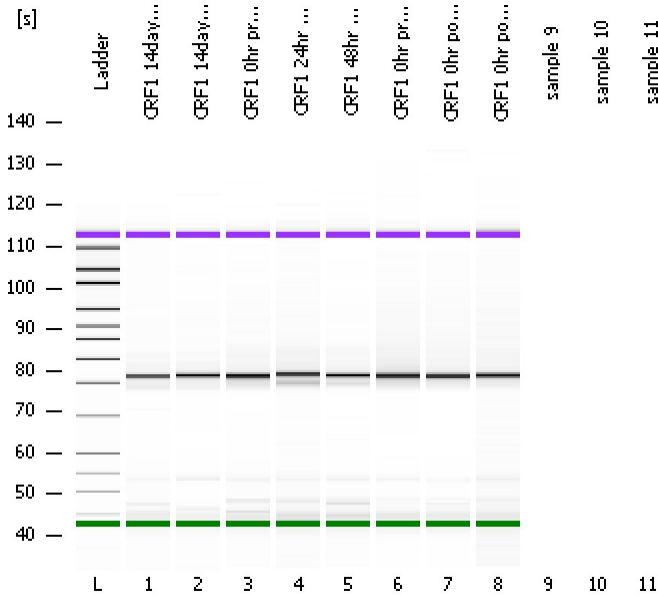


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-03\2012-05-03_004.xad

Created: 5/3/2012 1:53:59 PM
Modified: 5/3/2012 2:28:07 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

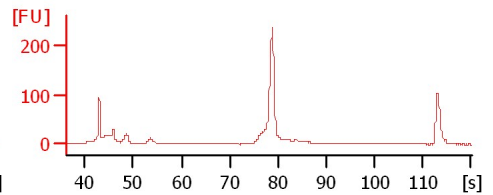
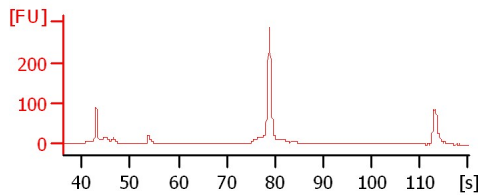
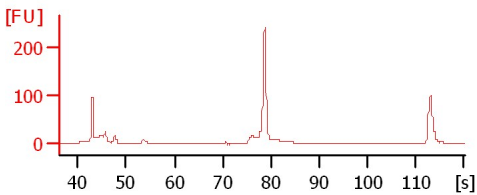
Chip Information:

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

CRF1 14day root exp1

CRF1 14day root exp2

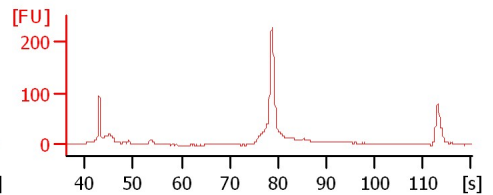
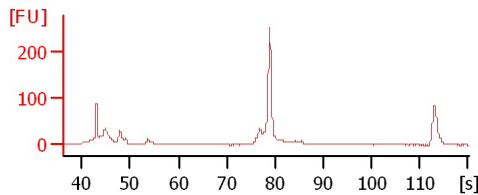
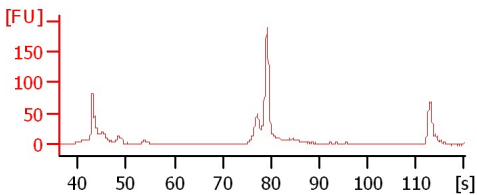
CRF1 0hr pre med cont



CRF1 24hr med cont

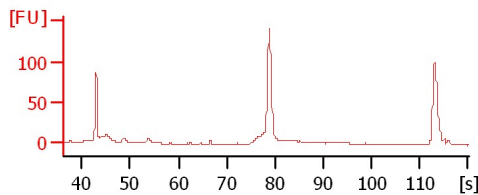
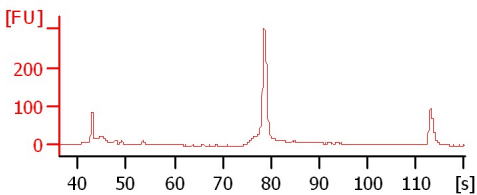
CRF1 48hr med cont

CRF1 0hr pre med exp



CRF1 0hr post med exp1

CRF1 0hr post med exp2



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-03\2012-05-03_004.xad

Created: 5/3/2012 1:53:59 PM
 Modified: 5/3/2012 2:28:07 PM

Electrophoresis File Run Summary (Chip Summary)

| Sample Name | Sample Comment | Rest. Digest | Status | Observation | Result Label | Result Color |
|------------------------|----------------|--------------------------|--------|-------------|--------------|--------------|
| CRF1 14day root exp1 | | <input type="checkbox"/> | ✓ | | | |
| CRF1 14day root exp2 | | <input type="checkbox"/> | ✓ | | | |
| CRF1 0hr pre med cont | | <input type="checkbox"/> | ✓ | | | |
| CRF1 24hr med cont | | <input type="checkbox"/> | ✓ | | | |
| CRF1 48hr med cont | | <input type="checkbox"/> | ✓ | | | |
| CRF1 0hr pre med exp | | <input type="checkbox"/> | ✓ | | | |
| CRF1 0hr post med exp1 | | <input type="checkbox"/> | ✓ | | | |
| CRF1 0hr post med exp2 | | <input type="checkbox"/> | ✓ | | | |
| sample 9 | | <input type="checkbox"/> | | | | |
| sample 10 | | <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\2012-05-03\2012-05-03_004.xad

Created: 5/3/2012 1:53:59 PM
Modified: 5/3/2012 2:28:07 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] : 15
Area Threshold : 0.1
Width Threshold [s] : 0.6
Baseline Plateau [s] : 0.5

Filter Settings

Filter Width [s] : 0.5
Polynomial Order : 4

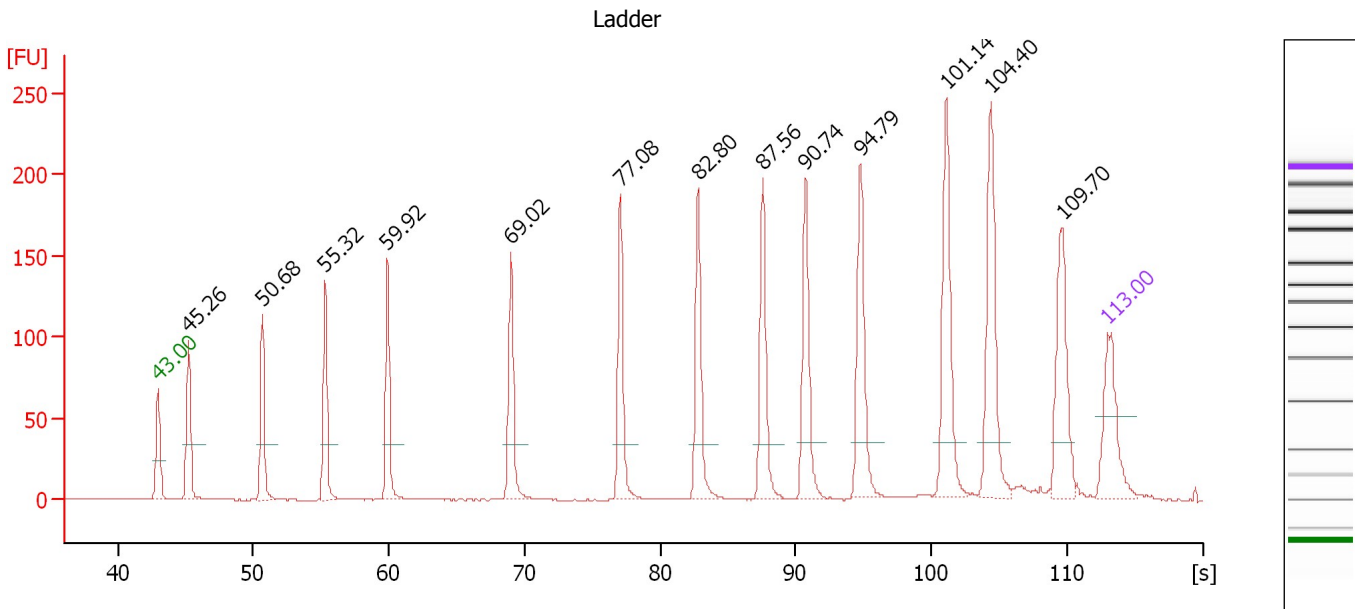
Ladder

| 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\2012-05-03\2012-05-03_004.xad

Created: 5/3/2012 1:53:59 PM
 Modified: 5/3/2012 2:28:07 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

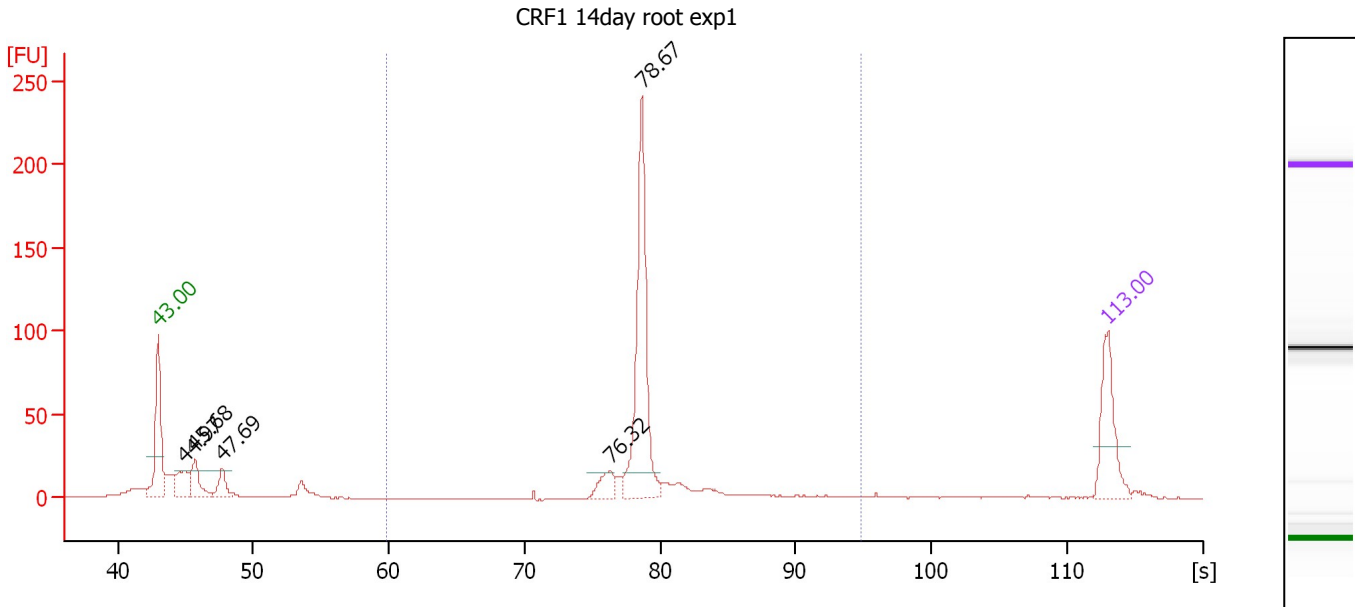
Peak table for Ladder

| 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\2012-05-03\2012-05-03_004.xad

Created: 5/3/2012 1:53:59 PM
 Modified: 5/3/2012 2:28:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : CRF1 14day root exp1

Number of peaks found: 5 Corr. Area 1: 365.7
 Noise: 0.2

Peak table for sample 1 : CRF1 14day root exp1

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 48 | 59.20 | 1,864.7 | |
| 3 | 54 | 55.50 | 1,559.3 | |
| 4 | 72 | 36.27 | 758.4 | |
| 5 | 391 | 30.59 | 118.7 | |
| 6 | 428 | 270.33 | 957.5 | |
| 7 | 10,380 | 75.00 | 10.9 | Upper Marker |

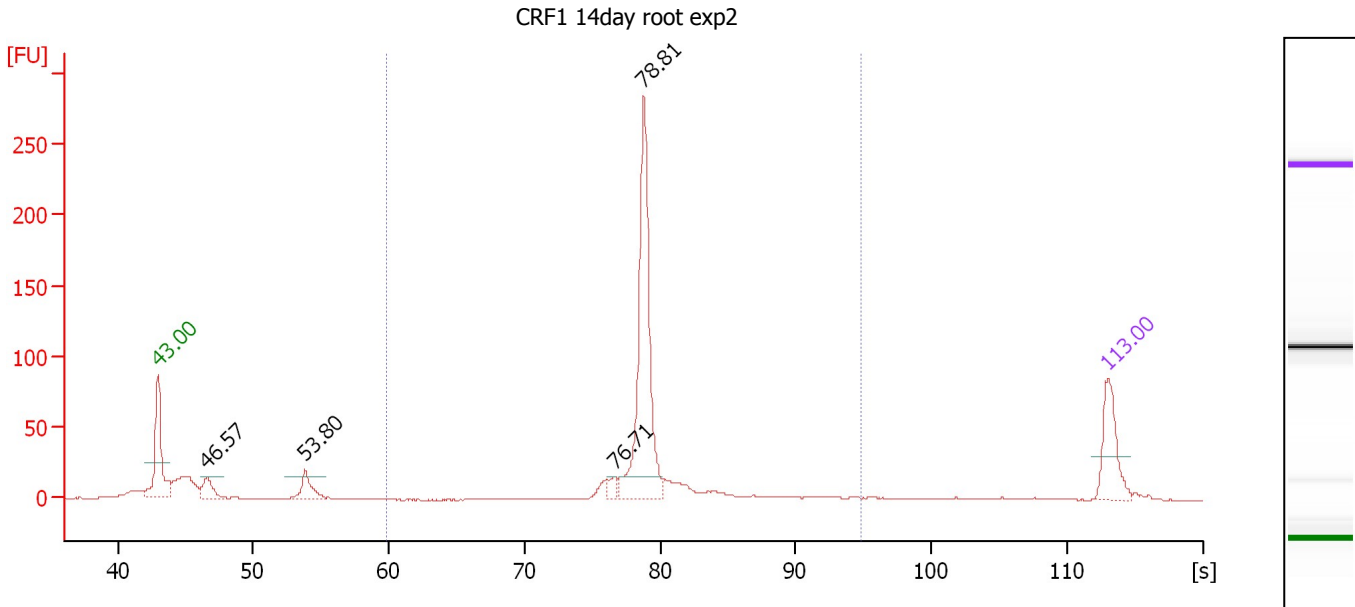
Region table for sample 1 : CRF1 14day root exp1

| From [s] | Molarity [pmol/l] | Average Size [bp] | Conc. [pg/μl] | To [s] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|----------|-------------------|-------------------|---------------|--------|------------|------------|-----------------------------|-------|
| 59.92 | 1,291.0 | 445 | 371.20 | 94.79 | 365.7 | 63 | 15.9 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-03\2012-05-03_004.xad

Created: 5/3/2012 1:53:59 PM
 Modified: 5/3/2012 2:28:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : CRF1 14day root exp2

Number of peaks found: 4 Corr. Area 1: 450.4
 Noise: 0.2

Peak table for sample 2 : CRF1 14day root exp2

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 62 | 49.07 | 1,196.7 | |
| 3 | 134 | 56.77 | 643.7 | |
| 4 | 395 | 16.96 | 65.0 | |
| 5 | 430 | 405.67 | 1,428.9 | |
| 6 | 10,380 | 75.00 | 10.9 | Upper Marker |

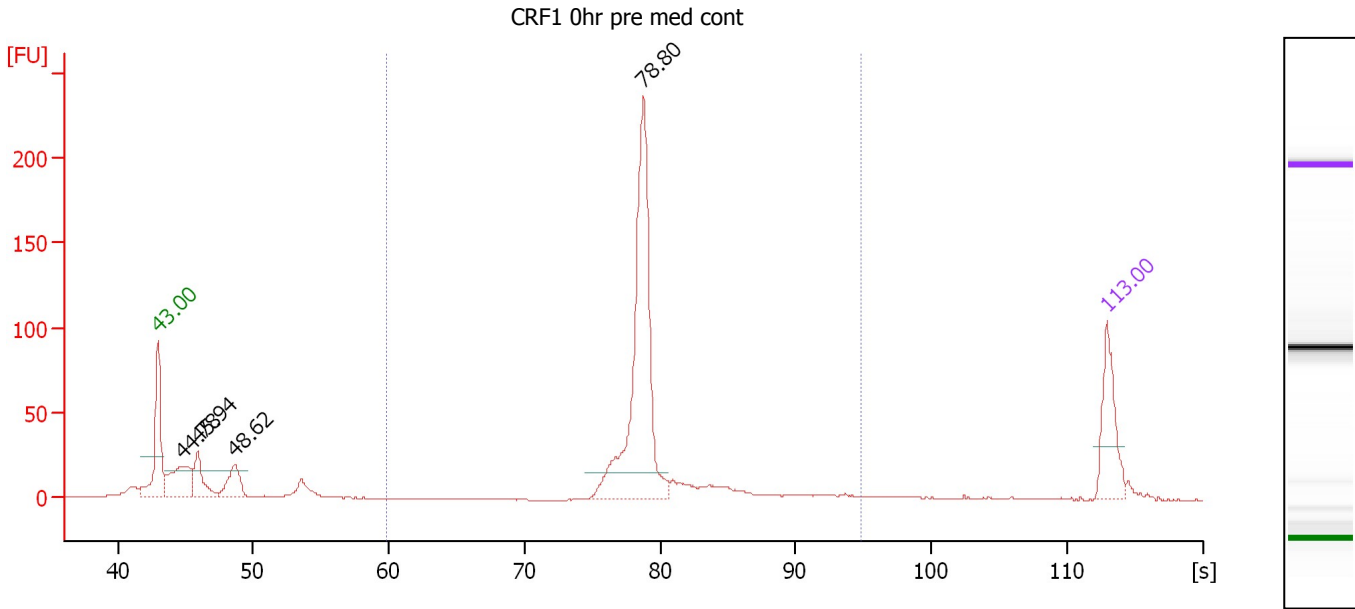
Region table for sample 2 : CRF1 14day root exp2

| From [s] | Molarity [pmol/l] | Average Size [bp] | Conc. [pg/μl] | To [s] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|----------|-------------------|-------------------|---------------|--------|------------|------------|-----------------------------|-------|
| 59.92 | 1,793.1 | 447 | 519.35 | 94.79 | 450.4 | 72 | 15.3 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-03\2012-05-03_004.xad

Created: 5/3/2012 1:53:59 PM
 Modified: 5/3/2012 2:28:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : CRF1 0hr pre med cont

Number of peaks found: 4 Corr. Area 1: 504.4
 Noise: 0.2

Peak table for sample 3 : CRF1 0hr pre med cont

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 47 | 127.83 | 4,133.2 | |
| 3 | 56 | 75.05 | 2,018.6 | |
| 4 | 81 | 68.95 | 1,290.4 | |
| 5 | 430 | 456.87 | 1,609.5 | |
| 6 | 10,380 | 75.00 | 10.9 | Upper Marker |

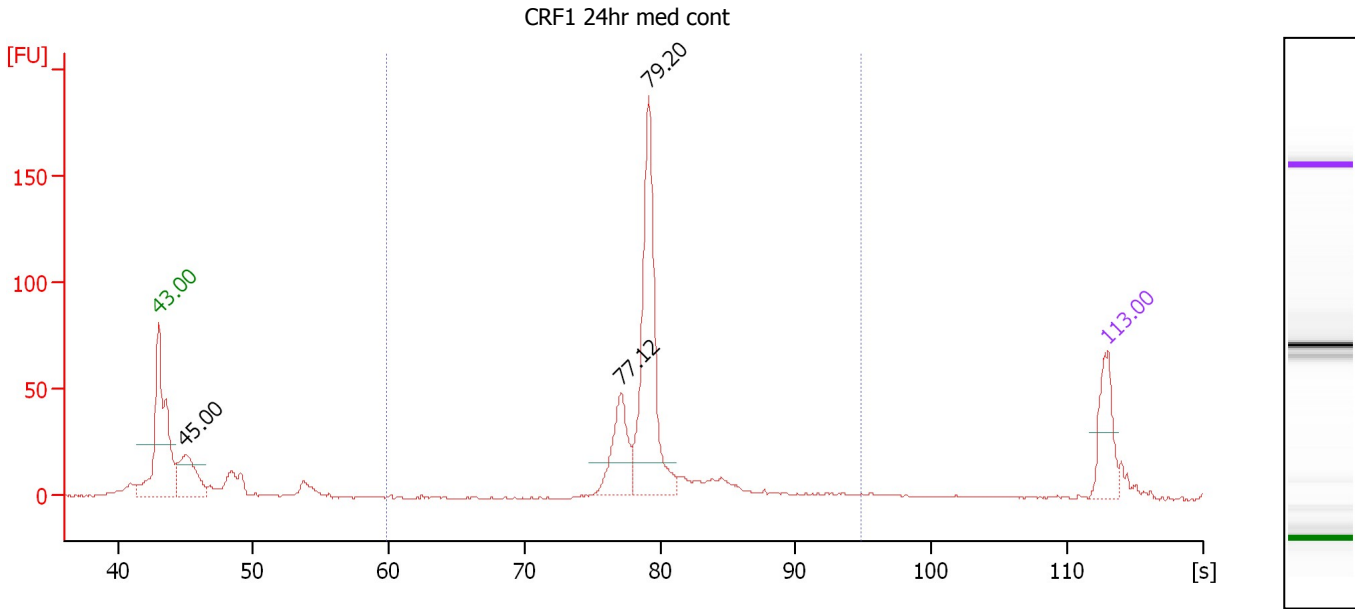
Region table for sample 3 : CRF1 0hr pre med cont

| From [s] | Molarity [pmol/l] | Average Size [bp] | Conc. [pg/μl] | To [s] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|----------|-------------------|-------------------|---------------|--------|------------|------------|-----------------------------|-------|
| 59.92 | 1,848.8 | 449 | 535.34 | 94.79 | 504.4 | 65 | 17.3 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-03\2012-05-03_004.xad

Created: 5/3/2012 1:53:59 PM
 Modified: 5/3/2012 2:28:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : CRF1 24hr med cont

Number of peaks found: 3 Corr. Area 1: 433.6
 Noise: 0.4

Peak table for sample 4 : CRF1 24hr med cont

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 48 | 159.31 | 4,999.9 | |
| 3 | 401 | 128.55 | 486.2 | |
| 4 | 437 | 385.97 | 1,338.0 | |
| 5 | 10,380 | 75.00 | 10.9 | Upper Marker |

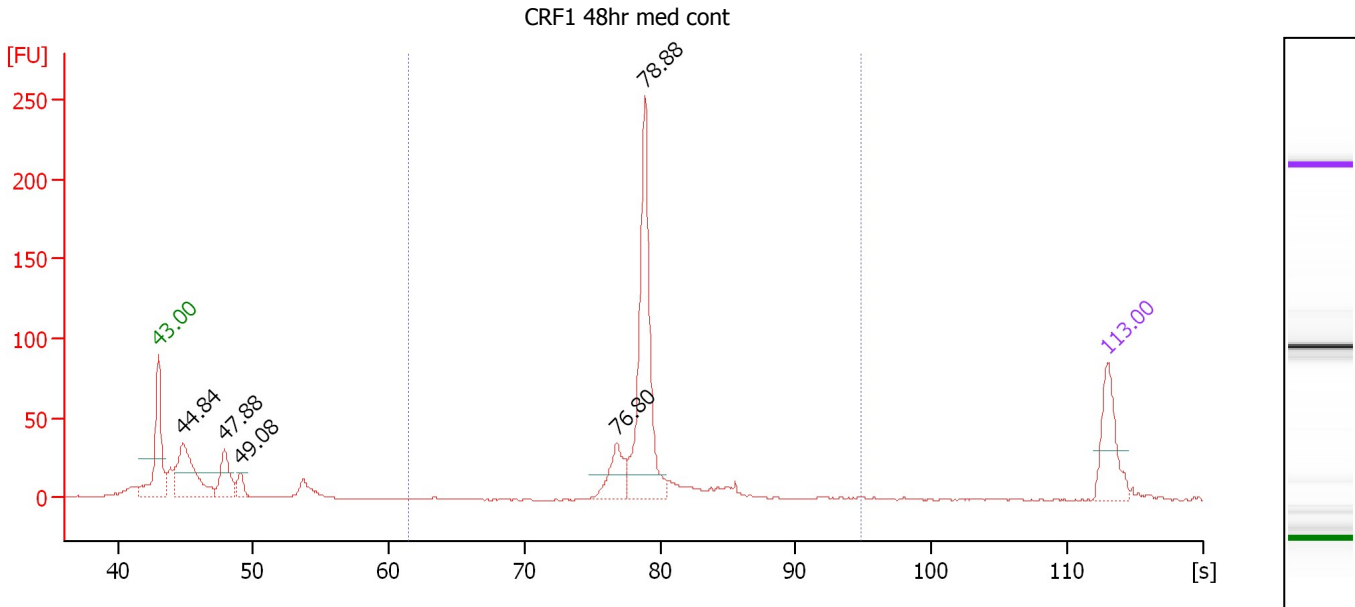
Region table for sample 4 : CRF1 24hr med cont

| From [s] | Molarity [pmol/l] | Average Size [bp] | Conc. [pg/μl] | To [s] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|----------|-------------------|-------------------|---------------|--------|------------|------------|-----------------------------|-------|
| 59.92 | 2,174.8 | 457 | 637.08 | 94.79 | 433.6 | 68 | 18.6 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-03\2012-05-03_004.xad

Created: 5/3/2012 1:53:59 PM
 Modified: 5/3/2012 2:28:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : CRF1 48hr med cont

Number of peaks found: 5 Corr. Area 1: 411.9
 Noise: 0.2

Peak table for sample 5 : CRF1 48hr med cont

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 47 | 203.58 | 6,527.9 | |
| 3 | 74 | 86.58 | 1,768.3 | |
| 4 | 85 | 28.67 | 509.9 | |
| 5 | 397 | 66.69 | 254.8 | |
| 6 | 431 | 334.63 | 1,175.4 | |
| 7 | 10,380 | 75.00 | 10.9 | Upper Marker |

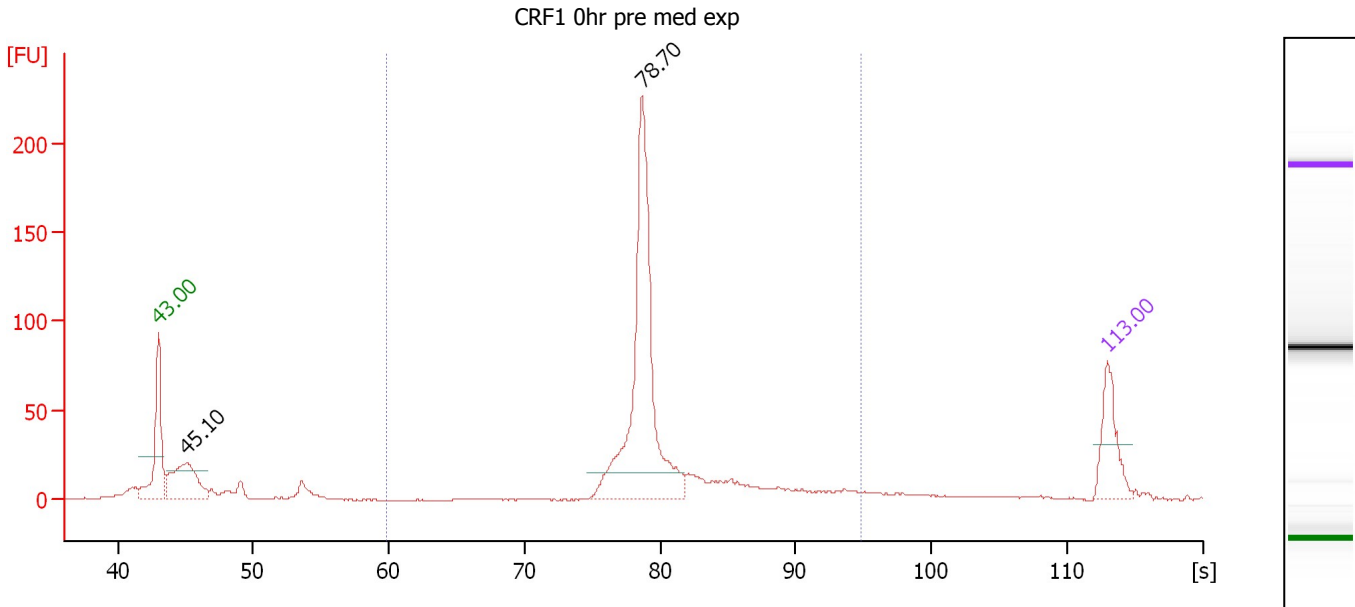
Region table for sample 5 : CRF1 48hr med cont

| From [s] | Molarity [pmol/l] | Average Size [bp] | Conc. [pg/μl] | To [s] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|----------|-------------------|-------------------|---------------|--------|------------|------------|-----------------------------|-------|
| 61.40 | 1,597.6 | 442 | 459.62 | 94.79 | 411.9 | 59 | 12.6 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-03\2012-05-03_004.xad

Created: 5/3/2012 1:53:59 PM
 Modified: 5/3/2012 2:28:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : CRF1 0hr pre med exp

Number of peaks found: 2 Corr. Area 1: 567.7
 Noise: 0.2

Peak table for sample 6 : CRF1 0hr pre med exp

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 49 | 183.94 | 5,689.4 | |
| 3 | 428 | 558.16 | 1,974.5 | |
| 4 | 10,380 | 75.00 | 10.9 | Upper Marker |

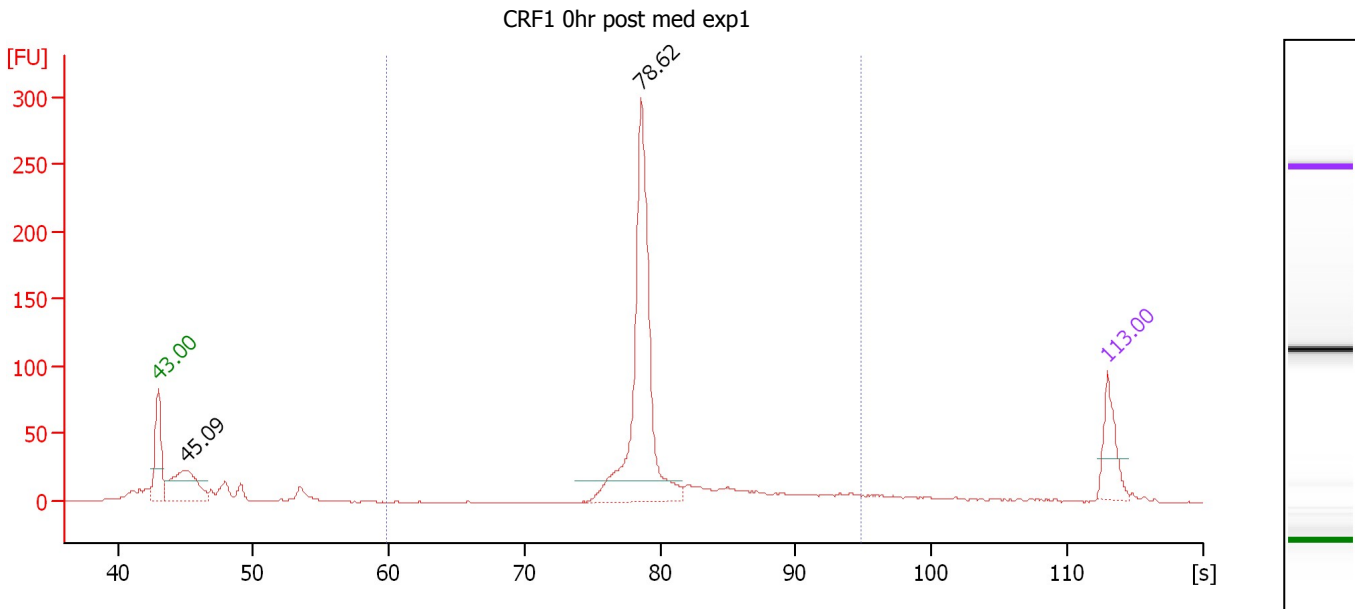
Region table for sample 6 : CRF1 0hr pre med exp

| From [s] | Molarity [pmol/l] | Average Size [bp] | Conc. [pg/μl] | To [s] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|----------|-------------------|-------------------|---------------|--------|------------|------------|-----------------------------|-------|
| 59.92 | 2,307.4 | 469 | 687.08 | 94.79 | 567.7 | 71 | 21.5 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-03\2012-05-03_004.xad

Created: 5/3/2012 1:53:59 PM
 Modified: 5/3/2012 2:28:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : CRF1 0hr post med exp1

Number of peaks found: 2 Corr. Area 1: 613.0
 Noise: 0.3

Peak table for sample 7 : CRF1 0hr post med exp1

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 49 | 224.92 | 6,972.2 | |
| 3 | 427 | 646.96 | 2,296.5 | |
| 4 | 10,380 | 75.00 | 10.9 | Upper Marker |

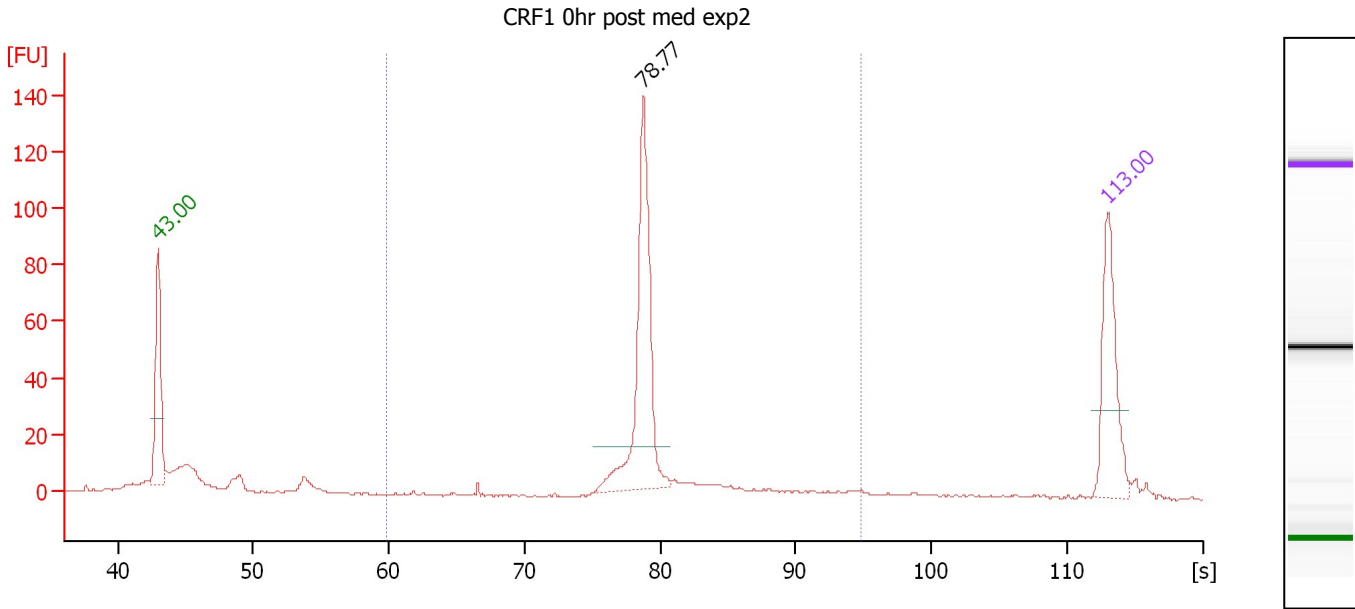
Region table for sample 7 : CRF1 0hr post med exp1

| From [s] | Molarity [pmol/l] | Average Size [bp] | Conc. [pg/μl] | To [s] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|----------|-------------------|-------------------|---------------|--------|------------|------------|-----------------------------|-------|
| 59.92 | 2,590.5 | 463 | 764.25 | 94.79 | 613.0 | 70 | 21.0 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-03\2012-05-03_004.xad

Created: 5/3/2012 1:53:59 PM
 Modified: 5/3/2012 2:28:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : CRF1 0hr post med exp2

Number of peaks found: 1 Corr. Area 1: 259.4
 Noise: 0.3

Peak table for sample 8 : CRF1 0hr post med exp2

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 429 | 202.43 | 714.2 | |
| 3 | 10,380 | 75.00 | 10.9 | Upper Marker |

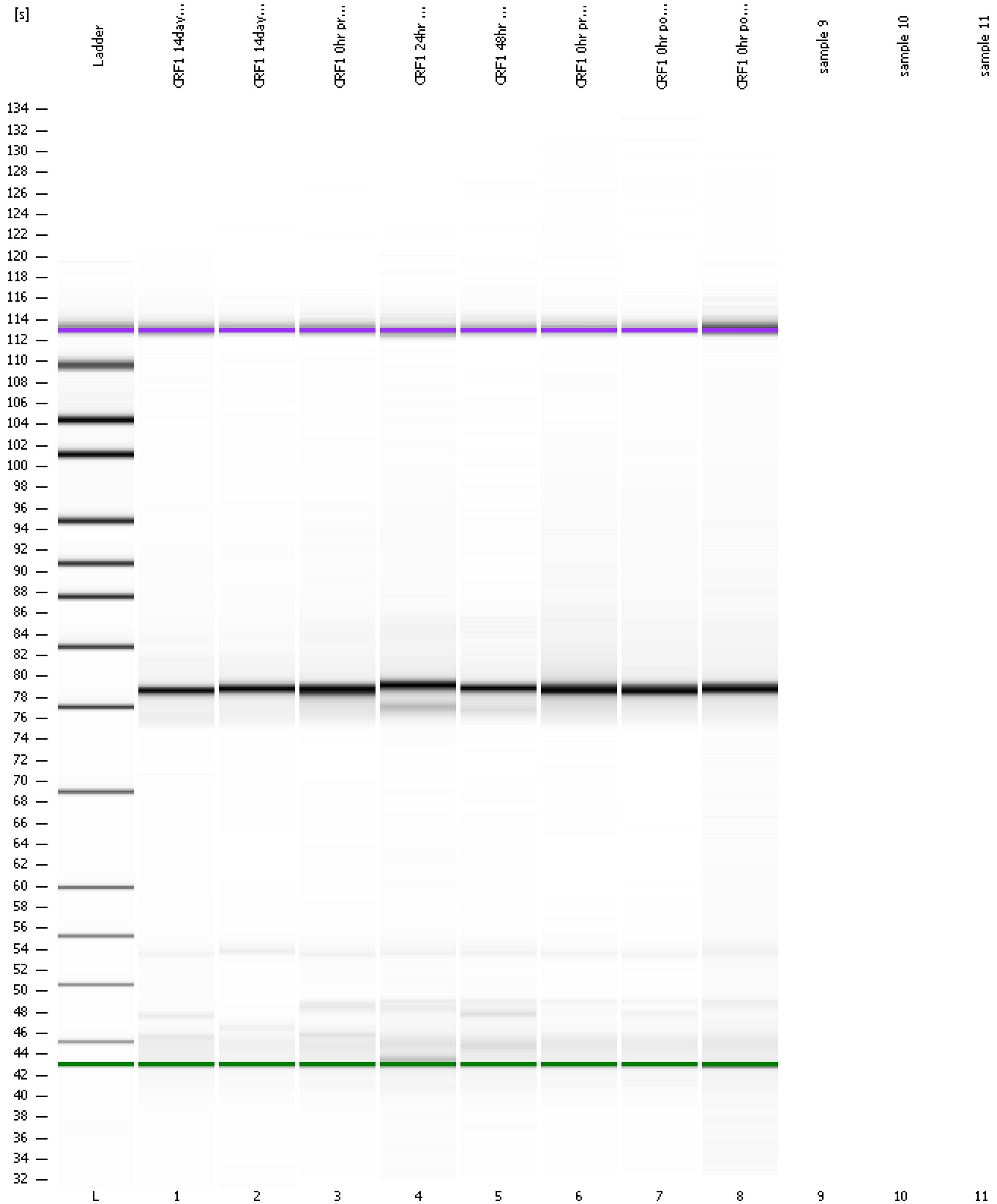
Region table for sample 8 : CRF1 0hr post med exp2

| From [s] | Molarity [pmol/l] | Average Size [bp] | Conc. [pg/μl] | To [s] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|----------|-------------------|-------------------|---------------|--------|------------|------------|-----------------------------|-------|
| 59.92 | 890.5 | 458 | 260.41 | 94.79 | 259.4 | 67 | 19.8 | Blue |

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-03\2012-05-03_004.xad

Created: 5/3/2012 1:53:59 PM
Modified: 5/3/2012 2:28:07 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-03\2012-05-03_004.xad

Created: 5/3/2012 1:53:59 PM
Modified: 5/3/2012 2:28:07 PM

Invalid Samples

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-03\2012-05-03_004.xad

Created: 5/3/2012 1:53:59 PM
 Modified: 5/3/2012 2:28:07 PM

Run Logbook

| Description | Number | Source | Category | Sub Category | Time | Time Zone | User | Host |
|---|--------|------------|----------|--------------|---------------------|-------------------------------------|----------|----------|
| Run ended on port 1 (Number of wells acquired: 9) | | Instrument | Run | | 5/3/2012 2:26:42 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-05-03\2012-05-03_004.xad) | | Instrument | Run | | 5/3/2012 1:54:05 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B | | Instrument | Run | | 5/3/2012 1:54:05 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name : | | Instrument | Run | | 5/3/2012 1:54:05 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies | | Instrument | Run | | 5/3/2012 1:54:05 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086 | | Instrument | Run | | 5/3/2012 1:54:05 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069 | | Instrument | Run | | 5/3/2012 1:54:05 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode | | Instrument | Run | | 5/3/2012 1:54:05 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |