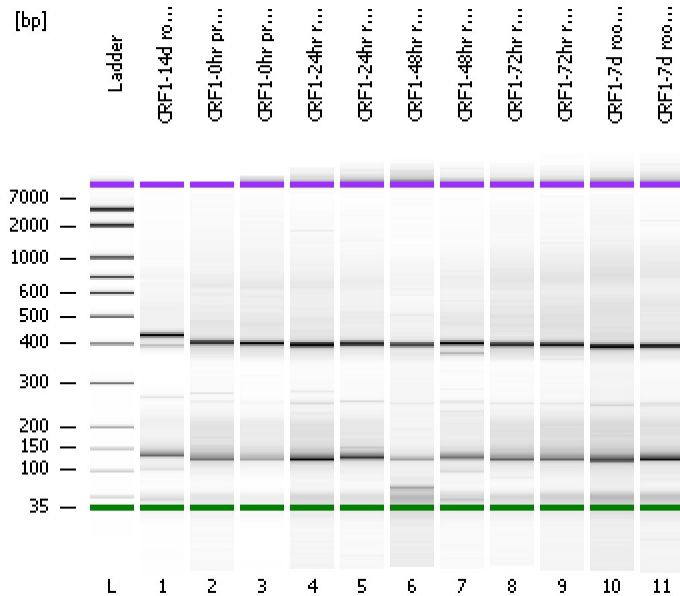


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
Modified: 3/21/2012 3:47:33 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

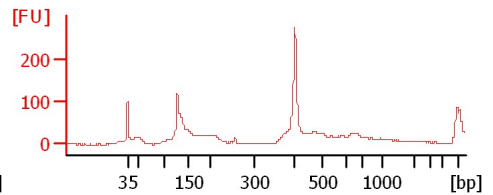
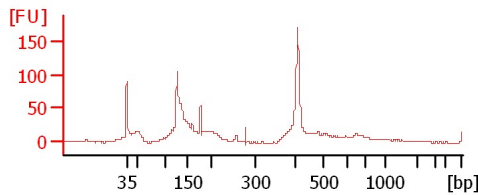
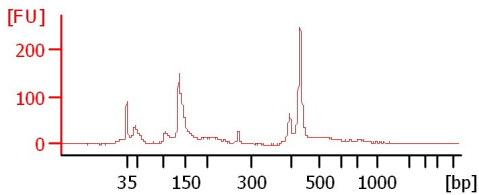
Chip Information:

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

CRF1-14d root cont 2

CRF1-0hr pre root exp 1

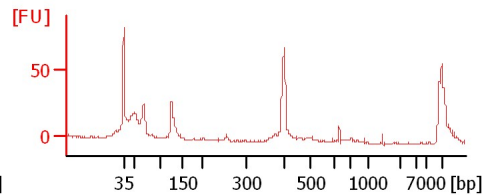
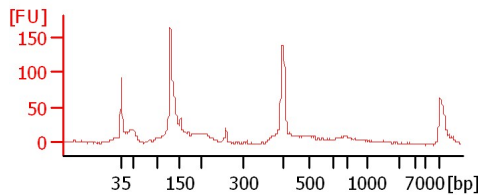
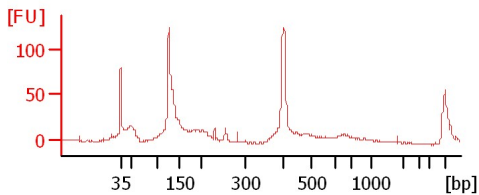
CRF1-0hr pre root exp 2



CRF1-24hr root exp 1

CRF1-24hr root exp 2

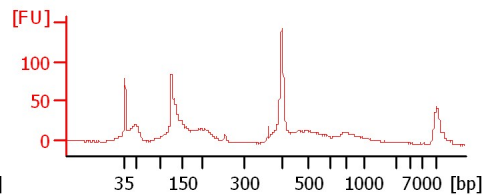
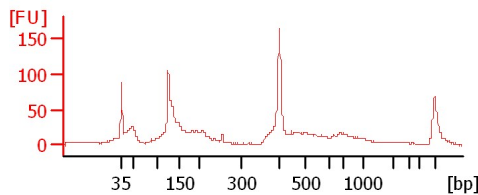
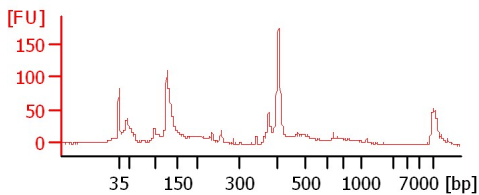
CRF1-48hr root exp 1



CRF1-48hr root exp 2

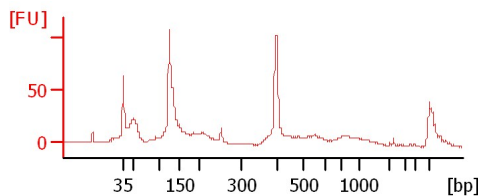
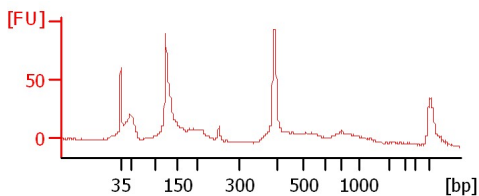
CRF1-72hr root exp 1

CRF1-72hr root exp 2



CRF1-7d root exp 1

CRF1-7d root exp 2



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
 Modified: 3/21/2012 3:47:33 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
CRF1-14d root cont 2		<input type="checkbox"/>	✓			
CRF1-0hr pre root exp 1		<input type="checkbox"/>	✓			
CRF1-0hr pre root exp 2		<input type="checkbox"/>	✓			
CRF1-24hr root exp 1		<input type="checkbox"/>	✓			
CRF1-24hr root exp 2		<input type="checkbox"/>	✓			
CRF1-48hr root exp 1		<input type="checkbox"/>	✓			
CRF1-48hr root exp 2		<input type="checkbox"/>	✓			
CRF1-72hr root exp 1		<input type="checkbox"/>	✓			
CRF1-72hr root exp 2		<input type="checkbox"/>	✓			
CRF1-7d root exp 1		<input type="checkbox"/>	✓			
CRF1-7d root exp 2		<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\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
Modified: 3/21/2012 3:47:33 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] : 20
Area Threshold : 0.1
Width Threshold [s] : 0.6
Baseline Plateau [s] : 0.5

Filter Settings

Filter Width [s] : 0.5
Polynomial Order : 4

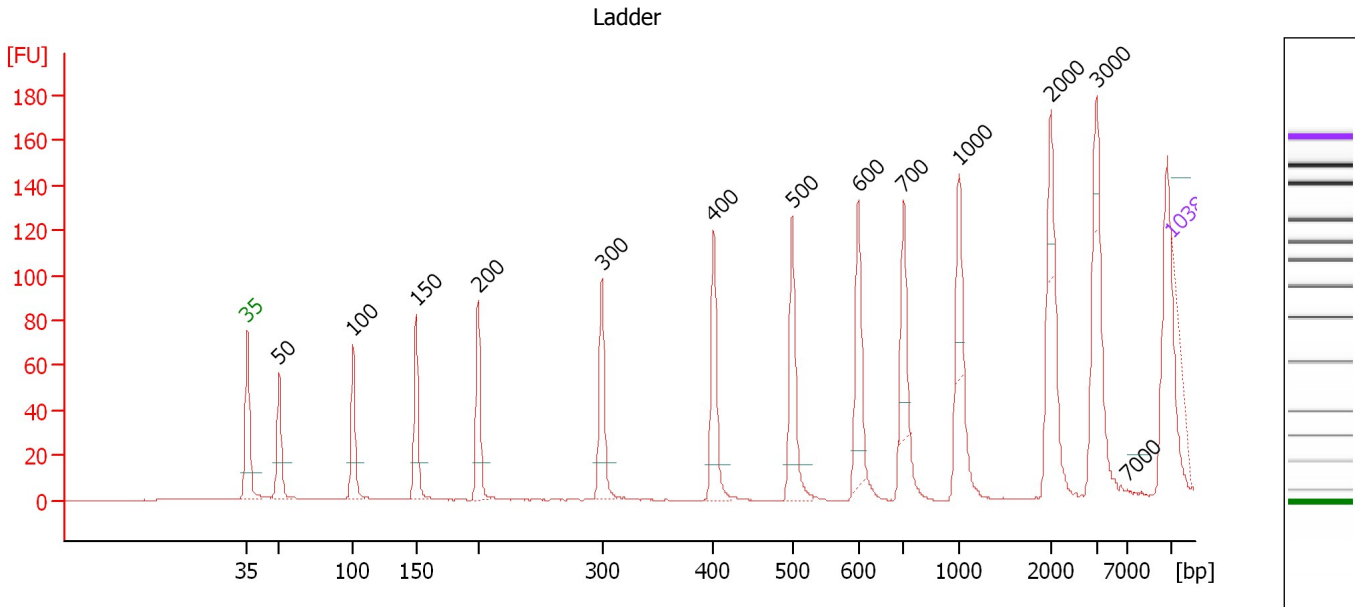
Ladder

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\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
 Modified: 3/21/2012 3:47:33 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

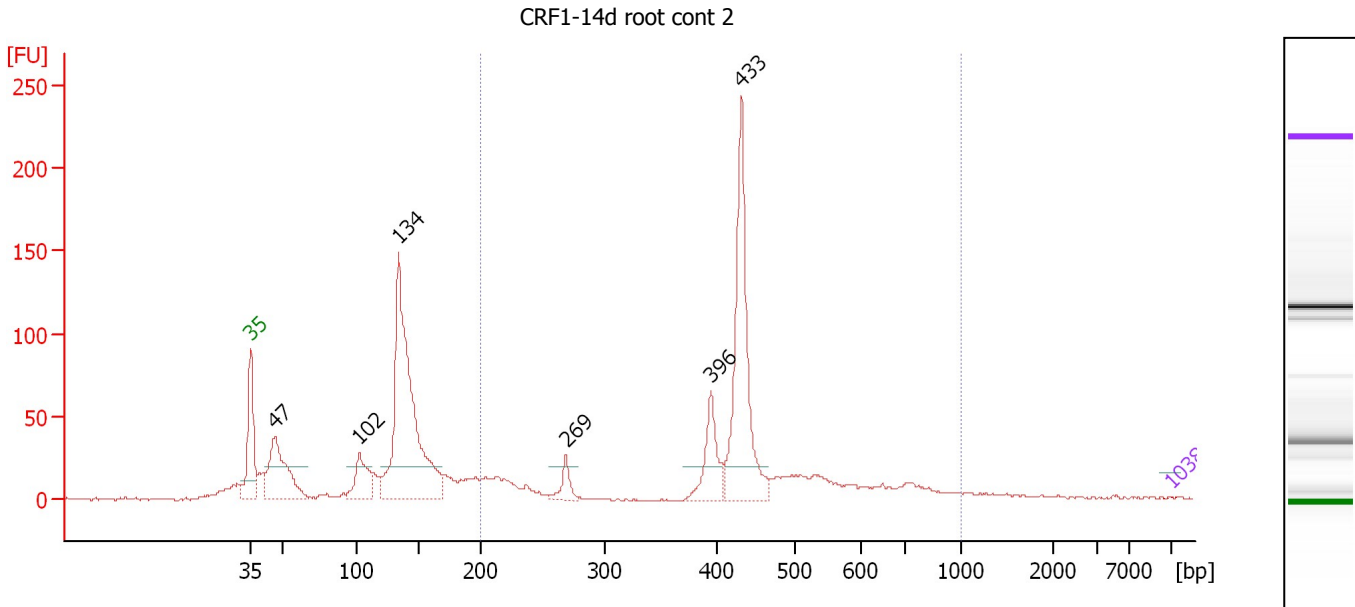
Peak table for Ladder

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\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
 Modified: 3/21/2012 3:47:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : CRF1-14d root cont 2

Number of peaks found: 7 Corr. Area 1: 662.5
 Noise: 0.6

Peak table for sample 1 : CRF1-14d root cont 2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	47	64,150.00	2,089,058.1	
4	102	29,132.94	431,404.6	
5	134	192,469.86	2,180,386.3	
6	269	10,917.38	61,463.9	
7	396	28,791.73	110,240.6	
8	433	100,495.40	351,861.6	
9	10,380	75.00	10.9	Upper Marker

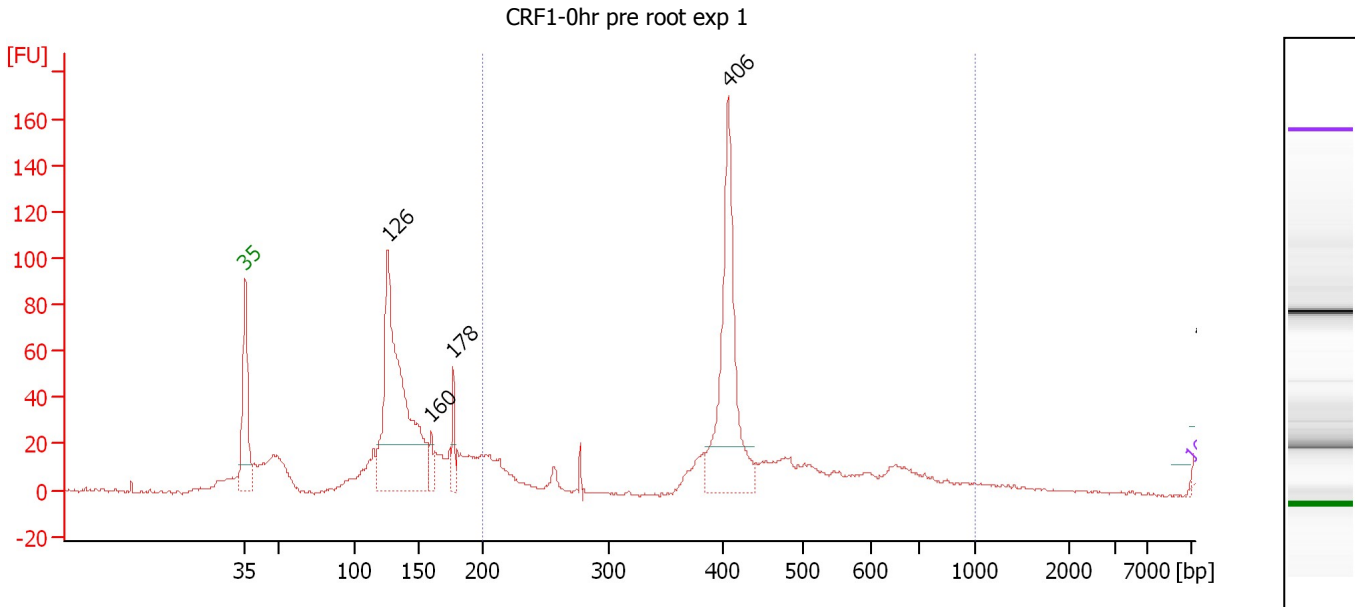
Region table for sample 1 : CRF1-14d root cont 2

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	831,381.1	447	212,817.20	1,000	662.5	45	28.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
 Modified: 3/21/2012 3:47:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : CRF1-0hr pre root exp 1

Number of peaks found: 5 Corr. Area 1: 506.3
 Noise: 0.6

Peak table for sample 2 : CRF1-0hr pre root exp 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	126	16,852.34	201,969.8	
3	160	968.45	9,191.3	
4	178	1,263.44	10,771.3	
5	406	9,072.82	33,873.9	
6	10,380	75.00	10.9	Upper Marker
7	11,153	0.00	0.0	

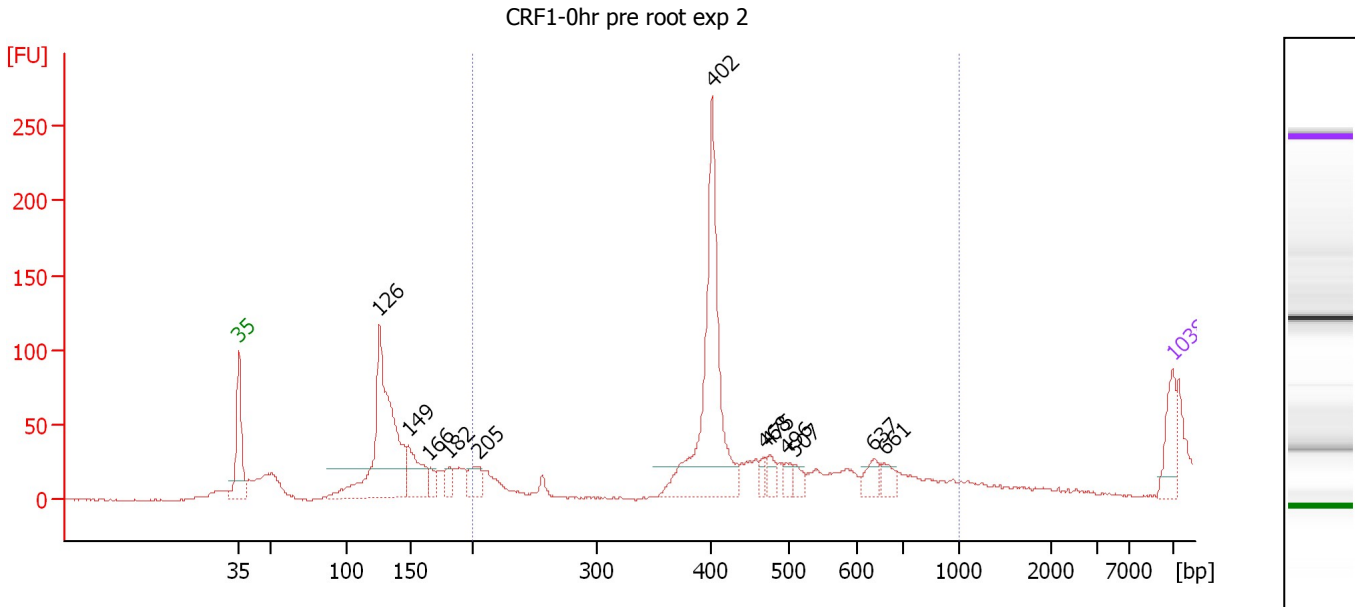
Region table for sample 2 : CRF1-0hr pre root exp 1

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	72,474.7	446	18,320.72	1,000	506.3	45	30.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
 Modified: 3/21/2012 3:47:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : CRF1-0hr pre root exp 2

Number of peaks found: 12 Corr. Area 1: 359.6
 Noise: 0.6

Peak table for sample 3 : CRF1-0hr pre root exp 2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	126	737.46	8,844.8	
3	149	168.13	1,710.1	
4	166	47.18	431.8	
5	182	40.78	339.9	
6	205	75.95	561.9	
7	402	649.60	2,446.6	
8	468	24.78	80.2	
9	475	36.28	115.8	
10	496	25.94	79.2	
11	507	29.42	87.9	
12	637	45.23	107.7	
13	661	38.58	88.4	
14	10,380	75.00	10.9	Upper Marker

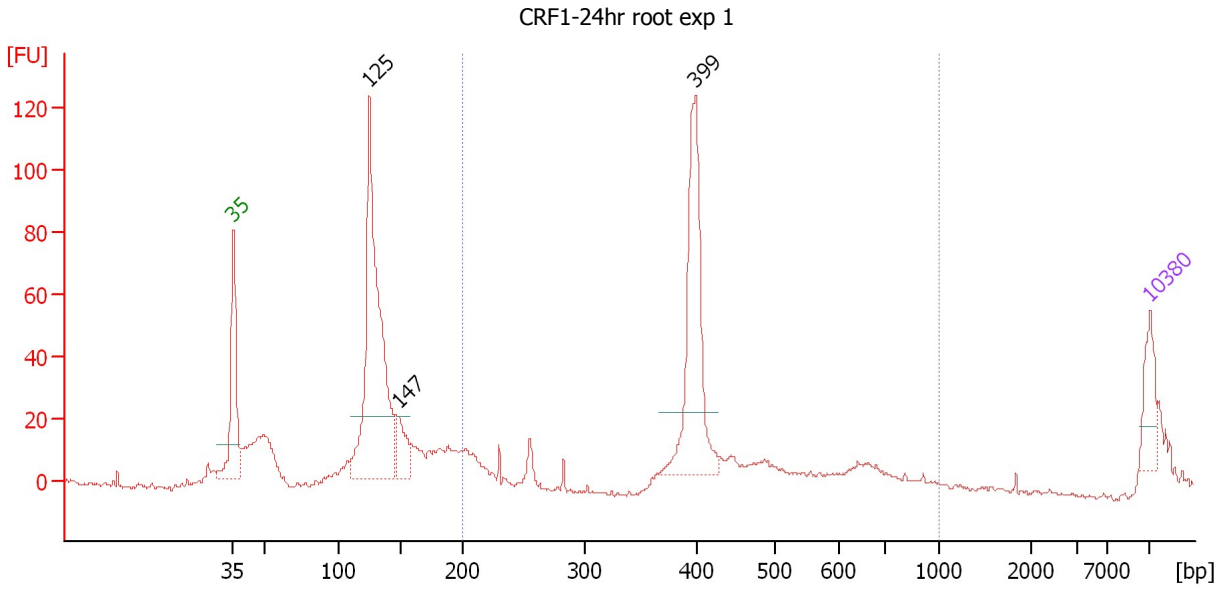
Region table for sample 3 : CRF1-0hr pre root exp 2

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	2,112.0	399	531.50	1,000	359.6	44	11.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
 Modified: 3/21/2012 3:47:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : CRF1-24hr root exp 1

Number of peaks found: 3 Corr. Area 1: 319.9
 Noise: 0.8

Peak table for sample 4 : CRF1-24hr root exp 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	125	1,026.68	12,489.9	
3	147	117.47	1,209.4	
4	399	498.81	1,892.7	
5	10,380	75.00	10.9	Upper Marker

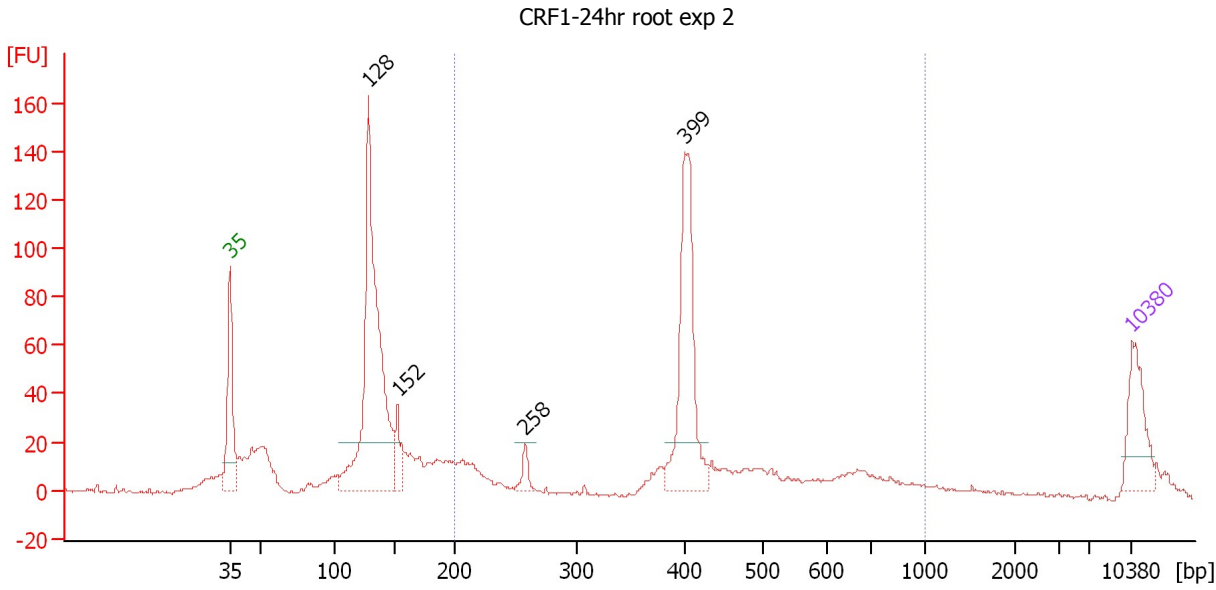
Region table for sample 4 : CRF1-24hr root exp 1

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	3,316.2	414	813.87	1,000	319.9	38	24.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
 Modified: 3/21/2012 3:47:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : CRF1-24hr root exp 2

Number of peaks found: 4 Corr. Area 1: 469.9
 Noise: 0.7

Peak table for sample 5 : CRF1-24hr root exp 2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	128	711.81	8,420.2	
3	152	50.20	500.4	
4	258	25.27	148.7	
5	399	311.34	1,182.6	
6	10,380	75.00	10.9	Upper Marker

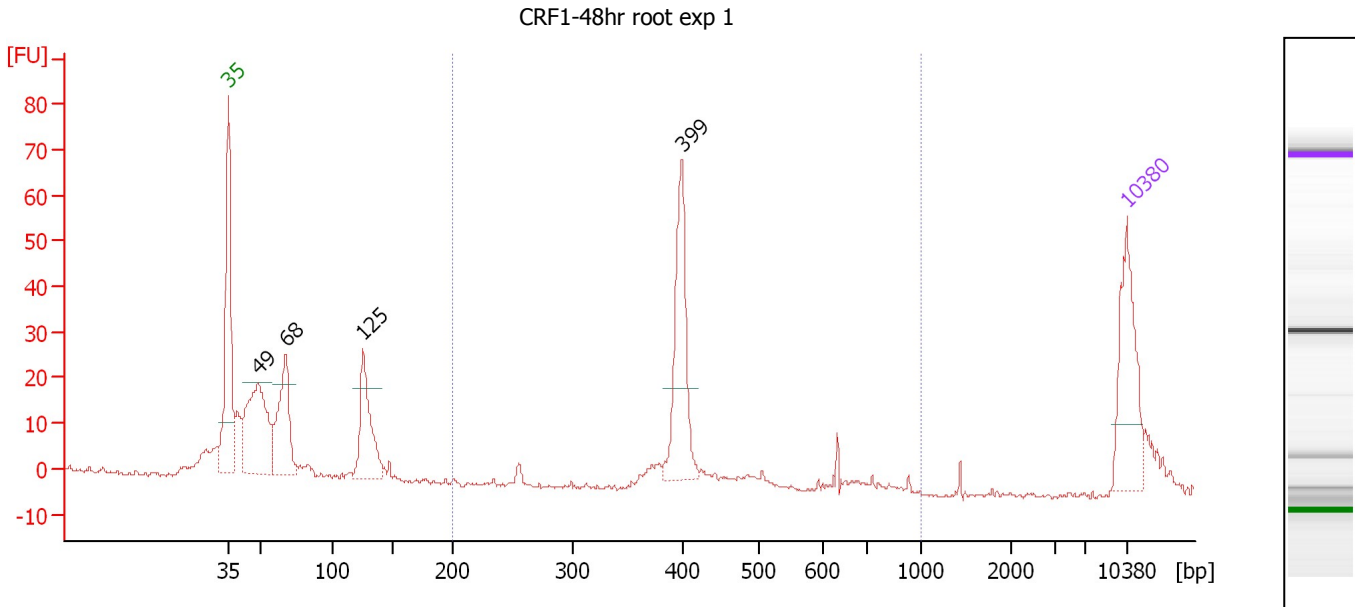
Region table for sample 5 : CRF1-24hr root exp 2

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	2,534.9	441	630.47	1,000	469.9	40	32.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
 Modified: 3/21/2012 3:47:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : CRF1-48hr root exp 1

Number of peaks found: 4 Corr. Area 1: 109.8
 Noise: 0.5

Peak table for sample 6 : CRF1-48hr root exp 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	49	181.60	5,600.1	
3	68	128.02	2,853.3	
4	125	107.38	1,297.1	
5	399	135.18	512.9	
6	10,380	75.00	10.9	Upper Marker

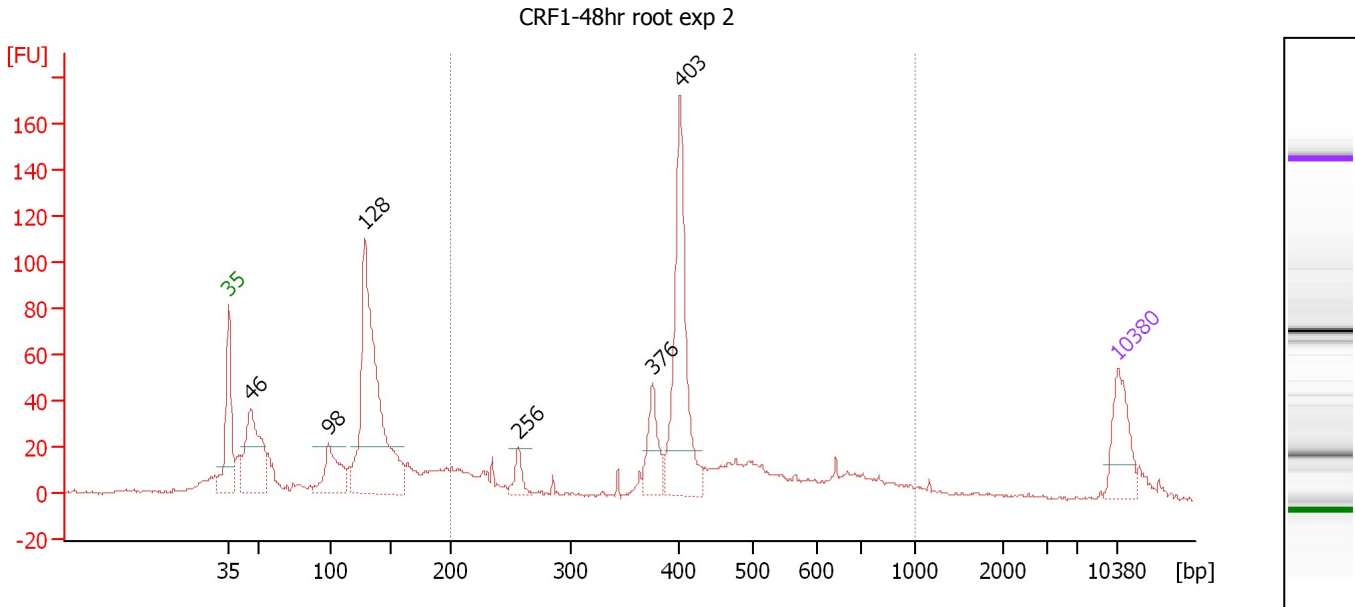
Region table for sample 6 : CRF1-48hr root exp 1

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	603.0	408	159.43	1,000	109.8	29	13.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
 Modified: 3/21/2012 3:47:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : CRF1-48hr root exp 2

Number of peaks found: 6 Corr. Area 1: 572.8
 Noise: 0.5

Peak table for sample 7 : CRF1-48hr root exp 2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	46	250.88	8,328.0	
3	98	125.69	1,938.0	
4	128	644.07	7,631.4	
5	256	37.03	218.8	
6	376	90.95	366.1	
7	403	332.51	1,249.9	
8	10,380	75.00	10.9	Upper Marker

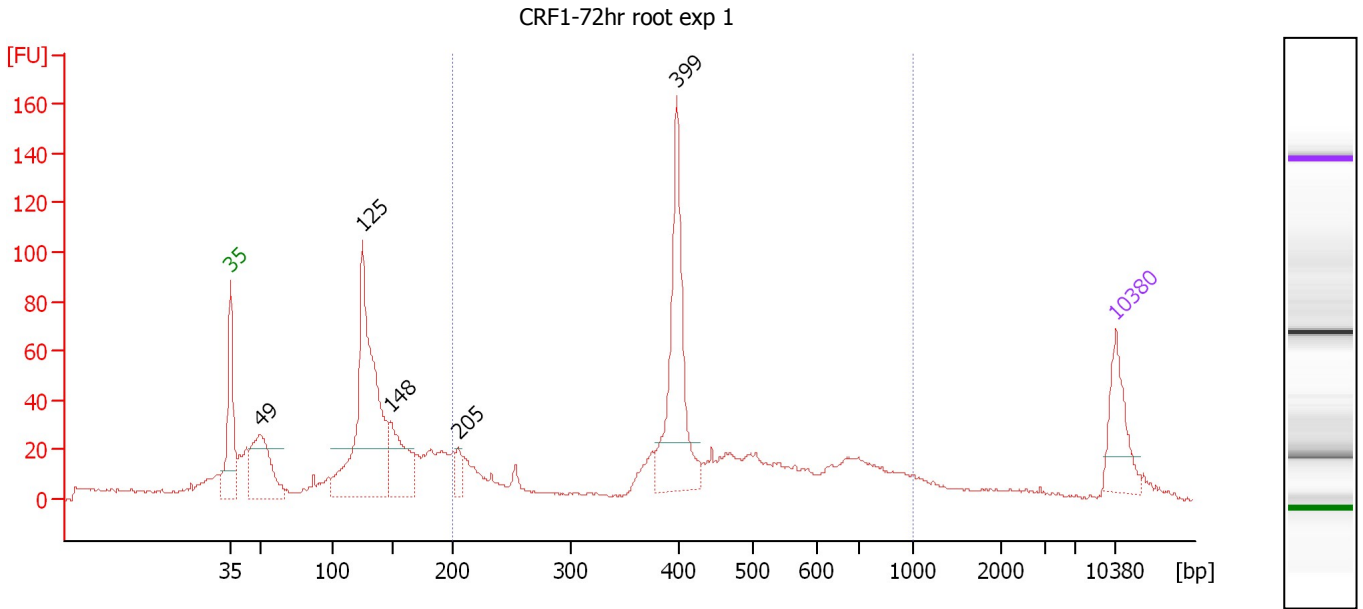
Region table for sample 7 : CRF1-48hr root exp 2

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	3,205.1	445	811.08	1,000	572.8	46	32.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
 Modified: 3/21/2012 3:47:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : CRF1-72hr root exp 1

Number of peaks found: 5 Corr. Area 1: 591.3
 Noise: 0.7

Peak table for sample 8 : CRF1-72hr root exp 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	49	201.10	6,174.7	
3	125	583.40	7,078.4	
4	148	151.71	1,549.8	
5	205	29.91	220.6	
6	399	300.50	1,142.0	
7	10,380	75.00	10.9	Upper Marker

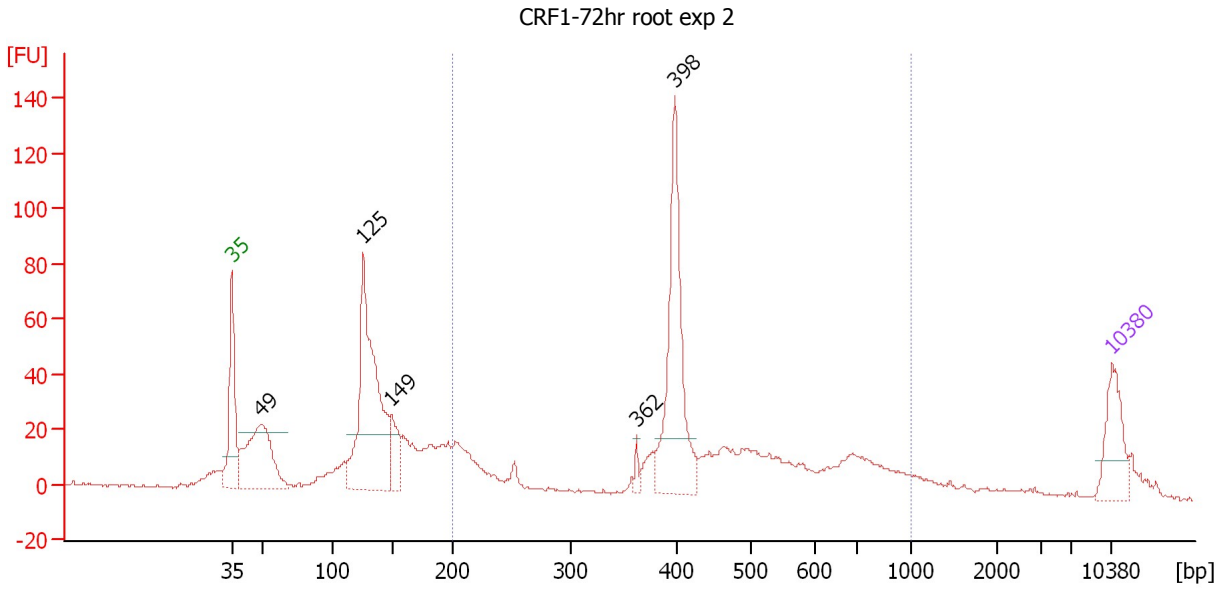
Region table for sample 8 : CRF1-72hr root exp 1

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	2,951.7	473	764.68	1,000	591.3	47	34.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
 Modified: 3/21/2012 3:47:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : CRF1-72hr root exp 2

Number of peaks found: 5 Corr. Area 1: 563.2
 Noise: 0.6

Peak table for sample 9 : CRF1-72hr root exp 2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	49	299.06	9,168.0	
3	125	568.21	6,885.7	
4	149	86.52	882.3	
5	362	14.06	58.8	
6	398	350.09	1,331.2	
7	10,380	75.00	10.9	Upper Marker

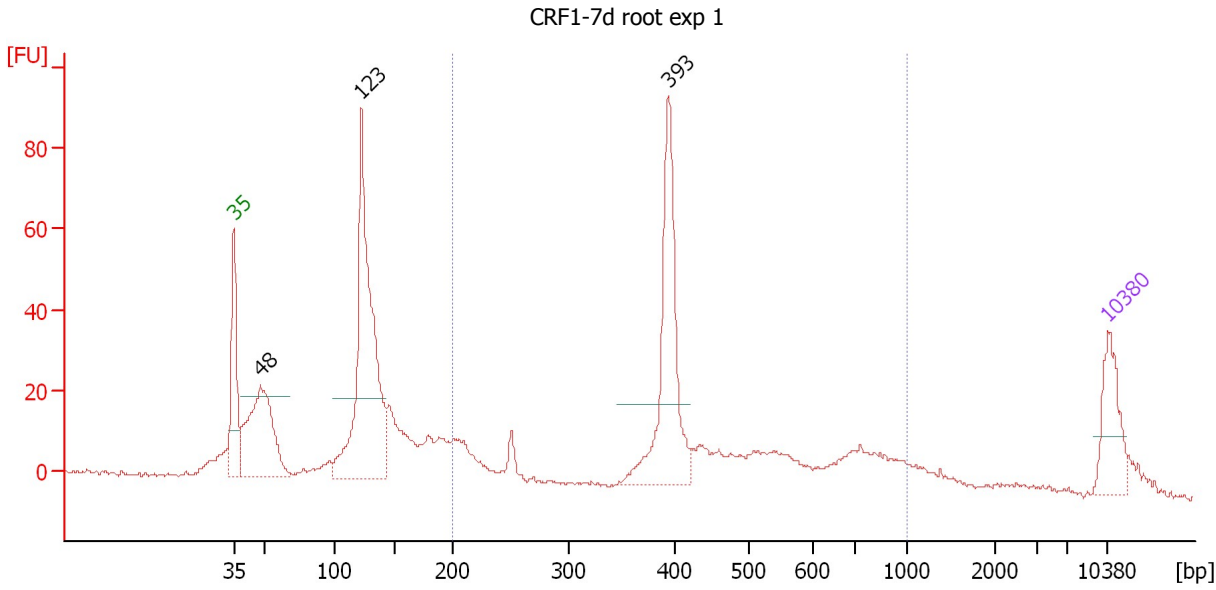
Region table for sample 9 : CRF1-72hr root exp 2

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	3,503.4	474	906.30	1,000	563.2	47	34.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
 Modified: 3/21/2012 3:47:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : CRF1-7d root exp 1

Number of peaks found: 3 Corr. Area 1: 385.8
 Noise: 0.6

Peak table for sample 10 : CRF1-7d root exp 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	333.56	10,541.0	
3	123	640.61	7,910.8	
4	393	323.77	1,246.8	
5	10,380	75.00	10.9	Upper Marker

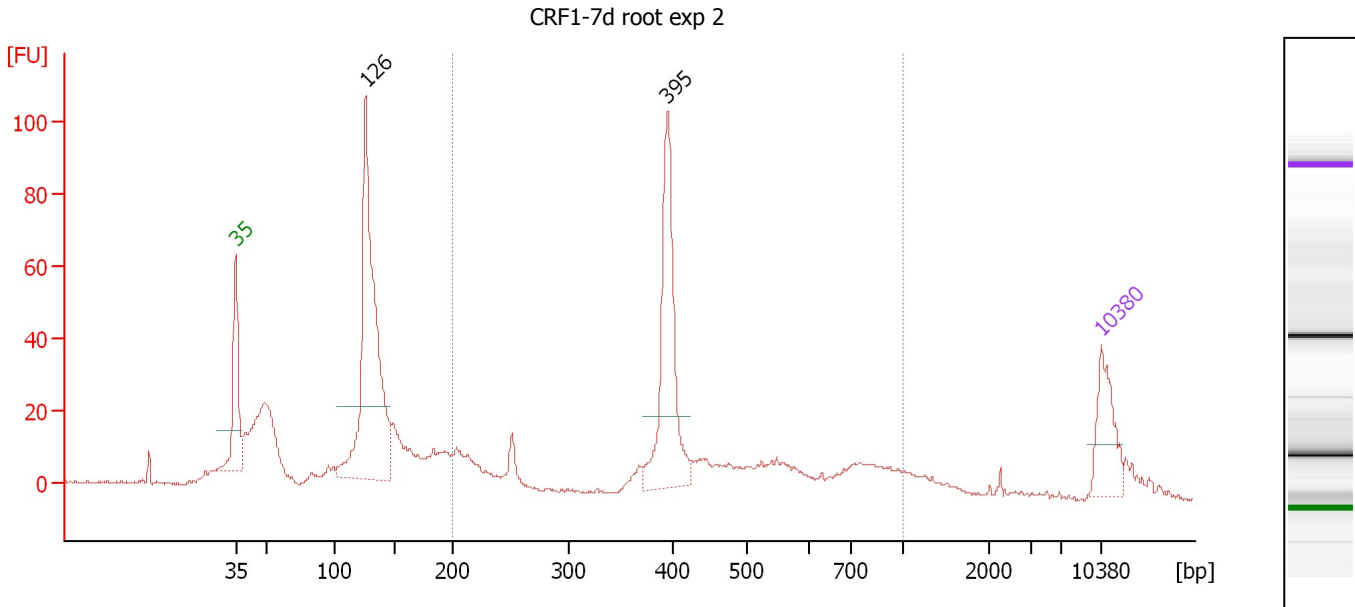
Region table for sample 10 : CRF1-7d root exp 1

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	2,883.9	477	745.21	1,000	385.8	41	36.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
 Modified: 3/21/2012 3:47:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : CRF1-7d root exp 2

Number of peaks found: 2 Corr. Area 1: 386.7
 Noise: 0.5

Peak table for sample 11 : CRF1-7d root exp 2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	126	667.04	8,024.7	
3	395	310.83	1,193.2	
4	10,380	75.00	10.9	Upper Marker

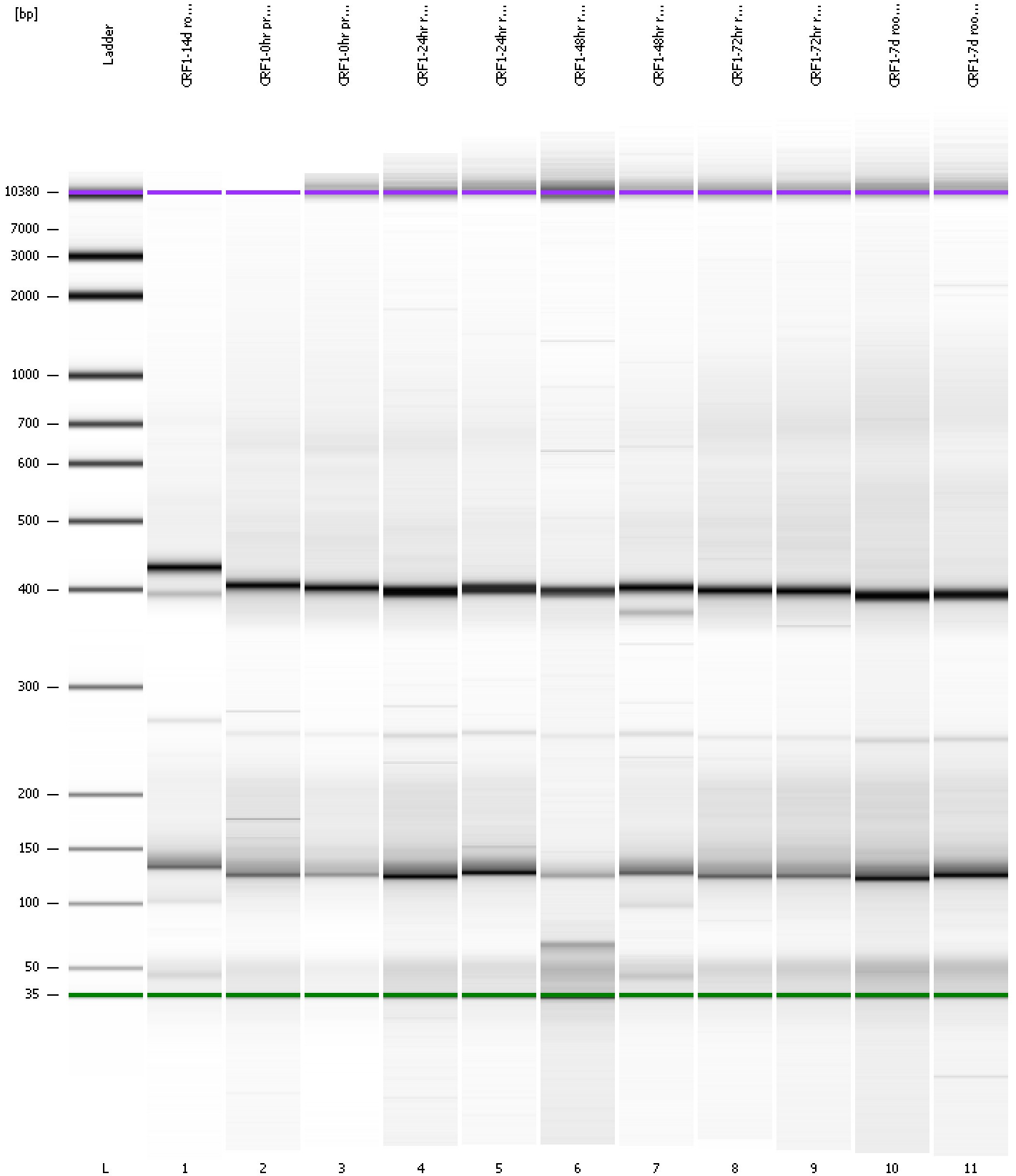
Region table for sample 11 : CRF1-7d root exp 2

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	2,973.1	464	744.58	1,000	386.7	40	37.2	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
Modified: 3/21/2012 3:47:33 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-03-21\2012-03-21_005.xad

Created: 3/21/2012 3:04:23 PM
 Modified: 3/21/2012 3:47:33 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		3/21/2012 3:45:35 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-03-21\2012-03-21_005.xad)		Instrument	Run		3/21/2012 3:04:23 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/21/2012 3:04:23 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/21/2012 3:04:23 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/21/2012 3:04:23 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/21/2012 3:04:23 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/21/2012 3:04:23 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/21/2012 3:04:23 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1