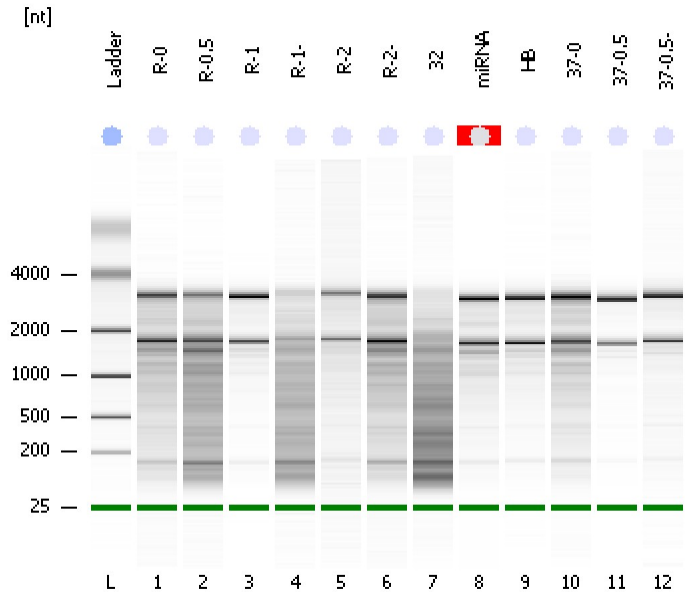


Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
Modified: 2/14/2012 10:56:31 AM

Electrophoresis File Run Summary



Instrument Information:

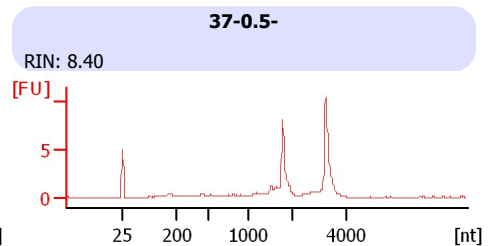
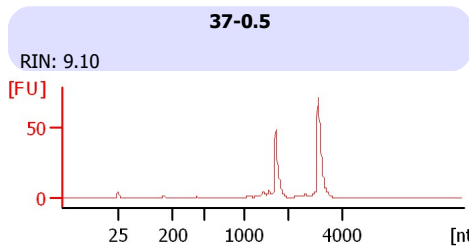
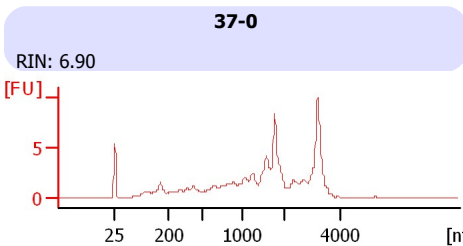
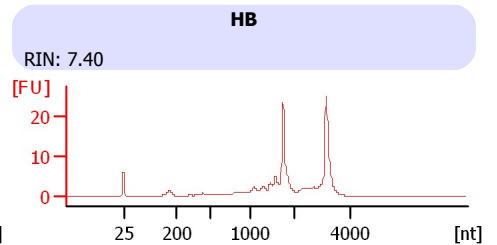
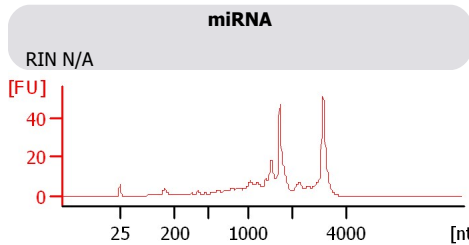
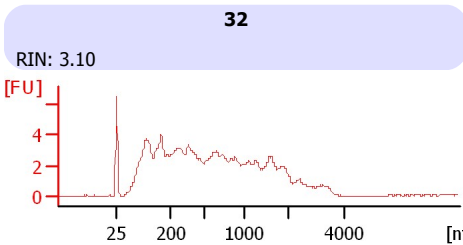
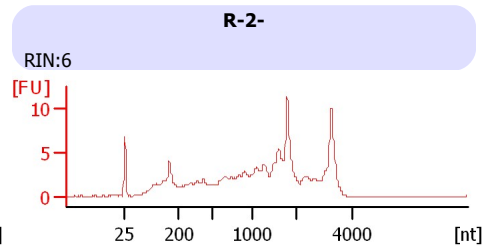
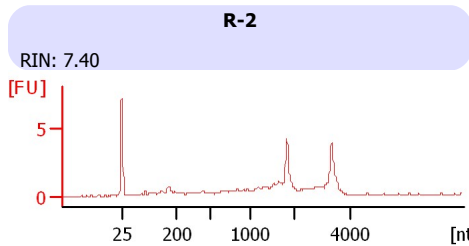
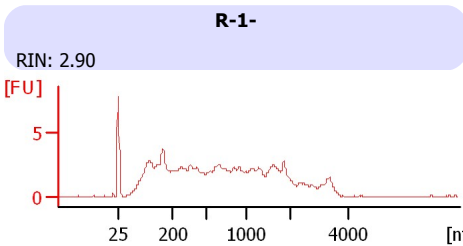
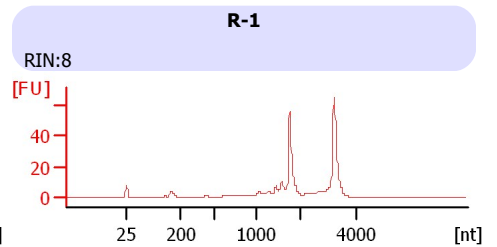
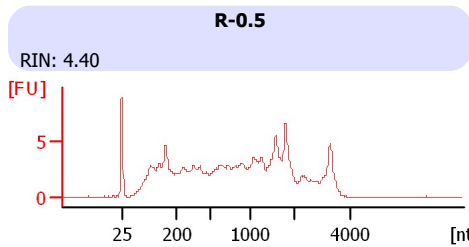
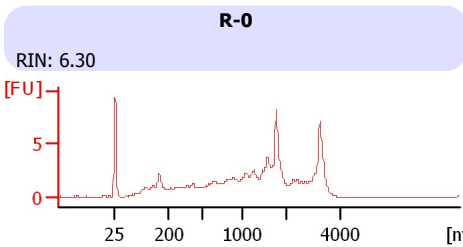
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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:



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
Modified: 2/14/2012 10:56:31 AM

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

| Sample Name | Sample Comment | Status | Result Label      | Result Color |
|-------------|----------------|--------|-------------------|--------------|
| R-0         |                | ✓      | RIN: 6.30         |              |
| R-0.5       |                | ✓      | RIN: 4.40         |              |
| R-1         |                | ✓      | RIN:8             |              |
| R-1-        |                | ✓      | RIN: 2.90         |              |
| R-2         |                | ✓      | RIN: 7.40         |              |
| R-2-        |                | ✓      | RIN:6             |              |
| 32          |                | ✓      | RIN: 3.10         |              |
| miRNA       |                | ✓      | RIN N/A           |              |
| HB          |                | ✓      | RIN: 7.40         |              |
| 37-0        |                | ✓      | RIN: 6.90         |              |
| 37-0.5      |                | ✓      | RIN: 9.10         |              |
| 37-0.5-     |                | ✓      | RIN: 8.40         |              |
| Ladder      |                | ✓      | All Other Samples |              |

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
Modified: 2/14/2012 10:56:31 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

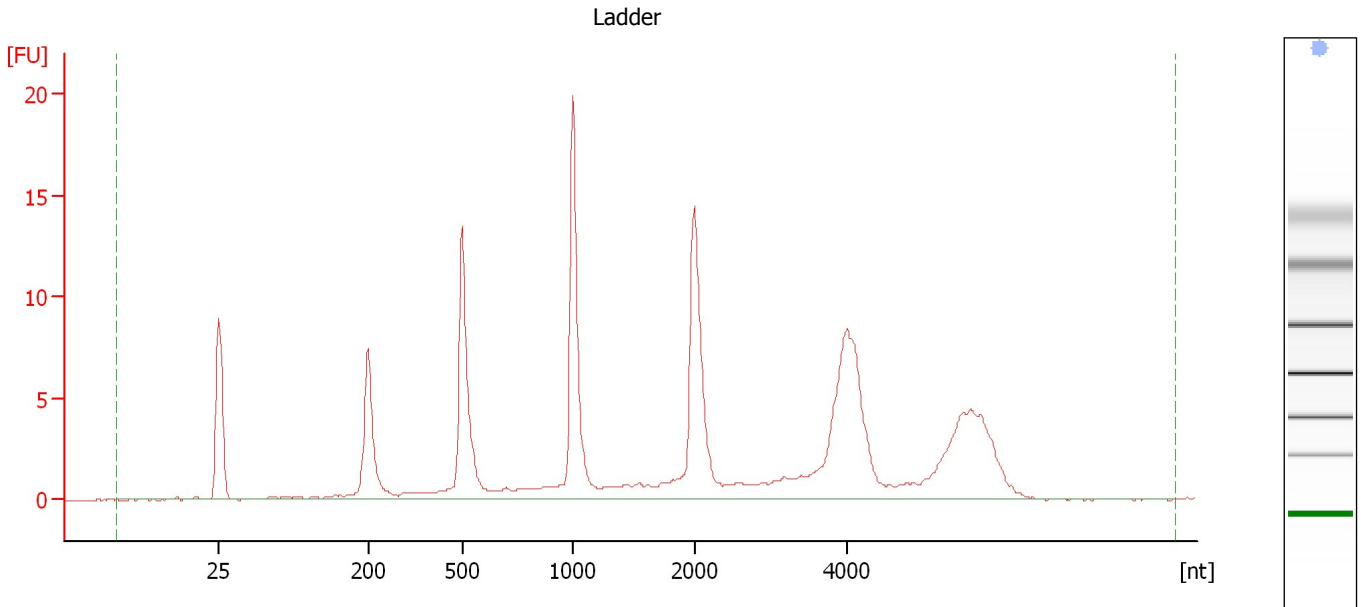
**Ladder**

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

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
Modified: 2/14/2012 10:56:31 AM

**Electropherogram Summary**



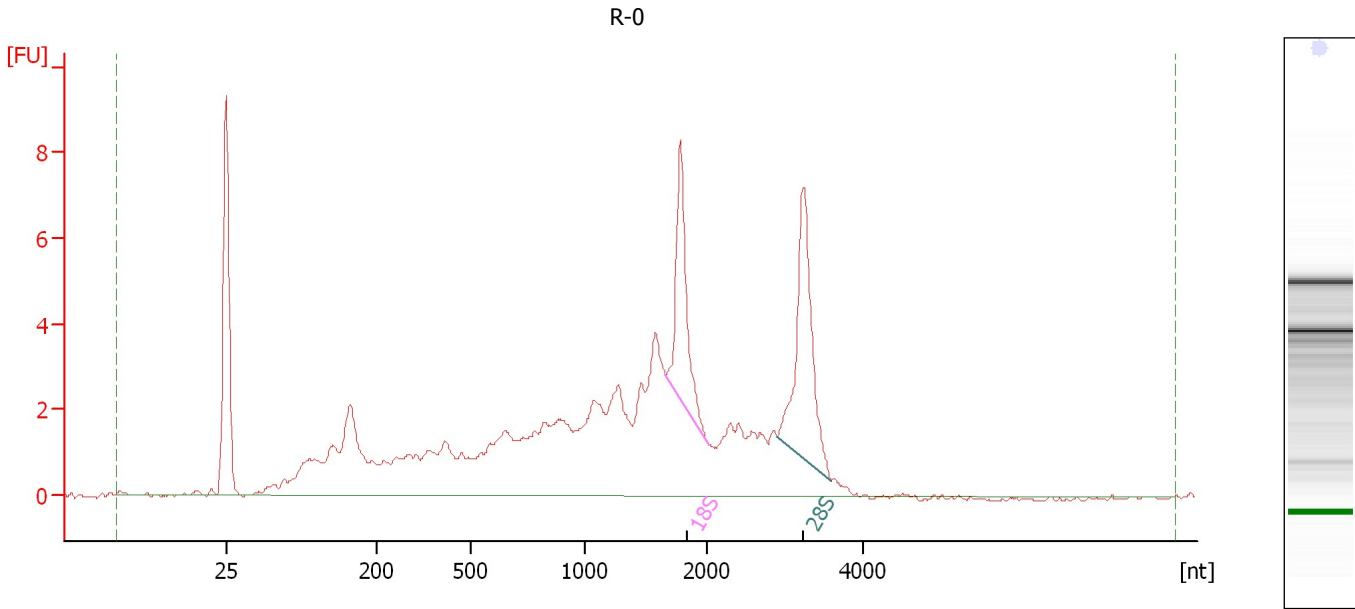
**Overall Results for Ladder**

|                    |           |                        |   |
|--------------------|-----------|------------------------|---|
| RNA Area:          | 140.2     | Result Flagging Color: | <span style="background-color: #6699ff; 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:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
Modified: 2/14/2012 10:56:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : R-0**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 106.5     | RNA Integrity Number (RIN): | 6.3 (B.02.08)   |
| RNA Concentration:      | 114 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]: | 1.4       | Result Flagging Label:      | RIN: 6.30   |

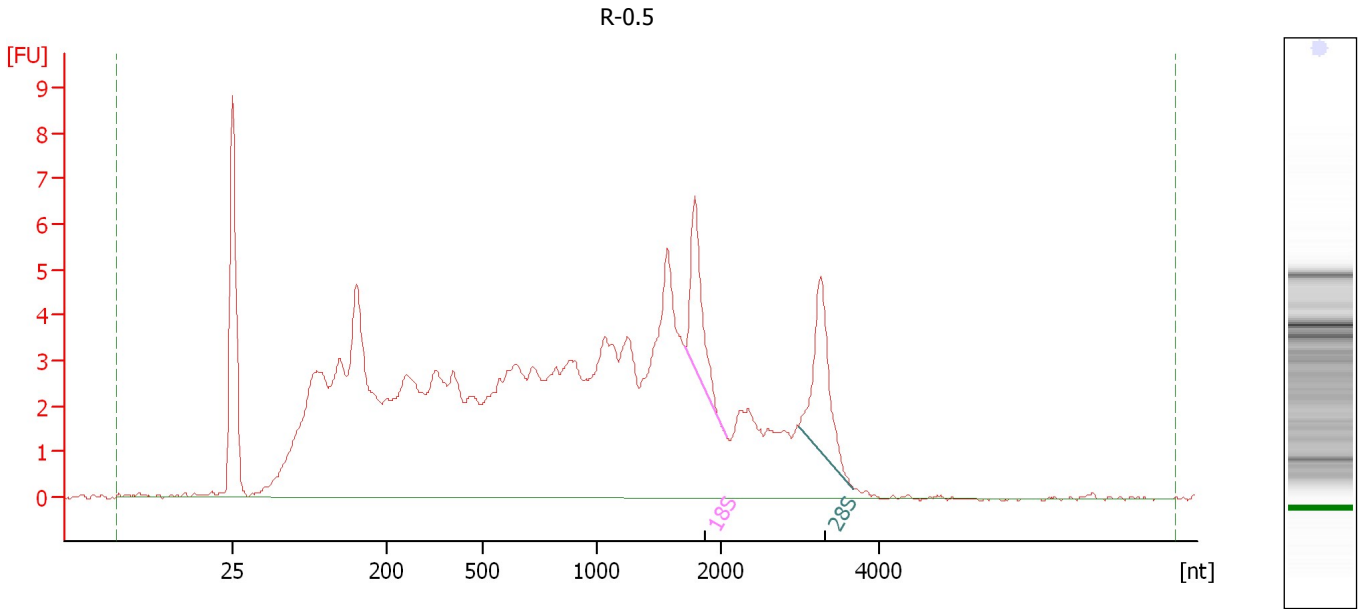
**Fragment table for sample 1 : R-0**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,663           | 2,034         | 7.1  | 6.7             |
| 28S  | 2,912           | 3,612         | 9.9  | 9.3             |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
Modified: 2/14/2012 10:56:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : R-0.5**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 178.1     | RNA Integrity Number (RIN): | 4.4 (B.02.08)   |
| RNA Concentration:      | 191 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: 4.40   |

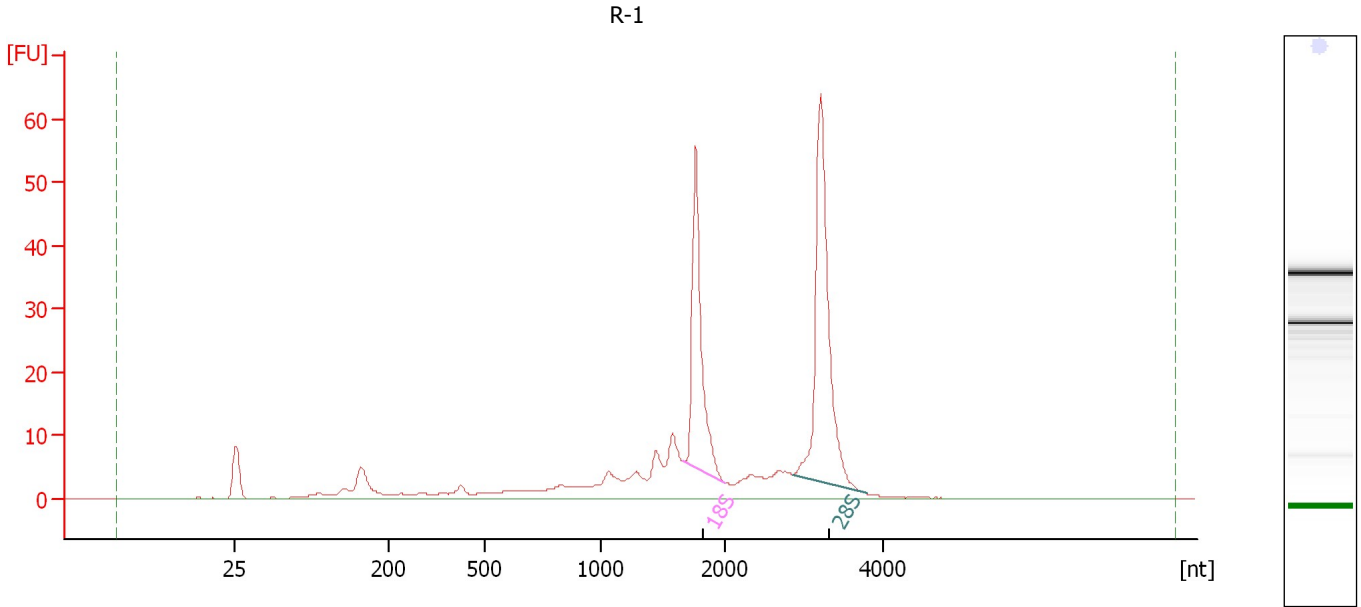
**Fragment table for sample 2 : R-0.5**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,708           | 2,069         | 4.8  | 2.7             |
| 28S  | 2,989           | 3,679         | 6.1  | 3.4             |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
 Modified: 2/14/2012 10:56:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : R-1**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 277.5     | RNA Integrity Number (RIN): | 8 (B.02.08)   |
| RNA Concentration:      | 297 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   |

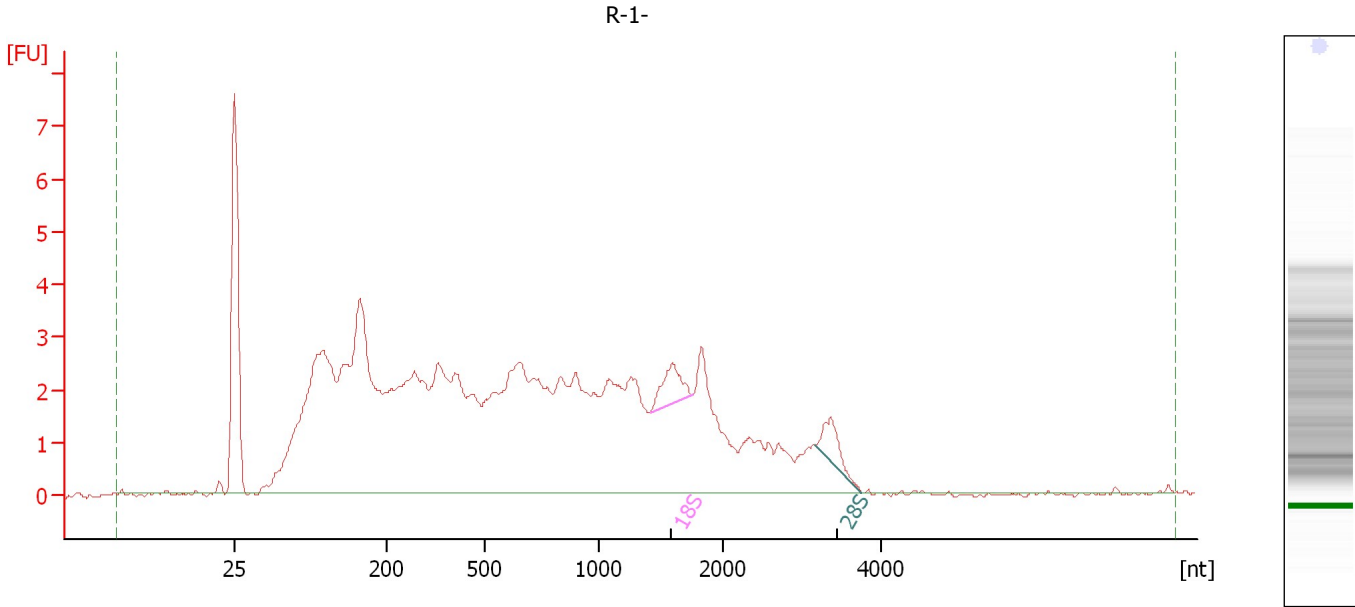
**Fragment table for sample 3 : R-1**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,667           | 2,003         | 51.3 | 18.5            |
| 28S  | 2,866           | 3,782         | 78.6 | 28.3            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
Modified: 2/14/2012 10:56:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : R-1-**

RNA Area: 128.7                      RNA Integrity Number (RIN): 2.9 (B.02.08)  
RNA Concentration: 138 ng/μl                      Result Flagging Color:   
rRNA Ratio [28s / 18s]: 0.7                      Result Flagging Label: RIN: 2.90

**Fragment table for sample 4 : R-1-**

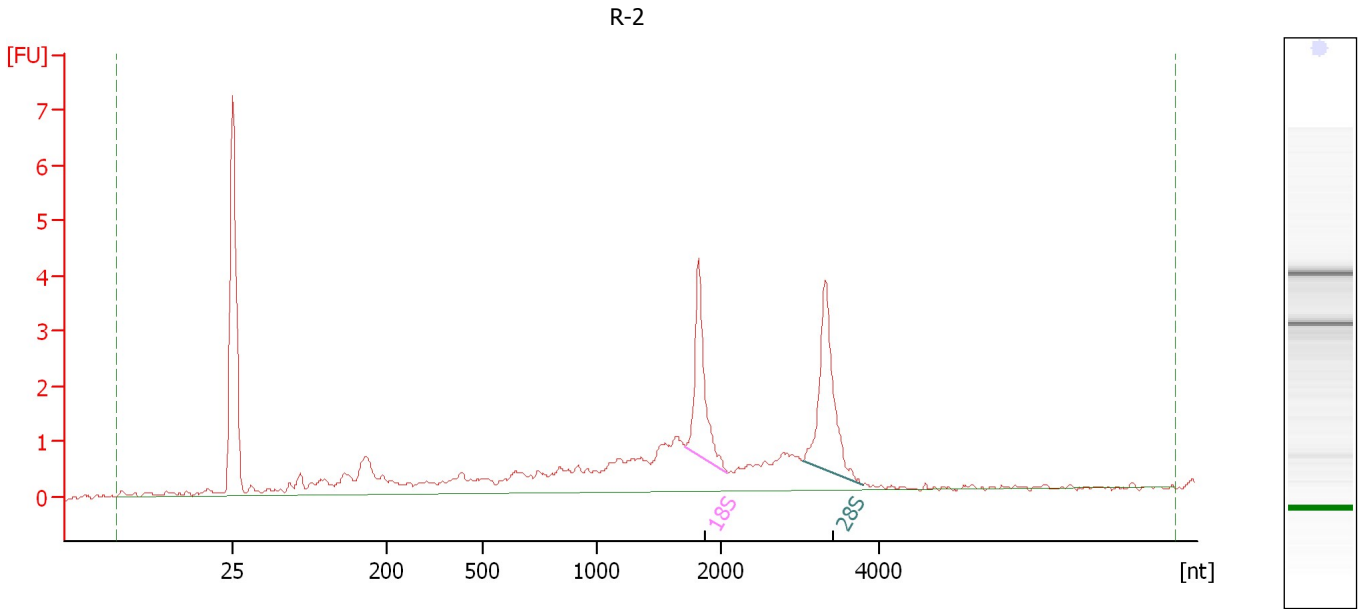
| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,416           | 1,760         | 1.7  | 1.3             |
| 28S  | 3,177           | 3,757         | 1.3  | 1.0             |



Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
 Modified: 2/14/2012 10:56:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : R-2**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 36.9     | RNA Integrity Number (RIN): | 7.4 (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]: | 1.3      | Result Flagging Label:      | RIN: 7.40   |

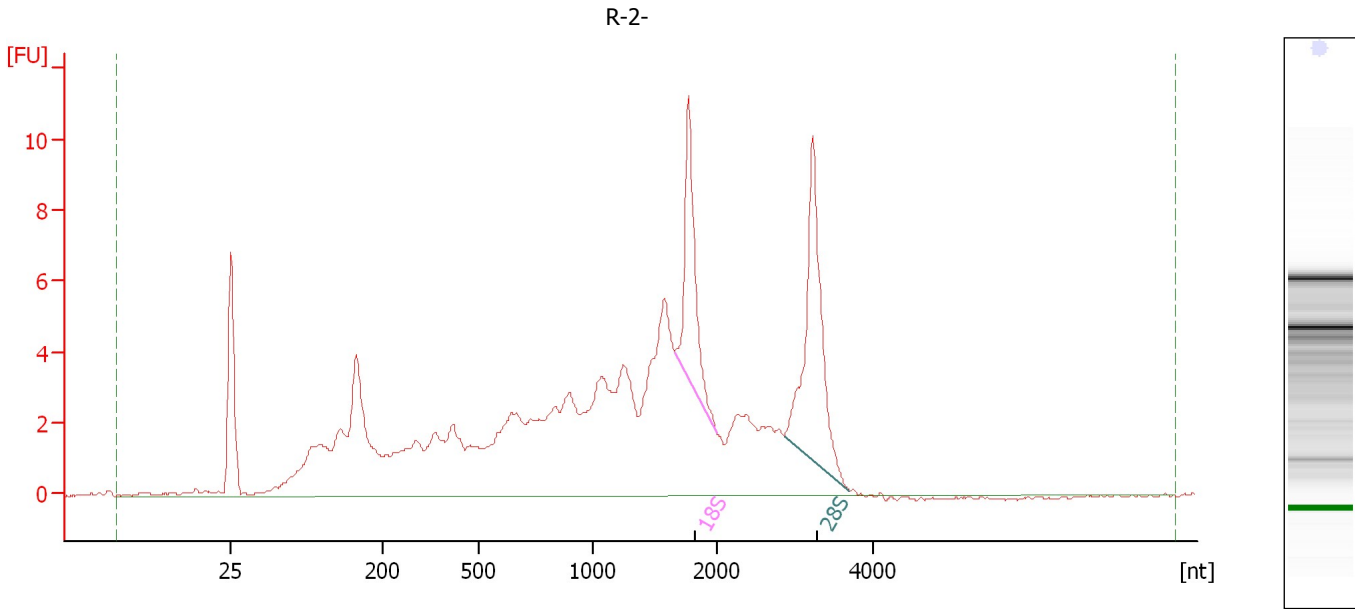
**Fragment table for sample 5 : R-2**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,716           | 2,082         | 3.9  | 10.5            |
| 28S  | 3,043           | 3,800         | 5.0  | 13.5            |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
 Modified: 2/14/2012 10:56:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : R-2-**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 158.1     | RNA Integrity Number (RIN): | 6 (B.02.08)   |
| RNA Concentration:      | 169 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:6   |

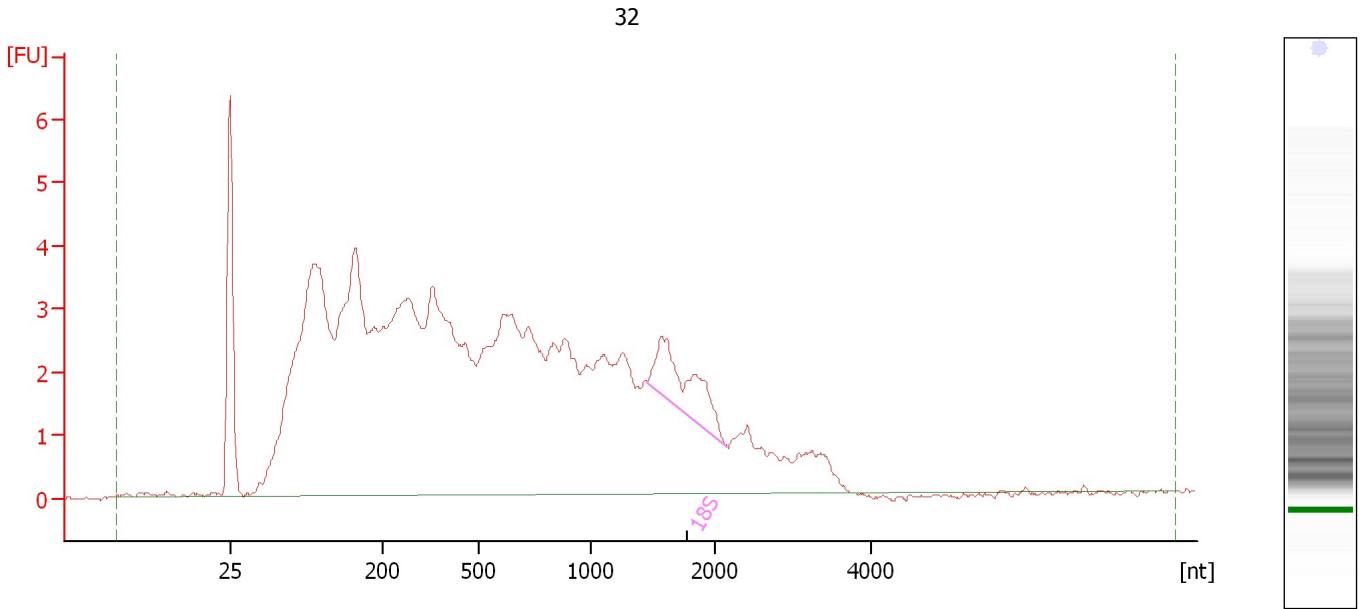
**Fragment table for sample 6 : R-2-**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,662           | 1,999         | 9.1  | 5.8             |
| 28S  | 2,868           | 3,697         | 14.5 | 9.2             |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
Modified: 2/14/2012 10:56:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 32**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 149.5     | RNA Integrity Number (RIN): | 3.1 (B.02.08)   |
| RNA Concentration:      | 160 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]: | 0.0       | Result Flagging Label:      | RIN: 3.10   |

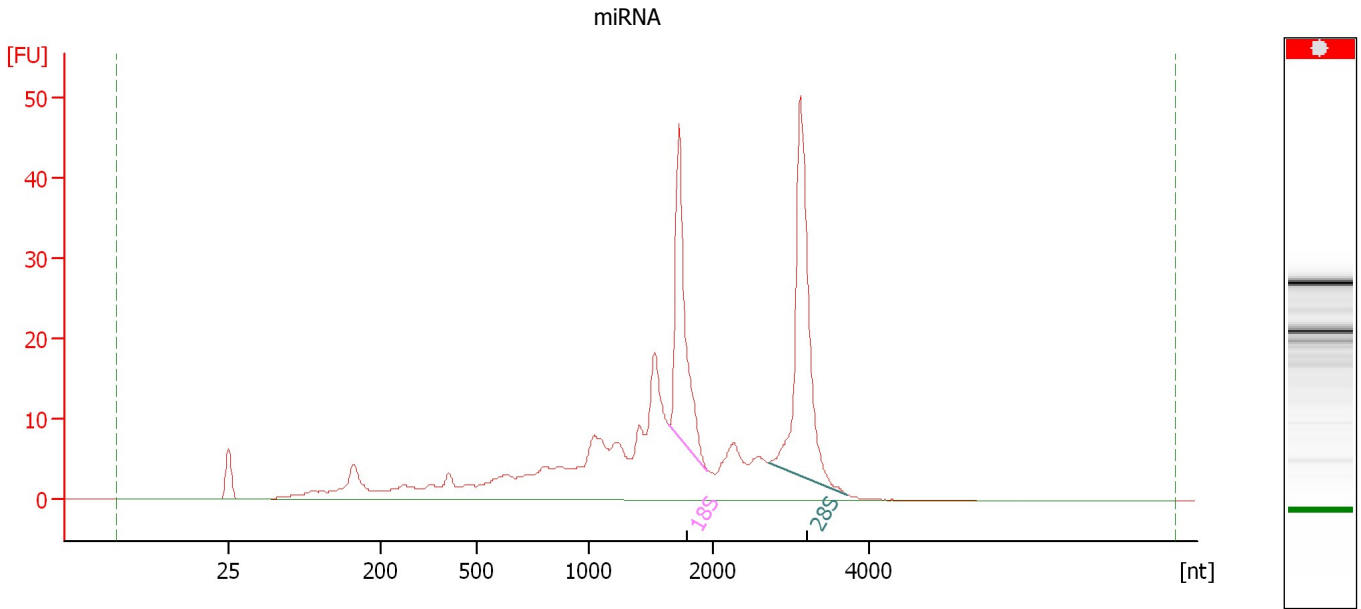
**Fragment table for sample 7 : 32**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,452           | 2,161         | 4.3  | 2.9             |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
 Modified: 2/14/2012 10:56:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : miRNA**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 343.7     | RNA Integrity Number (RIN): | N/A (B.02.08)   |
| RNA Concentration:      | 368 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]: | 1.5       | Result Flagging Label:      | RIN N/A   |

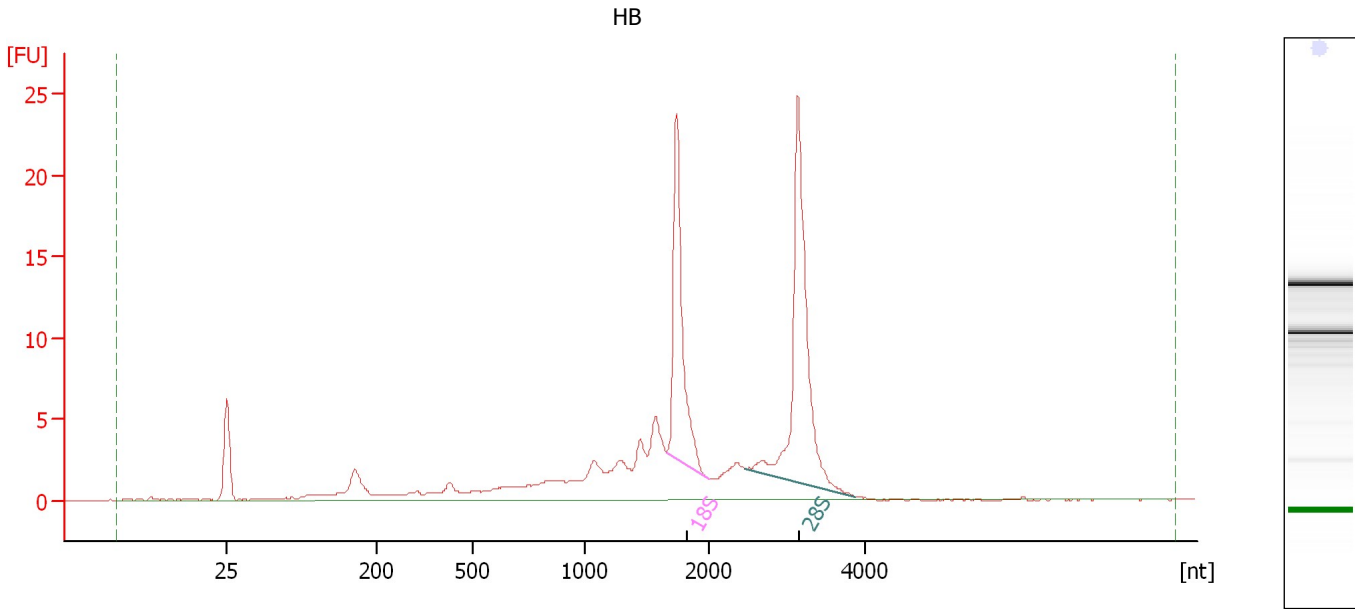
**Fragment table for sample 8 : miRNA**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,650           | 1,963         | 42.3 | 12.3            |
| 28S  | 2,719           | 3,715         | 64.0 | 18.6            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
Modified: 2/14/2012 10:56:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : HB**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 131.0     | RNA Integrity Number (RIN): | 7.4 (B.02.08)   |
| RNA Concentration:      | 140 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: 7.40   |

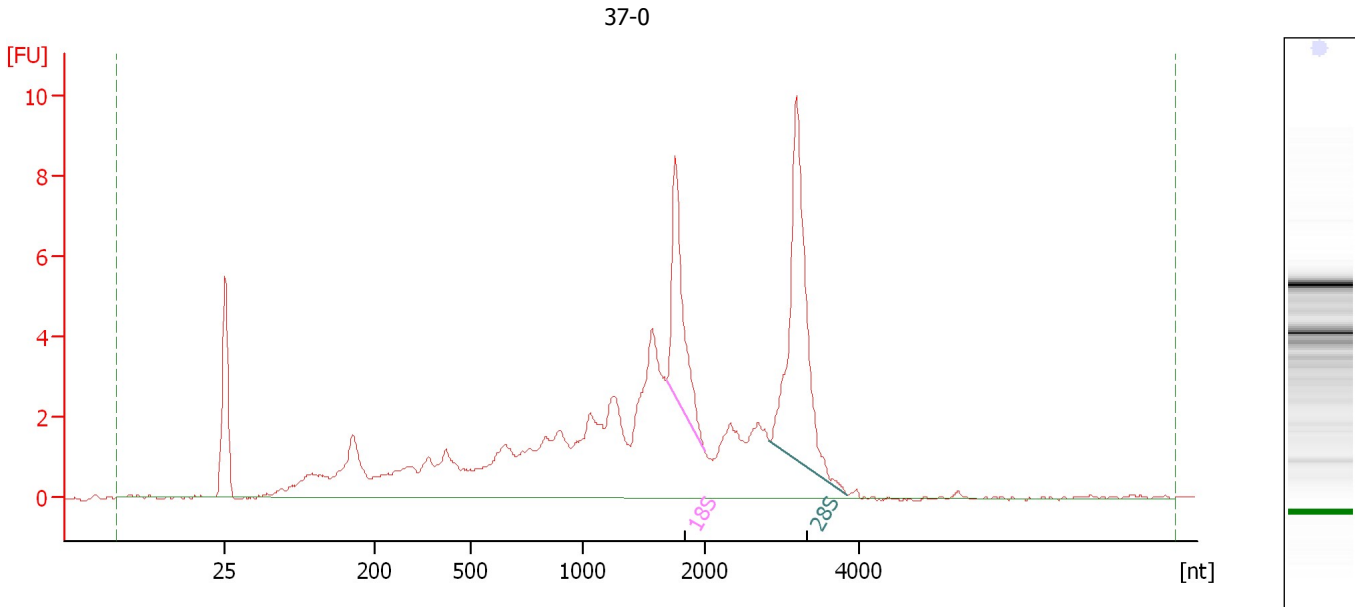
**Fragment table for sample 9 : HB**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,656           | 2,008         | 21.3 | 16.3            |
| 28S  | 2,460           | 3,884         | 33.4 | 25.5            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
Modified: 2/14/2012 10:56:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 37-0**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 103.3     | RNA Integrity Number (RIN): | 6.9 (B.02.08)   |
| RNA Concentration:      | 110 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]: | 2.0       | Result Flagging Label:      | RIN: 6.90   |

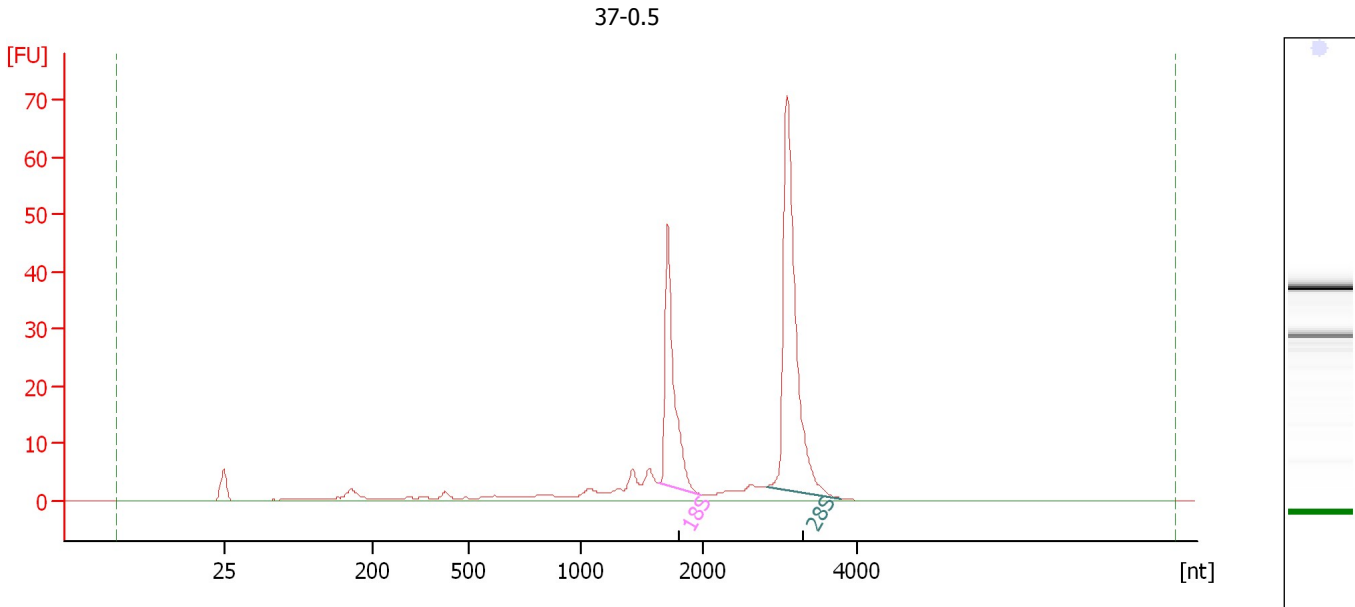
**Fragment table for sample 10 : 37-0**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,688           | 2,005         | 7.6  | 7.4             |
| 28S  | 2,844           | 3,848         | 15.3 | 14.9            |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
 Modified: 2/14/2012 10:56:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 37-0.5**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 212.6     | RNA Integrity Number (RIN): | 9.1 (B.02.08)   |
| RNA Concentration:      | 227 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]: | 1.8       | Result Flagging Label:      | RIN: 9.10   |

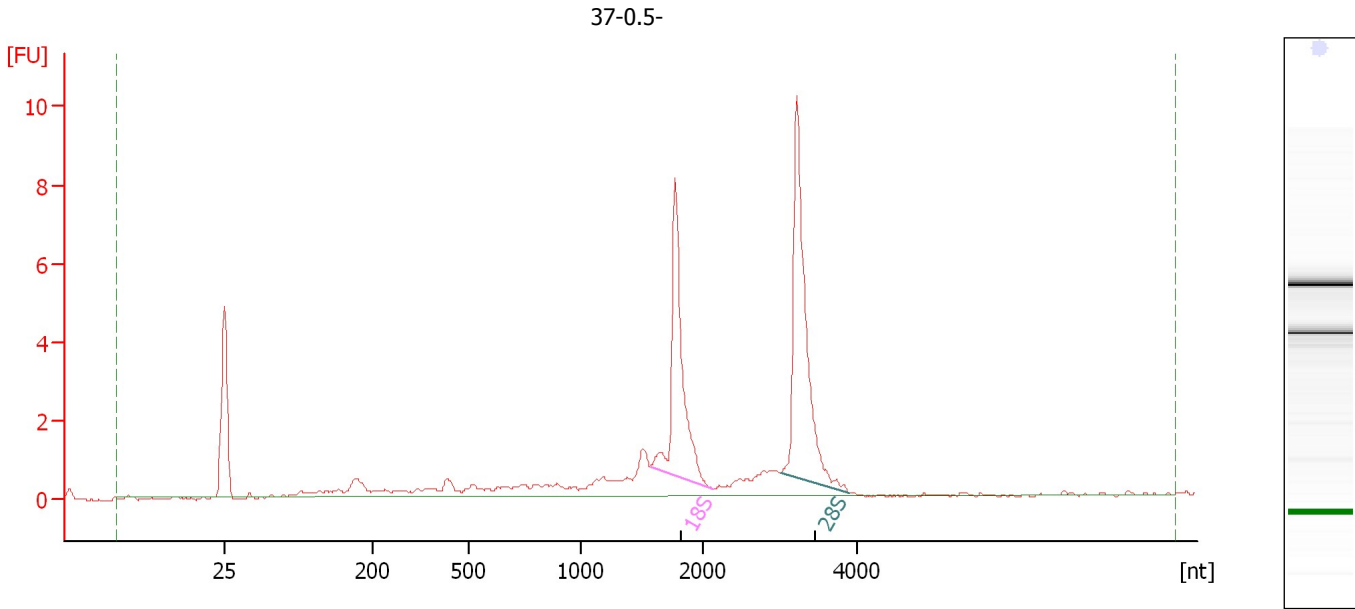
**Fragment table for sample 11 : 37-0.5**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,651           | 1,985         | 48.6 | 22.9            |
| 28S  | 2,845           | 3,781         | 86.9 | 40.9            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
Modified: 2/14/2012 10:56:31 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 12 : 37-0.5-**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 41.1     | RNA Integrity Number (RIN): | 8.4 (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]: | 1.4      | Result Flagging Label:      | RIN: 8.40   |

**Fragment table for sample 12 : 37-0.5-**

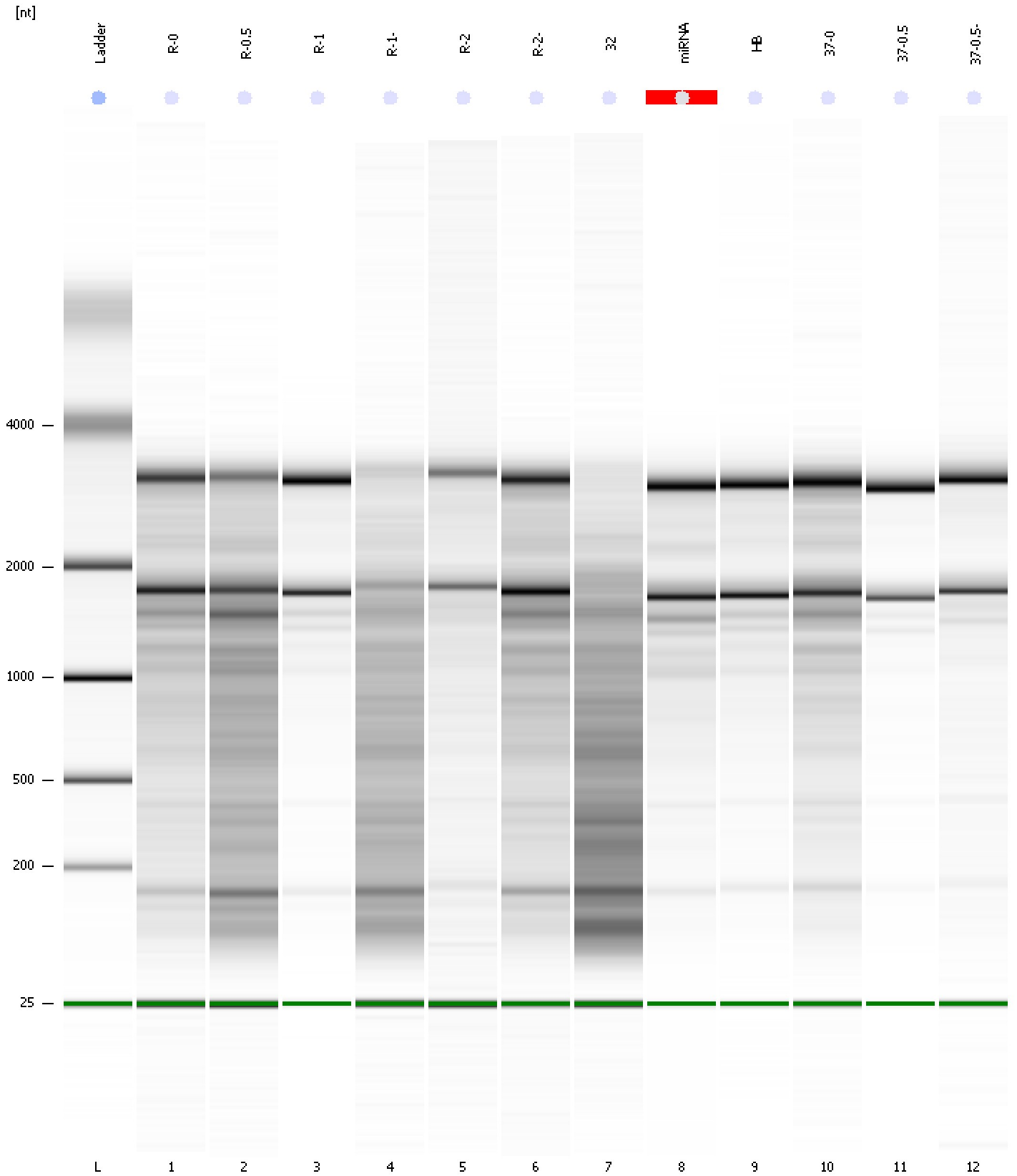
| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,572           | 2,128         | 8.9  | 21.7            |
| 28S  | 3,024           | 3,905         | 12.2 | 29.7            |



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
Modified: 2/14/2012 10:56:31 AM

**Gel Image**



Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...t\2100 bioanalyzer\2100 expert\data\PDFs\2012-02-14\_006.xad

Created: 2/14/2012 10:32:24 AM  
 Modified: 2/14/2012 10:56:31 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      |              | 2/14/2012 10:56:15 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\PDFs\2012-02-14_006.xad) |        | Instrument | Run      |              | 2/14/2012 10:32:30 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B  |        | Instrument | Run      |              | 2/14/2012 10:32:30 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name :   |        | Instrument | Run      |              | 2/14/2012 10:32:30 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies  |        | Instrument | Run      |              | 2/14/2012 10:32:30 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086   |        | Instrument | Run      |              | 2/14/2012 10:32:30 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069  |        | Instrument | Run      |              | 2/14/2012 10:32:30 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode  |        | Instrument | Run      |              | 2/14/2012 10:32:30 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |