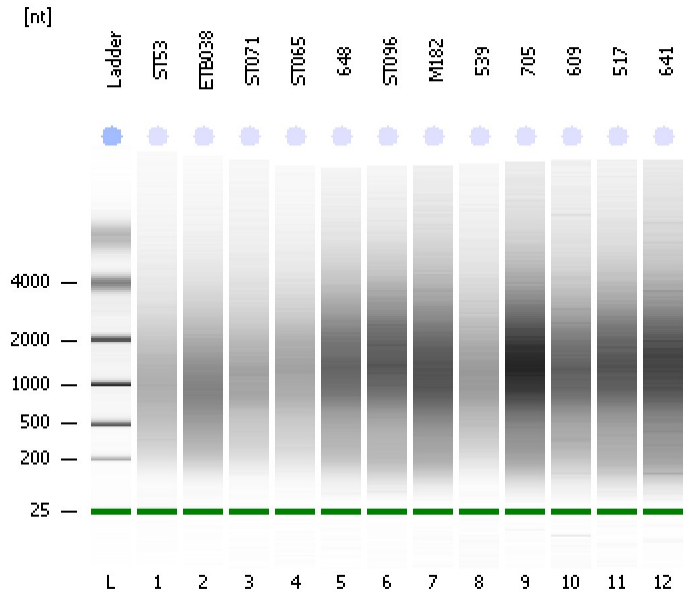


Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
Modified: 3/15/2016 9:42:58 AM

**Electrophoresis File Run Summary**



Instrument Information:

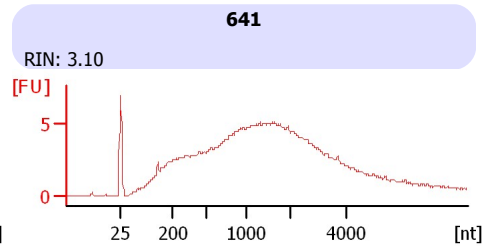
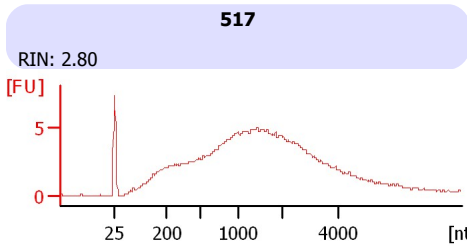
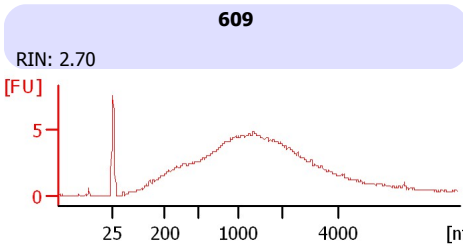
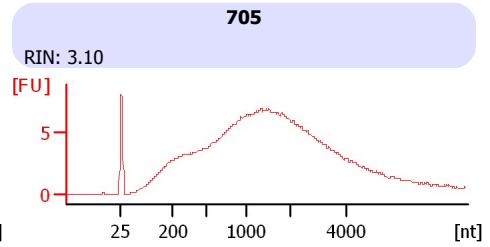
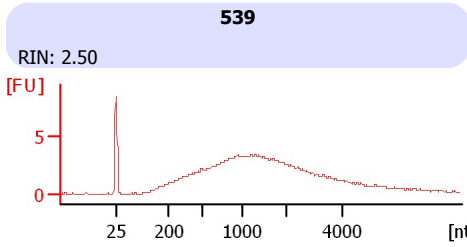
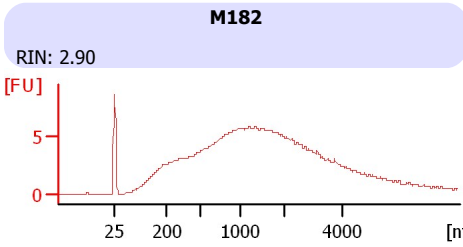
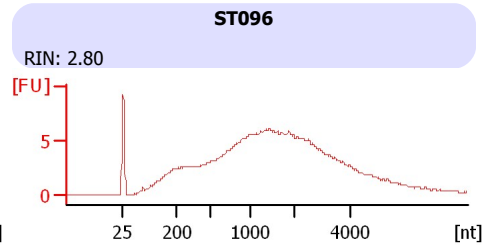
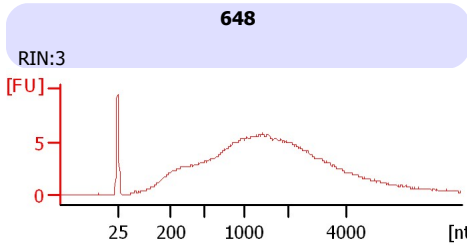
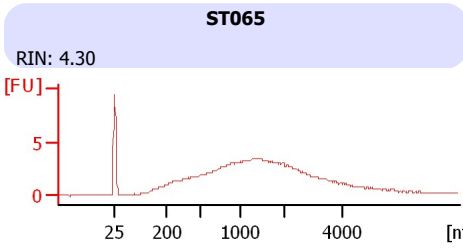
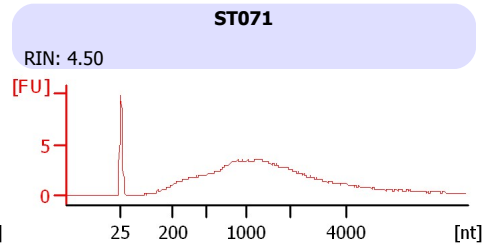
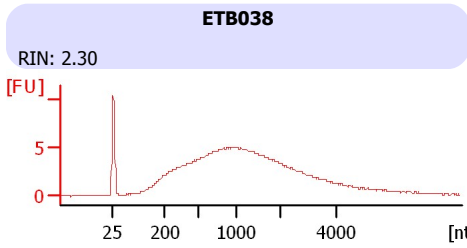
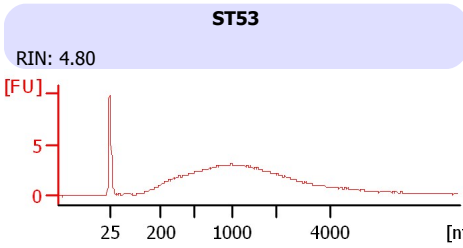
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
Modified: 3/15/2016 9:42:58 AM

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

| Sample Name | Sample Comment | Status | Result Label      | Result Color |
|-------------|----------------|--------|-------------------|--------------|
| ST53        |                | ✓      | RIN: 4.80         |              |
| ETB038      |                | ✓      | RIN: 2.30         |              |
| ST071       |                | ✓      | RIN: 4.50         |              |
| ST065       |                | ✓      | RIN: 4.30         |              |
| 648         |                | ✓      | RIN:3             |              |
| ST096       |                | ✓      | RIN: 2.80         |              |
| M182        |                | ✓      | RIN: 2.90         |              |
| 539         |                | ✓      | RIN: 2.50         |              |
| 705         |                | ✓      | RIN: 3.10         |              |
| 609         |                | ✓      | RIN: 2.70         |              |
| 517         |                | ✓      | RIN: 2.80         |              |
| 641         |                | ✓      | RIN: 3.10         |              |
| Ladder      |                | ✓      | All Other Samples |              |

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
Modified: 3/15/2016 9:42:58 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

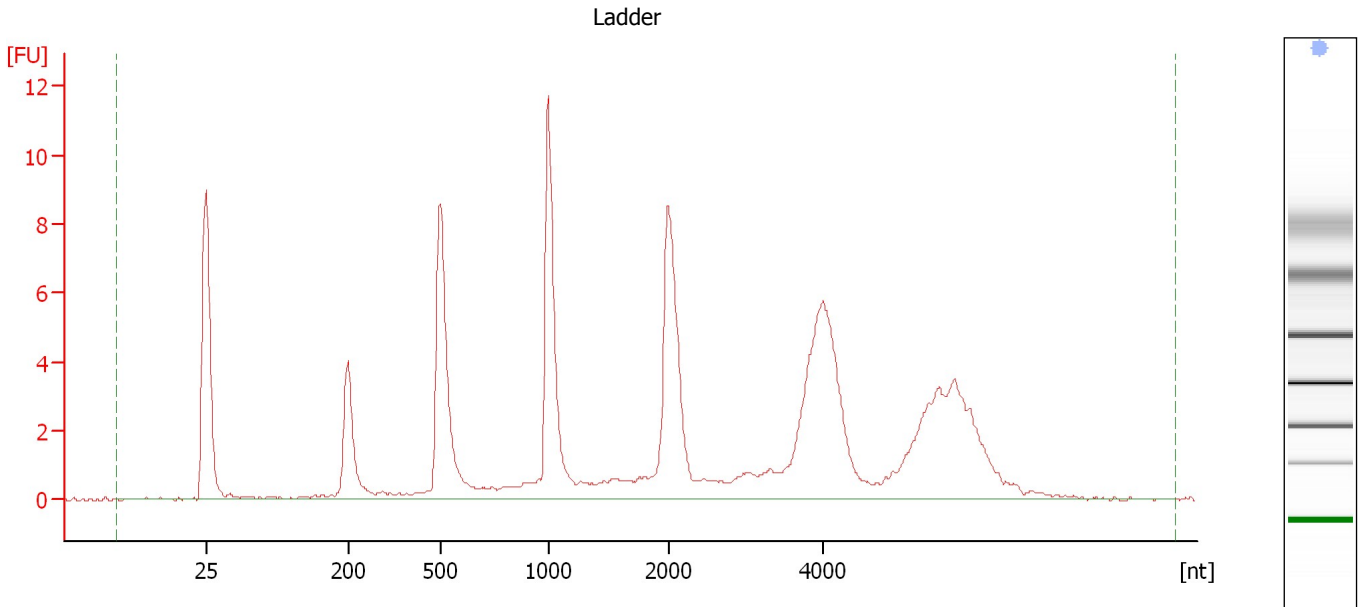
### Ladder

| 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\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
Modified: 3/15/2016 9:42:58 AM

**Electropherogram Summary**



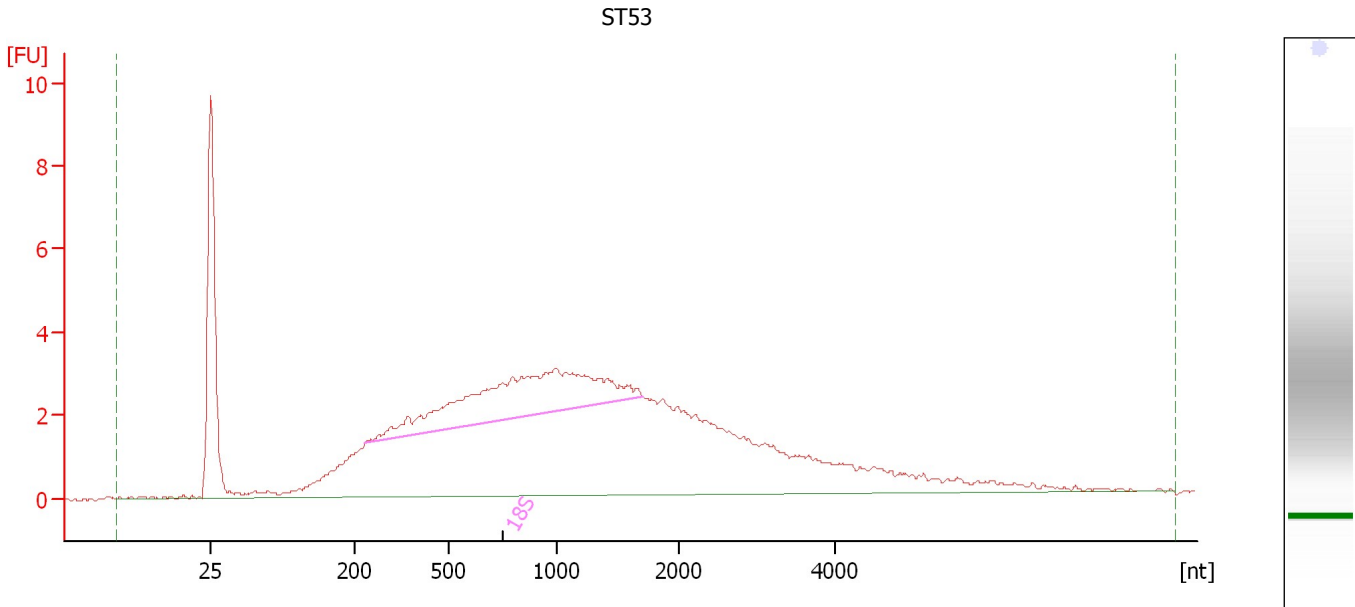
**Overall Results for Ladder**

|                    |                 |                        |   |
|--------------------|-----------------|------------------------|---|
| RNA Area:          | 106.2           | Result Flagging Color: | <span style="background-color: #add8e6; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> |
| RNA Concentration: | 150 ng/ $\mu$ l | Result Flagging Label: | All Other Samples   |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
 Modified: 3/15/2016 9:42:58 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : ST53**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 125.5     | RNA Integrity Number (RIN): | 4.8 (B.02.08,<br>Anomaly Threshold(s)<br>manually adapted)  |
| RNA Concentration:      | 177 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: 4.80   |

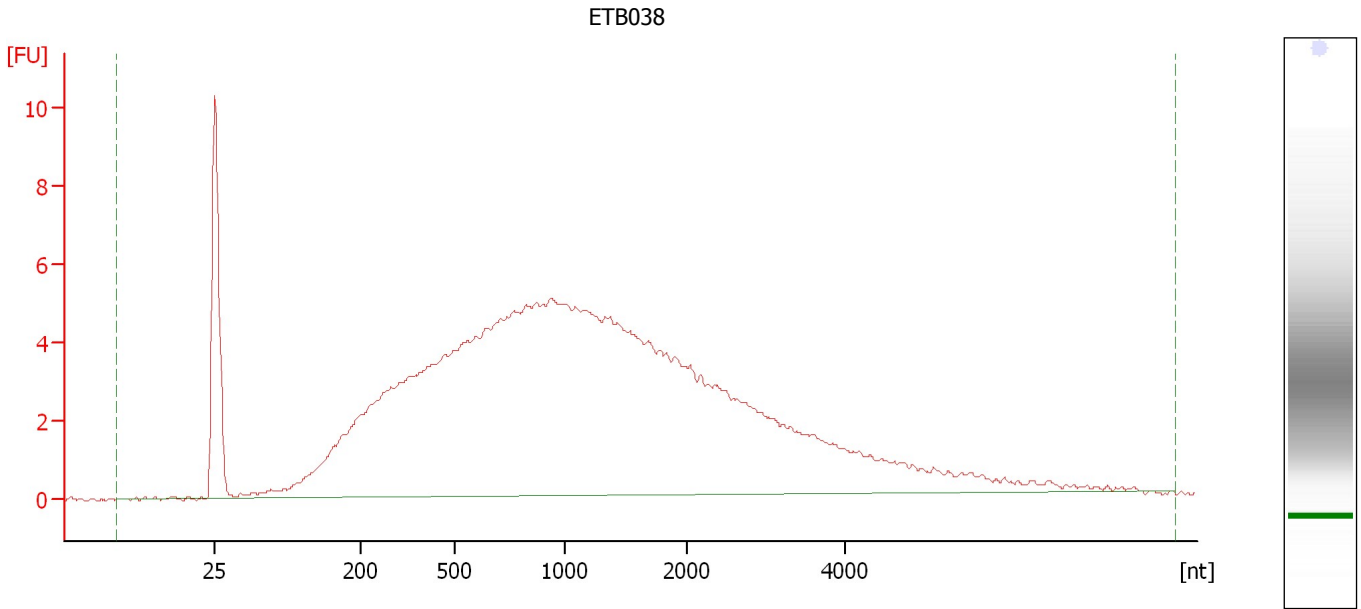
**Fragment table for sample 1 : ST53**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 234             | 1,703         | 19.7 | 15.7            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
Modified: 3/15/2016 9:42:58 AM

**Electropherogram Summary Continued ...**



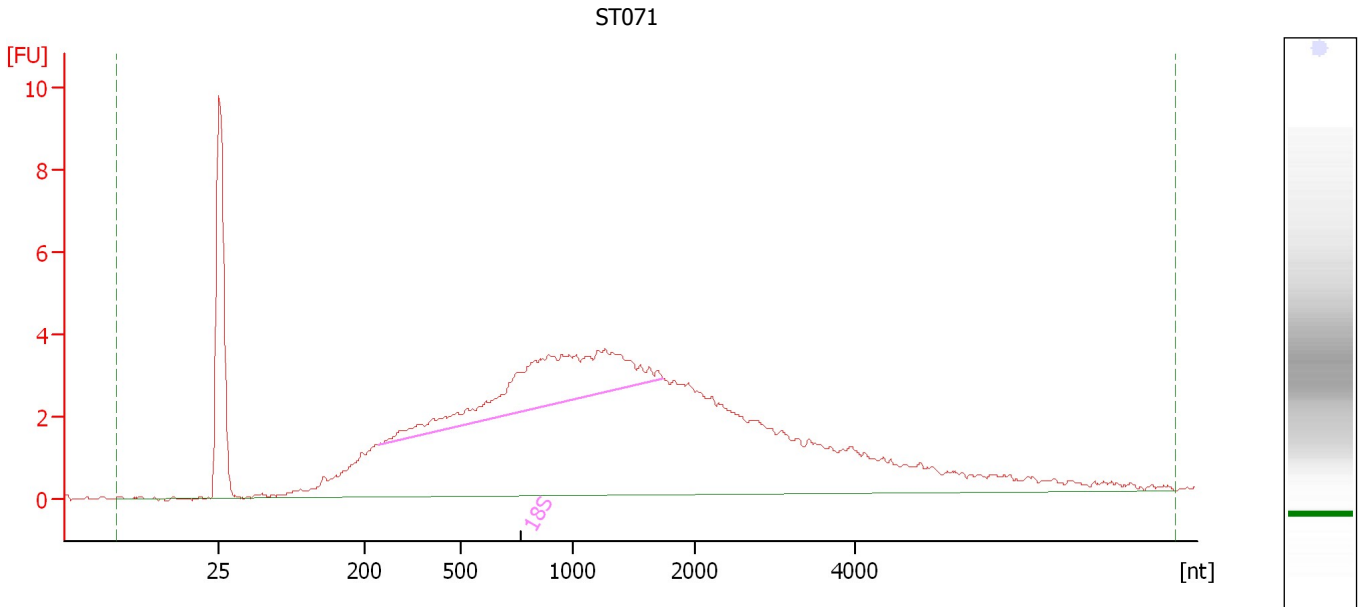
**Overall Results for sample 2 : ETB038**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 211.6     | RNA Integrity Number (RIN): | 2.3 (B.02.08,<br>Anomaly Threshold(s)<br>manually adapted)  |
| RNA Concentration:      | 299 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: 2.30   |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
 Modified: 3/15/2016 9:42:58 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : ST071**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 140.9     | RNA Integrity Number (RIN): | 4.5 (B.02.08,<br>Anomaly Threshold(s)<br>manually adapted)  |
| RNA Concentration:      | 199 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: 4.50   |

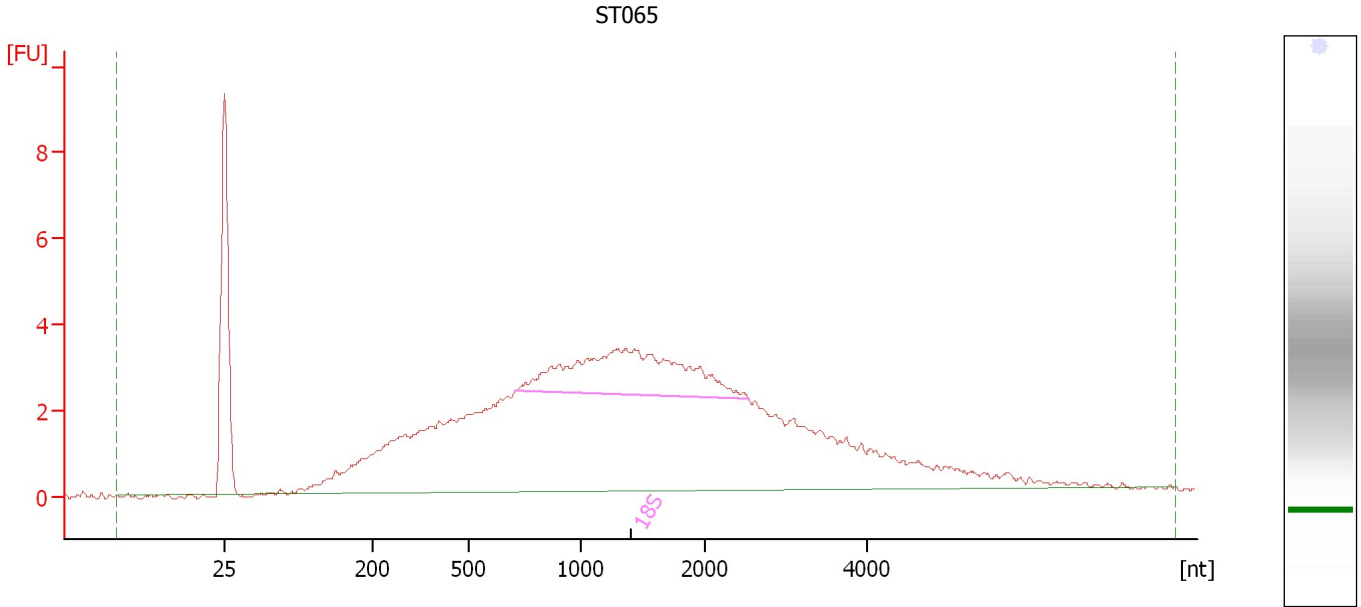
**Fragment table for sample 3 : ST071**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 242             | 1,740         | 19.6 | 13.9            |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
Modified: 3/15/2016 9:42:58 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : ST065**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 131.2     | RNA Integrity Number (RIN): | 4.3 (B.02.08, Anomaly Threshold(s) manually adapted)  |
| RNA Concentration:      | 185 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: 4.30   |

**Fragment table for sample 4 : ST065**

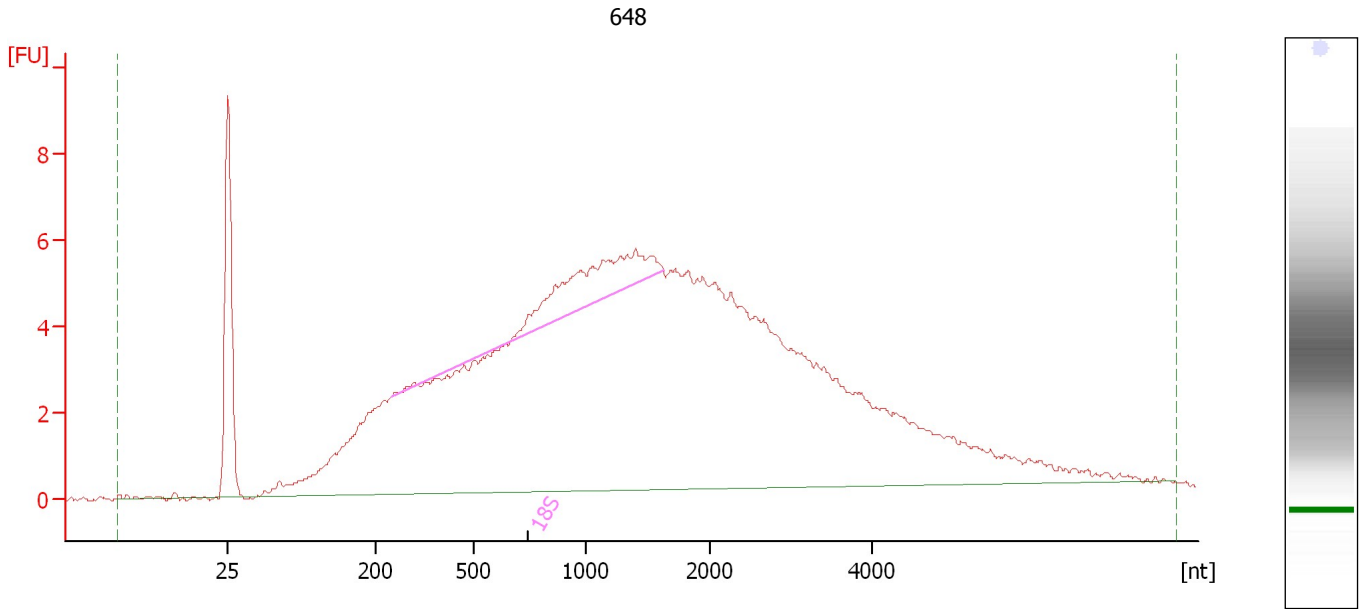
| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 708             | 2,538         | 15.7 | 12.0            |



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
Modified: 3/15/2016 9:42:58 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 648**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 235.8     | RNA Integrity Number (RIN): | 3 (B.02.08, Anomaly Threshold(s) manually adapted)  |
| RNA Concentration:      | 333 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   |

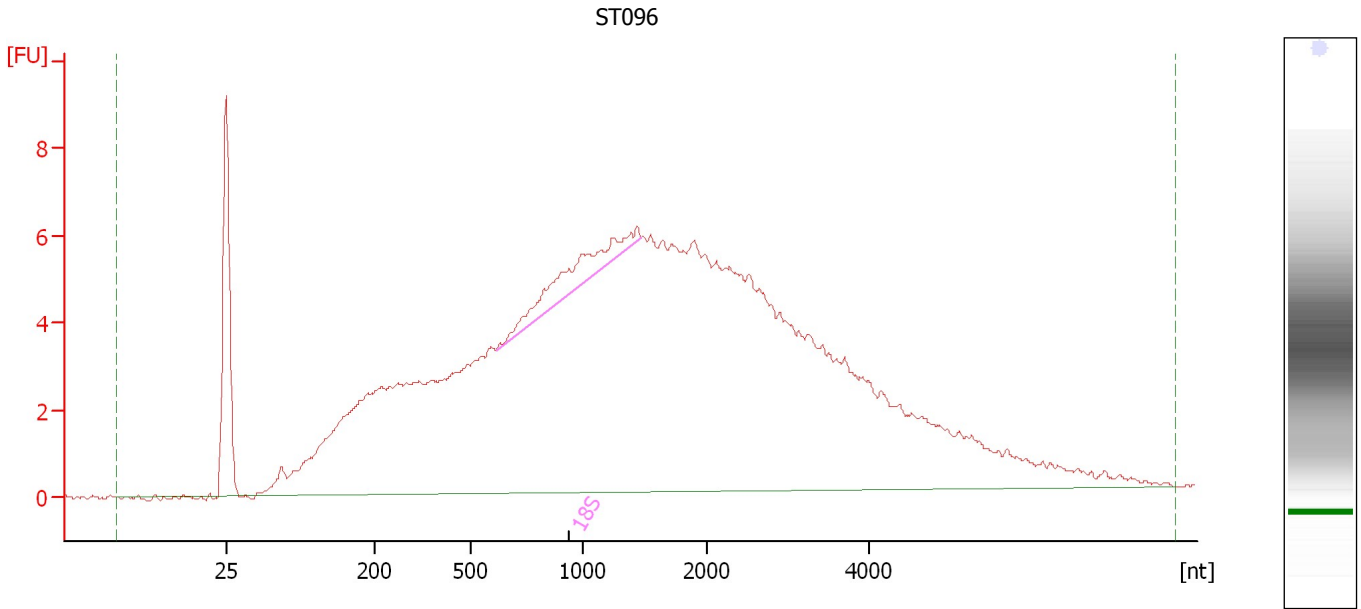
**Fragment table for sample 5 : 648**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 248             | 1,620         | 10.4 | 4.4             |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
 Modified: 3/15/2016 9:42:58 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : ST096**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 264.7     | RNA Integrity Number (RIN): | 2.8 (B.02.08,<br>Anomaly Threshold(s)<br>manually adapted)  |
| RNA Concentration:      | 374 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: 2.80   |

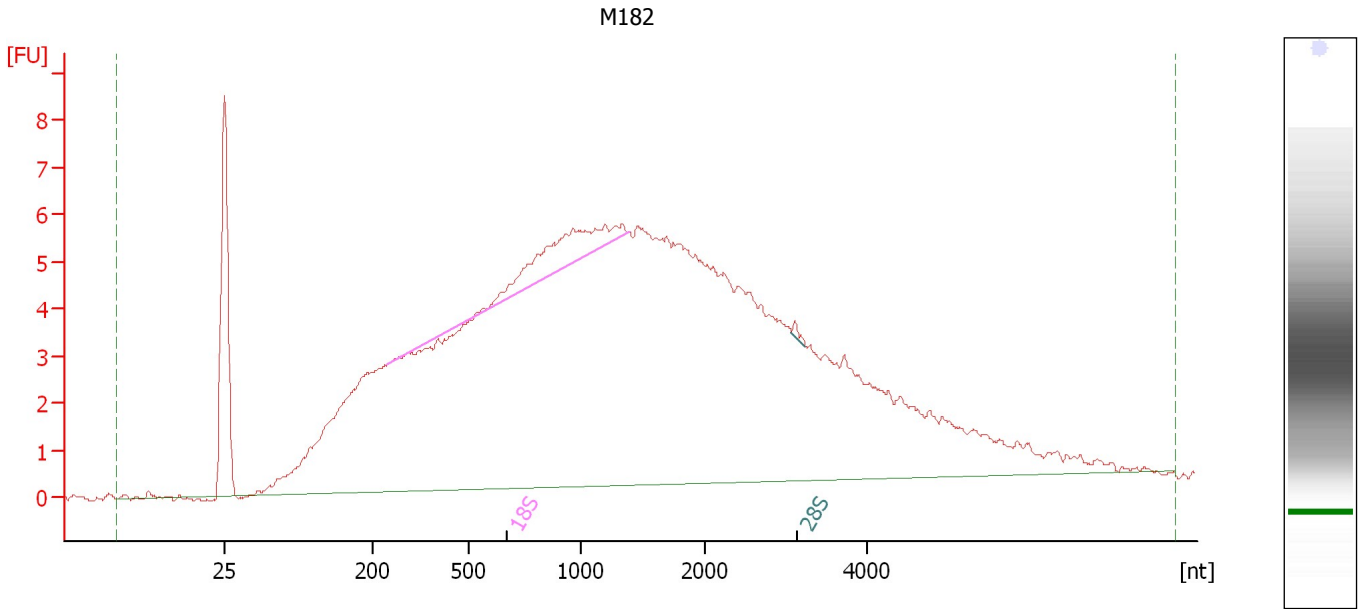
**Fragment table for sample 6 : ST096**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 614             | 1,473         | 6.2  | 2.3             |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
 Modified: 3/15/2016 9:42:58 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : M182**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 261.2     | RNA Integrity Number (RIN): | 2.9 (B.02.08,<br>Anomaly Threshold(s)<br>manually adapted)  |
| RNA Concentration:      | 369 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: 2.90   |

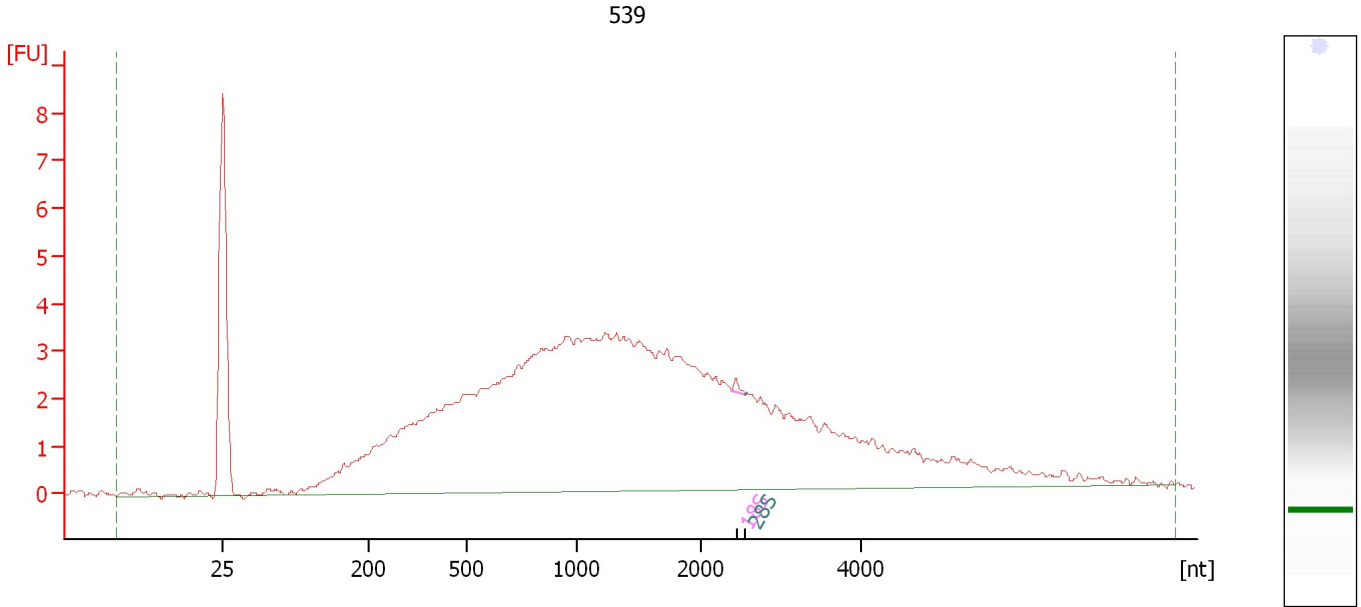
**Fragment table for sample 7 : M182**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 246             | 1,385         | 6.8  | 2.6             |
| 28S  | 3,069           | 3,242         | 0.2  | 0.1             |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
 Modified: 3/15/2016 9:42:58 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 539**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 135.2     | RNA Integrity Number (RIN): | 2.5 (B.02.08,<br>Anomaly Threshold(s)<br>manually adapted)  |
| 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]: | 0.0       | Result Flagging Label:      | RIN: 2.50   |

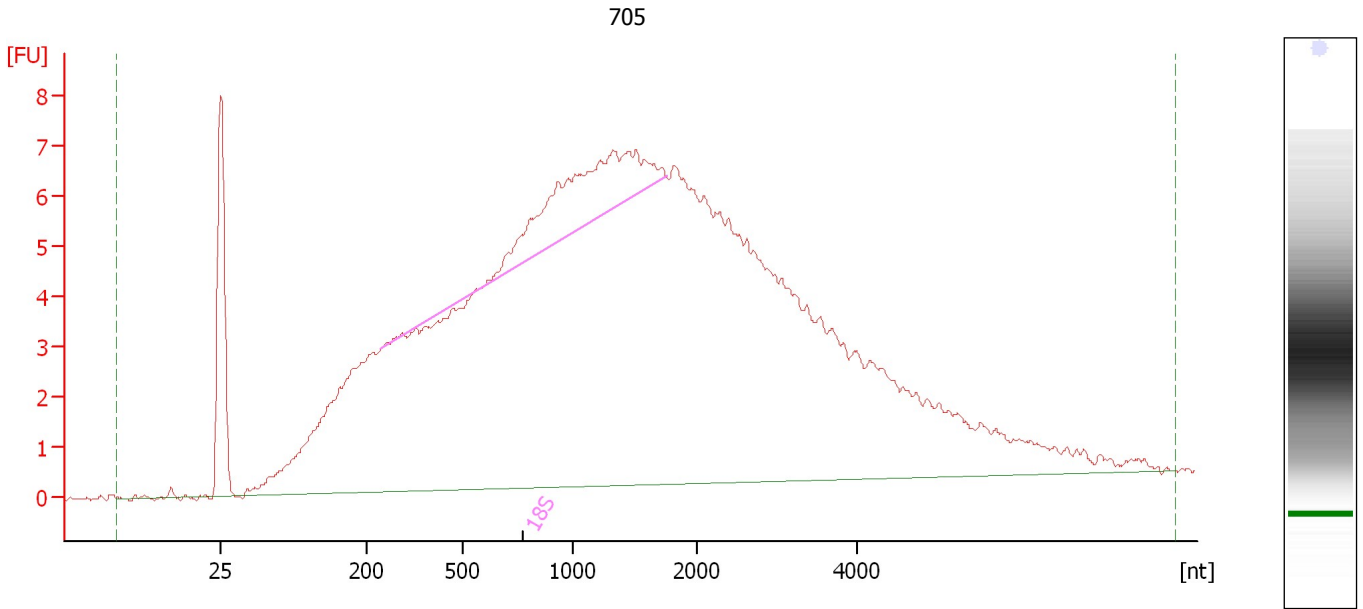
**Fragment table for sample 8 : 539**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 2,378           | 2,551         | 0.1  | 0.1             |
| 28S  | 2,578           | 2,551         | 0.0  | 0.0             |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
 Modified: 3/15/2016 9:42:58 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 705**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 297.9     | RNA Integrity Number (RIN): | 3.1 (B.02.08,<br>Anomaly Threshold(s)<br>manually adapted)  |
| RNA Concentration:      | 421 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   |

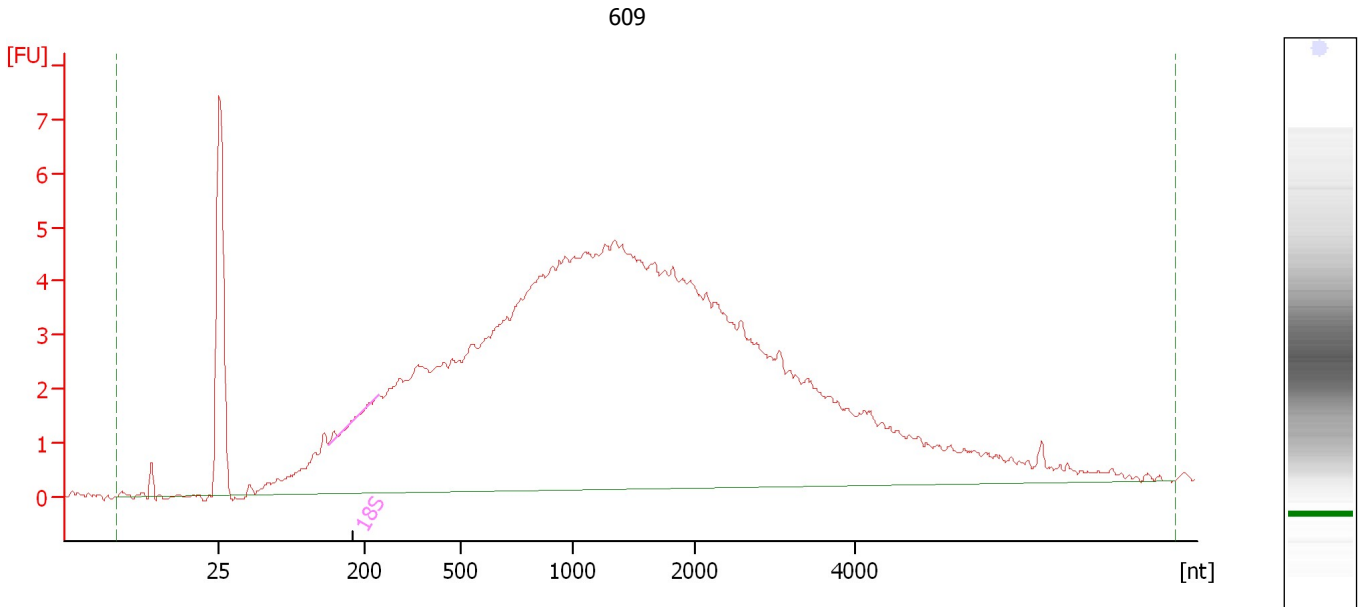
**Fragment table for sample 9 : 705**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 243             | 1,750         | 14.8 | 5.0             |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
Modified: 3/15/2016 9:42:58 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 609**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 192.7     | RNA Integrity Number (RIN): | 2.7 (B.02.08,<br>Anomaly Threshold(s)<br>manually adapted)  |
| RNA Concentration:      | 272 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: 2.70   |

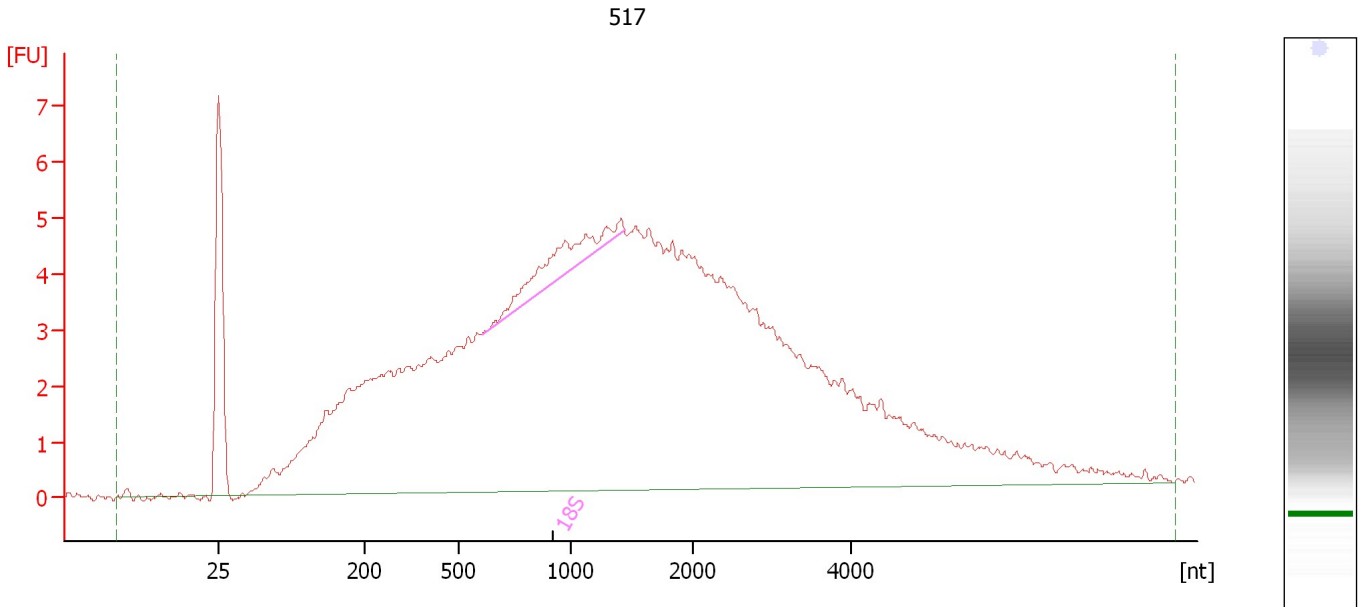
**Fragment table for sample 10 : 609**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 242             | 155           | 0.0  | 0.0             |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
Modified: 3/15/2016 9:42:58 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 517**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 212.7     | RNA Integrity Number (RIN): | 2.8 (B.02.08,<br>Anomaly Threshold(s)<br>manually adapted)  |
| RNA Concentration:      | 300 ng/μl |                             |   |
| rRNA Ratio [28s / 18s]: | 0.0       | Result Flagging Color:      | <span style="background-color: #ccccff; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> |
|                         |           | Result Flagging Label:      | RIN: 2.80   |

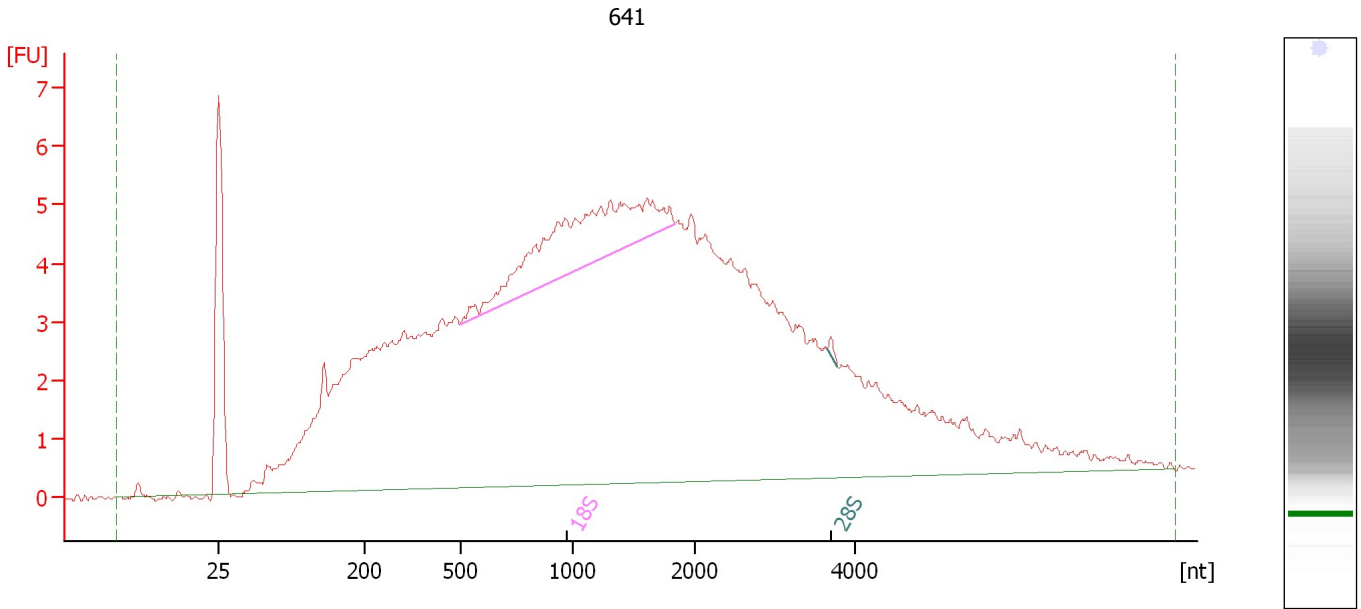
**Fragment table for sample 11 : 517**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 603             | 1,442         | 4.6  | 2.2             |

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
Modified: 3/15/2016 9:42:58 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 12 : 641**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 230.0     | RNA Integrity Number (RIN): | 3.1 (B.02.08, Anomaly Threshold(s) manually adapted)  |
| RNA Concentration:      | 325 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 12 : 641**

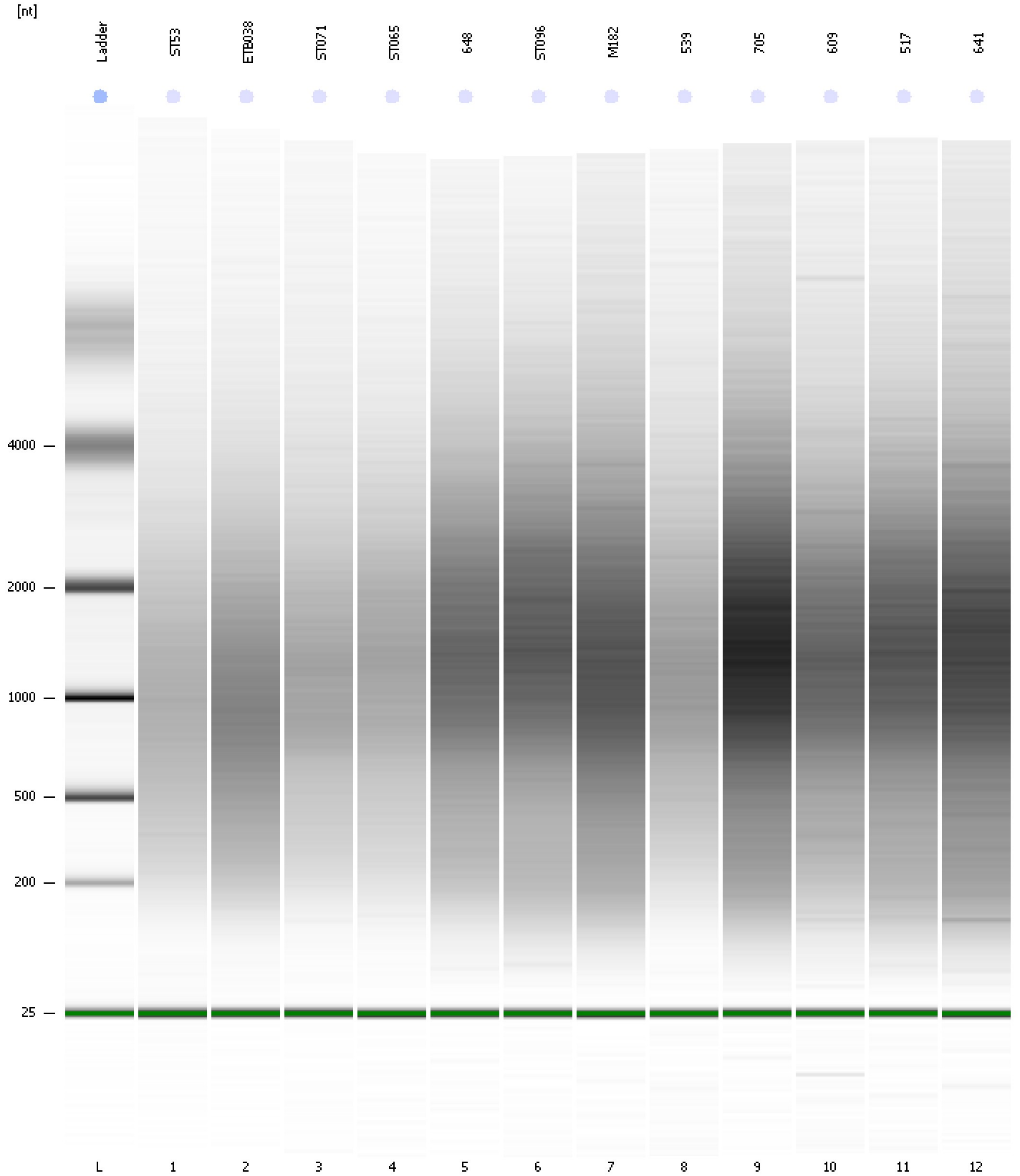
| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 496             | 1,835         | 13.4 | 5.8             |
| 28S  | 3,652           | 3,786         | 0.2  | 0.1             |



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
Modified: 3/15/2016 9:42:58 AM

**Gel Image**



Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15\_001.xad

Created: 3/15/2016 9:18:11 AM  
 Modified: 3/15/2016 9:42:58 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      |              | 3/15/2016 9:41:59 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_001.xad) |        | Instrument | Run      |              | 3/15/2016 9:18:17 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B  |        | Instrument | Run      |              | 3/15/2016 9:18:17 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name :   |        | Instrument | Run      |              | 3/15/2016 9:18:17 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies  |        | Instrument | Run      |              | 3/15/2016 9:18:17 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086   |        | Instrument | Run      |              | 3/15/2016 9:18:17 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069  |        | Instrument | Run      |              | 3/15/2016 9:18:17 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode  |        | Instrument | Run      |              | 3/15/2016 9:18:17 AM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |