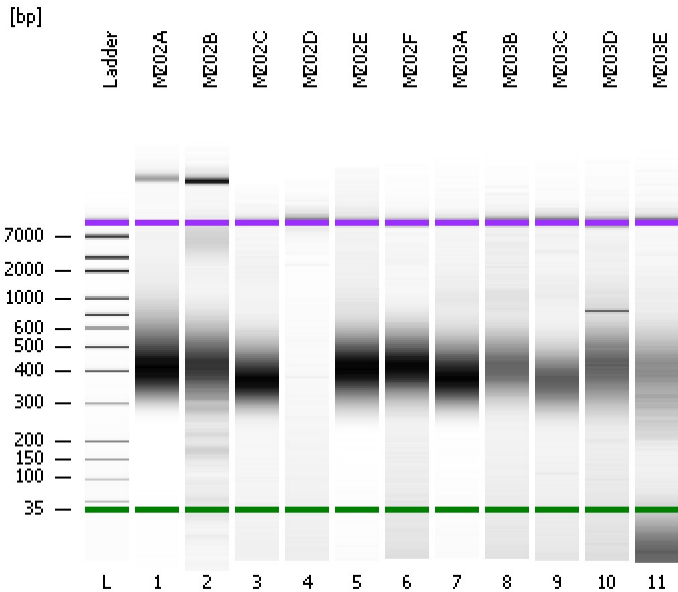


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-12\2013-12-12_002.xad

Created: 12/12/2013 12:20:47 PM
Modified: 12/12/2013 1:08:13 PM

Electrophoresis File Run Summary



Instrument Information:

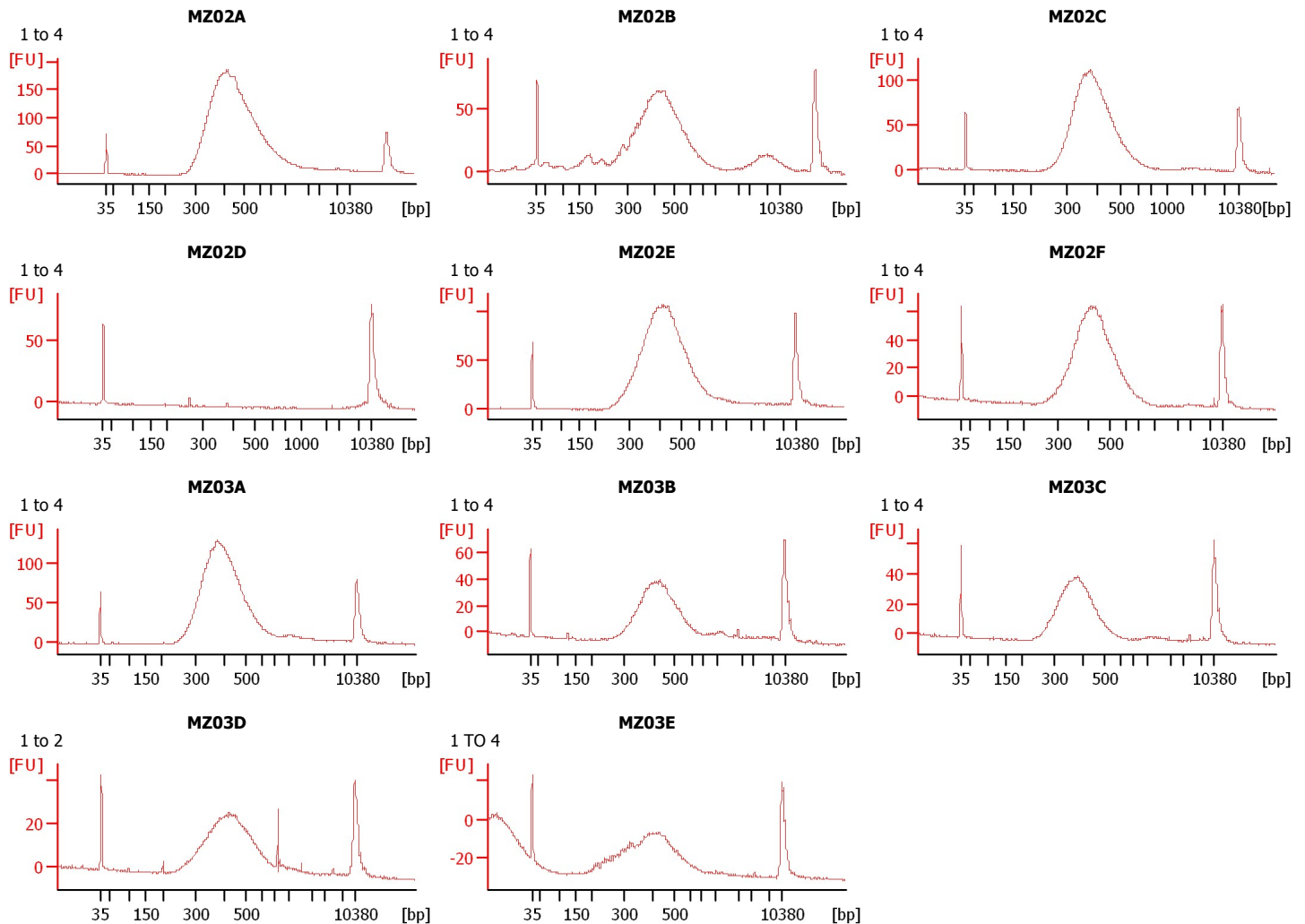
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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\2013-12-12\2013-12-12_002.xad

Created: 12/12/2013 12:20:47 PM
 Modified: 12/12/2013 1:08:13 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
MZ02A	1 to 4	<input type="checkbox"/>	✓			
MZ02B	1 to 4	<input type="checkbox"/>	✓			
MZ02C	1 to 4	<input type="checkbox"/>	✓			
MZ02D	1 to 4	<input type="checkbox"/>	✓			
MZ02E	1 to 4	<input type="checkbox"/>	✓			
MZ02F	1 to 4	<input type="checkbox"/>	✓			
MZ03A	1 to 4	<input type="checkbox"/>	✓			
MZ03B	1 to 4	<input type="checkbox"/>	✓			
MZ03C	1 to 4	<input type="checkbox"/>	✓			
MZ03D	1 to 2	<input type="checkbox"/>	✓			
MZ03E	1 TO 4	<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\2013-12-12\2013-12-12_002.xad

Created: 12/12/2013 12:20:47 PM
Modified: 12/12/2013 1:08:13 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

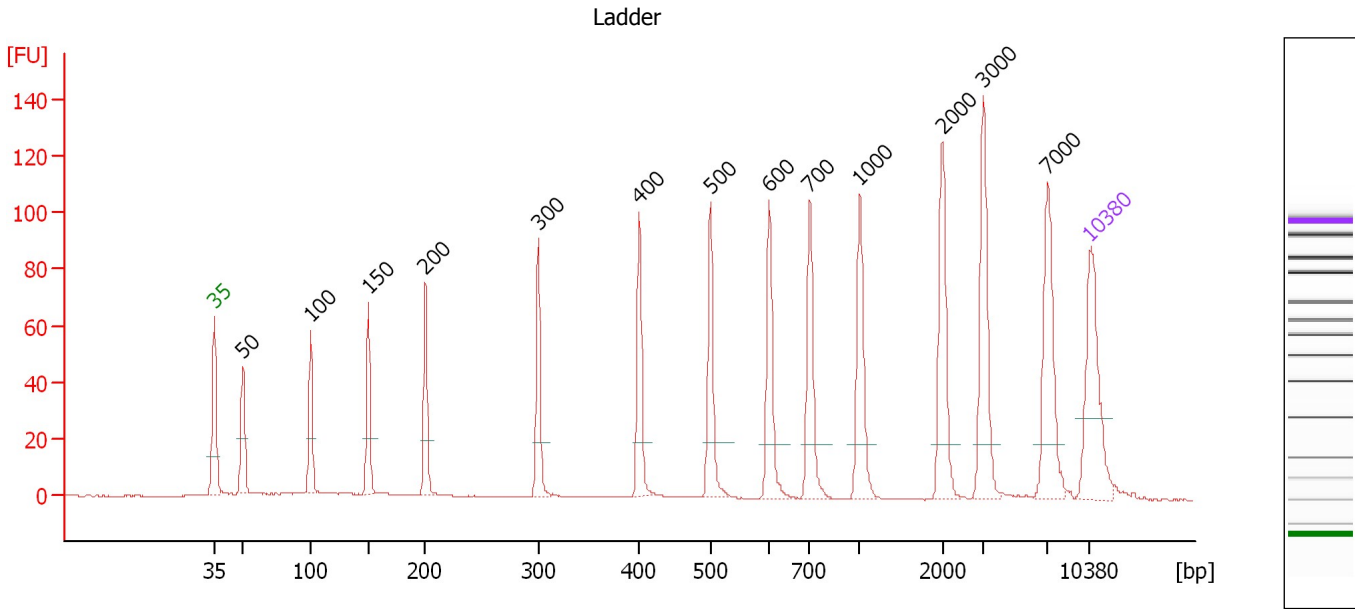
Ladder

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\2013-12-12\2013-12-12_002.xad

Created: 12/12/2013 12:20:47 PM
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Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

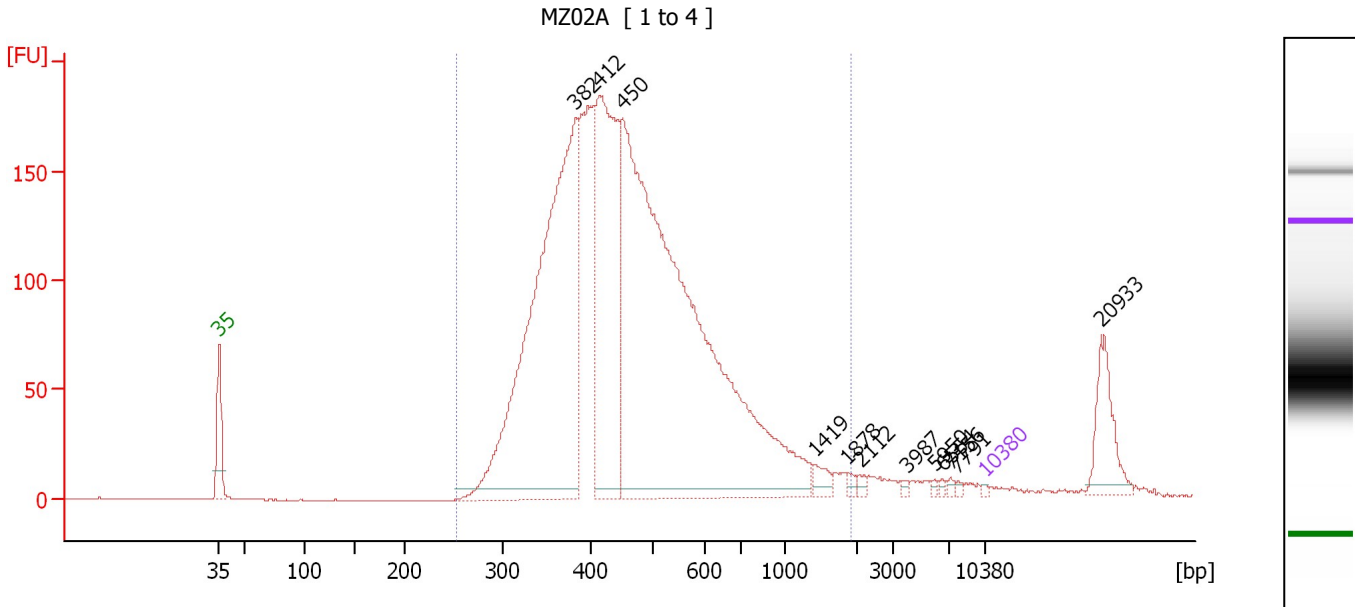
Peak table for Ladder

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	45.30	50	150.00	4,545.5	Ladder Peak
3	50.72	100	150.00	2,272.7	Ladder Peak
4	55.32	150	150.00	1,515.2	Ladder Peak
5	59.88	200	150.00	1,136.4	Ladder Peak
6	68.92	300	150.00	757.6	Ladder Peak
7	76.98	400	150.00	568.2	Ladder Peak
8	82.69	500	150.00	454.5	Ladder Peak
9	87.38	600	150.00	378.8	Ladder Peak
10	90.62	700	150.00	324.7	Ladder Peak
11	94.63	1,000	150.00	227.3	Ladder Peak
12	101.19	2,000	150.00	113.6	Ladder Peak
13	104.47	3,000	150.00	75.8	Ladder Peak
14	109.63	7,000	150.00	32.5	Ladder Peak
15	113.00	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-12\2013-12-12_002.xad

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Electropherogram Summary Continued ...



Overall Results for sample 1 : MZ02A

Number of peaks found: 12 Corr. Area 1: 3,406.2
 Noise: 0.1

Peak table for sample 1 : MZ02A

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	75.57	382	37,253.95	147,573.2	
3	77.66	412	19,328.64	71,091.4	
4	79.85	450	57,724.61	194,232.8	
5	97.37	1,419	671.31	717.0	
6	100.39	1,878	248.16	200.2	
7	101.56	2,112	212.97	152.8	
8	105.75	3,987	134.20	51.0	
9	108.28	5,950	116.87	29.8	
10	109.06	6,554	116.69	27.0	
11	109.79	7,156	136.82	29.0	
12	110.42	7,791	99.22	19.3	
13	113.00	10,380	75.00	10.9	Upper Marker
14	123.51	20,933	0.00	0.0	

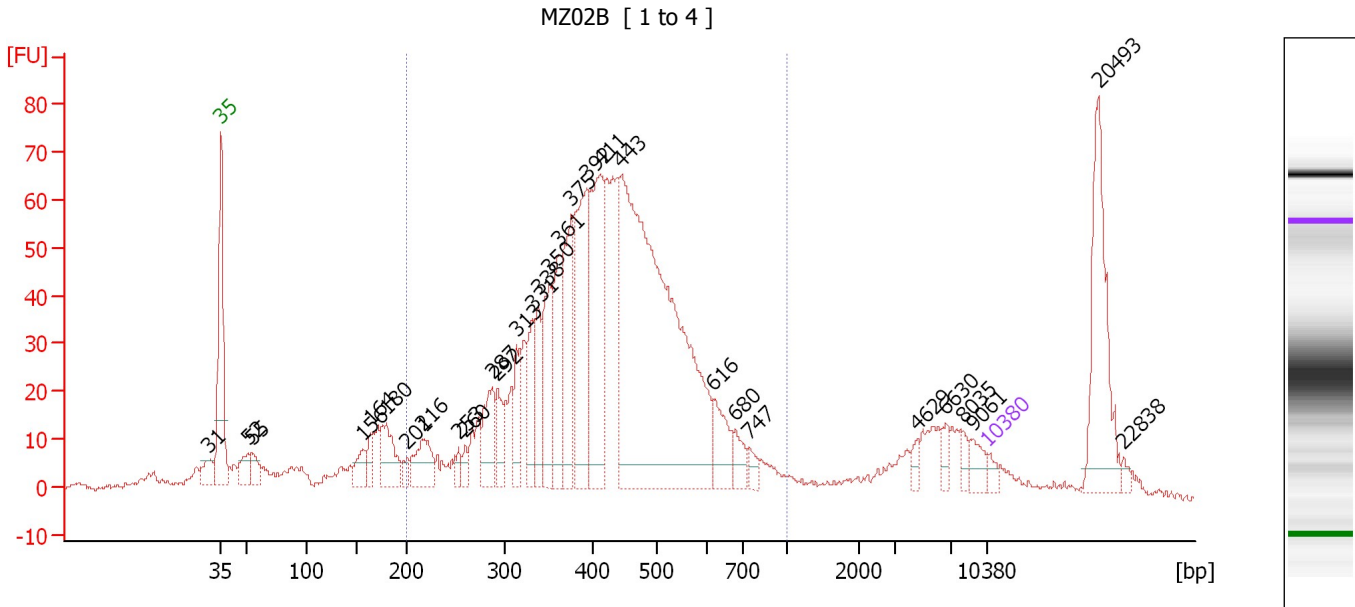
Region table for sample 1 : MZ02A

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
253	1,935	495	427,503.7	123,266.71	3,406.2	94	42.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-12\2013-12-12_002.xad

Created: 12/12/2013 12:20:47 PM
 Modified: 12/12/2013 1:08:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : MZ02B

Number of peaks found: 30 Corr. Area 1: 1,283.9
 Noise: 0.7

Peak table for sample 2 : MZ02B

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	41.93	31	0.00	0.0	
2	43.00	35	125.00	5,411.3	Lower Marker
3	45.53	52	337.44	9,810.0	
4	45.82	55	273.33	7,555.2	
5	55.90	156	303.50	2,941.1	
6	56.58	164	245.59	2,271.4	
7	58.09	180	694.17	5,831.4	
8	59.99	201	122.78	924.7	
9	61.35	216	611.05	4,281.0	
10	64.66	253	131.64	788.7	
11	65.29	260	146.65	854.9	
12	67.73	287	662.33	3,498.8	
13	68.22	292	415.95	2,156.8	
14	69.97	313	492.11	2,382.1	
15	71.43	331	633.90	2,900.5	
16	71.96	338	588.40	2,639.3	
17	72.94	350	922.72	3,996.0	
18	73.86	361	981.22	4,114.3	
19	74.98	375	1,330.56	5,372.5	
20	76.34	392	1,850.72	7,150.5	
21	77.61	411	1,921.68	7,082.7	
22	79.46	443	7,677.67	26,231.1	
23	87.88	616	506.39	1,246.5	
24	89.97	680	238.02	530.2	
25	91.24	747	141.26	286.7	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-12\2013-12-12_002.xad


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 Modified: 12/12/2013 1:08:13 PM

Electropherogram Summary Continued ...

... Peak table for sample 2 : MZ02B

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
26	106.57	4,629	104.62	34.2	
27	109.15	6,630	128.28	29.3	
28	110.66	8,035	108.31	20.4	
29	111.69	9,061	175.28	29.3	
30	113.00	10,380	75.00	10.9	Upper Marker
31	123.08	20,493	0.00	0.0	
32	125.41	22,838	0.00	0.0	

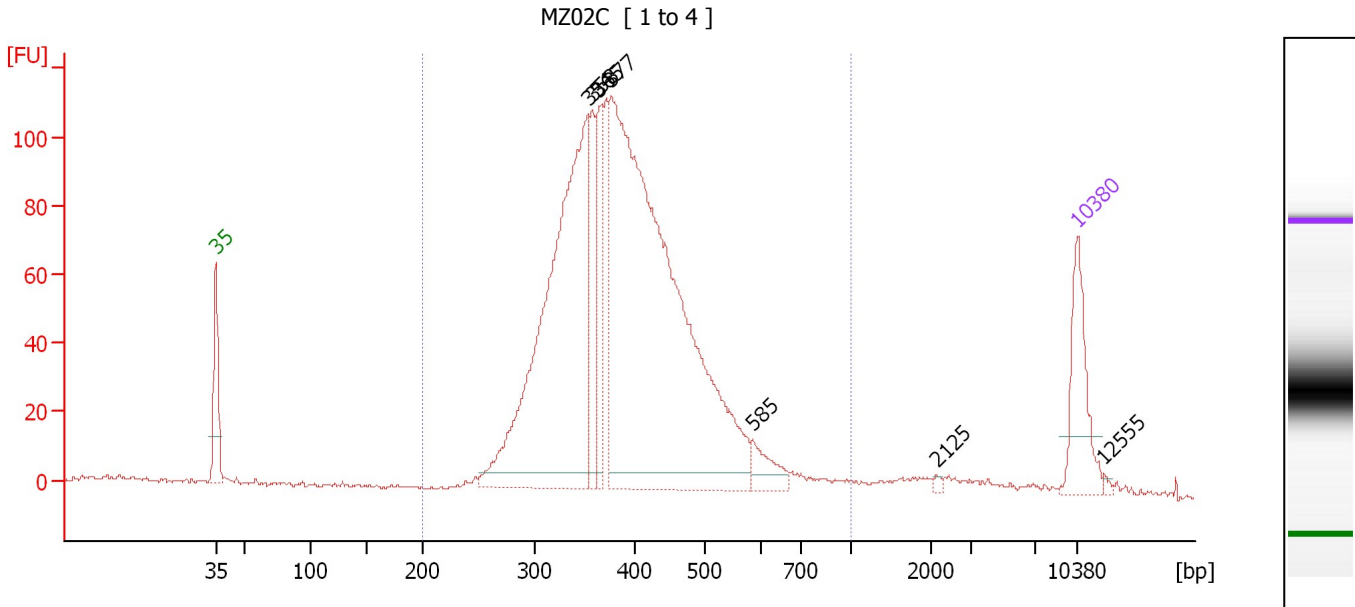
Region table for sample 2 : MZ02B

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	434	89,294.6	23,231.62	1,283.9	75	26.8	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-12\2013-12-12_002.xad

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Electropherogram Summary Continued ...



Overall Results for sample 3 : MZ02C

Number of peaks found: 7 Corr. Area 1: 1,803.4
 Noise: 0.5

Peak table for sample 3 : MZ02C

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	73.25	354	698.72	2,992.3	
3	73.60	358	101.42	429.1	
4	74.16	365	109.35	453.8	
5	75.12	377	1,083.50	4,355.4	
6	86.69	585	36.56	94.6	
7	101.60	2,125	2.85	2.0	
8	113.00	10,380	75.00	10.9	Upper Marker
9	115.17	12,555	0.00	0.0	

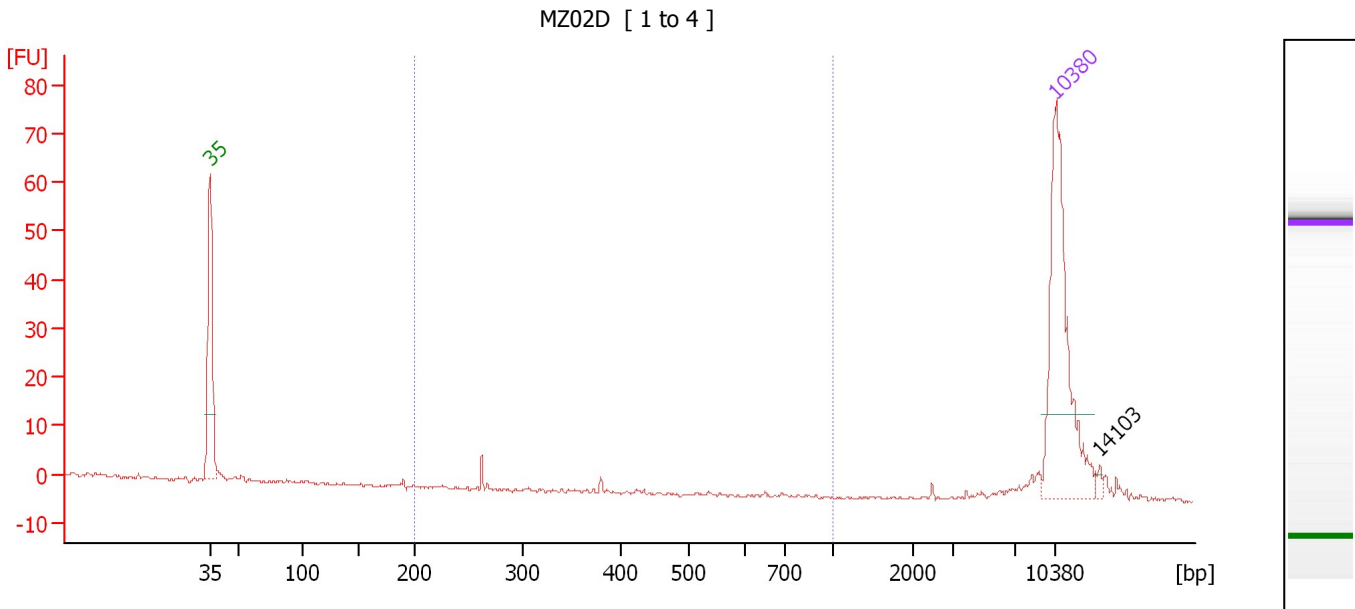
Region table for sample 3 : MZ02C

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	400	8,249.7	2,071.06	1,803.4	97	21.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-12\2013-12-12_002.xad

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Electropherogram Summary Continued ...



Overall Results for sample 4 : MZ02D

Number of peaks found: 1 Corr. Area 1: 2.0
 Noise: 0.4

Peak table for sample 4 : MZ02D

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	113.00	10,380	75.00	10.9	Upper Marker
3	116.71	14,103	0.00	0.0	

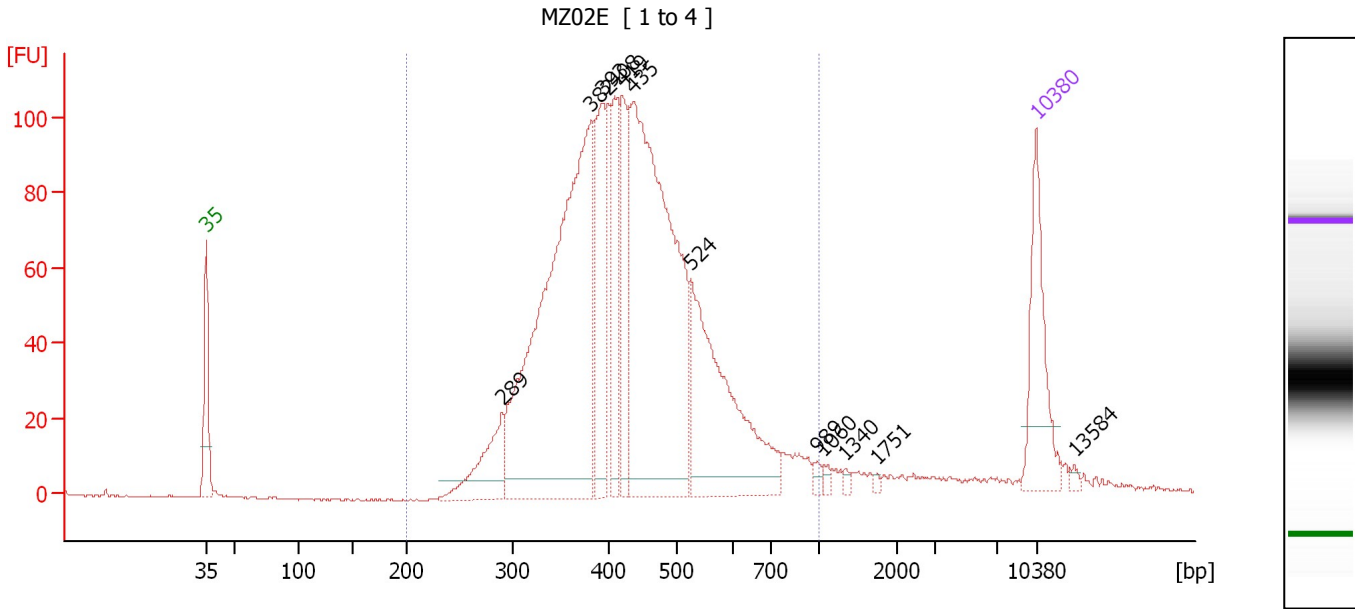
Region table for sample 4 : MZ02D

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	289	11.1	2.03	2.0	9	17.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-12\2013-12-12_002.xad

Created: 12/12/2013 12:20:47 PM
 Modified: 12/12/2013 1:08:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : MZ02E

Number of peaks found: 12 Corr. Area 1: 1,906.3
 Noise: 0.3

Peak table for sample 5 : MZ02E

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	67.95	289	79.87	418.3	
3	75.50	382	581.50	2,308.1	
4	76.45	393	128.43	494.6	
5	77.44	408	87.95	326.6	
6	78.07	419	86.69	313.4	
7	78.97	435	514.71	1,793.5	
8	83.82	524	236.96	685.0	
9	94.48	989	5.69	8.7	
10	95.02	1,060	4.94	7.1	
11	96.86	1,340	3.30	3.7	
12	99.56	1,751	2.21	1.9	
13	113.00	10,380	75.00	10.9	Upper Marker
14	116.19	13,584	0.00	0.0	

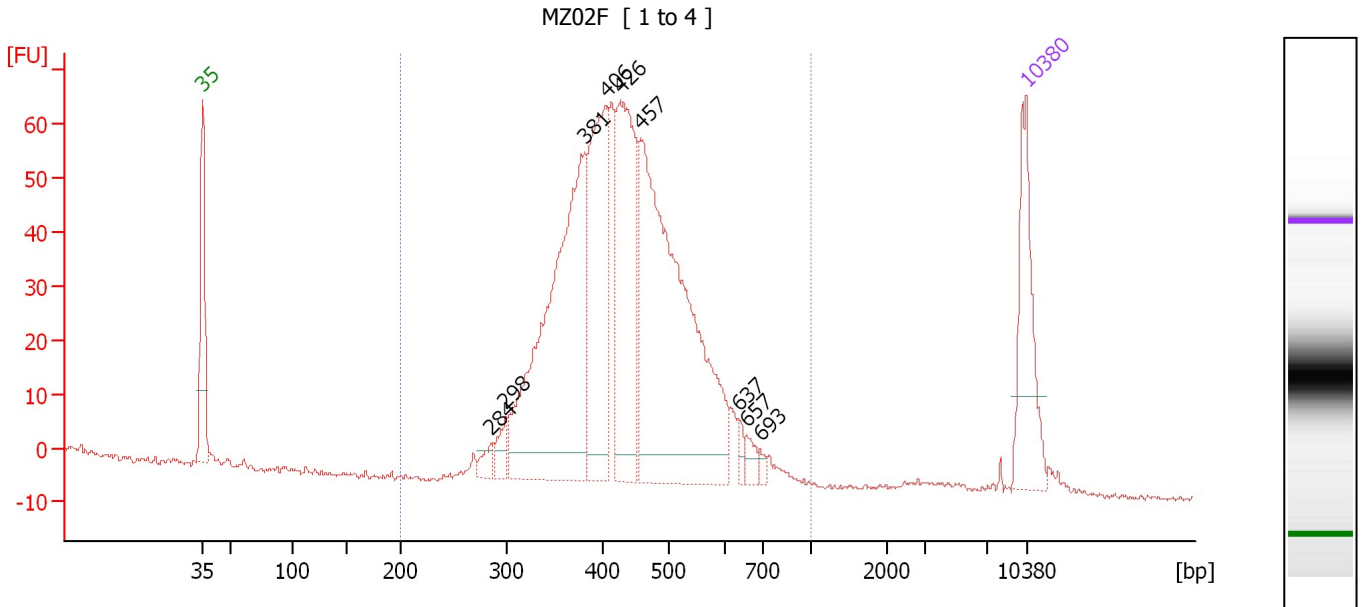
Region table for sample 5 : MZ02E

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	438	6,653.7	1,796.96	1,906.3	96	24.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-12\2013-12-12_002.xad

Created: 12/12/2013 12:20:47 PM
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Electropherogram Summary Continued ...



Overall Results for sample 6 : MZ02F

Number of peaks found: 9 Corr. Area 1: 1,078.7
 Noise: 0.5

Peak table for sample 6 : MZ02F

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	67.47	284	14.70	78.5	
3	68.73	298	20.95	106.6	
4	75.49	381	388.67	1,543.7	
5	77.30	406	202.29	755.7	
6	78.48	426	204.55	727.1	
7	80.24	457	441.24	1,462.4	
8	88.58	637	8.34	19.8	
9	89.21	657	11.35	26.2	
10	90.39	693	5.35	11.7	
11	113.00	10,380	75.00	10.9	Upper Marker

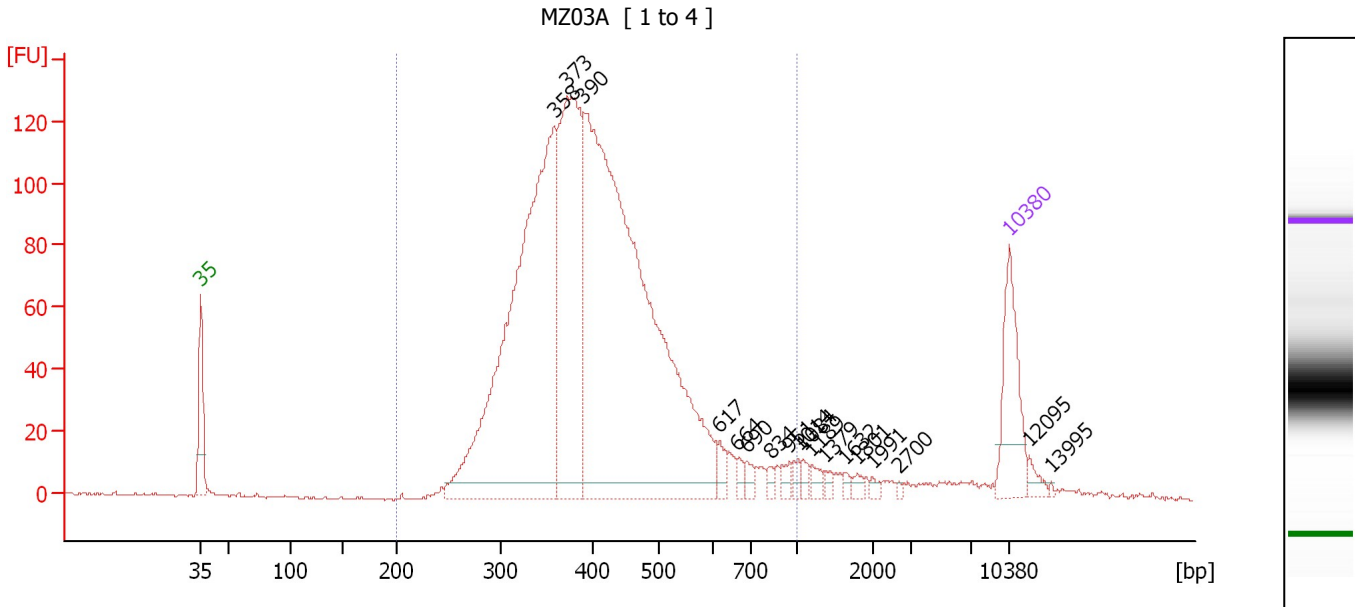
Region table for sample 6 : MZ02F

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	439	4,887.9	1,352.39	1,078.7	99	19.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-12\2013-12-12_002.xad

Created: 12/12/2013 12:20:47 PM
 Modified: 12/12/2013 1:08:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : MZ03A

Number of peaks found: 18 Corr. Area 1: 2,213.8
 Noise: 0.4

Peak table for sample 7 : MZ03A

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	73.57	358	771.73	3,269.0	
3	74.77	373	406.20	1,651.8	
4	76.15	390	1,067.33	4,149.0	
5	87.93	617	15.56	38.2	
6	89.45	664	8.58	19.6	
7	90.28	690	9.28	20.4	
8	92.41	834	7.28	13.2	
9	93.98	951	8.84	14.1	
10	94.72	1,014	7.43	11.1	
11	95.18	1,084	7.62	10.7	
12	95.87	1,189	9.64	12.3	
13	97.12	1,379	5.54	6.1	
14	98.78	1,632	4.18	3.9	
15	99.89	1,801	6.05	5.1	
16	101.13	1,991	4.38	3.3	
17	103.49	2,700	2.30	1.3	
18	113.00	10,380	75.00	10.9	Upper Marker
19	114.71	12,095	0.00	0.0	
20	116.60	13,995	0.00	0.0	

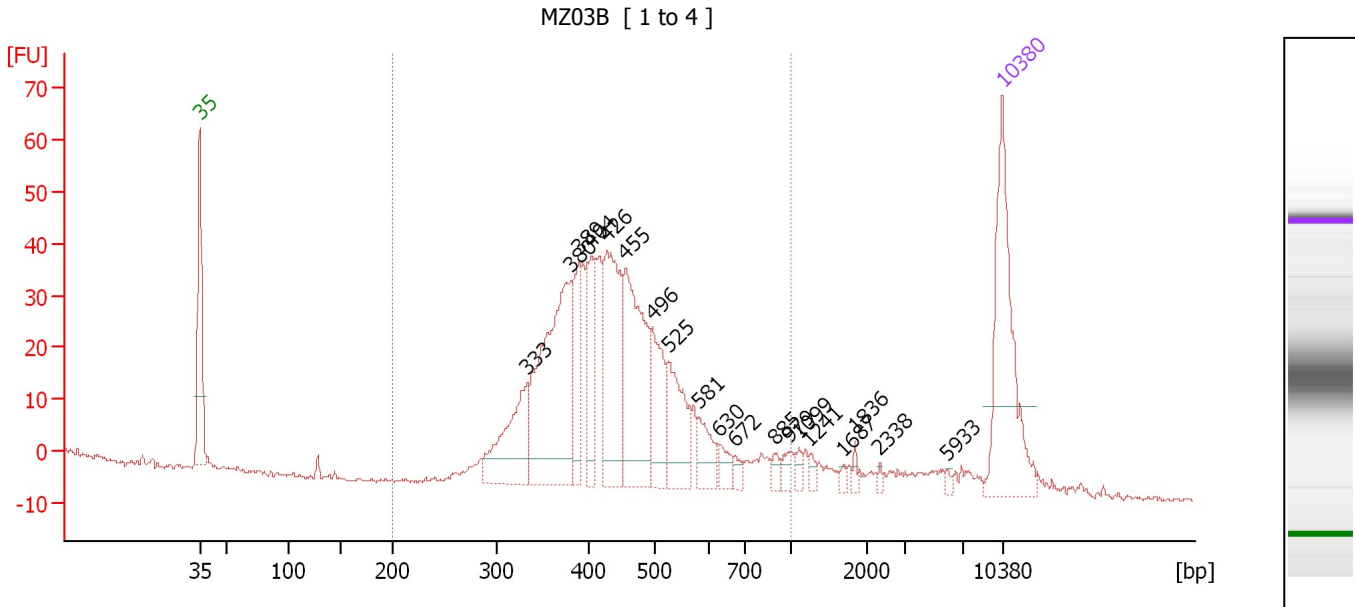
Region table for sample 7 : MZ03A

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	417	8,953.4	2,299.73	2,213.8	94	25.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-12\2013-12-12_002.xad

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Electropherogram Summary Continued ...



Overall Results for sample 8 : MZ03B

Number of peaks found: 19 Corr. Area 1: 692.6
 Noise: 0.5

Peak table for sample 8 : MZ03B

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	71.56	333	64.20	292.3	
3	75.37	380	151.31	603.2	
4	76.07	389	36.92	143.9	
5	77.19	404	42.94	161.2	
6	78.49	426	91.25	324.2	
7	80.12	455	99.77	332.3	
8	82.44	496	42.86	131.0	
9	83.88	525	46.29	133.5	
10	86.49	581	18.76	48.9	
11	88.35	630	9.08	21.8	
12	89.70	672	4.97	11.2	
13	93.09	885	4.93	8.4	
14	94.35	979	5.55	8.6	
15	95.28	1,099	3.81	5.2	
16	96.21	1,241	3.50	4.3	
17	99.14	1,687	2.13	1.9	
18	100.12	1,836	2.90	2.4	
19	102.30	2,338	2.00	1.3	
20	108.26	5,933	1.73	0.4	
21	113.00	10,380	75.00	10.9	Upper Marker

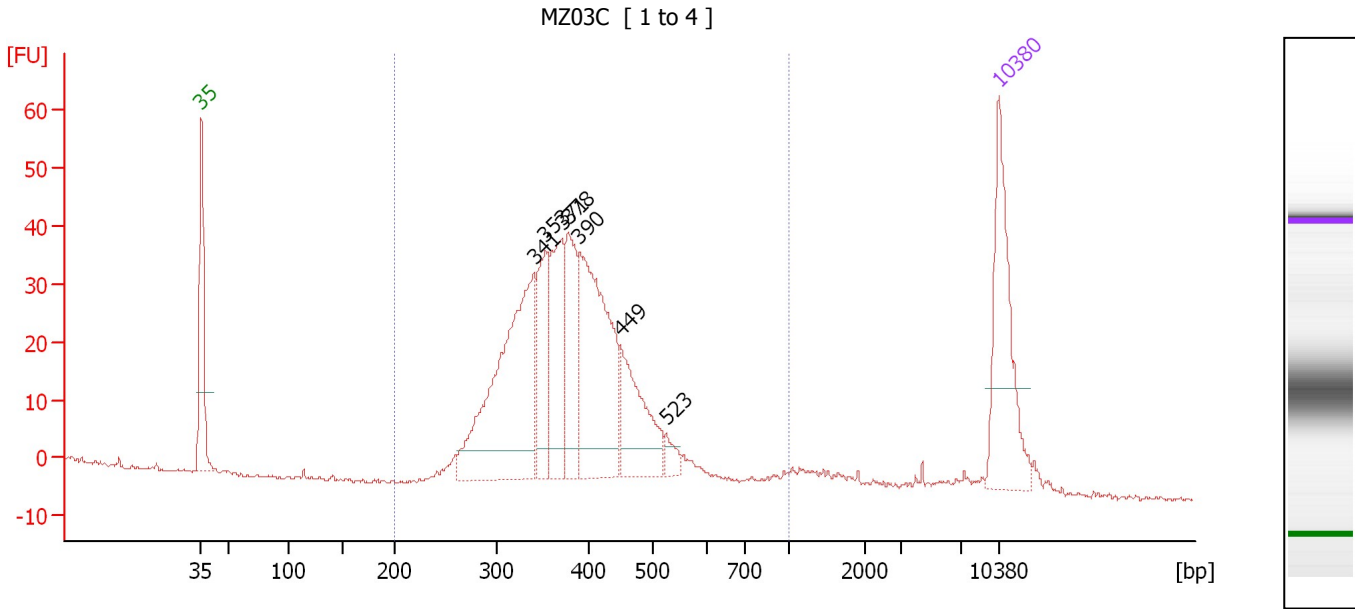
Region table for sample 8 : MZ03B

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	450	2,358.2	657.74	692.6	92	24.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-12\2013-12-12_002.xad

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 Modified: 12/12/2013 1:08:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : MZ03C

Number of peaks found: 7 Corr. Area 1: 634.4
 Noise: 0.3

Peak table for sample 9 : MZ03C

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	72.20	341	219.56	976.4	
3	73.18	353	68.13	292.5	
4	74.63	371	84.03	343.3	
5	75.19	378	69.67	279.4	
6	76.18	390	168.37	654.0	
7	79.78	449	74.82	252.4	
8	83.76	523	10.01	29.0	
9	113.00	10,380	75.00	10.9	Upper Marker

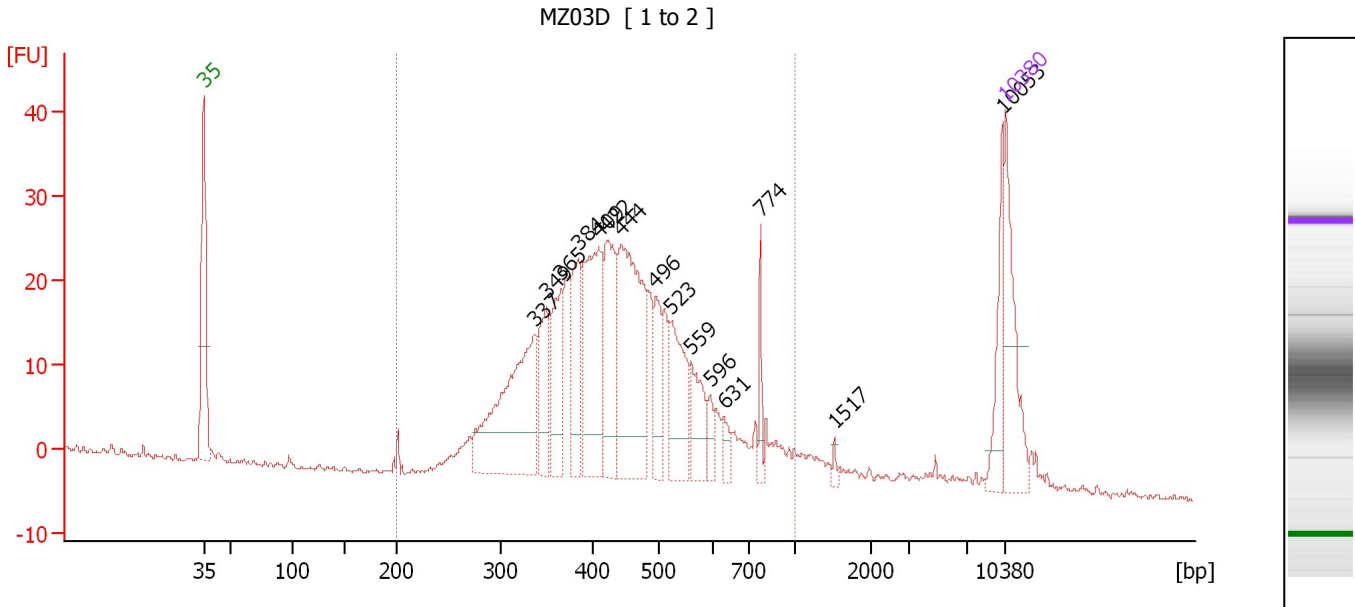
Region table for sample 9 : MZ03C

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	389	2,979.0	730.65	634.4	95	21.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-12\2013-12-12_002.xad

Created: 12/12/2013 12:20:47 PM
 Modified: 12/12/2013 1:08:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : MZ03D

Number of peaks found: 15 Corr. Area 1: 542.2
 Noise: 0.4

Peak table for sample 10 : MZ03D

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	71.88	337	235.47	1,059.3	
3	72.91	349	74.84	324.4	
4	74.16	365	84.26	349.7	
5	75.65	384	84.22	332.7	
6	77.51	409	165.54	612.7	
7	78.26	422	105.23	377.5	
8	79.47	444	227.88	778.4	
9	82.44	496	50.44	154.2	
10	83.79	523	85.98	248.9	
11	85.47	559	52.88	143.3	
12	87.19	596	16.14	41.0	
13	88.40	631	14.15	34.0	
14	91.60	774	22.51	44.1	
15	98.02	1,517	4.33	4.3	
16	112.67	10,053	43.05	6.5	
17	113.00	10,380	75.00	10.9	Upper Marker

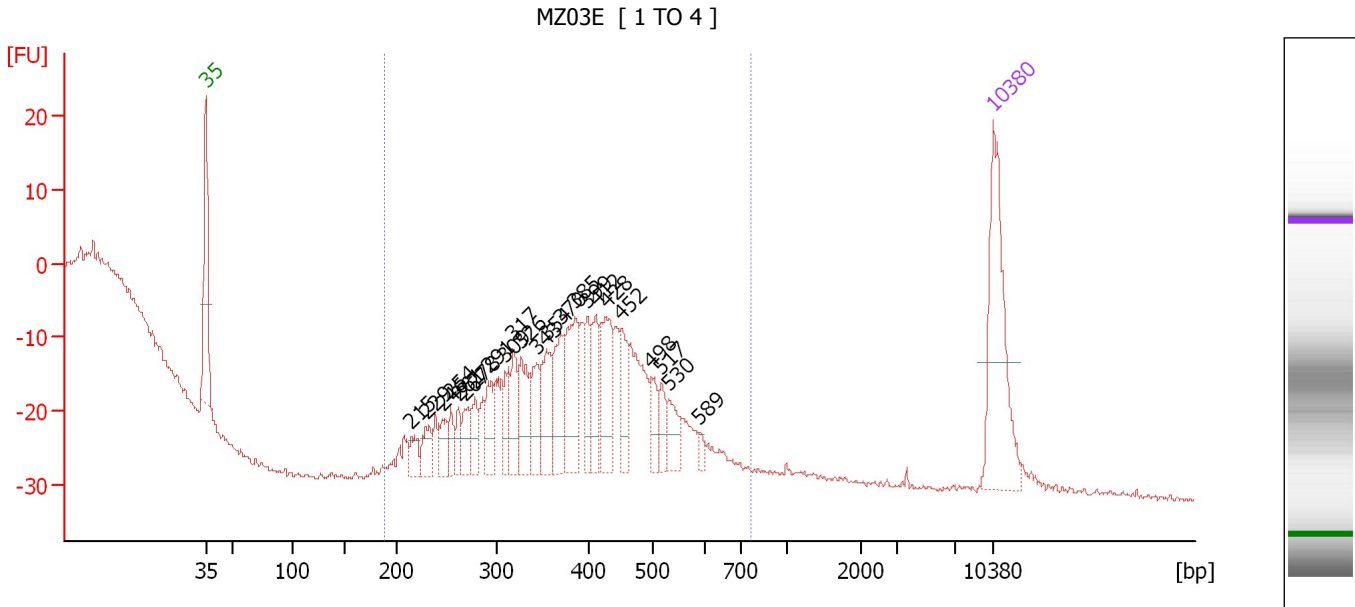
Region table for sample 10 : MZ03D

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	453	5,352.4	1,462.28	542.2	90	28.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-12\2013-12-12_002.xad

Created: 12/12/2013 12:20:47 PM
 Modified: 12/12/2013 1:08:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : MZ03E

Number of peaks found: 23 Corr. Area 1: 60.4
 Noise: 0.5


Peak table for sample 11 : MZ03E

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	61.21	215	14.20	100.2	
3	62.54	229	19.06	125.9	
4	64.06	246	16.13	99.3	
5	64.77	254	13.29	79.2	
6	65.38	261	13.74	79.8	
7	65.95	267	19.54	110.8	
8	66.90	278	18.34	100.1	
9	68.09	291	26.56	138.4	
10	69.61	309	22.33	109.6	
11	70.32	317	29.95	143.0	
12	71.03	326	34.56	160.6	
13	72.36	343	29.86	132.0	
14	73.26	354	38.77	166.0	
15	74.54	370	38.61	158.2	
16	75.77	385	53.80	211.7	
17	76.91	399	25.78	97.9	
18	77.67	412	27.54	101.3	
19	78.57	428	48.22	170.8	
20	79.94	452	25.97	87.1	
21	82.60	498	15.22	46.3	
22	83.50	517	14.17	41.5	
23	84.12	530	17.74	50.7	
24	86.87	589	4.63	11.9	
25	113.00	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-12\2013-12-12_002.xad

Created: 12/12/2013 12:20:47 PM
Modified: 12/12/2013 1:08:13 PM

Electropherogram Summary Continued ...**... Region table for sample 11 : MZ03E**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Co lor
188	764	419	345.8	94.91	60.4	87	8.3	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-12\2013-12-12_002.xad

Created: 12/12/2013 12:20:47 PM
Modified: 12/12/2013 1:08:13 PM

Gel Image

