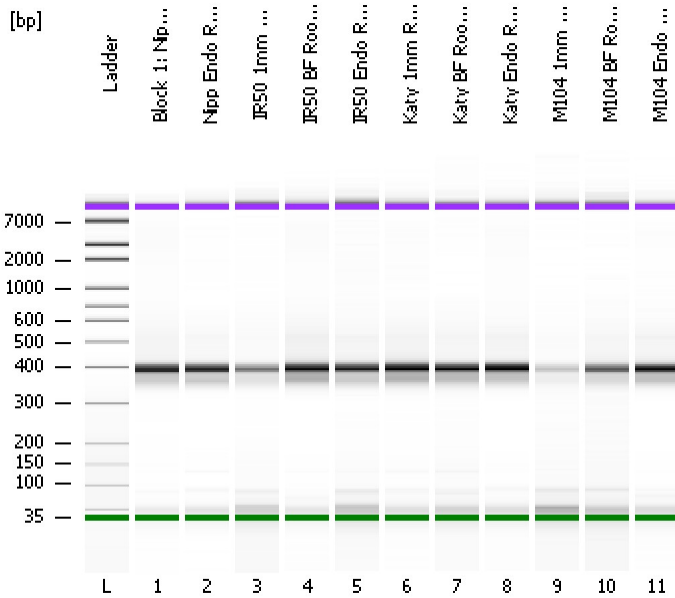


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
Modified: 12/28/2012 2:09:07 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

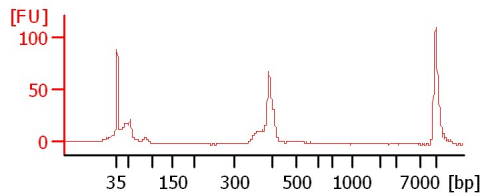
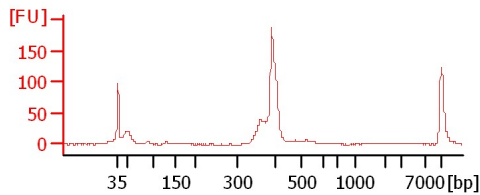
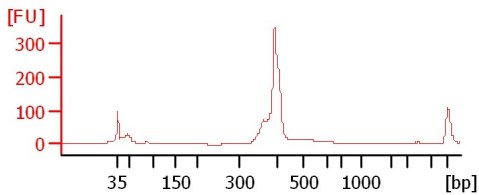
Chip Information:

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

Block 1: Nipp BF Root-N

Nipp Endo Root-N

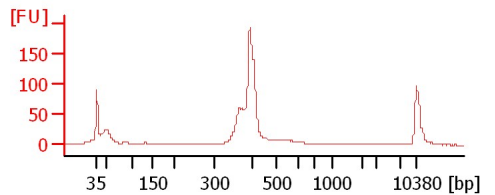
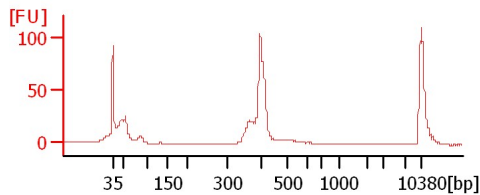
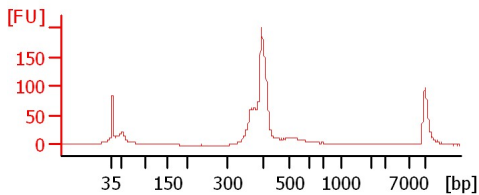
IR50 1mm Root-N



IR50 BF Root-N

IR50 Endo Root-N

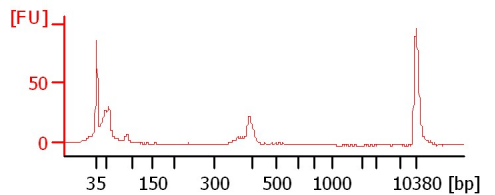
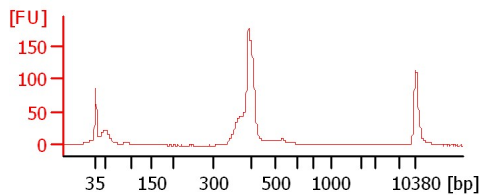
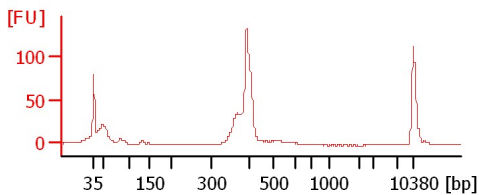
Katy 1mm Root-N



Katy BF Root-N

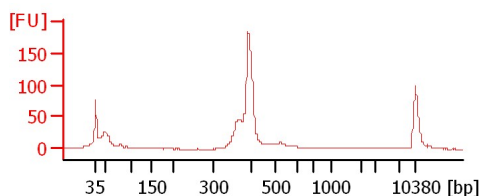
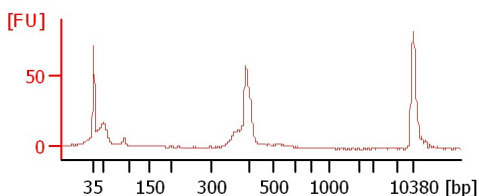
Katy Endo Root-N

M104 1mm Root-N



M104 BF Root-N

M104 Endo Root-N



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
 Modified: 12/28/2012 2:09:07 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Block 1: Nipp BF Root-N		<input type="checkbox"/>	✓			
Nipp Endo Root-N		<input type="checkbox"/>	✓			
IR50 1mm Root-N		<input type="checkbox"/>	✓			
IR50 BF Root-N		<input type="checkbox"/>	✓			
IR50 Endo Root-N		<input type="checkbox"/>	✓			
Katy 1mm Root-N		<input type="checkbox"/>	✓			
Katy BF Root-N		<input type="checkbox"/>	✓			
Katy Endo Root-N		<input type="checkbox"/>	✓			
M104 1mm Root-N		<input type="checkbox"/>	✓			
M104 BF Root-N		<input type="checkbox"/>	✓			
M104 Endo Root-N		<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\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
Modified: 12/28/2012 2:09:07 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

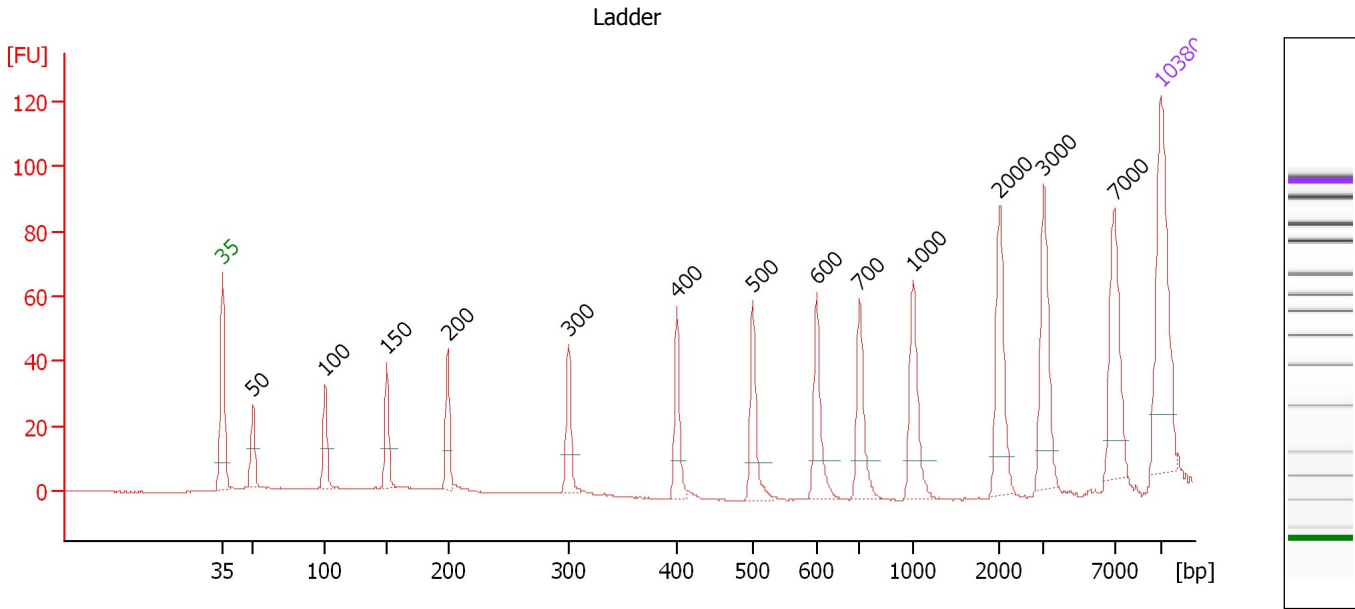
Ladder

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\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
 Modified: 12/28/2012 2:09:07 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

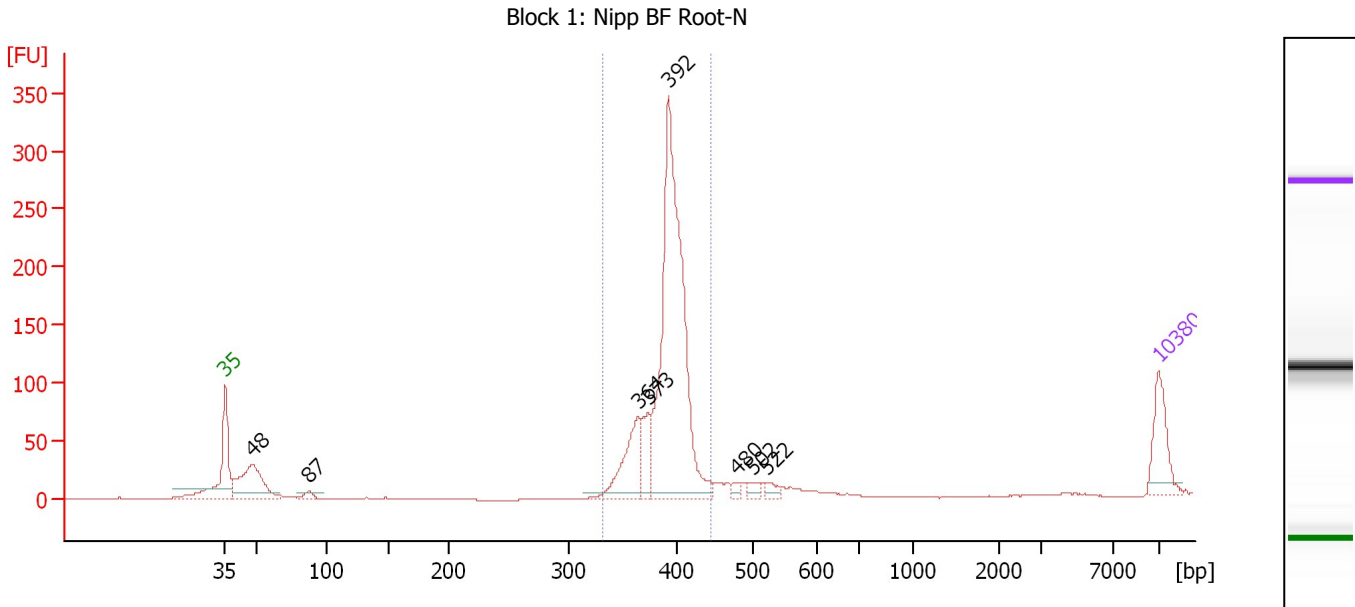
Peak table for Ladder

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\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
 Modified: 12/28/2012 2:09:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Block 1: Nipp BF Root-N

Number of peaks found: 8 Corr. Area 1: 1,039.0
 Noise: 0.2

Peak table for sample 1 : Block 1: Nipp BF Root-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	207.82	6,529.3	
3	87	19.12	331.8	
4	364	149.90	623.9	
5	373	71.98	292.4	
6	392	811.14	3,137.1	
7	480	10.95	34.6	
8	502	16.24	49.0	
9	522	15.65	45.4	
10	10,380	75.00	10.9	Upper Marker

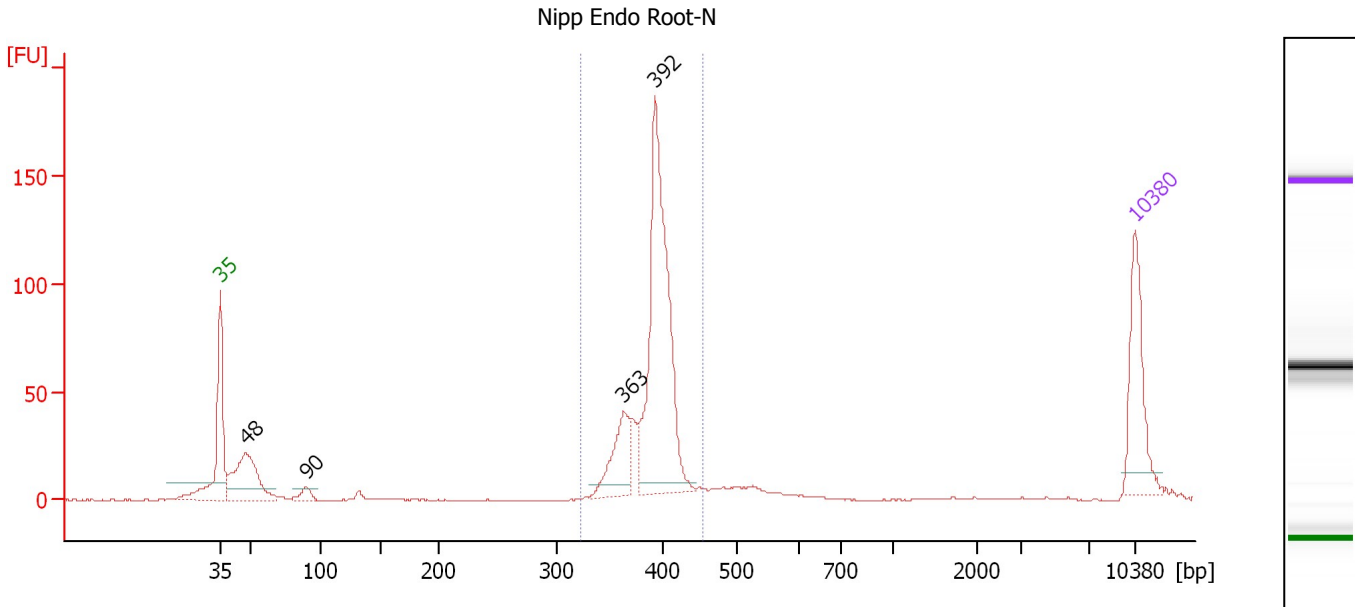
Region table for sample 1 : Block 1: Nipp BF Root-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
331	445	390	3,852.5	991.04	1,039.0	81	4.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
 Modified: 12/28/2012 2:09:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Nipp Endo Root-N

Number of peaks found: 4 Corr. Area 1: 547.8
 Noise: 0.2

Peak table for sample 2 : Nipp Endo Root-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	136.59	4,316.1	
3	90	15.29	257.3	
4	363	72.95	304.9	
5	392	336.28	1,298.7	
6	10,380	75.00	10.9	Upper Marker

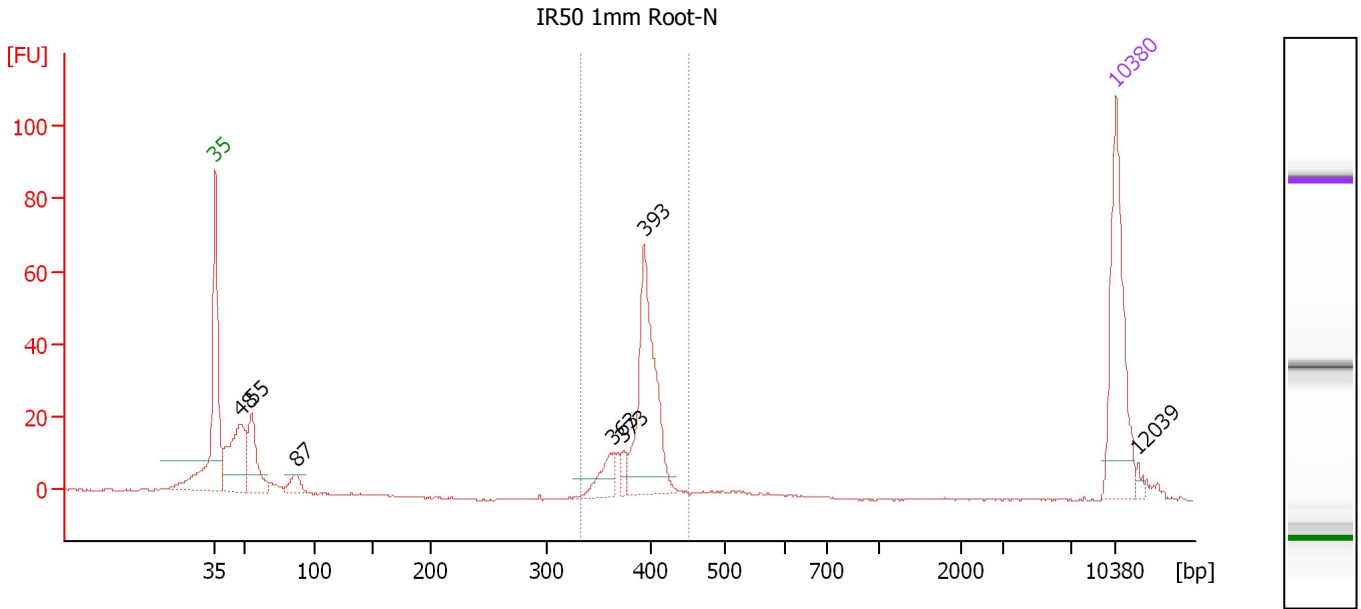
Region table for sample 2 : Nipp Endo Root-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
322	454	390	1,779.0	457.70	547.8	76	5.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
 Modified: 12/28/2012 2:09:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : IR50 1mm Root-N

Number of peaks found: 7 Corr. Area 1: 178.9
 Noise: 0.2

Peak table for sample 3 : IR50 1mm Root-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	96.77	3,062.3	
3	55	56.32	1,548.3	
4	87	15.85	275.7	
5	363	23.12	96.5	
6	373	8.64	35.1	
7	393	130.24	502.4	
8	10,380	75.00	10.9	Upper Marker
9	12,039	0.00	0.0	

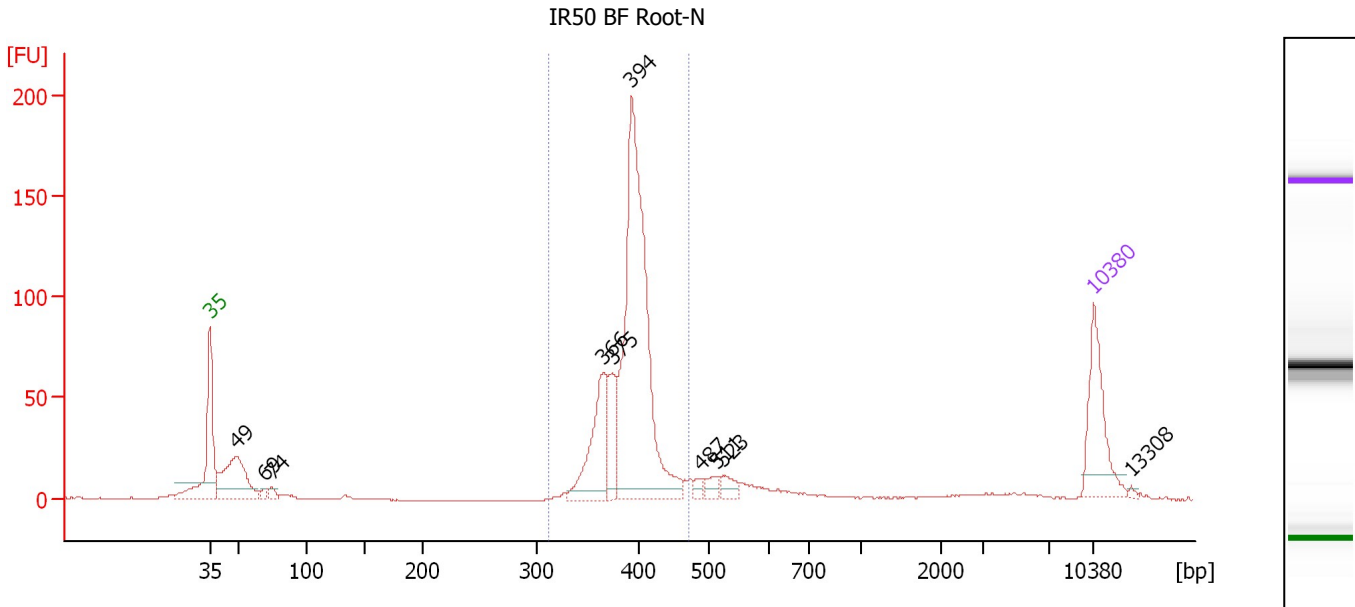
Region table for sample 3 : IR50 1mm Root-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
332	450	391	650.8	167.58	178.9	54	4.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
 Modified: 12/28/2012 2:09:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : IR50 BF Root-N

Number of peaks found: 10 Corr. Area 1: 723.0
 Noise: 0.2

Peak table for sample 4 : IR50 BF Root-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	49	144.62	4,500.6	
3	69	8.42	185.9	
4	74	10.65	216.6	
5	366	125.02	517.2	
6	375	59.01	238.7	
7	394	484.38	1,863.0	
8	487	8.61	26.8	
9	511	14.07	41.7	
10	523	16.21	47.0	
11	10,380	75.00	10.9	Upper Marker
12	13,308	0.00	0.0	

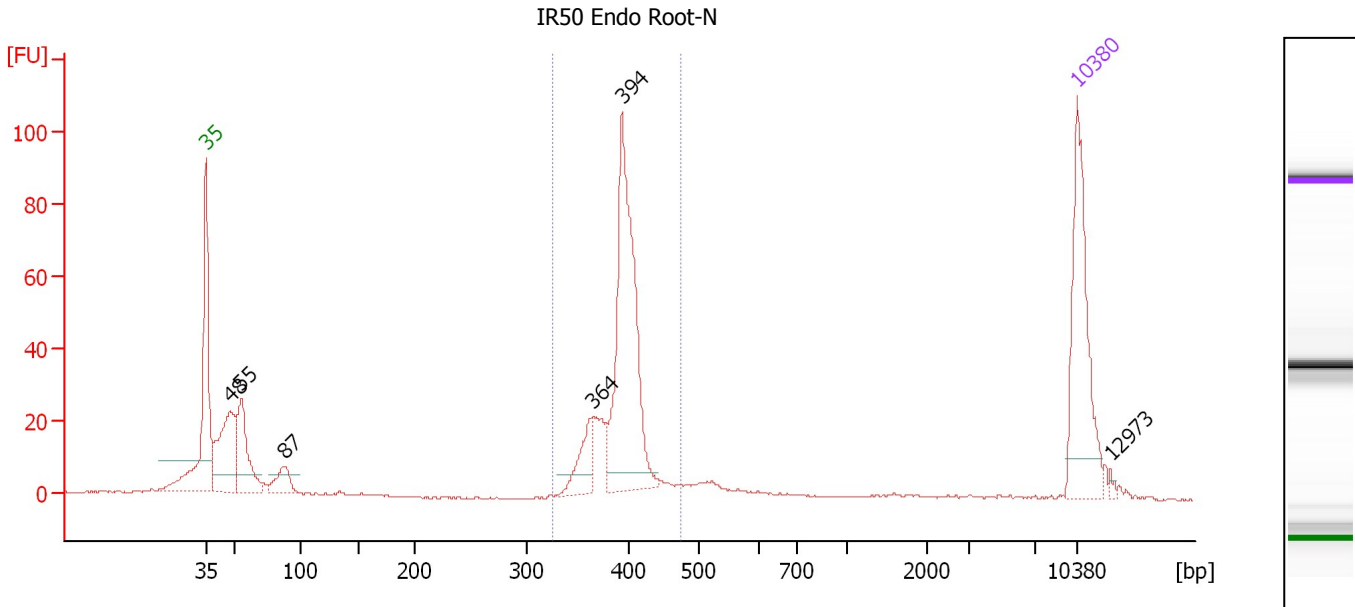
Region table for sample 4 : IR50 BF Root-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
312	472	393	2,563.6	662.63	723.0	76	5.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
 Modified: 12/28/2012 2:09:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : IR50 Endo Root-N

Number of peaks found: 6 Corr. Area 1: 323.2
 Noise: 0.2

Peak table for sample 5 : IR50 Endo Root-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	96.07	3,048.4	
3	55	69.14	1,897.7	
4	87	24.30	422.8	
5	364	30.15	125.4	
6	394	182.82	703.2	
7	10,380	75.00	10.9	Upper Marker
8	12,973	0.00	0.0	

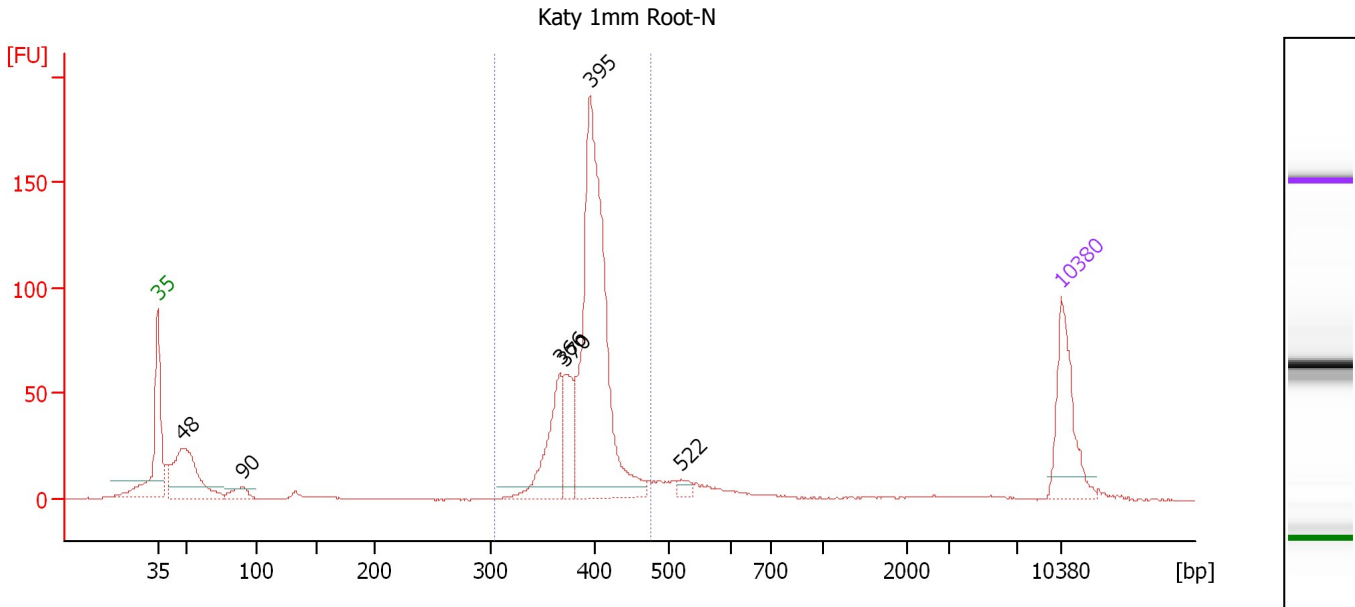
Region table for sample 5 : IR50 Endo Root-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
324	474	394	987.2	255.99	323.2	58	5.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
 Modified: 12/28/2012 2:09:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Katy 1mm Root-N

Number of peaks found: 6 Corr. Area 1: 709.9
 Noise: 0.2

Peak table for sample 6 : Katy 1mm Root-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	161.09	5,067.3	
3	90	21.28	357.8	
4	366	106.39	440.3	
5	370	60.05	246.0	
6	395	444.86	1,706.1	
7	522	9.53	27.7	
8	10,380	75.00	10.9	Upper Marker

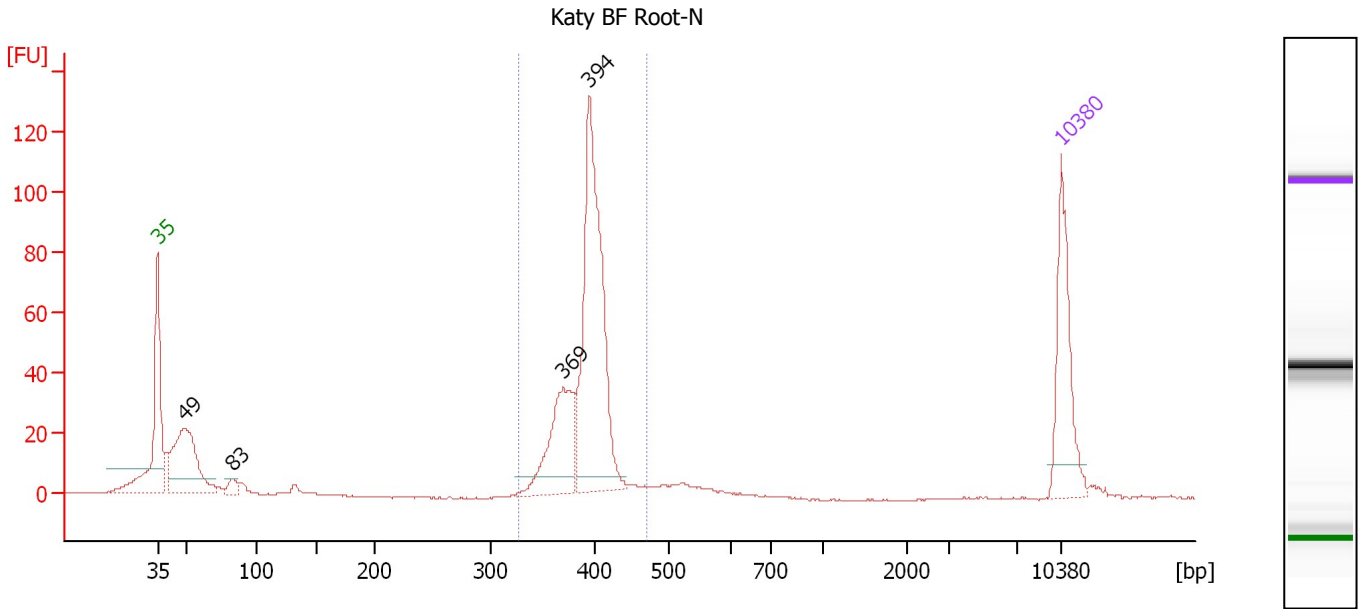
Region table for sample 6 : Katy 1mm Root-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
304	477	394	2,391.8	619.50	709.9	72	6.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
 Modified: 12/28/2012 2:09:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Katy BF Root-N

Number of peaks found: 4 Corr. Area 1: 418.6
 Noise: 0.2

Peak table for sample 7 : Katy BF Root-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	49	152.02	4,740.5	
3	83	13.27	241.0	
4	369	106.38	436.3	
5	394	271.82	1,044.4	
6	10,380	75.00	10.9	Upper Marker

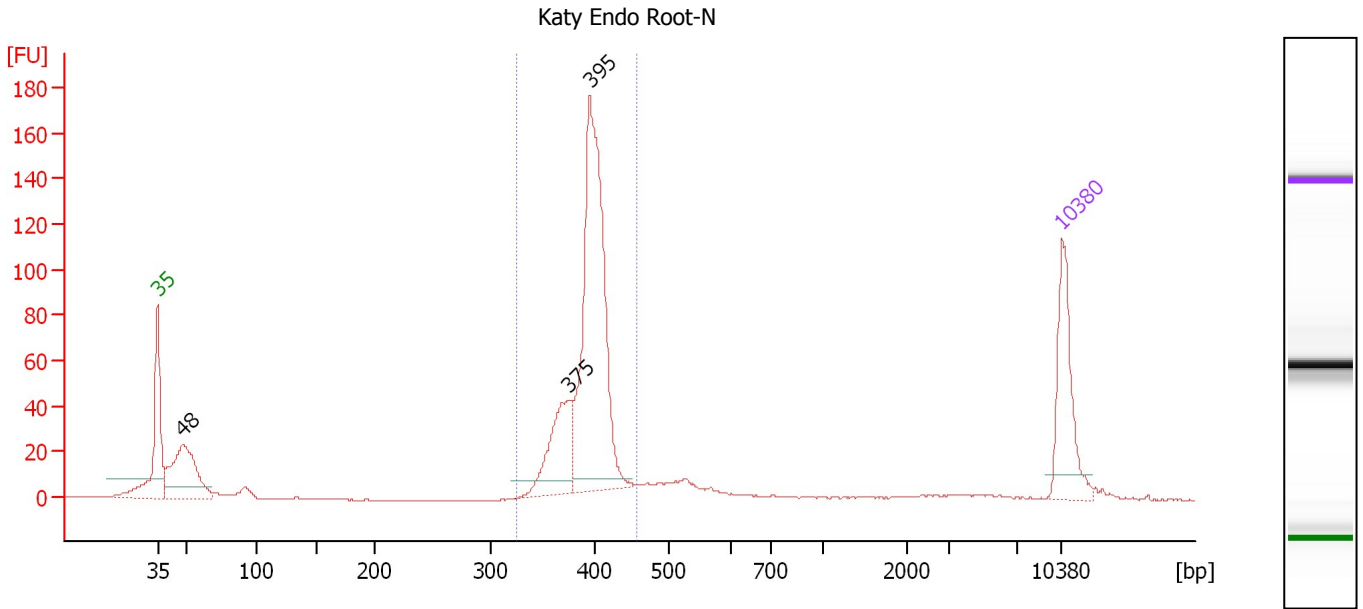
Region table for sample 7 : Katy BF Root-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
326	471	392	1,534.4	396.13	418.6	70	5.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
 Modified: 12/28/2012 2:09:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : Katy Endo Root-N

Number of peaks found: 3 Corr. Area 1: 588.2
 Noise: 0.2

Peak table for sample 8 : Katy Endo Root-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	149.02	4,697.9	
3	375	99.32	401.6	
4	395	353.21	1,355.5	
5	10,380	75.00	10.9	Upper Marker

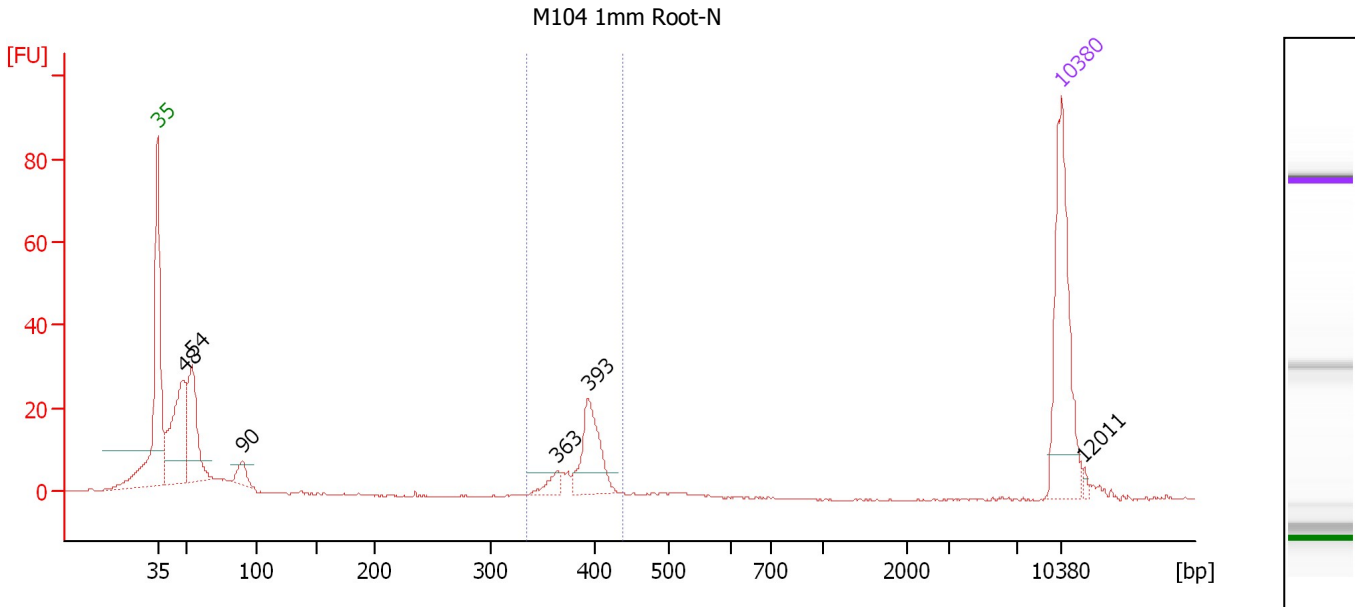
Region table for sample 8 : Katy Endo Root-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
325	456	394	1,856.6	481.39	588.2	72	5.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
 Modified: 12/28/2012 2:09:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : M104 1mm Root-N

Number of peaks found: 6 Corr. Area 1: 65.3
 Noise: 0.2

Peak table for sample 9 : M104 1mm Root-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	112.35	3,518.9	
3	54	77.24	2,173.2	
4	90	14.02	236.4	
5	363	9.37	39.1	
6	393	48.95	188.8	
7	10,380	75.00	10.9	Upper Marker
8	12,011	0.00	0.0	

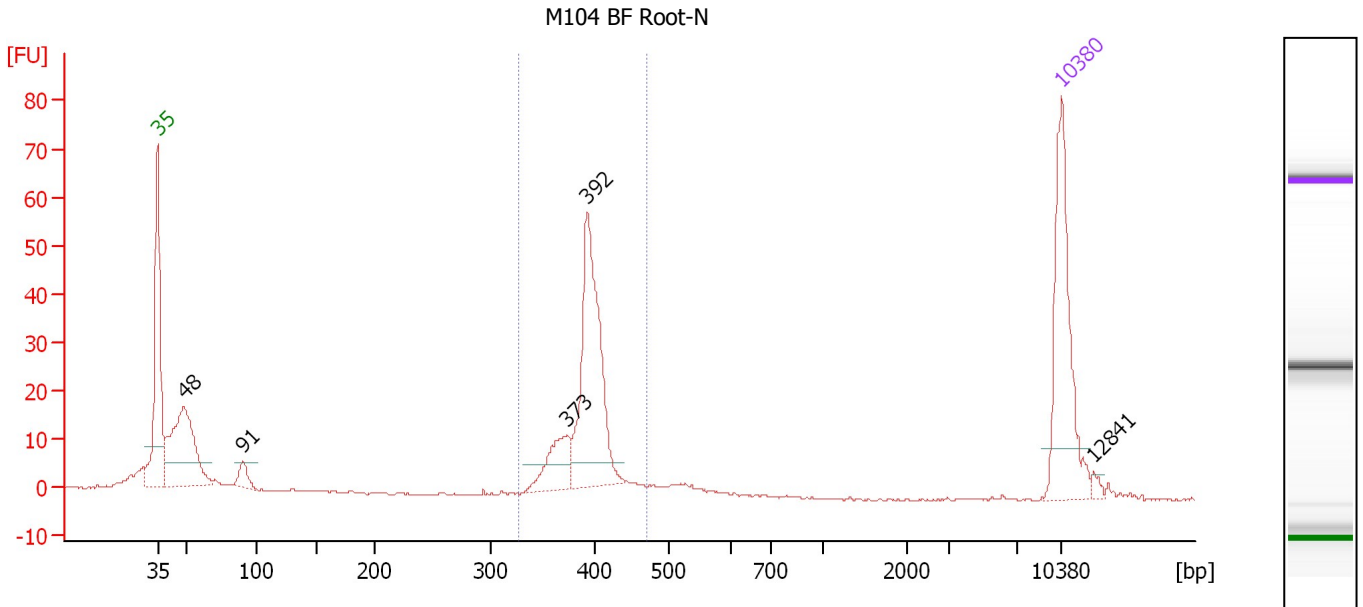
Region table for sample 9 : M104 1mm Root-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
335	437	390	249.8	64.22	65.3	25	4.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
 Modified: 12/28/2012 2:09:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : M104 BF Root-N

Number of peaks found: 5 Corr. Area 1: 175.8
 Noise: 0.2

Peak table for sample 10 : M104 BF Root-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	126.32	3,950.2	
3	91	13.99	233.9	
4	373	35.35	143.5	
5	392	133.19	514.2	
6	10,380	75.00	10.9	Upper Marker
7	12,841	0.00	0.0	

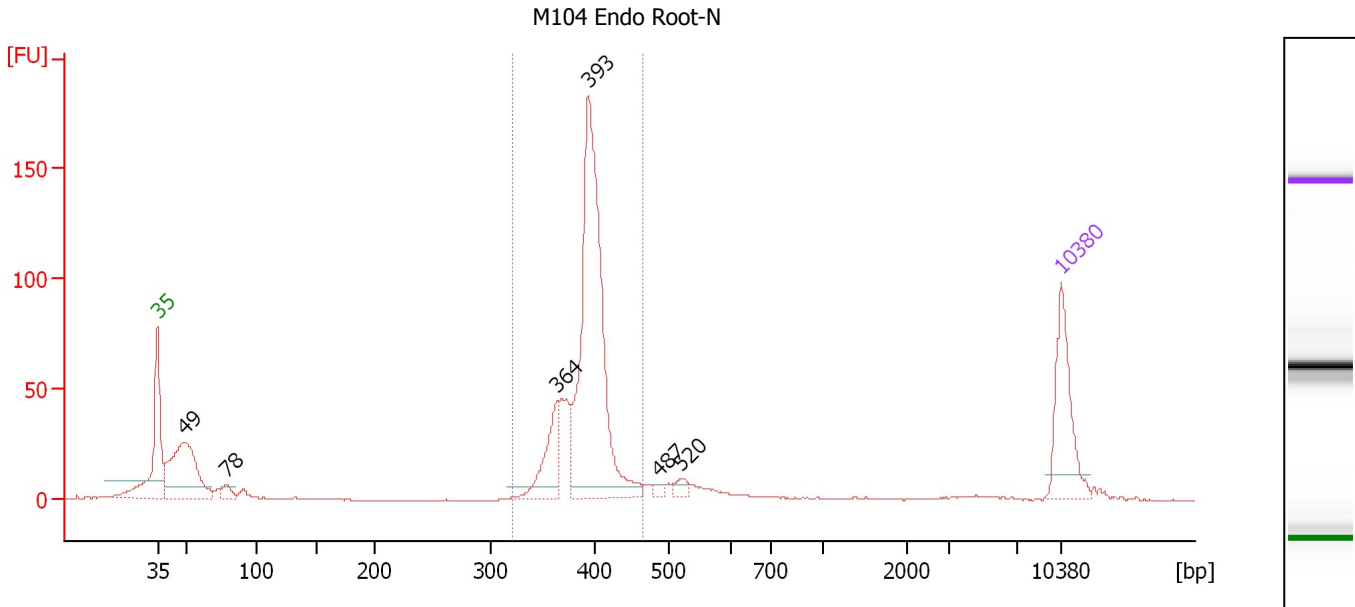
Region table for sample 10 : M104 BF Root-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
327	471	393	720.1	186.35	175.8	55	5.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
 Modified: 12/28/2012 2:09:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : M104 Endo Root-N

Number of peaks found: 6 Corr. Area 1: 587.3
 Noise: 0.1

Peak table for sample 11 : M104 Endo Root-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	49	196.23	6,087.5	
3	78	15.58	301.8	
4	364	71.48	297.6	
5	393	424.92	1,637.6	
6	487	6.49	20.2	
7	520	9.92	28.9	
8	10,380	75.00	10.9	Upper Marker

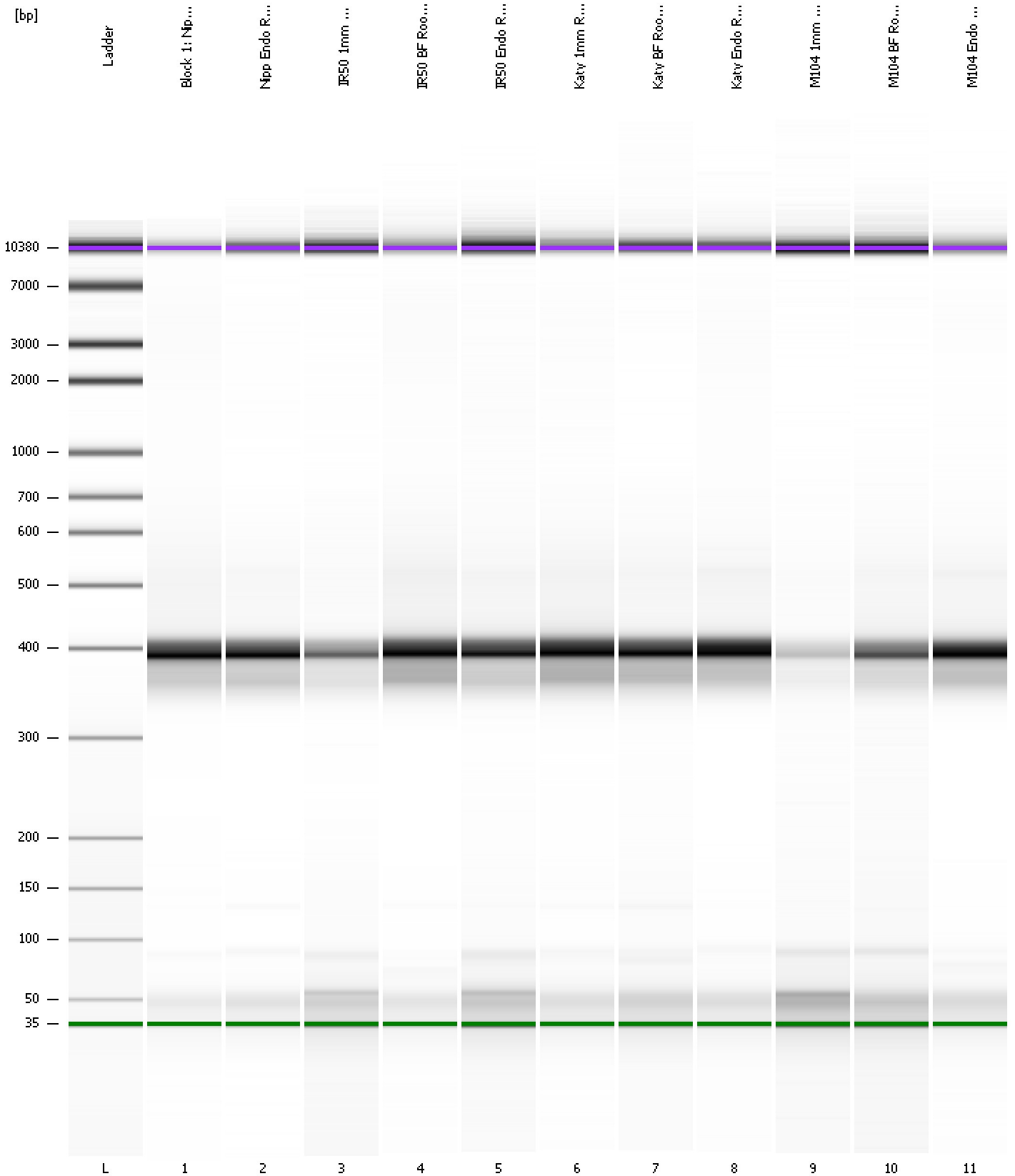
Region table for sample 11 : M104 Endo Root-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
321	466	392	2,153.9	555.79	587.3	70	5.4	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
Modified: 12/28/2012 2:09:07 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-28\2012-12-28_002.xad

Created: 12/28/2012 1:27:02 PM
 Modified: 12/28/2012 2:09:07 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		12/28/2012 2:08:15 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-12-28\2012-12-28_002.xad)		Instrument	Run		12/28/2012 1:27:03 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		12/28/2012 1:27:03 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		12/28/2012 1:27:03 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		12/28/2012 1:27:03 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		12/28/2012 1:27:03 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		12/28/2012 1:27:03 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		12/28/2012 1:27:03 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1