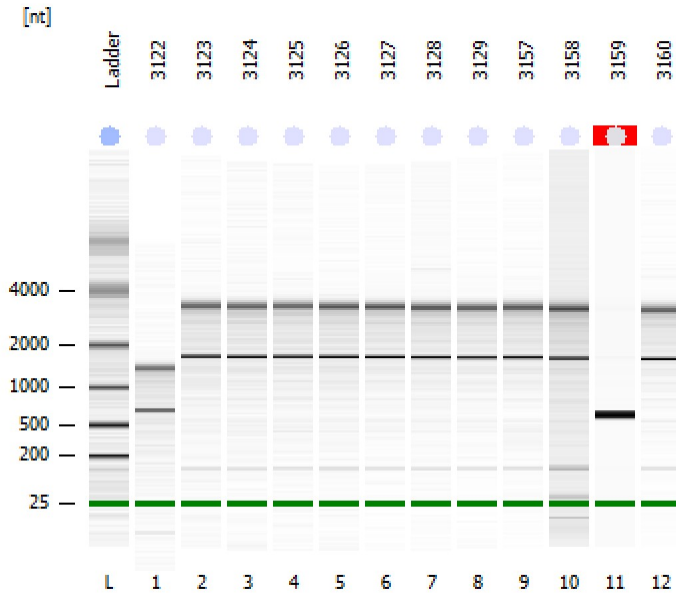


Assay Class: Eukaryote Total RNA Nano  
Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
Modified: 3/9/2020 3:09:56 PM

Electrophoresis File Run Summary



Instrument Information:

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

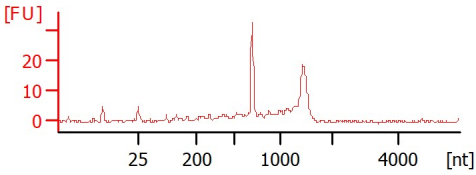
Assay Information:

Assay Origin Path: C:\Program Files (x86)\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.

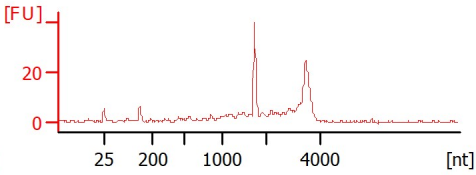
Chip Information:

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

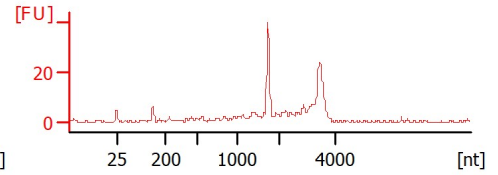
**3122**  
RIN: 6.70



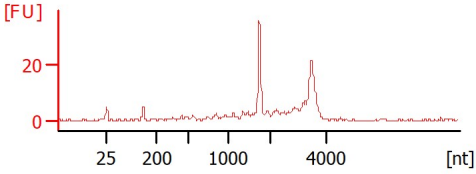
**3123**  
RIN: 7.90



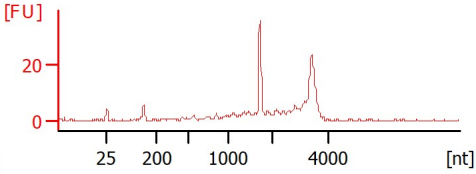
**3124**  
RIN: 7.80



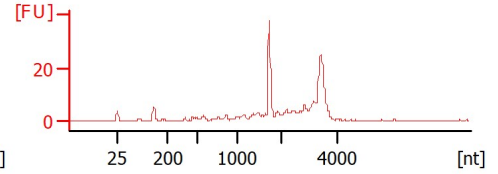
**3125**  
RIN: 7.90



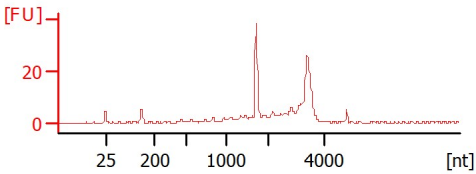
**3126**  
RIN: 7.80



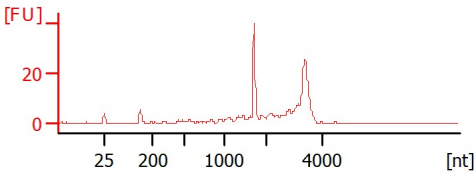
**3127**  
RIN: 8.10



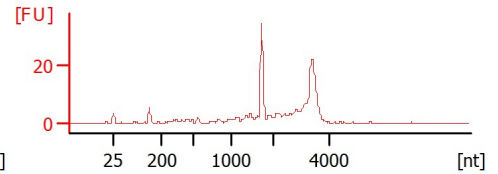
**3128**  
RIN: 8.40



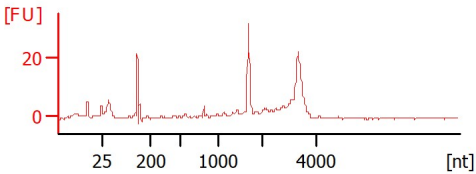
**3129**  
RIN: 8.20



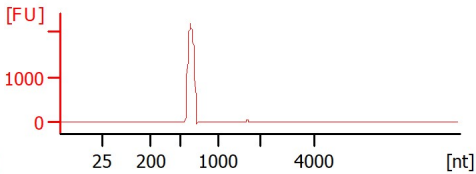
**3157**  
RIN: 8.20



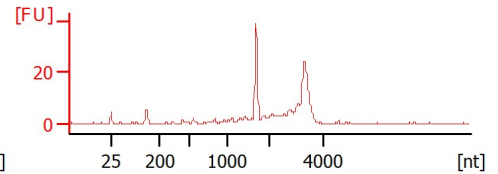
**3158**  
RIN: 8.90



**3159**  
RIN N/A



**3160**  
RIN: 8.40



Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
 Modified: 3/9/2020 3:09:56 PM

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

| Sample Name | Sample Comment | Status | Result Label      | Result Color |
|-------------|----------------|--------|-------------------|--------------|
| 3122        |                | ✓      | RIN: 6.70         |              |
| 3123        |                | ✓      | RIN: 7.90         |              |
| 3124        |                | ✓      | RIN: 7.80         |              |
| 3125        |                | ✓      | RIN: 7.90         |              |
| 3126        |                | ✓      | RIN: 7.80         |              |
| 3127        |                | ✓      | RIN: 8.10         |              |
| 3128        |                | ✓      | RIN: 8.40         |              |
| 3129        |                | ✓      | RIN: 8.20         |              |
| 3157        |                | ✓      | RIN: 8.20         |              |
| 3158        |                | ✓      | RIN: 8.90         |              |
| 3159        |                | ✓      | RIN N/A           |              |
| 3160        |                | ✓      | RIN: 8.40         |              |
| Ladder      |                | ✓      | All Other Samples |              |

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
 Modified: 3/9/2020 3:09:56 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

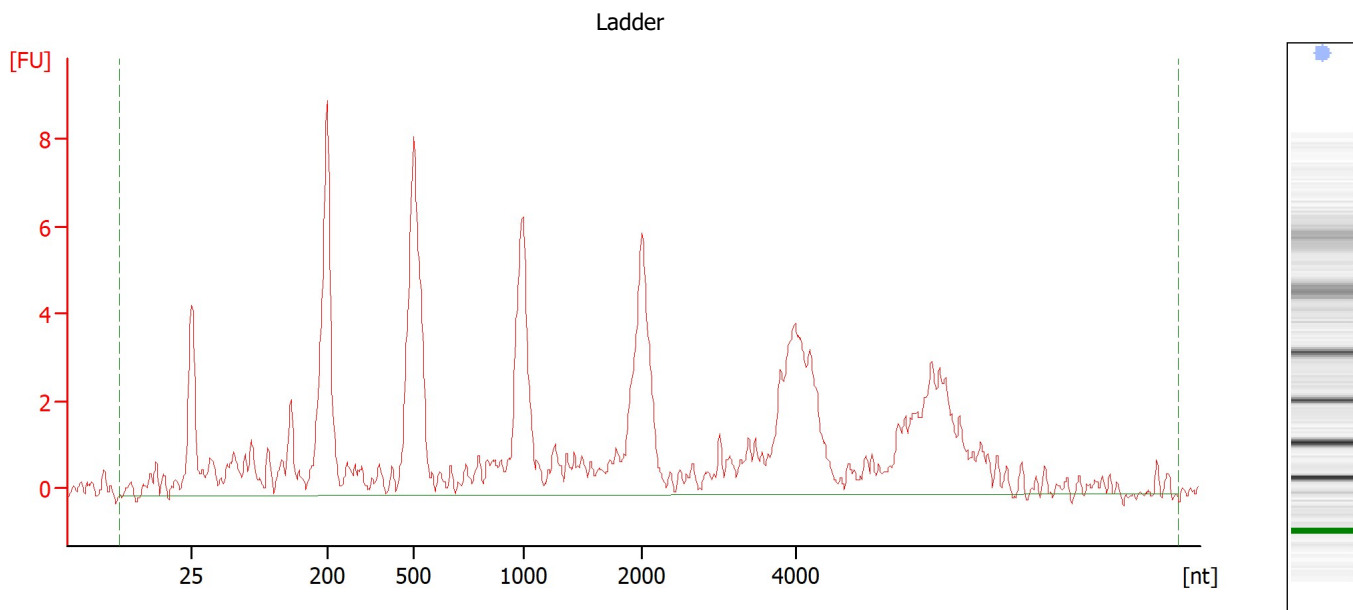
**Ladder**

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

Assay Class: Eukaryote Total RNA Nano  
Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
Modified: 3/9/2020 3:09:56 PM

**Electropherogram Summary**



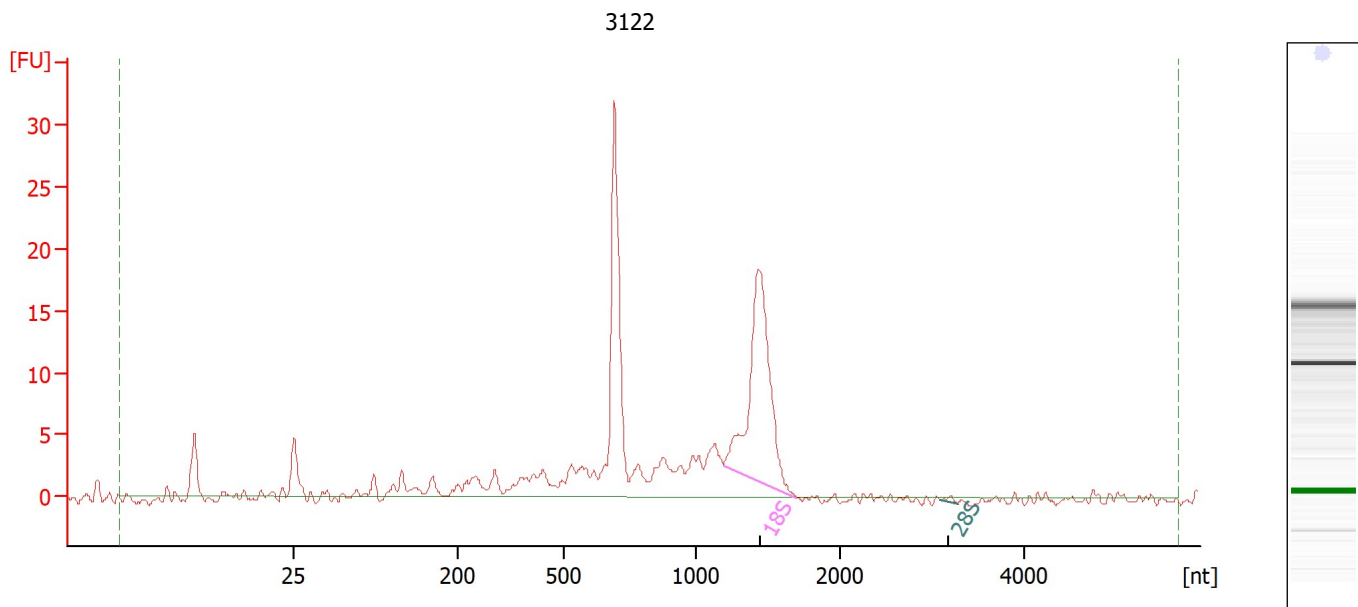
**Overall Results for Ladder**

|                    |                 |                        |   |
|--------------------|-----------------|------------------------|---|
| RNA Area:          | 126.1           | 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: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
 Modified: 3/9/2020 3:09:56 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 1 : 3122**

Height Threshold [FU] : 0.1

**Overall Results for sample 1 : 3122**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 146.3     | RNA Integrity Number (RIN): | 6.7 (B.02.10, Anomaly Threshold(s) manually adapted)  |
| RNA Concentration:      | 174 ng/μl | Result Flagging Color:      | <span style="border: 1px solid black; display: inline-block; width: 20px; height: 10px; background-color: #ccccff;"></span> |
| rRNA Ratio [28s / 18s]: | 0.0       | Result Flagging Label:      | RIN: 6.70   |

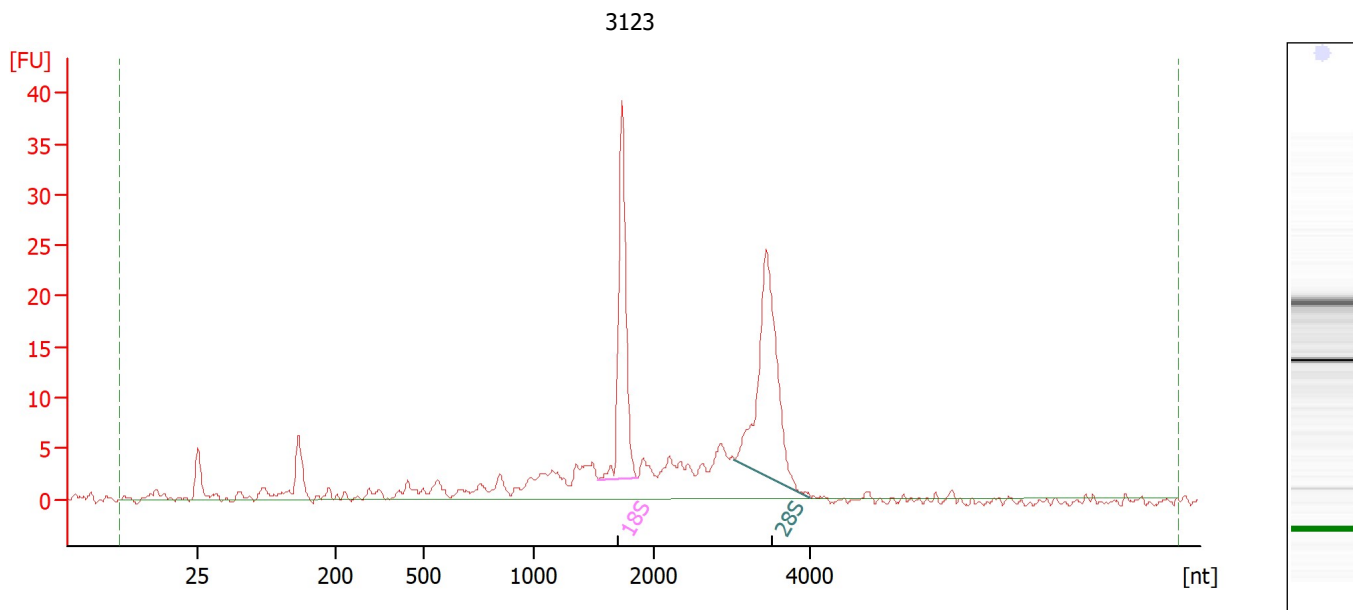
**Fragment table for sample 1 : 3122**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,198           | 1,700         | 38.1 | 26.0            |
| 28S  | 3,090           | 3,275         | 0.3  | 0.2             |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
 Modified: 3/9/2020 3:09:56 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 3123**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 191.5     | RNA Integrity Number (RIN): | 7.9 (B.02.10)   |
| RNA Concentration:      | 228 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: 7.90   |

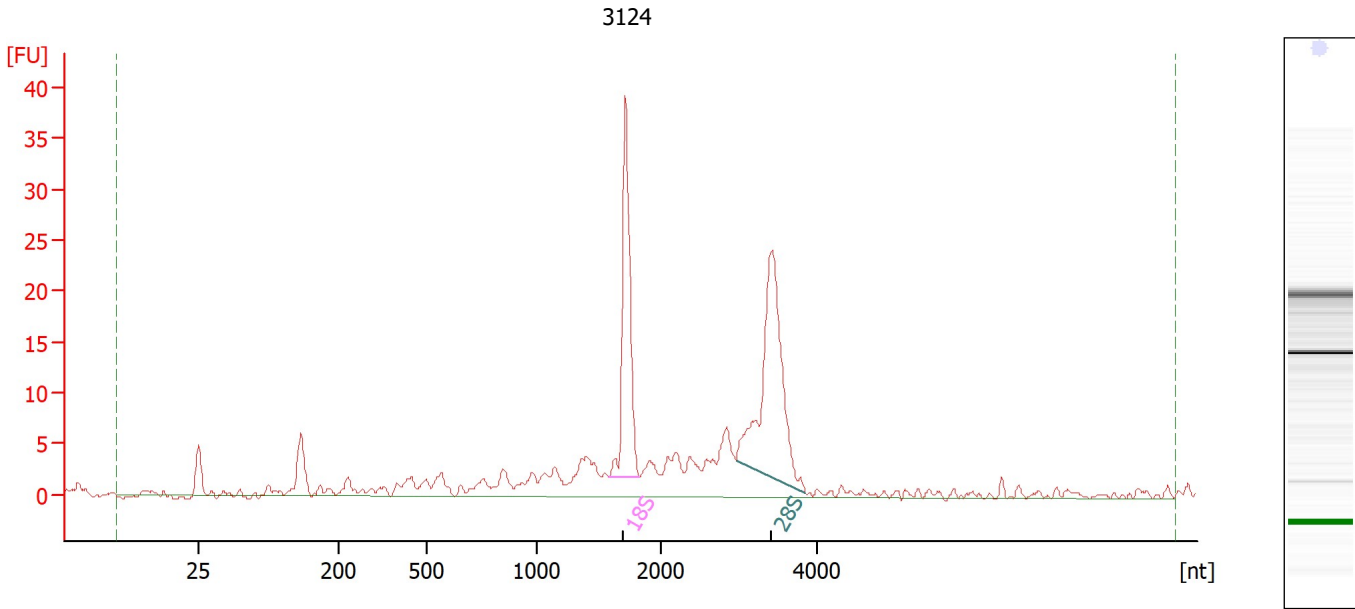
**Fragment table for sample 2 : 3123**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,536           | 1,854         | 34.5 | 18.0            |
| 28S  | 3,027           | 4,008         | 45.3 | 23.7            |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
 Modified: 3/9/2020 3:09:56 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 3124**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 204.2     | RNA Integrity Number (RIN): | 7.8 (B.02.10)   |
| RNA Concentration:      | 243 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: 7.80   |

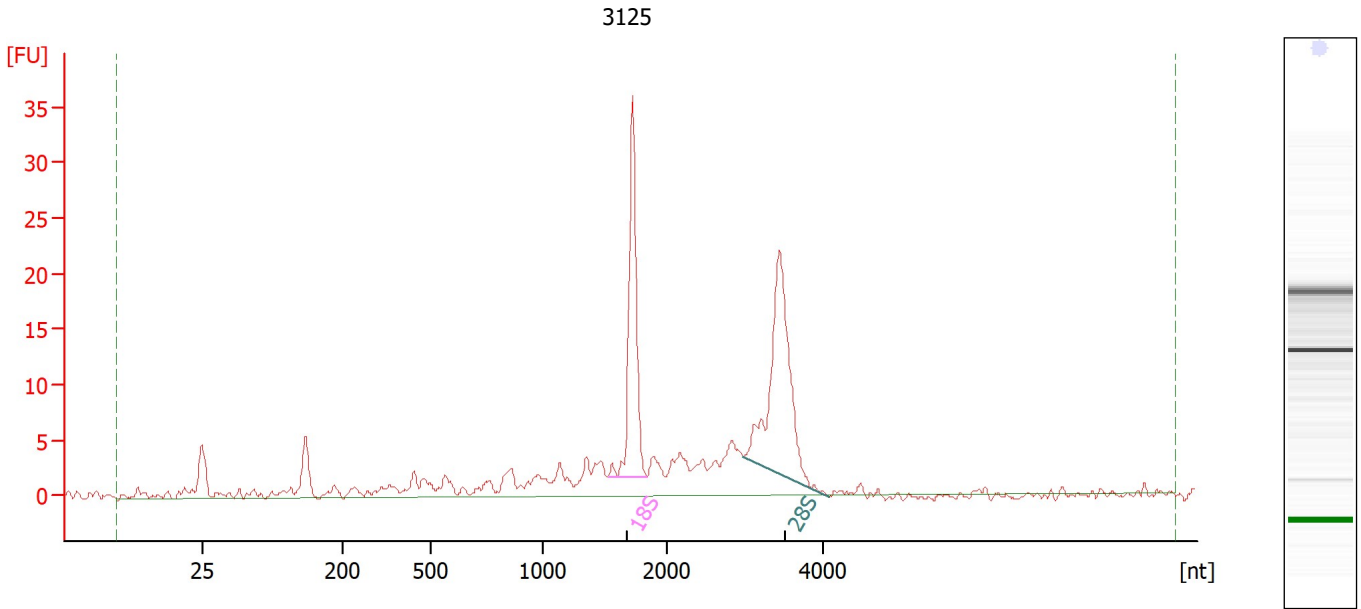
**Fragment table for sample 3 : 3124**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,587           | 1,831         | 33.5 | 16.4            |
| 28S  | 2,982           | 3,858         | 47.5 | 23.3            |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
 Modified: 3/9/2020 3:09:56 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 3125**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 187.6     | RNA Integrity Number (RIN): | 7.9 (B.02.10)   |
| RNA Concentration:      | 223 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: 7.90   |

**Fragment table for sample 4 : 3125**

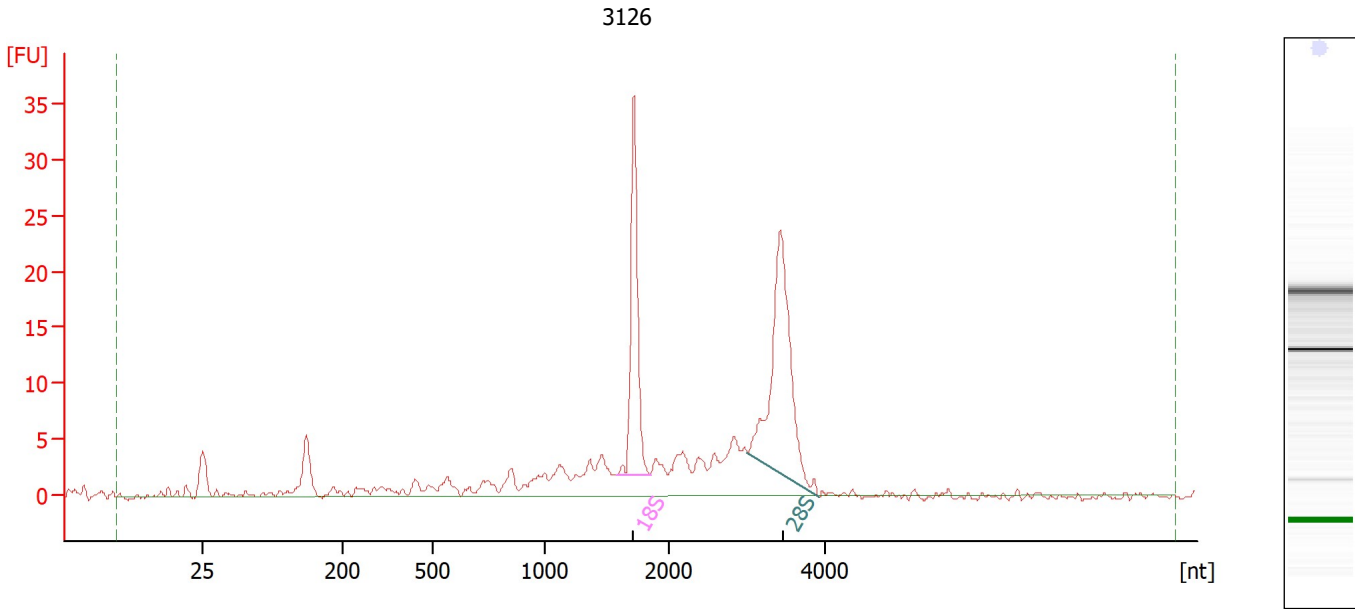
| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,531           | 1,843         | 30.9 | 16.5            |
| 28S  | 2,979           | 4,067         | 41.8 | 22.3            |



Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
 Modified: 3/9/2020 3:09:56 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 3126**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 188.3     | RNA Integrity Number (RIN): | 7.8 (B.02.10)   |
| RNA Concentration:      | 224 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: 7.80   |

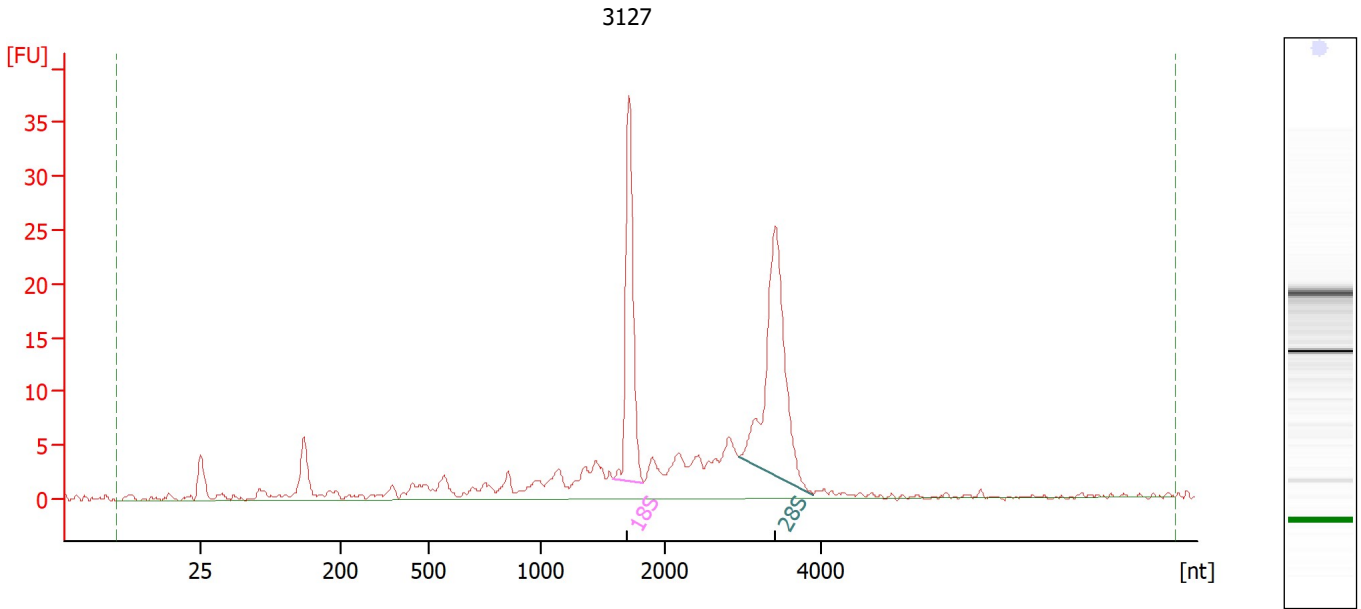
**Fragment table for sample 5 : 3126**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,584           | 1,853         | 29.5 | 15.7            |
| 28S  | 3,005           | 3,914         | 44.1 | 23.4            |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
 Modified: 3/9/2020 3:09:56 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 3127**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 200.3     | RNA Integrity Number (RIN): | 8.1 (B.02.10)   |
| RNA Concentration:      | 238 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: 8.10   |

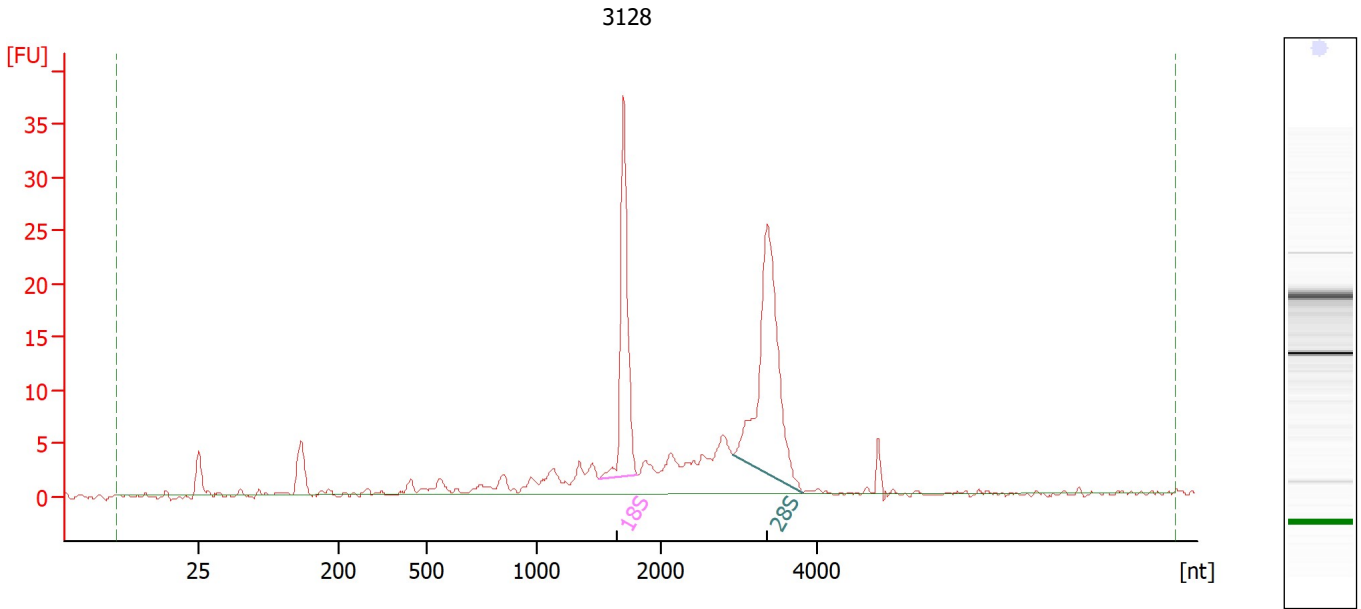
**Fragment table for sample 6 : 3127**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,590           | 1,833         | 31.1 | 15.5            |
| 28S  | 2,952           | 3,906         | 46.2 | 23.1            |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
 Modified: 3/9/2020 3:09:56 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 3128**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 167.5     | RNA Integrity Number (RIN): | 8.4 (B.02.10)   |
| 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]: | 1.5       | Result Flagging Label:      | RIN: 8.40   |

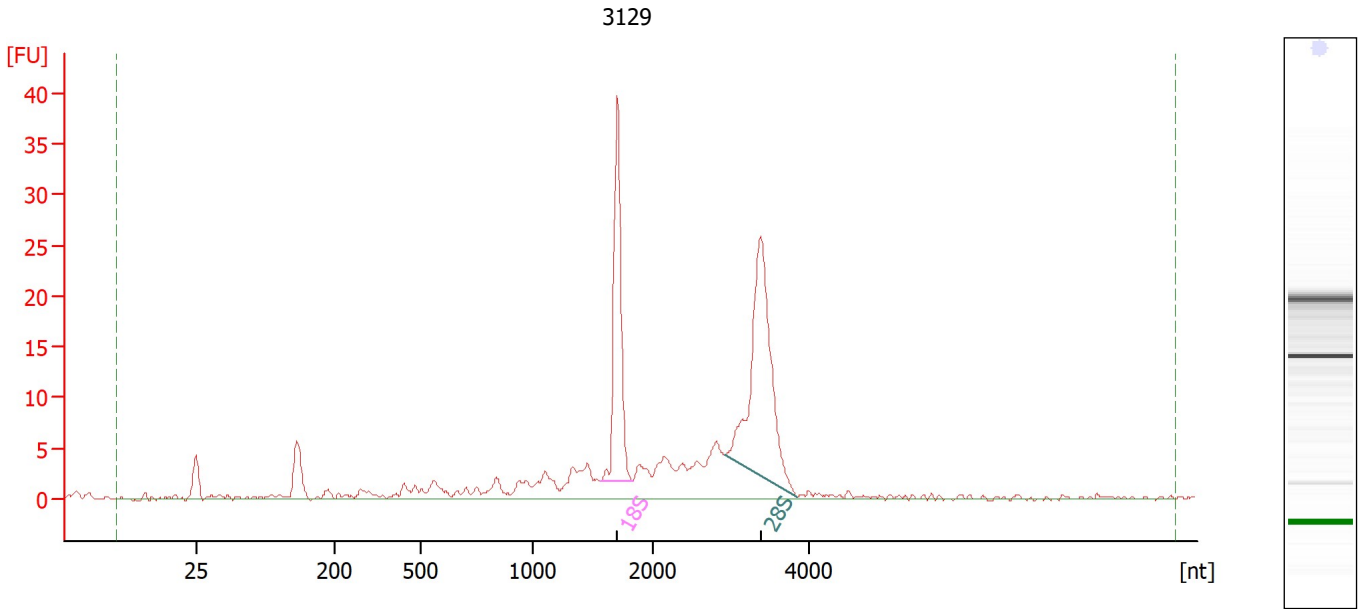
**Fragment table for sample 7 : 3128**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,499           | 1,814         | 31.0 | 18.5            |
| 28S  | 2,941           | 3,830         | 47.7 | 28.5            |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
 Modified: 3/9/2020 3:09:56 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 3129**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 194.4     | RNA Integrity Number (RIN): | 8.2 (B.02.10)   |
| RNA Concentration:      | 231 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: 8.20   |

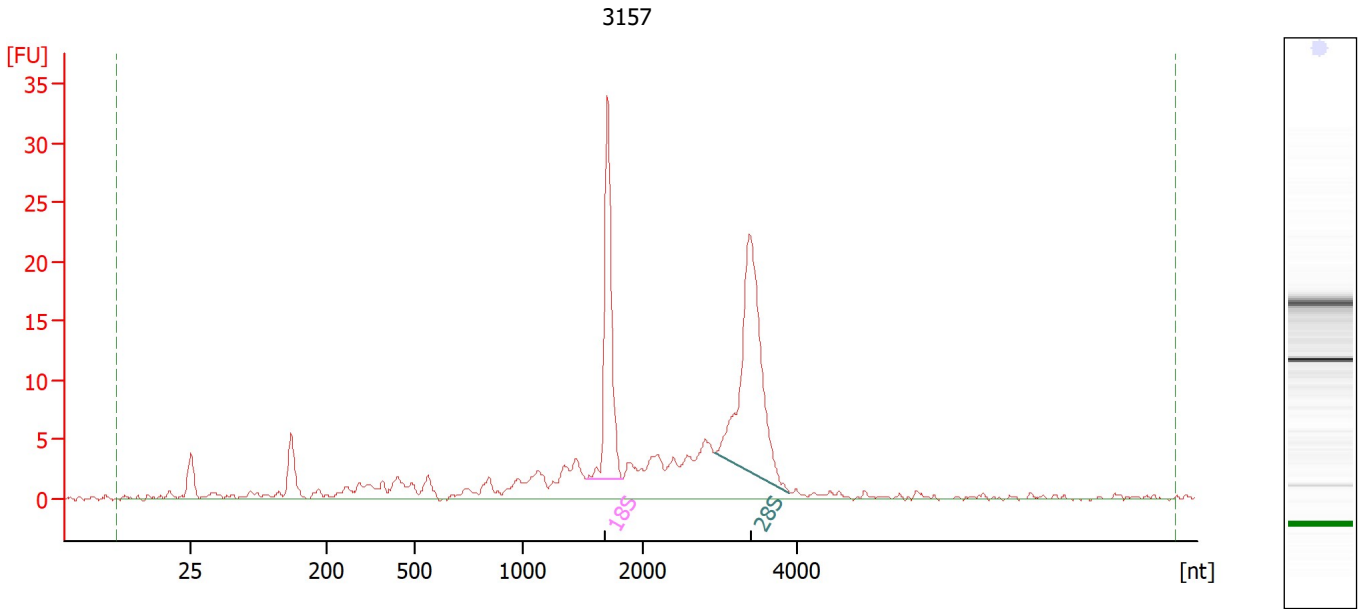
**Fragment table for sample 8 : 3129**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,565           | 1,820         | 32.9 | 16.9            |
| 28S  | 2,916           | 3,853         | 50.5 | 26.0            |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
 Modified: 3/9/2020 3:09:56 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 3157**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 180.3     | RNA Integrity Number (RIN): | 8.2 (B.02.10)   |
| RNA Concentration:      | 214 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: 8.20   |

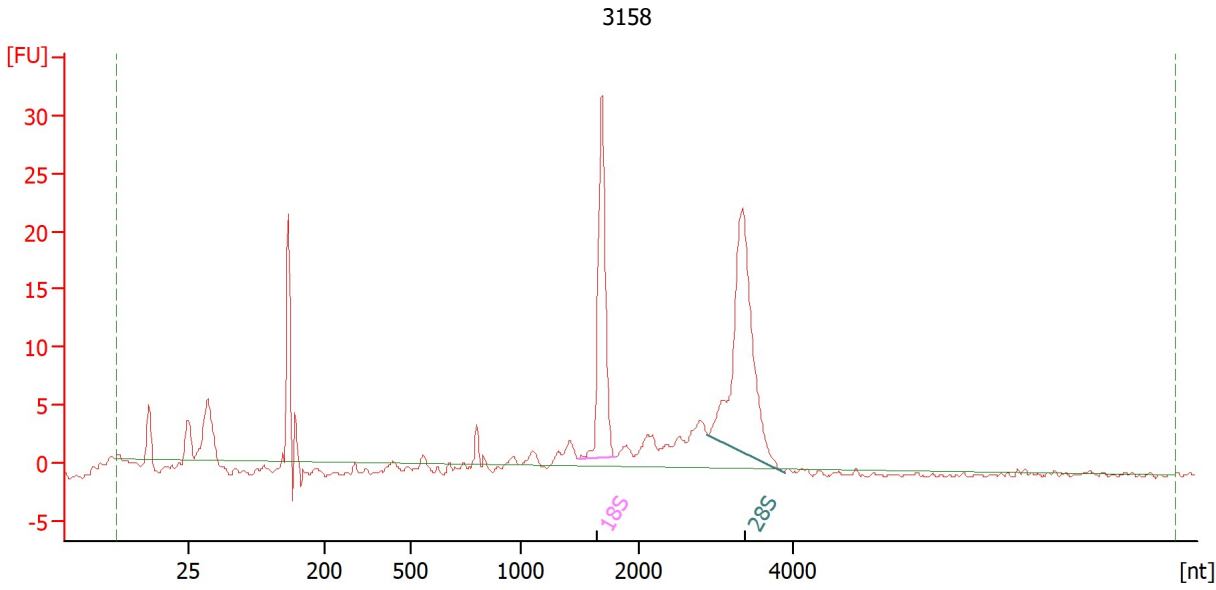
**Fragment table for sample 9 : 3157**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,530           | 1,823         | 29.7 | 16.5            |
| 28S  | 2,921           | 3,895         | 44.1 | 24.5            |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
 Modified: 3/9/2020 3:09:56 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 3158**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 148.1     | RNA Integrity Number (RIN): | 8.9 (B.02.10)   |
| RNA Concentration:      | 176 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: 8.90   |

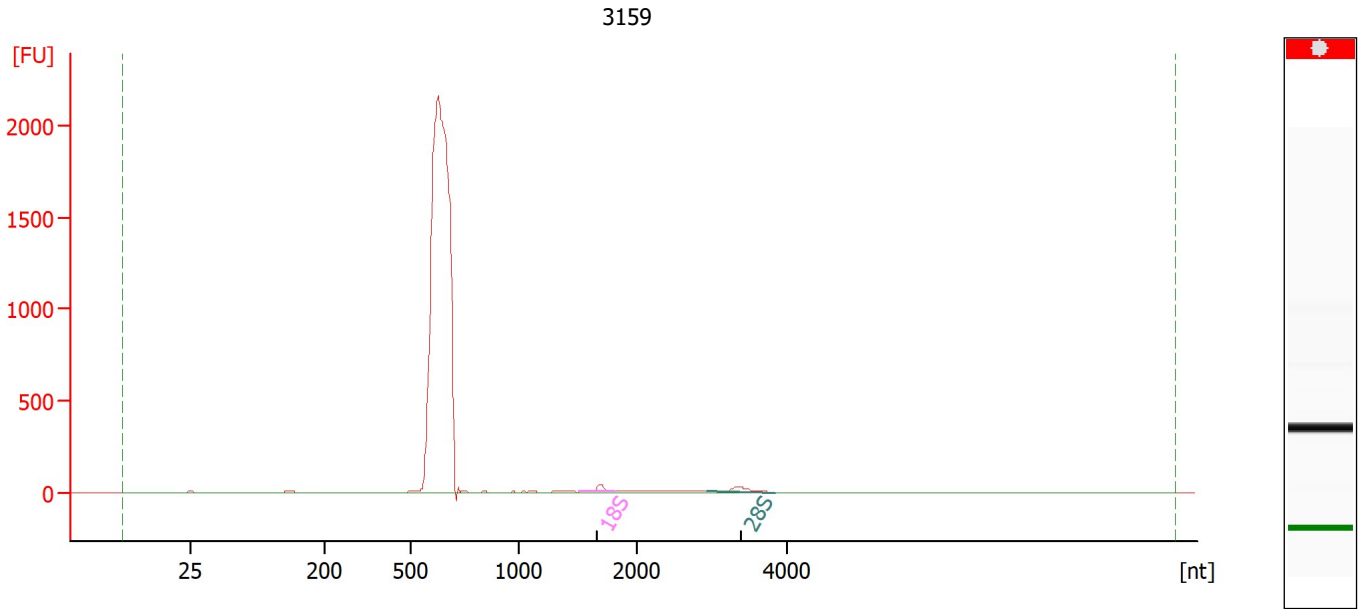
**Fragment table for sample 10 : 3158**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,491           | 1,794         | 28.4 | 19.2            |
| 28S  | 2,895           | 3,902         | 44.4 | 29.9            |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
 Modified: 3/9/2020 3:09:56 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 3159**

|                         |             |                             |   |
|-------------------------|-------------|-----------------------------|---|
| RNA Area:               | 6,318.4     | RNA Integrity Number (RIN): | N/A (B.02.10)   |
| RNA Concentration:      | 7,516 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   |

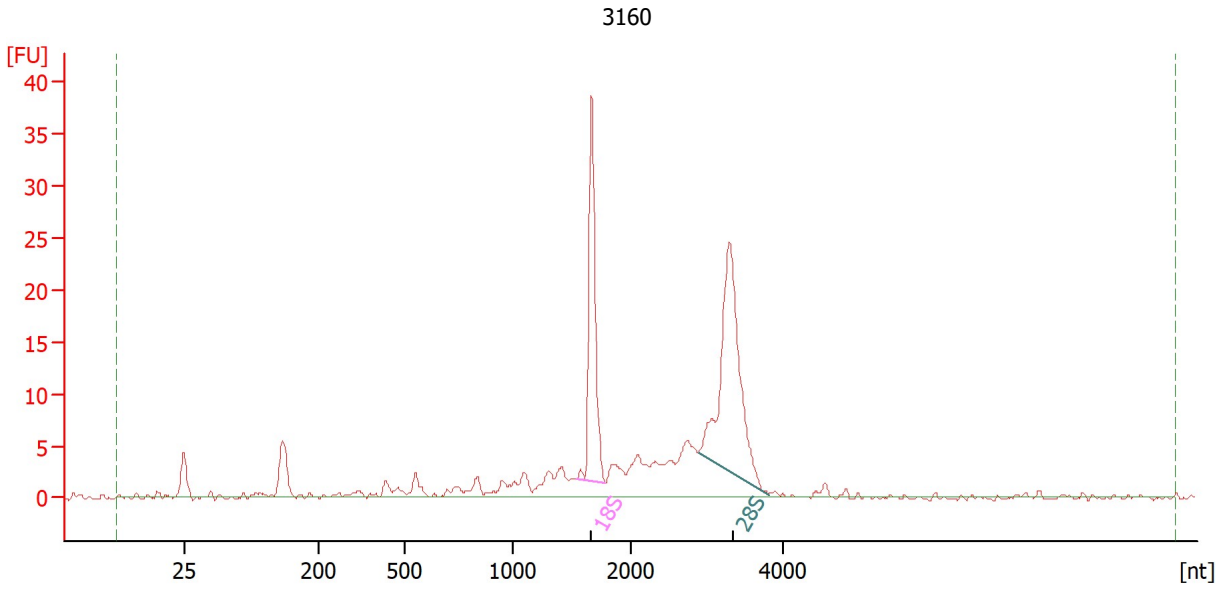
**Fragment table for sample 11 : 3159**

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,521           | 1,818         | 37.6 | 0.6             |
| 28S  | 2,925           | 3,841         | 55.1 | 0.9             |

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
 Modified: 3/9/2020 3:09:56 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 12 : 3160**

|                         |           |                             |   |
|-------------------------|-----------|-----------------------------|---|
| RNA Area:               | 170.6     | RNA Integrity Number (RIN): | 8.4 (B.02.10)   |
| RNA Concentration:      | 203 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 : 3160**

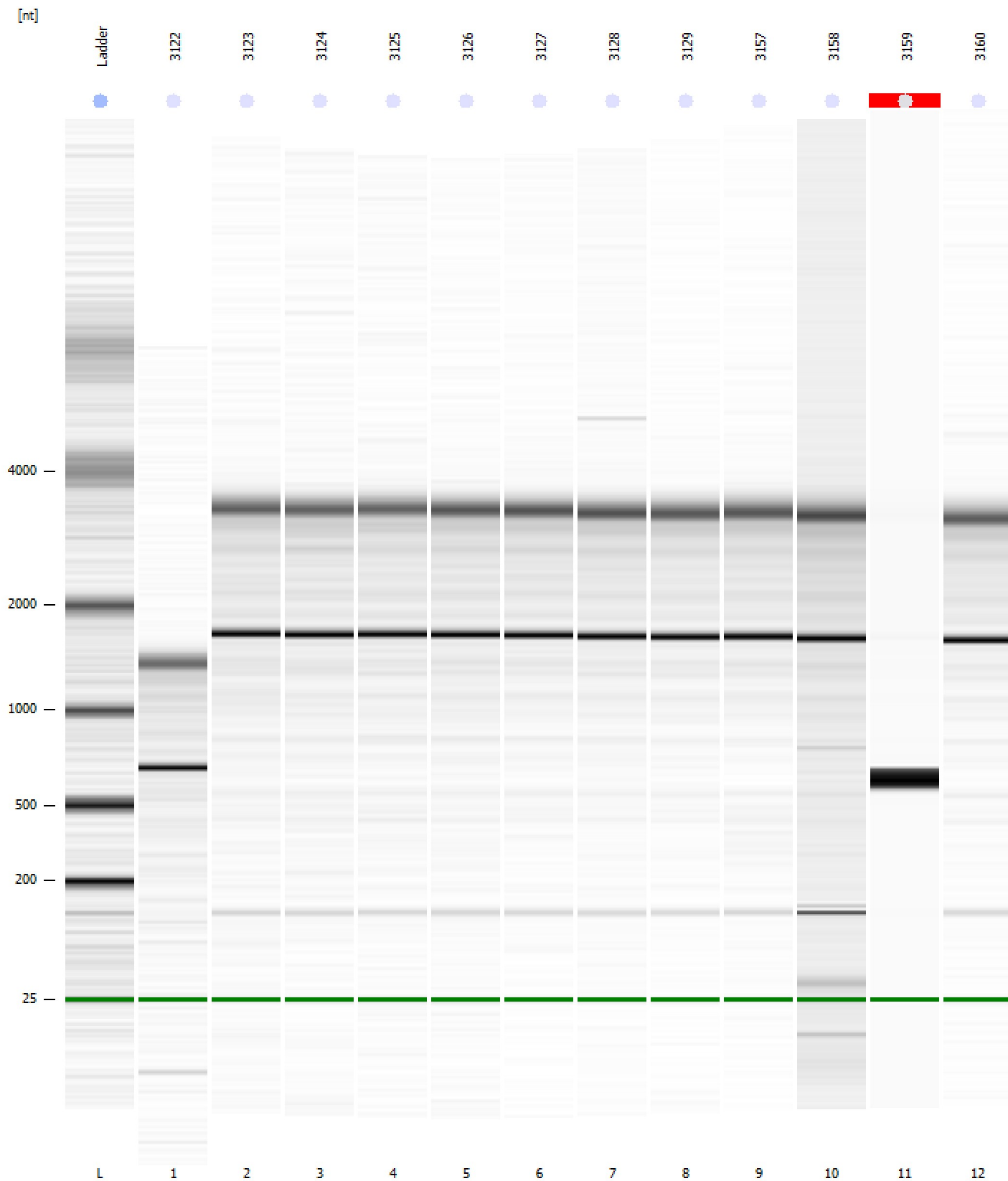
| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S  | 1,546           | 1,781         | 31.9 | 18.7            |
| 28S  | 2,884           | 3,815         | 46.1 | 27.0            |



Assay Class: Eukaryote Total RNA Nano  
Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad

Created: 3/9/2020 2:35:56 PM  
Modified: 3/9/2020 3:09:56 PM

**Gel Image**



Assay Class: Eukaryote Total RNA Nano Created: 3/9/2020 2:35:56 PM  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_002.xad Modified: 3/9/2020 3:09:56 PM

**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      |              | 3/9/2020 4:59:51 PM | (GMT --07:00) Pacific Standard Time | sbsuser | DESKTOP-4UNV VOB |
| Run started on port 1 (File: Z:\XADs\2020-03-09\Bioanalyze r1_Eukaryote Total RNA Nano_2020-03-09_002.xad) |        | Instrument | Run      |              | 3/9/2020 4:36:01 PM | (GMT --07:00) Pacific Standard Time | sbsuser | DESKTOP-4UNV VOB |
| Product Number : G2938C  |        | Instrument | Run      |              | 3/9/2020 4:36:01 PM | (GMT --07:00) Pacific Standard Time | sbsuser | DESKTOP-4UNV VOB |
| Name :   |        | Instrument | Run      |              | 3/9/2020 4:36:01 PM | (GMT --07:00) Pacific Standard Time | sbsuser | DESKTOP-4UNV VOB |
| Vendor : Agilent Technologies  |        | Instrument | Run      |              | 3/9/2020 4:36:01 PM | (GMT --07:00) Pacific Standard Time | sbsuser | DESKTOP-4UNV VOB |
| Serial# : DE34903152   |        | Instrument | Run      |              | 3/9/2020 4:36:01 PM | (GMT --07:00) Pacific Standard Time | sbsuser | DESKTOP-4UNV VOB |
| Firmware : C.01.069  |        | Instrument | Run      |              | 3/9/2020 4:36:01 PM | (GMT --07:00) Pacific Standard Time | sbsuser | DESKTOP-4UNV VOB |
| Cartridge : Electrode  |        | Instrument | Run      |              | 3/9/2020 4:36:01 PM | (GMT --07:00) Pacific Standard Time | sbsuser | DESKTOP-4UNV VOB |