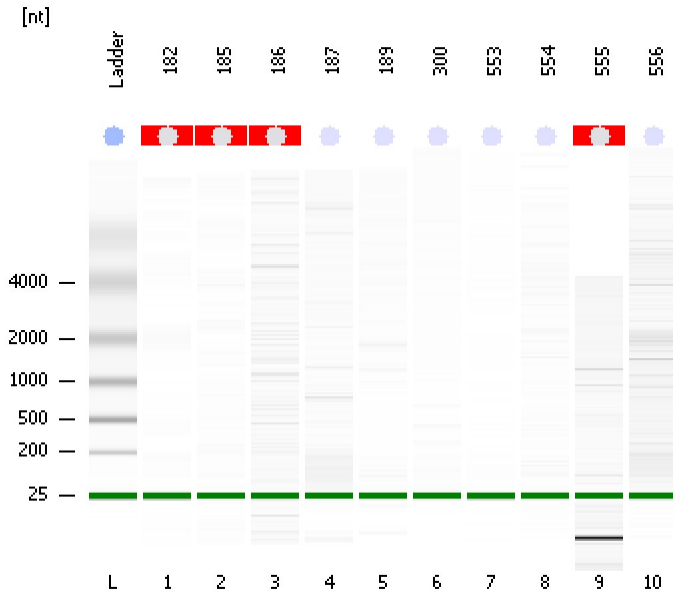


Assay Class: Eukaryote Total RNA Pico  
Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
Modified: 4/19/2019 2:06:32 PM

**Electrophoresis File Run Summary**



Instrument Information:

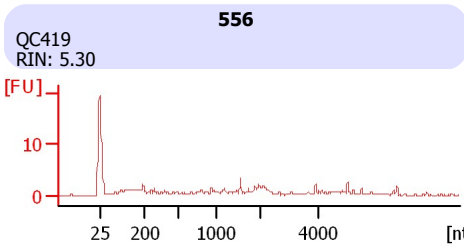
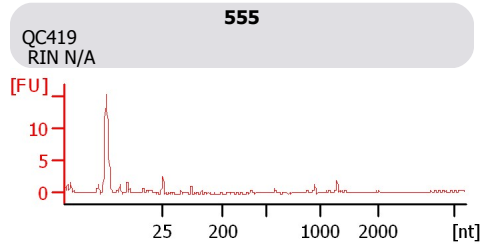
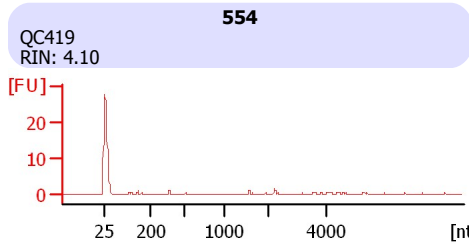
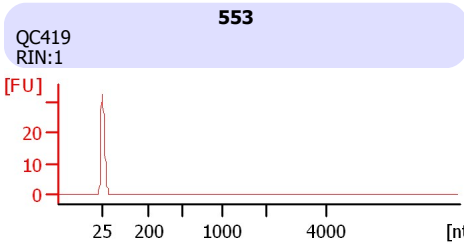
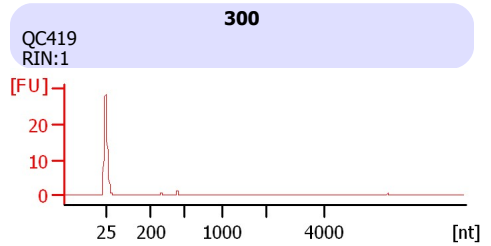
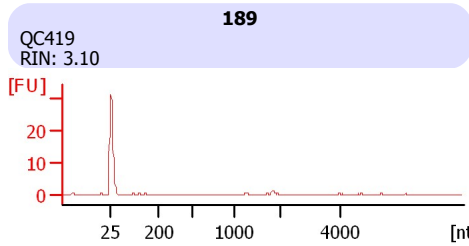
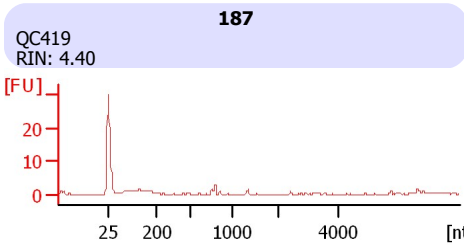
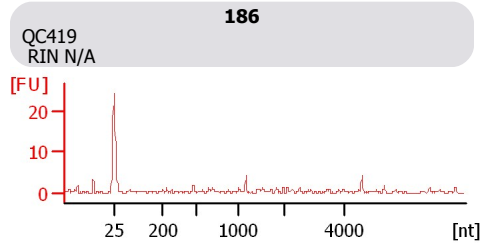
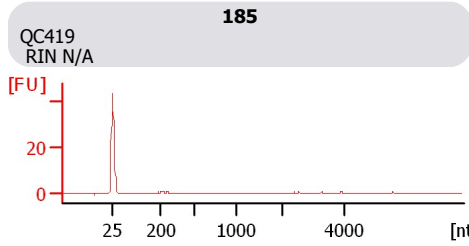
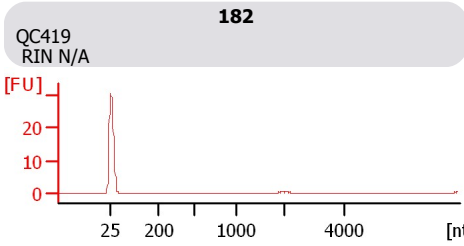
Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

Assay Information:

Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\RNA\Eukaryote Total RNA Pico Series II.xsy  
Assay Class: Eukaryote Total RNA Pico  
Version: 2.6  
Assay Comments: Total RNA Analysis pg sensitivity (Eukaryote)  
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Chip Information:

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



Assay Class: Eukaryote Total RNA Pico  
 Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
 Modified: 4/19/2019 2:06:32 PM

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

| Sample Name | Sample Comment | Status | Result Label      | Result Color |
|-------------|----------------|--------|-------------------|--------------|
| 182         | QC419          | ✓      | RIN N/A           |              |
| 185         | QC419          | ✓      | RIN N/A           |              |
| 186         | QC419          | ✓      | RIN N/A           |              |
| 187         | QC419          | ✓      | RIN: 4.40         |              |
| 189         | QC419          | ✓      | RIN: 3.10         |              |
| 300         | QC419          | ✓      | RIN:1             |              |
| 553         | QC419          | ✓      | RIN:1             |              |
| 554         | QC419          | ✓      | RIN: 4.10         |              |
| 555         | QC419          | ✓      | RIN N/A           |              |
| 556         | QC419          | ✓      | RIN: 5.30         |              |
| Ladder      |                | ✓      | All Other Samples |              |

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: Eukaryote Total RNA Pico  
Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
Modified: 4/19/2019 2:06:32 PM

## Electrophoresis Assay Details

### General Analysis Settings

Number of Available Sample and Ladder Wells (Max.) : 12  
Minimum Visible Range [s] : 17  
Maximum Visible Range [s] : 70  
Start Analysis Time Range [s] : 18  
End Analysis Time Range [s] : 69  
Ladder Concentration [pg/ $\mu$ l] : 1000  
Lower Marker Concentration [pg/ $\mu$ l] : 0  
Upper Marker Concentration [pg/ $\mu$ l] : 0  
Used Lower Marker for Quantitation  
Standard Curve Fit is Logarithmic  
Show Data Aligned to Lower Marker

### Integrator Settings

Integration Start Time [s] : 18  
Integration End Time [s] : 69  
Slope Threshold : 0.6  
Height Threshold [FU] : 0.5  
Area Threshold : 0.2  
Width Threshold [s] : 0.3  
Baseline Plateau [s] : 6

### Filter Settings

Filter Width [s] : 0.5  
Polynomial Order : 4

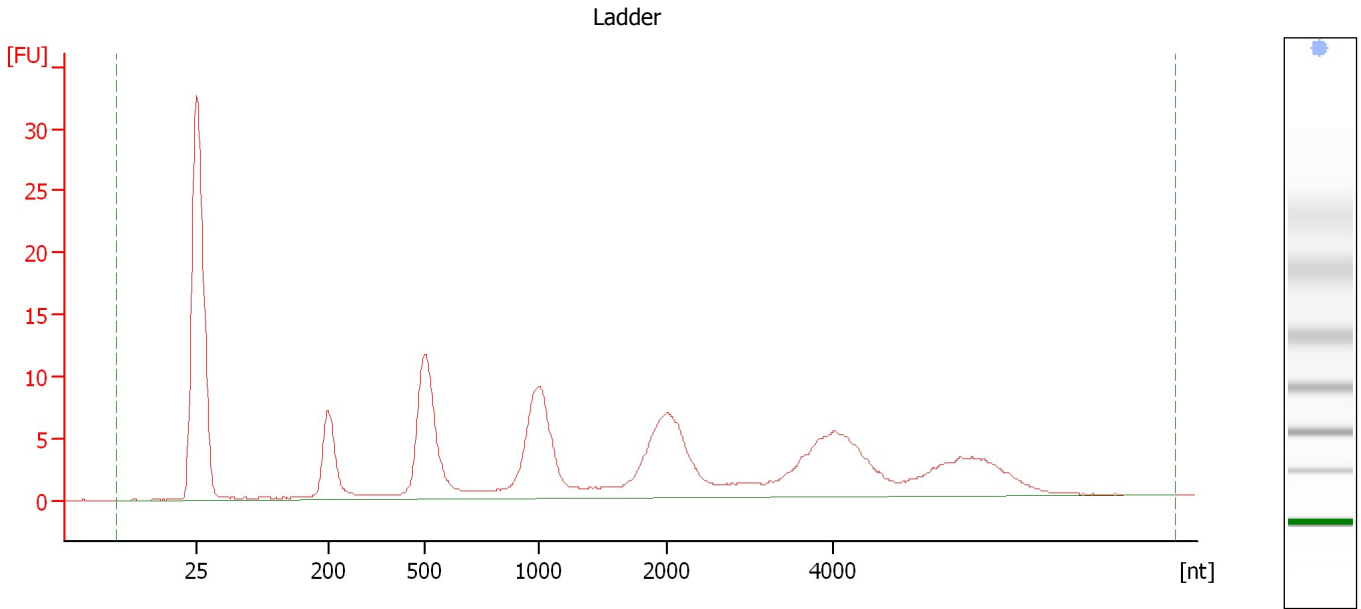
### Ladder

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

Assay Class: Eukaryote Total RNA Pico  
Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
Modified: 4/19/2019 2:06:32 PM

**Electropherogram Summary**



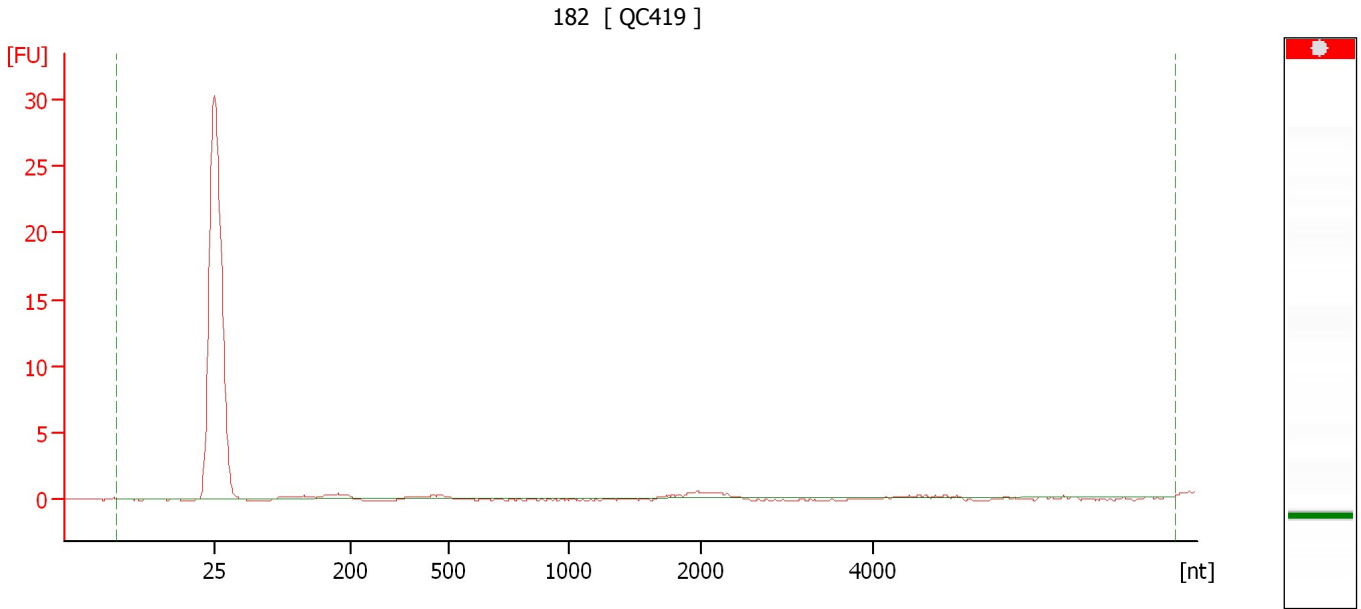
**Overall Results for Ladder**

|                    |                   |                        |   |
|--------------------|-------------------|------------------------|---|
| RNA Area:          | 197.4             | Result Flagging Color: | <span style="background-color: #add8e6; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> |
| RNA Concentration: | 1,000 pg/ $\mu$ l | Result Flagging Label: | All Other Samples   |

Assay Class: Eukaryote Total RNA Pico  
Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
Modified: 4/19/2019 2:06:32 PM

**Electropherogram Summary Continued ...**



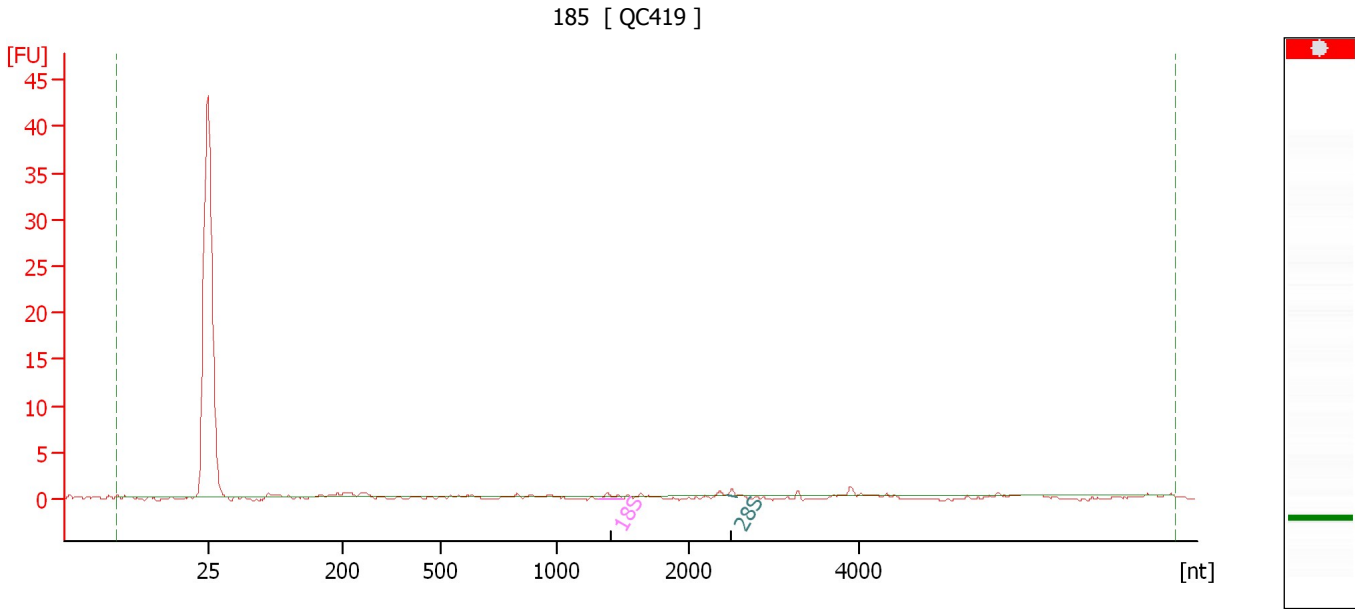
**Overall Results for sample 1 : 182**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 4.4      | RNA Integrity Number (RIN): | N/A (B.02.08)   |
| RNA Concentration:      | 22 pg/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]: | 0.0      | Result Flagging Label:      | RIN N/A   |

Assay Class: Eukaryote Total RNA Pico  
Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
Modified: 4/19/2019 2:06:32 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 185**

RNA Area: 4.7                      RNA Integrity Number (RIN): N/A (B.02.08)  
RNA Concentration: 24 pg/μl              Result Flagging Color:   
rRNA Ratio [28s / 18s]: 0.5              Result Flagging Label: RIN N/A

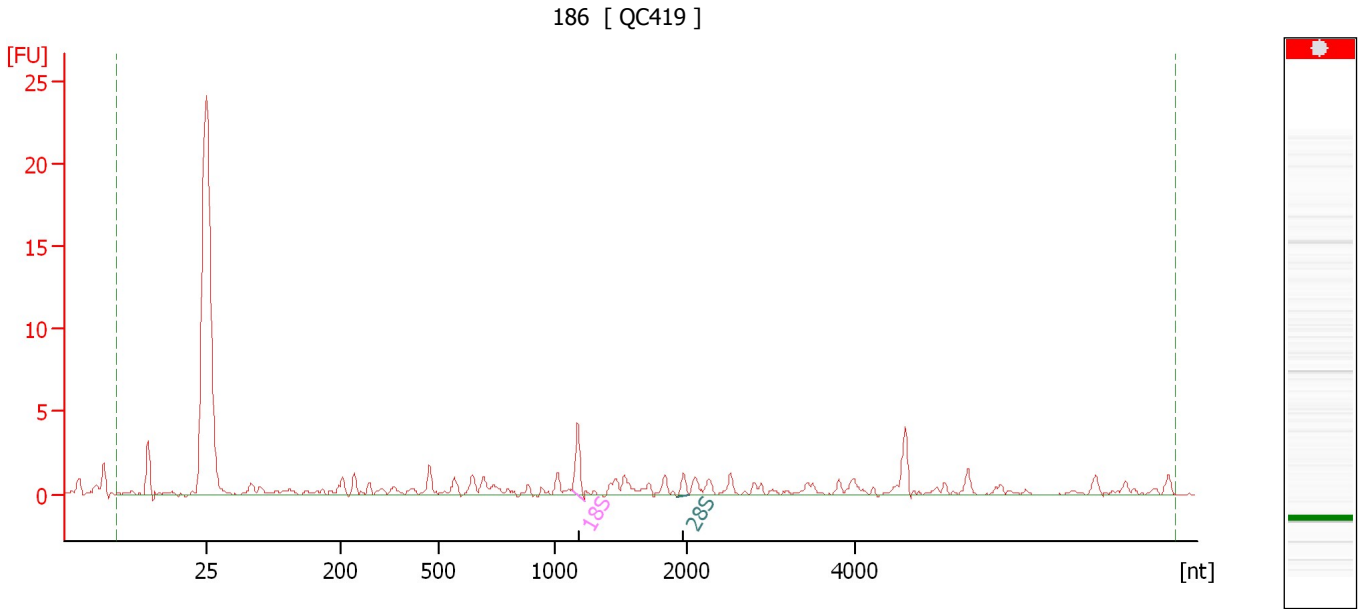
**Fragment table for sample 2 : 185**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,319           | 1,506         | 0.7  | 15.0            |
| 28S  | 2,446           | 2,571         | 0.4  | 7.5             |

Assay Class: Eukaryote Total RNA Pico  
 Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
 Modified: 4/19/2019 2:06:32 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 186**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 37.4      | RNA Integrity Number (RIN): | N/A (B.02.08)   |
| RNA Concentration:      | 189 µg/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]: | 0.3       | Result Flagging Label:      | RIN N/A   |

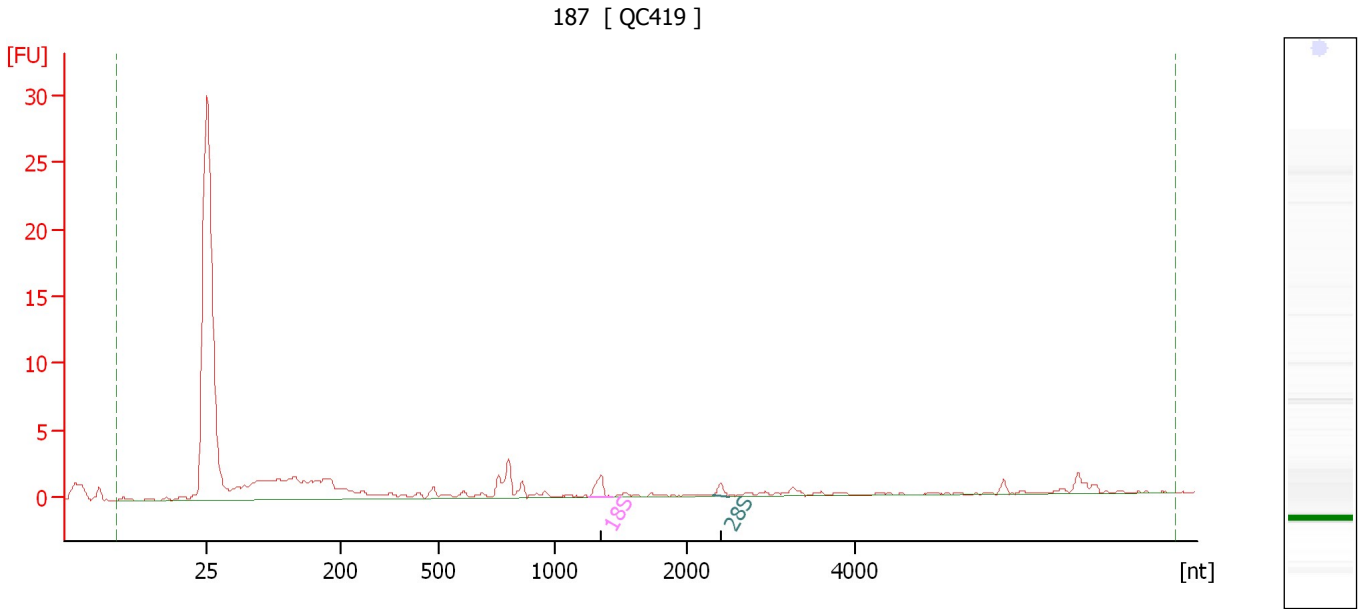
**Fragment table for sample 3 : 186**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,129           | 1,219         | 2.8  | 7.5             |
| 28S  | 1,930           | 2,043         | 0.8  | 2.1             |

Assay Class: Eukaryote Total RNA Pico  
 Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
 Modified: 4/19/2019 2:06:32 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 187**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 48.2      | RNA Integrity Number (RIN): | 4.4 (B.02.08)   |
| RNA Concentration:      | 244 µg/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: 4.40   |

**Fragment table for sample 4 : 187**

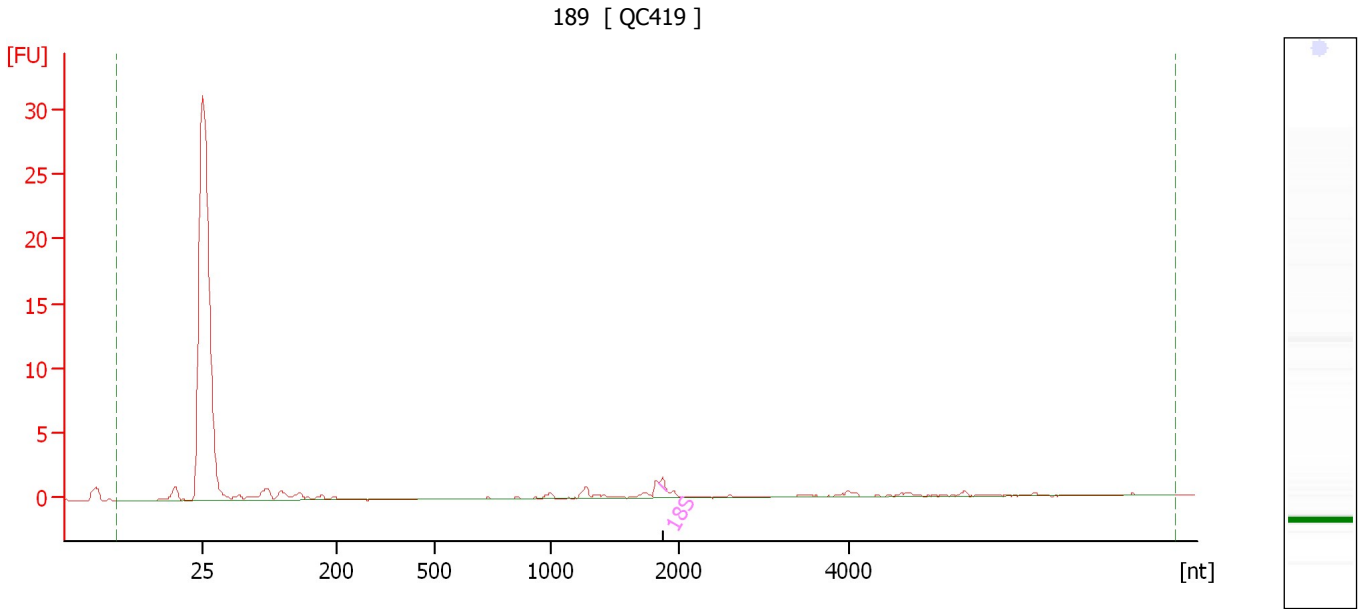
| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,251           | 1,439         | 1.5  | 3.1             |
| 28S  | 2,307           | 2,496         | 0.6  | 1.3             |



Assay Class: Eukaryote Total RNA Pico  
 Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
 Modified: 4/19/2019 2:06:32 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 189**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 17.0     | RNA Integrity Number (RIN): | 3.1 (B.02.08)   |
| RNA Concentration:      | 86 pg/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   |

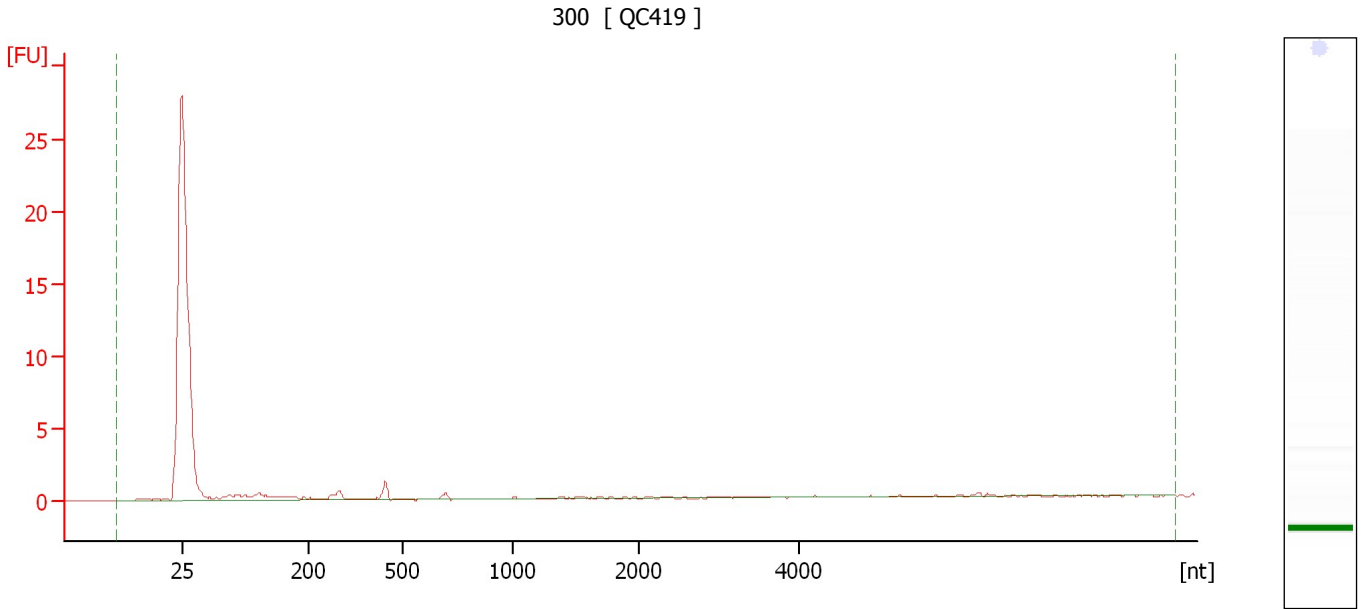
**Fragment table for sample 5 : 189**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,838           | 1,903         | 0.3  | 1.8             |

Assay Class: Eukaryote Total RNA Pico  
Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
Modified: 4/19/2019 2:06:32 PM

**Electropherogram Summary Continued ...**



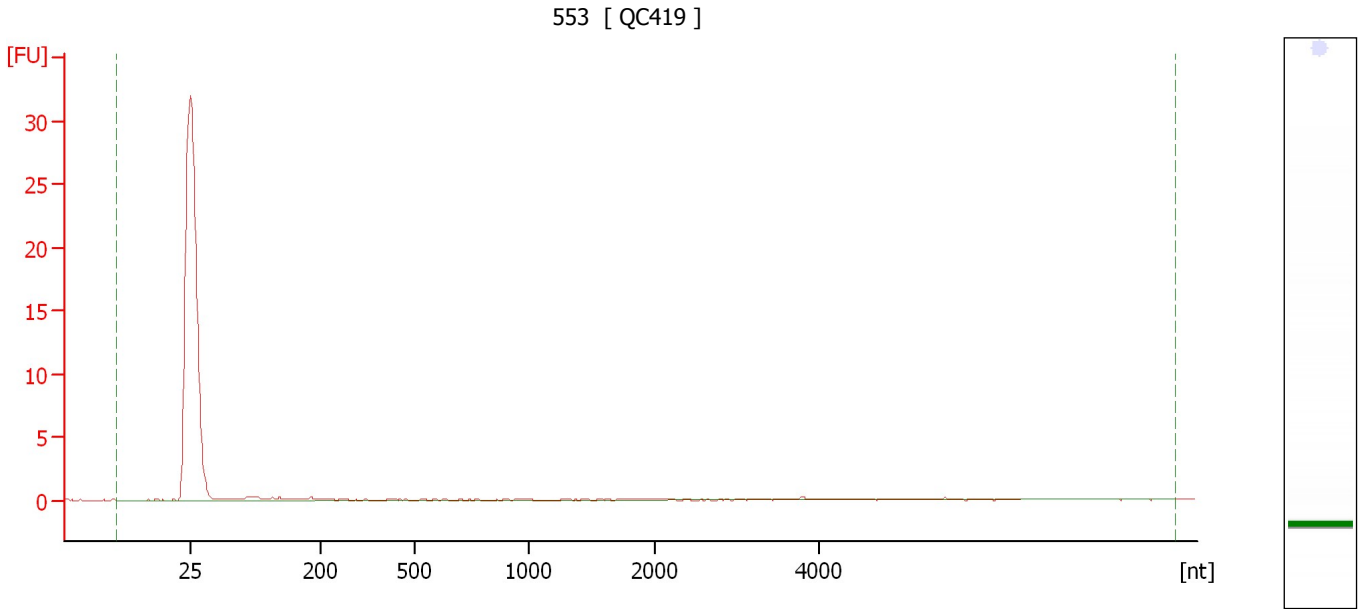
**Overall Results for sample 6 : 300**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 7.9      | RNA Integrity Number (RIN): | 1 (B.02.08)   |
| RNA Concentration:      | 40 pg/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:1   |

Assay Class: Eukaryote Total RNA Pico  
Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
Modified: 4/19/2019 2:06:32 PM

**Electropherogram Summary Continued ...**



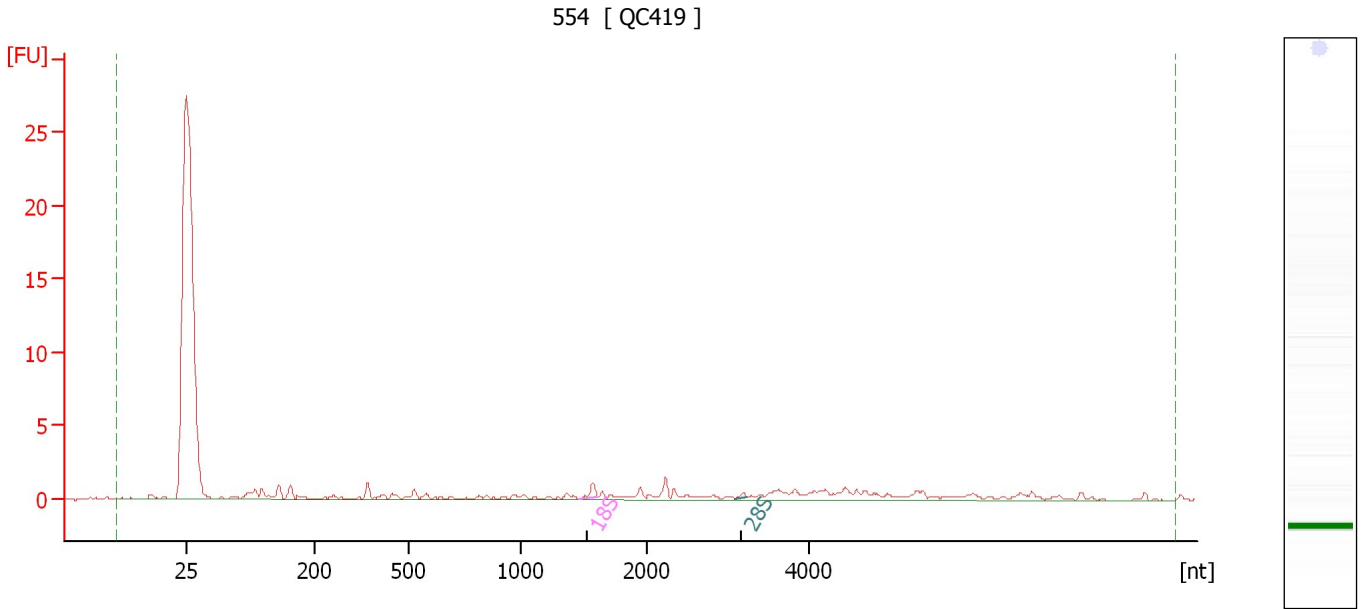
**Overall Results for sample 7 : 553**

|                         |          |                             |   |
|-------------------------|----------|-----------------------------|---|
| RNA Area:               | 3.7      | RNA Integrity Number (RIN): | 1 (B.02.08)   |
| RNA Concentration:      | 19 pg/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:1   |

Assay Class: Eukaryote Total RNA Pico  
 Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
 Modified: 4/19/2019 2:06:32 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 554**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 27.8      | RNA Integrity Number (RIN): | 4.1 (B.02.08)   |
| RNA Concentration:      | 141 pg/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]: | 0.2       | Result Flagging Label:      | RIN: 4.10   |

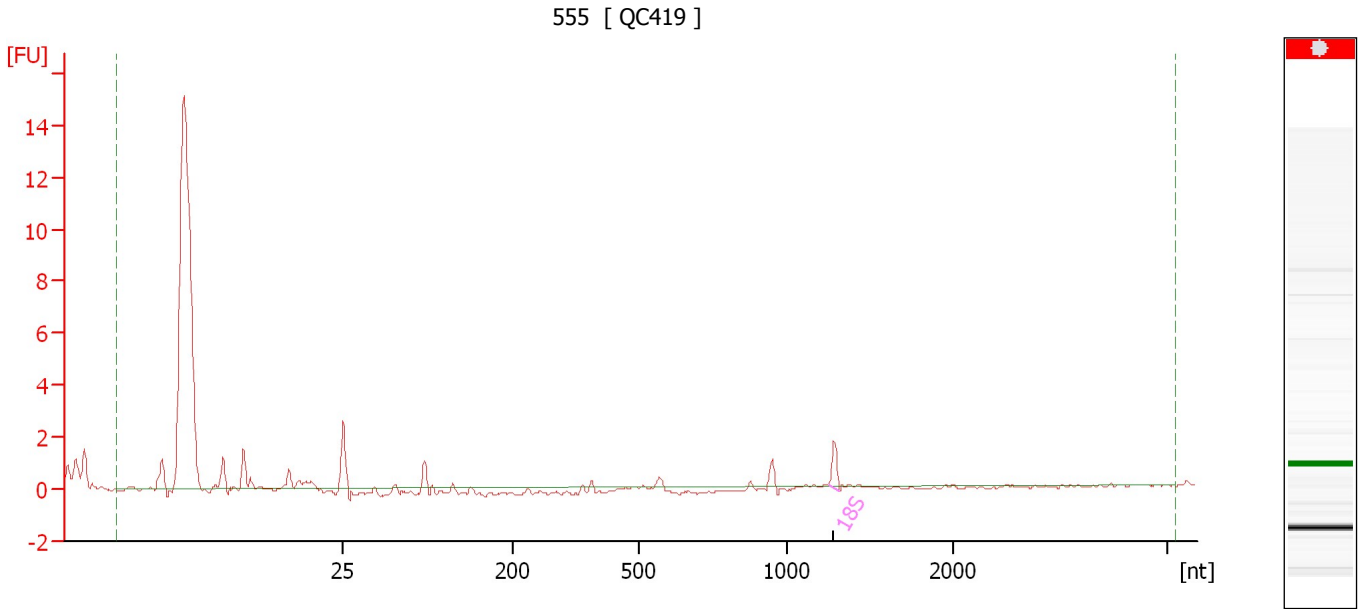
**Fragment table for sample 8 : 554**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,467           | 1,612         | 0.7  | 2.7             |
| 28S  | 3,080           | 3,237         | 0.2  | 0.6             |

Assay Class: Eukaryote Total RNA Pico  
 Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
 Modified: 4/19/2019 2:06:32 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 555**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 46.6      | RNA Integrity Number (RIN): | N/A (B.02.08)   |
| RNA Concentration:      | 236 pg/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]: | 0.0       | Result Flagging Label:      | RIN N/A   |

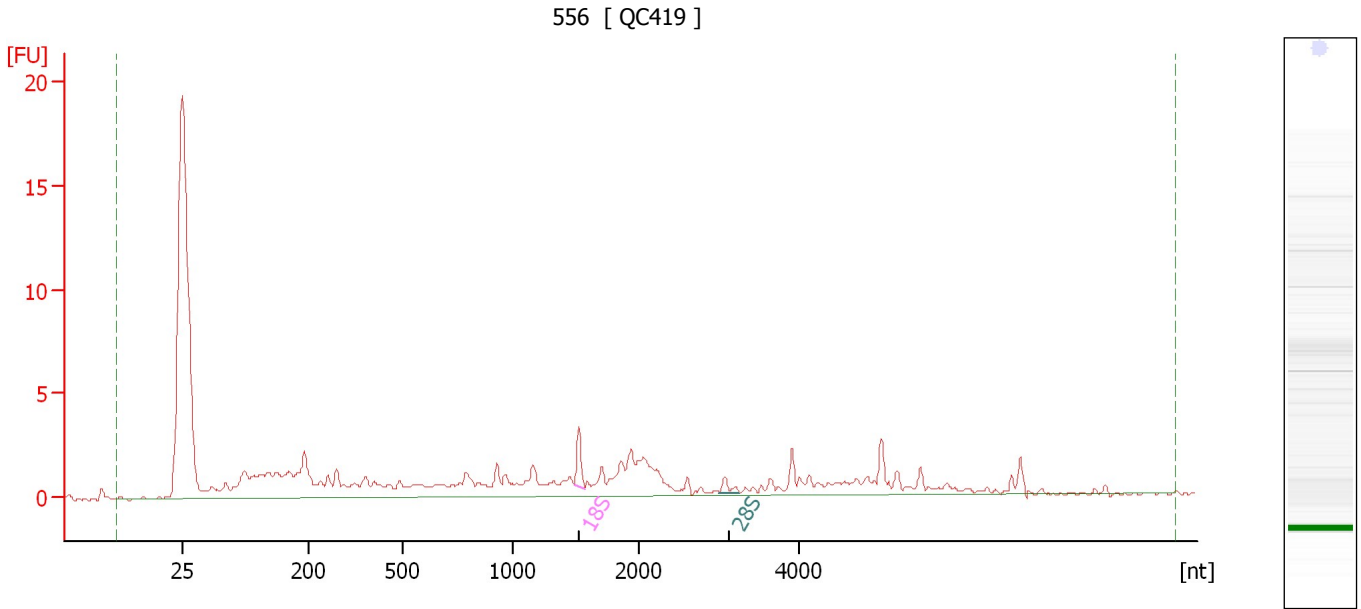
**Fragment table for sample 9 : 555**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,255           | 1,320         | 0.8  | 1.7             |

Assay Class: Eukaryote Total RNA Pico  
 Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
 Modified: 4/19/2019 2:06:32 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 556**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 73.1      | RNA Integrity Number (RIN): | 5.3 (B.02.08)   |
| RNA Concentration:      | 370 pg/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]: | 0.3       | Result Flagging Label:      | RIN: 5.30   |

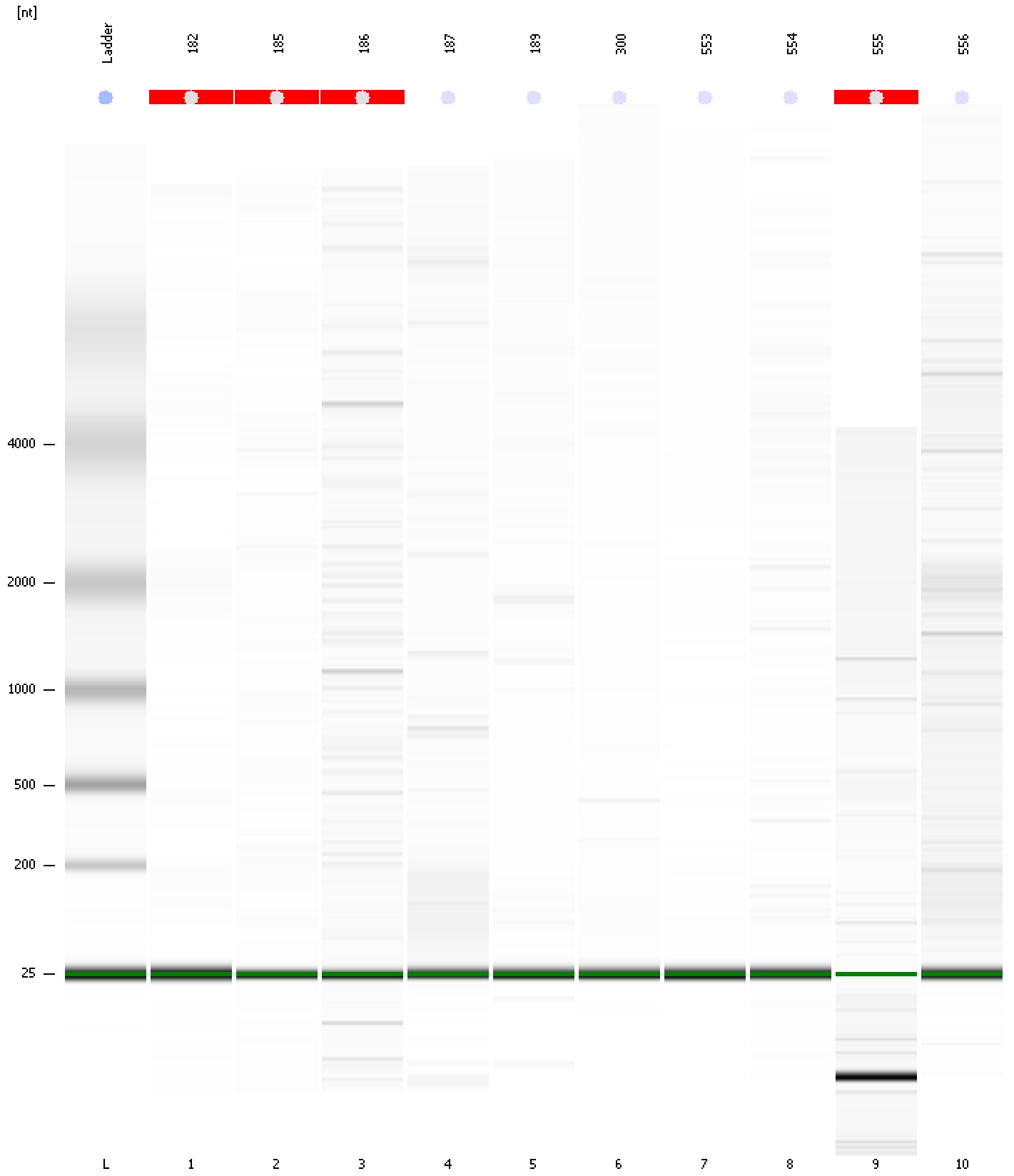
**Fragment table for sample 10 : 556**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,486           | 1,572         | 1.7  | 2.3             |
| 28S  | 3,007           | 3,259         | 0.5  | 0.7             |

Assay Class: Eukaryote Total RNA Pico  
Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
Modified: 4/19/2019 2:06:32 PM

**Gel Image**



Assay Class: Eukaryote Total RNA Pico  
 Data Path: C:\...r\2100 expert\data\2019-04-19\2019-04-19\_005\_QC419\_5of5.xad

Created: 4/19/2019 1:32:38 PM  
 Modified: 4/19/2019 2:06:32 PM

**Run Logbook**

| Description  | Number | Source     | Category | Sub Category | Time                 | Time Zone                           | User     | Host     |
|--|--------|------------|----------|--------------|----------------------|-------------------------------------|----------|----------|
| Run ended on port 1 (Number of wells acquired: 12)   |        | Instrument | Run      |              | 4/19/2019 1:55:30 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2019-04-19\2019-04-19_005.xad) |        | Instrument | Run      |              | 4/19/2019 1:32:43 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938C  |        | Instrument | Run      |              | 4/19/2019 1:32:43 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name :   |        | Instrument | Run      |              | 4/19/2019 1:32:43 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies  |        | Instrument | Run      |              | 4/19/2019 1:32:43 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE34903152   |        | Instrument | Run      |              | 4/19/2019 1:32:43 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069  |        | Instrument | Run      |              | 4/19/2019 1:32:43 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode  |        | Instrument | Run      |              | 4/19/2019 1:32:43 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |