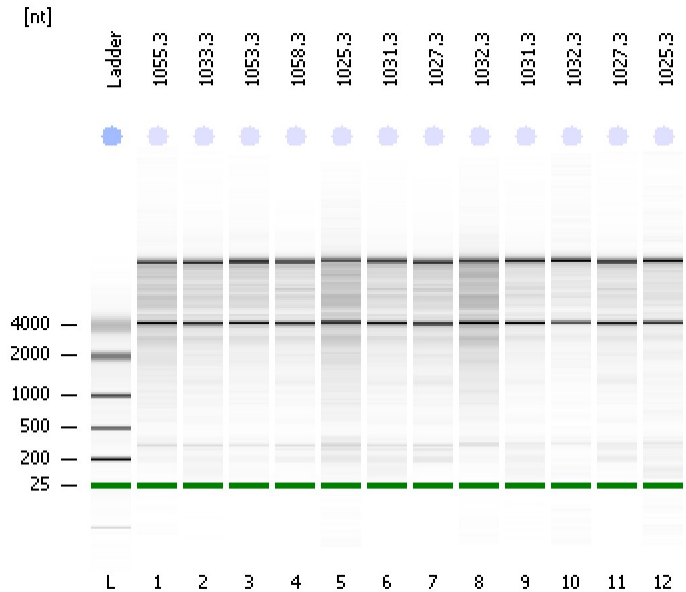


Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
Modified: 11/5/2014 9:16:42 AM

Electrophoresis File Run Summary



Instrument Information:

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

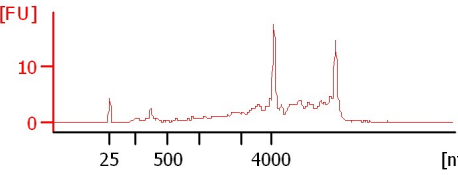
Assay Information:

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.

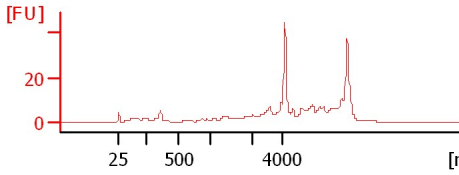
Chip Information:

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

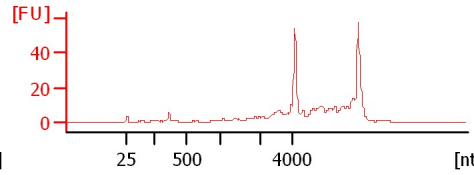
1055.3
Concentrated RNA
RIN: 6.60



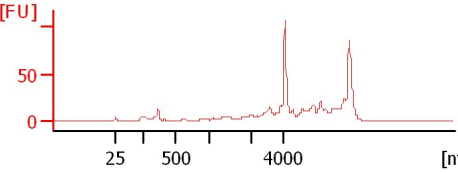
1033.3
Concentrated RNA
RIN: 7.10



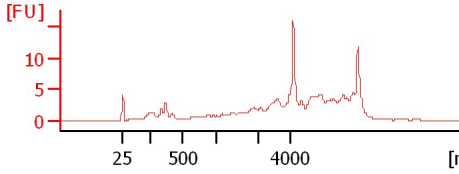
1053.3
Concentrated RNA
RIN: 7.50



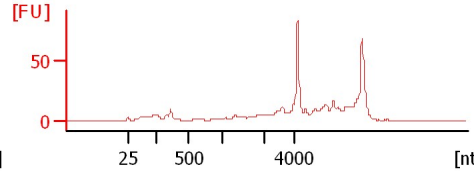
1058.3
Concentrated RNA
RIN: 7.50



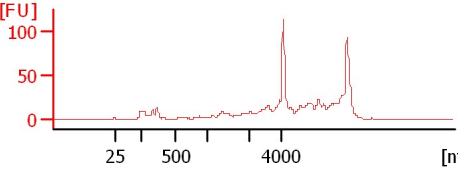
1025.3
Concentrated RNA
RIN: 6.10



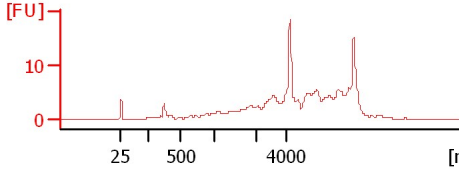
1031.3
Concentrated RNA
RIN: 7.30



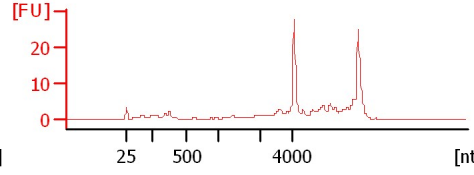
1027.3
Concentrated RNA
RIN: 7.10



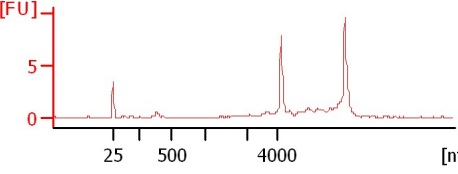
1032.3
Concentrated RNA
RIN: 6.10



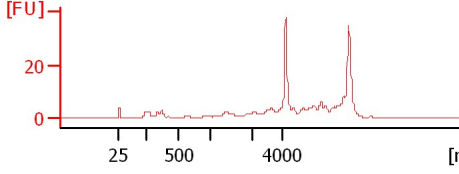
1031.3
Non-concentrated RNA
RIN: 8



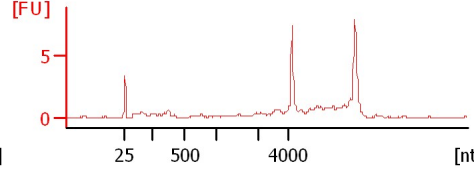
1032.3
Non-concentrated RNA
RIN: 8.50



1027.3
Non-concentrated RNA
RIN: 7.90



1025.3
Non-concentrated RNA
RIN: 7.80



Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
Modified: 11/5/2014 9:16:42 AM

Electrophoresis File Run Summary (Chip Summary)

| Sample Name | Sample Comment | Status | Result Label | Result Color |
|-------------|----------------------|--------|-------------------|--------------|
| 1055.3 | Concentrated RNA | ✓ | RIN: 6.60 | |
| 1033.3 | Concentrated RNA | ✓ | RIN: 7.10 | |
| 1053.3 | Concentrated RNA | ✓ | RIN: 7.50 | |
| 1058.3 | Concentrated RNA | ✓ | RIN: 7.50 | |
| 1025.3 | Concentrated RNA | ✓ | RIN: 6.10 | |
| 1031.3 | Concentrated RNA | ✓ | RIN: 7.30 | |
| 1027.3 | Concentrated RNA | ✓ | RIN: 7.10 | |
| 1032.3 | Concentrated RNA | ✓ | RIN: 6.10 | |
| 1031.3 | Non-concentrated RNA | ✓ | RIN:8 | |
| 1032.3 | Non-concentrated RNA | ✓ | RIN: 8.50 | |
| 1027.3 | Non-concentrated RNA | ✓ | RIN: 7.90 | |
| 1025.3 | Non-concentrated RNA | ✓ | RIN: 7.80 | |
| Ladder | | ✓ | All Other Samples | |

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
Modified: 11/5/2014 9:16:42 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

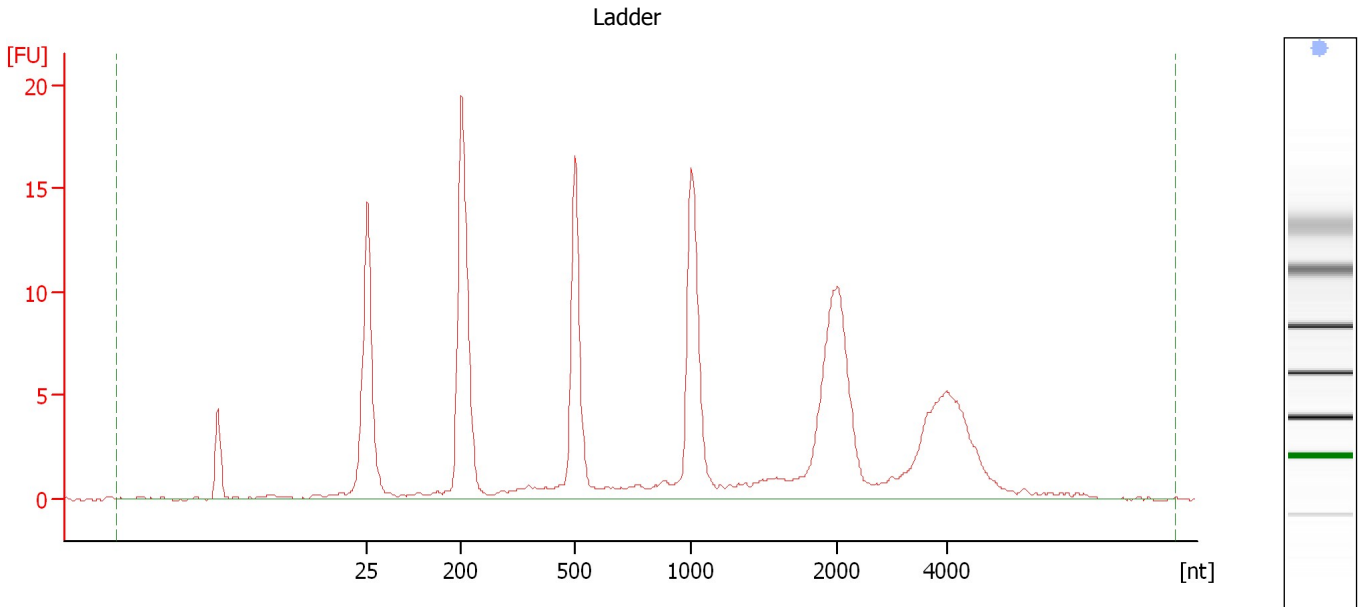
Ladder

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

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
Modified: 11/5/2014 9:16:42 AM

Electropherogram Summary



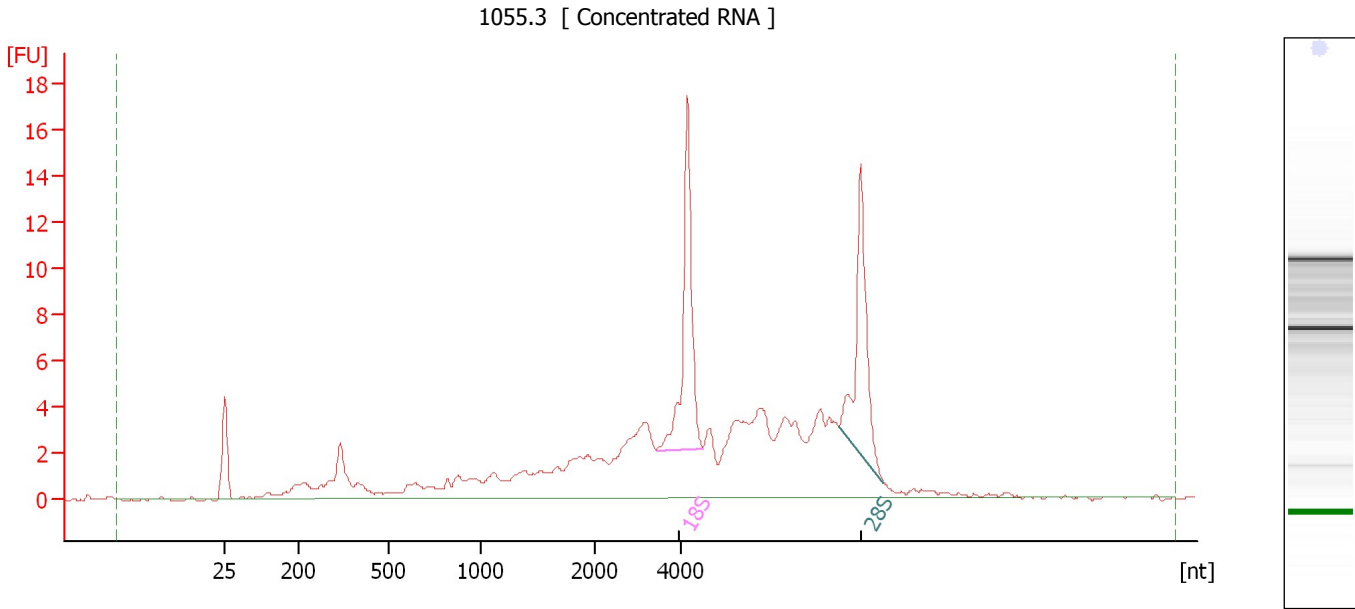
Overall Results for Ladder

| | | | |
|--------------------|-----------|------------------------|---|
| RNA Area: | 153.1 | Result Flagging Color: | |
| RNA Concentration: | 150 ng/μl | Result Flagging Label: | All Other Samples |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
Modified: 11/5/2014 9:16:42 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 1055.3

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 135.5 | RNA Integrity Number (RIN): | 6.6 (B.02.08) |
| RNA Concentration: | 133 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.9 | Result Flagging Label: | RIN: 6.60 |

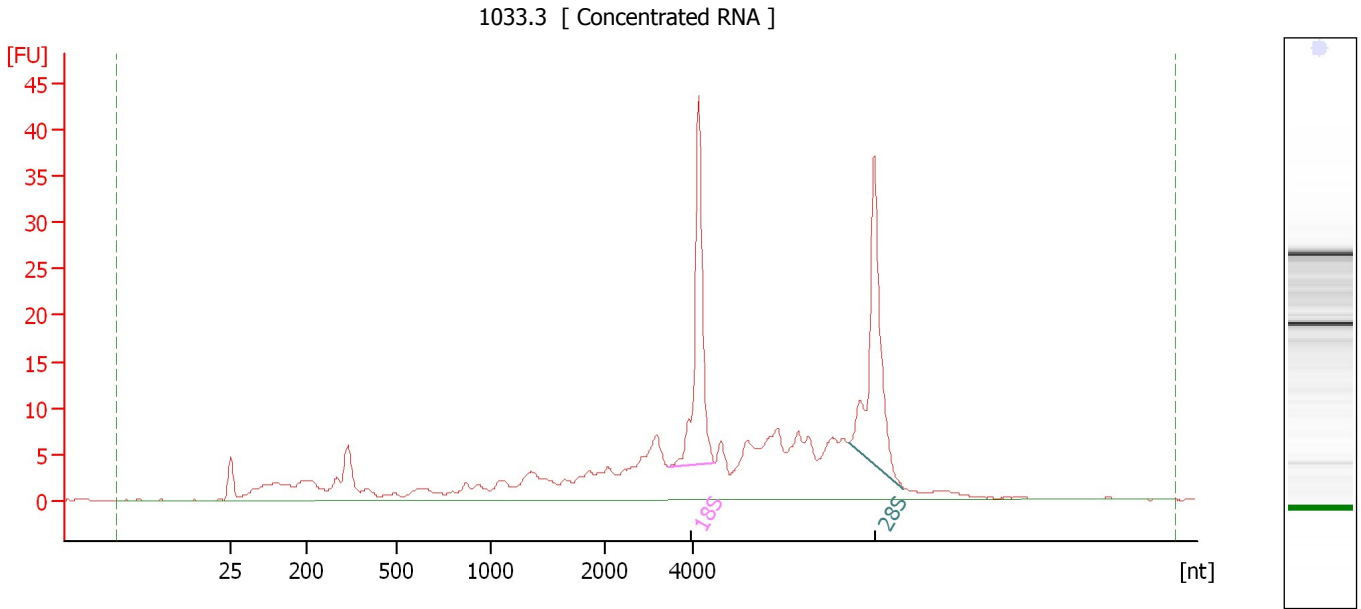
Fragment table for sample 1 : 1055.3

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 3,439 | 4,511 | 15.1 | 11.1 |
| 28S | 7,676 | 8,722 | 13.0 | 9.6 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
Modified: 11/5/2014 9:16:42 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 1033.3

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 292.9 | RNA Integrity Number (RIN): | 7.1 (B.02.08) |
| RNA Concentration: | 287 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 1.0 | Result Flagging Label: | RIN: 7.10 |

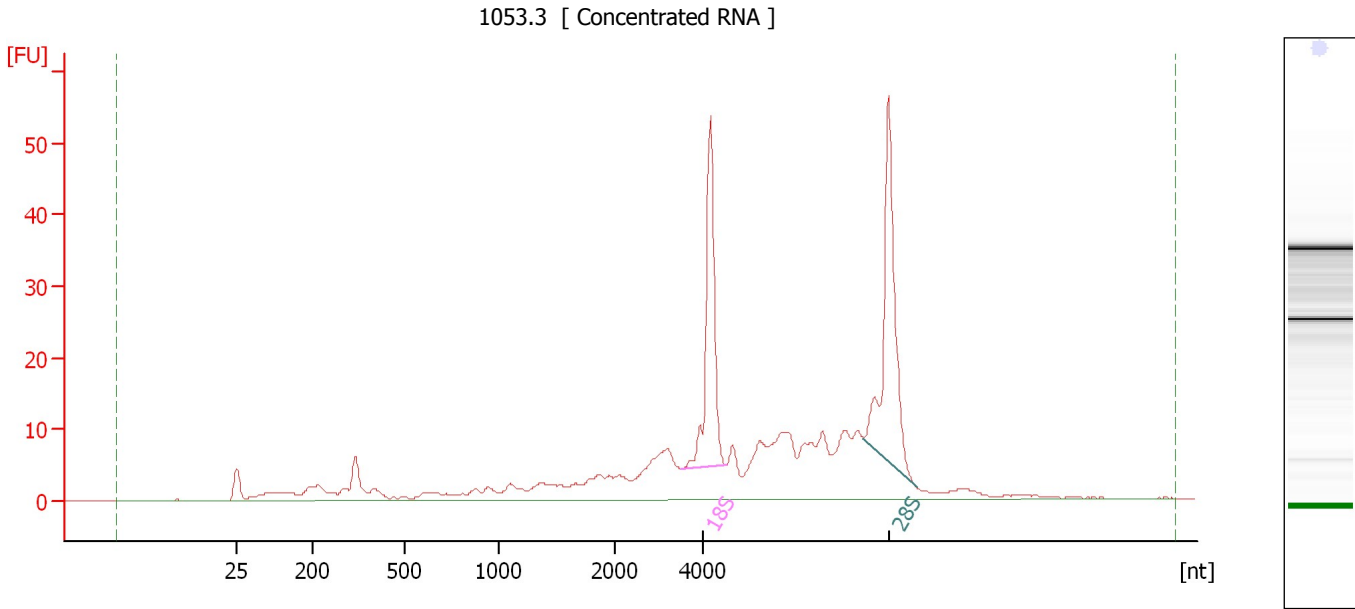
Fragment table for sample 2 : 1033.3

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 3,466 | 4,500 | 36.9 | 12.6 |
| 28S | 7,601 | 8,857 | 37.0 | 12.6 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
Modified: 11/5/2014 9:16:42 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 1053.3

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 347.9 | RNA Integrity Number (RIN): | 7.5 (B.02.08) |
| RNA Concentration: | 341 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 1.2 | Result Flagging Label: | RIN: 7.50 |

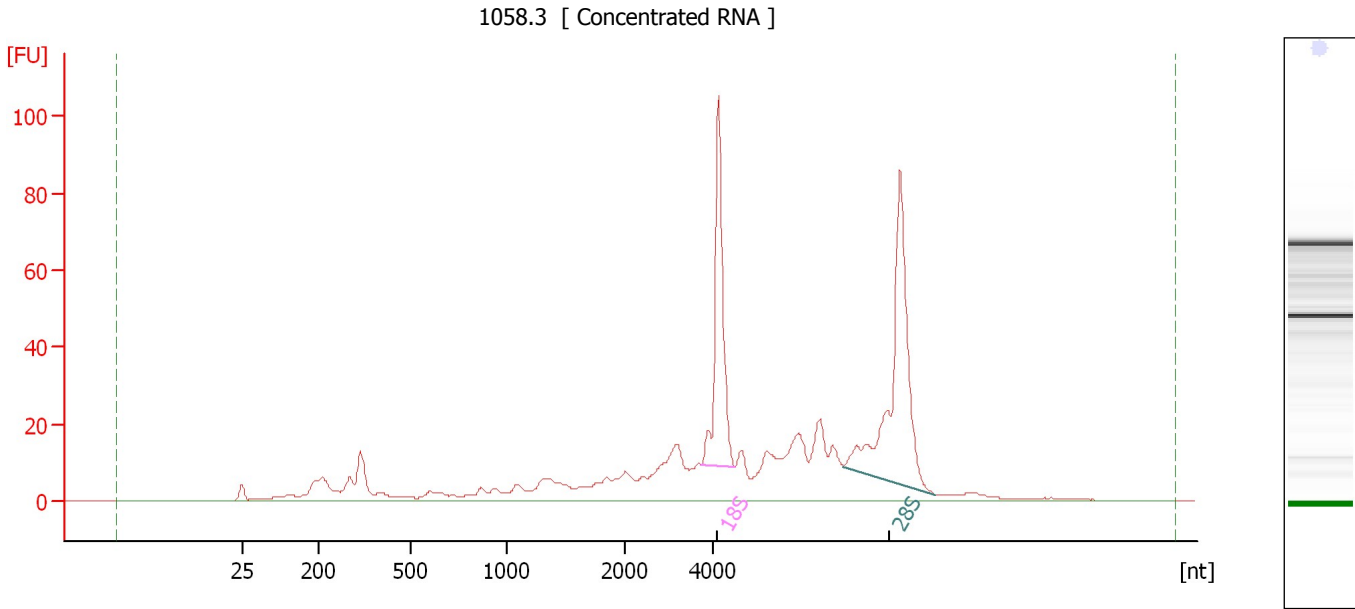
Fragment table for sample 3 : 1053.3

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 3,511 | 4,535 | 45.1 | 13.0 |
| 28S | 7,679 | 8,873 | 55.9 | 16.1 |

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
 Modified: 11/5/2014 9:16:42 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 1058.3

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 626.1 | RNA Integrity Number (RIN): | 7.5 (B.02.08) |
| RNA Concentration: | 613 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 1.4 | Result Flagging Label: | RIN: 7.50 |

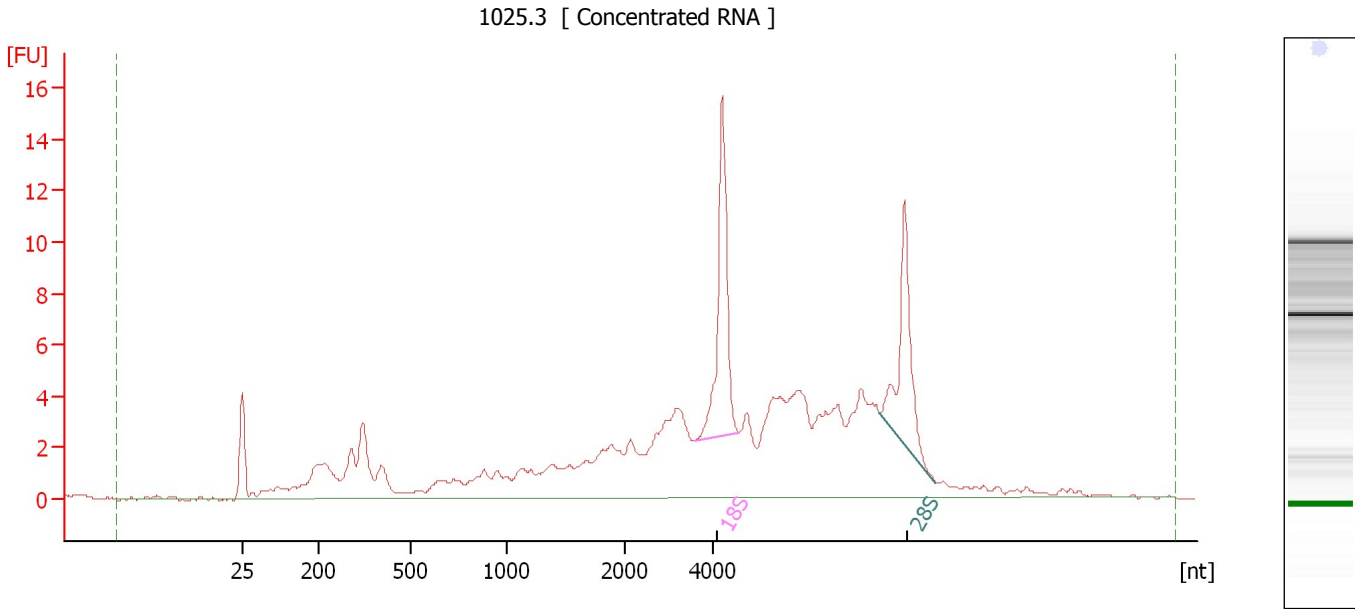
Fragment table for sample 4 : 1058.3

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|-------|-----------------|
| 18S | 3,749 | 4,521 | 86.3 | 13.8 |
| 28S | 6,959 | 9,010 | 124.0 | 19.8 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
Modified: 11/5/2014 9:16:42 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 1025.3

RNA Area: 155.1 RNA Integrity Number (RIN): 6.1 (B.02.08)
RNA Concentration: 152 ng/μl Result Flagging Color:
rRNA Ratio [28s / 18s]: 0.8 Result Flagging Label: RIN: 6.10

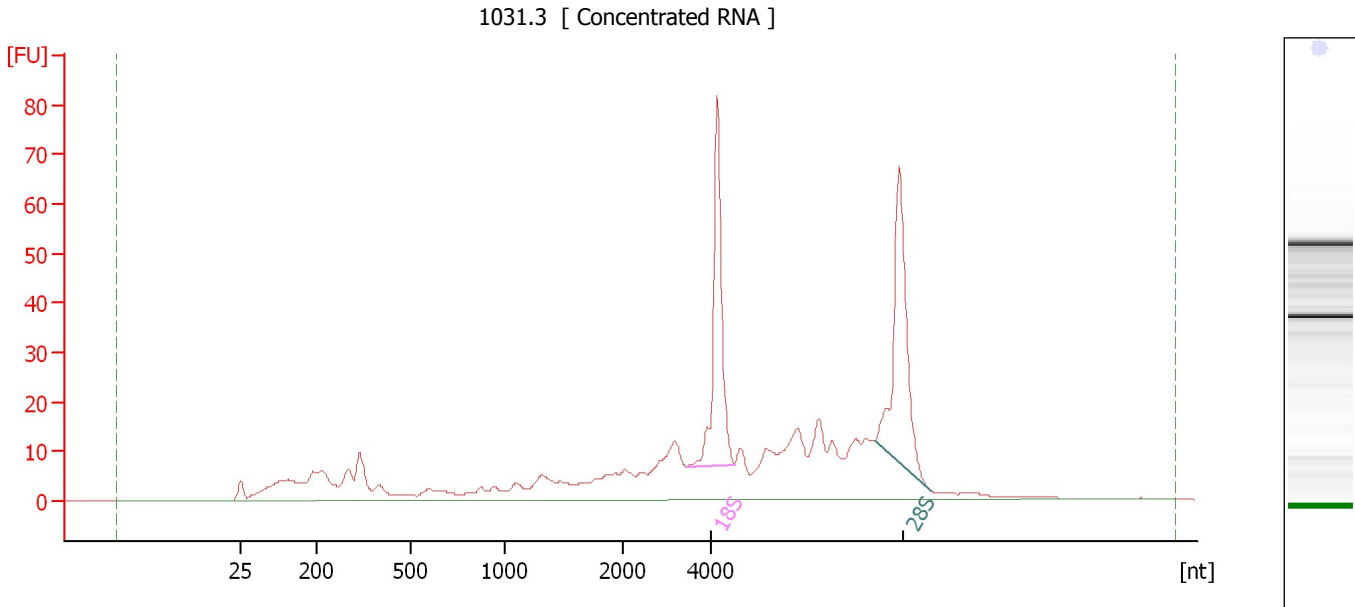
Fragment table for sample 5 : 1025.3

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 3,604 | 4,594 | 13.0 | 8.4 |
| 28S | 7,779 | 9,034 | 10.4 | 6.7 |

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
 Modified: 11/5/2014 9:16:42 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 1031.3

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 562.6 | RNA Integrity Number (RIN): | 7.3 (B.02.08) |
| RNA Concentration: | 551 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 1.0 | Result Flagging Label: | RIN: 7.30 |

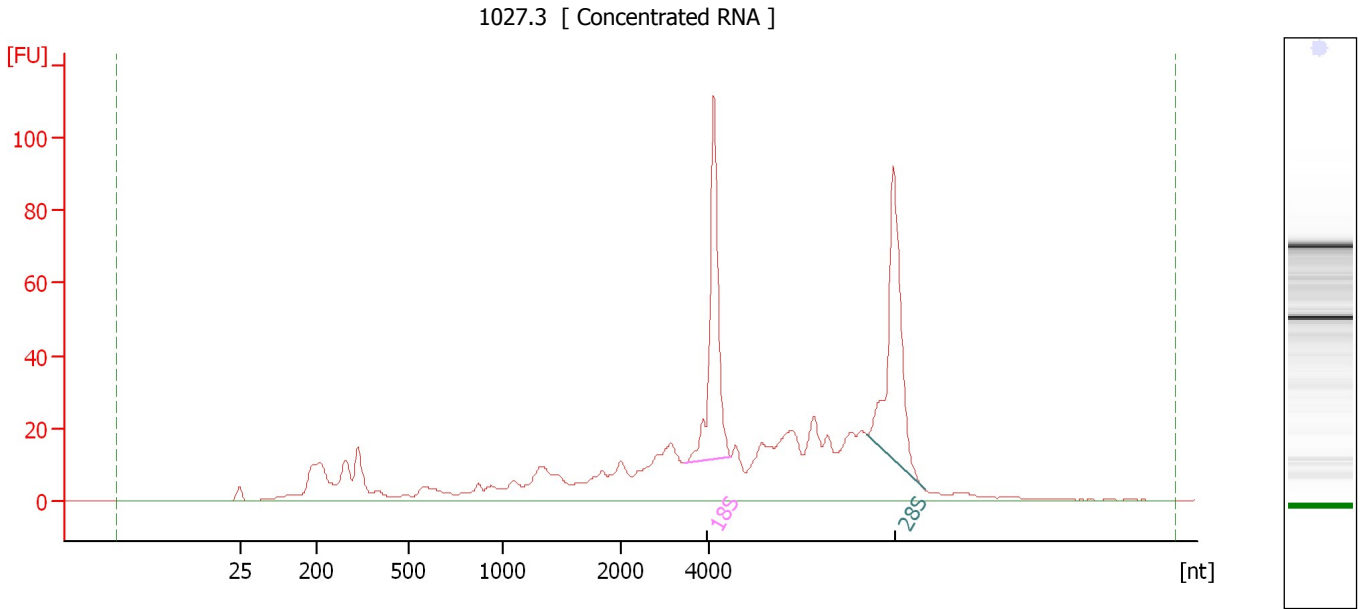
Fragment table for sample 6 : 1031.3

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 3,455 | 4,543 | 70.6 | 12.5 |
| 28S | 7,711 | 8,993 | 73.7 | 13.1 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
Modified: 11/5/2014 9:16:42 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 1027.3

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 794.7 | RNA Integrity Number (RIN): | 7.1 (B.02.08) |
| RNA Concentration: | 778 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 1.0 | Result Flagging Label: | RIN: 7.10 |

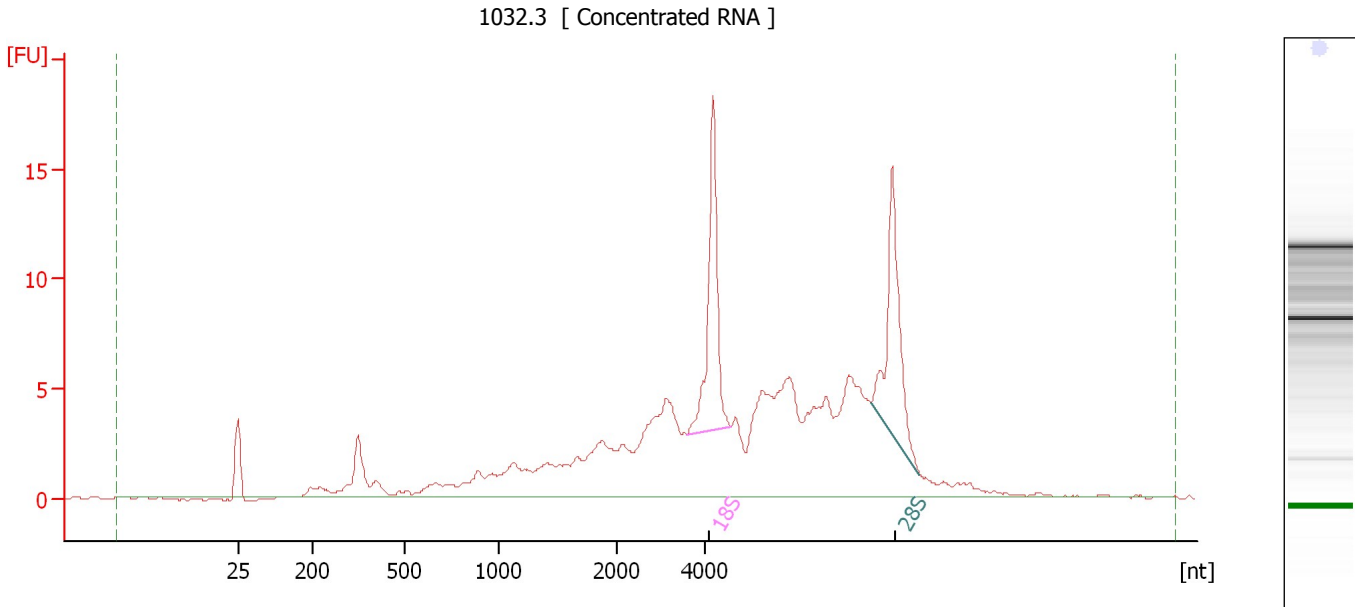
Fragment table for sample 7 : 1027.3

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|-------|-----------------|
| 18S | 3,475 | 4,493 | 98.0 | 12.3 |
| 28S | 7,594 | 8,902 | 100.9 | 12.7 |

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
 Modified: 11/5/2014 9:16:42 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 1032.3

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 170.5 | RNA Integrity Number (RIN): | 6.1 (B.02.08) |
| RNA Concentration: | 167 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.9 | Result Flagging Label: | RIN: 6.10 |

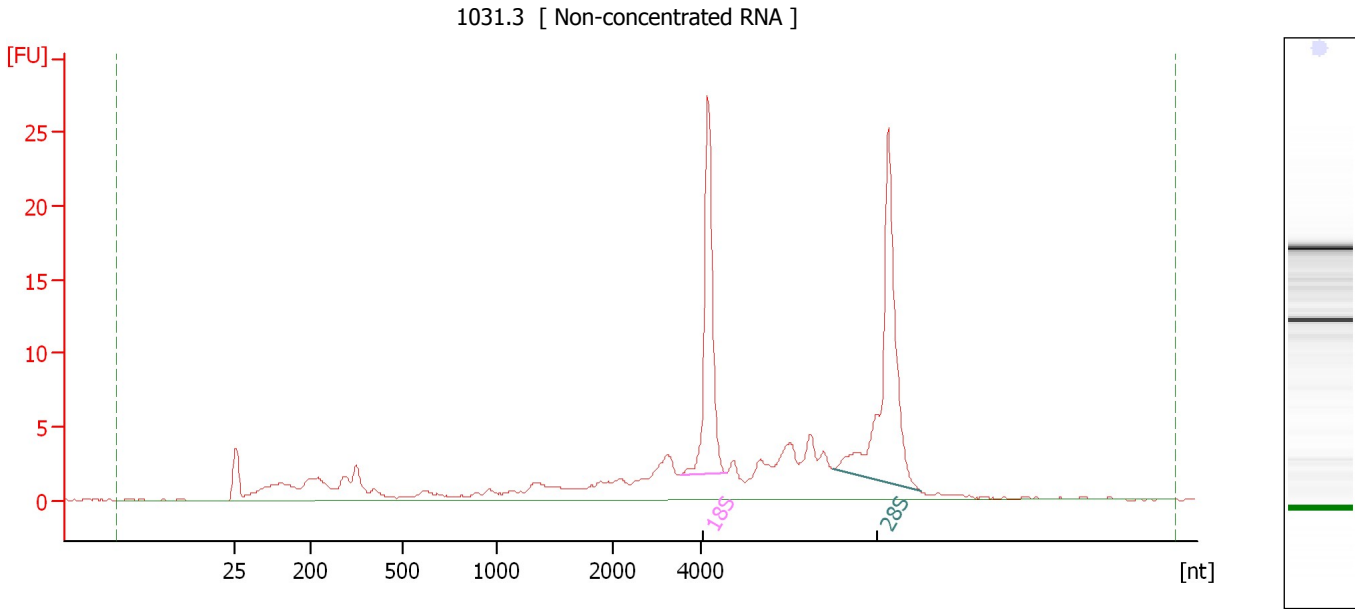
Fragment table for sample 8 : 1032.3

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 3,613 | 4,586 | 15.5 | 9.1 |
| 28S | 7,772 | 8,891 | 14.2 | 8.3 |

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
 Modified: 11/5/2014 9:16:42 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 1031.3

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 151.1 | RNA Integrity Number (RIN): | 8 (B.02.08) |
| RNA Concentration: | 148 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 1.4 | Result Flagging Label: | RIN:8 |

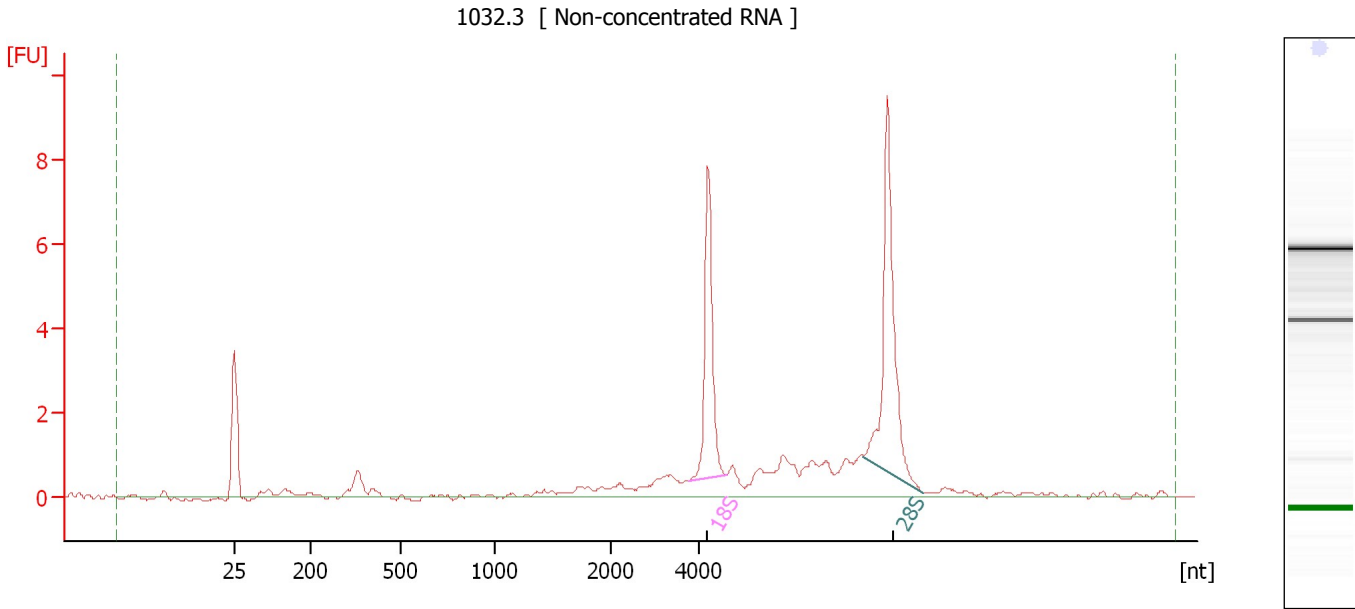
Fragment table for sample 9 : 1031.3

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 3,531 | 4,582 | 22.8 | 15.1 |
| 28S | 7,048 | 9,026 | 32.2 | 21.3 |

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
 Modified: 11/5/2014 9:16:42 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 1032.3

| | | | |
|-------------------------|----------|-----------------------------|---|
| RNA Area: | 36.9 | RNA Integrity Number (RIN): | 8.5 (B.02.08) |
| RNA Concentration: | 36 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 1.5 | Result Flagging Label: | RIN: 8.50 |

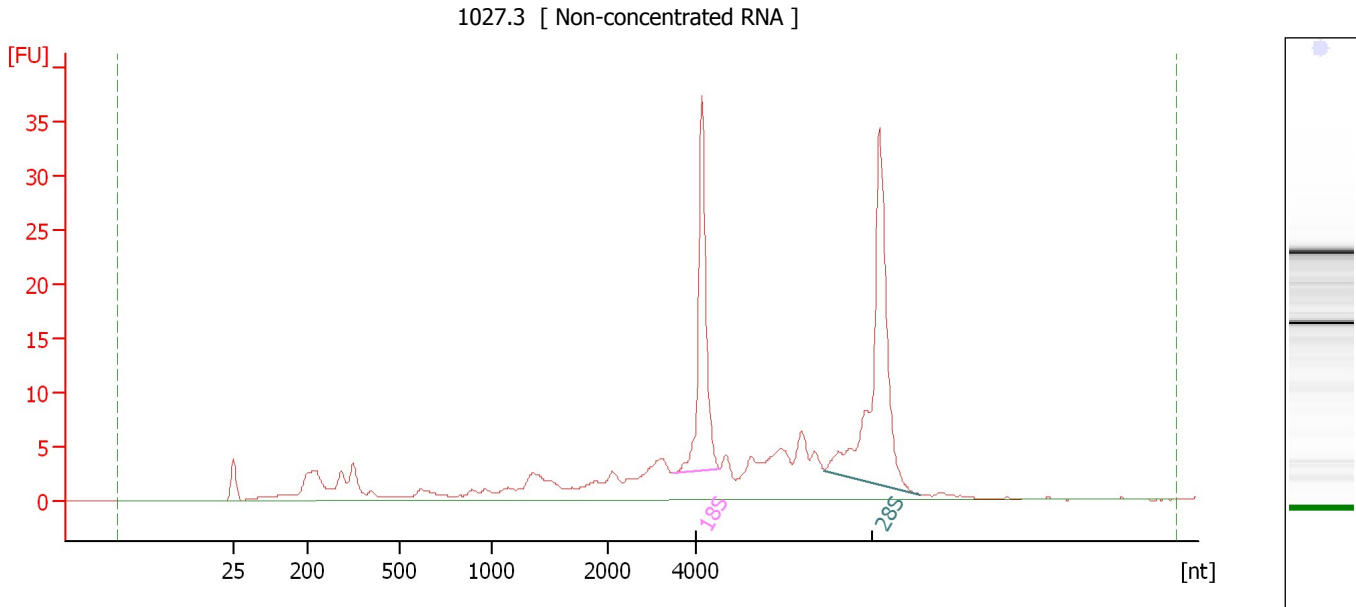
Fragment table for sample 10 : 1032.3

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 3,772 | 4,629 | 6.1 | 16.4 |
| 28S | 7,785 | 9,156 | 9.0 | 24.5 |

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
 Modified: 11/5/2014 9:16:42 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 1027.3

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 211.0 | RNA Integrity Number (RIN): | 7.9 (B.02.08) |
| RNA Concentration: | 207 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 1.5 | Result Flagging Label: | RIN: 7.90 |

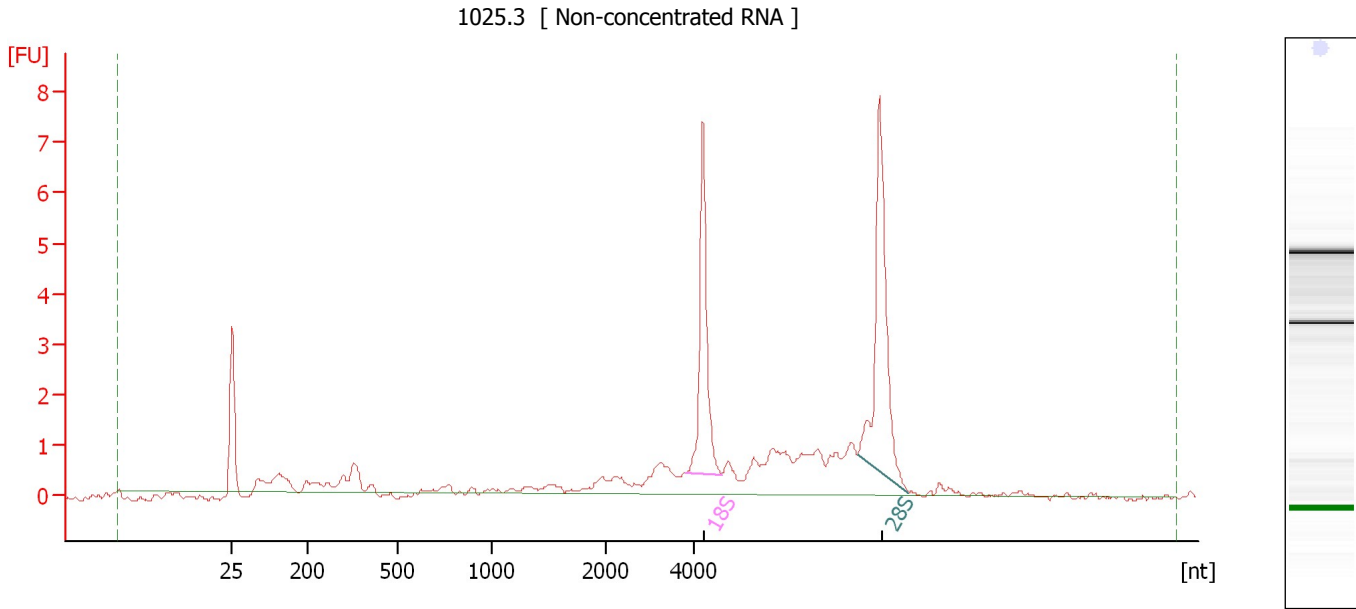
Fragment table for sample 11 : 1027.3

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 3,494 | 4,551 | 31.5 | 14.9 |
| 28S | 6,959 | 9,170 | 46.1 | 21.8 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
Modified: 11/5/2014 9:16:42 AM

Electropherogram Summary Continued ...



Overall Results for sample 12 : 1025.3

RNA Area: 35.5 RNA Integrity Number (RIN): 7.8 (B.02.08)
RNA Concentration: 35 ng/μl Result Flagging Color:
rRNA Ratio [28s / 18s]: 1.3 Result Flagging Label: RIN: 7.80

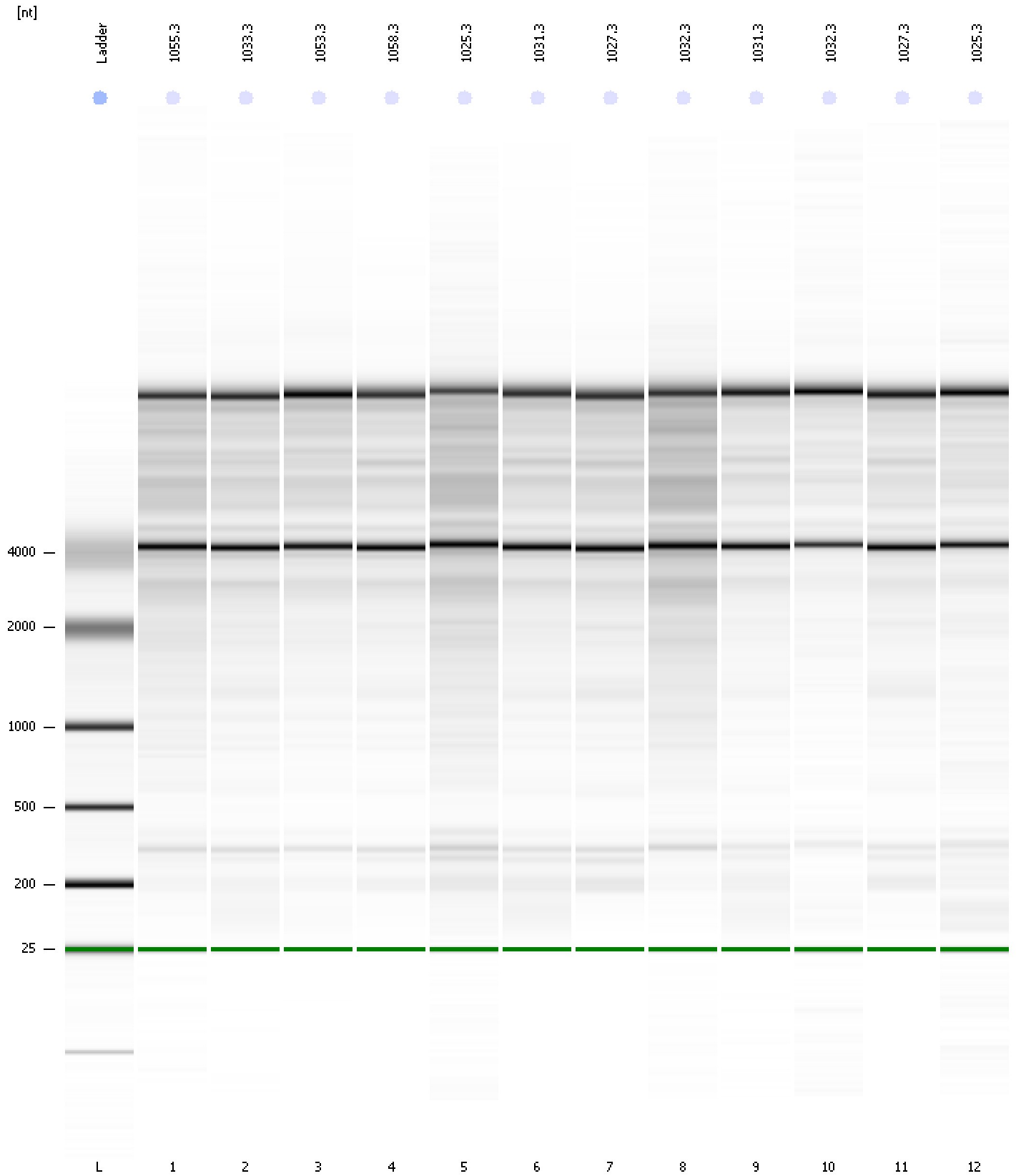
Fragment table for sample 12 : 1025.3

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 3,835 | 4,647 | 5.8 | 16.2 |
| 28S | 7,774 | 8,955 | 7.6 | 21.4 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
Modified: 11/5/2014 9:16:42 AM

Gel Image



Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad

Created: 11/3/2014 3:04:15 PM
 Modified: 11/5/2014 9:16:42 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 | | 11/3/2014 3:28:01 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-11-03\2014-11-03_004.xad) | | Instrument | Run | | 11/3/2014 3:04:20 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B | | Instrument | Run | | 11/3/2014 3:04:20 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name : | | Instrument | Run | | 11/3/2014 3:04:20 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies | | Instrument | Run | | 11/3/2014 3:04:20 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086 | | Instrument | Run | | 11/3/2014 3:04:20 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069 | | Instrument | Run | | 11/3/2014 3:04:20 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode | | Instrument | Run | | 11/3/2014 3:04:20 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |