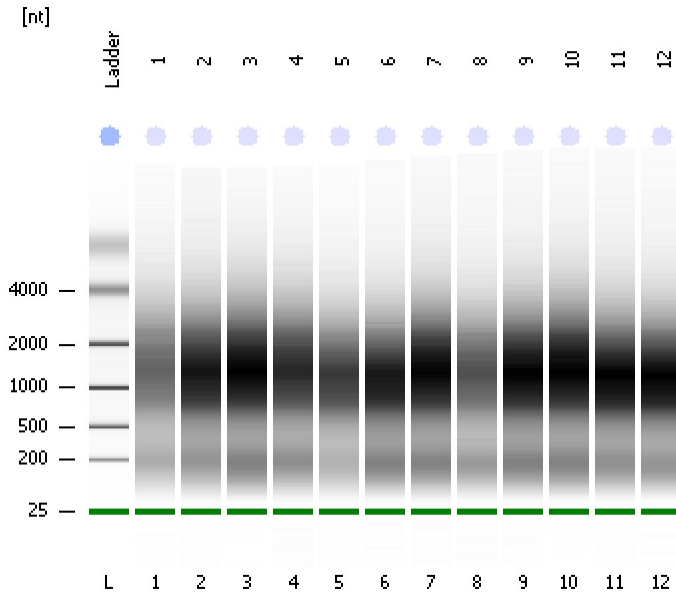


Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
Modified: 12/21/2012 1:09:49 PM

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)
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Chip Information:

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



Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
 Modified: 12/21/2012 1:09:49 PM

Electrophoresis File Run Summary (Chip Summary)

| Sample Name | Sample Comment | Status | Result Label | Result Color |
|-------------|----------------|--------|-------------------|--------------|
| 1 | | ✓ | RIN: 3.30 | |
| 2 | | ✓ | RIN: 4.40 | |
| 3 | | ✓ | RIN: 9.30 | |
| 4 | | ✓ | RIN: 2.40 | |
| 5 | | ✓ | RIN: 3.20 | |
| 6 | | ✓ | RIN: 2.70 | |
| 7 | | ✓ | RIN: 9.20 | |
| 8 | | ✓ | RIN: 2.90 | |
| 9 | | ✓ | RIN: 9.10 | |
| 10 | | ✓ | RIN: 3.20 | |
| 11 | | ✓ | RIN: 9.30 | |
| 12 | | ✓ | RIN: 9.70 | |
| Ladder | | ✓ | All Other Samples | |

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
Modified: 12/21/2012 1:09:49 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

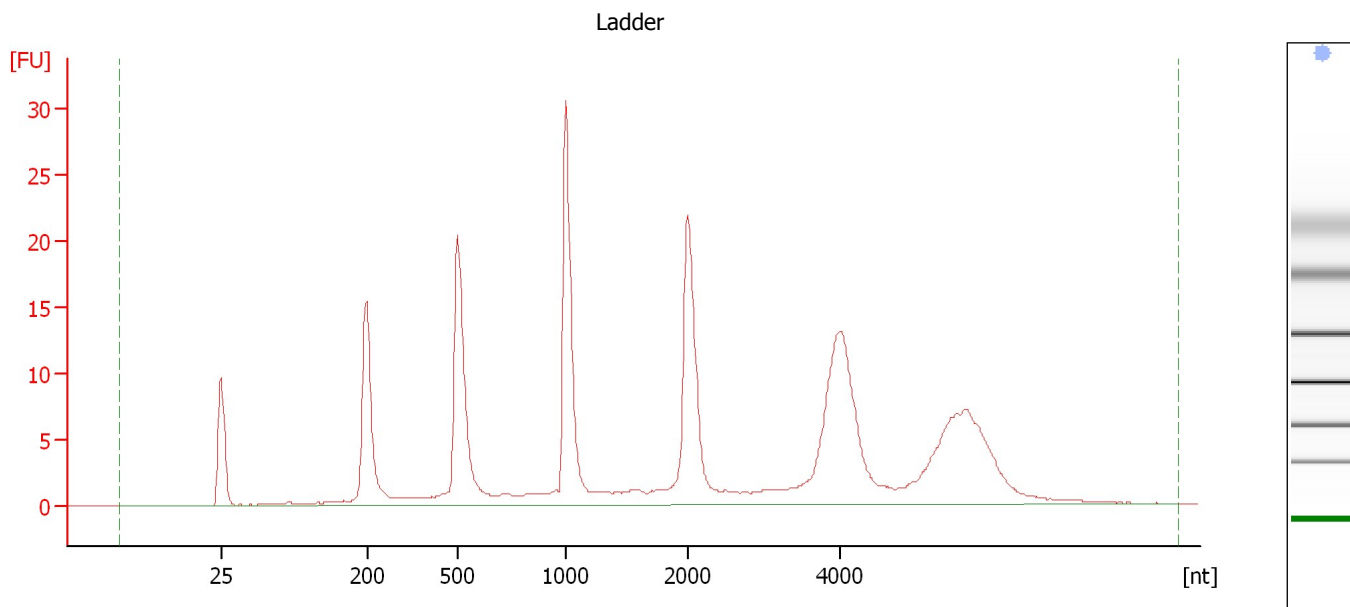
Ladder

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

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
Modified: 12/21/2012 1:09:49 PM

Electropherogram Summary



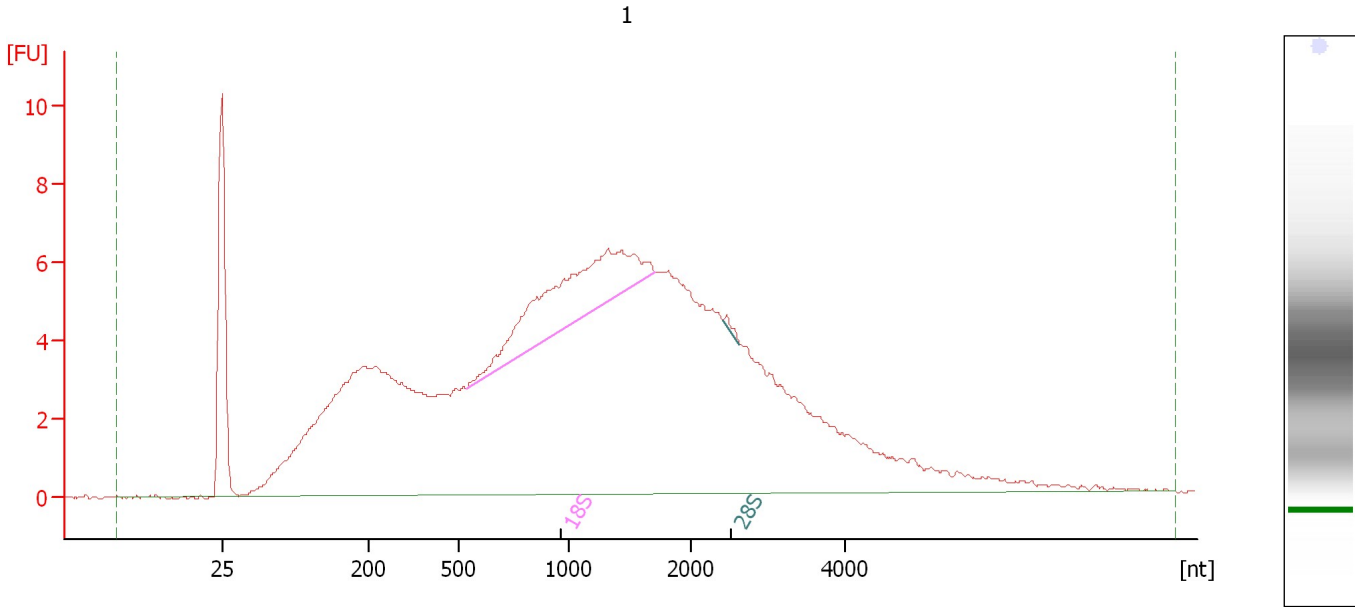
Overall Results for Ladder

| | | | |
|--------------------|-----------------|------------------------|---|
| RNA Area: | 240.1 | Result Flagging Color: | |
| RNA Concentration: | 150 ng/ μ l | Result Flagging Label: | All Other Samples |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
Modified: 12/21/2012 1:09:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 1

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 255.9 | RNA Integrity Number (RIN): | 3.3 (B.02.08) |
| RNA Concentration: | 160 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.0 | Result Flagging Label: | RIN: 3.30 |

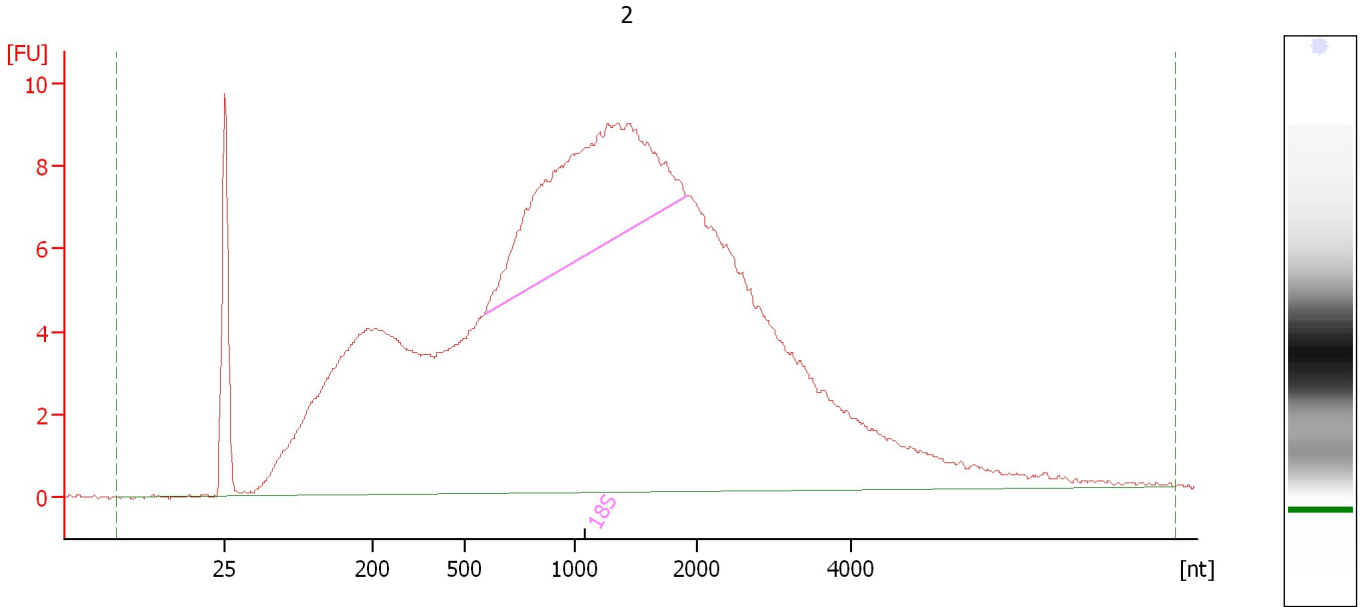
Fragment table for sample 1 : 1

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 537 | 1,712 | 18.3 | 7.1 |
| 28S | 2,421 | 2,643 | 0.2 | 0.1 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
Modified: 12/21/2012 1:09:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 2

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 351.3 | RNA Integrity Number (RIN): | 4.4 (B.02.08) |
| RNA Concentration: | 219 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.0 | Result Flagging Label: | RIN: 4.40 |

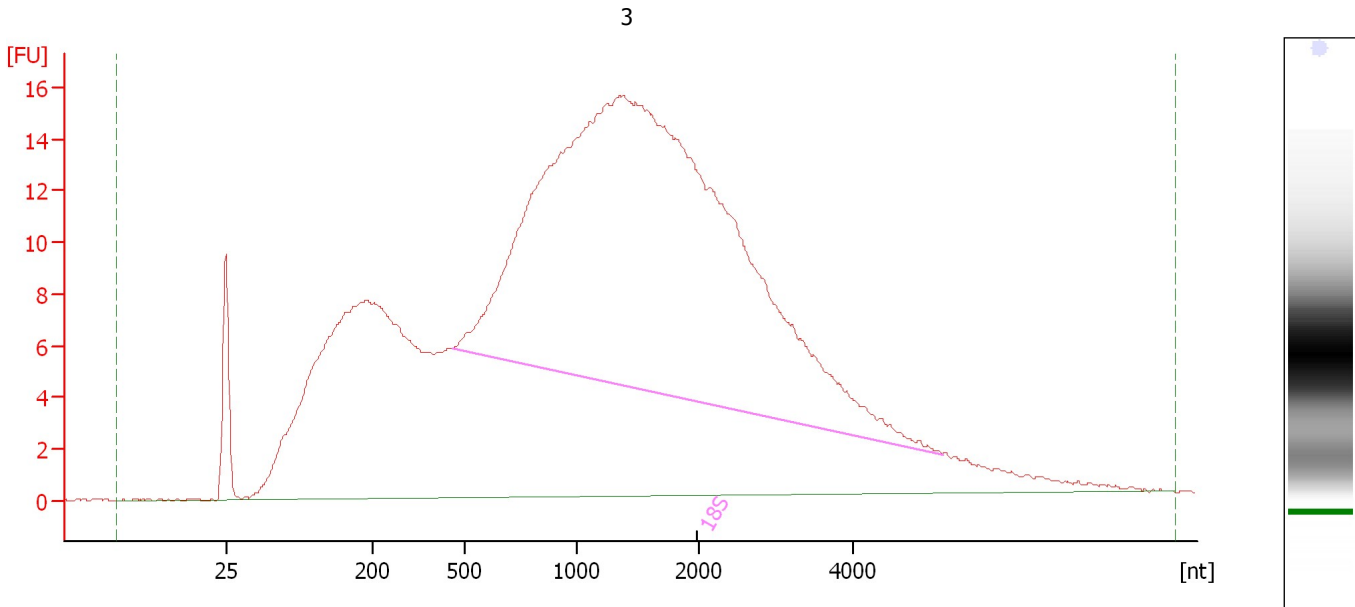
Fragment table for sample 2 : 2

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 593 | 1,917 | 42.4 | 12.1 |

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
 Modified: 12/21/2012 1:09:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 3

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 636.3 | RNA Integrity Number (RIN): | 9.3 (B.02.08, Anomaly Threshold(s) manually adapted) |
| RNA Concentration: | 398 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.0 | Result Flagging Label: | RIN: 9.30 |

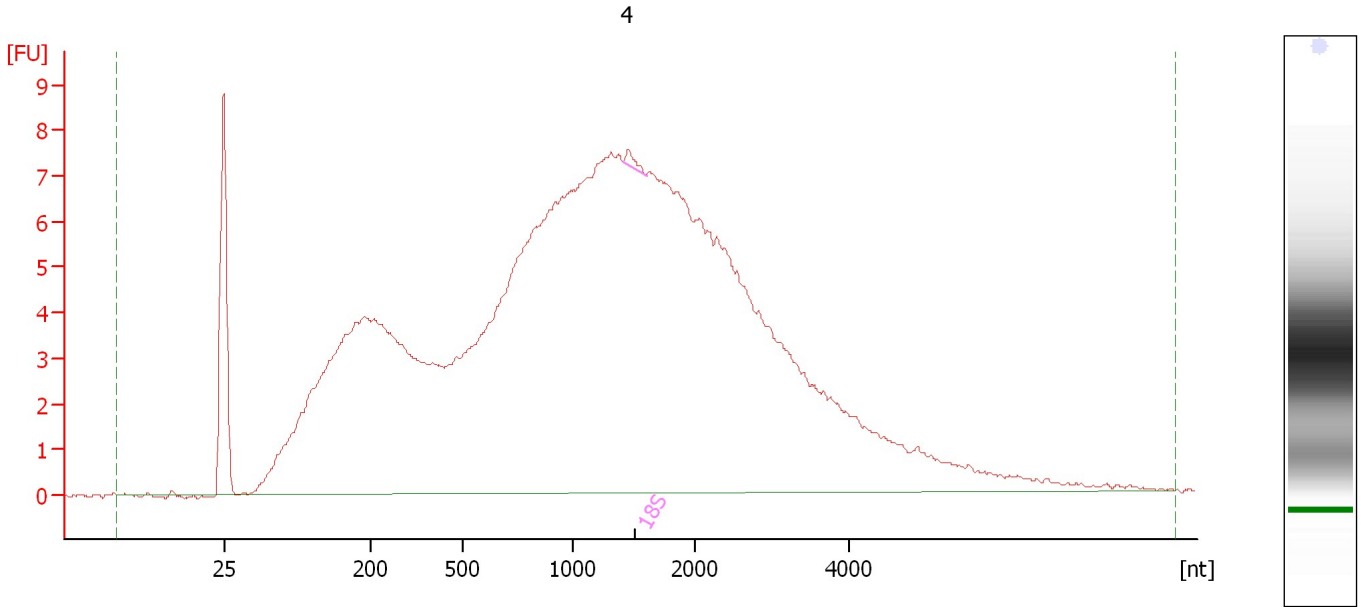
Fragment table for sample 3 : 3

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|-------|-----------------|
| 18S | 461 | 5,153 | 277.3 | 43.6 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
Modified: 12/21/2012 1:09:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 4

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 302.4 | RNA Integrity Number (RIN): | 2.4 (B.02.08) |
| RNA Concentration: | 189 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.0 | Result Flagging Label: | RIN: 2.40 |

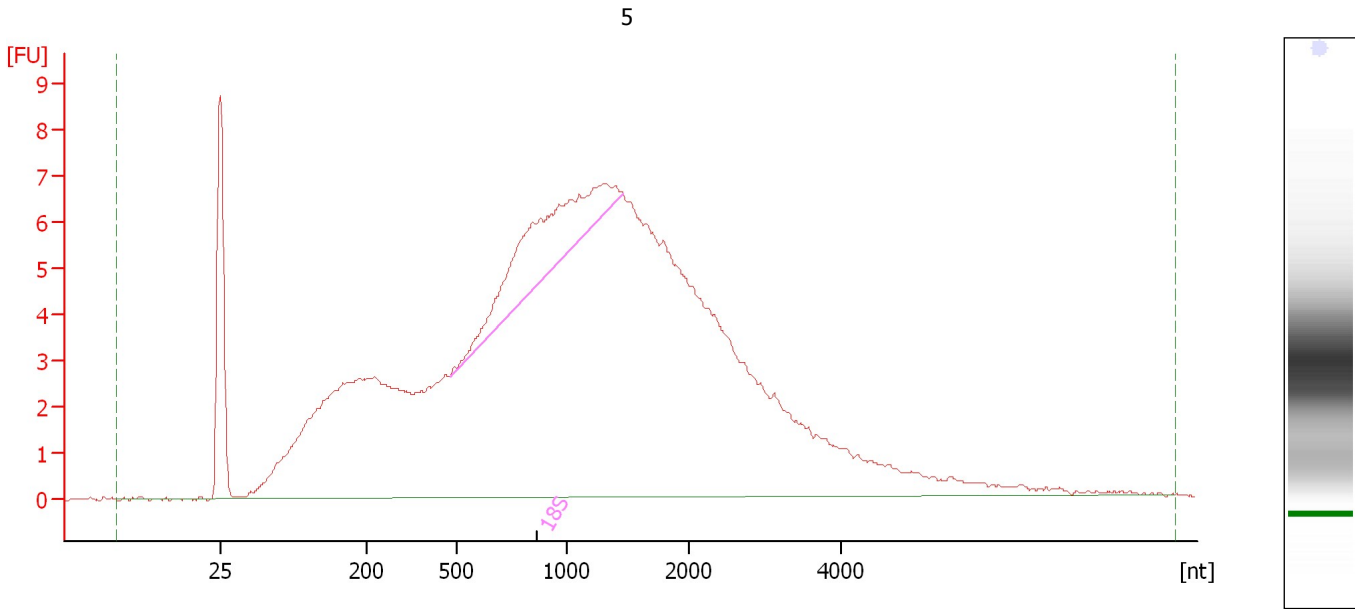
Fragment table for sample 4 : 4

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,417 | 1,601 | 0.4 | 0.1 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
Modified: 12/21/2012 1:09:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 5

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 250.8 | RNA Integrity Number (RIN): | 3.2 (B.02.08) |
| RNA Concentration: | 157 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.0 | Result Flagging Label: | RIN: 3.20 |

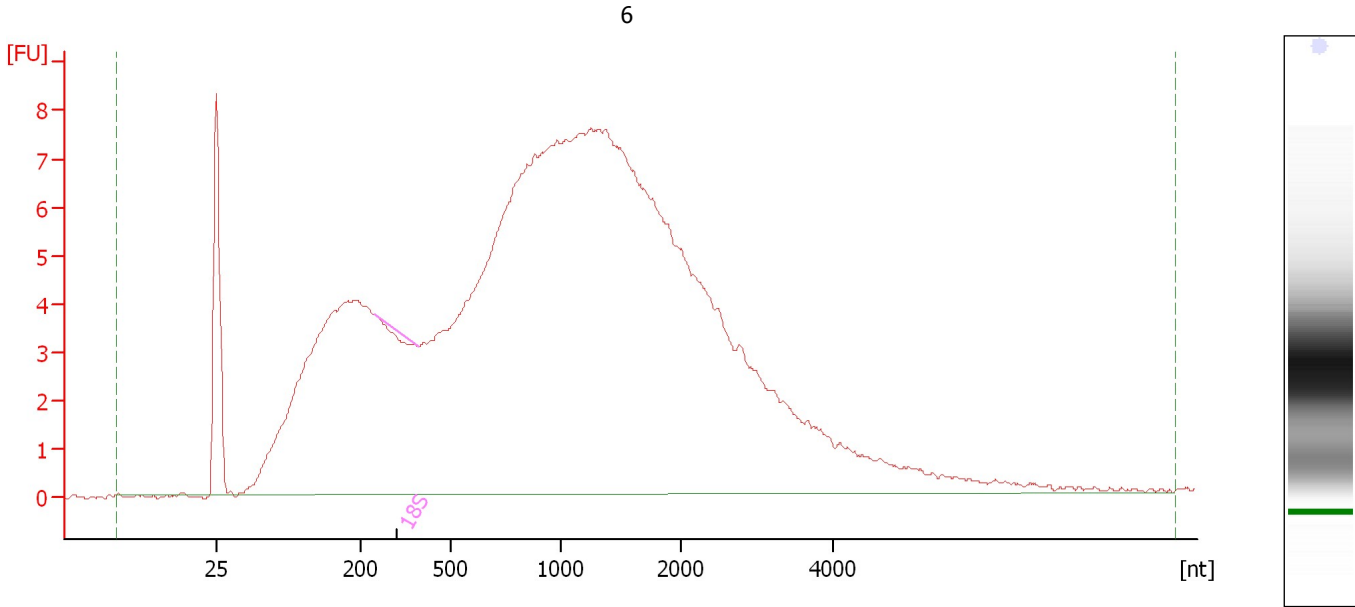
Fragment table for sample 5 : 5

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 475 | 1,464 | 15.6 | 6.2 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
Modified: 12/21/2012 1:09:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 6

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 300.0 | RNA Integrity Number (RIN): | 2.7 (B.02.08) |
| RNA Concentration: | 187 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.0 | Result Flagging Label: | RIN: 2.70 |

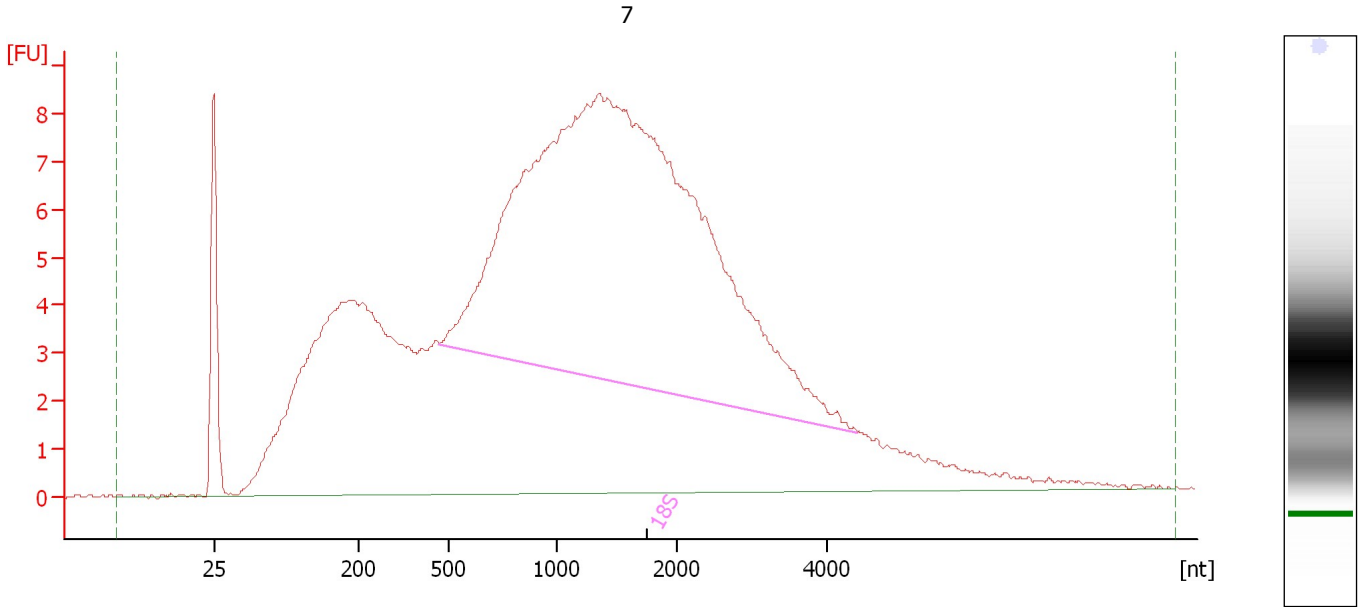
Fragment table for sample 6 : 6

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 242 | 393 | 0.0 | 0.0 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
Modified: 12/21/2012 1:09:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 7

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 334.3 | RNA Integrity Number (RIN): | 9.2 (B.02.08, Anomaly Threshold(s) manually adapted) |
| RNA Concentration: | 209 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.0 | Result Flagging Label: | RIN: 9.20 |

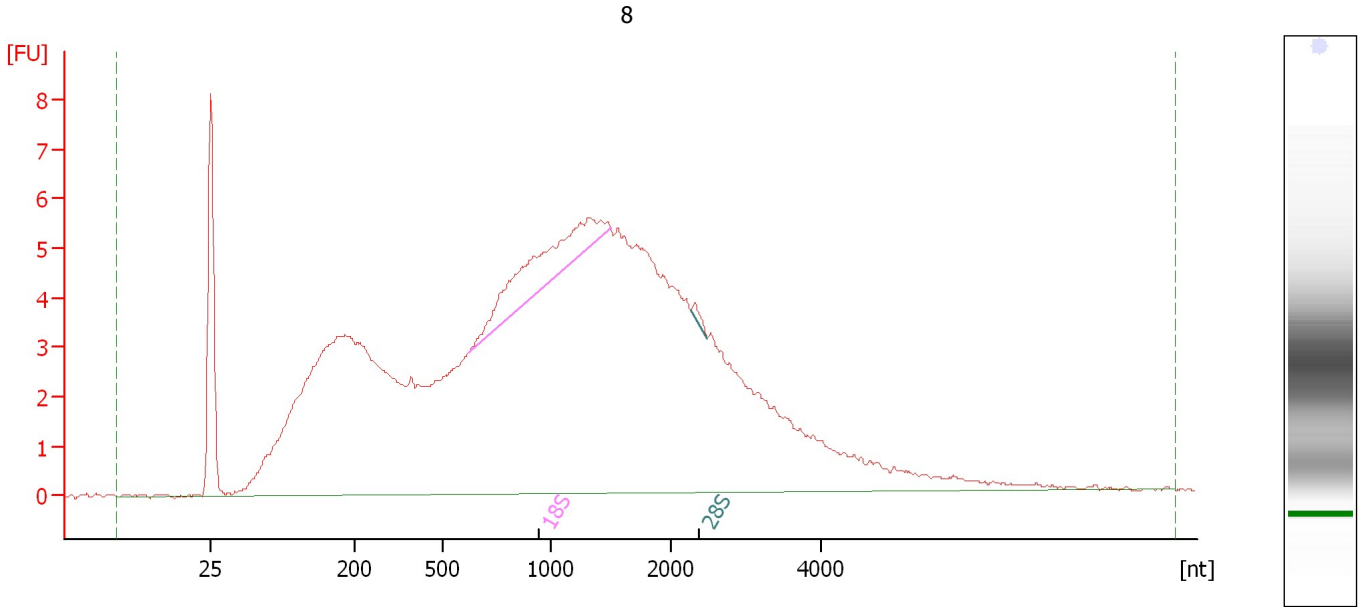
Fragment table for sample 7 : 7

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|-------|-----------------|
| 18S | 470 | 4,391 | 138.8 | 41.5 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
Modified: 12/21/2012 1:09:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 8

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 225.4 | RNA Integrity Number (RIN): | 2.9 (B.02.08) |
| RNA Concentration: | 141 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.0 | Result Flagging Label: | RIN: 2.90 |

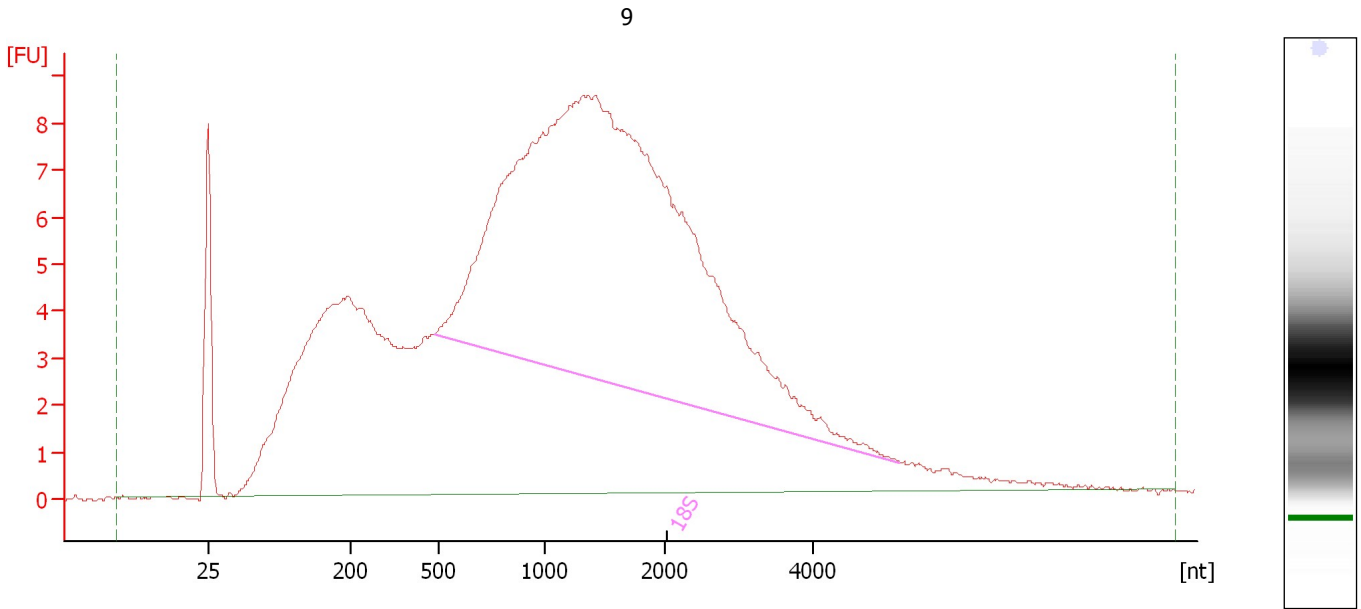
Fragment table for sample 8 : 8

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 615 | 1,499 | 8.7 | 3.9 |
| 28S | 2,273 | 2,500 | 0.3 | 0.1 |

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
 Modified: 12/21/2012 1:09:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 9

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 338.1 | RNA Integrity Number (RIN): | 9.1 (B.02.08, Anomaly Threshold(s) manually adapted) |
| RNA Concentration: | 211 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.0 | Result Flagging Label: | RIN: 9.10 |

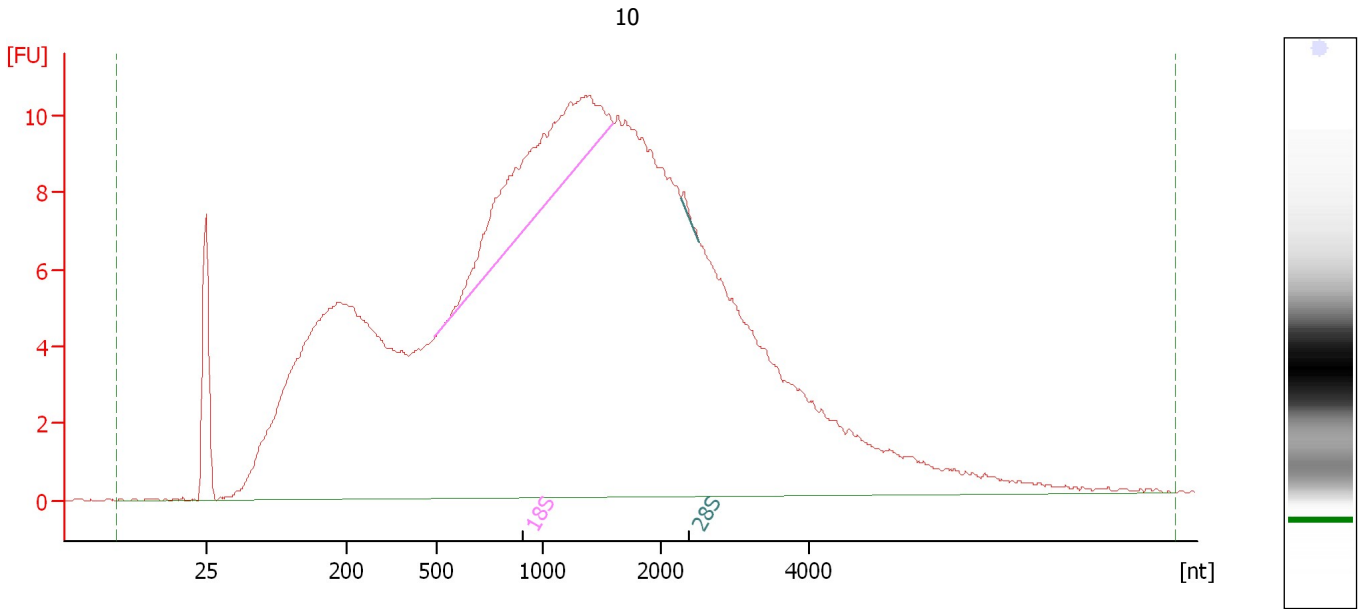
Fragment table for sample 9 : 9

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|-------|-----------------|
| 18S | 483 | 5,141 | 141.3 | 41.8 |

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
 Modified: 12/21/2012 1:09:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 10

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 428.1 | RNA Integrity Number (RIN): | 3.2 (B.02.08) |
| RNA Concentration: | 267 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.0 | Result Flagging Label: | RIN: 3.20 |

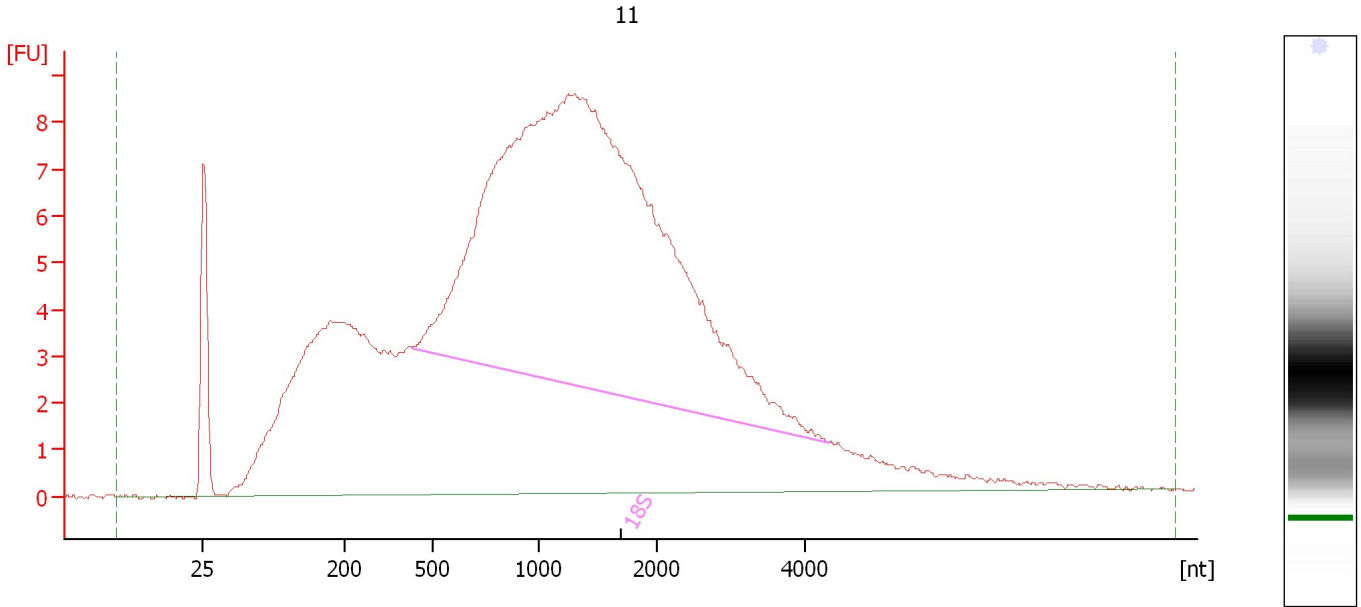
Fragment table for sample 10 : 10

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 498 | 1,607 | 26.6 | 6.2 |
| 28S | 2,283 | 2,527 | 0.3 | 0.1 |

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
 Modified: 12/21/2012 1:09:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 11

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 324.9 | RNA Integrity Number (RIN): | 9.3 (B.02.08, Anomaly Threshold(s) manually adapted) |
| RNA Concentration: | 203 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.0 | Result Flagging Label: | RIN: 9.30 |

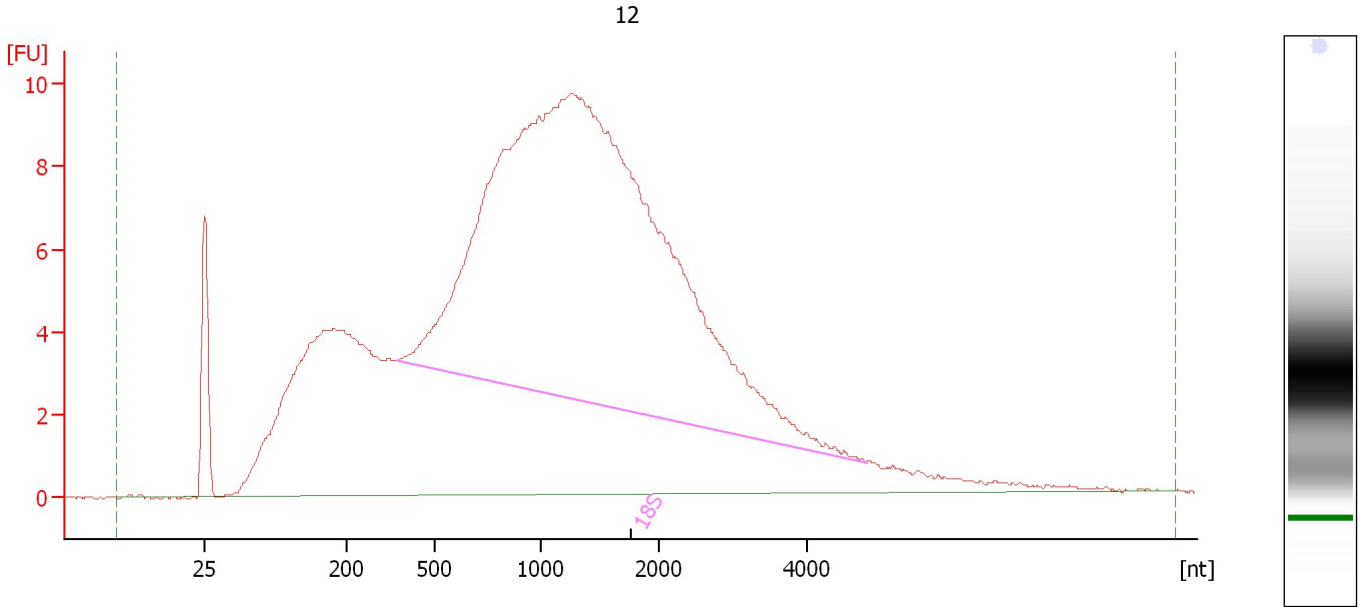
Fragment table for sample 11 : 11

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|-------|-----------------|
| 18S | 428 | 4,327 | 142.6 | 43.9 |

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
 Modified: 12/21/2012 1:09:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 12 : 12

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 359.9 | RNA Integrity Number (RIN): | 9.7 (B.02.08, Anomaly Threshold(s) manually adapted) |
| RNA Concentration: | 225 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.0 | Result Flagging Label: | RIN: 9.70 |

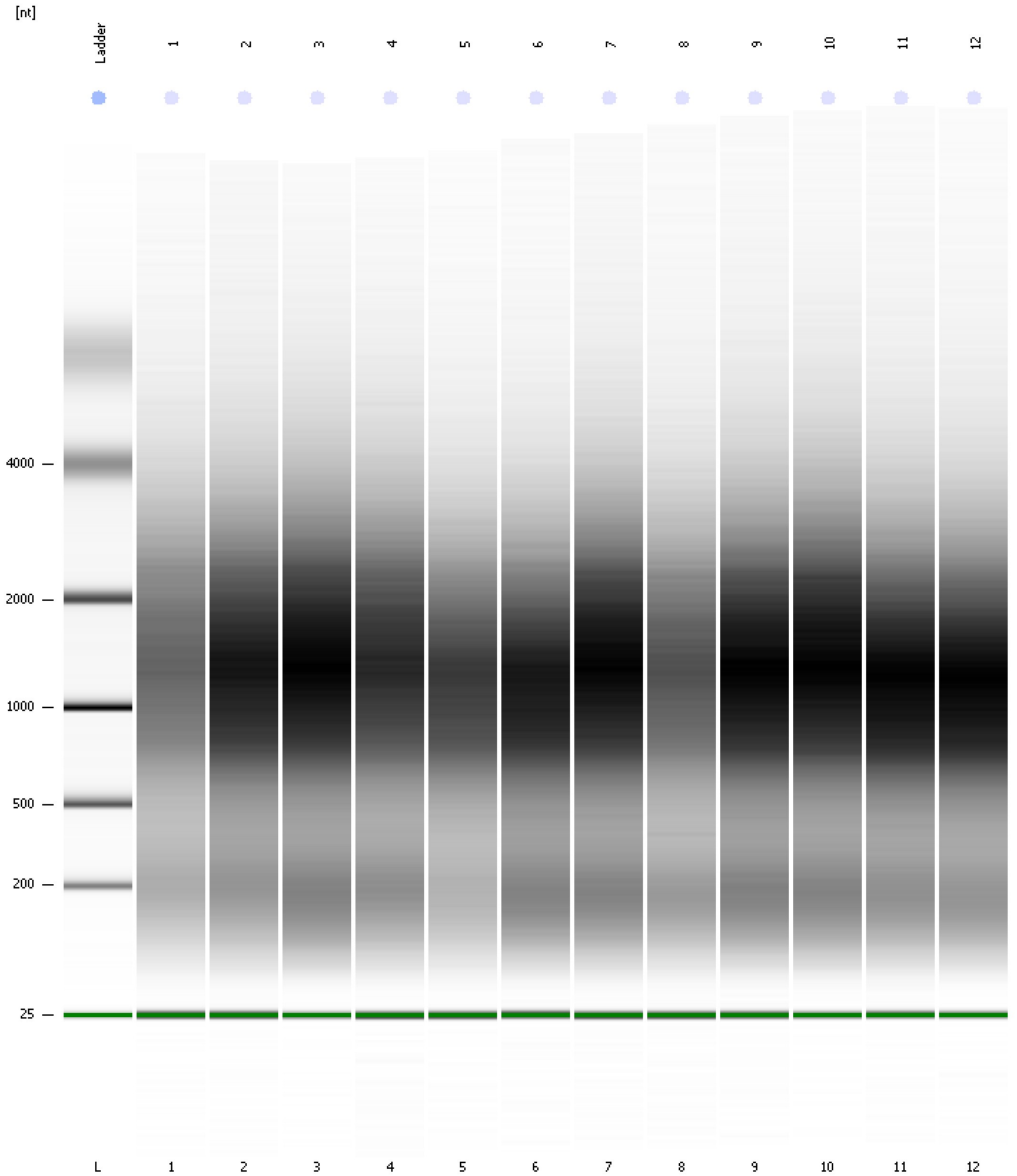
Fragment table for sample 12 : 12

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|-------|-----------------|
| 18S | 369 | 4,797 | 173.4 | 48.2 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
Modified: 12/21/2012 1:09:49 PM

Gel Image



Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad

Created: 12/21/2012 12:42:26 PM
 Modified: 12/21/2012 1:09:49 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 | | 12/21/2012 1:06:15 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-12-21\2012-12-21_002.xad) | | Instrument | Run | | 12/21/2012 12:42:32 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B | | Instrument | Run | | 12/21/2012 12:42:32 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name : | | Instrument | Run | | 12/21/2012 12:42:32 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies | | Instrument | Run | | 12/21/2012 12:42:32 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086 | | Instrument | Run | | 12/21/2012 12:42:32 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069 | | Instrument | Run | | 12/21/2012 12:42:32 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode | | Instrument | Run | | 12/21/2012 12:42:32 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |