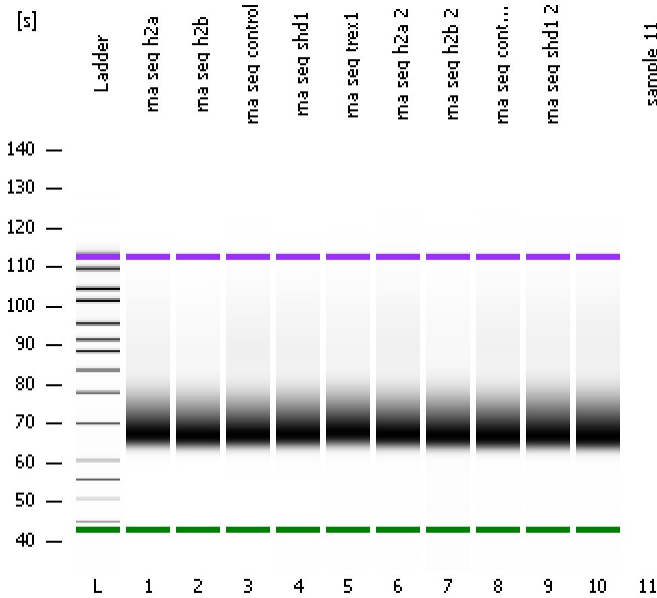


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
Modified: 8/6/2013 12:03:19 PM

Electrophoresis File Run Summary



Instrument Information:

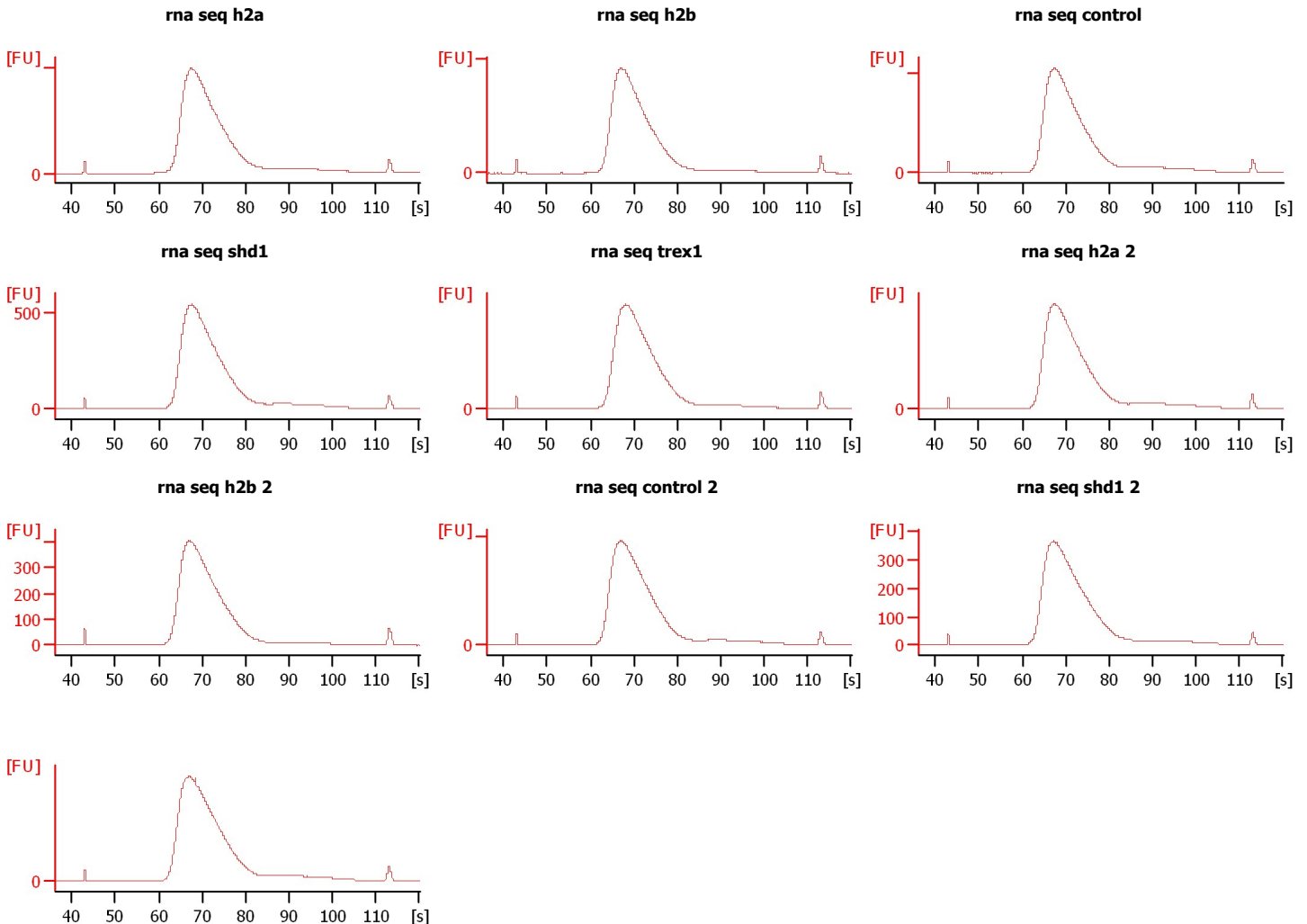
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
 Modified: 8/6/2013 12:03:19 PM

Electrophoresis File Run Summary (Chip Summary)

| Sample Name | Sample Comment | Rest. Digest | Status | Observation | Result Label | Result Color |
|-------------------|----------------|--------------------------|--------|-------------|--------------|--------------|
| rna seq h2a | | <input type="checkbox"/> | ✓ | | | |
| rna seq h2b | | <input type="checkbox"/> | ✓ | | | |
| rna seq control | | <input type="checkbox"/> | ✓ | | | |
| rna seq shd1 | | <input type="checkbox"/> | ✓ | | | |
| rna seq trex1 | | <input type="checkbox"/> | ✓ | | | |
| rna seq h2a 2 | | <input type="checkbox"/> | ✓ | | | |
| rna seq h2b 2 | | <input type="checkbox"/> | ✓ | | | |
| rna seq control 2 | | <input type="checkbox"/> | ✓ | | | |
| rna seq shd1 2 | | <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\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
Modified: 8/6/2013 12:03:19 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

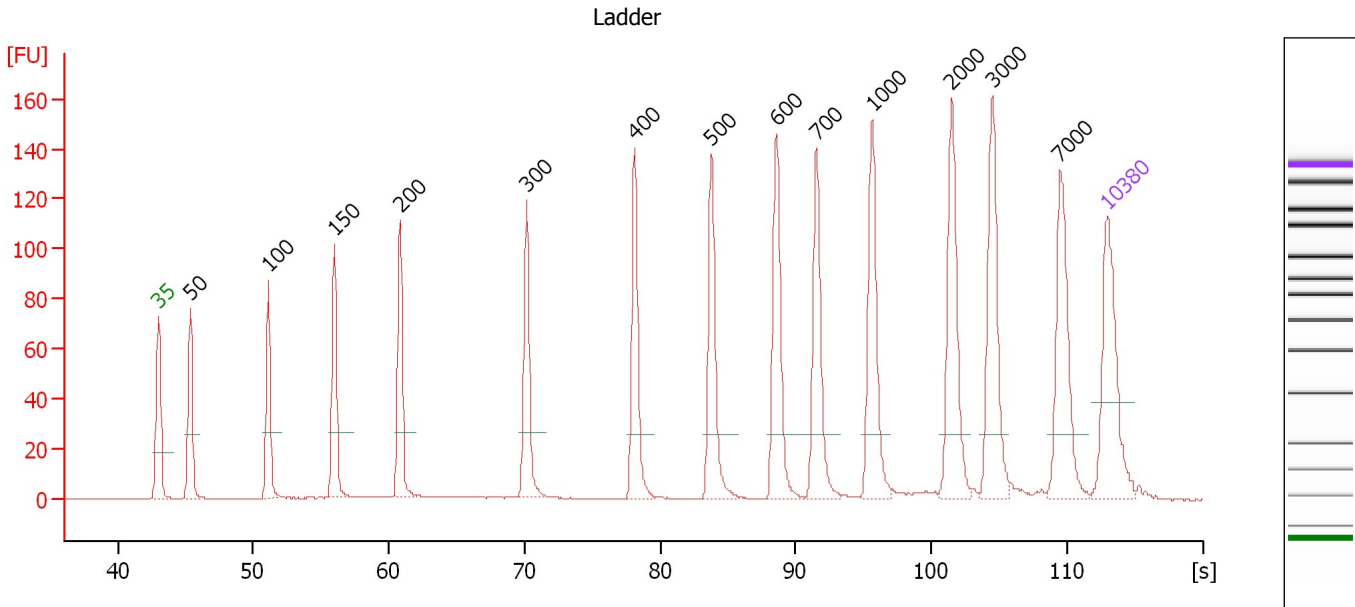
Ladder

| 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\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
 Modified: 8/6/2013 12:03:19 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

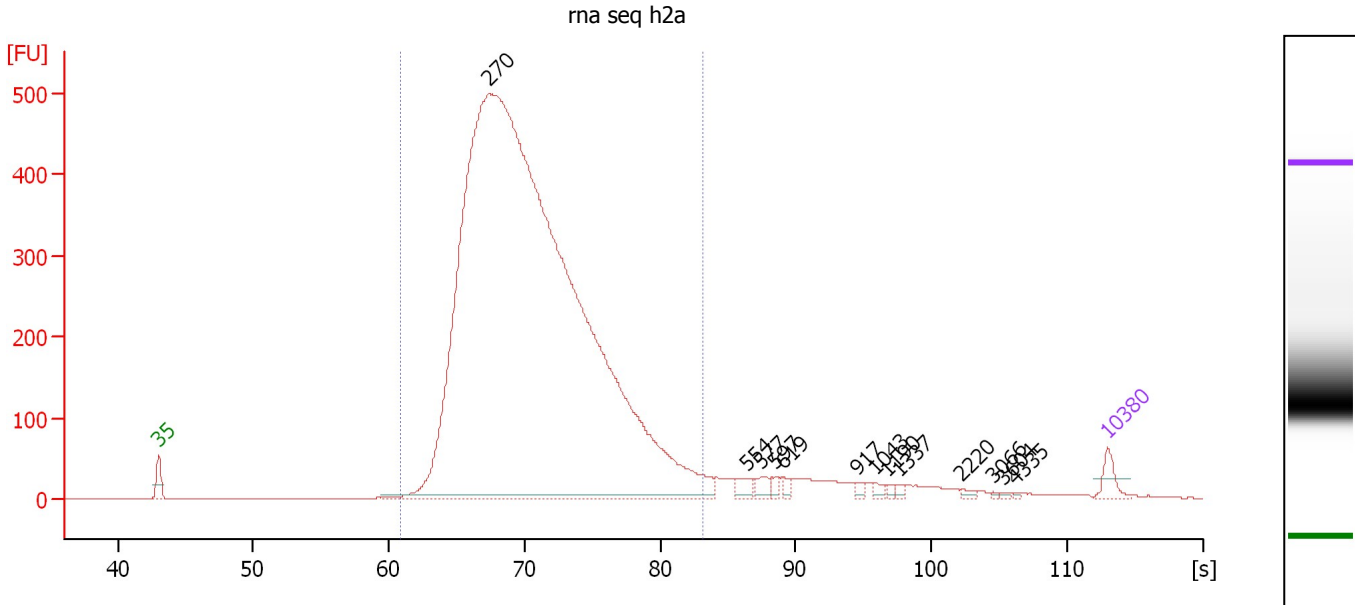
Peak table for Ladder

| 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\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
 Modified: 8/6/2013 12:03:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : rna seq h2a

Number of peaks found: 13 Corr. Area 1: 7,088.8
 Noise: 0.2

Peak table for sample 1 : rna seq h2a

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 270 | 16,798.68 | 94,249.8 | |
| 3 | 554 | 72.50 | 198.2 | |
| 4 | 577 | 56.66 | 148.7 | |
| 5 | 597 | 32.61 | 82.8 | |
| 6 | 619 | 34.60 | 84.7 | |
| 7 | 917 | 29.87 | 49.4 | |
| 8 | 1,043 | 23.61 | 34.3 | |
| 9 | 1,190 | 19.16 | 24.4 | |
| 10 | 1,337 | 20.76 | 23.5 | |
| 11 | 2,220 | 17.55 | 12.0 | |
| 12 | 3,066 | 6.57 | 3.2 | |
| 13 | 3,604 | 7.71 | 3.2 | |
| 14 | 4,335 | 5.88 | 2.1 | |
| 15 | 10,380 | 75.00 | 10.9 | Upper Marker |

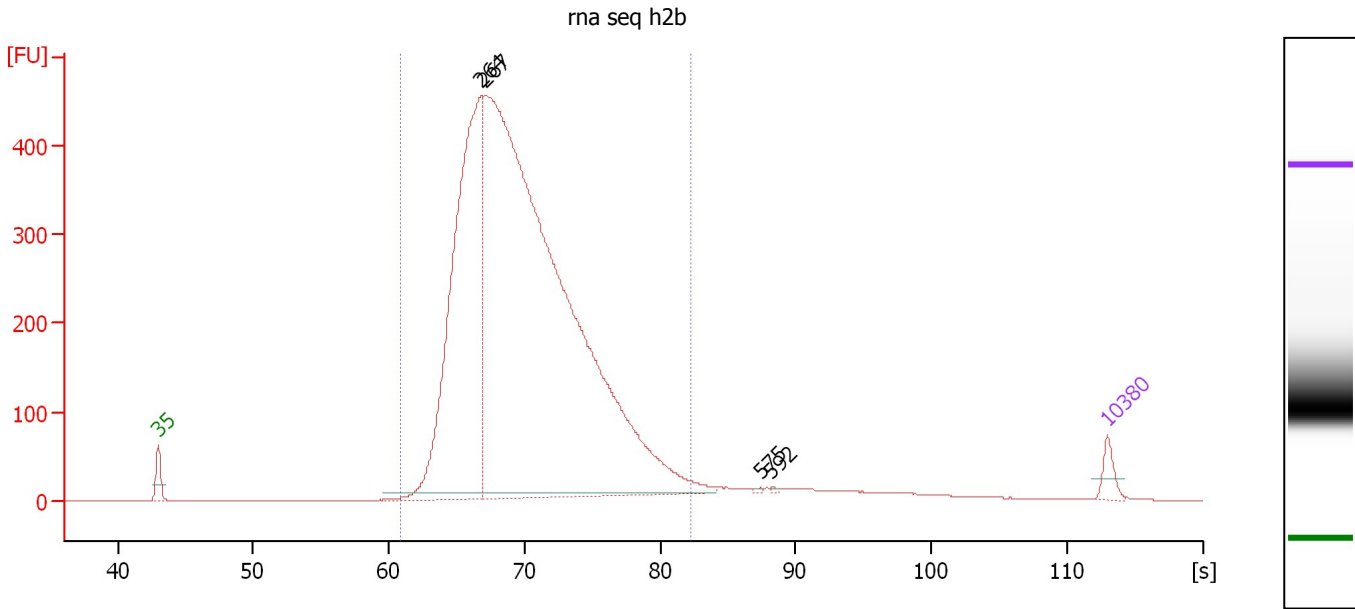
Region table for sample 1 : rna seq h2a

| From [s] | To [s] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area % of Total | Size distribution in CV [%] | Color |
|----------|--------|-------------------|-------------------|---------------|-----------------------|-----------------------------|-------|
| 60.82 | 83.13 | 307 | 78,836.3 | 15,459.22 | 7,088.8 93 | 16.8 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
 Modified: 8/6/2013 12:03:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : rna seq h2b

Number of peaks found: 4 Corr. Area 1: 6,305.9
 Noise: 0.2

Peak table for sample 2 : rna seq h2b

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 264 | 3,744.42 | 21,492.8 | |
| 3 | 267 | 10,177.34 | 57,850.8 | |
| 4 | 575 | 7.64 | 20.1 | |
| 5 | 592 | 6.78 | 17.4 | |
| 6 | 10,380 | 75.00 | 10.9 | Upper Marker |

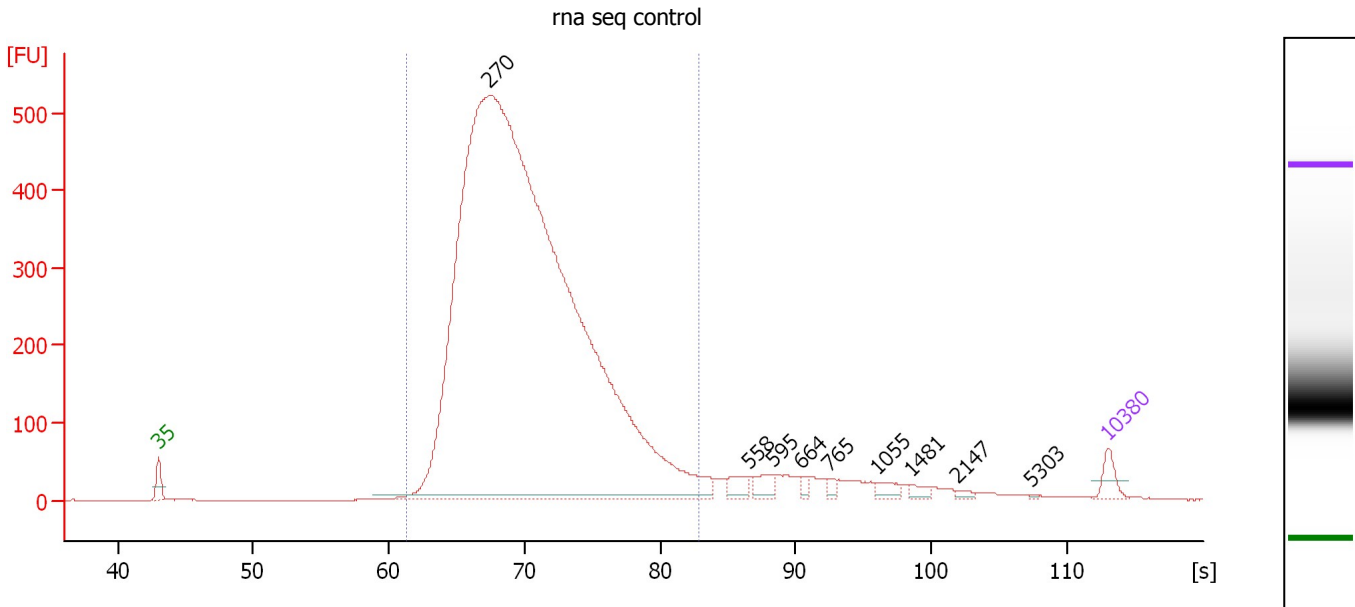
Region table for sample 2 : rna seq h2b

| From [s] | To [s] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area % of Total | Size distribution in CV [%] | Color |
|----------|--------|-------------------|-------------------|---------------|-----------------------|-----------------------------|-------|
| 60.82 | 82.32 | 301 | 68,549.1 | 13,182.61 | 6,305.9 95 | 16.3 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
 Modified: 8/6/2013 12:03:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : rna seq control

Number of peaks found: 9 Corr. Area 1: 7,268.3
 Noise: 0.1

Peak table for sample 3 : rna seq control

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 270 | 14,797.50 | 82,990.7 | |
| 3 | 558 | 93.07 | 252.7 | |
| 4 | 595 | 93.91 | 239.1 | |
| 5 | 664 | 35.68 | 81.5 | |
| 6 | 765 | 37.40 | 74.1 | |
| 7 | 1,055 | 60.04 | 86.2 | |
| 8 | 1,481 | 37.25 | 38.1 | |
| 9 | 2,147 | 18.80 | 13.3 | |
| 10 | 5,303 | 4.80 | 1.4 | |
| 11 | 10,380 | 75.00 | 10.9 | Upper Marker |

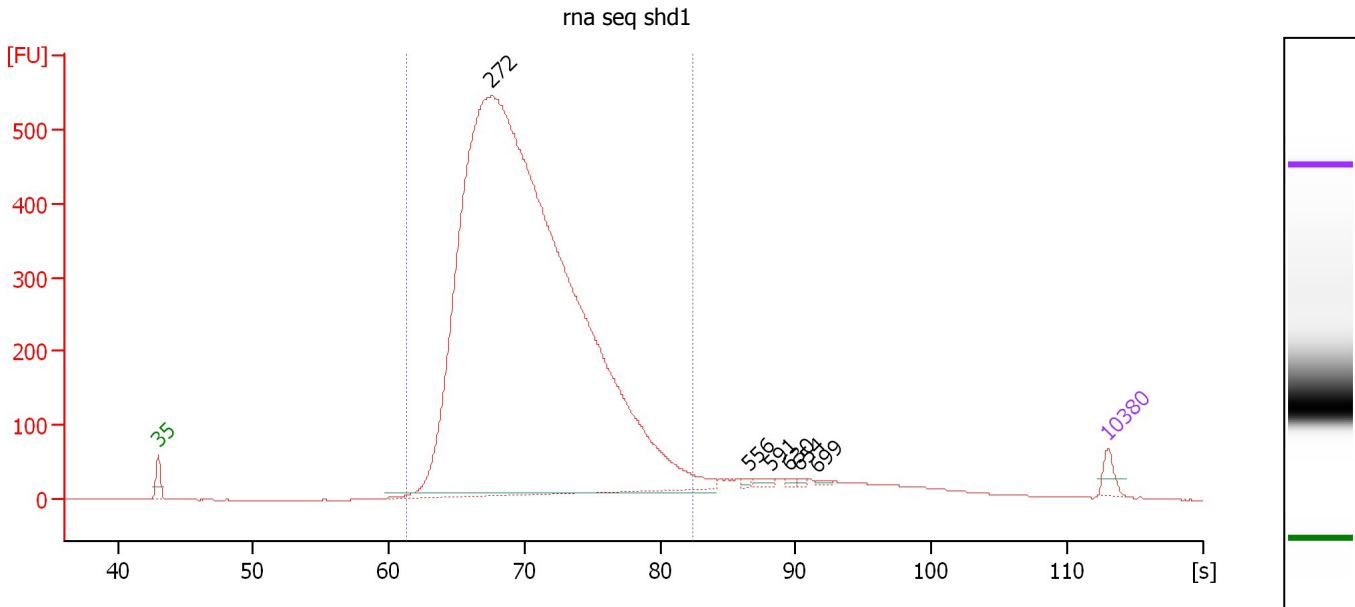
Region table for sample 3 : rna seq control

| From [s] | To [s] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area % Total | Size distribution in CV [%] | Color |
|----------|--------|-------------------|-------------------|---------------|--------------------|-----------------------------|-------|
| 61.39 | 82.83 | 304 | 70,729.7 | 13,727.04 | 7,268.3 92 | 16.7 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
 Modified: 8/6/2013 12:03:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : rna seq shd1

Number of peaks found: 6 Corr. Area 1: 7,663.4
 Noise: 0.2

Peak table for sample 4 : rna seq shd1

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 272 | 17,831.91 | 99,369.3 | |
| 3 | 556 | 19.02 | 51.8 | |
| 4 | 591 | 41.32 | 106.0 | |
| 5 | 630 | 16.76 | 40.3 | |
| 6 | 654 | 14.21 | 32.9 | |
| 7 | 699 | 17.05 | 36.9 | |
| 8 | 10,380 | 75.00 | 10.9 | Upper Marker |

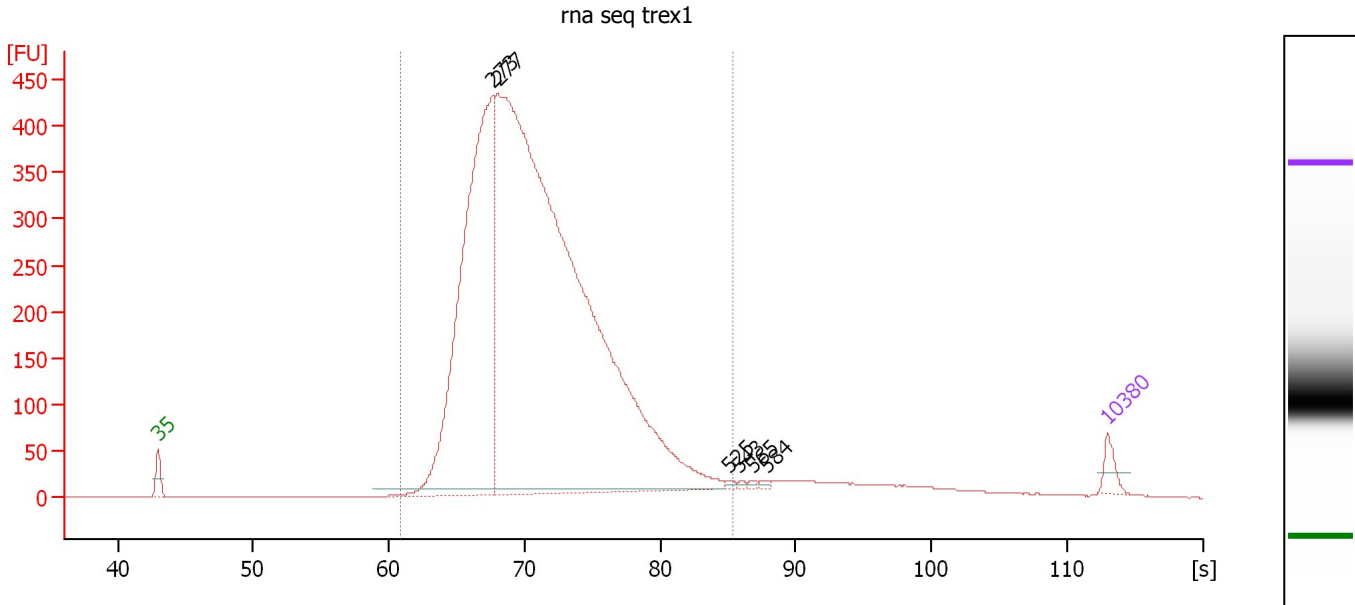
Region table for sample 4 : rna seq shd1

| From [s] | To [s] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area % of Total | Size distribution in CV [%] | Color |
|----------|--------|-------------------|-------------------|---------------|-----------------------|-----------------------------|-------|
| 61.29 | 82.43 | 305 | 87,481.3 | 17,073.39 | 7,663.4 92 | 16.5 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
 Modified: 8/6/2013 12:03:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : rna seq trex1

Number of peaks found: 6 Corr. Area 1: 6,276.6
 Noise: 0.1

Peak table for sample 5 : rna seq trex1

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 273 | 4,096.16 | 22,774.2 | |
| 3 | 277 | 10,435.02 | 57,011.2 | |
| 4 | 525 | 16.12 | 46.5 | |
| 5 | 543 | 12.37 | 34.5 | |
| 6 | 565 | 12.71 | 34.1 | |
| 7 | 584 | 14.33 | 37.2 | |
| 8 | 10,380 | 75.00 | 10.9 | Upper Marker |

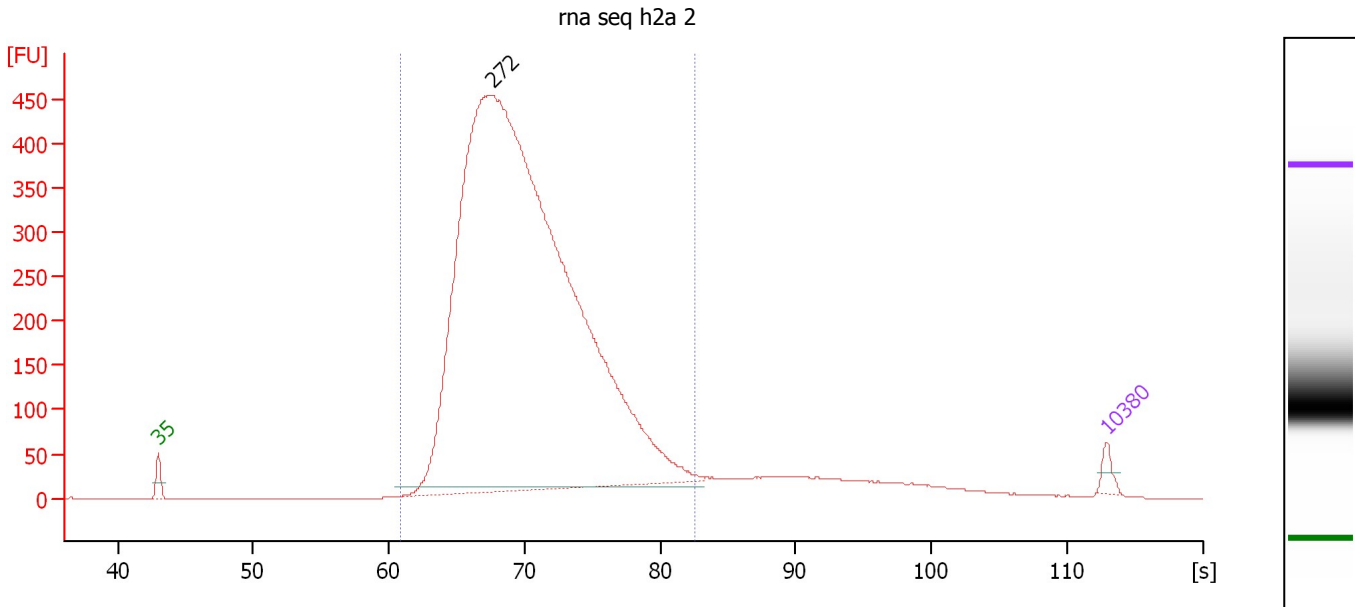
Region table for sample 5 : rna seq trex1

| From [s] | To [s] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area % of Total | Size distribution in CV [%] | Color |
|----------|--------|-------------------|-------------------|---------------|-----------------------|-----------------------------|-------|
| 60.82 | 85.32 | 313 | 70,097.3 | 13,957.71 | 6,276.6 95 | 17.6 | ■ |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
 Modified: 8/6/2013 12:03:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : rna seq h2a 2

Number of peaks found: 1 Corr. Area 1: 6,444.9
 Noise: 0.1

Peak table for sample 6 : rna seq h2a 2

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 272 | 17,929.34 | 99,732.7 | |
| 3 | 10,380 | 75.00 | 10.9 | Upper Marker |

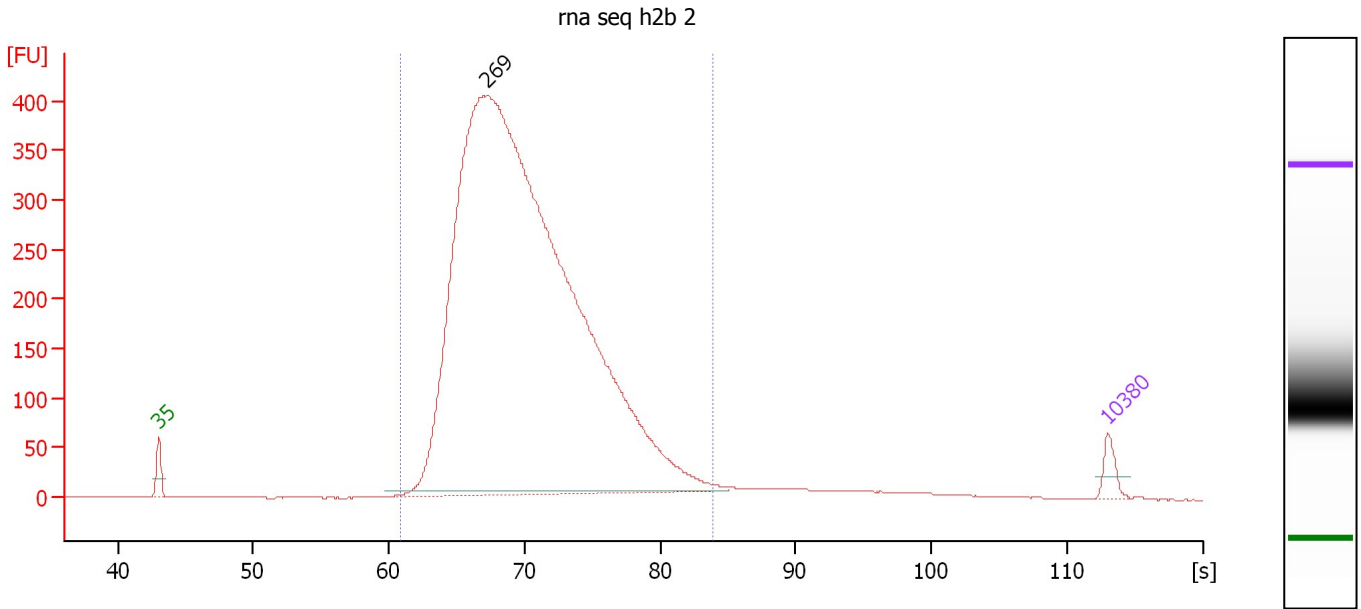
Region table for sample 6 : rna seq h2a 2

| From [s] | To [s] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|----------|--------|-------------------|-------------------|---------------|------------|------------|-----------------------------|-------|
| 60.82 | 82.59 | 305 | 91,103.6 | 17,727.57 | 6,444.9 | 92 | 16.7 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
 Modified: 8/6/2013 12:03:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : rna seq h2b 2

Number of peaks found: 1 Corr. Area 1: 5,839.1
 Noise: 0.2

Peak table for sample 7 : rna seq h2b 2

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 269 | 12,591.25 | 71,051.0 | |
| 3 | 10,380 | 75.00 | 10.9 | Upper Marker |

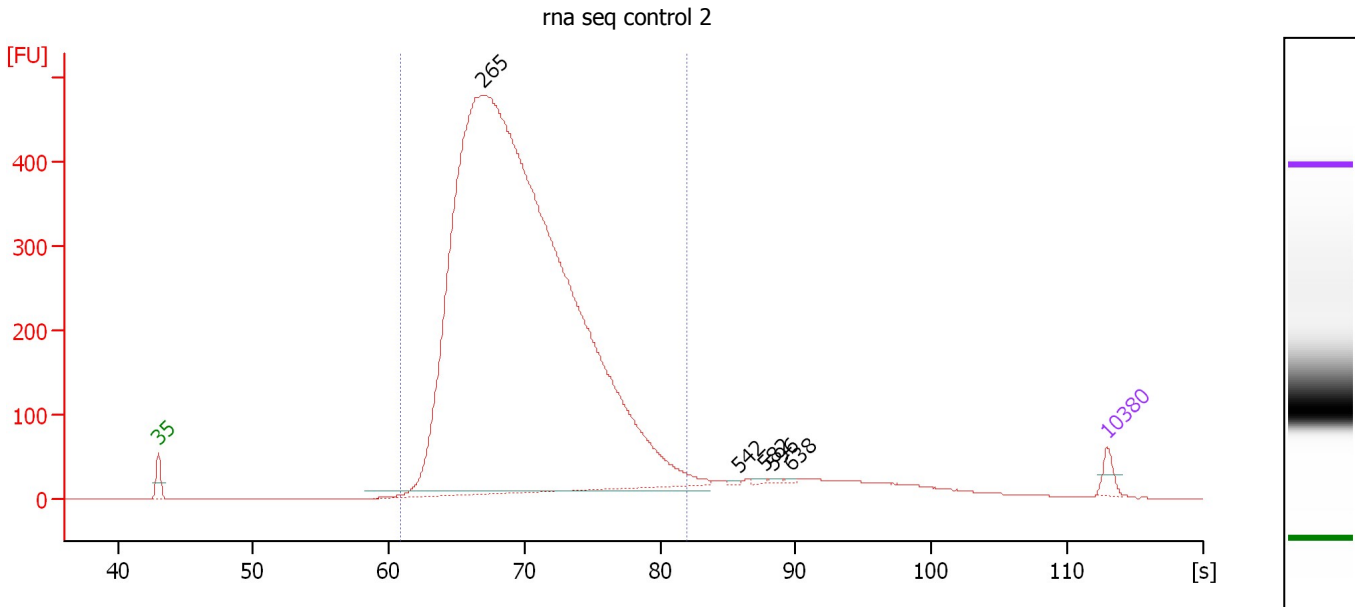
Region table for sample 7 : rna seq h2b 2

| From [s] | To [s] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|----------|--------|-------------------|-------------------|---------------|------------|------------|-----------------------------|-------|
| 60.82 | 83.89 | 304 | 61,859.9 | 11,977.71 | 5,839.1 | 96 | 17.4 | Blue |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
 Modified: 8/6/2013 12:03:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : rna seq control 2

Number of peaks found: 5 Corr. Area 1: 6,886.2
 Noise: 0.1

Peak table for sample 8 : rna seq control 2

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 265 | 19,318.99 | 110,487.7 | |
| 3 | 542 | 15.39 | 43.0 | |
| 4 | 582 | 15.93 | 41.5 | |
| 5 | 596 | 15.16 | 38.6 | |
| 6 | 638 | 11.77 | 28.0 | |
| 7 | 10,380 | 75.00 | 10.9 | Upper Marker |

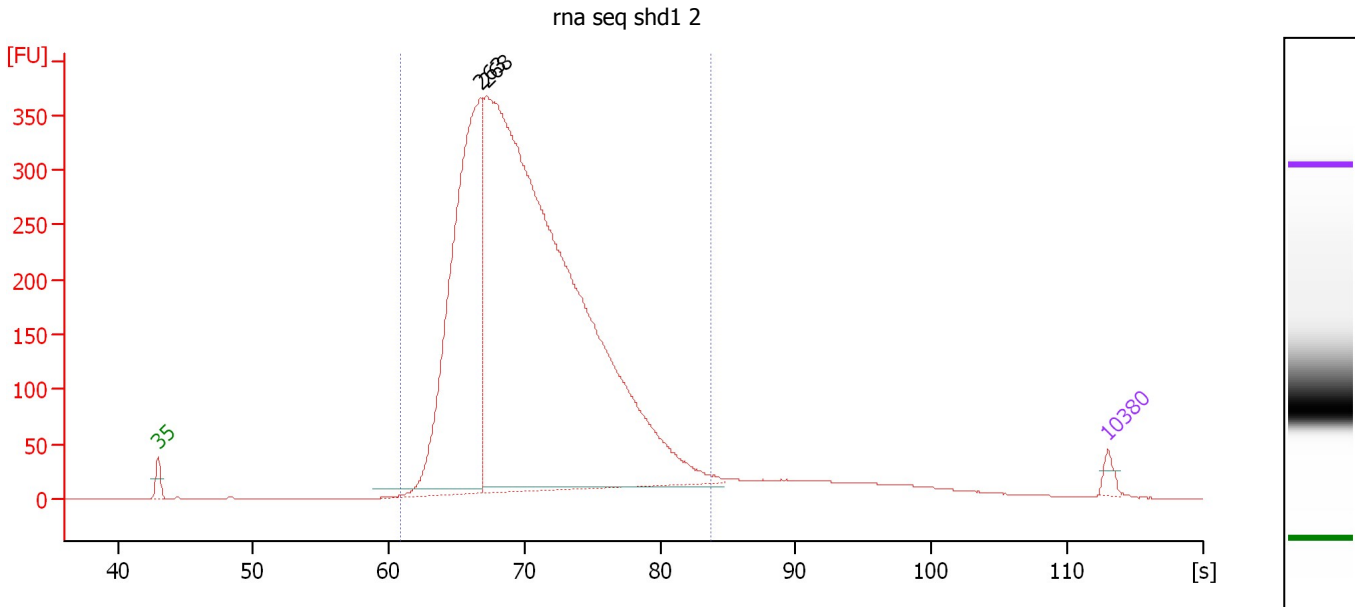
Region table for sample 8 : rna seq control 2

| From [s] | To [s] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area % of Total | Size distribution in CV [%] | Color |
|----------|--------|-------------------|-------------------|---------------|-----------------------|-----------------------------|-------|
| 60.82 | 81.98 | 300 | 96,759.4 | 18,560.18 | 6,886.2 92 | 16.7 | ■ |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
 Modified: 8/6/2013 12:03:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : rna seq shd1 2

Number of peaks found: 2 Corr. Area 1: 5,443.2
 Noise: 0.1

Peak table for sample 9 : rna seq shd1 2

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 263 | 5,547.28 | 31,898.9 | |
| 3 | 268 | 15,287.14 | 86,310.2 | |
| 4 | 10,380 | 75.00 | 10.9 | Upper Marker |

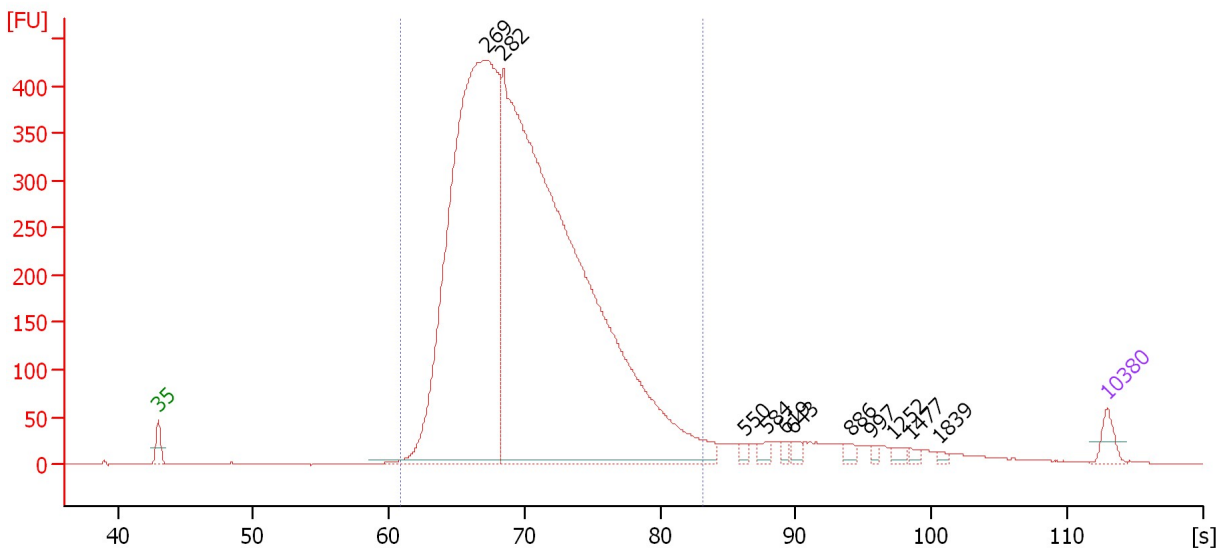
Region table for sample 9 : rna seq shd1 2

| From [s] | To [s] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area % of Total | Size distribution in CV [%] | Color |
|----------|--------|-------------------|-------------------|---------------|-----------------------|-----------------------------|-------|
| 60.82 | 83.83 | 307 | 103,412.4 | 20,164.20 | 5,443.2 93 | 18.1 | ■ |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
 Modified: 8/6/2013 12:03:19 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 :

Number of peaks found: 11 Corr. Area 1: 6,398.8
 Noise: 0.1

Peak table for sample 10 :

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 35 | 125.00 | 5,411.3 | Lower Marker |
| 2 | 269 | 5,826.31 | 32,872.0 | |
| 3 | 282 | 8,679.13 | 46,705.6 | |
| 4 | 550 | 32.50 | 89.5 | |
| 5 | 584 | 43.52 | 112.8 | |
| 6 | 619 | 32.38 | 79.2 | |
| 7 | 643 | 39.26 | 92.5 | |
| 8 | 886 | 35.42 | 60.6 | |
| 9 | 997 | 20.98 | 31.9 | |
| 10 | 1,252 | 32.06 | 38.8 | |
| 11 | 1,477 | 23.22 | 23.8 | |
| 12 | 1,839 | 13.57 | 11.2 | |
| 13 | 10,380 | 75.00 | 10.9 | Upper Marker |

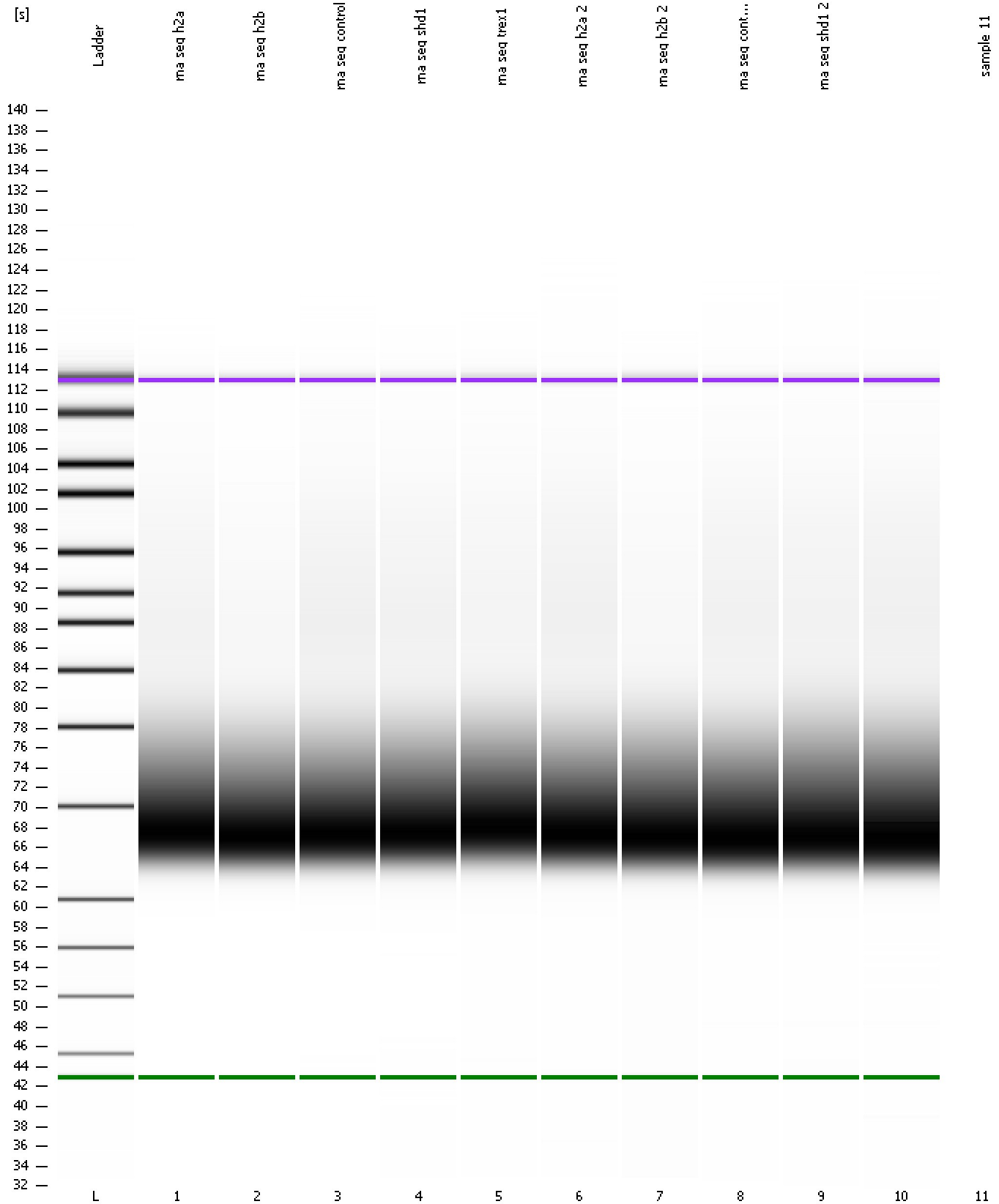
Region table for sample 10 :

| From [s] | To [s] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area % of Total | Size distribution in CV [%] | Color |
|----------|--------|-------------------|-------------------|---------------|-----------------------|-----------------------------|-------|
| 60.82 | 83.21 | 303 | 71,008.0 | 13,704.71 | 6,398.8 92 | 17.8 | Blue |

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
Modified: 8/6/2013 12:03:19 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
Modified: 8/6/2013 12:03:19 PM

Invalid Samples

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-06\2013-08-06_003.xad

Created: 8/6/2013 11:24:26 AM
 Modified: 8/6/2013 12:03:19 PM

Run Logbook

| Description | Number | Source | Category | Sub Category | Time | Time Zone | User | Host |
|---|--------|------------|----------|--------------|----------------------|-------------------------------------|----------|----------|
| Run ended on port 1 (Number of wells acquired: 11) | | Instrument | Run | | 8/6/2013 12:02:51 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-08-06\2013-08-06_003.xad) | | Instrument | Run | | 8/6/2013 11:24:32 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B | | Instrument | Run | | 8/6/2013 11:24:32 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name : | | Instrument | Run | | 8/6/2013 11:24:32 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies | | Instrument | Run | | 8/6/2013 11:24:32 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086 | | Instrument | Run | | 8/6/2013 11:24:32 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069 | | Instrument | Run | | 8/6/2013 11:24:32 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode | | Instrument | Run | | 8/6/2013 11:24:32 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |