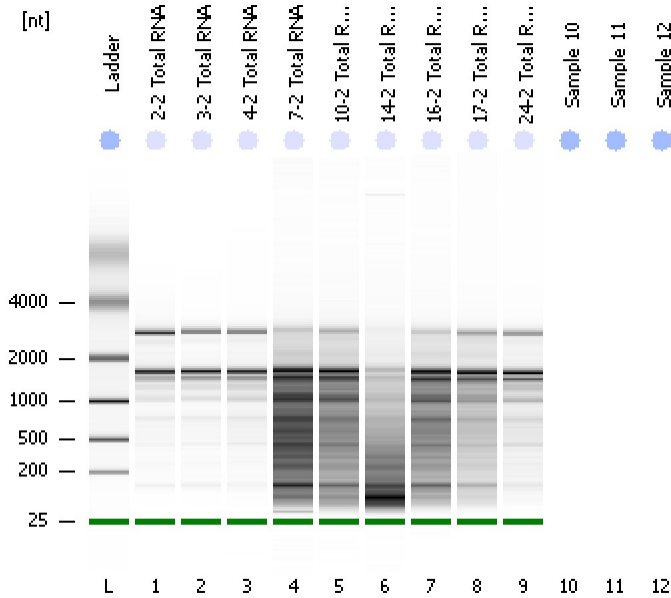


Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
Modified: 8/5/2013 11:34:13 AM

**Electrophoresis File Run Summary**



Instrument Information:

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

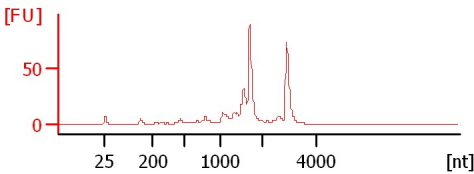
Assay Information:

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.

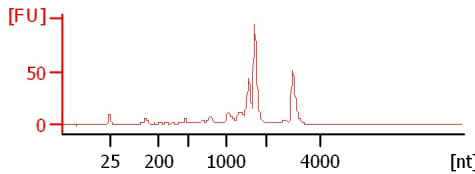
Chip Information:

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

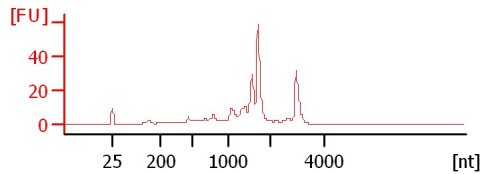
**2-2 Total RNA**  
RIN: 6.80



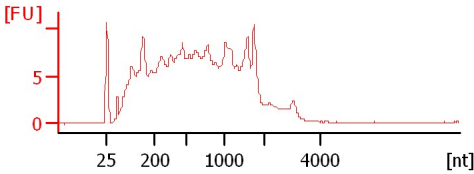
**3-2 Total RNA**  
RIN: 6.50



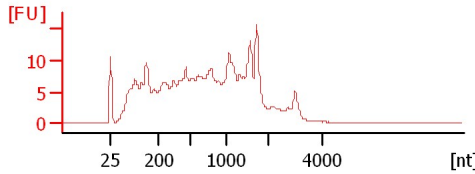
**4-2 Total RNA**  
RIN: 6.30



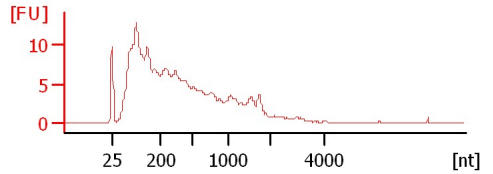
**7-2 Total RNA**  
RIN: 3.30



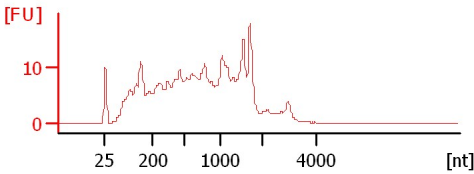
**10-2 Total RNA**  
RIN: 3.70



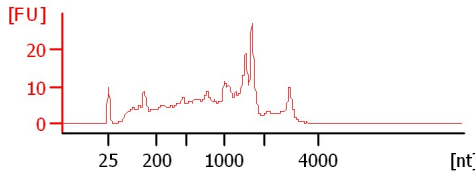
**14-2 Total RNA**  
RIN: 2.60



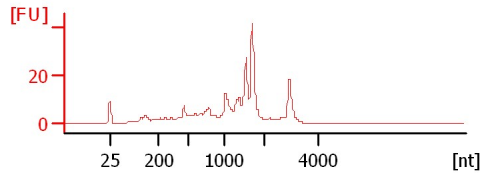
**16-2 Total RNA**  
RIN: 3.70



**17-2 Total RNA**  
RIN: 4.80



**24-2 Total RNA**  
RIN: 5.80



Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
 Modified: 8/5/2013 11:34:13 AM

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

| Sample Name    | Sample Comment | Status | Result Label      | Result Color |
|----------------|----------------|--------|-------------------|--------------|
| 2-2 Total RNA  |                | ✓      | RIN: 6.80         |              |
| 3-2 Total RNA  |                | ✓      | RIN: 6.50         |              |
| 4-2 Total RNA  |                | ✓      | RIN: 6.30         |              |
| 7-2 Total RNA  |                | ✓      | RIN: 3.30         |              |
| 10-2 Total RNA |                | ✓      | RIN: 3.70         |              |
| 14-2 Total RNA |                | ✓      | RIN: 2.60         |              |
| 16-2 Total RNA |                | ✓      | RIN: 3.70         |              |
| 17-2 Total RNA |                | ✓      | RIN: 4.80         |              |
| 24-2 Total RNA |                | ✓      | RIN: 5.80         |              |
| Sample 10      |                |        |                   |              |
| Sample 11      |                |        |                   |              |
| Sample 12      |                |        |                   |              |
| Ladder         |                | ✓      | All Other Samples |              |

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
Modified: 8/5/2013 11:34:13 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/ $\mu$ l] : 150  
Lower Marker Concentration [ng/ $\mu$ l] : 0  
Upper Marker Concentration [ng/ $\mu$ 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

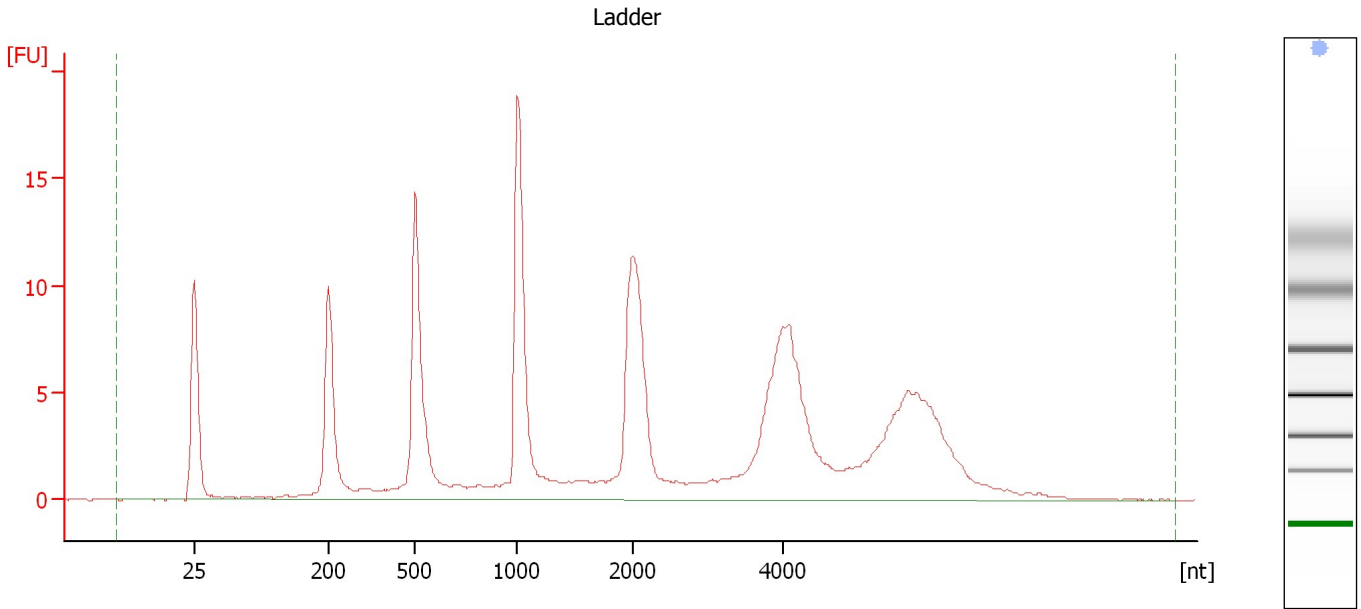
### Ladder

| 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\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
Modified: 8/5/2013 11:34:13 AM

**Electropherogram Summary**



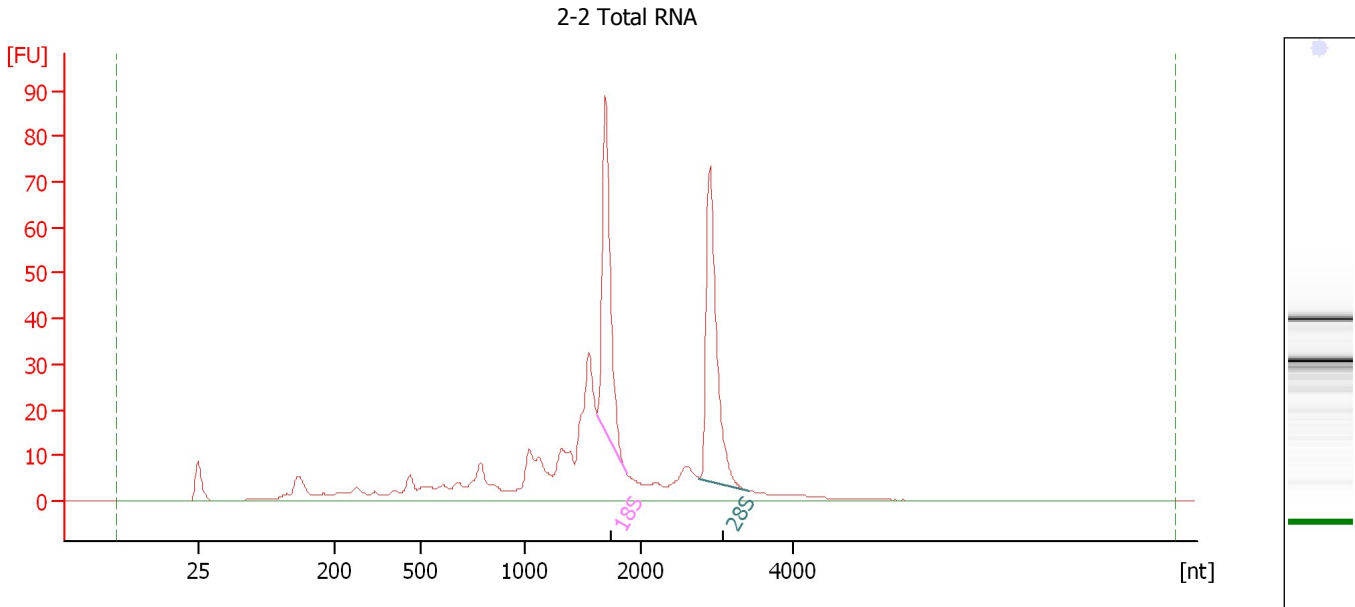
**Overall Results for Ladder**

|                    |           |                        |   |
|--------------------|-----------|------------------------|---|
| RNA Area:          | 188.3     | 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\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
Modified: 8/5/2013 11:34:13 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 2-2 Total RNA**

RNA Area: 464.6      RNA Integrity Number (RIN): 6.8 (B.02.08, Anomaly Threshold(s) manually adapted)  
RNA Concentration: 370 ng/μl  
rRNA Ratio [28s / 18s]: 1.0  
Result Flagging Color:   
Result Flagging Label: RIN: 6.80

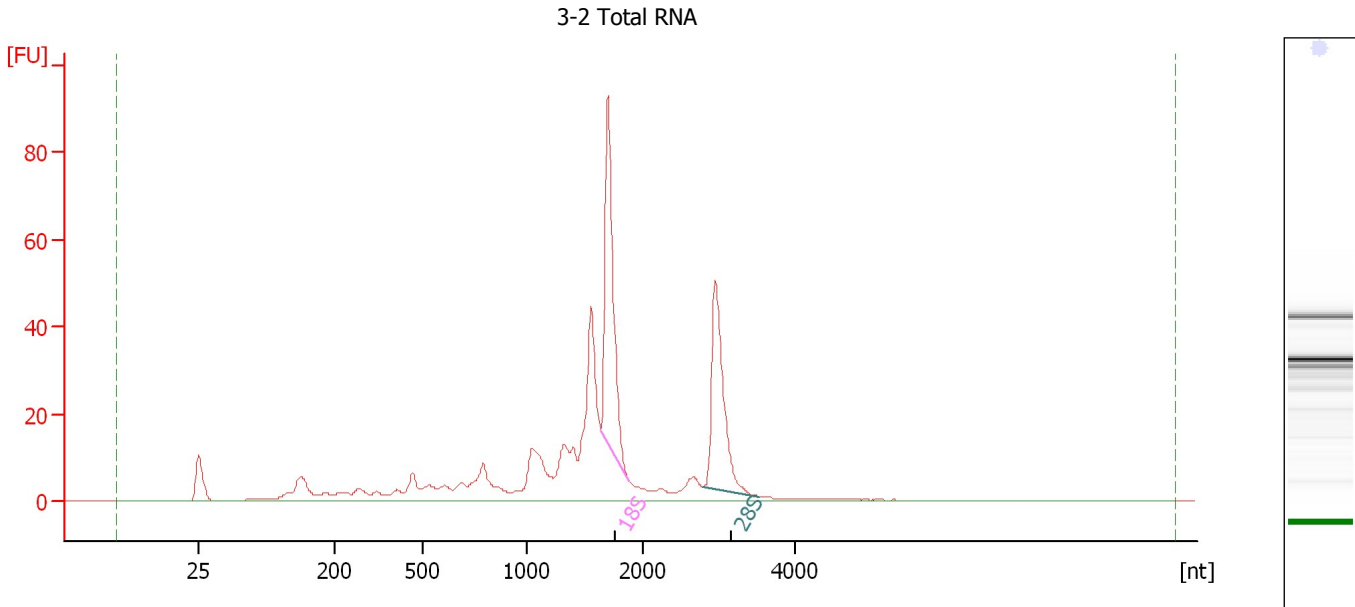
**Fragment table for sample 1 : 2-2 Total RNA**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,633           | 1,883         | 77.6 | 16.7            |
| 28S  | 2,774           | 3,416         | 79.3 | 17.1            |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
 Modified: 8/5/2013 11:34:13 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 3-2 Total RNA**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 448.3     | RNA Integrity Number (RIN): | 6.5 (B.02.08,<br>Anomaly Threshold(s)<br>manually adapted)  |
| RNA Concentration:      | 357 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]: | 0.8       | Result Flagging Label:      | RIN: 6.50   |

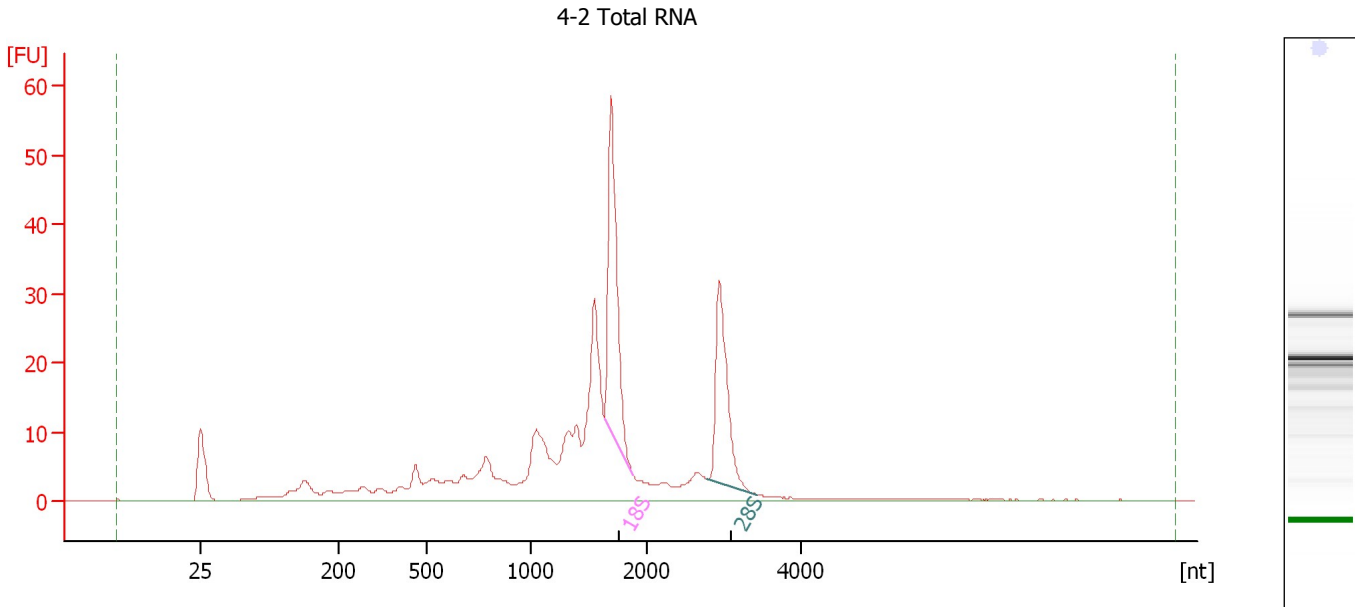
**Fragment table for sample 2 : 3-2 Total RNA**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,644           | 1,885         | 84.2 | 18.8            |
| 28S  | 2,802           | 3,512         | 64.1 | 14.3            |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
 Modified: 8/5/2013 11:34:13 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 4-2 Total RNA**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 323.6     | RNA Integrity Number (RIN): | 6.3 (B.02.08,<br>Anomaly Threshold(s)<br>manually adapted)  |
| RNA Concentration:      | 258 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: 6.30   |

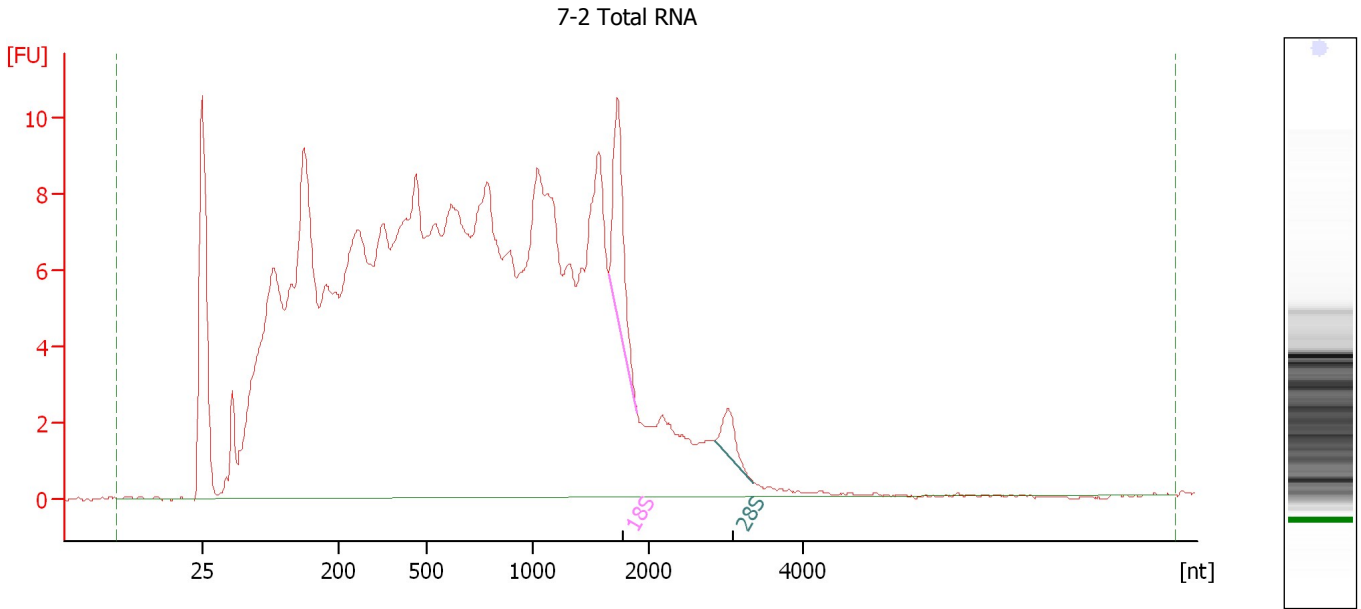
**Fragment table for sample 3 : 4-2 Total RNA**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,639           | 1,887         | 52.2 | 16.1            |
| 28S  | 2,801           | 3,439         | 37.5 | 11.6            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
Modified: 8/5/2013 11:34:13 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 7-2 Total RNA**

RNA Area: 373.2                      RNA Integrity Number (RIN): 3.3 (B.02.08)  
RNA Concentration: 297 ng/μl                      Result Flagging Color:   
rRNA Ratio [28s / 18s]: 0.2                      Result Flagging Label: RIN: 3.30

**Fragment table for sample 4 : 7-2 Total RNA**

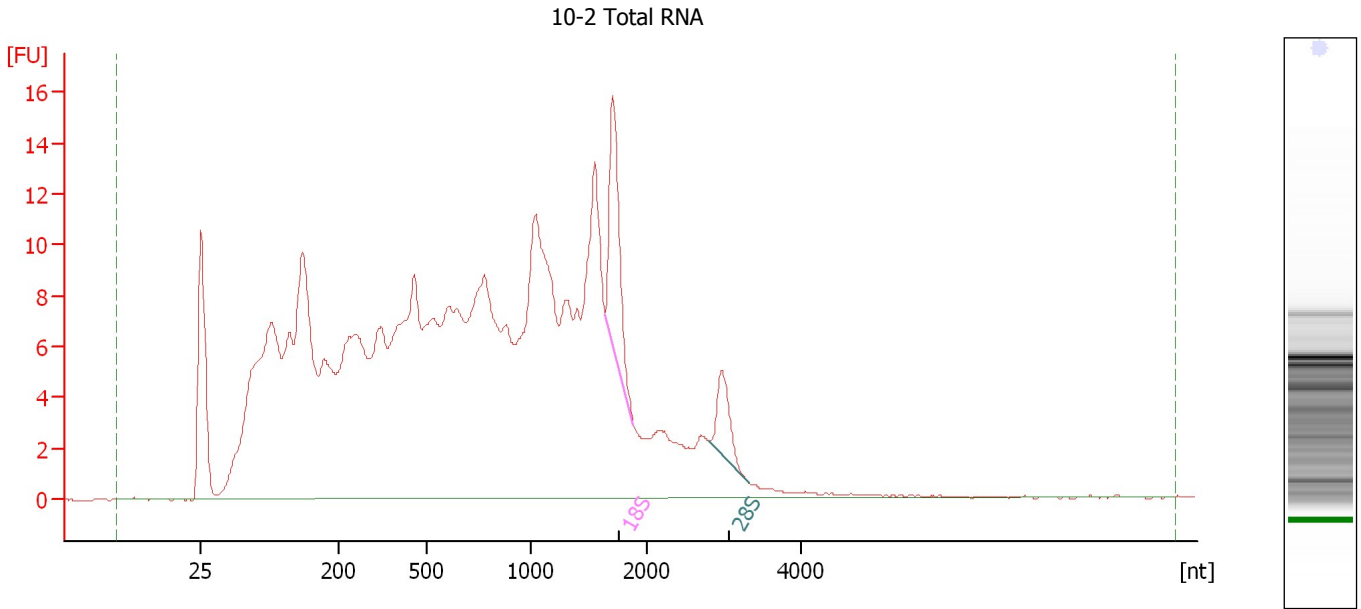
| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,659           | 1,907         | 7.1  | 1.9             |
| 28S  | 2,870           | 3,369         | 1.7  | 0.5             |



Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
 Modified: 8/5/2013 11:34:13 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 10-2 Total RNA**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 414.2     | RNA Integrity Number (RIN): | 3.7 (B.02.08)   |
| RNA Concentration:      | 330 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: 3.70   |

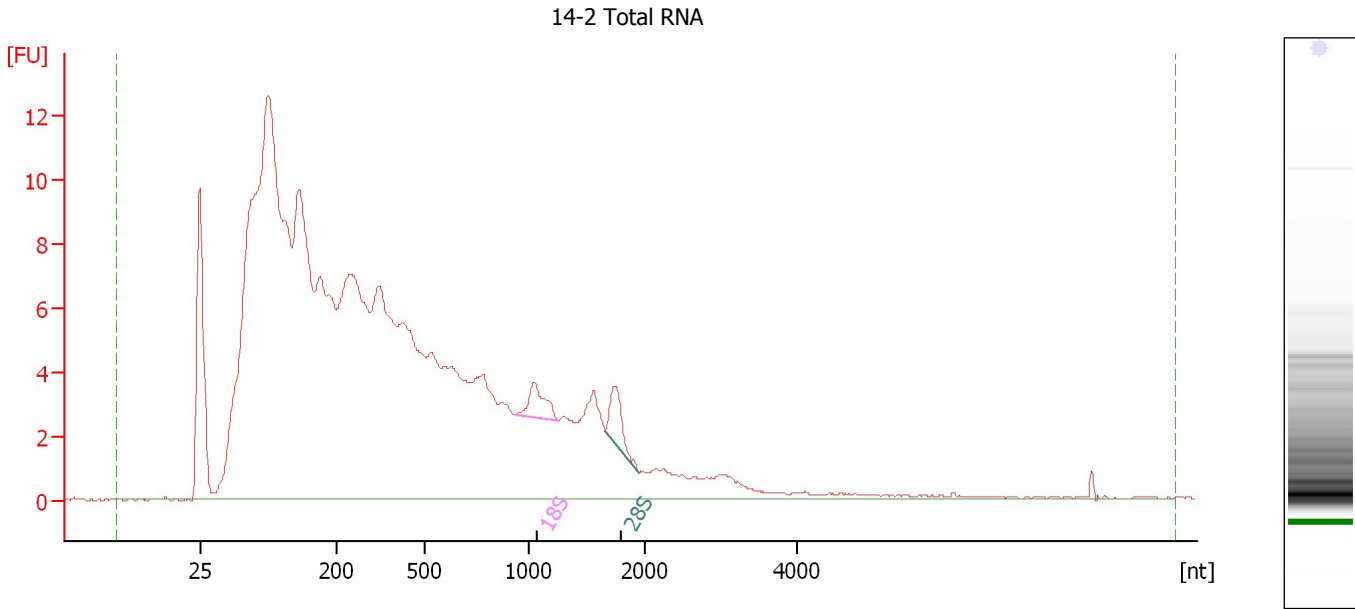
**Fragment table for sample 5 : 10-2 Total RNA**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,648           | 1,887         | 12.0 | 2.9             |
| 28S  | 2,815           | 3,342         | 4.7  | 1.1             |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
Modified: 8/5/2013 11:34:13 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 14-2 Total RNA**

RNA Area: 318.8 RNA Integrity Number (RIN): 2.6 (B.02.08)  
RNA Concentration: 254 ng/μl Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.1 Result Flagging Label: RIN: 2.60

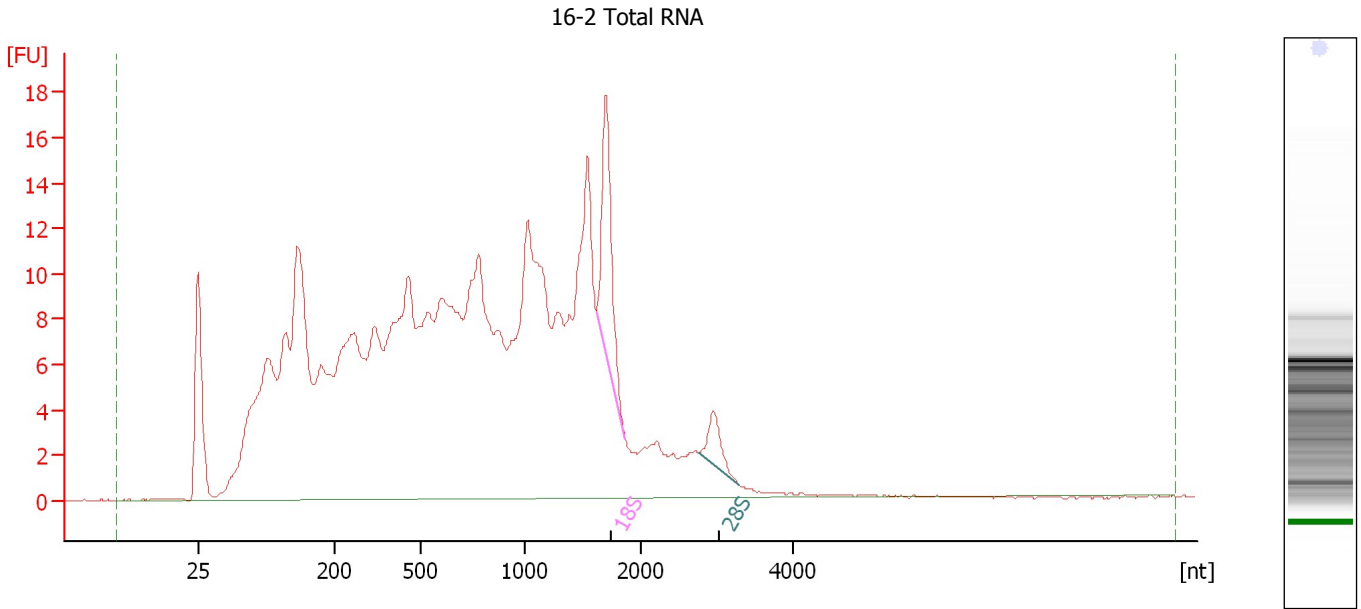
**Fragment table for sample 6 : 14-2 Total RNA**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 933             | 1,258         | 2.5  | 0.8             |
| 28S  | 1,664           | 1,960         | 2.7  | 0.8             |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
Modified: 8/5/2013 11:34:13 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 16-2 Total RNA**

RNA Area: 441.7                      RNA Integrity Number (RIN): 3.7 (B.02.08)  
RNA Concentration: 352 ng/μl                      Result Flagging Color:   
rRNA Ratio [28s / 18s]: 0.2                      Result Flagging Label: RIN: 3.70

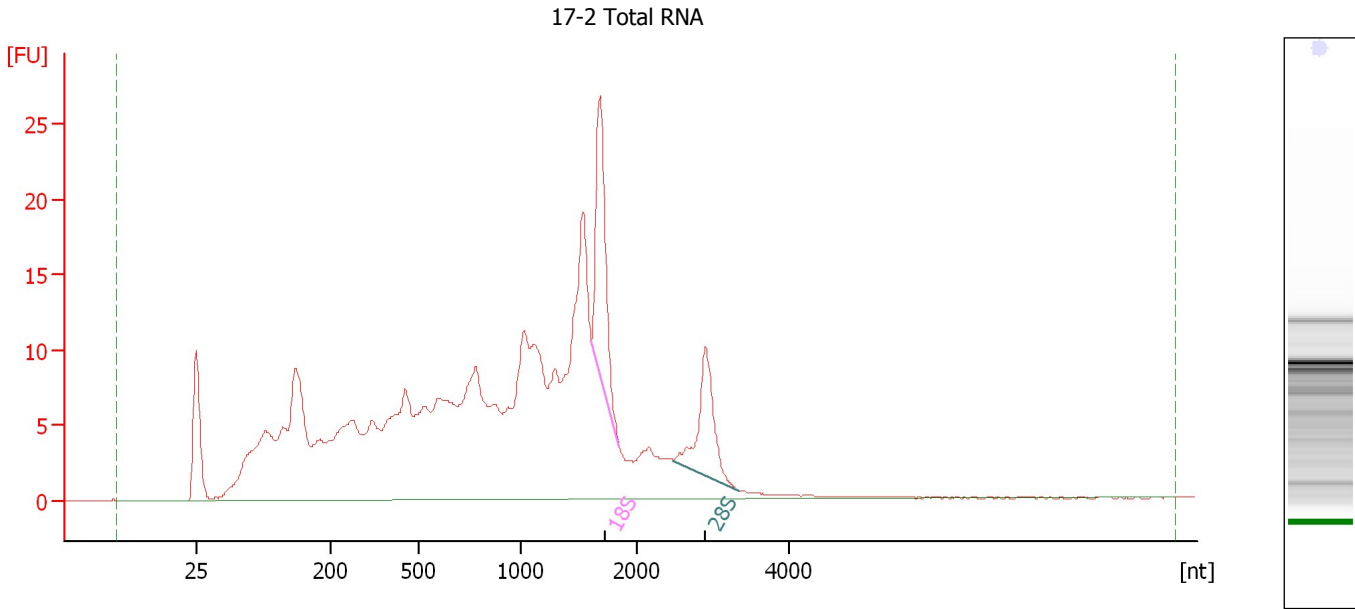
**Fragment table for sample 7 : 16-2 Total RNA**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,624           | 1,874         | 14.0 | 3.2             |
| 28S  | 2,774           | 3,304         | 3.4  | 0.8             |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
 Modified: 8/5/2013 11:34:13 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 17-2 Total RNA**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 398.6     | RNA Integrity Number (RIN): | 4.8 (B.02.08)   |
| RNA Concentration:      | 318 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: 4.80   |

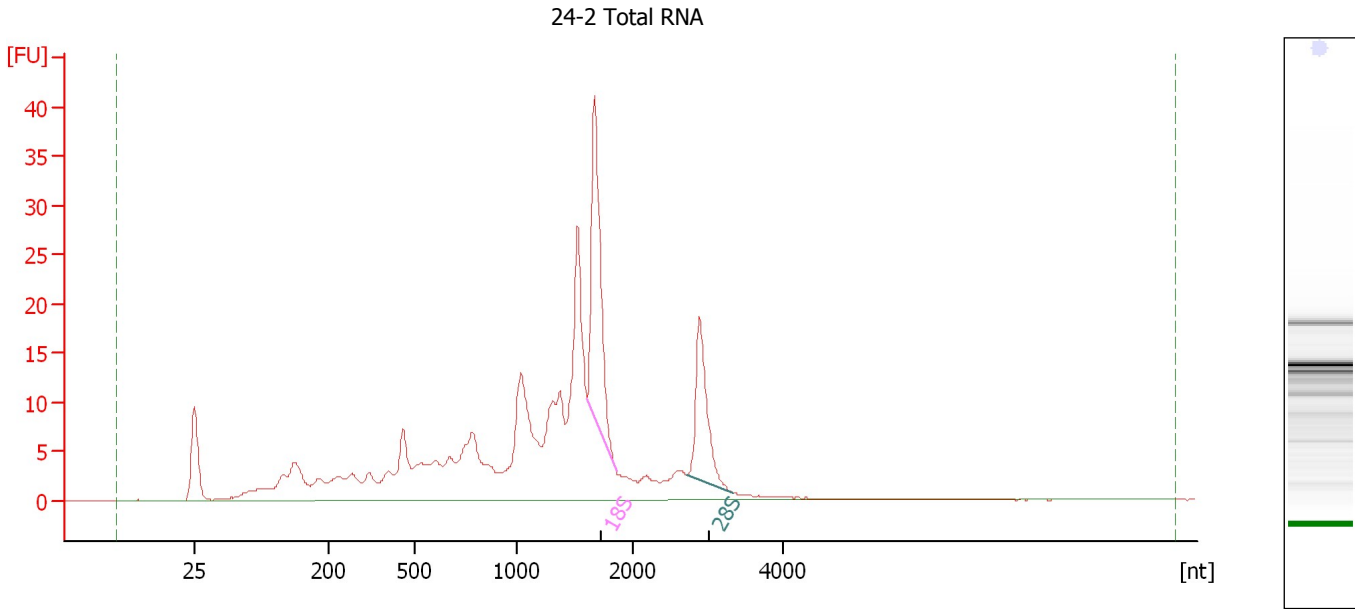
**Fragment table for sample 8 : 17-2 Total RNA**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,611           | 1,853         | 21.8 | 5.5             |
| 28S  | 2,493           | 3,363         | 14.5 | 3.6             |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
Modified: 8/5/2013 11:34:13 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 24-2 Total RNA**

RNA Area: 312.4                      RNA Integrity Number (RIN): 5.8 (B.02.08)  
RNA Concentration: 249 ng/μl                      Result Flagging Color:   
rRNA Ratio [28s / 18s]: 0.6                      Result Flagging Label: RIN: 5.80

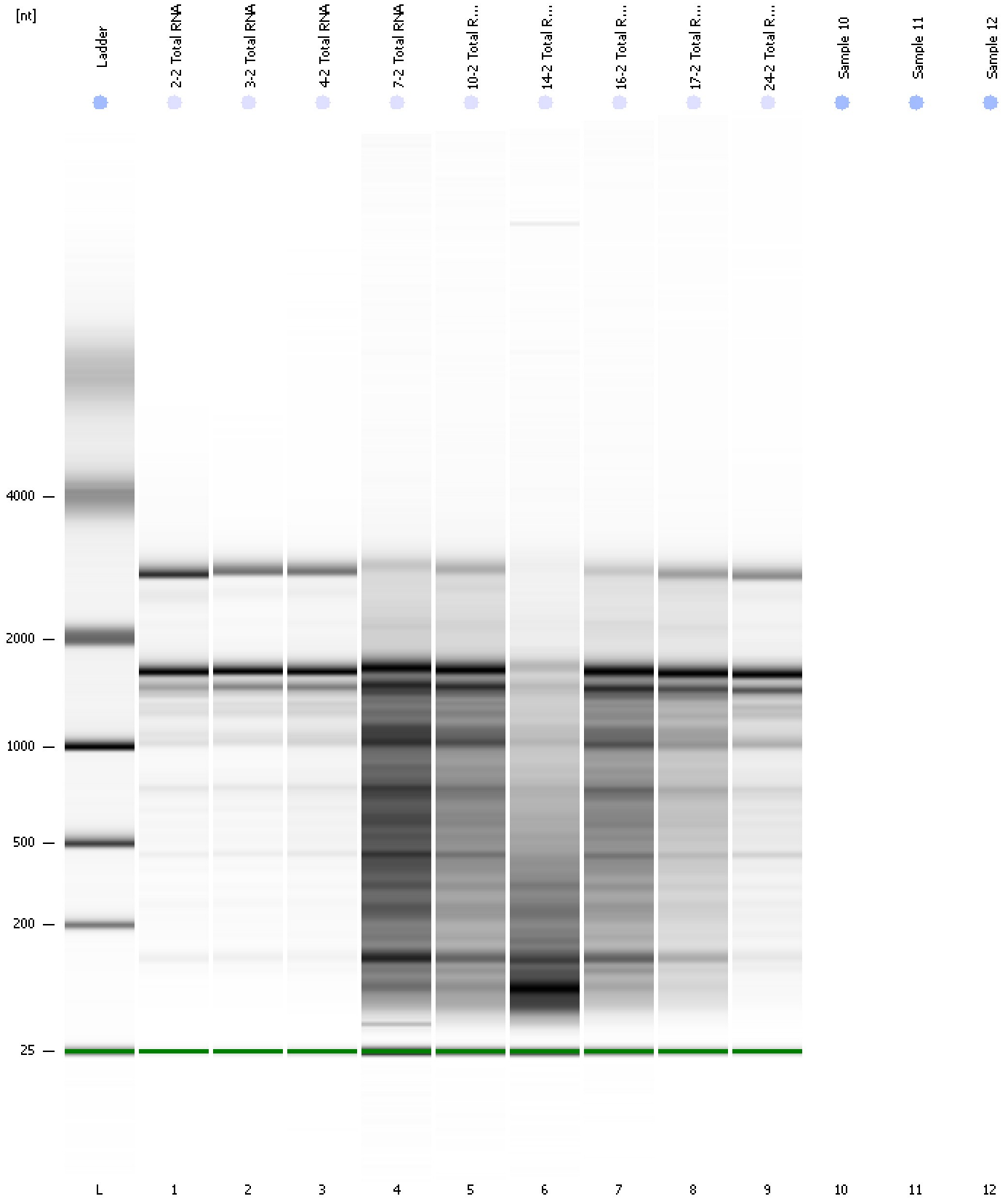
**Fragment table for sample 9 : 24-2 Total RNA**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,607           | 1,859         | 38.0 | 12.2            |
| 28S  | 2,718           | 3,338         | 21.6 | 6.9             |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
Modified: 8/5/2013 11:34:13 AM

**Gel Image**



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
Modified: 8/5/2013 11:34:13 AM

**Invalid Samples**

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Sample 12 has not been run, no results available.

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_001.xad

Created: 8/5/2013 11:14:25 AM  
 Modified: 8/5/2013 11:34:13 AM

**Run Logbook**

| Description   | Number | Source     | Category | Sub Category | Time                 | Time Zone                           | User     | Host     |
|---|--------|------------|----------|--------------|----------------------|-------------------------------------|----------|----------|
| Run ended on port 1 (Number of wells acquired: 10)  |        | Instrument | Run      |              | 8/5/2013 11:34:10 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-08-05\2013-08-05_001.xad) |        | Instrument | Run      |              | 8/5/2013 11:14:31 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B   |        | Instrument | Run      |              | 8/5/2013 11:14:31 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name :  |        | Instrument | Run      |              | 8/5/2013 11:14:31 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies   |        | Instrument | Run      |              | 8/5/2013 11:14:31 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086  |        | Instrument | Run      |              | 8/5/2013 11:14:31 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069   |        | Instrument | Run      |              | 8/5/2013 11:14:31 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode   |        | Instrument | Run      |              | 8/5/2013 11:14:31 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |