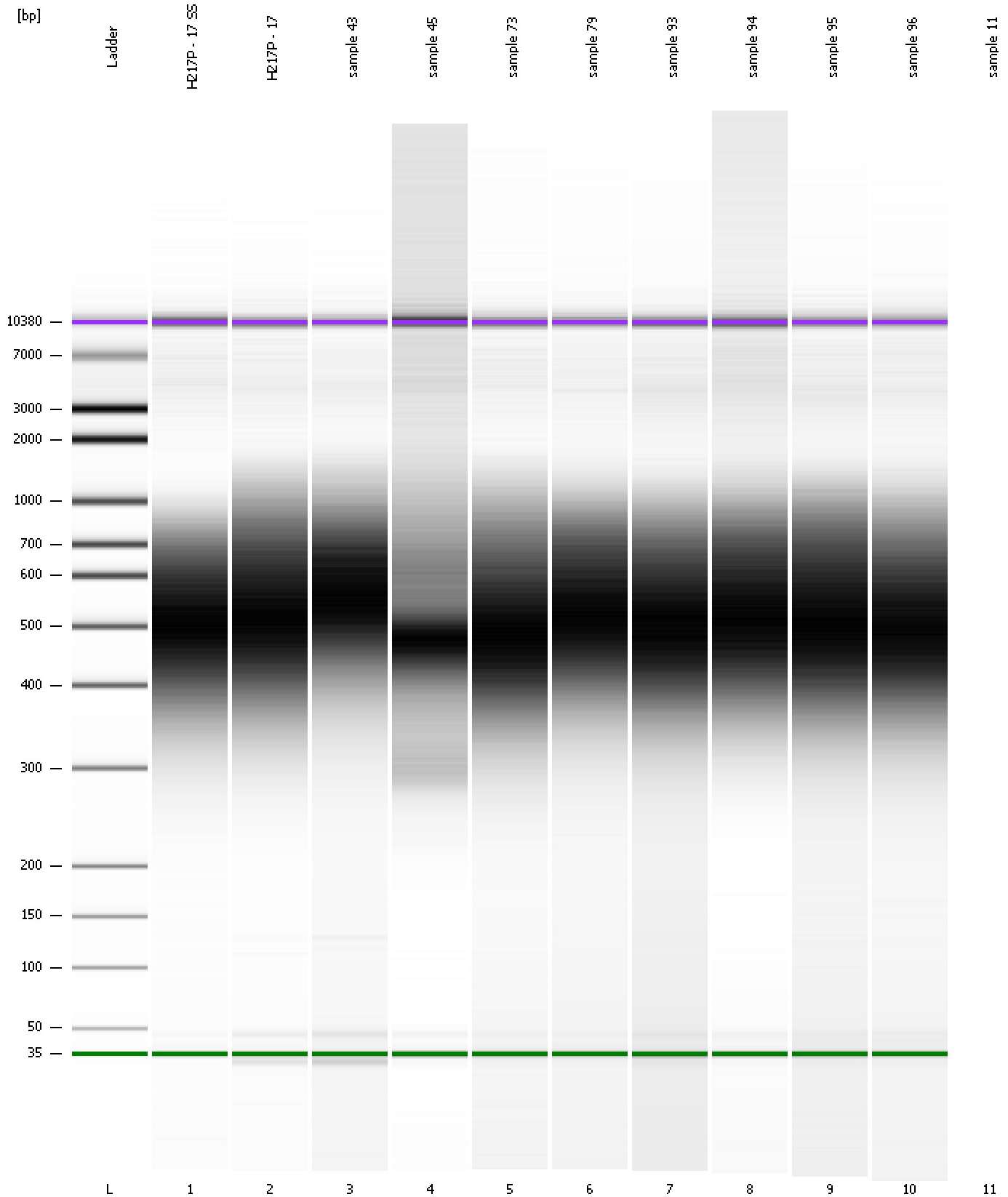
**Region table for sample 10 : sample 96**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	524	1,645.0	13,044.9	4,099.71	94	27.2

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
Modified: 11/11/2015 1:09:12 PM

**Gel Image**

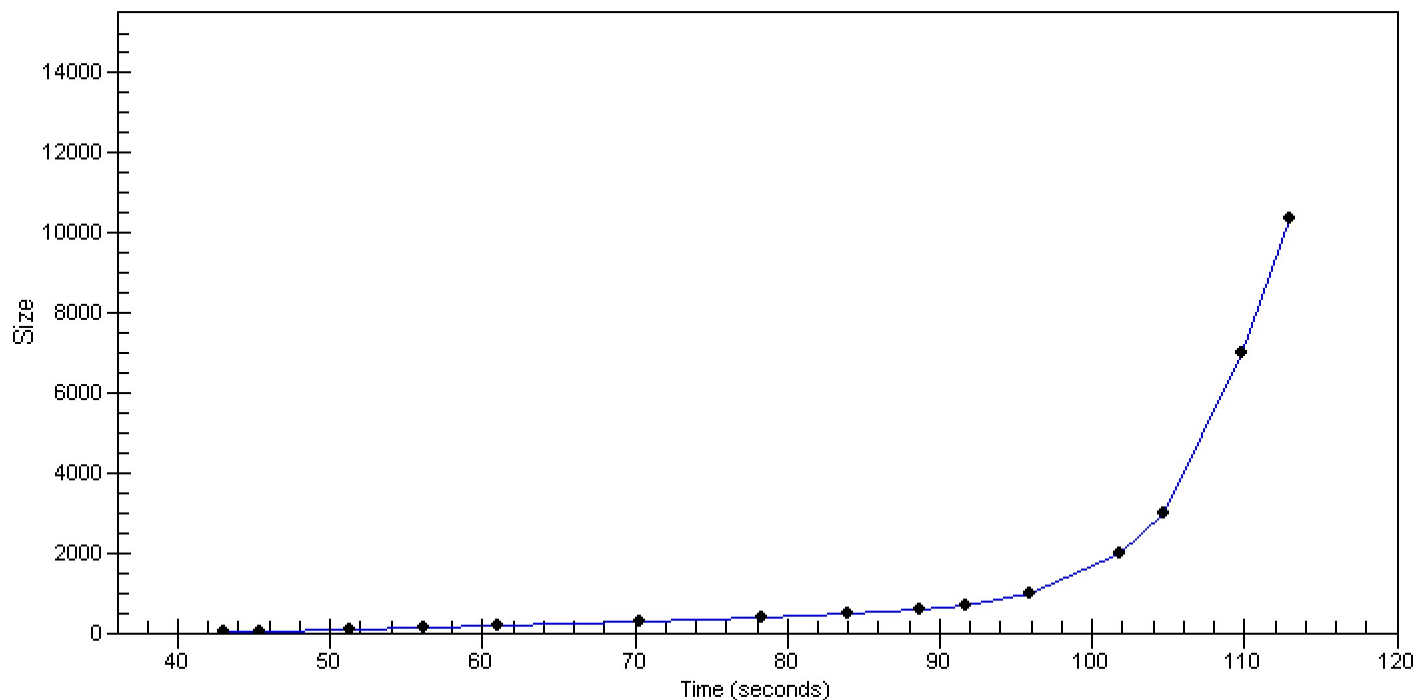


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
Modified: 11/11/2015 1:09:12 PM

**Curves**

**Standard Curve**





Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
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**Invalid Samples**

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-11\2015-11-11\_004.xad

Created: 11/11/2015 12:30:45 PM  
 Modified: 11/11/2015 1:09:12 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 11)		Instrument	Run		11/11/2015 1:09:11 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-11-11\2015-11-11_004.xad)		Instrument	Run		11/11/2015 12:30:50 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		11/11/2015 12:30:50 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/11/2015 12:30:50 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/11/2015 12:30:50 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		11/11/2015 12:30:50 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/11/2015 12:30:50 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/11/2015 12:30:50 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1