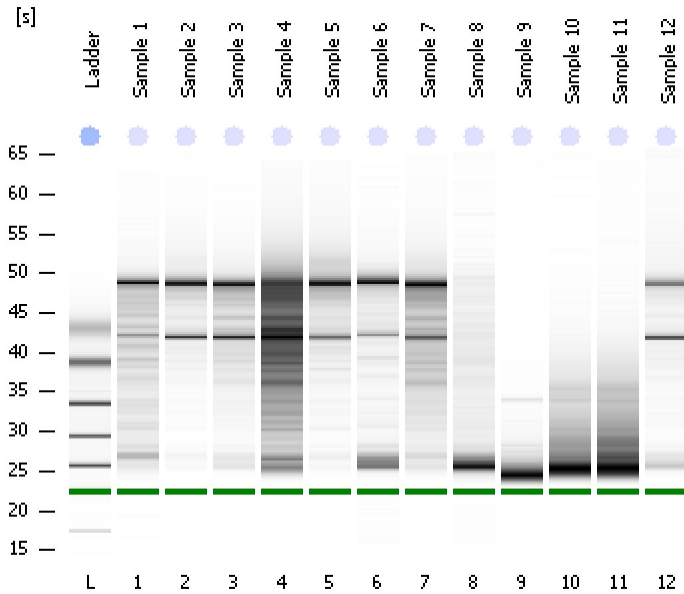


Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 PM

Electrophoresis File Run Summary



Instrument Information:

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

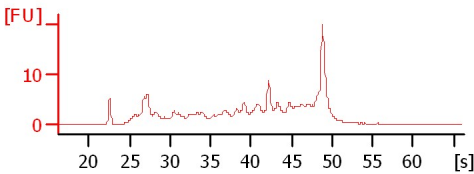
Assay Information:

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)
© Copyright 2003 - 2009 Agilent Technologies, Inc.

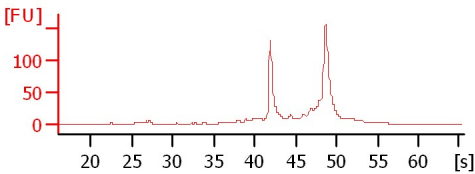
Chip Information:

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

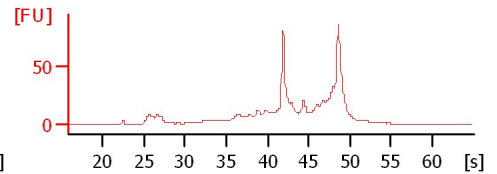
Sample 1
RIN: 5.50



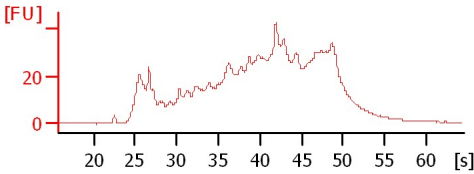
Sample 2
RIN: 8.80



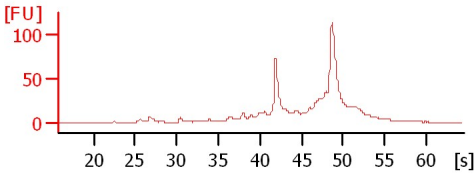
Sample 3
RIN: 7.30



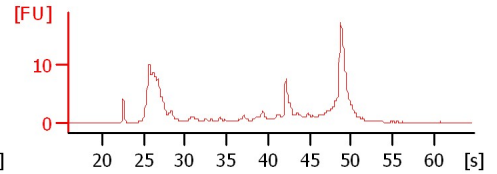
Sample 4
RIN: 2.60



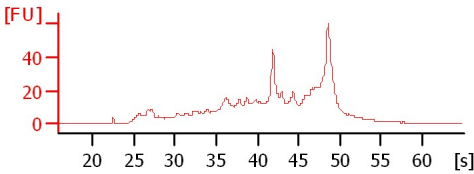
Sample 5
RIN: 8.30



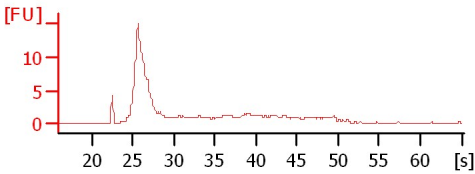
Sample 6
RIN: 8.20



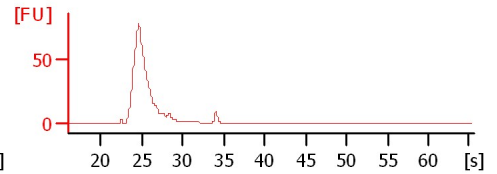
Sample 7
RIN: 5.40



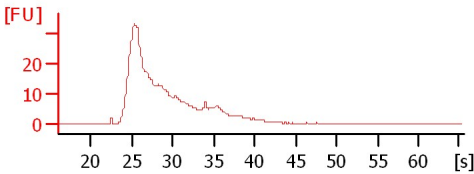
Sample 8
RIN: 2.50



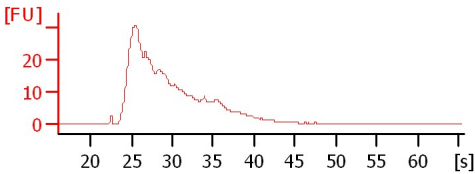
Sample 9
RIN: 2.50



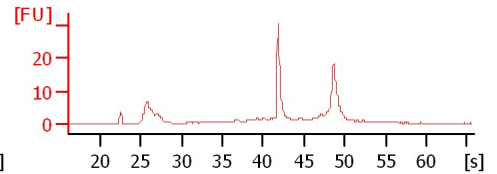
Sample 10
RIN: 2.10



Sample 11
RIN: 2.20



Sample 12
RIN: 8



Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 PM

Electrophoresis File Run Summary (Chip Summary)

| Sample Name | Sample Comment | Status | Result Label | Result Color |
|-------------|----------------|--------|-------------------|--------------|
| Sample 1 | | ✓ | RIN: 5.50 | |
| Sample 2 | | ✓ | RIN: 8.80 | |
| Sample 3 | | ✓ | RIN: 7.30 | |
| Sample 4 | | ✓ | RIN: 2.60 | |
| Sample 5 | | ✓ | RIN: 8.30 | |
| Sample 6 | | ✓ | RIN: 8.20 | |
| Sample 7 | | ✓ | RIN: 5.40 | |
| Sample 8 | | ✓ | RIN: 2.50 | |
| Sample 9 | | ✓ | RIN: 2.50 | |
| Sample 10 | | ✓ | RIN: 2.10 | |
| Sample 11 | | ✓ | RIN: 2.20 | |
| Sample 12 | | ✓ | RIN:8 | |
| Ladder | | ✓ | All Other Samples | |

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 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

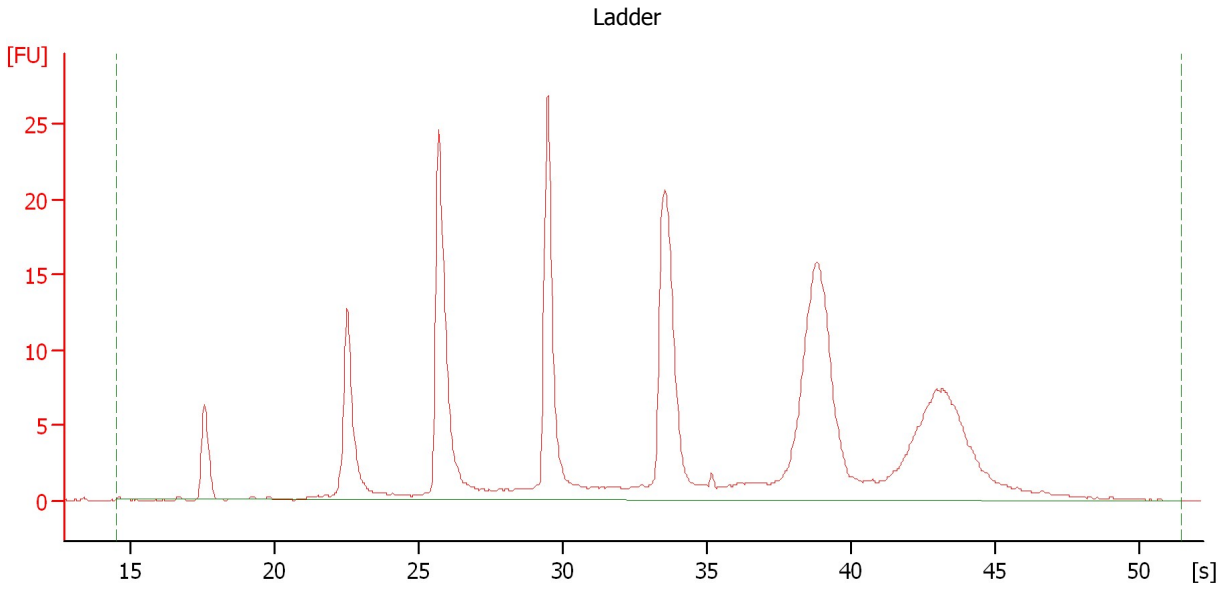
Ladder

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

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 PM

Electropherogram Summary



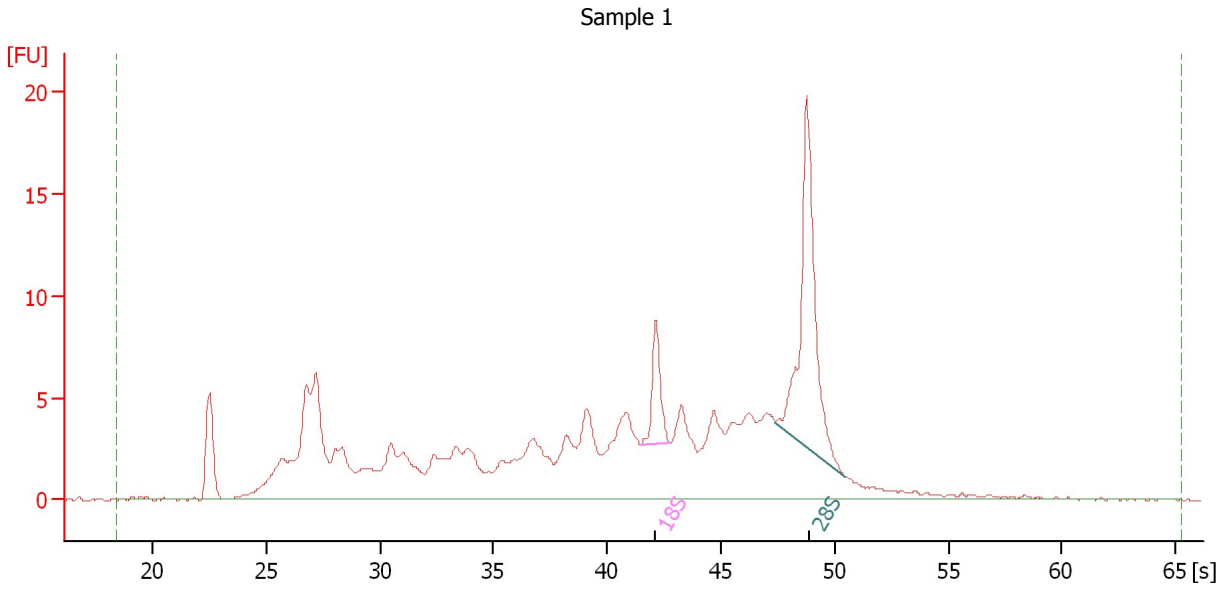
Overall Results for Ladder

| | | | |
|--------------------|-----------|------------------------|---|
| RNA Area: | 239.1 | Result Flagging Color: | |
| RNA Concentration: | 150 ng/μl | Result Flagging Label: | All Other Samples |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Sample 1

RNA Area: 218.4 RNA Integrity Number (RIN): 5.5 (B.02.08)
RNA Concentration: 137 ng/μl Result Flagging Color:
rRNA Ratio [28s / 18s]: 4.0 Result Flagging Label: RIN: 5.50

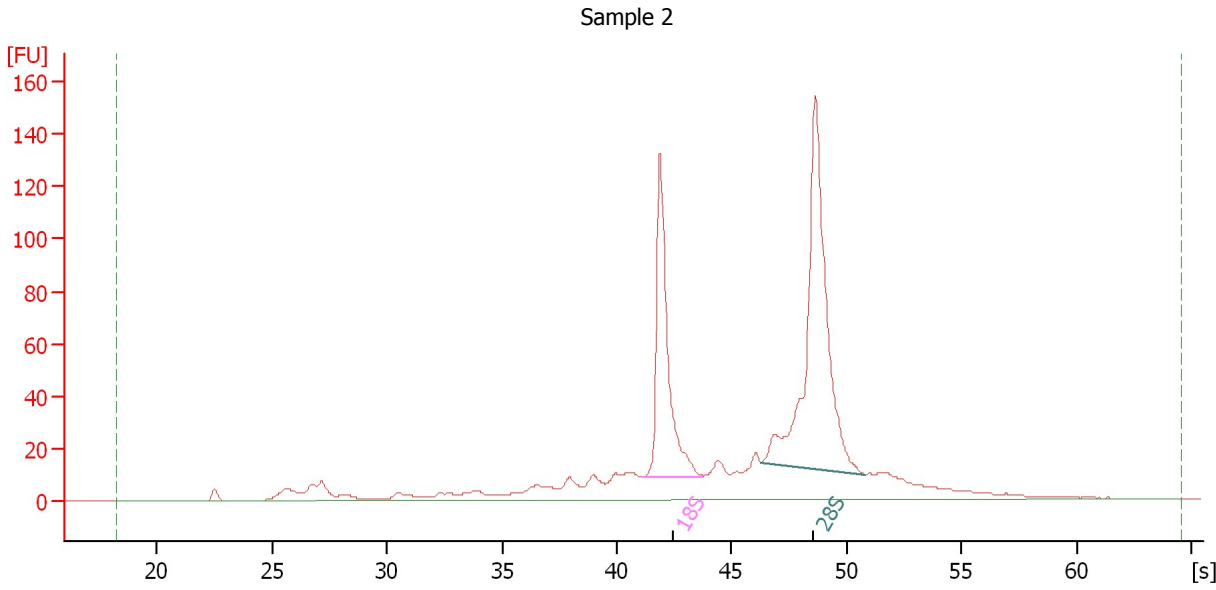
Fragment table for sample 1 : Sample 1

| Name | Start Time [s] | End Time [s] | Area | % of total Area |
|------|----------------|--------------|------|-----------------|
| 18S | 41.45 | 42.78 | 6.2 | 2.8 |
| 28S | 47.41 | 50.44 | 24.6 | 11.3 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Sample 2

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 938.1 | RNA Integrity Number (RIN): | 8.8 (B.02.08) |
| RNA Concentration: | 589 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 1.8 | Result Flagging Label: | RIN: 8.80 |

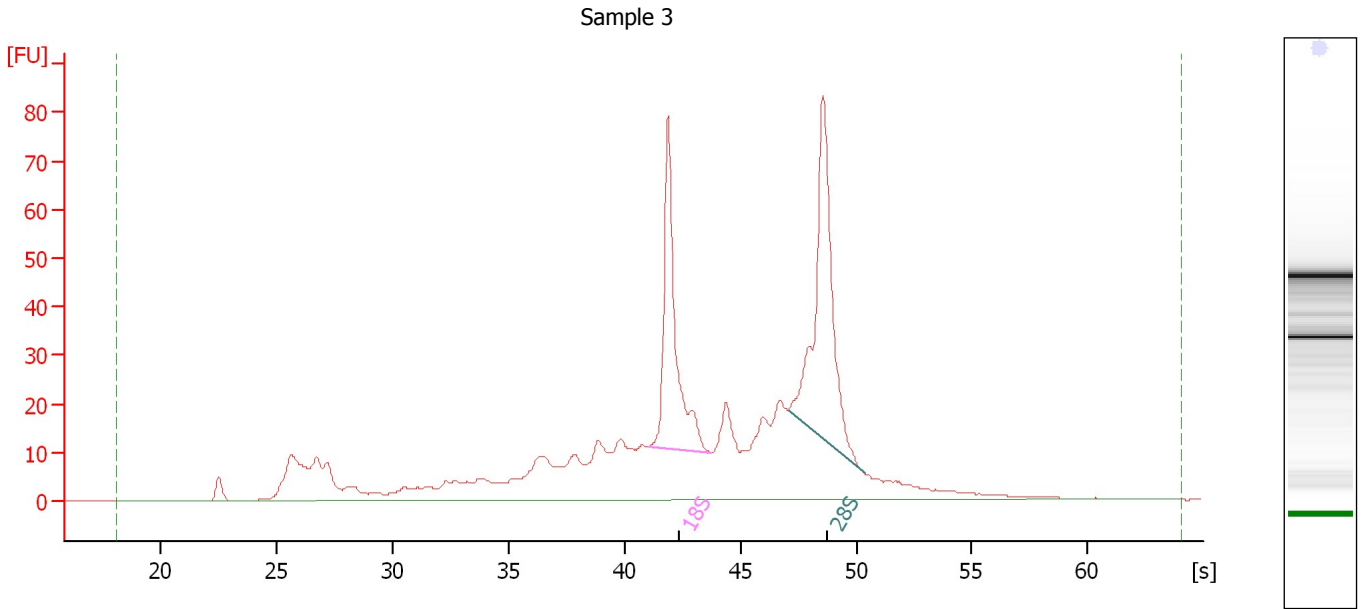
Fragment table for sample 2 : Sample 2

| Name | Start Time [s] | End Time [s] | Area | % of total Area |
|------|----------------|--------------|-------|-----------------|
| 18S | 41.12 | 43.78 | 160.7 | 17.1 |
| 28S | 46.31 | 50.85 | 287.3 | 30.6 |

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
 Modified: 7/10/2014 3:36:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Sample 3

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 763.5 | RNA Integrity Number (RIN): | 7.3 (B.02.08) |
| RNA Concentration: | 479 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 1.3 | Result Flagging Label: | RIN: 7.30 |

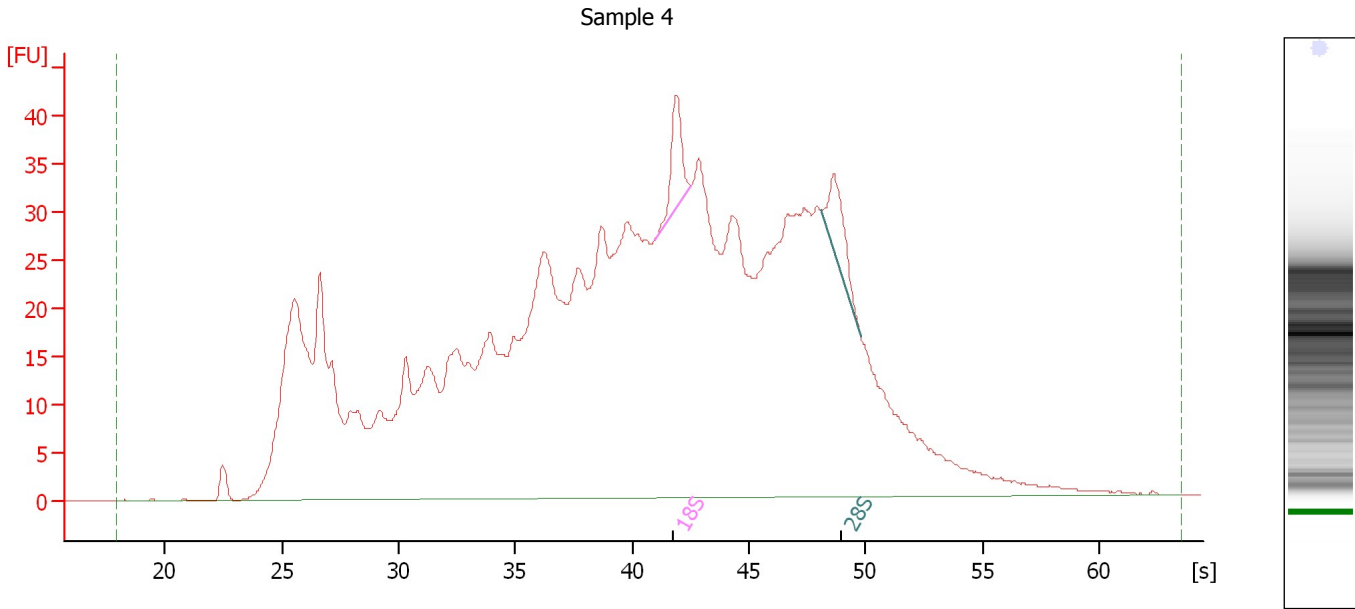
Fragment table for sample 3 : Sample 3

| Name | Start Time [s] | End Time [s] | Area | % of total Area |
|------|----------------|--------------|-------|-----------------|
| 18S | 41.01 | 43.75 | 91.6 | 12.0 |
| 28S | 47.09 | 50.38 | 119.0 | 15.6 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Sample 4

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 1,471.8 | RNA Integrity Number (RIN): | 2.6 (B.02.08) |
| RNA Concentration: | 923 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.9 | Result Flagging Label: | RIN: 2.60 |

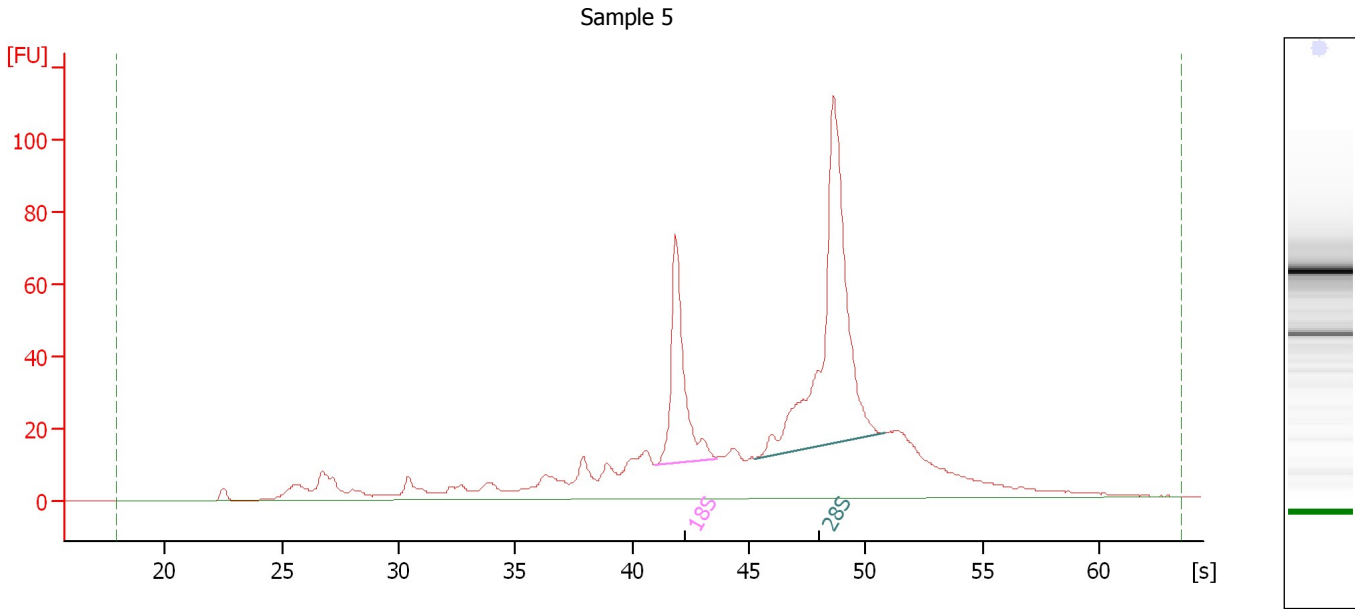
Fragment table for sample 4 : Sample 4

| Name | Start Time [s] | End Time [s] | Area | % of total Area |
|------|----------------|--------------|------|-----------------|
| 18S | 40.95 | 42.52 | 13.8 | 0.9 |
| 28S | 48.13 | 49.79 | 13.1 | 0.9 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Sample 5

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 915.6 | RNA Integrity Number (RIN): | 8.3 (B.02.08) |
| RNA Concentration: | 574 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 2.5 | Result Flagging Label: | RIN: 8.30 |

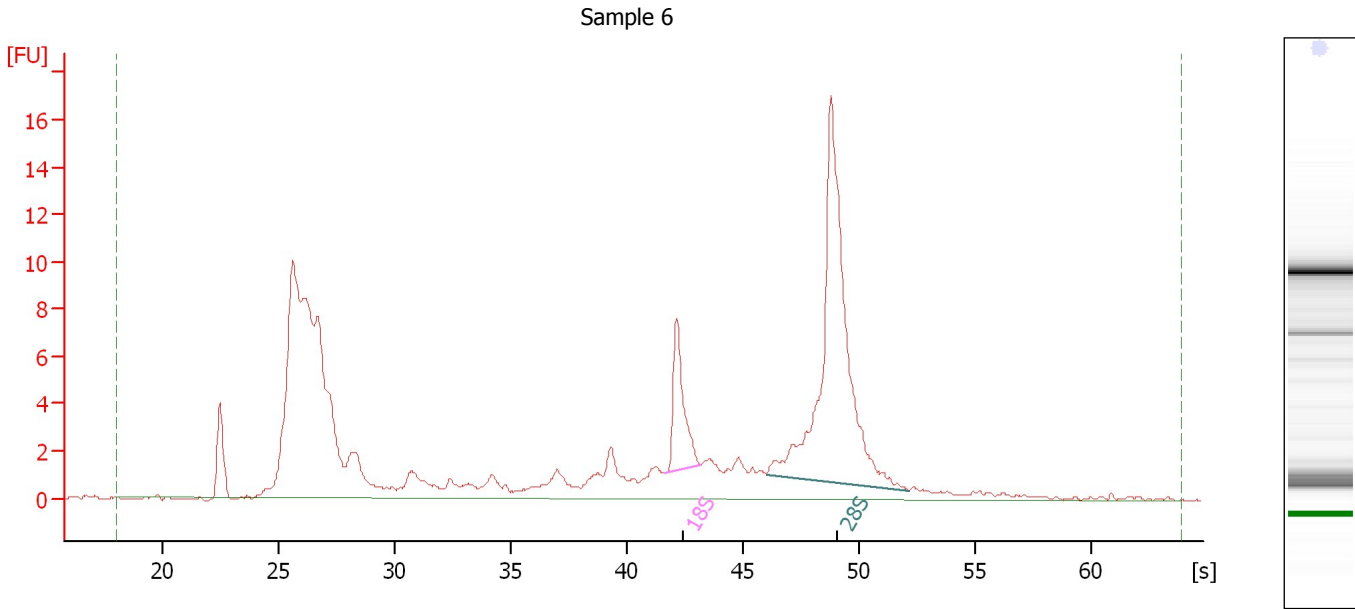
Fragment table for sample 5 : Sample 5

| Name | Start Time [s] | End Time [s] | Area | % of total Area |
|------|----------------|--------------|-------|-----------------|
| 18S | 41.00 | 43.62 | 90.5 | 9.9 |
| 28S | 45.28 | 50.84 | 229.5 | 25.1 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Sample 6

RNA Area: 167.2 RNA Integrity Number (RIN): 8.2 (B.02.08)
RNA Concentration: 105 ng/μl Result Flagging Color:
rRNA Ratio [28s / 18s]: 5.1 Result Flagging Label: RIN: 8.20

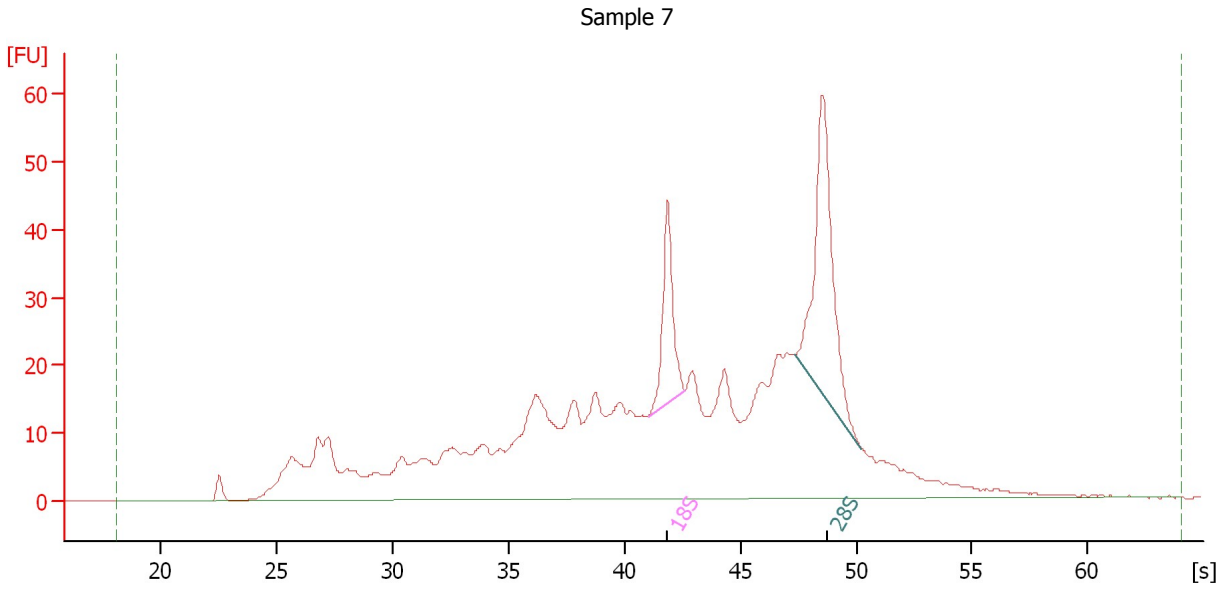
Fragment table for sample 6 : Sample 6

| Name | Start Time [s] | End Time [s] | Area | % of total Area |
|------|----------------|--------------|------|-----------------|
| 18S | 41.67 | 43.19 | 7.5 | 4.5 |
| 28S | 46.02 | 52.18 | 38.0 | 22.7 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Sample 7

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 857.3 | RNA Integrity Number (RIN): | 5.4 (B.02.08) |
| RNA Concentration: | 538 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 2.2 | Result Flagging Label: | RIN: 5.40 |

Fragment table for sample 7 : Sample 7

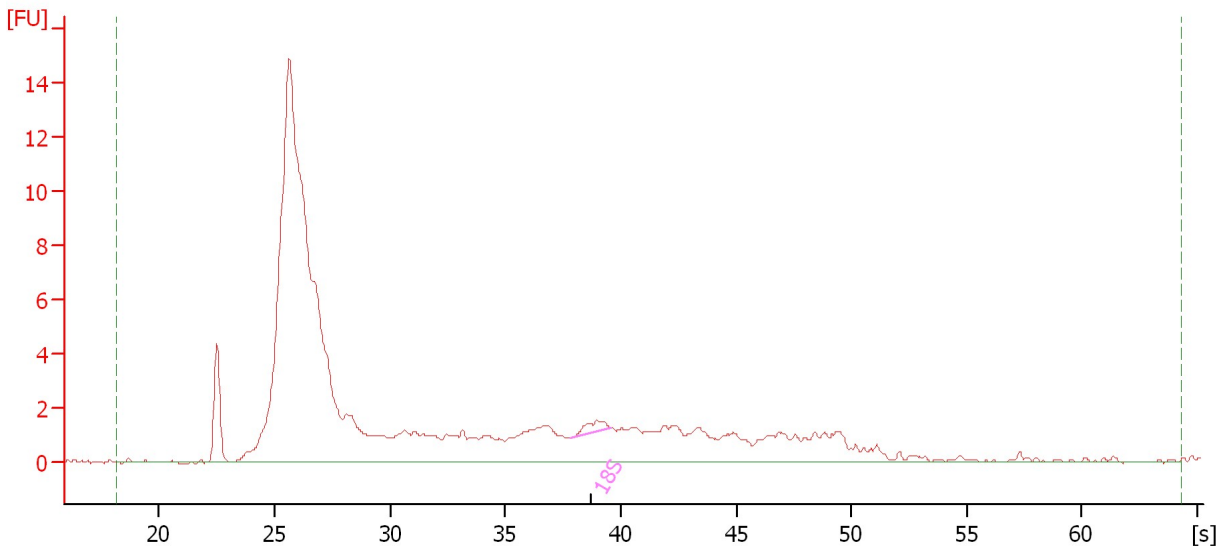
| Name | Start Time [s] | End Time [s] | Area | % of total Area |
|------|----------------|--------------|------|-----------------|
| 18S | 41.01 | 42.63 | 35.3 | 4.1 |
| 28S | 47.32 | 50.24 | 79.2 | 9.2 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 PM

Electropherogram Summary Continued ...

Sample 8



Overall Results for sample 8 : Sample 8

| | | | |
|-------------------------|----------|-----------------------------|---|
| RNA Area: | 152.0 | RNA Integrity Number (RIN): | 2.5 (B.02.08) |
| RNA Concentration: | 95 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.0 | Result Flagging Label: | RIN: 2.50 |

Fragment table for sample 8 : Sample 8

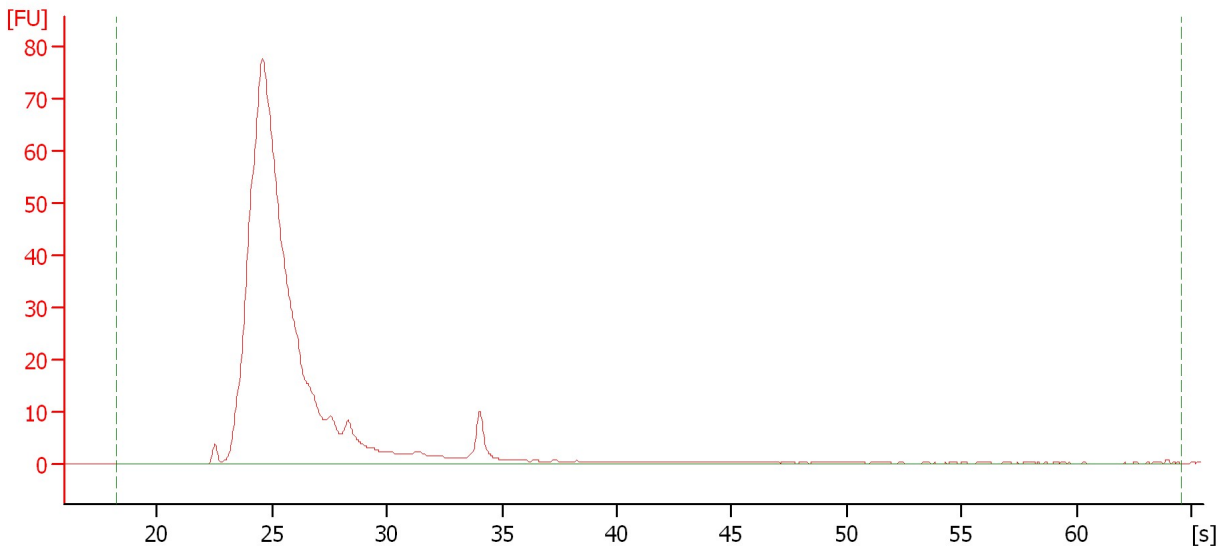
| Name | Start Time [s] | End Time [s] | Area | % of total Area |
|------|----------------|--------------|------|-----------------|
| 18S | 37.87 | 39.60 | 1.2 | 0.8 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 PM

Electropherogram Summary Continued ...

Sample 9



Overall Results for sample 9 : Sample 9

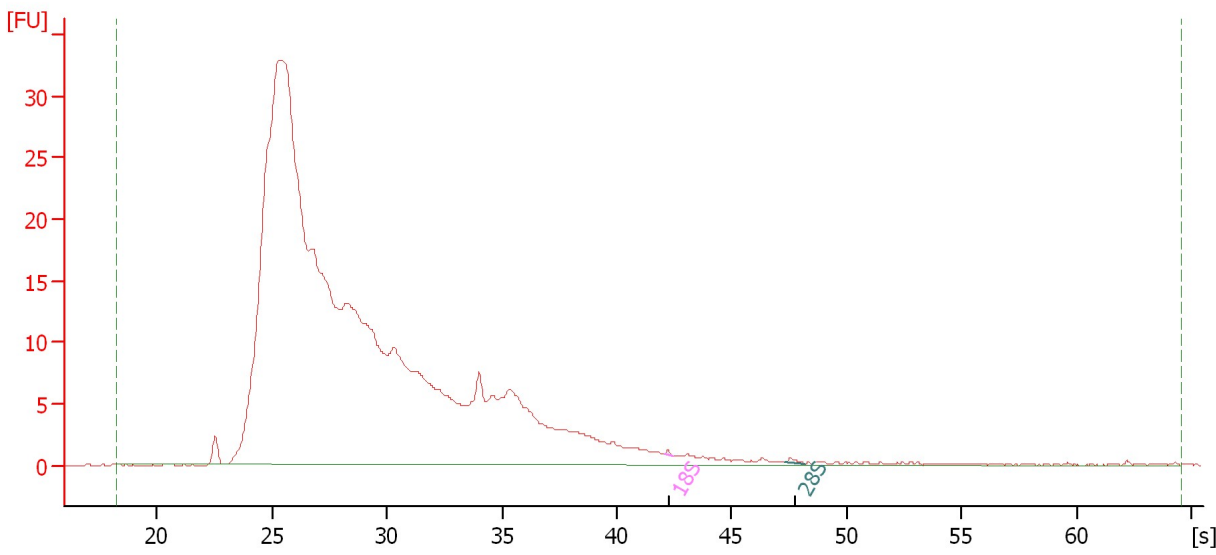
| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 670.6 | RNA Integrity Number (RIN): | 2.5 (B.02.08) |
| RNA Concentration: | 421 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.0 | Result Flagging Label: | RIN: 2.50 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 PM

Electropherogram Summary Continued ...

Sample 10



Overall Results for sample 10 : Sample 10

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 559.2 | RNA Integrity Number (RIN): | 2.1 (B.02.08) |
| RNA Concentration: | 351 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 1.5 | Result Flagging Label: | RIN: 2.10 |

Fragment table for sample 10 : Sample 10

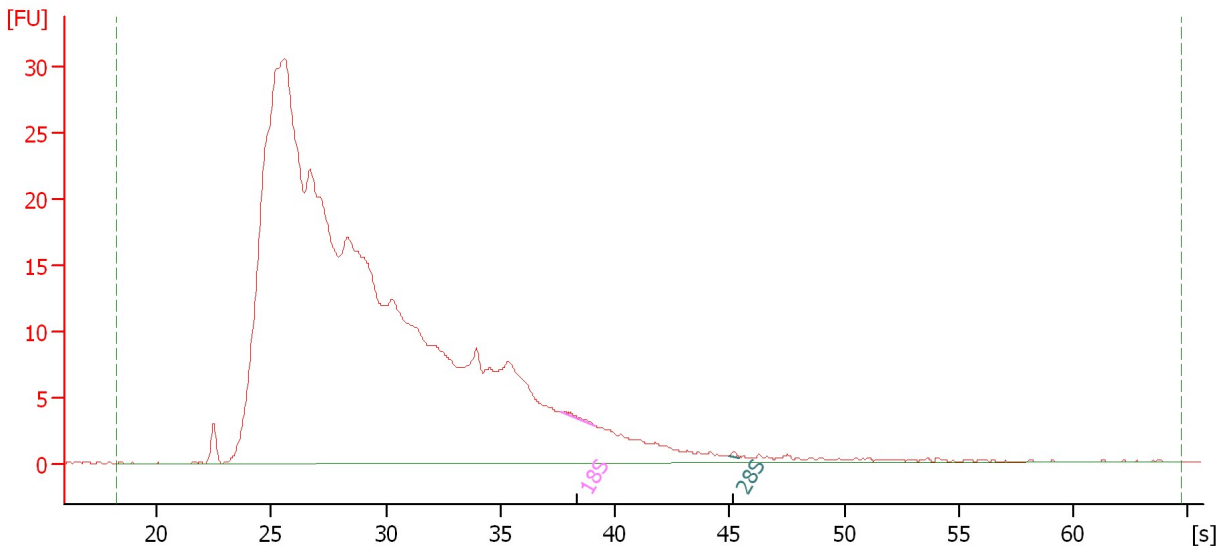
| Name | Start Time [s] | End Time [s] | Area | % of total Area |
|------|----------------|--------------|------|-----------------|
| 18S | 42.05 | 42.43 | 0.2 | 0.0 |
| 28S | 47.34 | 48.18 | 0.3 | 0.0 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 PM

Electropherogram Summary Continued ...

Sample 11



Overall Results for sample 11 : Sample 11

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 661.1 | RNA Integrity Number (RIN): | 2.2 (B.02.08) |
| RNA Concentration: | 415 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 0.2 | Result Flagging Label: | RIN: 2.20 |

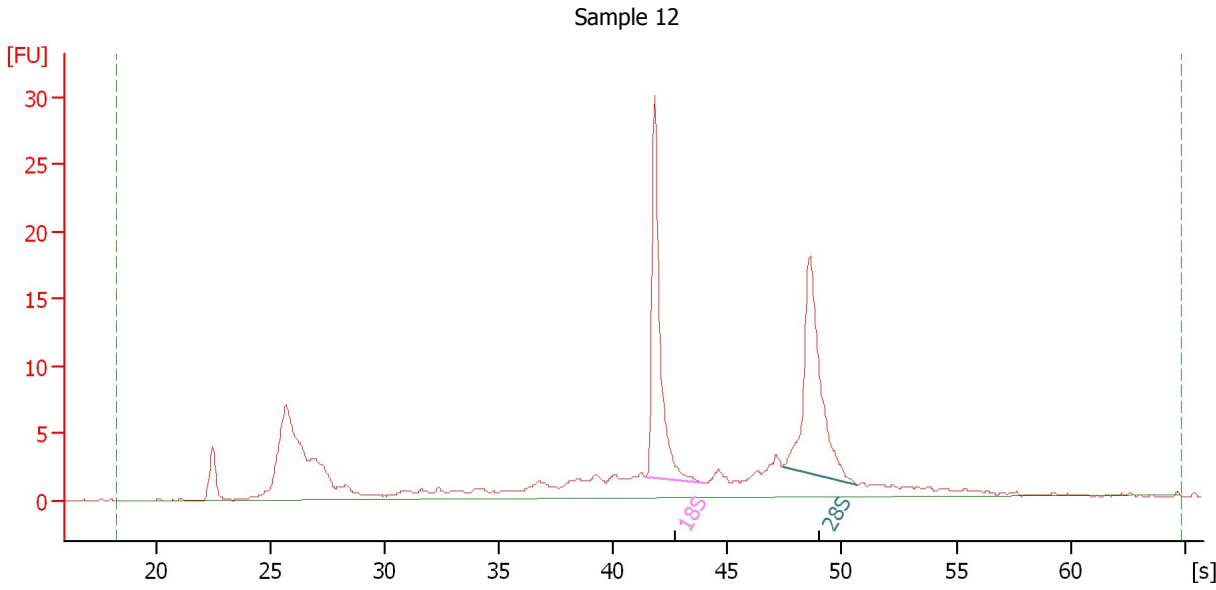
Fragment table for sample 11 : Sample 11

| Name | Start Time [s] | End Time [s] | Area | % of total Area |
|------|----------------|--------------|------|-----------------|
| 18S | 37.64 | 39.14 | 0.7 | 0.1 |
| 28S | 44.95 | 45.42 | 0.2 | 0.0 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 12 : Sample 12

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 166.2 | RNA Integrity Number (RIN): | 8 (B.02.08) |
| RNA Concentration: | 104 ng/μl | Result Flagging Color: | |
| rRNA Ratio [28s / 18s]: | 1.0 | Result Flagging Label: | RIN:8 |

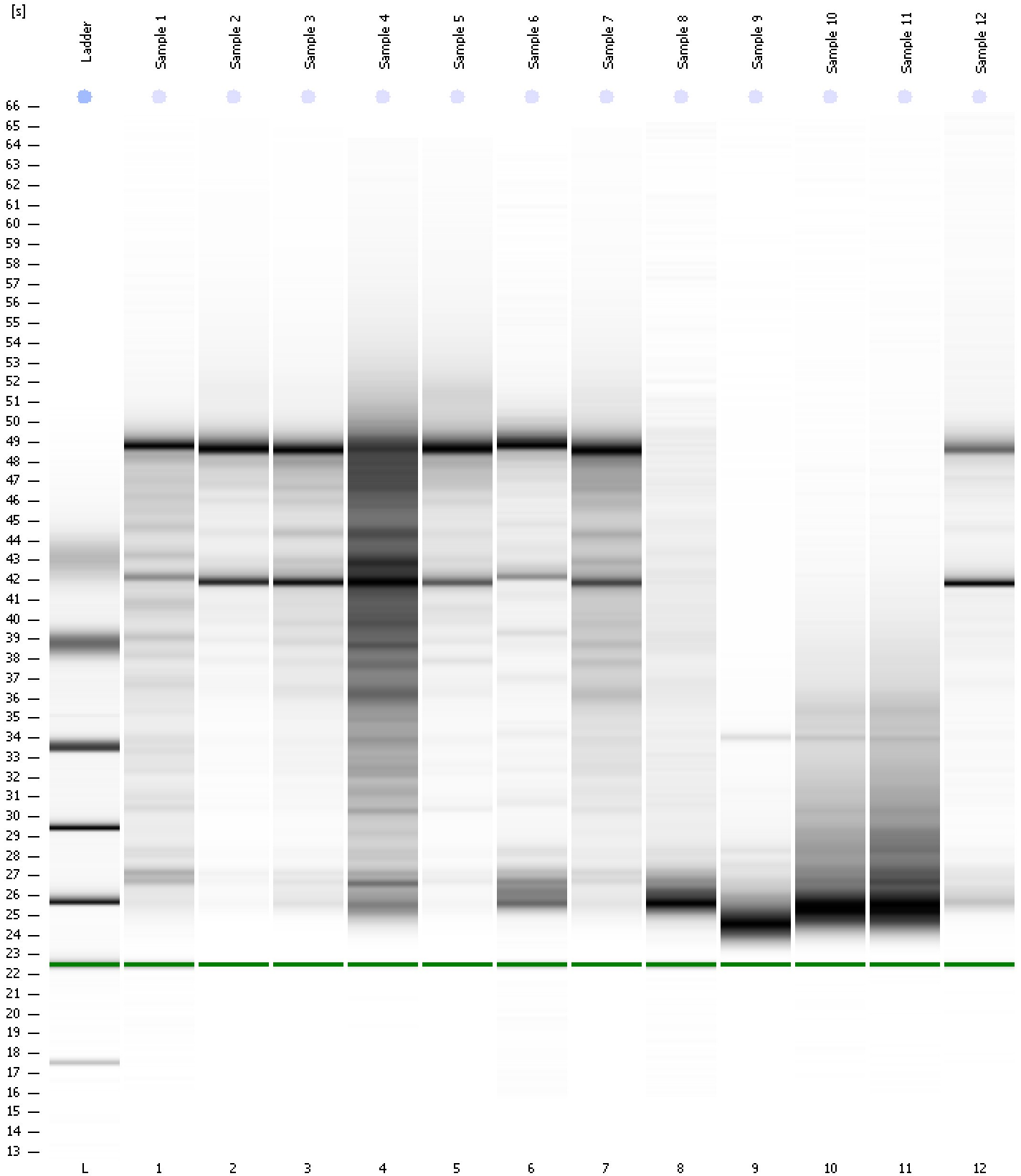
Fragment table for sample 12 : Sample 12

| Name | Start Time [s] | End Time [s] | Area | % of total Area |
|------|----------------|--------------|------|-----------------|
| 18S | 41.43 | 44.01 | 28.6 | 17.2 |
| 28S | 47.40 | 50.64 | 27.6 | 16.6 |

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
Modified: 7/10/2014 3:36:58 PM

Gel Image



Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-10\2014-07-10_005.xad

Created: 7/10/2014 3:13:50 PM
 Modified: 7/10/2014 3:36:58 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 | | 7/10/2014 3:36:56 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\2014-07-10\2014-07-10_005.xad) | | Instrument | Run | | 7/10/2014 3:13:56 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B | | Instrument | Run | | 7/10/2014 3:13:56 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name : | | Instrument | Run | | 7/10/2014 3:13:56 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies | | Instrument | Run | | 7/10/2014 3:13:56 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086 | | Instrument | Run | | 7/10/2014 3:13:56 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069 | | Instrument | Run | | 7/10/2014 3:13:56 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode | | Instrument | Run | | 7/10/2014 3:13:56 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |