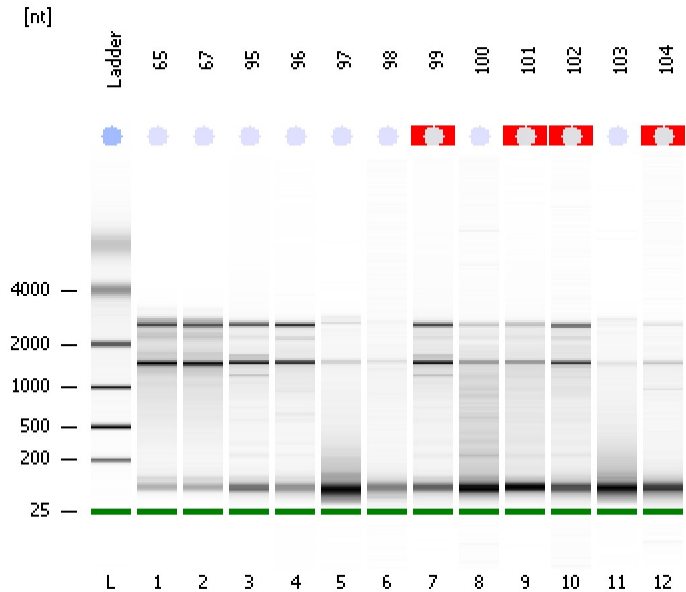


Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
 Modified: 8/16/2013 3:02:56 PM

Electrophoresis File Run Summary



Instrument Information:

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

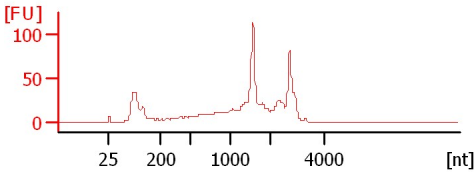
Assay Information:

Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\RNA\Eukaryote Total RNA Nano Series II.xsy
 Assay Class: Eukaryote Total RNA Nano
 Version: 2.6
 Assay Comments: Total RNA Analysis ng sensitivity (Eukaryote)
 © Copyright 2003 - 2009 Agilent Technologies, Inc.

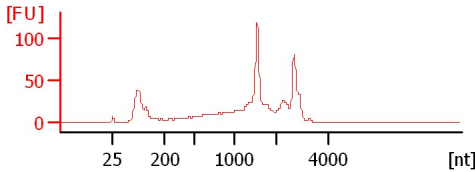
Chip Information:

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

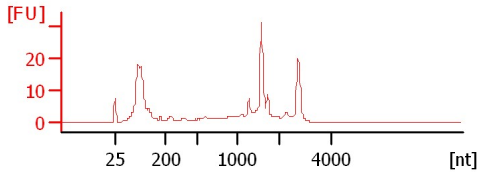
65
 CWY 0 c
 RIN: 6.90



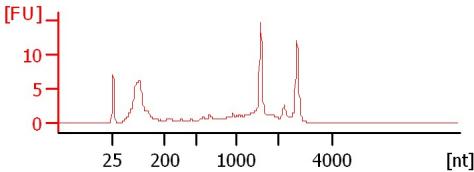
67
 CWY 0 e
 RIN: 7



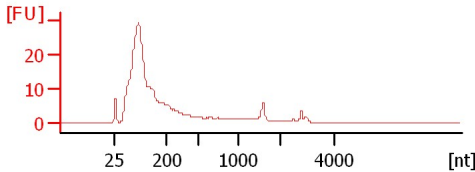
95
 R32 1 pct
 RIN: 6.90



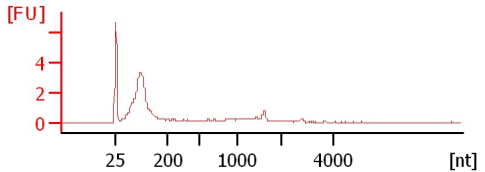
96
 R39 2 pct
 RIN: 7.40



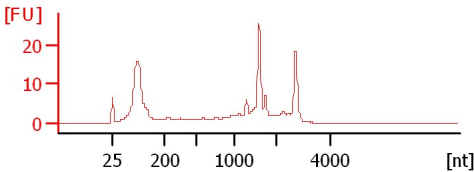
97
 R43 F2
 RIN: 2.80



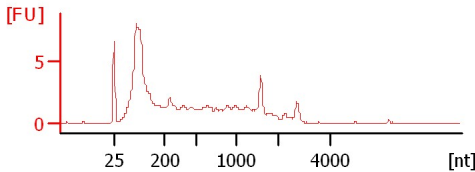
98
 R45 F3
 RIN: 2.70



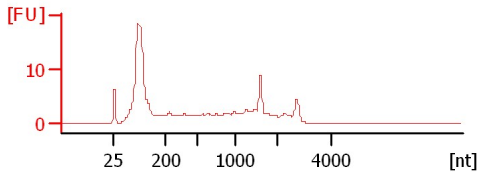
99
 R36 1 pct
 RIN N/A



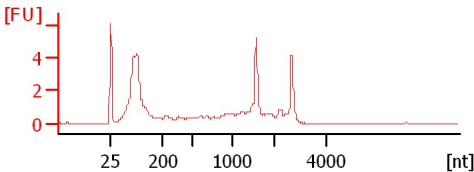
100
 R37 2 pct
 RIN: 3.30



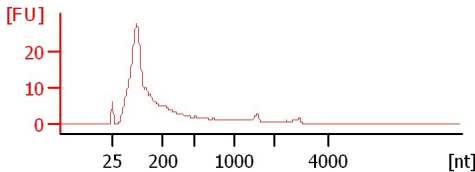
101
 R31 1 pct
 RIN N/A



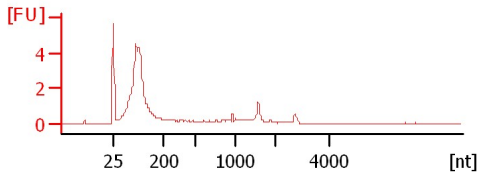
102
 R38 2 pct
 RIN N/A



103
 R41 F2
 RIN: 2.60



104
 R46 F3
 RIN N/A



Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
 Modified: 8/16/2013 3:02:56 PM

Electrophoresis File Run Summary (Chip Summary)

| Sample Name | Sample Comment | Status | Result Label | Result Color |
|-------------|----------------|--------|-------------------|--------------|
| 65 | CWY 0 c | ✓ | RIN: 6.90 | |
| 67 | CWY 0 e | ✓ | RIN:7 | |
| 95 | R32 1 pct | ✓ | RIN: 6.90 | |
| 96 | R39 2 pct | ✓ | RIN: 7.40 | |
| 97 | R43 F2 | ✓ | RIN: 2.80 | |
| 98 | R45 F3 | ✓ | RIN: 2.70 | |
| 99 | R36 1 pct | ✓ | RIN N/A | |
| 100 | R37 2 pct | ✓ | RIN: 3.30 | |
| 101 | R31 1 pct | ✓ | RIN N/A | |
| 102 | R38 2 pct | ✓ | RIN N/A | |
| 103 | R41 F2 | ✓ | RIN: 2.60 | |
| 104 | R46 F3 | ✓ | RIN N/A | |
| Ladder | | ✓ | All Other Samples | |

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
Modified: 8/16/2013 3:02:56 PM

Electrophoresis Assay Details

General Analysis Settings

Number of Available Sample and Ladder Wells (Max.) : 13
Minimum Visible Range [s] : 17
Maximum Visible Range [s] : 70
Start Analysis Time Range [s] : 19
End Analysis Time Range [s] : 69
Ladder Concentration [ng/ μ l] : 150
Lower Marker Concentration [ng/ μ l] : 0
Upper Marker Concentration [ng/ μ l] : 0
Used Lower Marker for Quantitation
Standard Curve Fit is Logarithmic
Show Data Aligned to Lower Marker

Integrator Settings

Integration Start Time [s] : 19
Integration End Time [s] : 69
Slope Threshold : 0.6
Height Threshold [FU] : 0.5
Area Threshold : 0.2
Width Threshold [s] : 0.5
Baseline Plateau [s] : 6

Filter Settings

Filter Width [s] : 0.5
Polynomial Order : 4

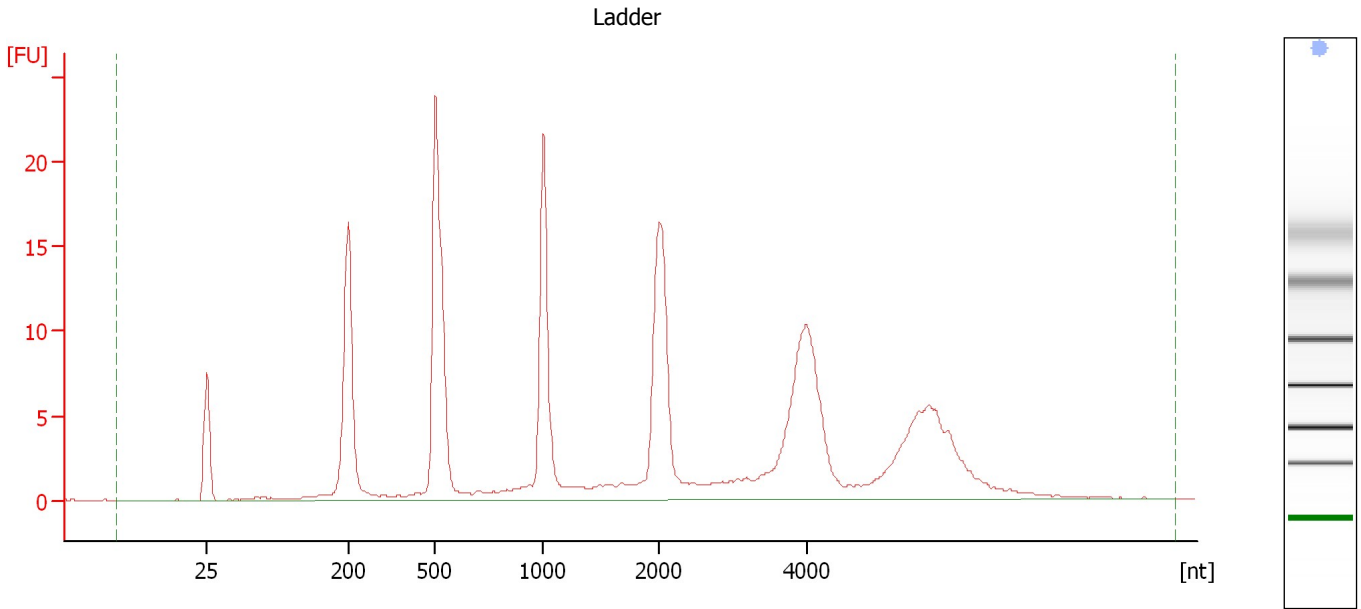
Ladder

| Ladder Peak | Size |
|-------------|------|
| 1 | 25 |
| 2 | 200 |
| 3 | 500 |
| 4 | 1000 |
| 5 | 2000 |
| 6 | 4000 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
Modified: 8/16/2013 3:02:56 PM

Electropherogram Summary



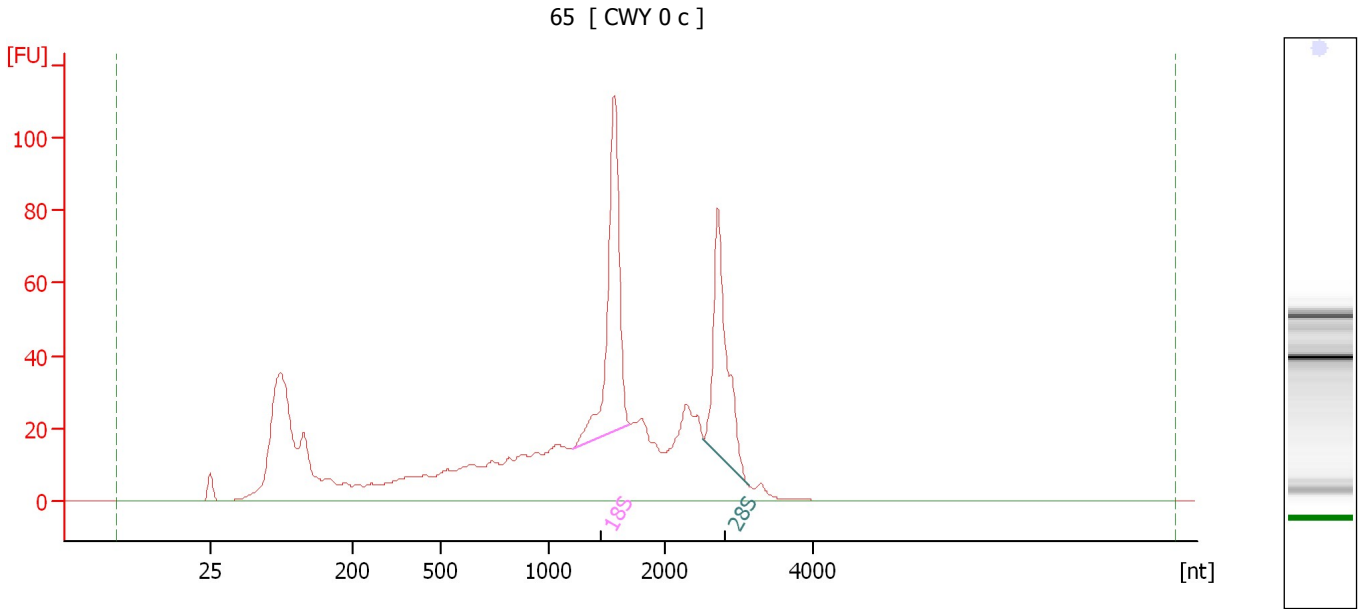
Overall Results for Ladder

| | | | |
|--------------------|-----------|------------------------|---|
| RNA Area: | 207.5 | Result Flagging Color: | |
| RNA Concentration: | 150 ng/μl | Result Flagging Label: | All Other Samples |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
Modified: 8/16/2013 3:02:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 65

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 1,030.0 | RNA Integrity Number (RIN): | 6.9 (B.02.08) |
| RNA Concentration: | 745 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.8 | Result Flagging Label: | RIN: 6.90 |

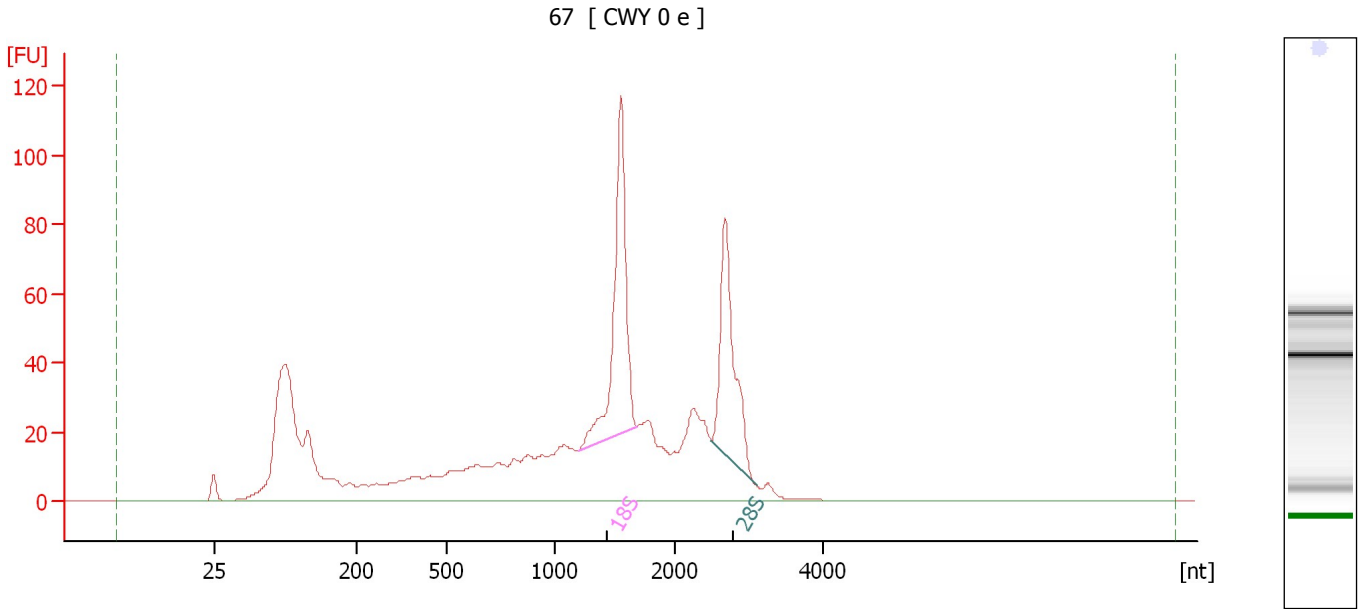
Fragment table for sample 1 : 65

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|-------|-----------------|
| 18S | 1,200 | 1,692 | 132.8 | 12.9 |
| 28S | 2,512 | 3,121 | 102.2 | 9.9 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
Modified: 8/16/2013 3:02:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 67

RNA Area: 1,073.8 RNA Integrity Number (RIN): 7 (B.02.08)
RNA Concentration: 776 ng/μl Result Flagging Color:
rRNA Ratio [28s / 18s]: 0.7 Result Flagging Label: RIN:7

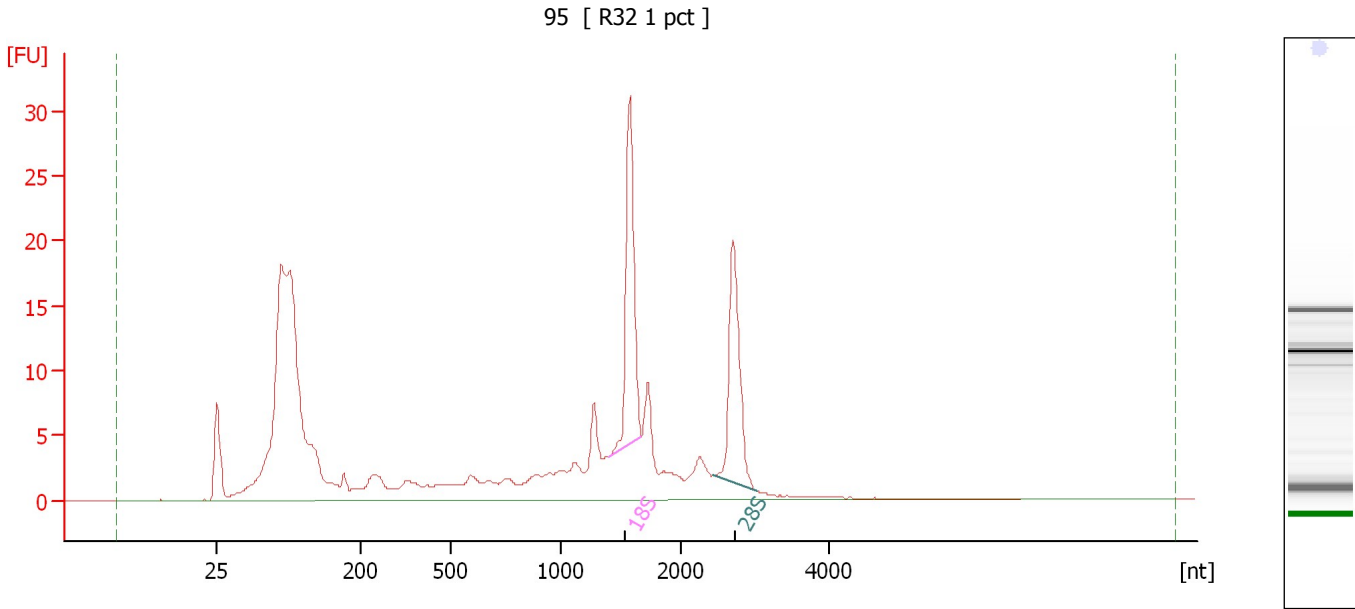
Fragment table for sample 2 : 67

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|-------|-----------------|
| 18S | 1,193 | 1,681 | 141.3 | 13.2 |
| 28S | 2,499 | 3,103 | 102.8 | 9.6 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
Modified: 8/16/2013 3:02:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 95

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 247.8 | RNA Integrity Number (RIN): | 6.9 (B.02.08) |
| RNA Concentration: | 179 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.9 | Result Flagging Label: | RIN: 6.90 |

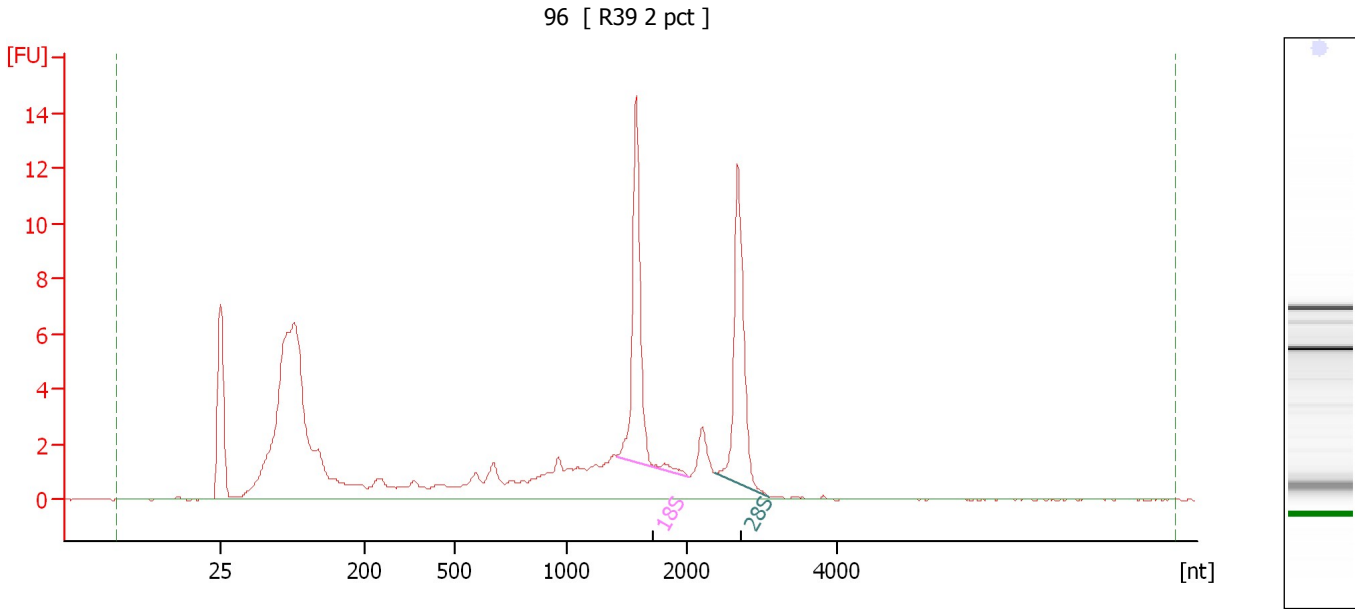
Fragment table for sample 3 : 95

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,398 | 1,677 | 25.4 | 10.2 |
| 28S | 2,429 | 3,015 | 22.5 | 9.1 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
Modified: 8/16/2013 3:02:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 96

| | | | |
|-------------------------|----------|-----------------------------|---|
| RNA Area: | 106.5 | RNA Integrity Number (RIN): | 7.4 (B.02.08) |
| RNA Concentration: | 77 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.9 | Result Flagging Label: | RIN: 7.40 |

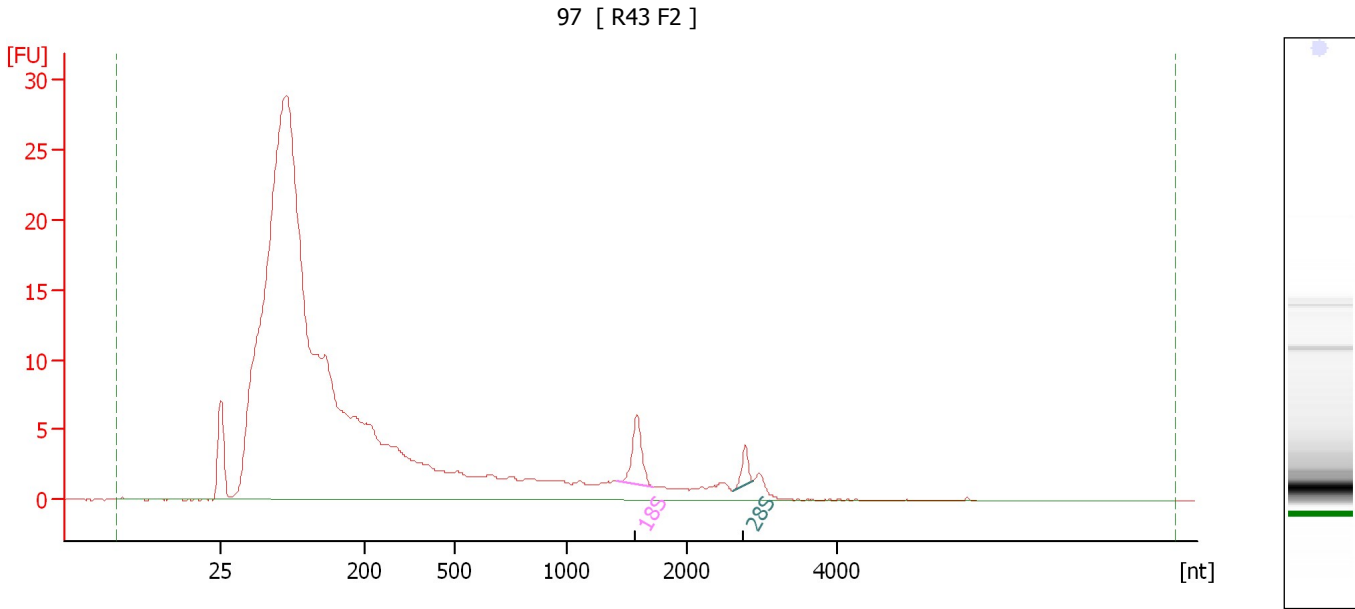
Fragment table for sample 4 : 96

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,413 | 2,033 | 13.5 | 12.7 |
| 28S | 2,388 | 3,113 | 12.0 | 11.3 |

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
 Modified: 8/16/2013 3:02:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 97

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 365.4 | RNA Integrity Number (RIN): | 2.8 (B.02.08) |
| RNA Concentration: | 264 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.3 | Result Flagging Label: | RIN: 2.80 |

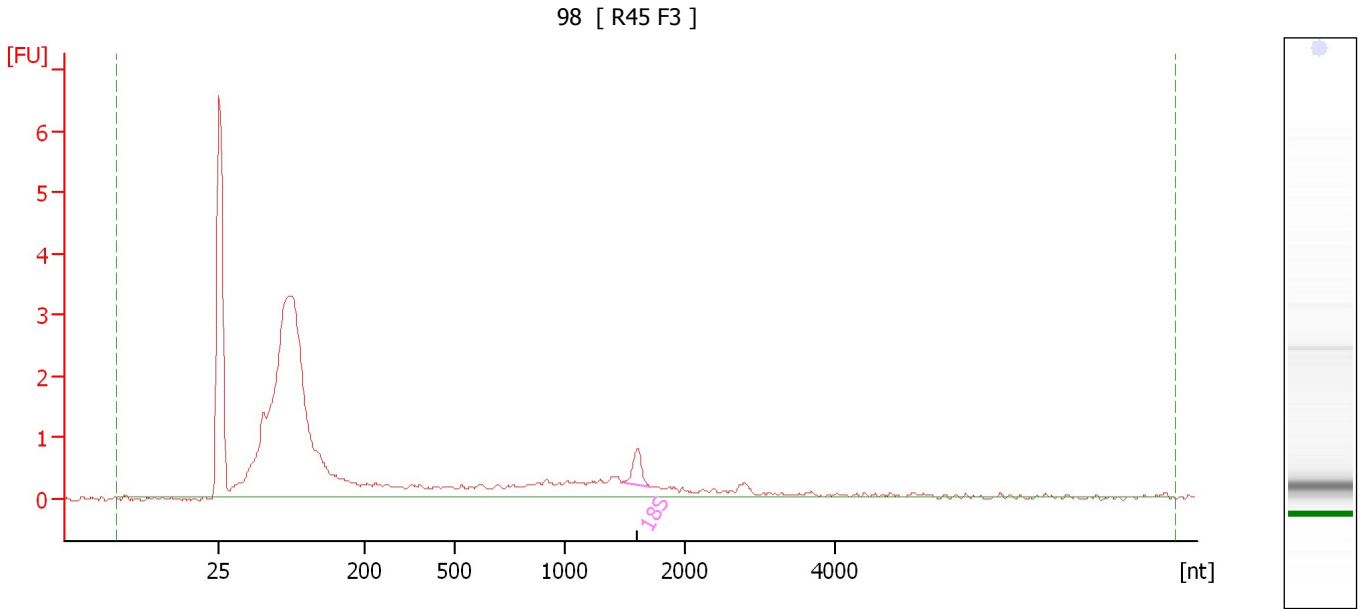
Fragment table for sample 5 : 97

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,422 | 1,717 | 6.0 | 1.7 |
| 28S | 2,630 | 2,886 | 2.0 | 0.5 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
Modified: 8/16/2013 3:02:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 98

| | | | |
|-------------------------|----------|-----------------------------|---|
| RNA Area: | 33.8 | RNA Integrity Number (RIN): | 2.7 (B.02.08) |
| RNA Concentration: | 24 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.0 | Result Flagging Label: | RIN: 2.70 |

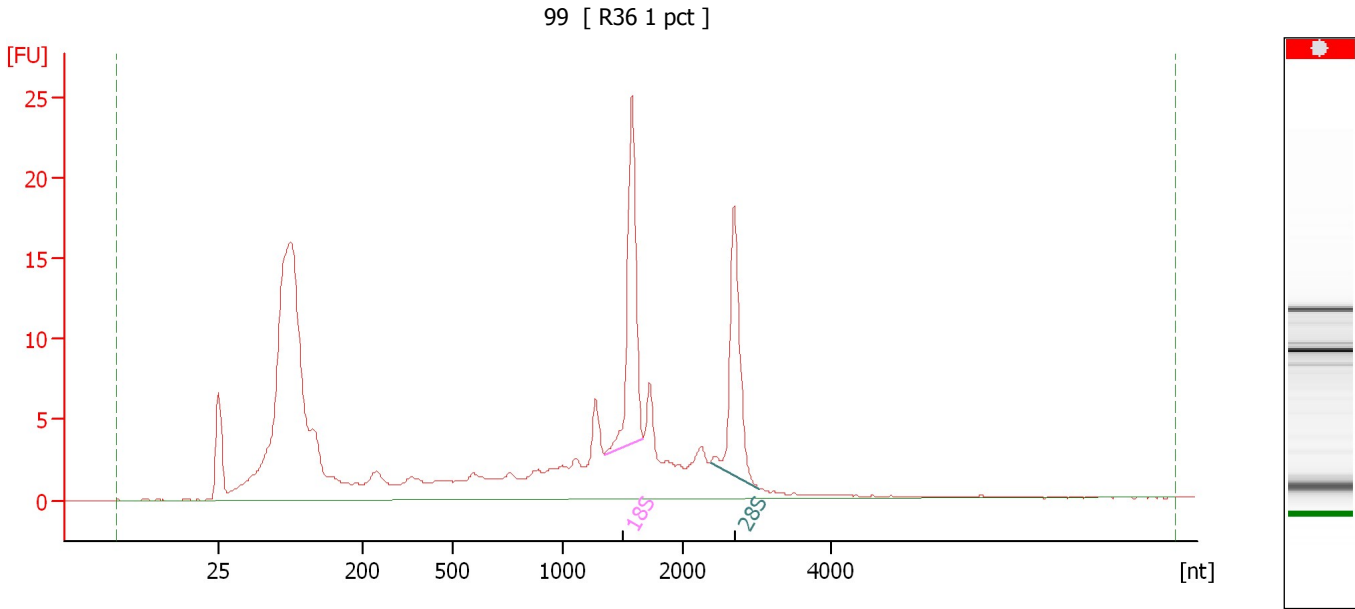
Fragment table for sample 6 : 98

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,501 | 1,716 | 0.7 | 1.9 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
Modified: 8/16/2013 3:02:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 99

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 228.2 | RNA Integrity Number (RIN): | N/A (B.02.08) |
| RNA Concentration: | 165 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.9 | Result Flagging Label: | RIN N/A |

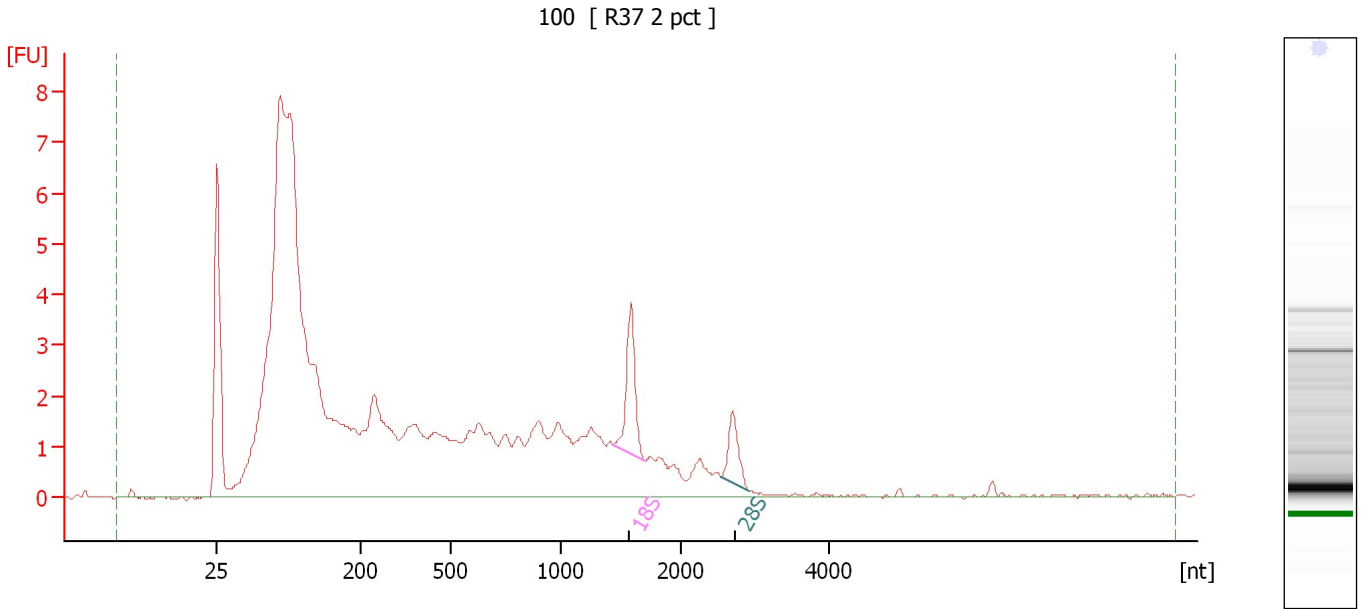
Fragment table for sample 7 : 99

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,346 | 1,678 | 21.9 | 9.6 |
| 28S | 2,373 | 3,015 | 18.9 | 8.3 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
Modified: 8/16/2013 3:02:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 100

| | | | |
|-------------------------|----------|-----------------------------|---|
| RNA Area: | 114.9 | RNA Integrity Number (RIN): | 3.3 (B.02.08) |
| RNA Concentration: | 83 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.5 | Result Flagging Label: | RIN: 3.30 |

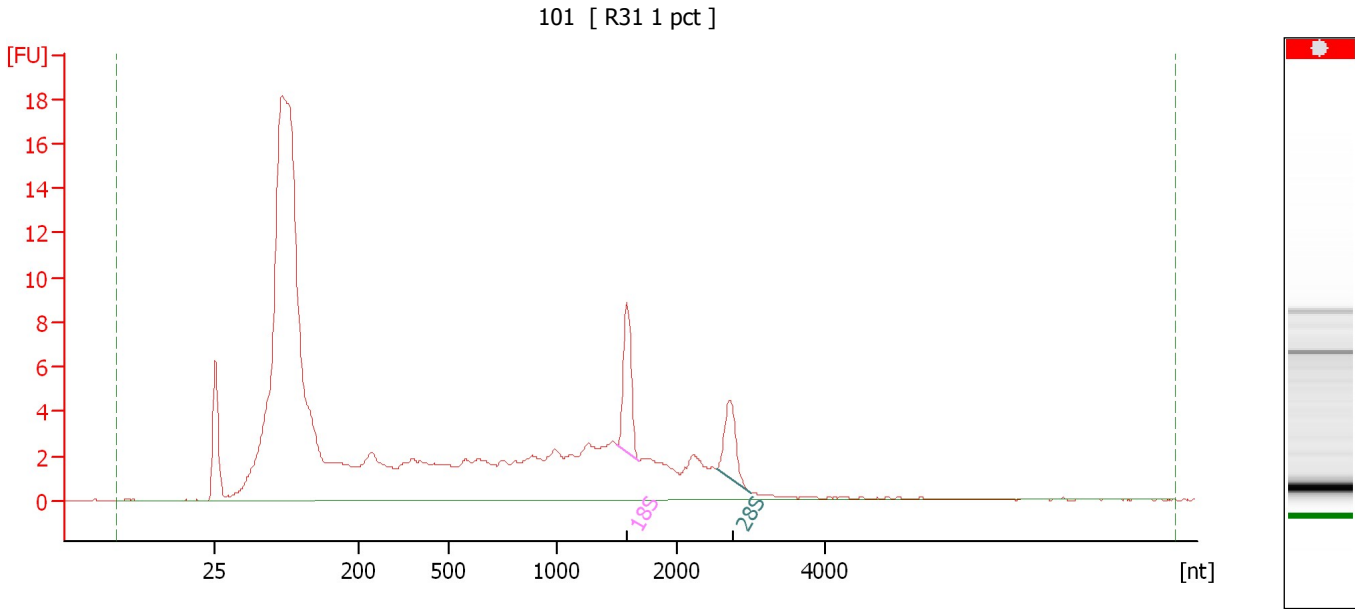
Fragment table for sample 8 : 100

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,443 | 1,703 | 3.0 | 2.6 |
| 28S | 2,558 | 2,930 | 1.6 | 1.4 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
Modified: 8/16/2013 3:02:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 101

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 200.1 | RNA Integrity Number (RIN): | N/A (B.02.08) |
| RNA Concentration: | 145 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.7 | Result Flagging Label: | RIN N/A |

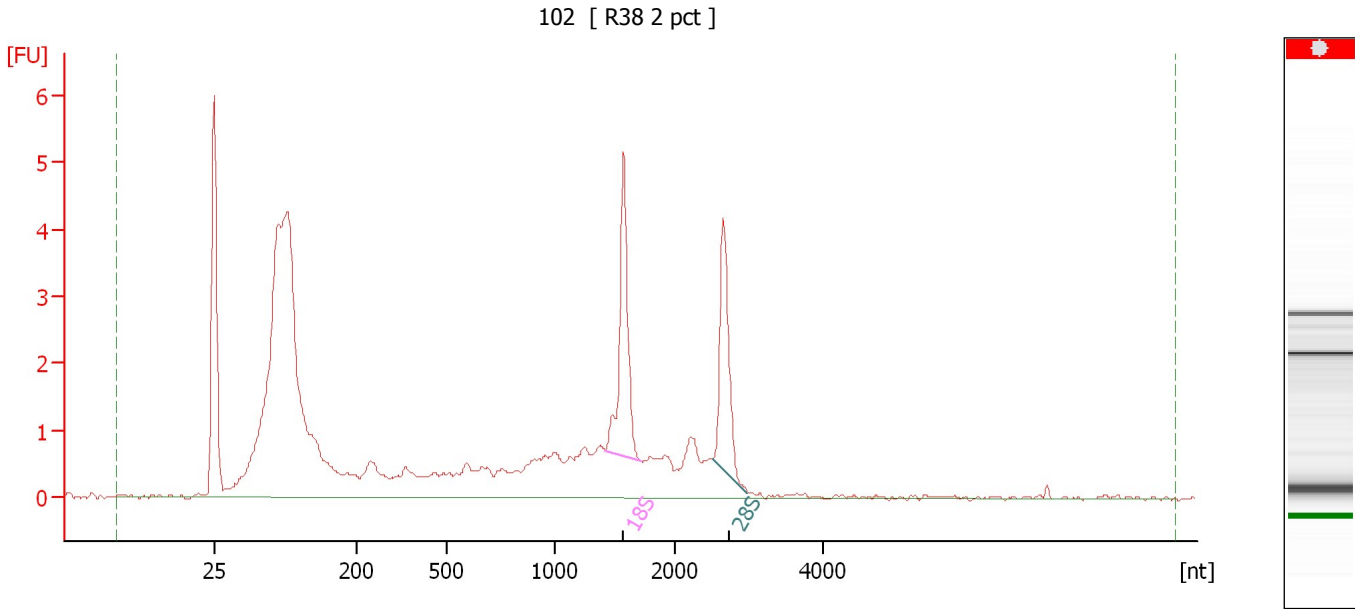
Fragment table for sample 9 : 101

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,502 | 1,682 | 6.4 | 3.2 |
| 28S | 2,543 | 3,017 | 4.5 | 2.2 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
Modified: 8/16/2013 3:02:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 102

| | | | |
|-------------------------|----------|-----------------------------|---------------|
| RNA Area: | 59.1 | RNA Integrity Number (RIN): | N/A (B.02.08) |
| RNA Concentration: | 43 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.8 | Result Flagging Label: | RIN N/A |

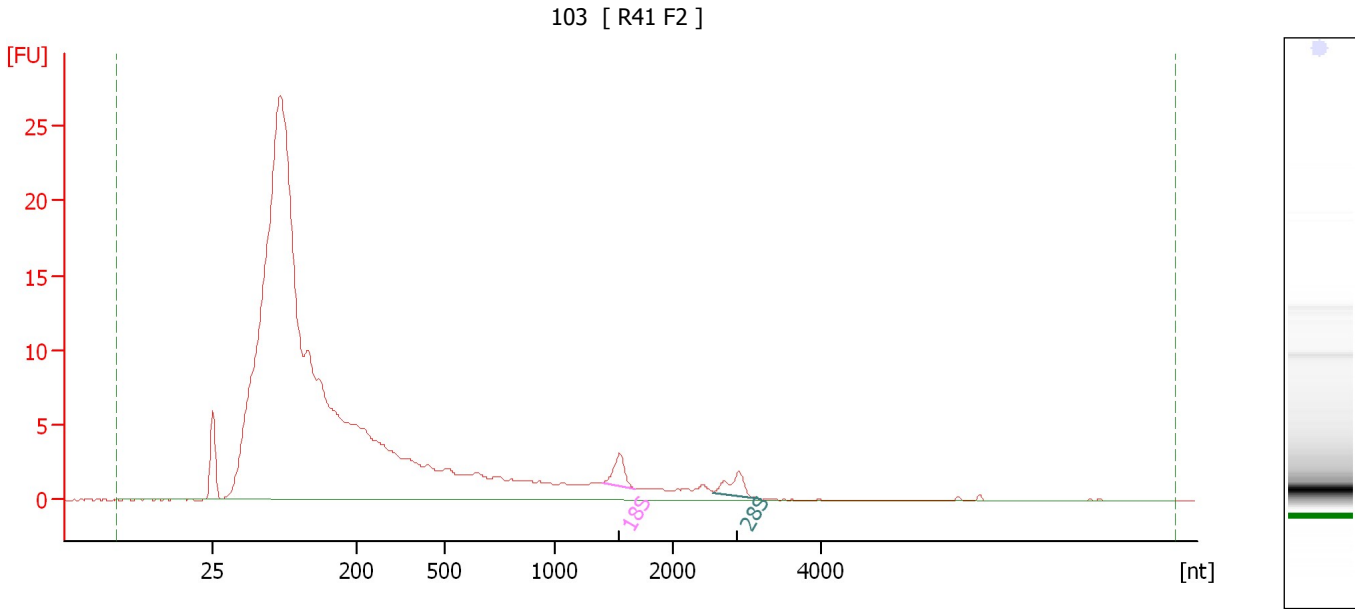
Fragment table for sample 10 : 102

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,419 | 1,717 | 4.6 | 7.8 |
| 28S | 2,514 | 2,988 | 3.6 | 6.1 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
Modified: 8/16/2013 3:02:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 103

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 314.8 | RNA Integrity Number (RIN): | 2.6 (B.02.08) |
| RNA Concentration: | 228 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.9 | Result Flagging Label: | RIN: 2.60 |

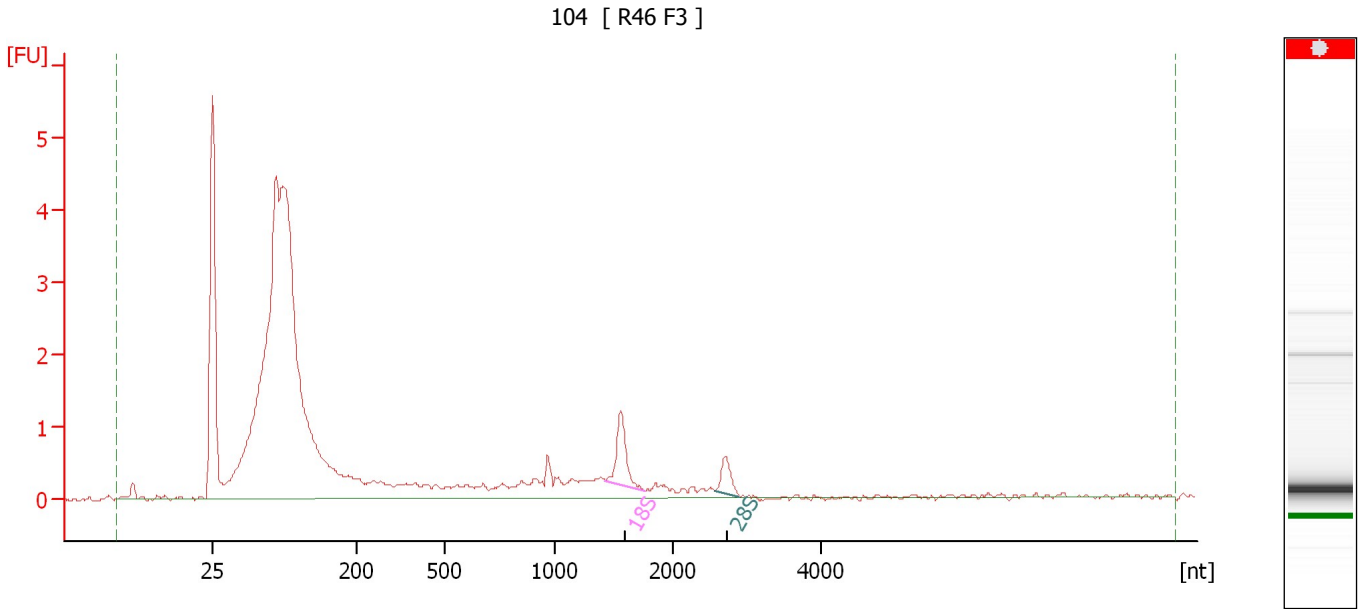
Fragment table for sample 11 : 103

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,407 | 1,679 | 3.0 | 1.0 |
| 28S | 2,556 | 3,205 | 2.8 | 0.9 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
Modified: 8/16/2013 3:02:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 12 : 104

| | | | |
|-------------------------|----------|-----------------------------|---------------|
| RNA Area: | 43.0 | RNA Integrity Number (RIN): | N/A (B.02.08) |
| RNA Concentration: | 31 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.4 | Result Flagging Label: | RIN N/A |

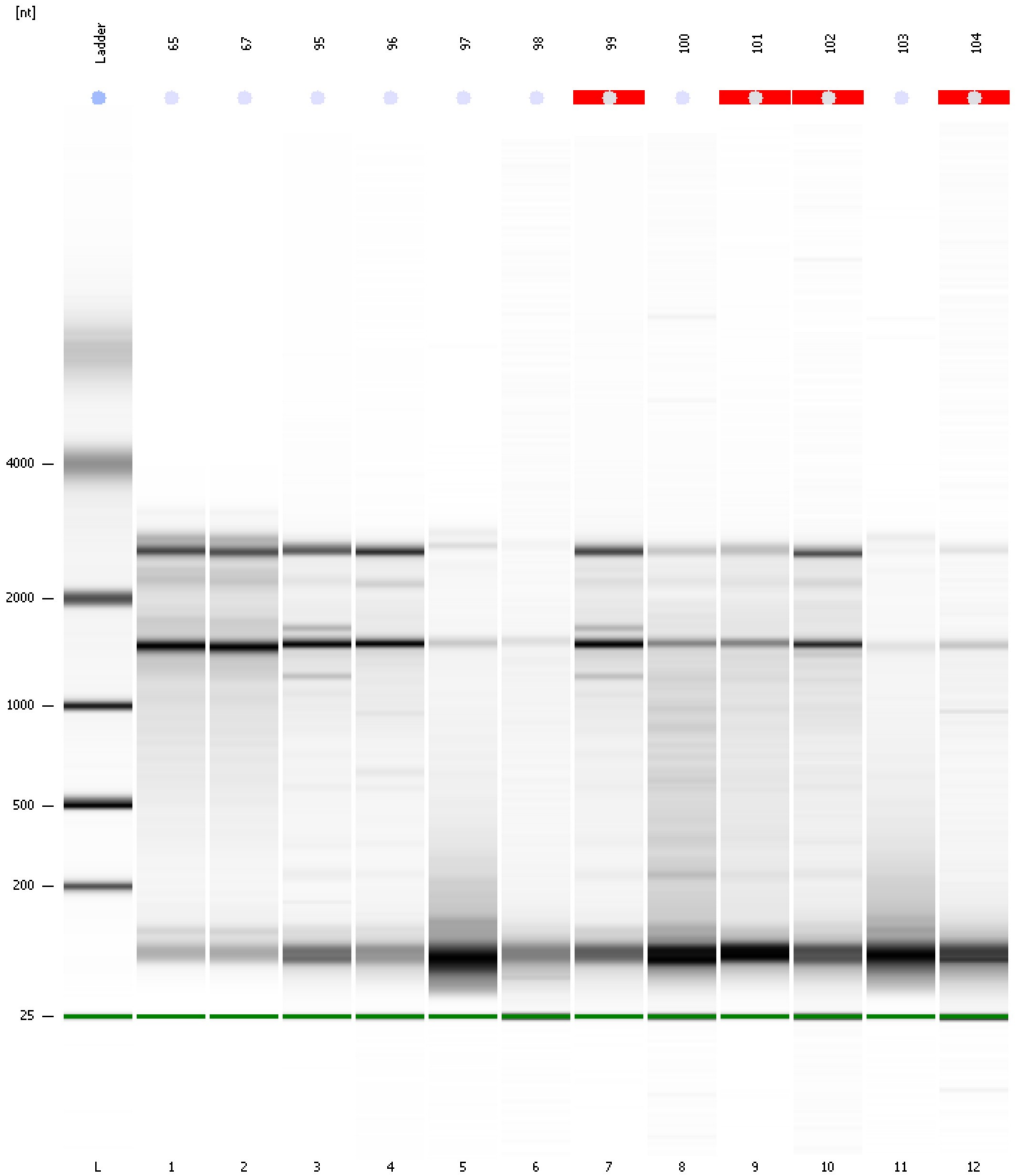
Fragment table for sample 12 : 104

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,434 | 1,770 | 1.2 | 2.9 |
| 28S | 2,571 | 2,917 | 0.5 | 1.2 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
Modified: 8/16/2013 3:02:56 PM

Gel Image



Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad

Created: 8/16/2013 2:39:12 PM
 Modified: 8/16/2013 3:02:56 PM

Run Logbook

| Description | Number | Source | Category | Sub Category | Time | Time Zone | User | Host |
|---|--------|------------|----------|--------------|----------------------|-------------------------------------|----------|----------|
| Run ended on port 1 (Number of wells acquired: 13) | | Instrument | Run | | 8/16/2013 3:02:54 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-08-16\2013-08-16_005.xad) | | Instrument | Run | | 8/16/2013 2:39:12 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B | | Instrument | Run | | 8/16/2013 2:39:12 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name : | | Instrument | Run | | 8/16/2013 2:39:12 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies | | Instrument | Run | | 8/16/2013 2:39:12 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086 | | Instrument | Run | | 8/16/2013 2:39:12 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069 | | Instrument | Run | | 8/16/2013 2:39:12 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode | | Instrument | Run | | 8/16/2013 2:39:12 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |