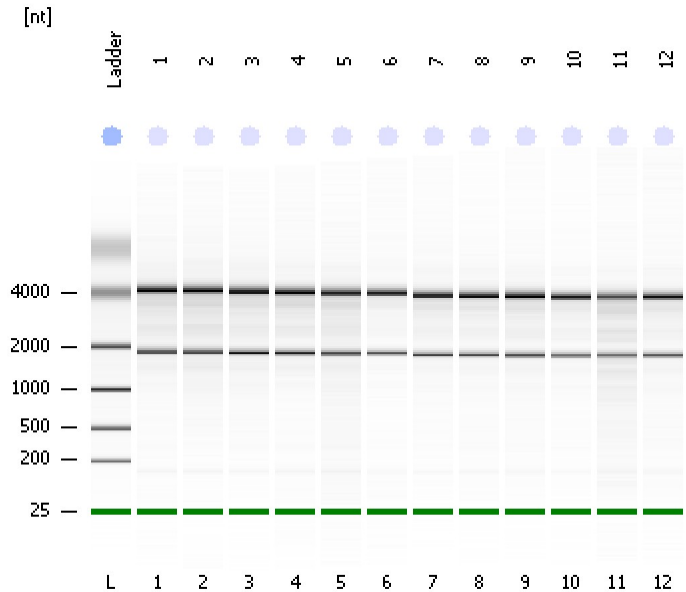


Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
Modified: 12/17/2012 1:25:50 PM

**Electrophoresis File Run Summary**



Instrument Information:

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

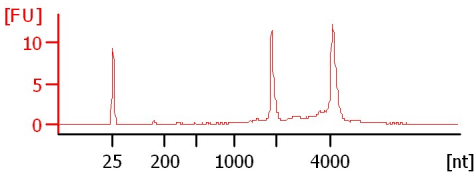
Assay Information:

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.

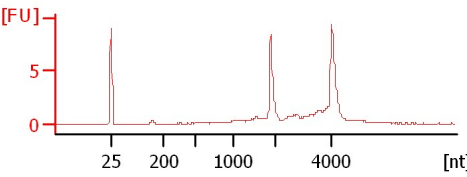
Chip Information:

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

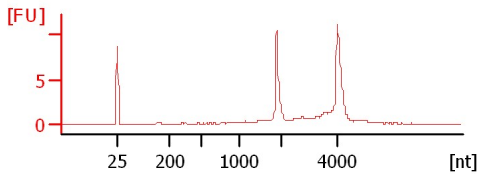
**1**  
RIN: 9.10



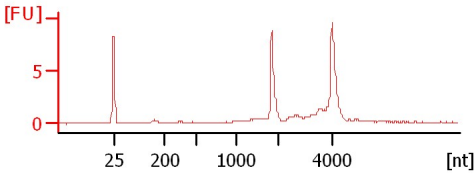
**2**  
RIN: 8.70



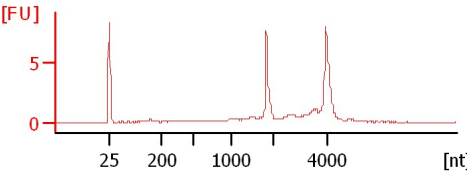
**3**  
RIN: 9



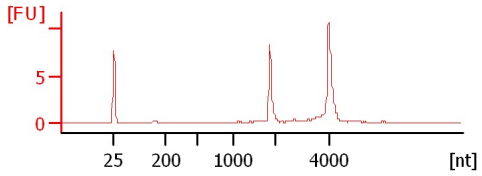
**4**  
RIN: 9.70



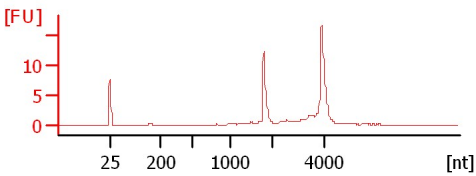
**5**  
RIN: 8.70



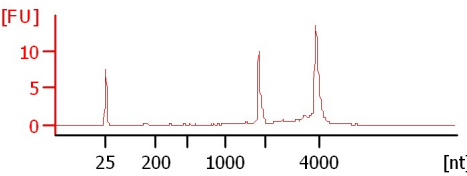
**6**  
RIN: 10



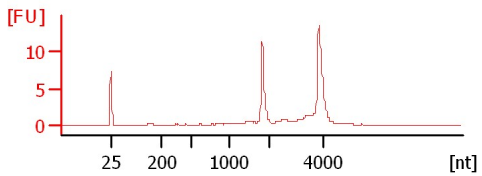
**7**  
RIN: 9.60



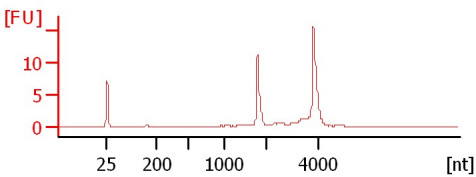
**8**  
RIN: 9.10



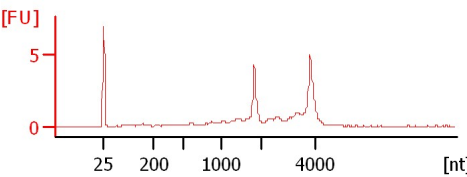
**9**  
RIN: 9.20



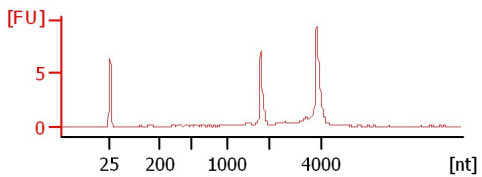
**10**  
RIN: 9.70



**11**  
RIN: 8



**12**  
RIN: 9.10



Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
 Modified: 12/17/2012 1:25:50 PM

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

| Sample Name | Sample Comment | Status | Result Label      | Result Color |
|-------------|----------------|--------|-------------------|--------------|
| 1           |                | ✓      | RIN: 9.10         |              |
| 2           |                | ✓      | RIN: 8.70         |              |
| 3           |                | ✓      | RIN:9             |              |
| 4           |                | ✓      | RIN: 9.70         |              |
| 5           |                | ✓      | RIN: 8.70         |              |
| 6           |                | ✓      | RIN:10            |              |
| 7           |                | ✓      | RIN: 9.60         |              |
| 8           |                | ✓      | RIN: 9.10         |              |
| 9           |                | ✓      | RIN: 9.20         |              |
| 10          |                | ✓      | RIN: 9.70         |              |
| 11          |                | ✓      | RIN:8             |              |
| 12          |                | ✓      | RIN: 9.10         |              |
| Ladder      |                | ✓      | All Other Samples |              |

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
Modified: 12/17/2012 1:25:50 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/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

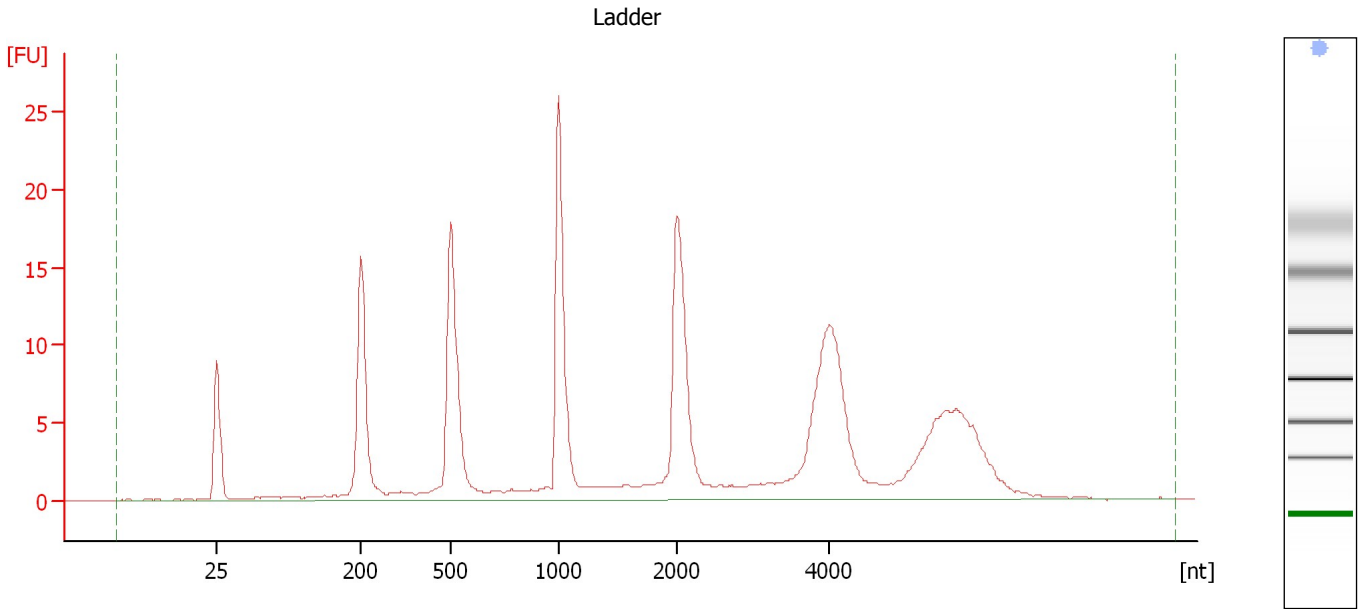
### Ladder

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

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
Modified: 12/17/2012 1:25:50 PM

**Electropherogram Summary**



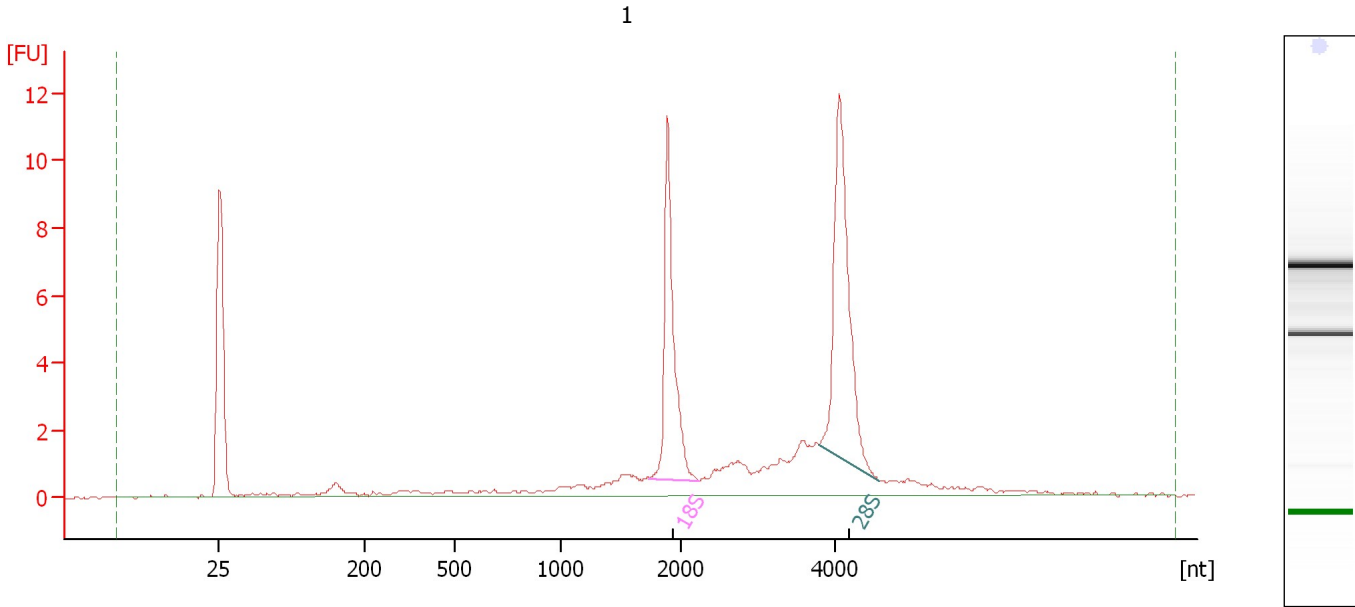
**Overall Results for Ladder**

|                    |           |                        |   |
|--------------------|-----------|------------------------|---|
| RNA Area:          | 210.7     | 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:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
Modified: 12/17/2012 1:25:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 1**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 60.3     | RNA Integrity Number (RIN): | 9.1 (B.02.08)   |
| RNA Concentration:      | 43 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]: | 1.3      | Result Flagging Label:      | RIN: 9.10   |

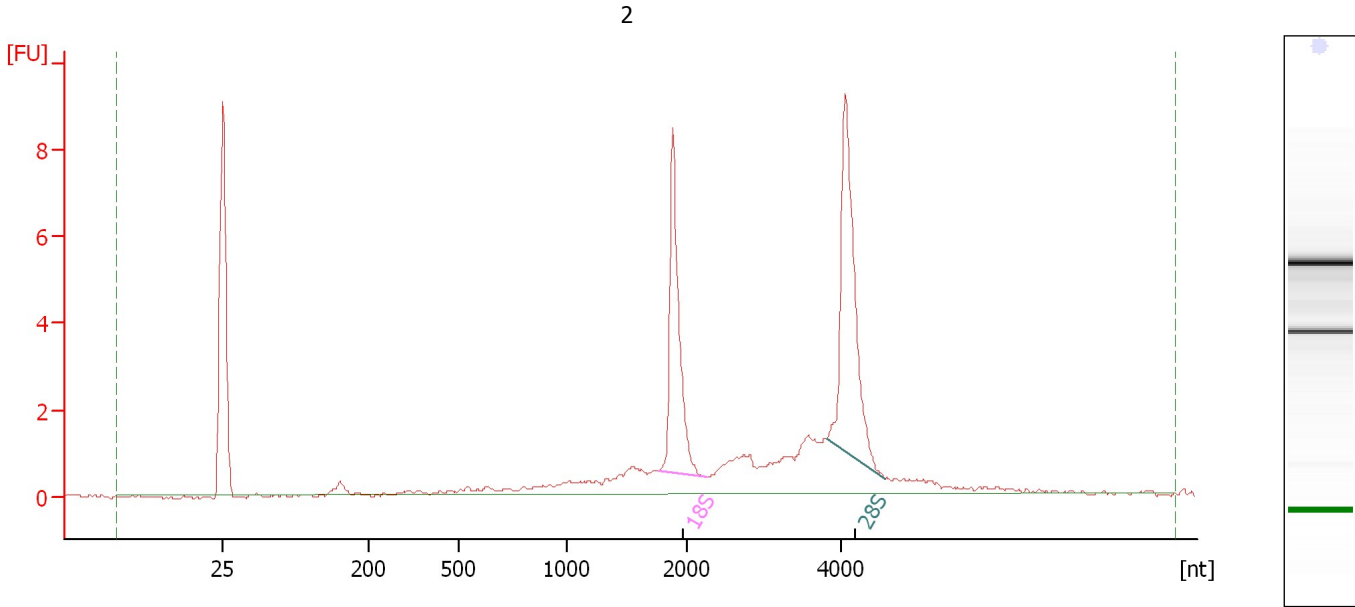
**Fragment table for sample 1 : 1**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,732           | 2,239         | 11.7 | 19.5            |
| 28S  | 3,799           | 4,579         | 15.7 | 26.0            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
Modified: 12/17/2012 1:25:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 2**

RNA Area: 45.2                      RNA Integrity Number (RIN): 8.7 (B.02.08)  
RNA Concentration: 32 ng/μl              Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.4              Result Flagging Label: RIN: 8.70

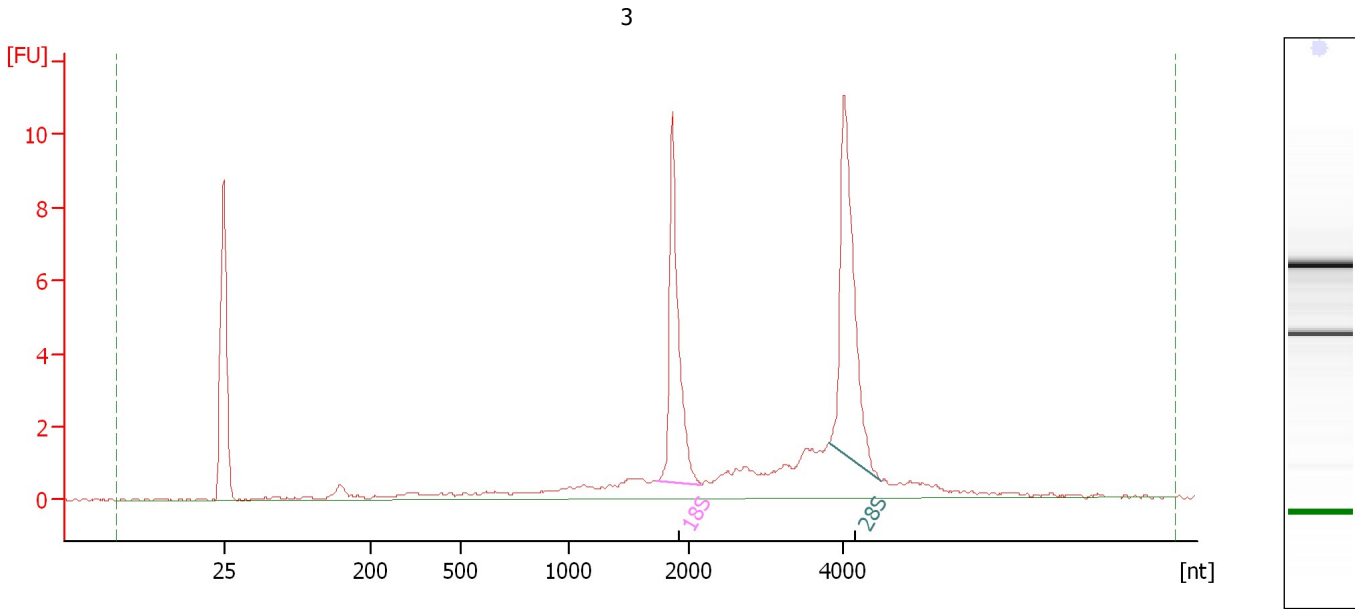
**Fragment table for sample 2 : 2**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,764           | 2,256         | 8.5  | 18.8            |
| 28S  | 3,807           | 4,554         | 11.5 | 25.4            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
Modified: 12/17/2012 1:25:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 3**

RNA Area: 53.8                      RNA Integrity Number (RIN): 9 (B.02.08)  
RNA Concentration: 38 ng/μl              Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.3              Result Flagging Label: RIN:9

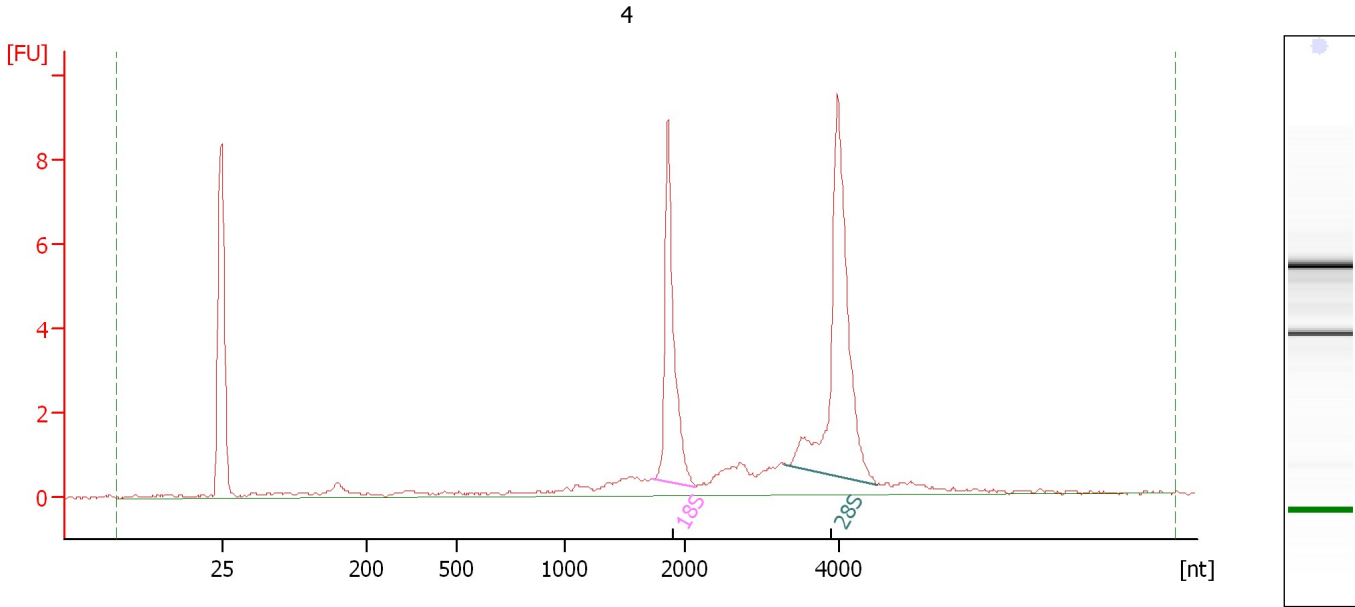
**Fragment table for sample 3 : 3**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,738           | 2,161         | 10.4 | 19.3            |
| 28S  | 3,818           | 4,482         | 13.5 | 25.1            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
Modified: 12/17/2012 1:25:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 4**

RNA Area: 43.8                      RNA Integrity Number (RIN): 9.7 (B.02.08)  
RNA Concentration: 31 ng/μl              Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.6              Result Flagging Label: RIN: 9.70

**Fragment table for sample 4 : 4**

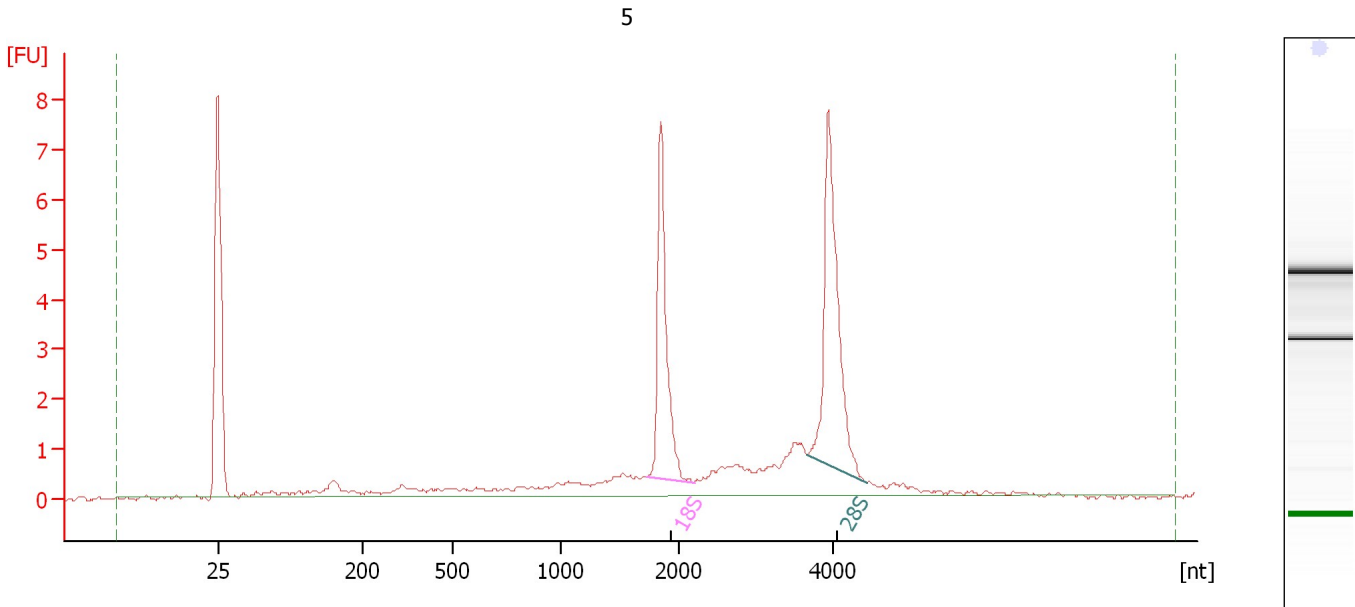
| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,735           | 2,131         | 9.1  | 20.9            |
| 28S  | 3,310           | 4,489         | 15.0 | 34.2            |



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
Modified: 12/17/2012 1:25:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 5**

RNA Area: 38.5                      RNA Integrity Number (RIN): 8.7 (B.02.08)  
RNA Concentration: 27 ng/μl              Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.4              Result Flagging Label: RIN: 8.70

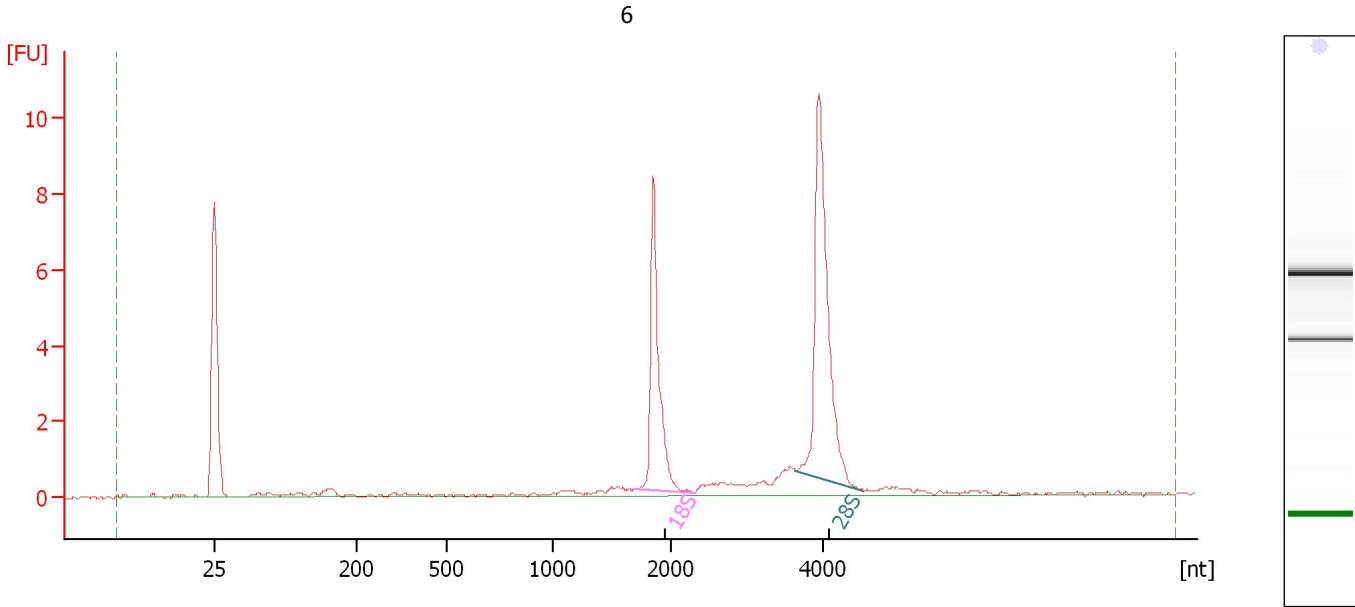
**Fragment table for sample 5 : 5**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,731           | 2,196         | 7.1  | 18.5            |
| 28S  | 3,662           | 4,444         | 9.8  | 25.5            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
Modified: 12/17/2012 1:25:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 6**

RNA Area: 32.8                      RNA Integrity Number (RIN): 10 (B.02.08)  
RNA Concentration: 23 ng/μl              Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.6              Result Flagging Label: RIN:10

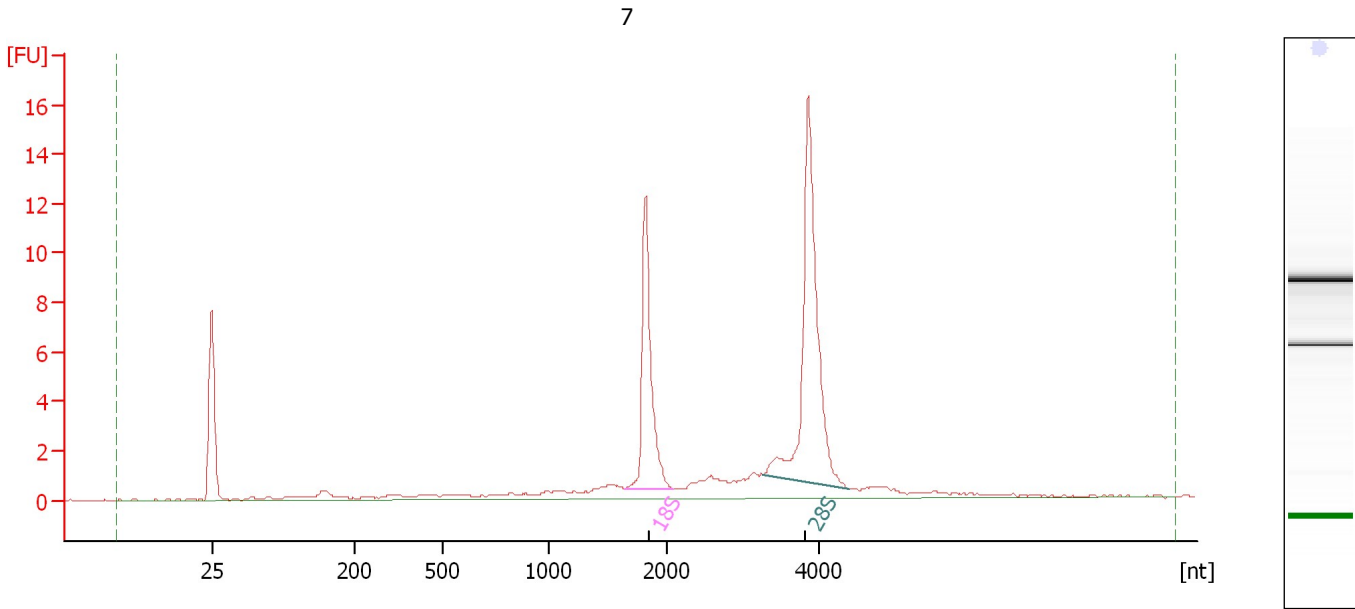
**Fragment table for sample 6 : 6**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,697           | 2,304         | 8.1  | 24.7            |
| 28S  | 3,641           | 4,542         | 12.8 | 39.2            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
Modified: 12/17/2012 1:25:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 7**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 62.1     | RNA Integrity Number (RIN): | 9.6 (B.02.08)   |
| RNA Concentration:      | 44 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]: | 1.9      | Result Flagging Label:      | RIN: 9.60   |

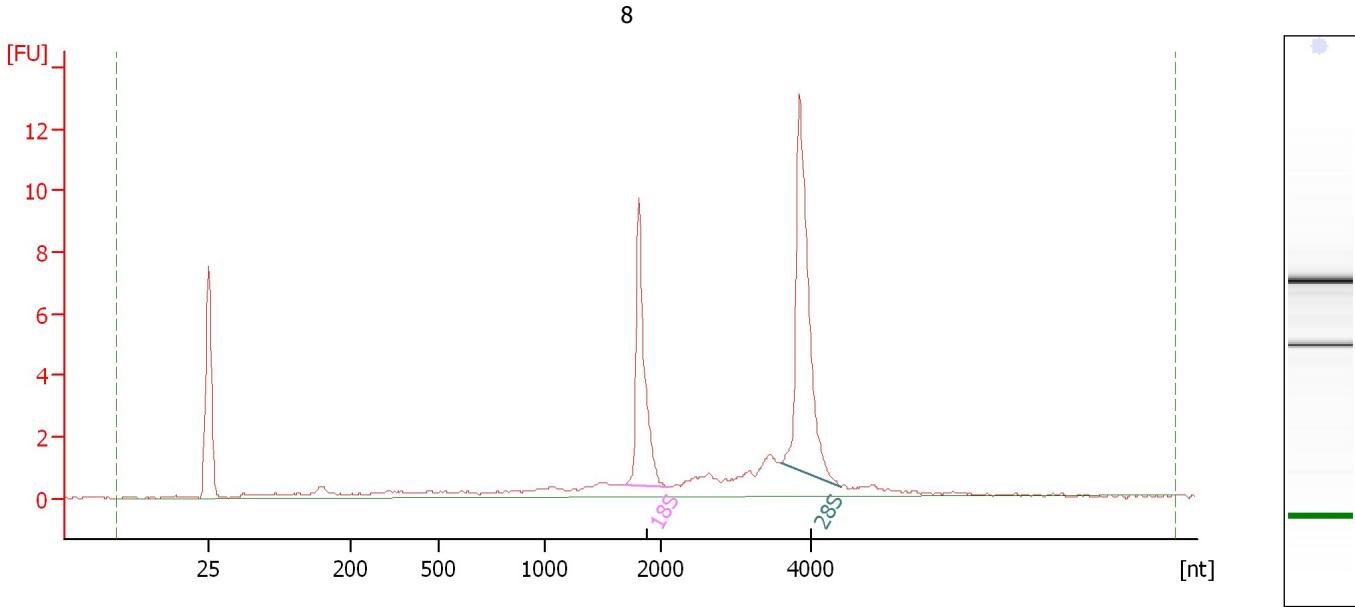
**Fragment table for sample 7 : 7**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,639           | 2,091         | 12.3 | 19.8            |
| 28S  | 3,278           | 4,422         | 22.7 | 36.6            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
Modified: 12/17/2012 1:25:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 8**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 50.7     | RNA Integrity Number (RIN): | 9.1 (B.02.08)   |
| RNA Concentration:      | 36 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]: | 1.6      | Result Flagging Label:      | RIN: 9.10   |

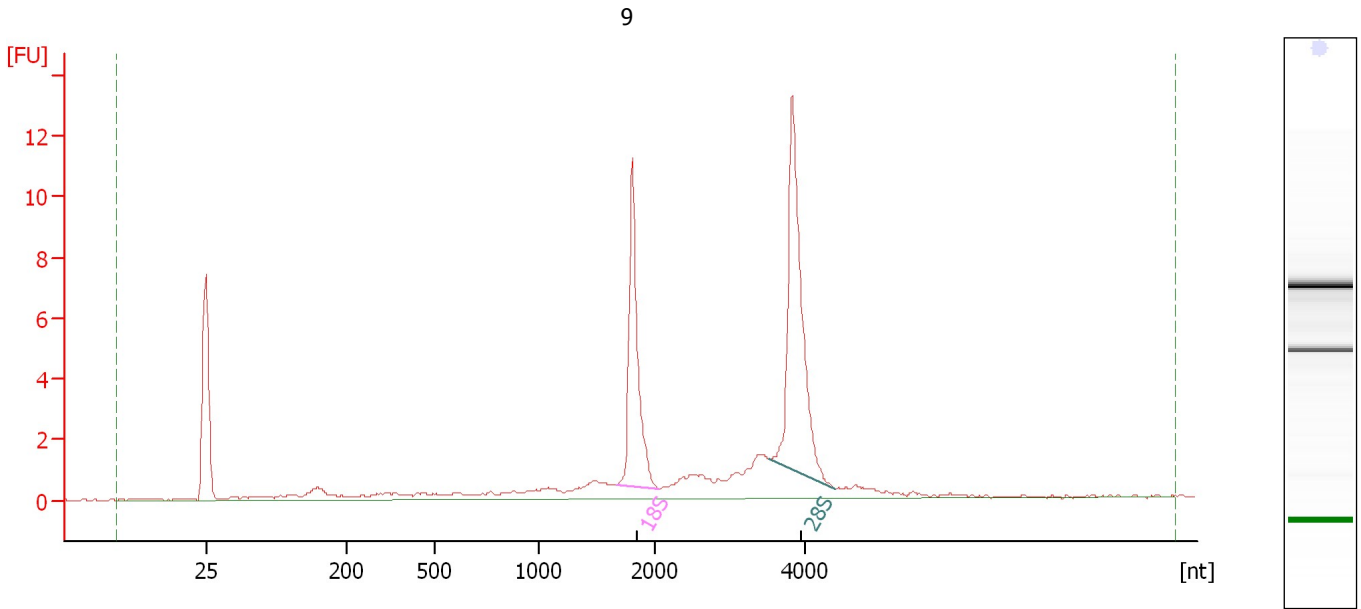
**Fragment table for sample 8 : 8**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,689           | 2,101         | 9.6  | 18.9            |
| 28S  | 3,594           | 4,390         | 15.8 | 31.1            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
Modified: 12/17/2012 1:25:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 9**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 54.8     | RNA Integrity Number (RIN): | 9.2 (B.02.08)   |
| RNA Concentration:      | 39 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]: | 1.5      | Result Flagging Label:      | RIN: 9.20   |

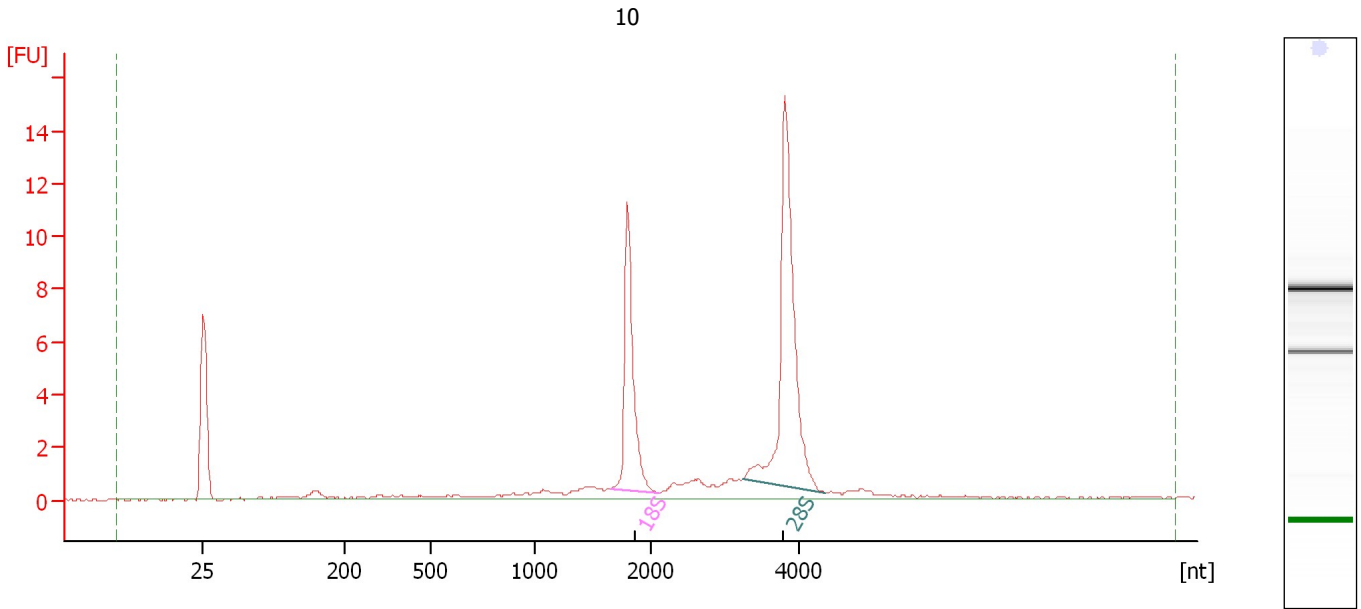
**Fragment table for sample 9 : 9**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,666           | 2,053         | 11.2 | 20.5            |
| 28S  | 3,542           | 4,415         | 17.2 | 31.4            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
Modified: 12/17/2012 1:25:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 10**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 51.5     | RNA Integrity Number (RIN): | 9.7 (B.02.08)   |
| RNA Concentration:      | 37 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]: | 1.9      | Result Flagging Label:      | RIN: 9.70   |

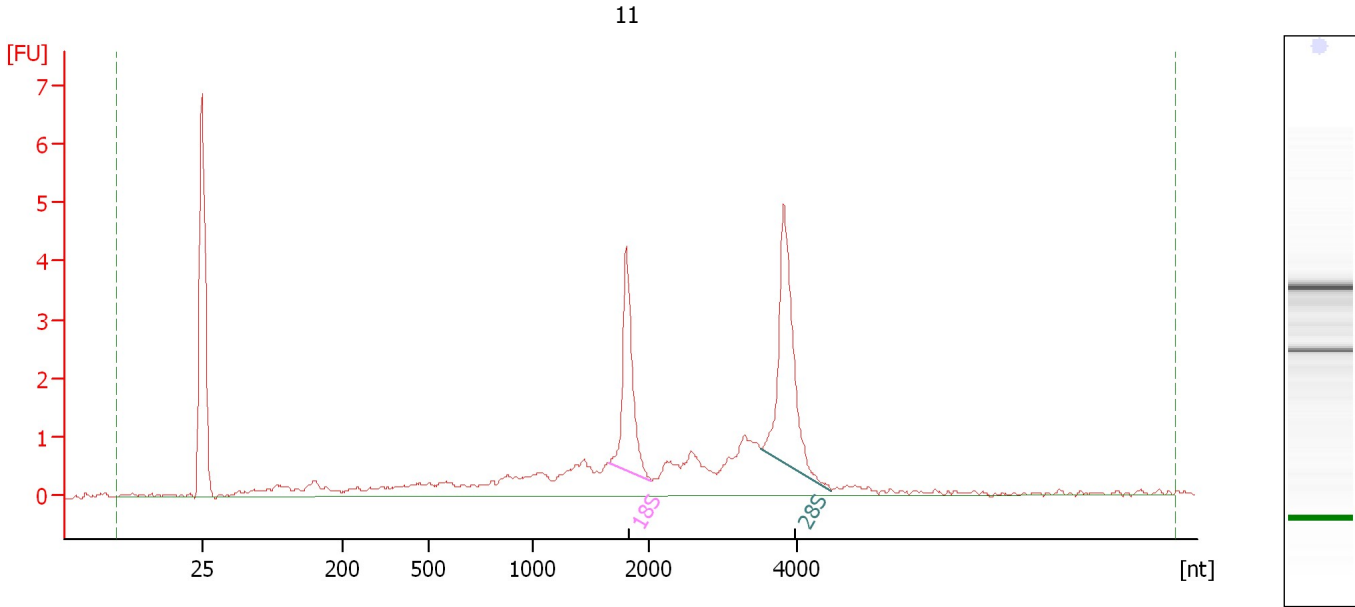
**Fragment table for sample 10 : 10**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,653           | 2,108         | 11.0 | 21.3            |
| 28S  | 3,229           | 4,350         | 20.5 | 39.9            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
Modified: 12/17/2012 1:25:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 11**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 34.4     | RNA Integrity Number (RIN): | 8 (B.02.08)   |
| RNA Concentration:      | 24 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]: | 1.5      | Result Flagging Label:      | RIN:8   |

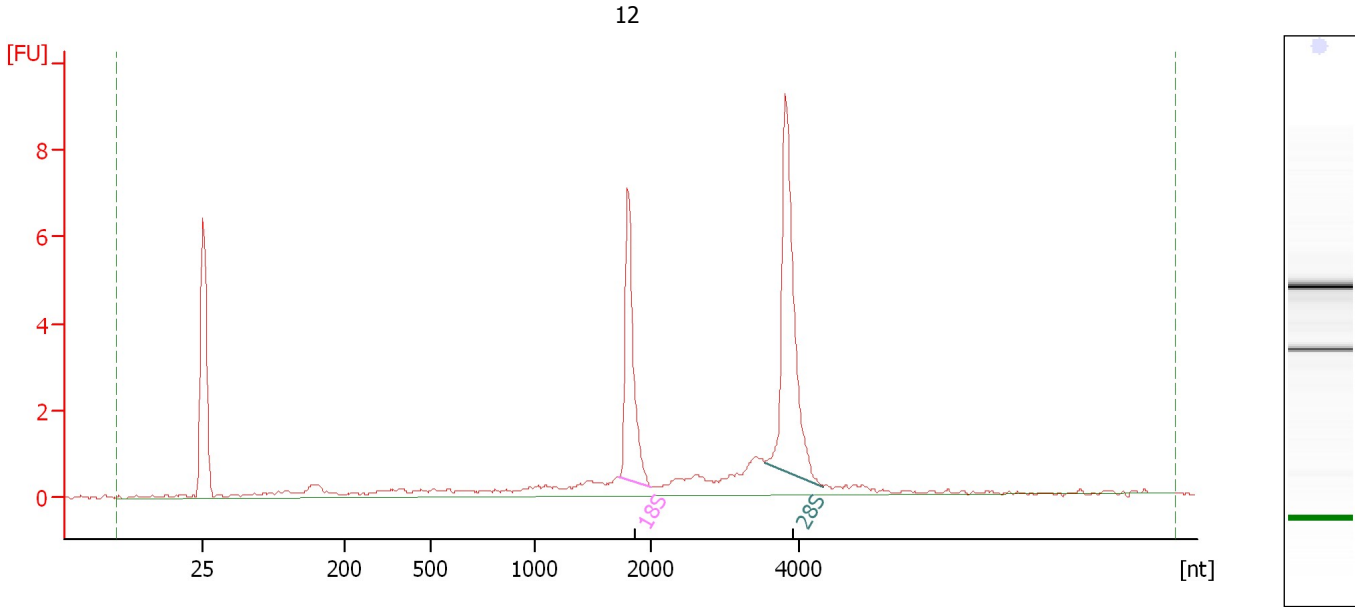
**Fragment table for sample 11 : 11**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,660           | 2,035         | 4.4  | 12.7            |
| 28S  | 3,518           | 4,469         | 6.5  | 19.0            |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
 Modified: 12/17/2012 1:25:50 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 12 : 12**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 35.5     | RNA Integrity Number (RIN): | 9.1 (B.02.08)   |
| RNA Concentration:      | 25 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]: | 1.7      | Result Flagging Label:      | RIN: 9.10   |

**Fragment table for sample 12 : 12**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,727           | 2,007         | 6.5  | 18.2            |
| 28S  | 3,531           | 4,321         | 10.7 | 30.3            |



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-17\2012-12-17\_005.xad

Created: 12/17/2012 1:02:48 PM  
Modified: 12/17/2012 1:25:50 PM

**Gel Image**

