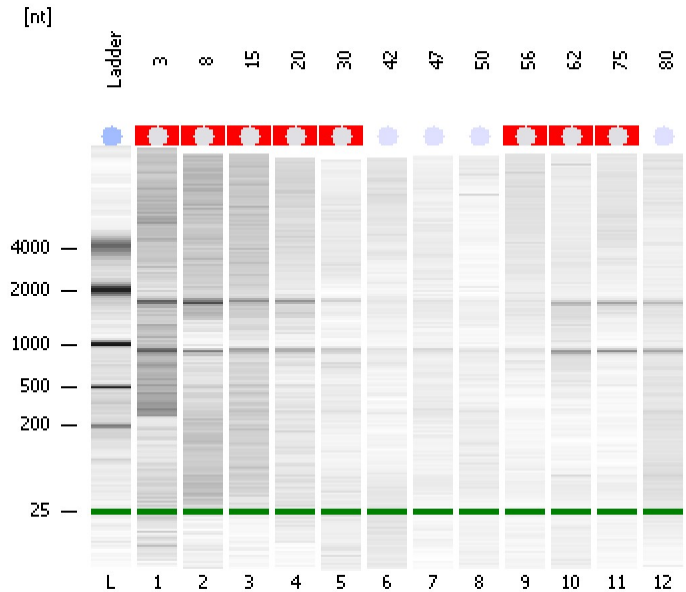


Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
Modified: 2/28/2017 10:17:34 AM

Electrophoresis File Run Summary



Instrument Information:

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

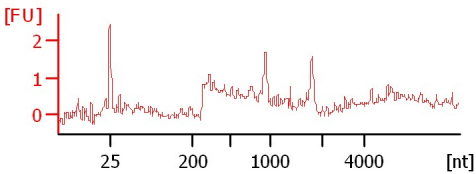
Assay Information:

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.

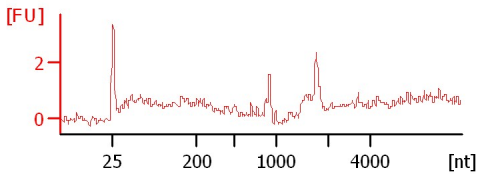
Chip Information:

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

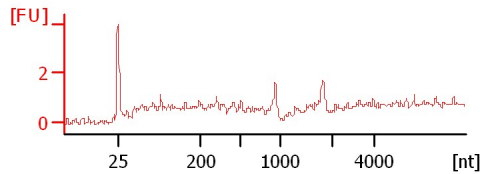
**3**  
RIN N/A



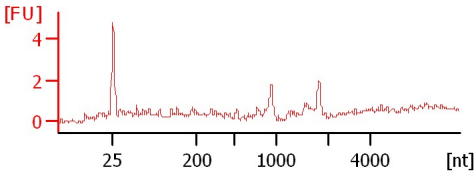
**8**  
RIN N/A



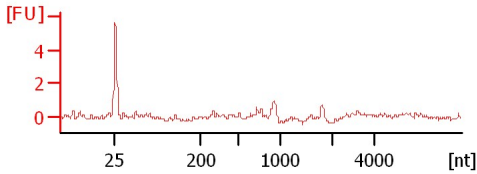
**15**  
RIN N/A



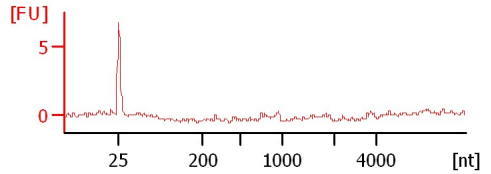
**20**  
RIN N/A



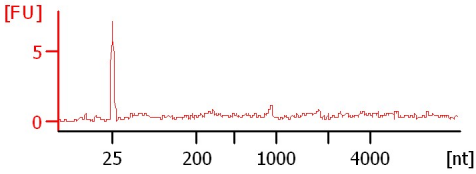
**30**  
RIN N/A



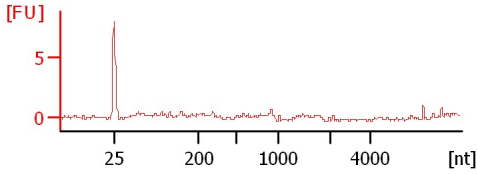
**42**  
RIN: 5.40



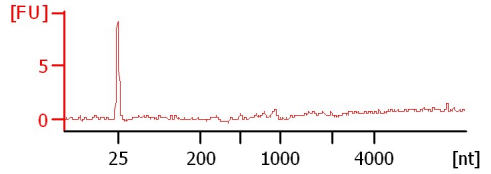
**47**  
RIN: 4.10



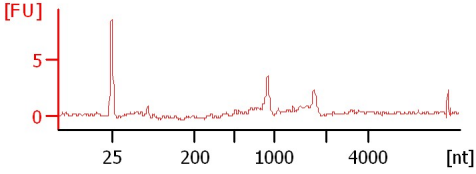
**50**  
RIN: 5.70



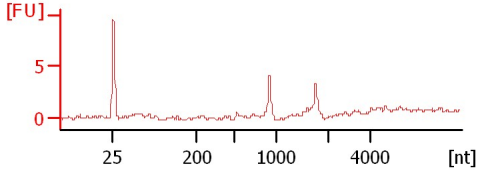
**56**  
RIN N/A



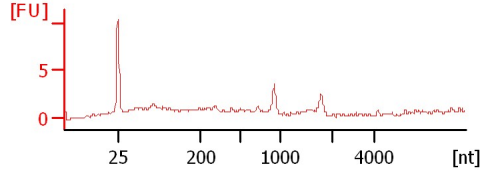
**62**  
RIN N/A



**75**  
RIN N/A



**80**  
RIN: 6.80



Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
 Modified: 2/28/2017 10:17:34 AM

**Electrophoresis File Run Summary (Chip Summary)**

| Sample Name | Sample Comment | Status | Result Label      | Result Color |
|-------------|----------------|--------|-------------------|--------------|
| 3           |                | ✓      | RIN N/A           |              |
| 8           |                | ✓      | RIN N/A           |              |
| 15          |                | ✓      | RIN N/A           |              |
| 20          |                | ✓      | RIN N/A           |              |
| 30          |                | ✓      | RIN N/A           |              |
| 42          |                | ✓      | RIN: 5.40         |              |
| 47          |                | ✓      | RIN: 4.10         |              |
| 50          |                | ✓      | RIN: 5.70         |              |
| 56          |                | ✓      | RIN N/A           |              |
| 62          |                | ✓      | RIN N/A           |              |
| 75          |                | ✓      | RIN N/A           |              |
| 80          |                | ✓      | RIN: 6.80         |              |
| Ladder      |                | ✓      | All Other Samples |              |

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
Modified: 2/28/2017 10:17:34 AM

## 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/μl] : 150  
Lower Marker Concentration [ng/μl] : 0  
Upper Marker Concentration [ng/μl] : 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

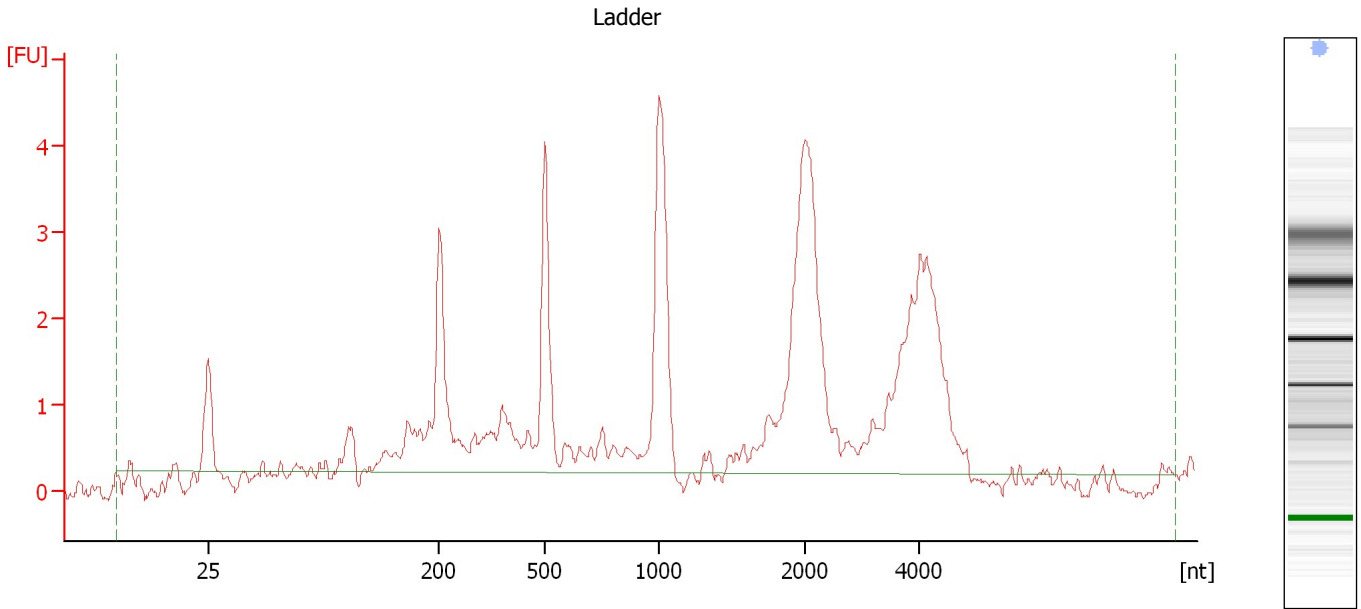
### Ladder

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

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
Modified: 2/28/2017 10:17:34 AM

**Electropherogram Summary**



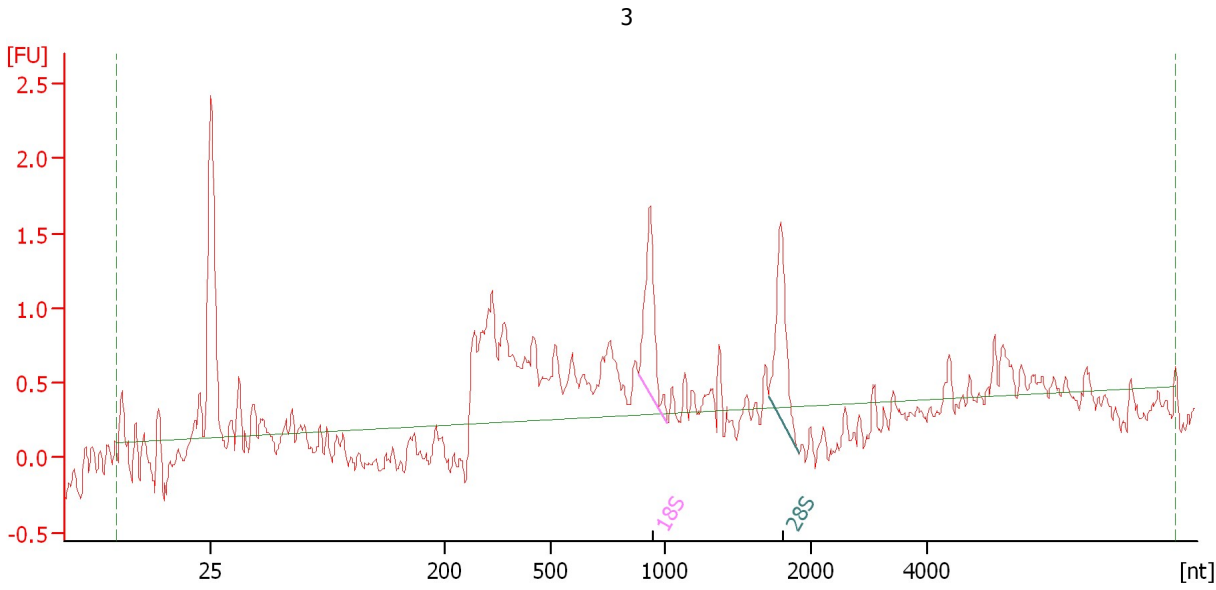
**Overall Results for Ladder**

|                    |           |                        |   |
|--------------------|-----------|------------------------|---|
| RNA Area:          | 48.0      | Result Flagging Color: | <span style="background-color: #add8e6; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> |
| RNA Concentration: | 150 ng/μl | Result Flagging Label: | All Other Samples   |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
Modified: 2/28/2017 10:17:34 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 3**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 14.2     | RNA Integrity Number (RIN): | N/A (B.02.08)   |
| RNA Concentration:      | 44 ng/μl | Result Flagging Color:      | <span style="background-color: #cccccc; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> |
| rRNA Ratio [28s / 18s]: | 1.0      | Result Flagging Label:      | RIN N/A   |

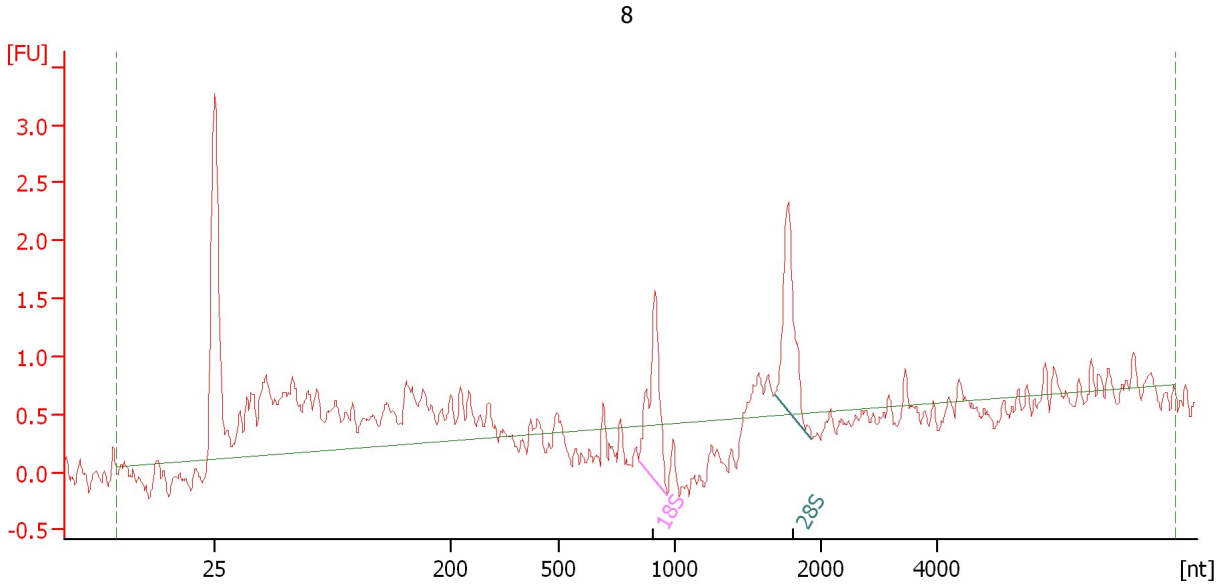
**Fragment table for sample 1 : 3**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 880             | 1,009         | 1.4  | 9.8             |
| 28S  | 1,709           | 1,915         | 1.4  | 9.8             |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
 Modified: 2/28/2017 10:17:34 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 8**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 19.7     | RNA Integrity Number (RIN): | N/A (B.02.08)   |
| RNA Concentration:      | 62 ng/μl | Result Flagging Color:      | <span style="background-color: #cccccc; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> |
| rRNA Ratio [28s / 18s]: | 1.0      | Result Flagging Label:      | RIN N/A   |

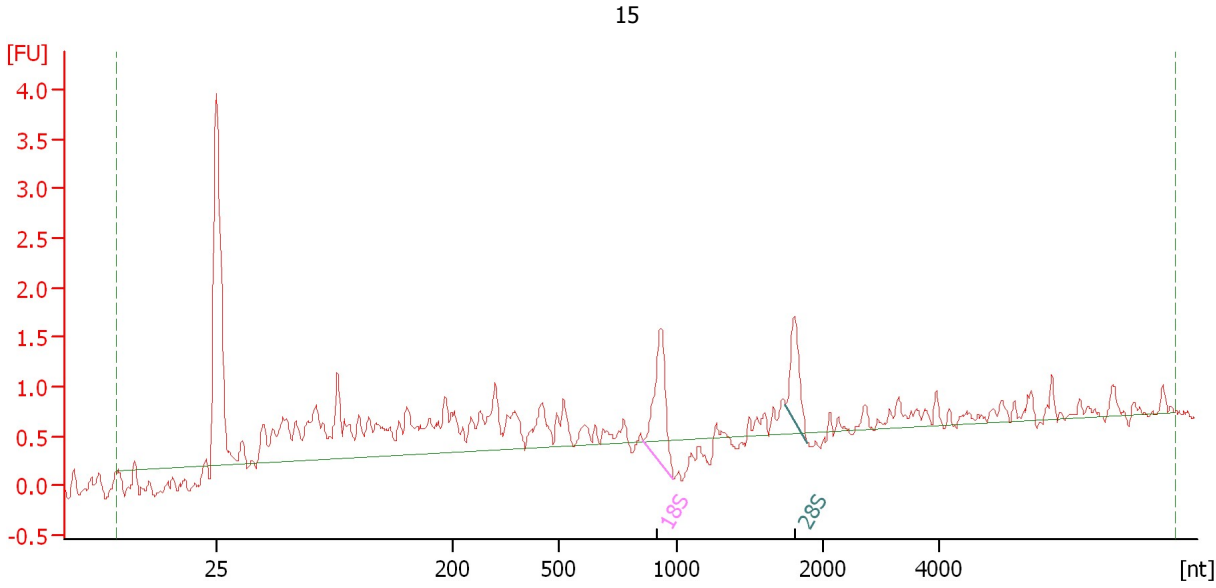
**Fragment table for sample 2 : 8**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 846             | 971           | 2.0  | 10.3            |
| 28S  | 1,684           | 1,939         | 2.1  | 10.5            |


Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
Modified: 2/28/2017 10:17:34 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 15**

|                         |          |                             |  |
|-------------------------|----------|-----------------------------|--|
| RNA Area:               | 20.9     | RNA Integrity Number (RIN): | N/A (B.02.08)  |
| RNA Concentration:      | 65 ng/μl | Result Flagging Color:      |  |
| rRNA Ratio [28s / 18s]: | 0.6      | Result Flagging Label:      | RIN N/A  |

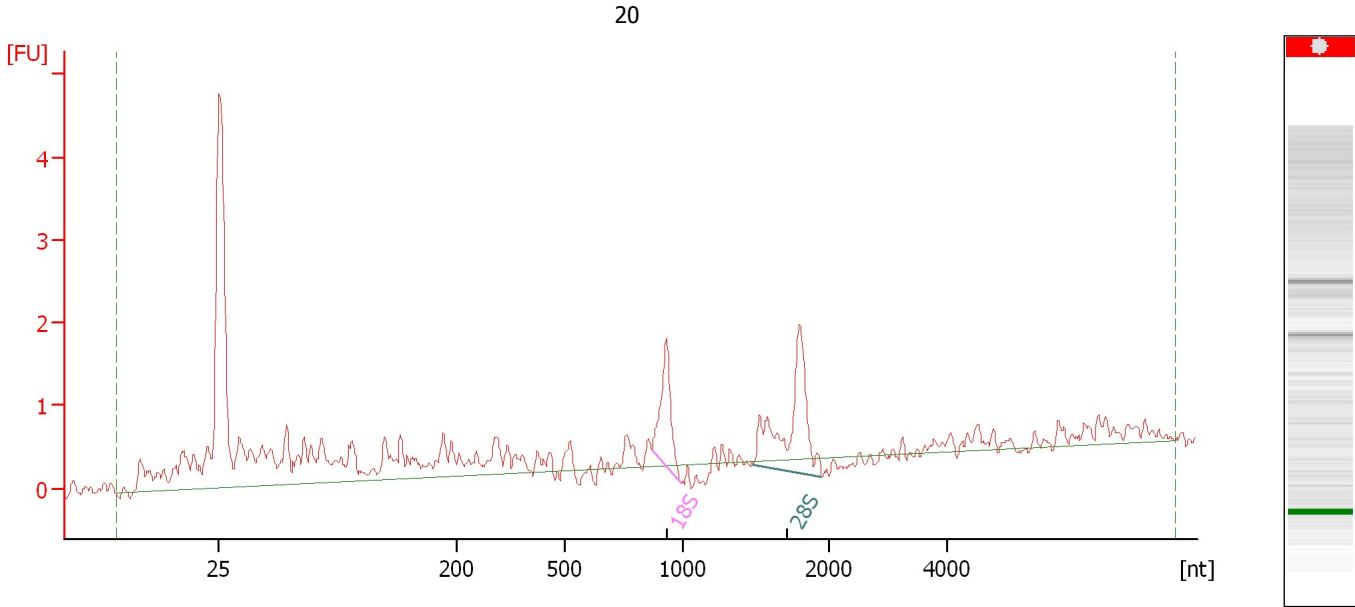
**Fragment table for sample 3 : 15**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 856             | 990           | 1.8  | 8.5             |
| 28S  | 1,749           | 1,887         | 1.0  | 4.8             |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
 Modified: 2/28/2017 10:17:34 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 20**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 25.6     | RNA Integrity Number (RIN): | N/A (B.02.08)   |
| RNA Concentration:      | 80 ng/μl | Result Flagging Color:      | <span style="background-color: #cccccc; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> |
| rRNA Ratio [28s / 18s]: | 2.0      | Result Flagging Label:      | RIN N/A   |

**Fragment table for sample 4 : 20**

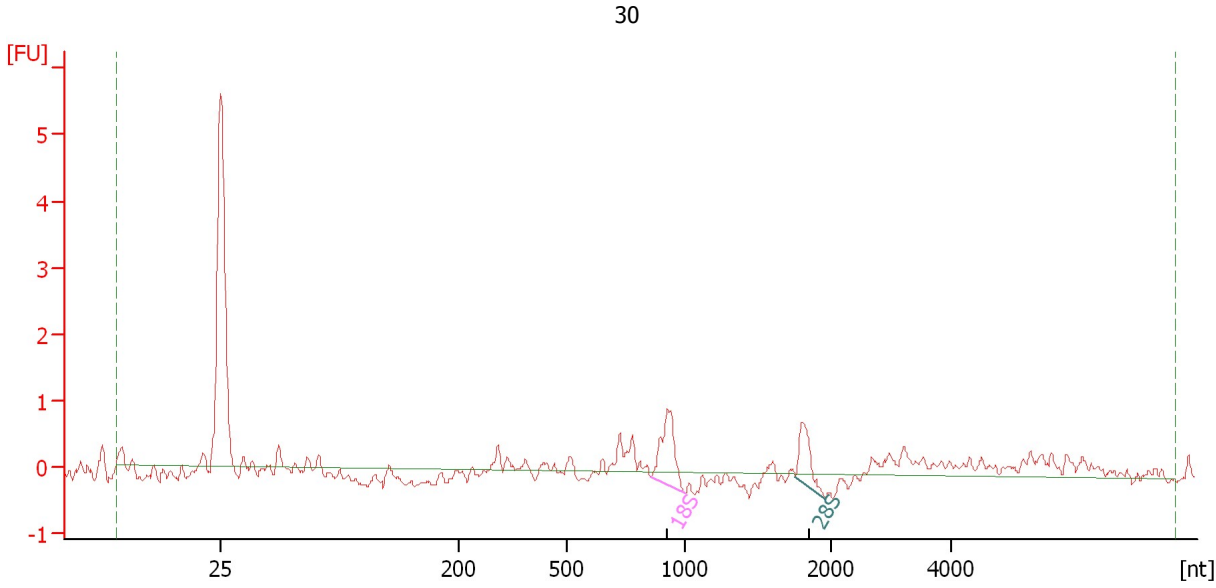
| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 873             | 991           | 1.8  | 7.2             |
| 28S  | 1,486           | 1,942         | 3.6  | 14.0            |



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
Modified: 2/28/2017 10:17:34 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 30**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 9.5      | RNA Integrity Number (RIN): | N/A (B.02.08)   |
| RNA Concentration:      | 30 ng/μl | Result Flagging Color:      | <span style="background-color: #cccccc; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> |
| rRNA Ratio [28s / 18s]: | 0.6      | Result Flagging Label:      | RIN N/A   |

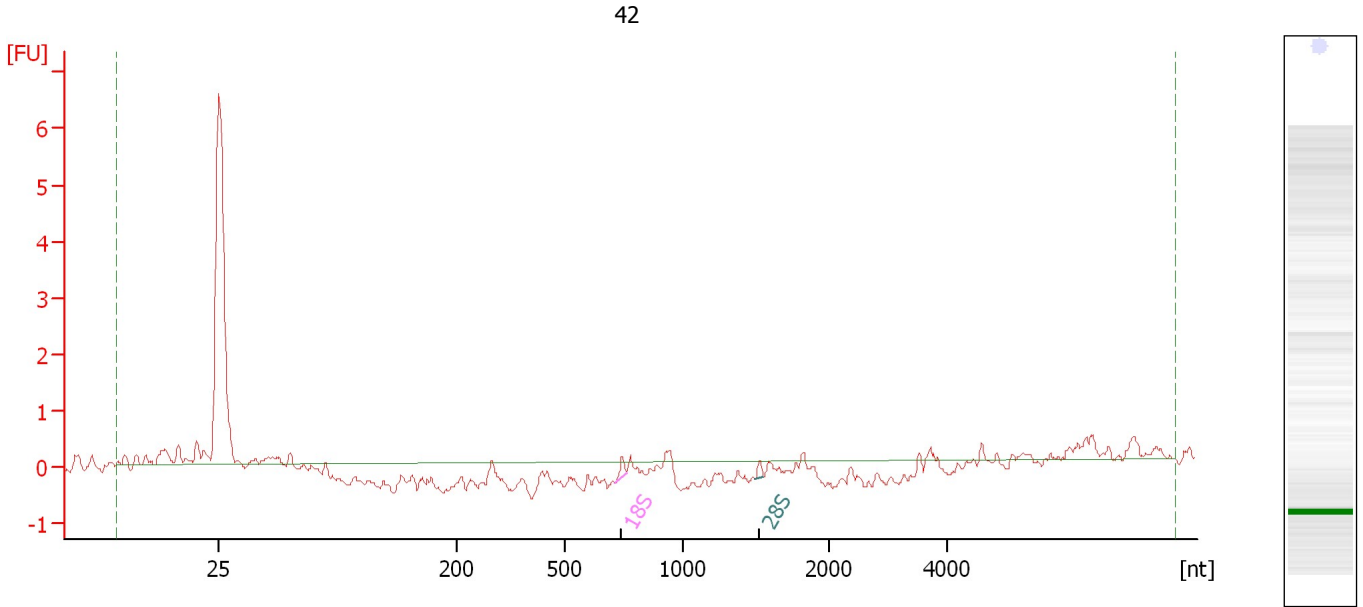
**Fragment table for sample 5 : 30**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 855             | 1,002         | 1.8  | 19.1            |
| 28S  | 1,753           | 1,955         | 1.0  | 10.7            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
Modified: 2/28/2017 10:17:34 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 42**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 5.3      | RNA Integrity Number (RIN): | 5.4 (B.02.08)   |
| RNA Concentration:      | 16 ng/μl | Result Flagging Color:      | <span style="background-color: #ccccff; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> |
| rRNA Ratio [28s / 18s]: | 0.7      | Result Flagging Label:      | RIN: 5.40   |

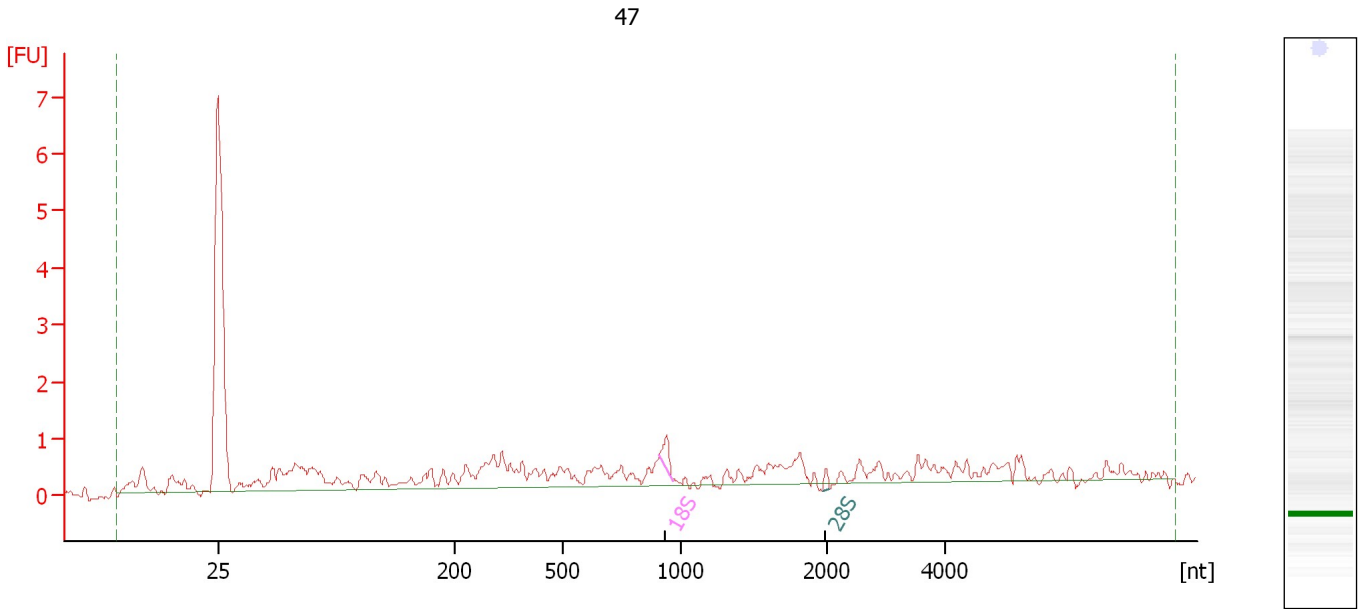
**Fragment table for sample 6 : 42**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 713             | 763           | 0.2  | 3.8             |
| 28S  | 1,493           | 1,551         | 0.1  | 2.6             |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
Modified: 2/28/2017 10:17:34 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 47**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 21.7     | RNA Integrity Number (RIN): | 4.1 (B.02.08)   |
| RNA Concentration:      | 68 ng/μl | Result Flagging Color:      | <span style="background-color: #ccccff; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> |
| rRNA Ratio [28s / 18s]: | 0.4      | Result Flagging Label:      | RIN: 4.10   |

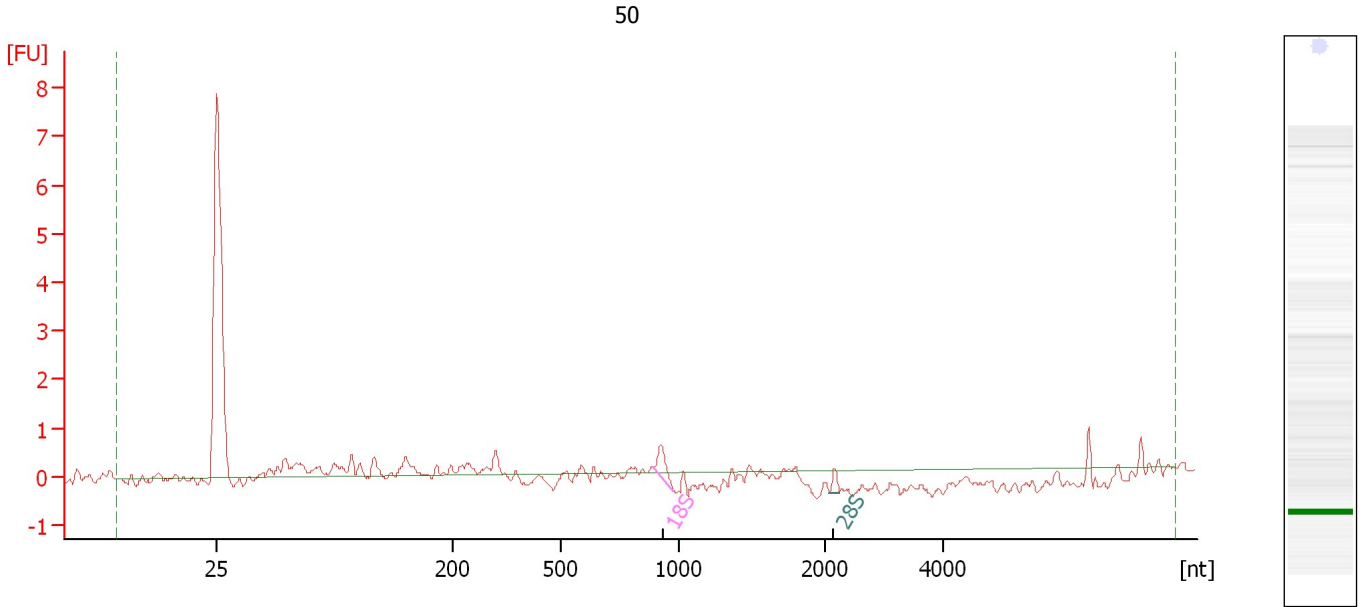
**Fragment table for sample 7 : 47**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 913             | 968           | 0.4  | 1.8             |
| 28S  | 1,965           | 2,040         | 0.2  | 0.7             |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
Modified: 2/28/2017 10:17:34 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 50**

RNA Area: 6.6                      RNA Integrity Number (RIN): 5.7 (B.02.08)  
RNA Concentration: 21 ng/μl              Result Flagging Color:   
rRNA Ratio [28s / 18s]: 0.3              Result Flagging Label: RIN: 5.70

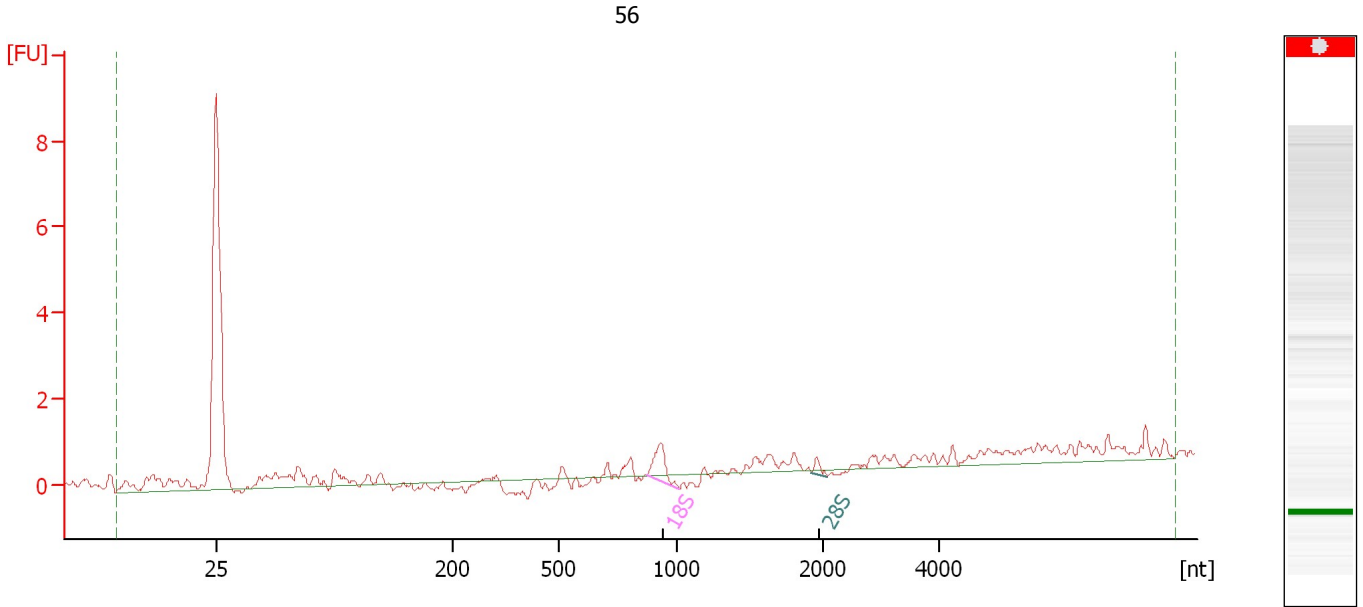
**Fragment table for sample 8 : 50**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 894             | 981           | 0.6  | 9.3             |
| 28S  | 2,080           | 2,244         | 0.2  | 3.1             |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
Modified: 2/28/2017 10:17:34 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 56**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 15.1     | RNA Integrity Number (RIN): | N/A (B.02.08)   |
| RNA Concentration:      | 47 ng/μl | Result Flagging Color:      | <span style="background-color: #cccccc; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> |
| rRNA Ratio [28s / 18s]: | 0.2      | Result Flagging Label:      | RIN N/A   |

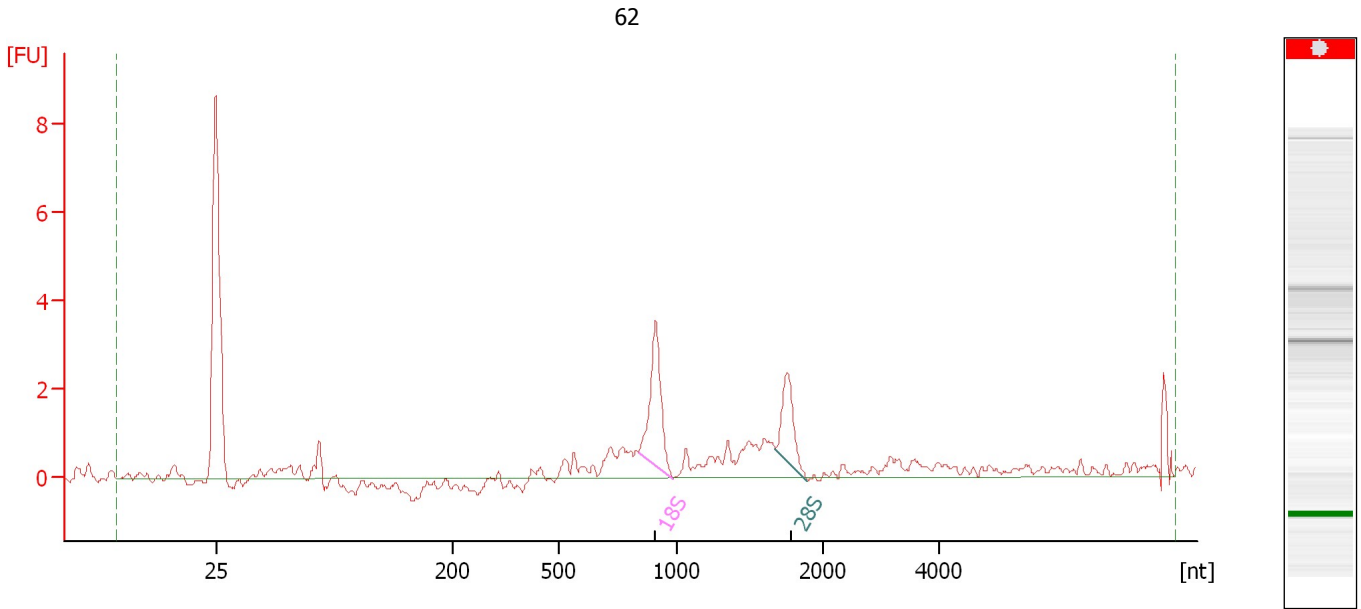
**Fragment table for sample 9 : 56**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 875             | 1,020         | 1.2  | 8.0             |
| 28S  | 1,924           | 2,083         | 0.2  | 1.5             |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
 Modified: 2/28/2017 10:17:34 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 62**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 24.8     | RNA Integrity Number (RIN): | N/A (B.02.08)   |
| RNA Concentration:      | 77 ng/μl | Result Flagging Color:      | <span style="background-color: #cccccc; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> |
| rRNA Ratio [28s / 18s]: | 0.6      | Result Flagging Label:      | RIN N/A   |

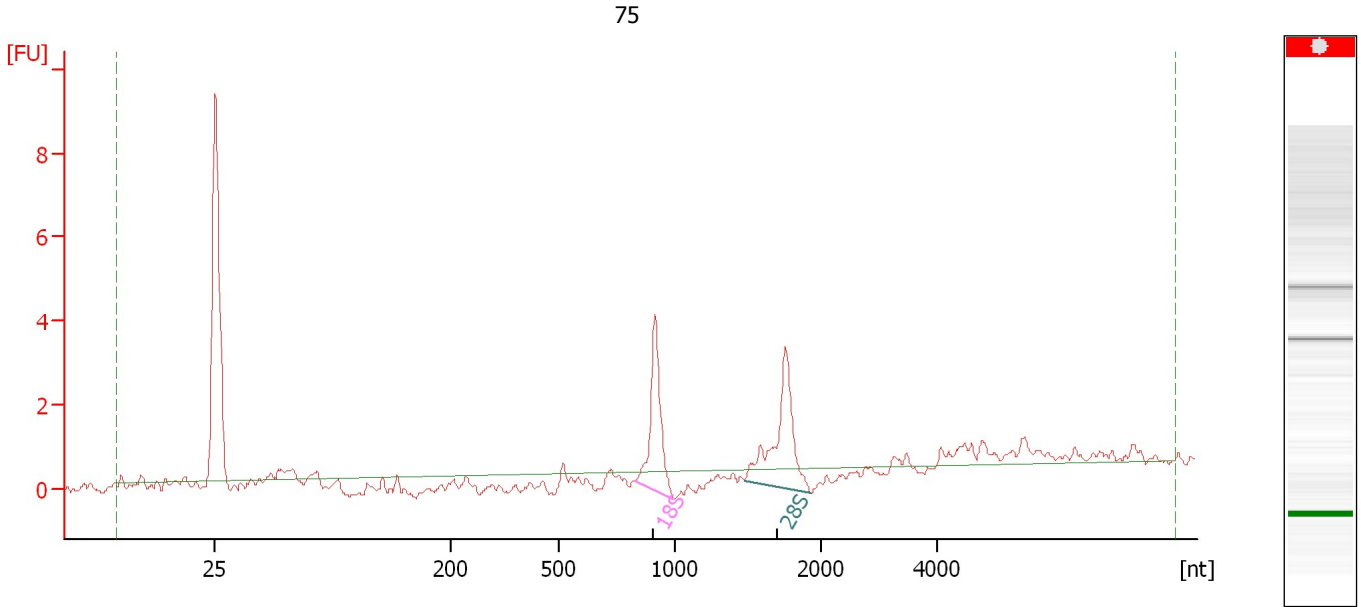
**Fragment table for sample 10 : 62**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 838             | 985           | 4.3  | 17.2            |
| 28S  | 1,676           | 1,895         | 2.3  | 9.5             |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
Modified: 2/28/2017 10:17:34 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 75**

RNA Area: 12.9                      RNA Integrity Number (RIN): N/A (B.02.08)  
RNA Concentration: 40 ng/μl                      Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.2                      Result Flagging Label: RIN N/A

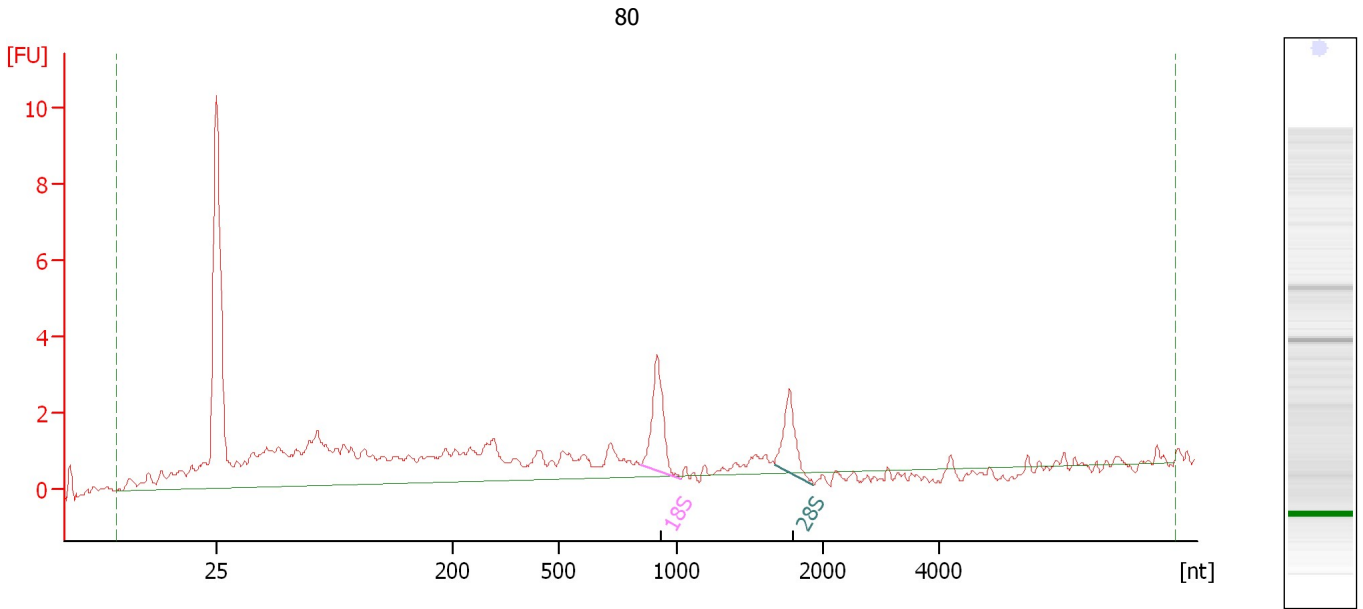
**Fragment table for sample 11 : 75**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 828             | 998           | 5.1  | 39.4            |
| 28S  | 1,480           | 1,932         | 5.9  | 46.2            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
Modified: 2/28/2017 10:17:34 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 12 : 80**

RNA Area: 57.5                      RNA Integrity Number (RIN): 6.8 (B.02.08)  
RNA Concentration: 179 ng/μl                      Result Flagging Color:   
rRNA Ratio [28s / 18s]: 0.6                      Result Flagging Label: RIN: 6.80

**Fragment table for sample 12 : 80**

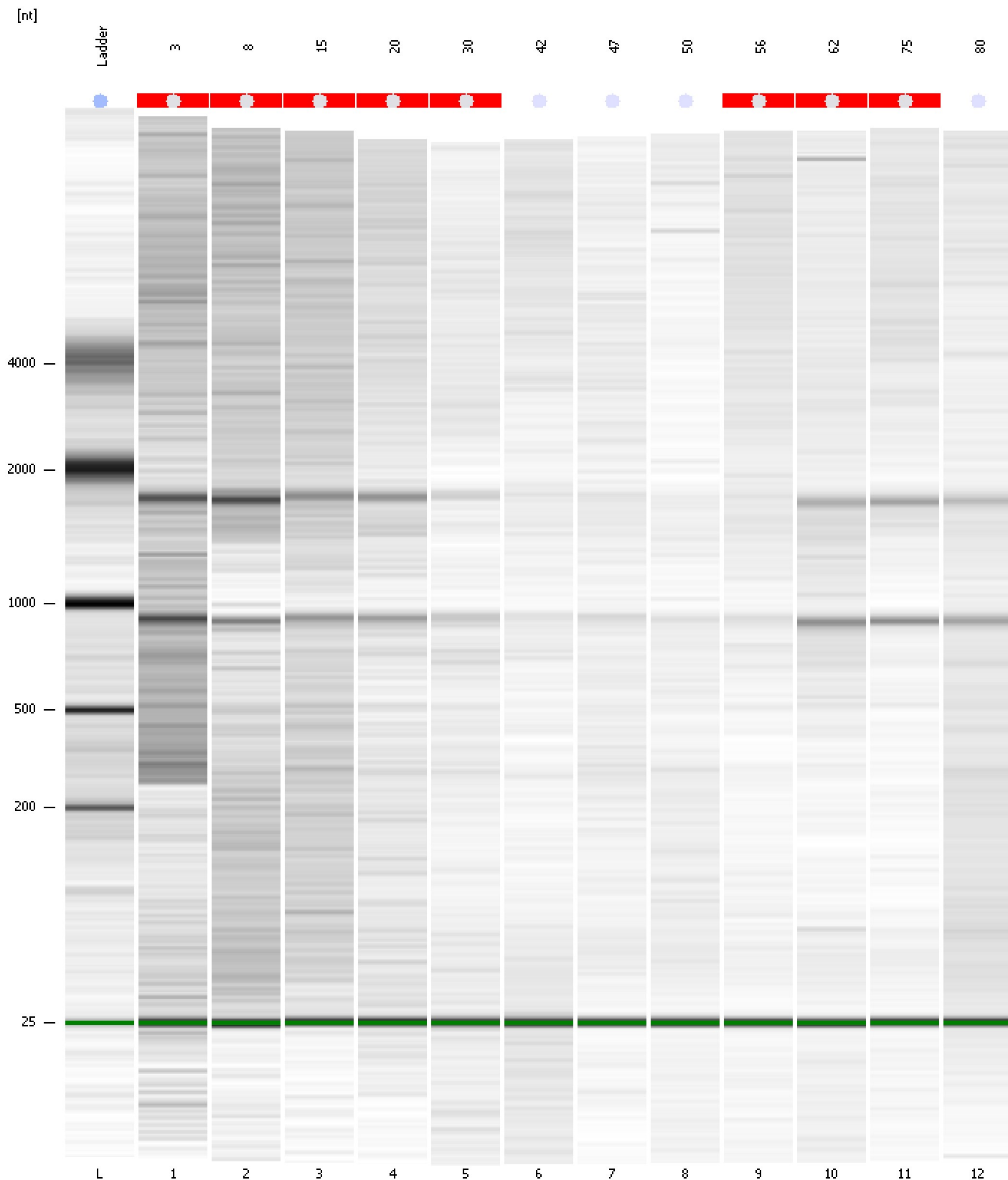
| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 847             | 1,028         | 4.0  | 7.0             |
| 28S  | 1,669           | 1,938         | 2.6  | 4.5             |



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
Modified: 2/28/2017 10:17:34 AM

**Gel Image**



Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-02-28\2017-02-28\_001.xad

Created: 2/28/2017 9:53:47 AM  
 Modified: 2/28/2017 10:17:34 AM

**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      |              | 2/28/2017 10:17:33 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2017-02-28\2017-02-28_001.xad) |        | Instrument | Run      |              | 2/28/2017 9:53:52 AM  | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B  |        | Instrument | Run      |              | 2/28/2017 9:53:52 AM  | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name :   |        | Instrument | Run      |              | 2/28/2017 9:53:52 AM  | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies  |        | Instrument | Run      |              | 2/28/2017 9:53:52 AM  | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086   |        | Instrument | Run      |              | 2/28/2017 9:53:52 AM  | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069  |        | Instrument | Run      |              | 2/28/2017 9:53:52 AM  | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode  |        | Instrument | Run      |              | 2/28/2017 9:53:52 AM  | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |