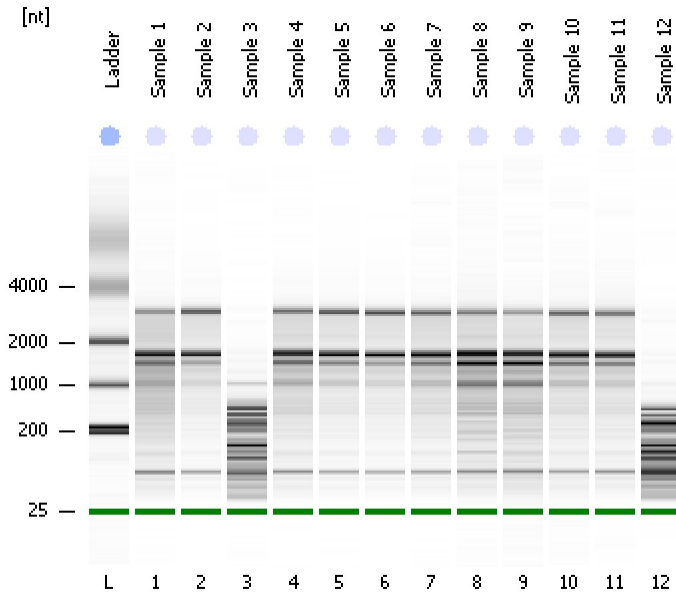


Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 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\Plant RNA Nano.xsy

Assay Class: Plant RNA Nano

Version: 1.3

Assay Comments: Total RNA Analysis ng sensitivity (Plant)

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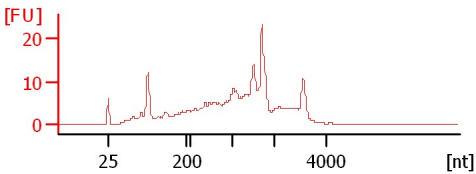
Chip Information:

Chip Lot #:

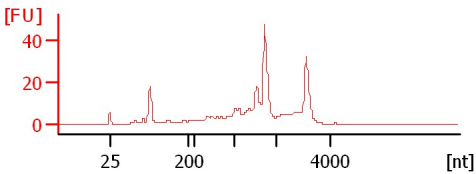
Reagent Kit Lot #:

Chip Comments:

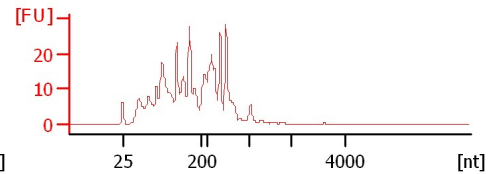
Sample 1
RIN: 5



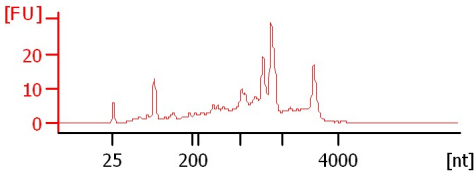
Sample 2
RIN: 6.50



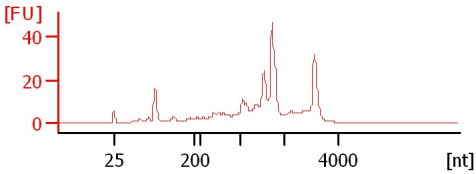
Sample 3
RIN: 1.80



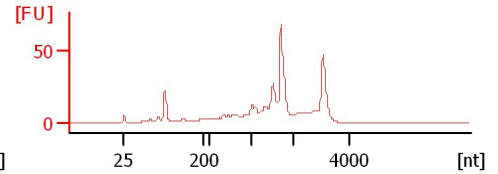
Sample 4
RIN: 6



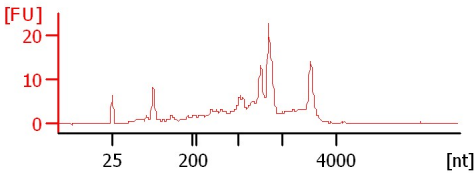
Sample 5
RIN: 6.30



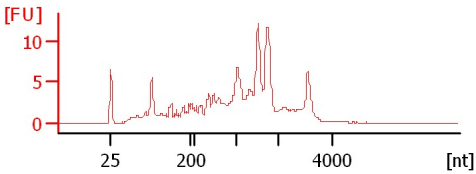
Sample 6
RIN: 6.40



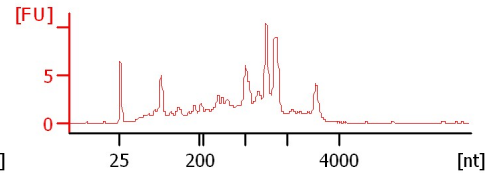
Sample 7
RIN: 6



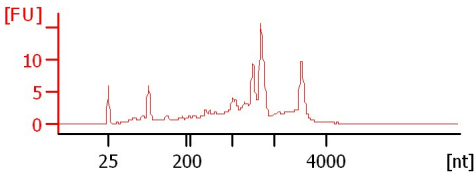
Sample 8
RIN: 5.40



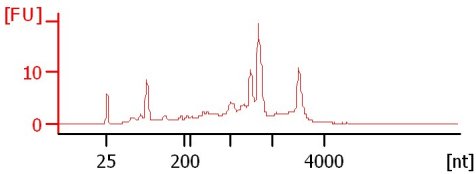
Sample 9
RIN: 5.30



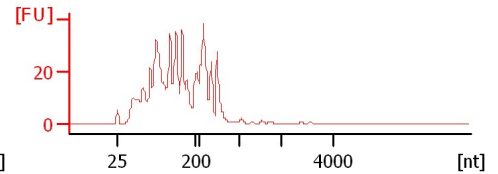
Sample 10
RIN: 6.50



Sample 11
RIN: 6.20



Sample 12
RIN: 1.80



Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 AM

Electrophoresis File Run Summary (Chip Summary)

| Sample Name | Sample Comment | Status | Result Label | Result Color |
|-------------|----------------|--------|-------------------|--------------|
| Sample 1 | | ✓ | RIN:5 | |
| Sample 2 | | ✓ | RIN: 6.50 | |
| Sample 3 | | ✓ | RIN: 1.80 | |
| Sample 4 | | ✓ | RIN:6 | |
| Sample 5 | | ✓ | RIN: 6.30 | |
| Sample 6 | | ✓ | RIN: 6.40 | |
| Sample 7 | | ✓ | RIN:6 | |
| Sample 8 | | ✓ | RIN: 5.40 | |
| Sample 9 | | ✓ | RIN: 5.30 | |
| Sample 10 | | ✓ | RIN: 6.50 | |
| Sample 11 | | ✓ | RIN: 6.20 | |
| Sample 12 | | ✓ | RIN: 1.80 | |
| Ladder | | ✓ | All Other Samples | |

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 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/ μ l] : 150

Lower Marker Concentration [ng/ μ l] : 0

Upper Marker Concentration [ng/ μ l] : 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] : 0.2

Area Threshold : 0.1

Width Threshold [s] : 0.2

Baseline Plateau [s] : 6

Filter Settings

Filter Width [s] : 0.5

Polynomial Order : 4

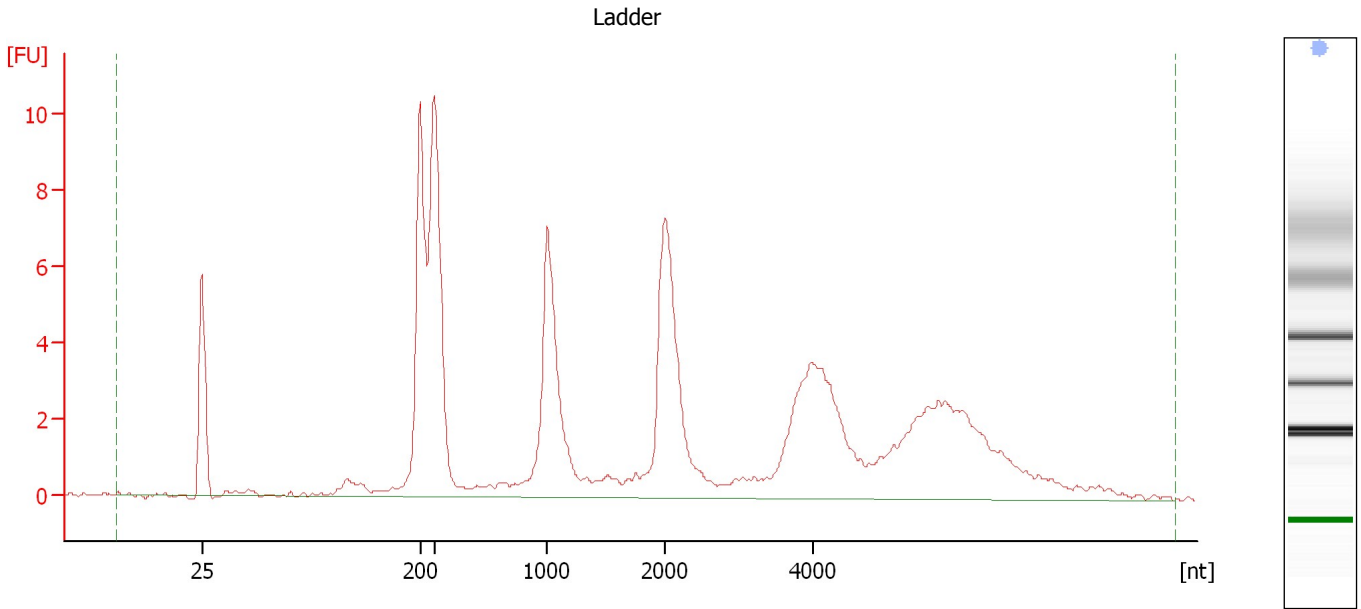
Ladder

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

Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 AM

Electropherogram Summary



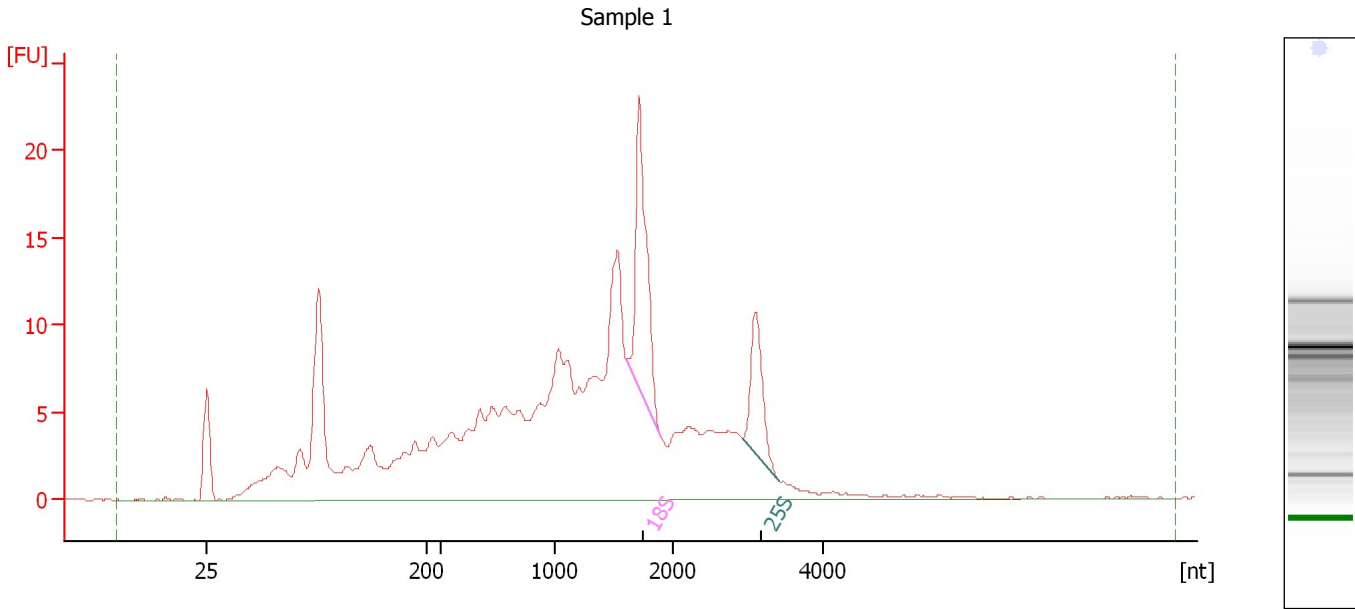
Overall Results for Ladder

| | | | |
|--------------------|-----------|------------------------|---|
| RNA Area: | 119.9 | Result Flagging Color: | |
| RNA Concentration: | 150 ng/μl | Result Flagging Label: | All Other Samples |

Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Sample 1

RNA Area: 307.7 RNA Integrity Number (RIN): 5 (B.02.08)
RNA Concentration: 385 ng/μl Result Flagging Color:
rRNA Ratio [25s / 18s]: 0.5 Result Flagging Label: RIN:5

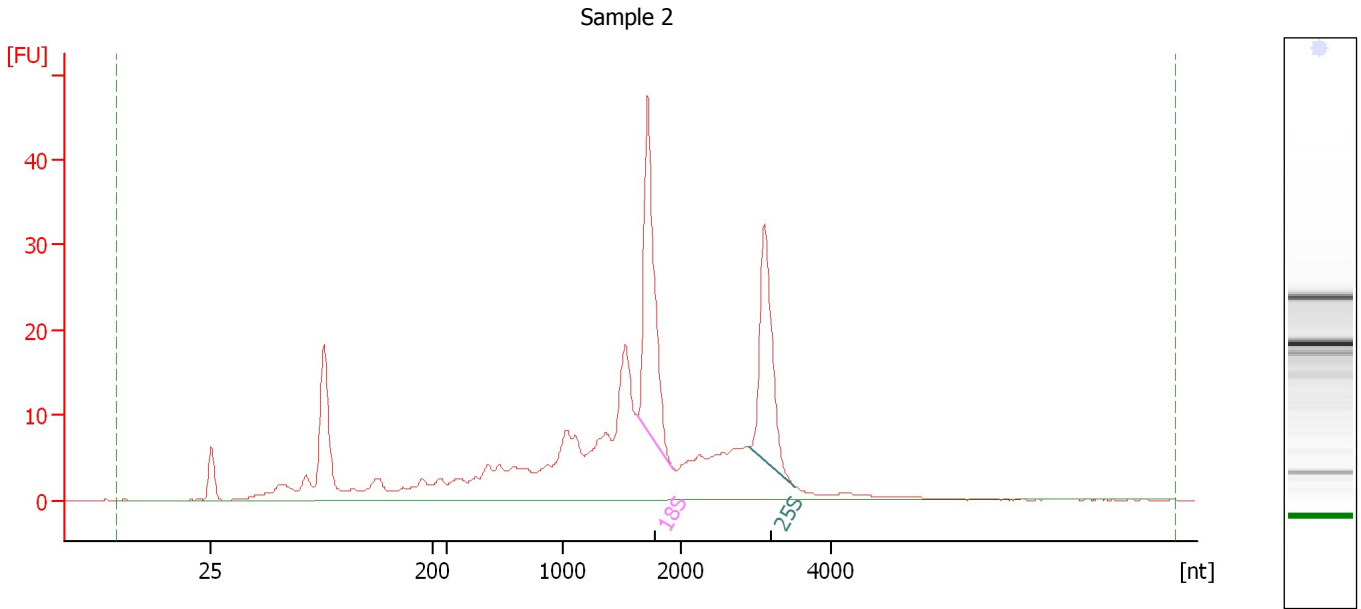
Fragment table for sample 1 : Sample 1

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,606 | 1,894 | 22.0 | 7.1 |
| 25S | 2,938 | 3,412 | 10.1 | 3.3 |

Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Sample 2

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 363.6 | RNA Integrity Number (RIN): | 6.5 (B.02.08) |
| RNA Concentration: | 455 ng/μl | Result Flagging Color: | |
| rRNA Ratio [25s / 18s]: | 0.8 | Result Flagging Label: | RIN: 6.50 |

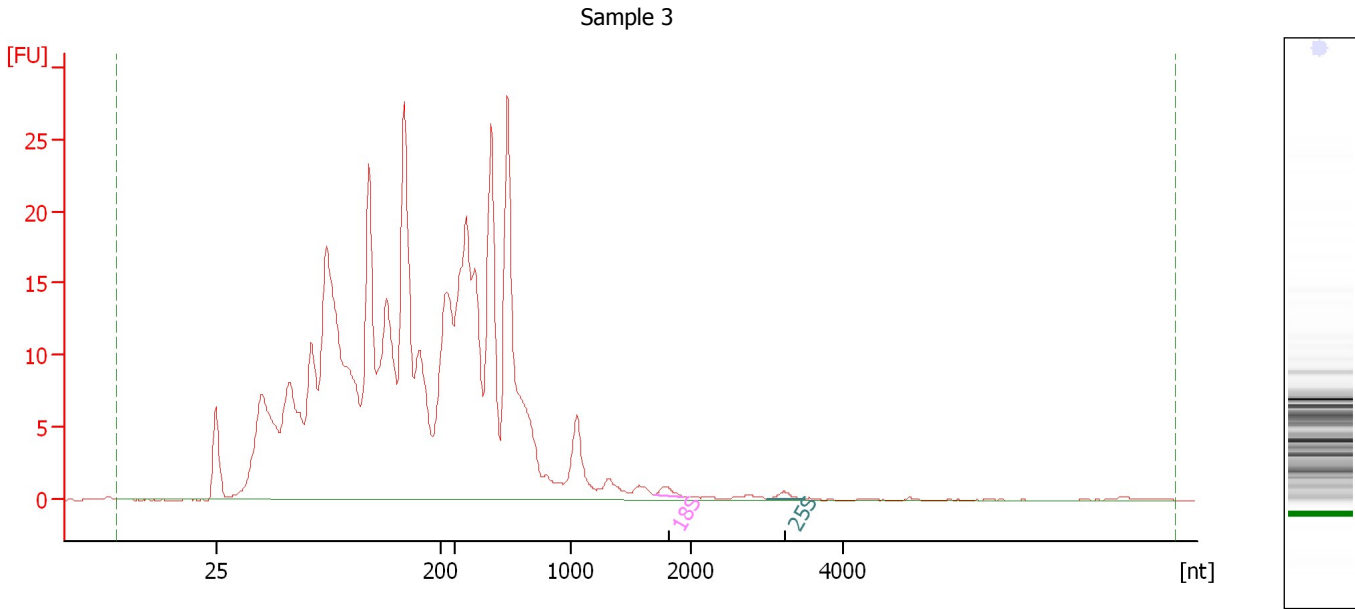
Fragment table for sample 2 : Sample 2

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,621 | 1,934 | 48.2 | 13.3 |
| 25S | 2,906 | 3,505 | 37.4 | 10.3 |

Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Sample 3

RNA Area: 464.2 RNA Integrity Number (RIN): 1.8 (B.02.08)
RNA Concentration: 581 ng/μl Result Flagging Color:
rRNA Ratio [25s / 18s]: 0.7 Result Flagging Label: RIN: 1.80

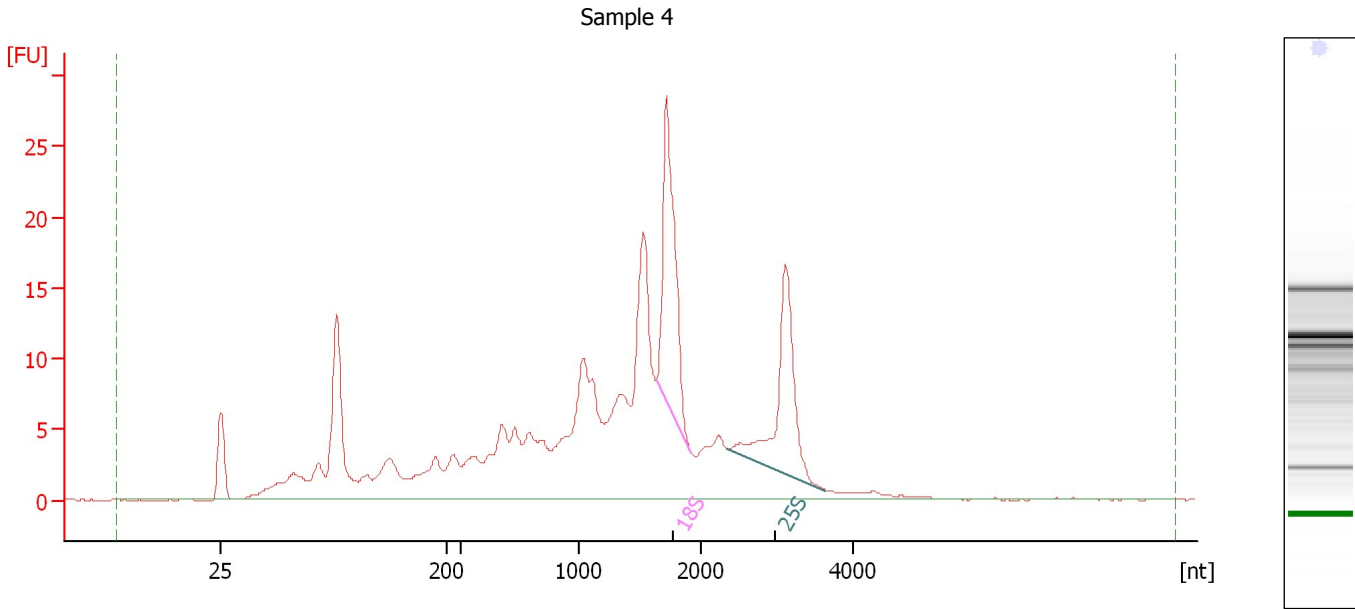
Fragment table for sample 3 : Sample 3

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,690 | 1,929 | 0.9 | 0.2 |
| 25S | 2,987 | 3,481 | 0.7 | 0.1 |

Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Sample 4

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 315.0 | RNA Integrity Number (RIN): | 6 (B.02.08) |
| RNA Concentration: | 394 ng/μl | Result Flagging Color: | |
| rRNA Ratio [25s / 18s]: | 0.9 | Result Flagging Label: | RIN:6 |

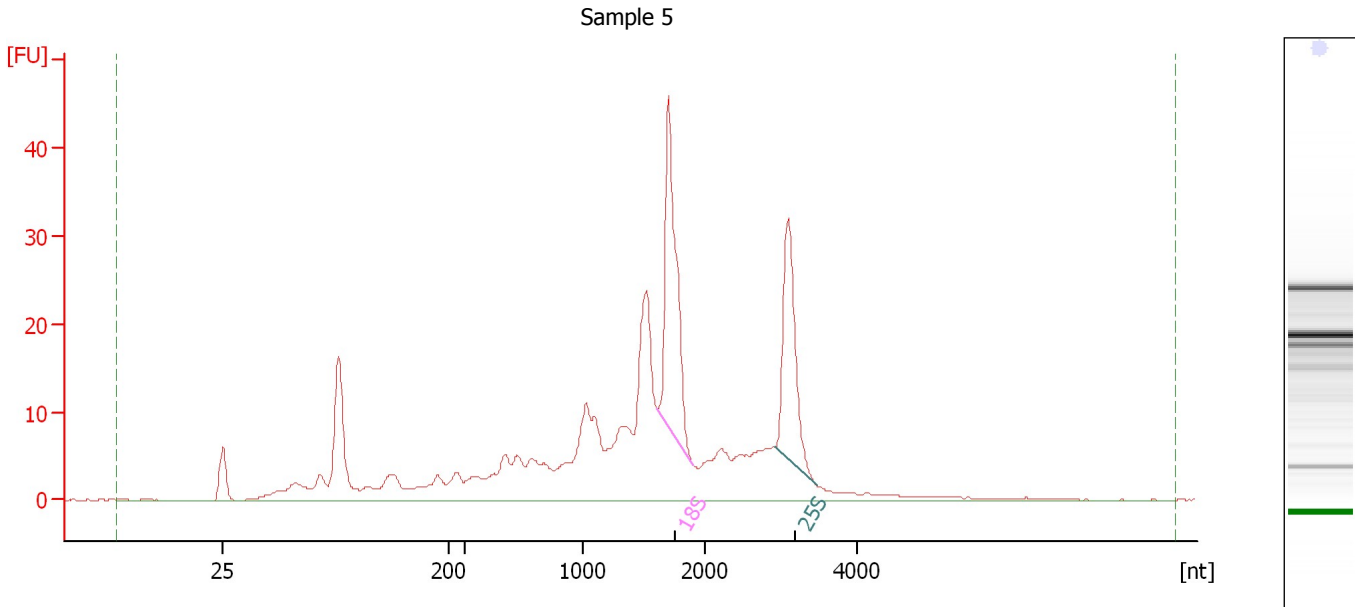
Fragment table for sample 4 : Sample 4

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,643 | 1,932 | 30.4 | 9.6 |
| 25S | 2,354 | 3,641 | 25.9 | 8.2 |

Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Sample 5

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 387.7 | RNA Integrity Number (RIN): | 6.3 (B.02.08) |
| RNA Concentration: | 485 ng/μl | Result Flagging Color: | |
| rRNA Ratio [25s / 18s]: | 0.7 | Result Flagging Label: | RIN: 6.30 |

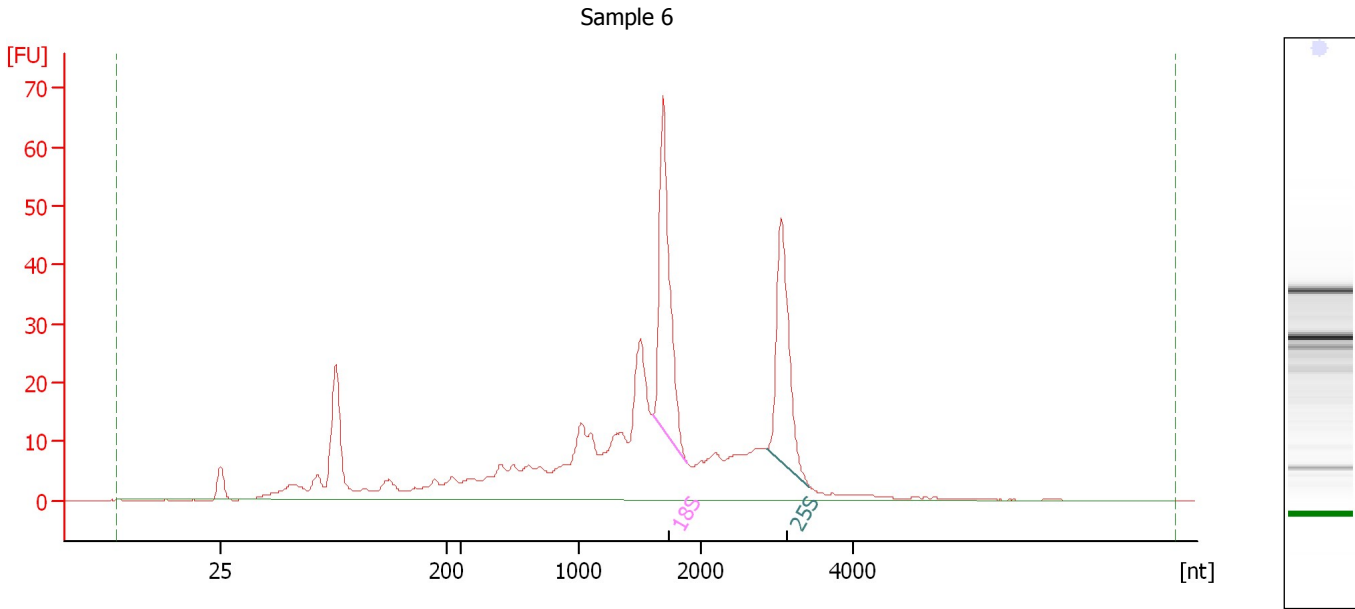
Fragment table for sample 5 : Sample 5

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,619 | 1,908 | 49.0 | 12.6 |
| 25S | 2,912 | 3,469 | 34.9 | 9.0 |

Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Sample 6

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 527.4 | RNA Integrity Number (RIN): | 6.4 (B.02.08) |
| RNA Concentration: | 660 ng/μl | Result Flagging Color: | |
| rRNA Ratio [25s / 18s]: | 0.8 | Result Flagging Label: | RIN: 6.40 |

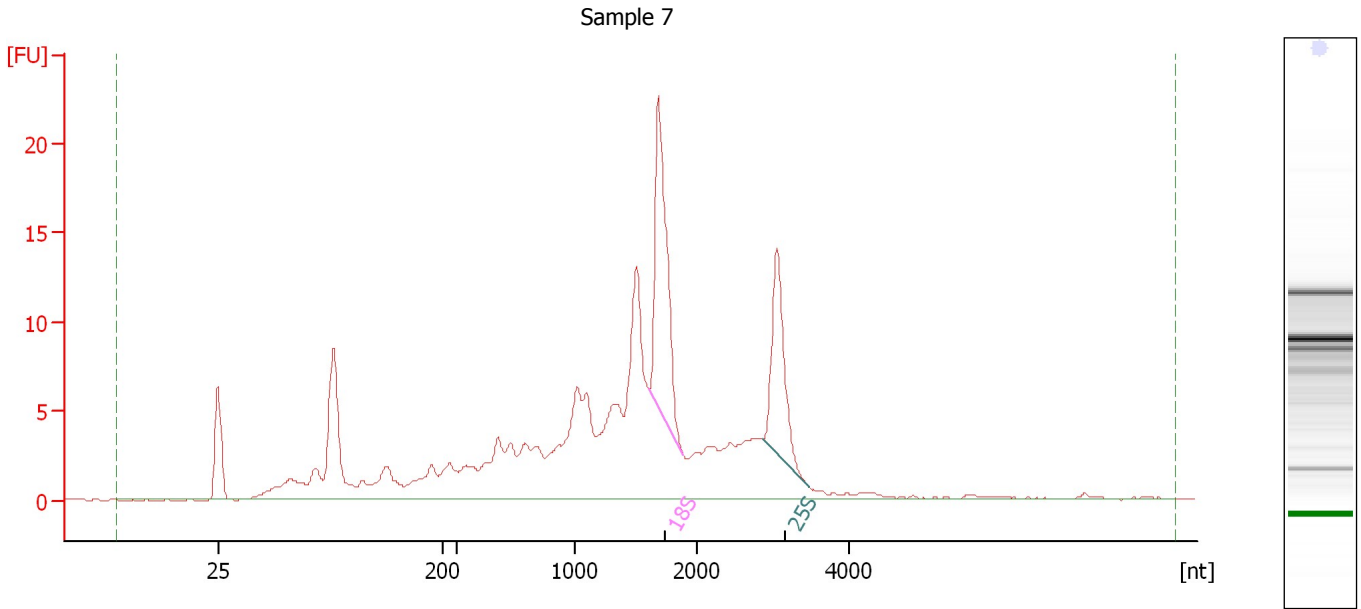
Fragment table for sample 6 : Sample 6

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,608 | 1,897 | 67.0 | 12.7 |
| 25S | 2,871 | 3,431 | 55.4 | 10.5 |

Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Sample 7

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 223.2 | RNA Integrity Number (RIN): | 6 (B.02.08) |
| RNA Concentration: | 279 ng/μl | Result Flagging Color: | |
| rRNA Ratio [25s / 18s]: | 0.6 | Result Flagging Label: | RIN:6 |

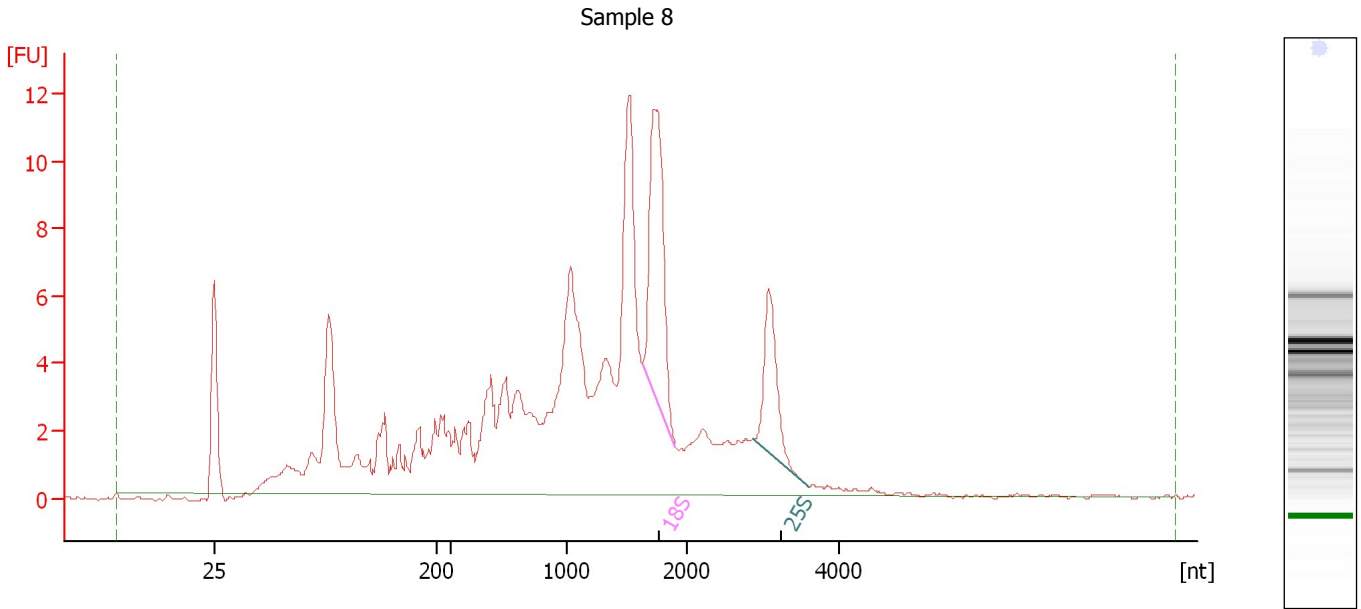
Fragment table for sample 7 : Sample 7

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,605 | 1,895 | 24.4 | 10.9 |
| 25S | 2,873 | 3,491 | 15.3 | 6.9 |

Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : Sample 8

RNA Area: 162.0 RNA Integrity Number (RIN): 5.4 (B.02.08)
RNA Concentration: 203 ng/μl Result Flagging Color:
rRNA Ratio [25s / 18s]: 0.5 Result Flagging Label: RIN: 5.40

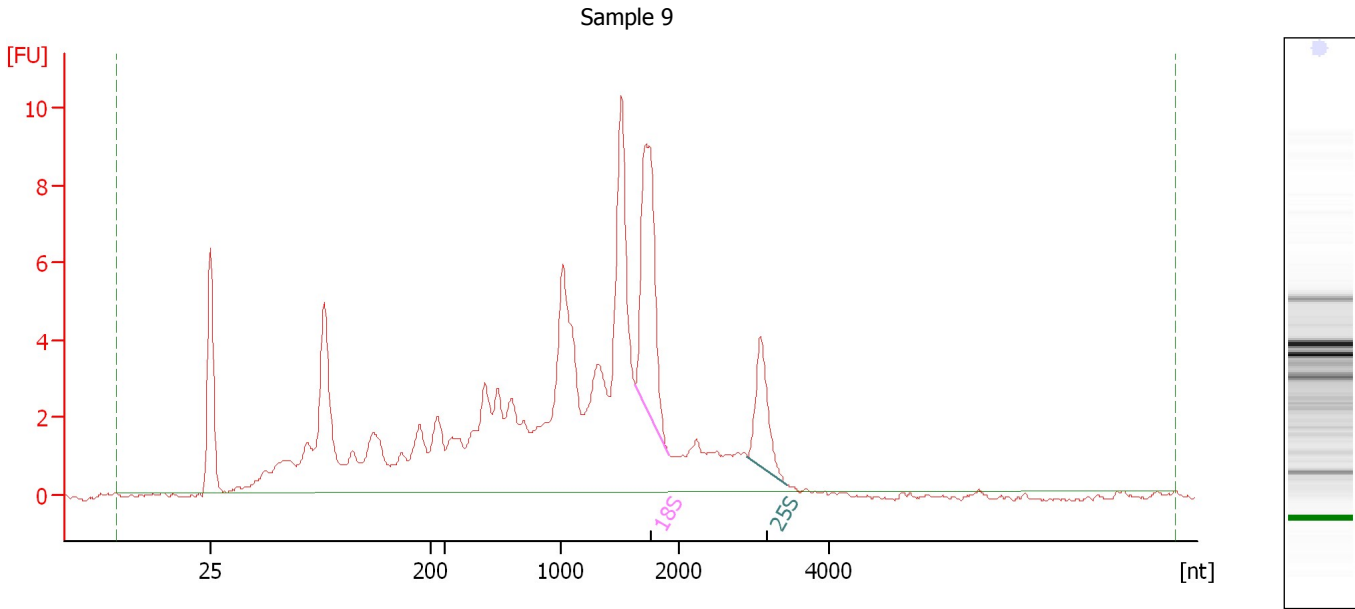
Fragment table for sample 8 : Sample 8

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,625 | 1,901 | 14.4 | 8.9 |
| 25S | 2,876 | 3,598 | 6.5 | 4.0 |

Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : Sample 9

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 130.2 | RNA Integrity Number (RIN): | 5.3 (B.02.08) |
| RNA Concentration: | 163 ng/μl | Result Flagging Color: | |
| rRNA Ratio [25s / 18s]: | 0.4 | Result Flagging Label: | RIN: 5.30 |

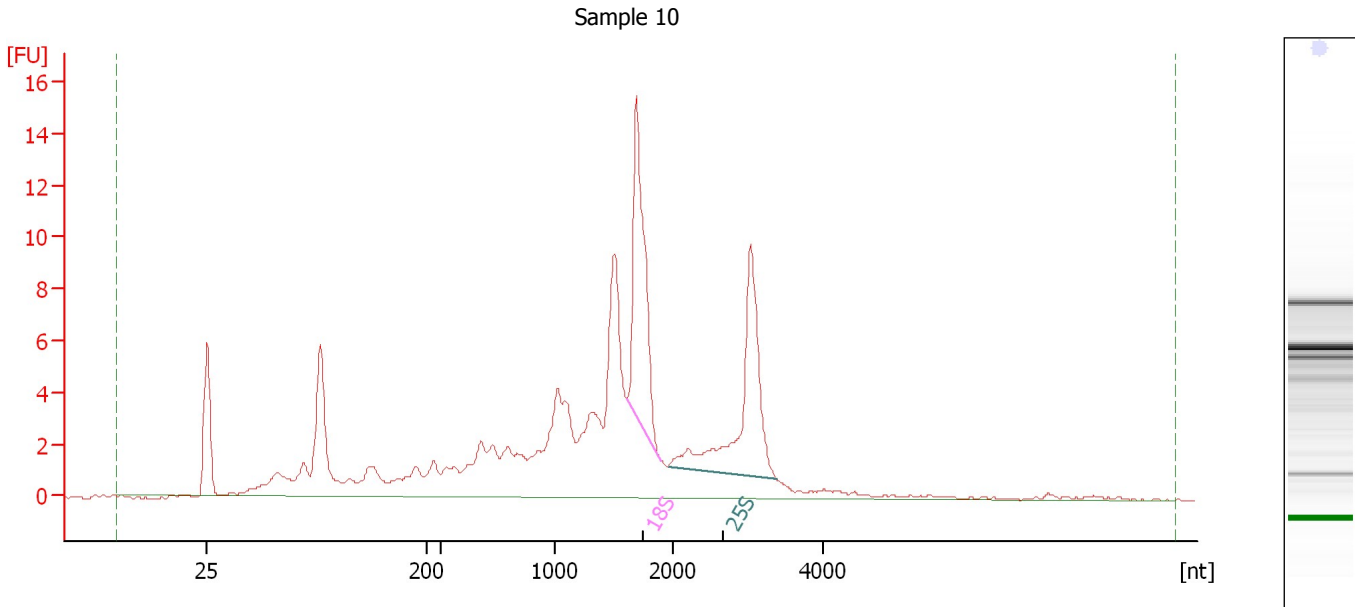
Fragment table for sample 9 : Sample 9

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,628 | 1,906 | 11.4 | 8.7 |
| 25S | 2,907 | 3,435 | 4.4 | 3.4 |

Assay Class: Plant RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
 Modified: 11/12/2015 11:40:26 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : Sample 10

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 145.8 | RNA Integrity Number (RIN): | 6.5 (B.02.08) |
| RNA Concentration: | 183 ng/μl | Result Flagging Color: | |
| rRNA Ratio [25s / 18s]: | 1.0 | Result Flagging Label: | RIN: 6.50 |

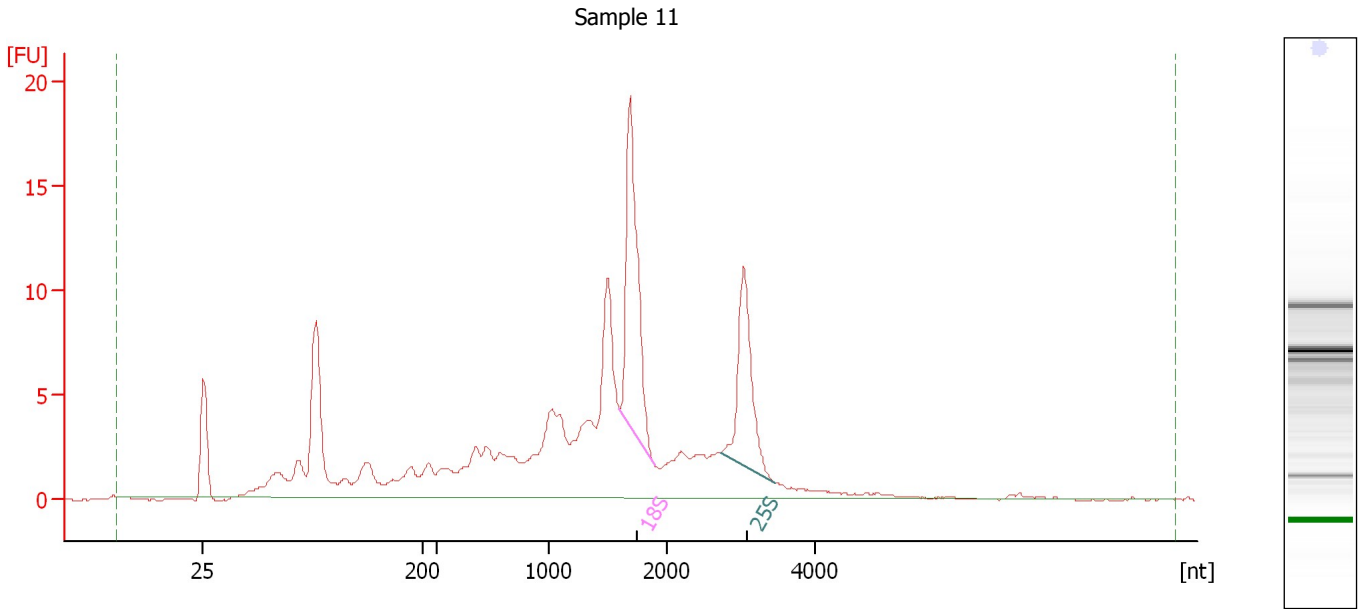
Fragment table for sample 10 : Sample 10

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,606 | 1,894 | 17.2 | 11.8 |
| 25S | 1,957 | 3,384 | 17.9 | 12.3 |

Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : Sample 11

| | | | |
|-------------------------|-----------|-----------------------------|---|
| RNA Area: | 173.4 | RNA Integrity Number (RIN): | 6.2 (B.02.08) |
| RNA Concentration: | 217 ng/μl | Result Flagging Color: | |
| rRNA Ratio [25s / 18s]: | 0.6 | Result Flagging Label: | RIN: 6.20 |

Fragment table for sample 11 : Sample 11

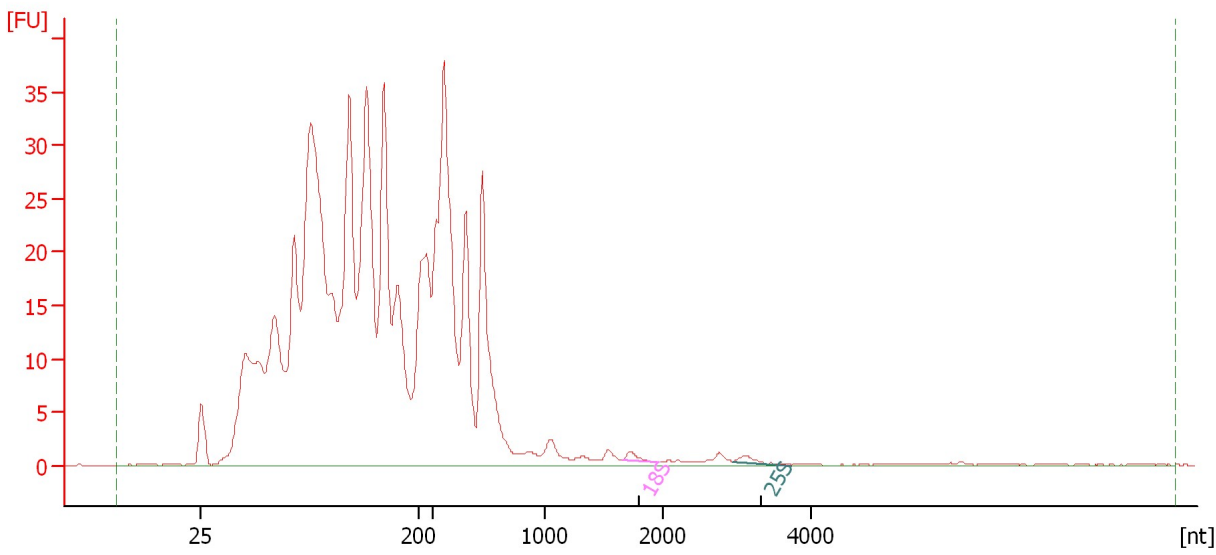
| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,592 | 1,891 | 21.5 | 12.4 |
| 25S | 2,724 | 3,447 | 13.9 | 8.0 |

Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 AM

Electropherogram Summary Continued ...

Sample 12



Overall Results for sample 12 : Sample 12

RNA Area: 710.2 RNA Integrity Number (RIN): 1.8 (B.02.08)
RNA Concentration: 889 ng/μl Result Flagging Color:
rRNA Ratio [25s / 18s]: 0.9 Result Flagging Label: RIN: 1.80

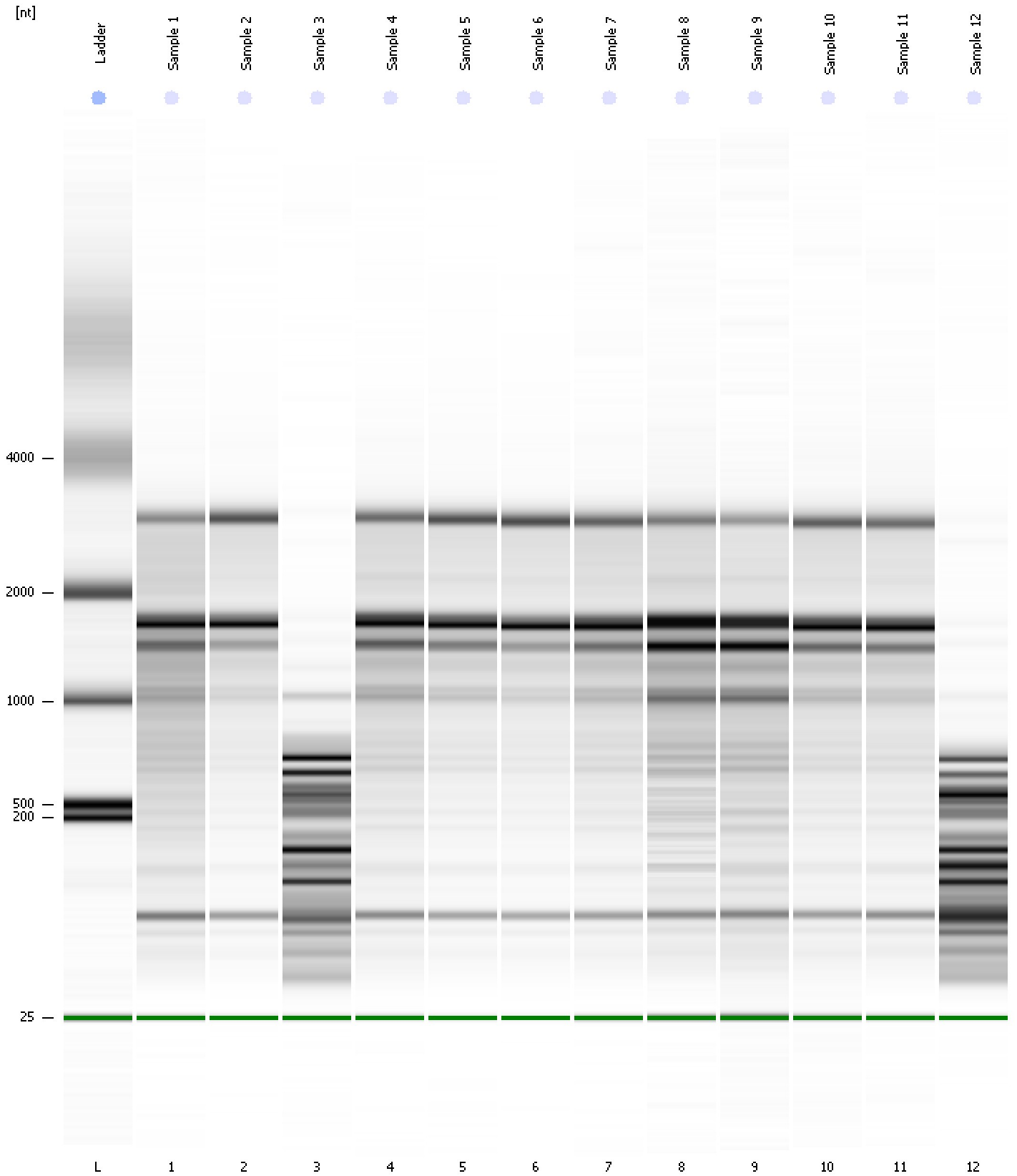
Fragment table for sample 12 : Sample 12

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|------|-----------------|---------------|------|-----------------|
| 18S | 1,653 | 1,944 | 1.2 | 0.2 |
| 25S | 2,957 | 3,741 | 1.1 | 0.2 |

Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 AM

Gel Image

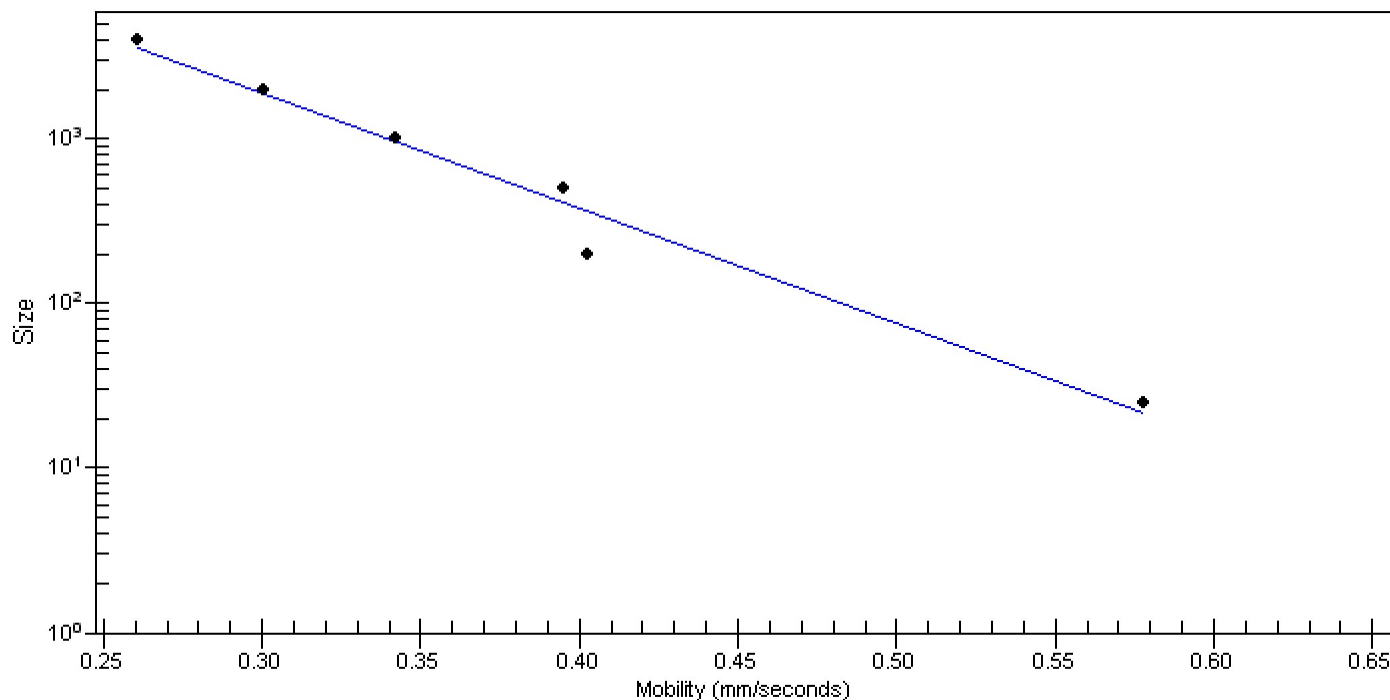


Assay Class: Plant RNA Nano
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
Modified: 11/12/2015 11:40:26 AM

Curves

Standard Curve



Assay Class: Plant RNA Nano
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad

Created: 11/12/2015 11:16:36 AM
 Modified: 11/12/2015 11:40:26 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 | | 11/12/2015 11:40:26 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-11-12\2015-11-12_001.xad) | | Instrument | Run | | 11/12/2015 11:16:41 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B | | Instrument | Run | | 11/12/2015 11:16:41 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name : | | Instrument | Run | | 11/12/2015 11:16:41 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies | | Instrument | Run | | 11/12/2015 11:16:41 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086 | | Instrument | Run | | 11/12/2015 11:16:41 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069 | | Instrument | Run | | 11/12/2015 11:16:41 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode | | Instrument | Run | | 11/12/2015 11:16:41 AM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |