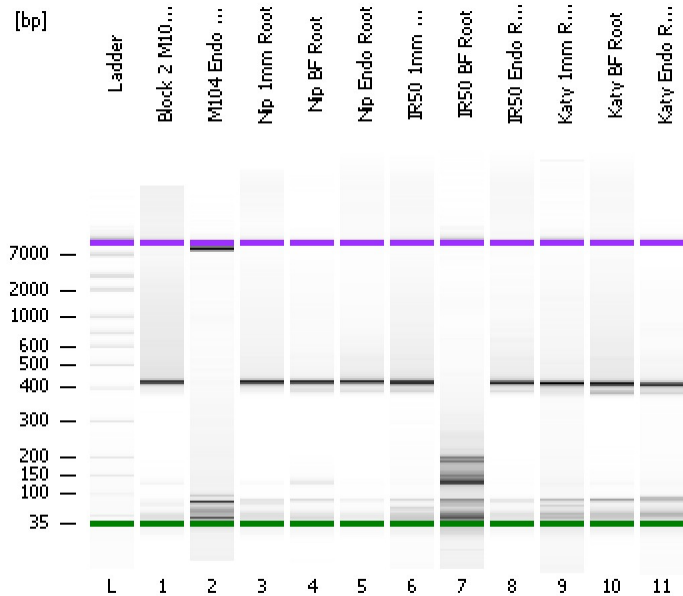


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
Modified: 12/18/2012 11:30:47 AM

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

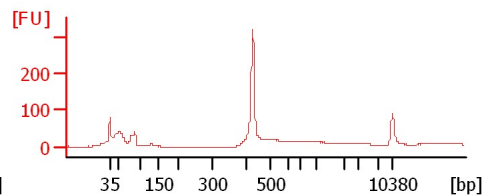
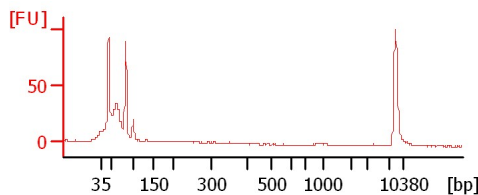
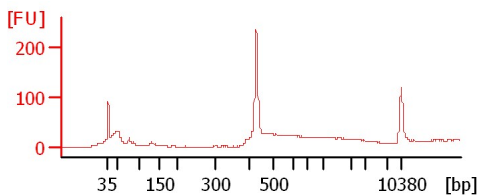
Chip Information:

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

Block 2 M104 BF Soil-N

M104 Endo Soil-N

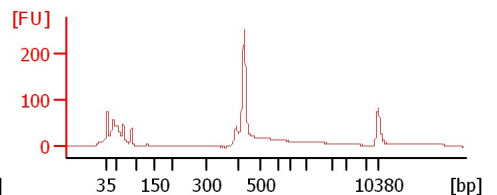
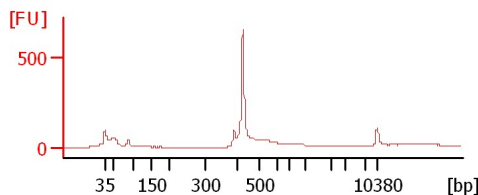
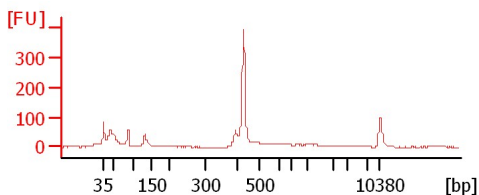
Nip 1mm Root



Nip BF Root

Nip Endo Root

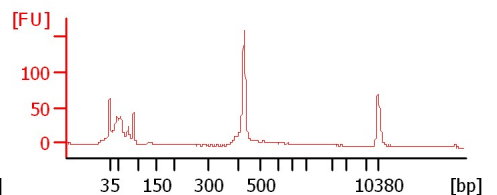
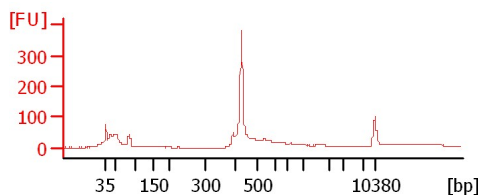
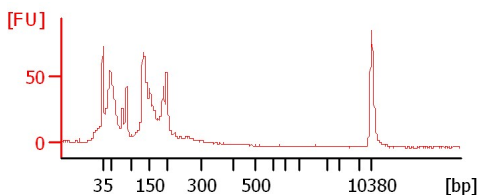
IR50 1mm Root



IR50 BF Root

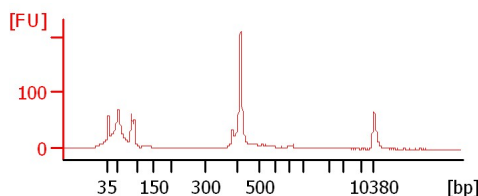
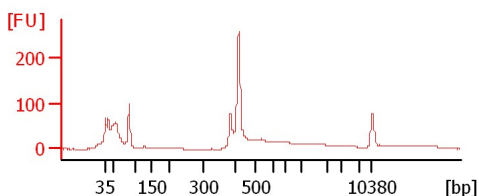
IR50 Endo Root

Katy 1mm Root



Katy BF Root

Katy Endo Root



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
 Modified: 12/18/2012 11:30:47 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Block 2 M104 BF Soil-N		<input type="checkbox"/>	✓			
M104 Endo Soil-N		<input type="checkbox"/>	✓			
Nip 1mm Root		<input type="checkbox"/>	✓			
Nip BF Root		<input type="checkbox"/>	✓			
Nip Endo Root		<input type="checkbox"/>	✓			
IR50 1mm Root		<input type="checkbox"/>	✓			
IR50 BF Root		<input type="checkbox"/>	✓			
IR50 Endo Root		<input type="checkbox"/>	✓			
Katy 1mm Root		<input type="checkbox"/>	✓			
Katy BF Root		<input type="checkbox"/>	✓			
Katy Endo Root		<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\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
Modified: 12/18/2012 11:30:47 AM

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

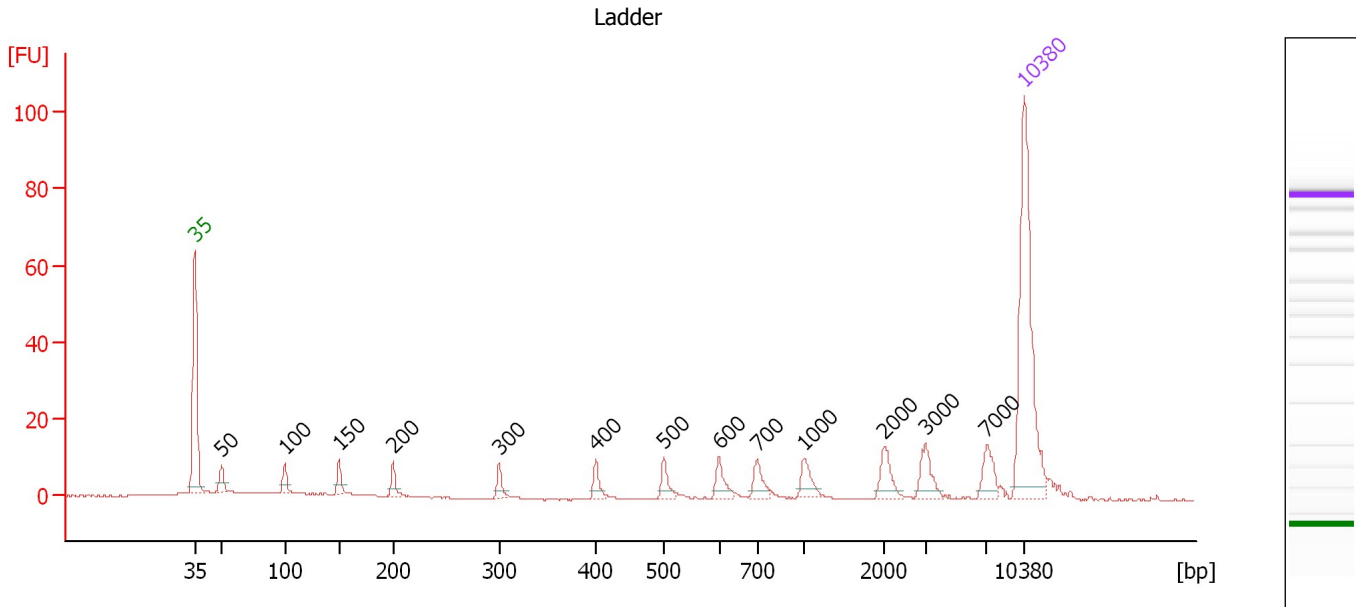
Ladder

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\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
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Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

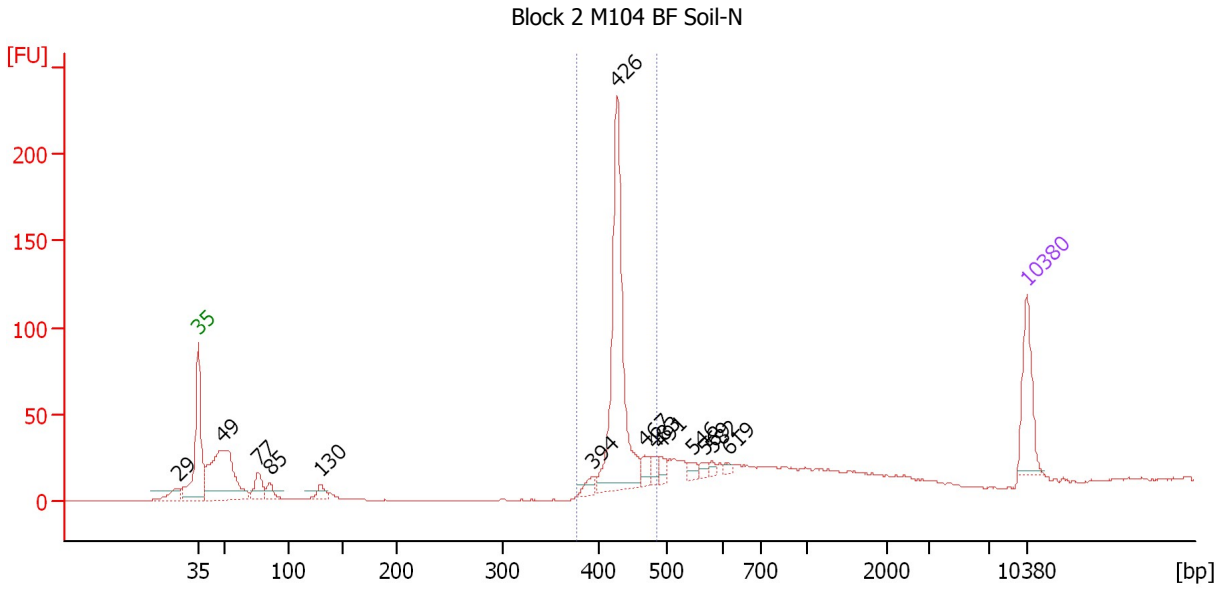
Peak table for Ladder

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\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
 Modified: 12/18/2012 11:30:47 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Block 2 M104 BF Soil-N

Number of peaks found: 14 Corr. Area 1: 351.9
 Noise: 0.2

Peak table for sample 1 : Block 2 M104 BF Soil-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	29	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	49	299.59	9,300.1	
4	77	48.13	953.2	
5	85	24.83	440.9	
6	130	23.83	278.2	
7	394	17.67	68.0	
8	426	390.35	1,387.8	
9	467	20.54	66.7	
10	483	16.98	53.2	
11	491	14.43	44.5	
12	546	13.38	37.1	
13	569	8.61	23.0	
14	582	6.44	16.8	
15	619	6.38	15.6	
16	10,380	75.00	10.9	Upper Marker

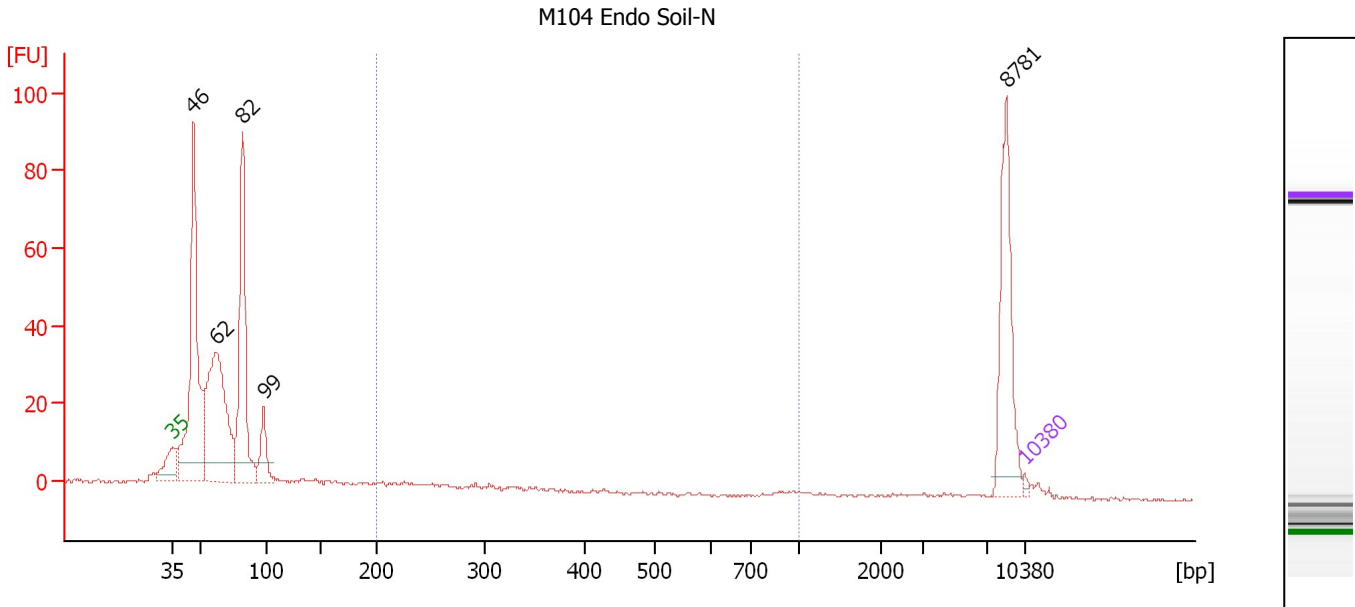
Region table for sample 1 : Block 2 M104 BF Soil-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
378	485	431	1,528.0	434.96	351.9	43	4.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
 Modified: 12/18/2012 11:30:47 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : M104 Endo Soil-N

Number of peaks found: 5 Corr. Area 1: 6.6
 Noise: 0.3

Peak table for sample 2 : M104 Endo Soil-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	46	9,714.26	319,273.5	
3	62	8,338.75	203,354.5	
4	82	6,780.34	125,013.6	
5	99	1,406.20	21,621.3	
6	8,781	2,803.14	483.7	
7	10,380	75.00	10.9	Upper Marker

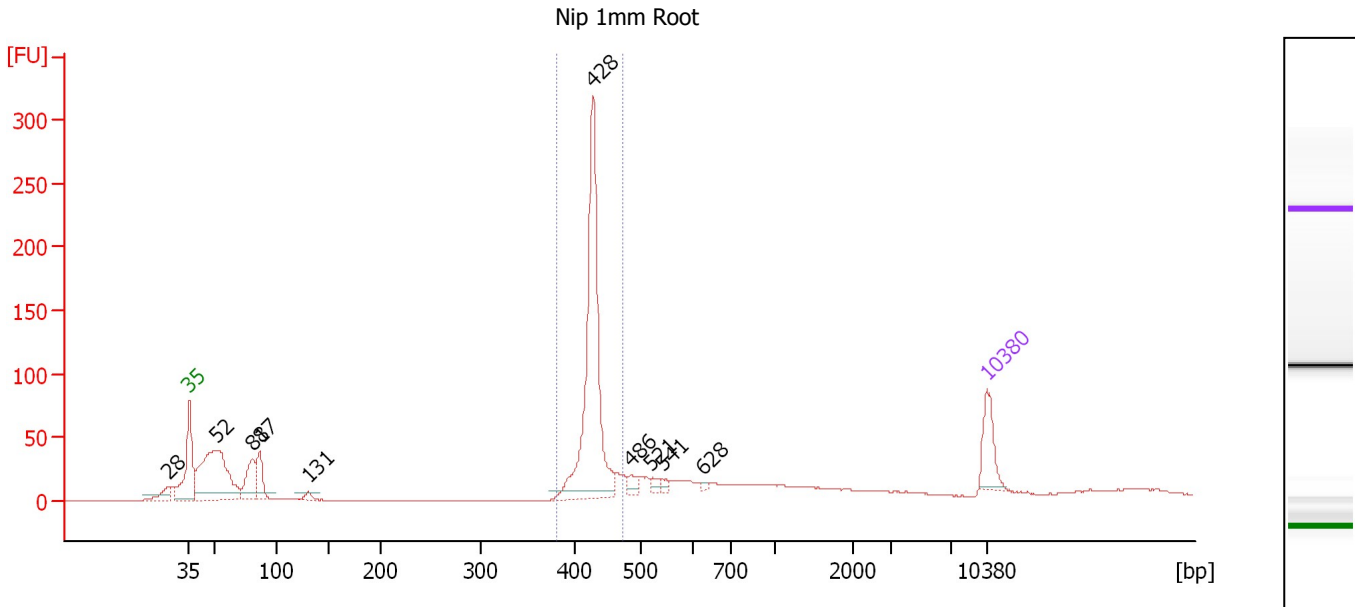
Region table for sample 2 : M104 Endo Soil-N

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	345	1,706.1	292.55	6.6	1	69.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
 Modified: 12/18/2012 11:30:47 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Nip 1mm Root

Number of peaks found: 10 Corr. Area 1: 495.2
 Noise: 0.2

Peak table for sample 3 : Nip 1mm Root

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	28	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	52	520.23	15,245.5	
4	81	132.11	2,472.4	
5	87	101.52	1,775.3	
6	131	17.55	202.8	
7	428	679.22	2,404.3	
8	486	25.24	78.7	
9	521	15.61	45.4	
10	541	13.55	38.0	
11	628	5.62	13.6	
12	10,380	75.00	10.9	Upper Marker

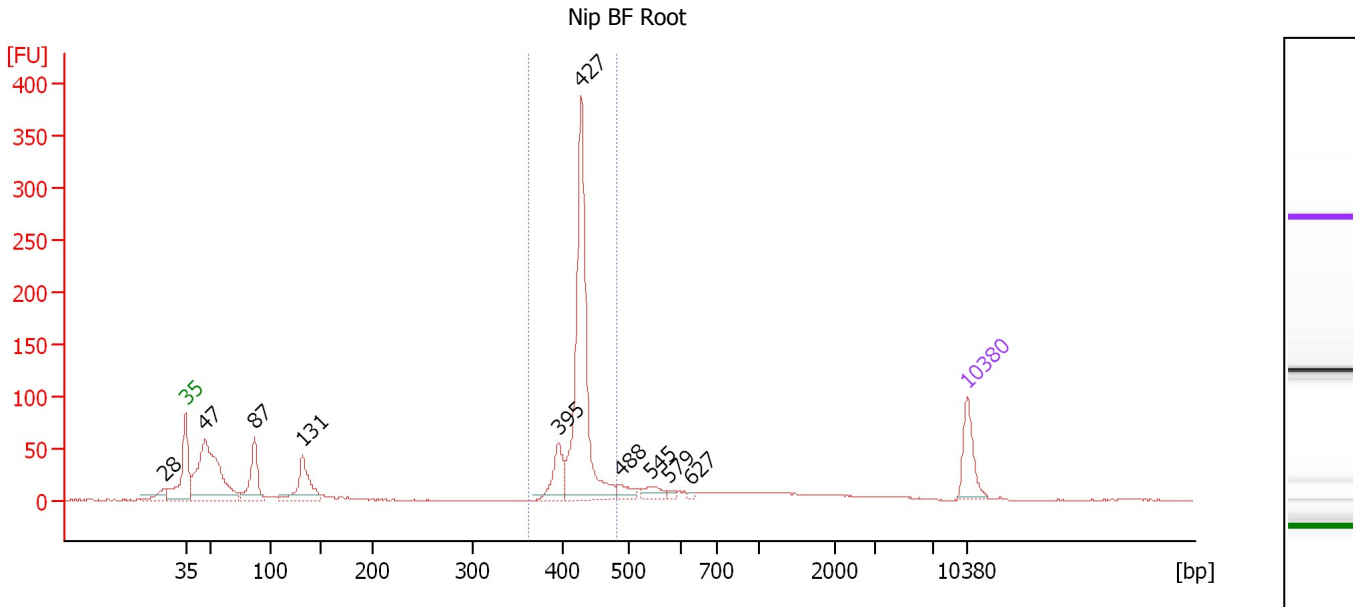
Region table for sample 3 : Nip 1mm Root

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
380	473	427	2,477.7	698.02	495.2	42	3.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
 Modified: 12/18/2012 11:30:47 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Nip BF Root

Number of peaks found: 10 Corr. Area 1: 616.7
 Noise: 0.4

Peak table for sample 4 : Nip BF Root

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	28	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	47	505.49	16,377.3	
4	87	162.78	2,838.5	
5	131	157.85	1,822.2	
6	395	94.59	363.3	
7	427	621.89	2,206.9	
8	488	29.99	93.1	
9	545	29.40	81.7	
10	579	7.75	20.3	
11	627	4.94	11.9	
12	10,380	75.00	10.9	Upper Marker

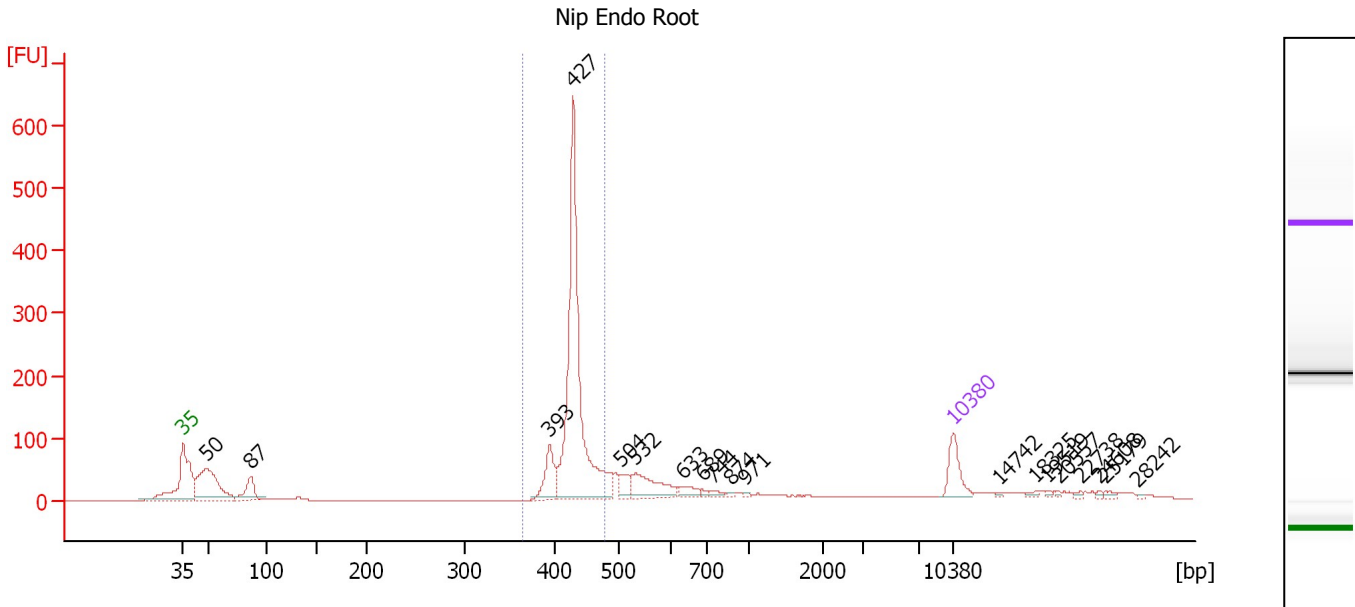
Region table for sample 4 : Nip BF Root

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
363	483	425	2,572.6	720.23	616.7	45	4.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
 Modified: 12/18/2012 11:30:47 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Nip Endo Root

Number of peaks found: 19 Corr. Area 1: 1,029.3
 Noise: 0.3

Peak table for sample 5 : Nip Endo Root

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	358.37	10,894.6	
3	87	107.47	1,875.4	
4	393	118.93	458.1	
5	427	947.07	3,356.7	
6	504	46.52	139.9	
7	532	136.45	388.6	
8	633	33.75	80.8	
9	689	8.07	17.7	
10	744	14.14	28.8	
11	874	4.78	8.3	
12	971	3.73	5.8	
13	10,380	75.00	10.9	Upper Marker
14	14,742	0.00	0.0	
15	18,325	0.00	0.0	
16	19,519	0.00	0.0	
17	20,557	0.00	0.0	
18	22,738	0.00	0.0	
19	24,608	0.00	0.0	
20	25,179	0.00	0.0	
21	28,242	0.00	0.0	

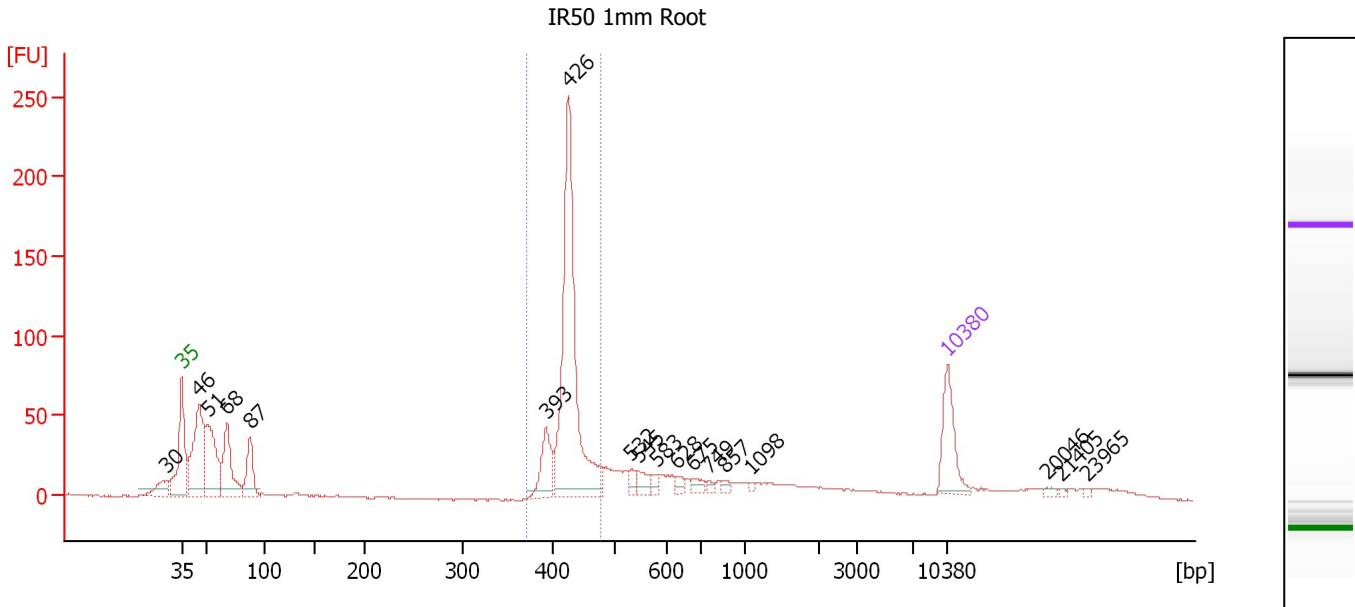
Region table for sample 5 : Nip Endo Root

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
364	478	428	3,651.0	1,029.19	1,029.3	52	4.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
 Modified: 12/18/2012 11:30:47 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : IR50 1mm Root

Number of peaks found: 18 Corr. Area 1: 485.7
 Noise: 0.4

Peak table for sample 6 : IR50 1mm Root

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	30	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	46	270.75	8,973.9	
4	51	201.84	5,964.8	
5	68	151.64	3,396.8	
6	87	93.92	1,632.1	
7	393	76.87	296.5	
8	426	511.89	1,819.5	
9	532	15.95	45.4	
10	545	24.12	67.1	
11	583	11.84	30.8	
12	628	11.54	27.8	
13	675	14.67	32.9	
14	749	5.58	11.3	
15	857	7.48	13.2	
16	1,098	4.02	5.6	
17	10,380	75.00	10.9	Upper Marker
18	20,046	0.00	0.0	
19	21,405	0.00	0.0	
20	23,965	0.00	0.0	

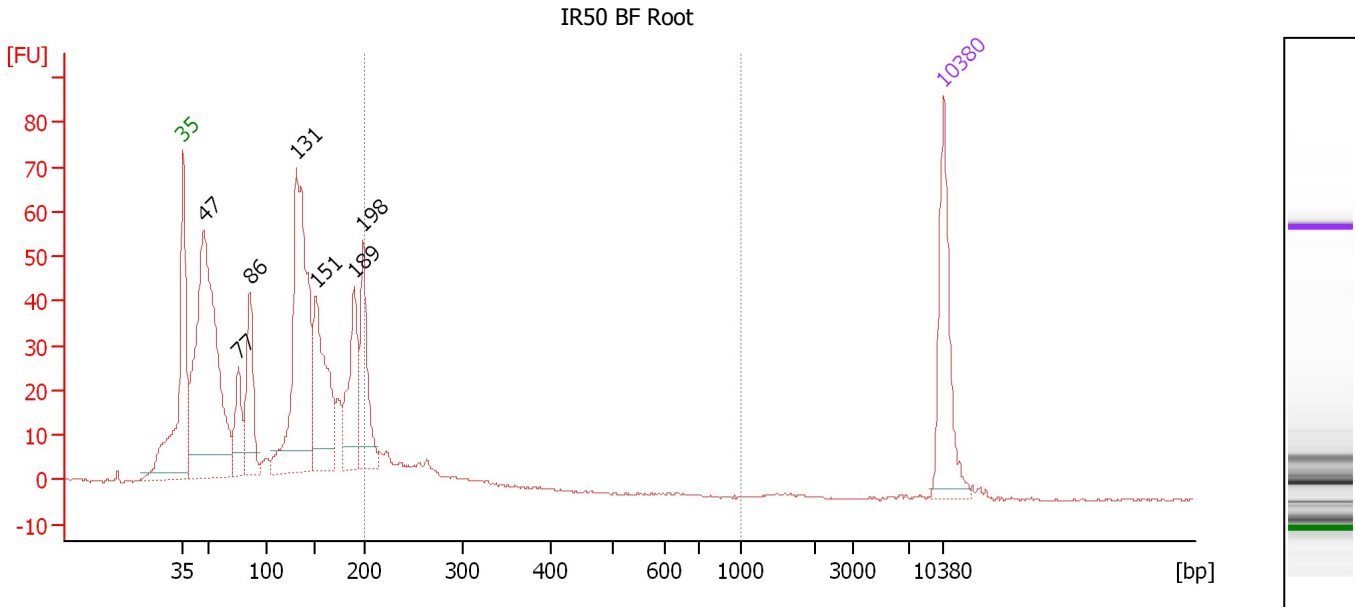
Region table for sample 6 : IR50 1mm Root

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
372	478	425	2,069.6	580.25	485.7	37	4.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
 Modified: 12/18/2012 11:30:47 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : IR50 BF Root

Number of peaks found: 7 Corr. Area 1: 94.0
 Noise: 0.2

Peak table for sample 7 : IR50 BF Root

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	47	477.87	15,265.0	
3	77	62.55	1,236.6	
4	86	106.17	1,864.8	
5	131	347.17	4,022.0	
6	151	160.67	1,614.9	
7	189	104.82	839.3	
8	198	95.24	727.6	
9	10,380	75.00	10.9	Upper Marker

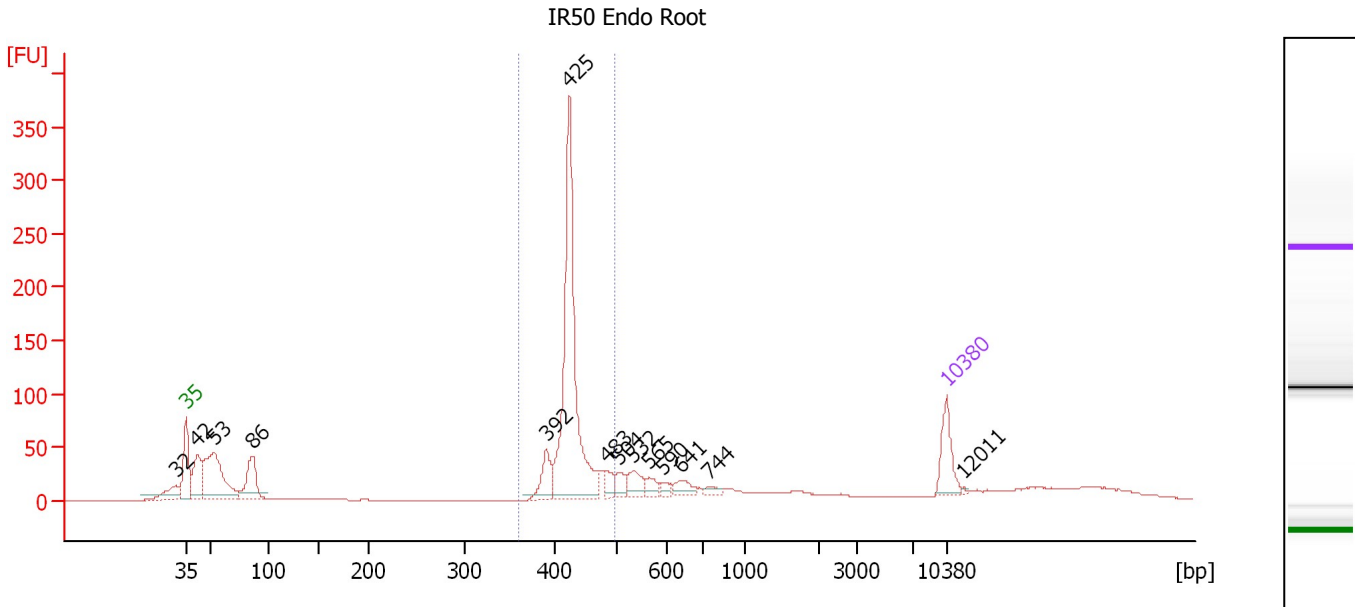
Region table for sample 7 : IR50 BF Root

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	236	863.1	132.79	94.0	10	15.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
 Modified: 12/18/2012 11:30:47 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : IR50 Endo Root

Number of peaks found: 14 Corr. Area 1: 660.8
 Noise: 0.2

Peak table for sample 8 : IR50 Endo Root

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	32	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	42	151.95	5,499.1	
4	53	353.57	10,146.0	
5	86	157.63	2,769.9	
6	392	80.41	311.1	
7	425	701.86	2,504.5	
8	483	37.98	119.0	
9	504	32.95	99.1	
10	532	52.87	150.5	
11	565	26.10	70.0	
12	590	14.47	37.1	
13	641	34.85	82.4	
14	744	14.85	30.2	
15	10,380	75.00	10.9	Upper Marker
16	12,011	0.00	0.0	

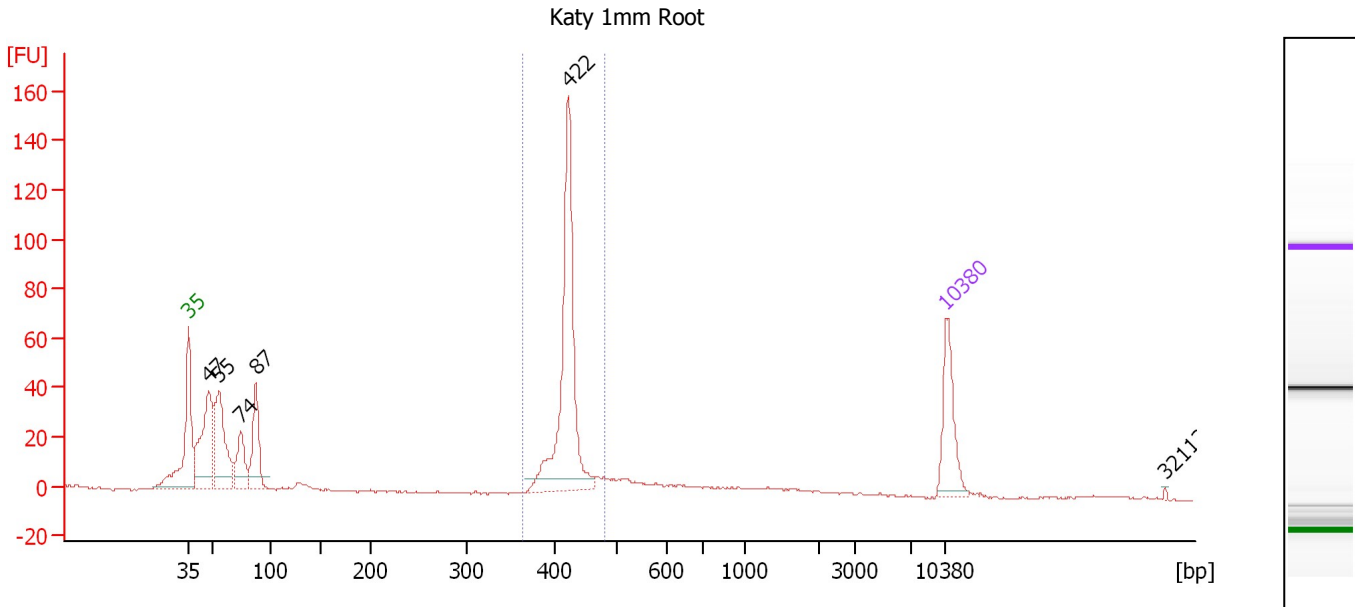
Region table for sample 8 : IR50 Endo Root

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
361	496	428	2,950.6	832.88	660.8	44	5.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
 Modified: 12/18/2012 11:30:47 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : Katy 1mm Root

Number of peaks found: 6 Corr. Area 1: 259.9
 Noise: 0.4

Peak table for sample 9 : Katy 1mm Root

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	47	225.97	7,210.3	
3	55	209.15	5,738.9	
4	74	86.92	1,777.7	
5	87	125.83	2,192.3	
6	422	357.92	1,286.2	
7	10,380	75.00	10.9	Upper Marker
8	32,112	0.00	0.0	

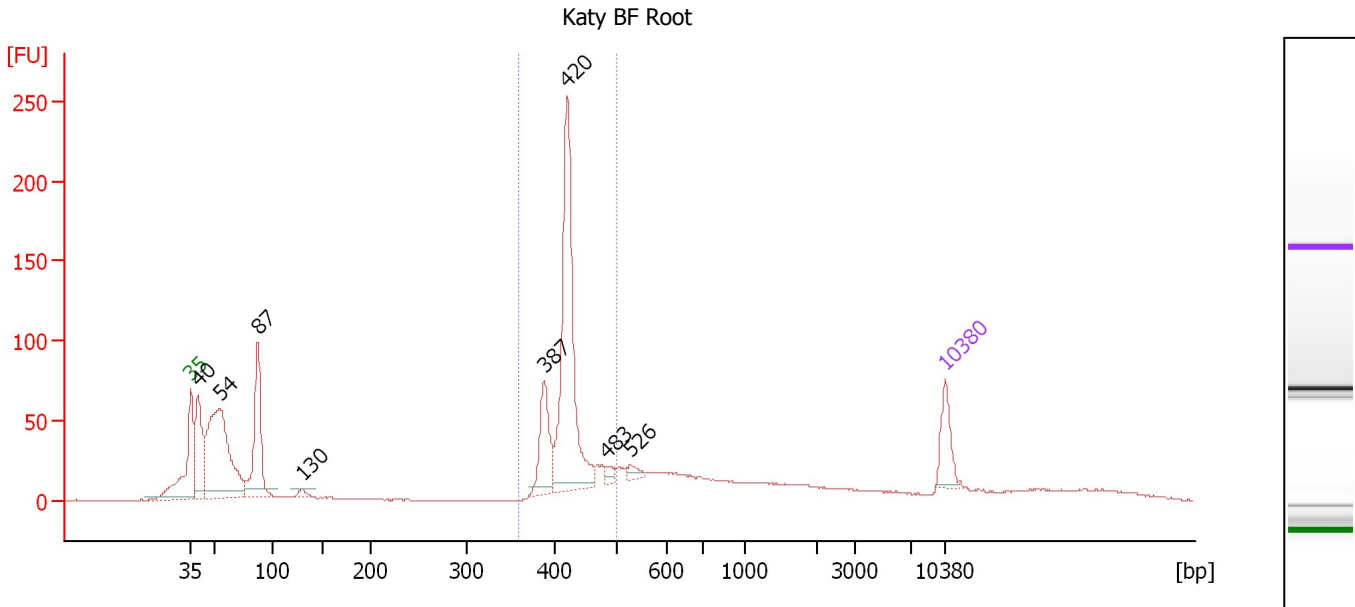
Region table for sample 9 : Katy 1mm Root

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
364	481	421	1,345.7	373.16	259.9	39	4.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
 Modified: 12/18/2012 11:30:47 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : Katy BF Root

Number of peaks found: 8 Corr. Area 1: 566.5
 Noise: 0.2

Peak table for sample 10 : Katy BF Root

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	298.84	11,428.4	
3	54	740.01	20,785.2	
4	87	368.08	6,394.7	
5	130	21.34	249.5	
6	387	176.38	689.8	
7	420	658.83	2,377.2	
8	483	21.94	68.9	
9	526	22.93	66.0	
10	10,380	75.00	10.9	Upper Marker

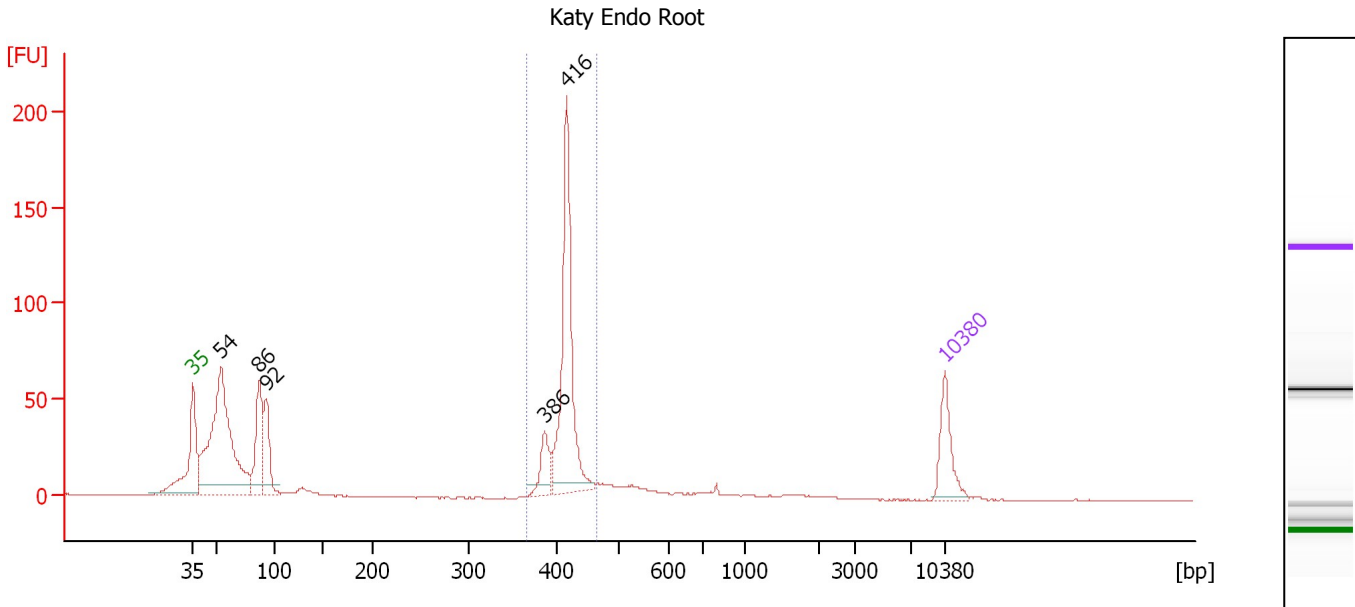
Region table for sample 10 : Katy BF Root

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
359	498	421	3,586.0	994.54	566.5	35	6.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
 Modified: 12/18/2012 11:30:47 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : Katy Endo Root

Number of peaks found: 5 Corr. Area 1: 323.6
 Noise: 0.2

Peak table for sample 11 : Katy Endo Root

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	54	703.27	19,898.2	
3	86	193.70	3,394.9	
4	92	140.75	2,306.2	
5	386	64.93	254.8	
6	416	405.74	1,476.1	
7	10,380	75.00	10.9	Upper Marker

Region table for sample 11 : Katy Endo Root

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
367	466	414	1,835.9	501.33	323.6	37	3.9	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-18\2012-12-18_003.xad

Created: 12/18/2012 10:45:29 AM
Modified: 12/18/2012 11:30:47 AM

Gel Image

