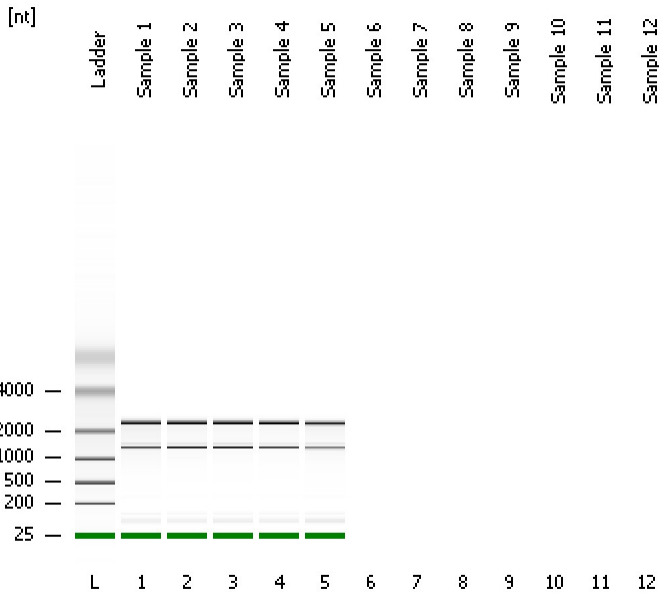


Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-07\2016-07-07_002.xad

Created: 7/7/2016 4:45:56 PM
Modified: 7/7/2016 5:01:38 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\mRNA Nano Series II.xsy

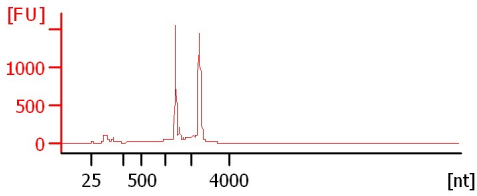
Assay Class: mRNA Nano
Version: 2.5
Assay Comments: mRNA Analysis ng sensitivity

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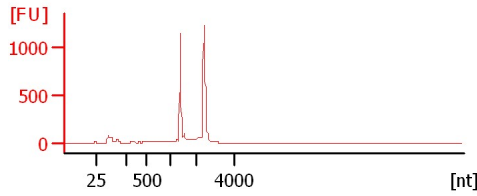
Chip Information:

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

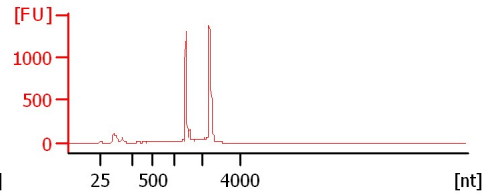
Sample 1



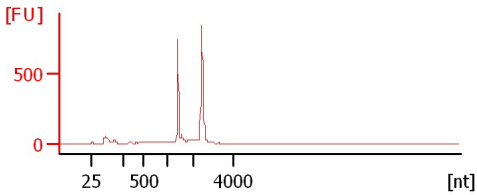
Sample 2



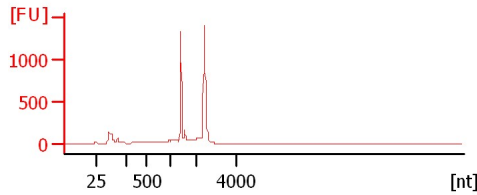
Sample 3



Sample 4



Sample 5



Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-07\2016-07-07_002.xad

Created: 7/7/2016 4:45:56 PM
Modified: 7/7/2016 5:01:38 PM

Electrophoresis File Run Summary (Chip Summary)

| Sample Name | Sample Comment | Status | Result Label | Result Color |
|-------------|----------------|--------|--------------|--------------|
| Sample 1 | | ✓ | | |
| Sample 2 | | ✓ | | |
| Sample 3 | | ✓ | | |
| Sample 4 | | ✓ | | |
| Sample 5 | | ✓ | | |
| Sample 6 | | | | |
| Sample 7 | | | | |
| Sample 8 | | | | |
| Sample 9 | | | | |
| Sample 10 | | | | |
| Sample 11 | | | | |
| Sample 12 | | | | |
| Ladder | | ✓ | | |

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-07\2016-07-07_002.xad

Created: 7/7/2016 4:45:56 PM
Modified: 7/7/2016 5:01:38 PM

Electrophoresis Assay Details

General Analysis Settings

Number of Available Sample and Ladder Wells (Max.) : 13
Minimum Visible Range [s] : 14
Maximum Visible Range [s] : 85
Start Analysis Time Range [s] : 15
End Analysis Time Range [s] : 84
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] : 15
Integration End Time [s] : 84
Slope Threshold : 0.2
Height Threshold [FU] : 0.5
Area Threshold : 0.1
Width Threshold [s] : 0.2
Baseline Plateau [s] : 0.5

Filter Settings

Filter Width [s] : 0.5
Polynomial Order : 4

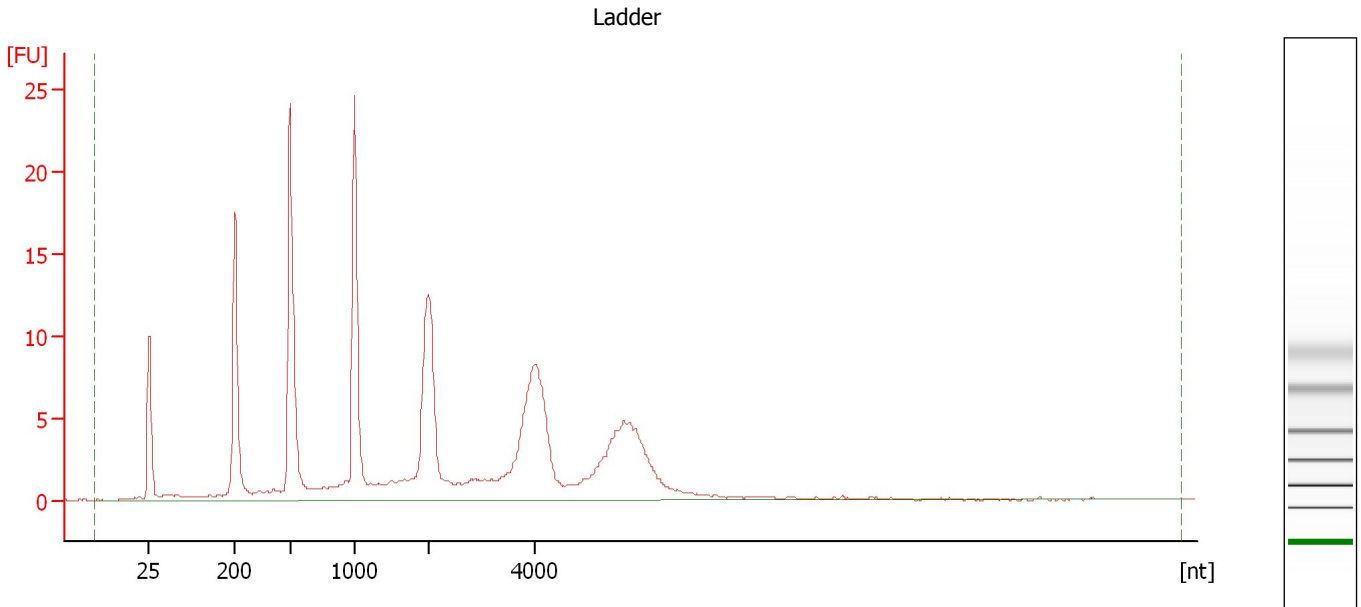
Ladder

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

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-07\2016-07-07_002.xad

Created: 7/7/2016 4:45:56 PM
Modified: 7/7/2016 5:01:38 PM

Electropherogram Summary



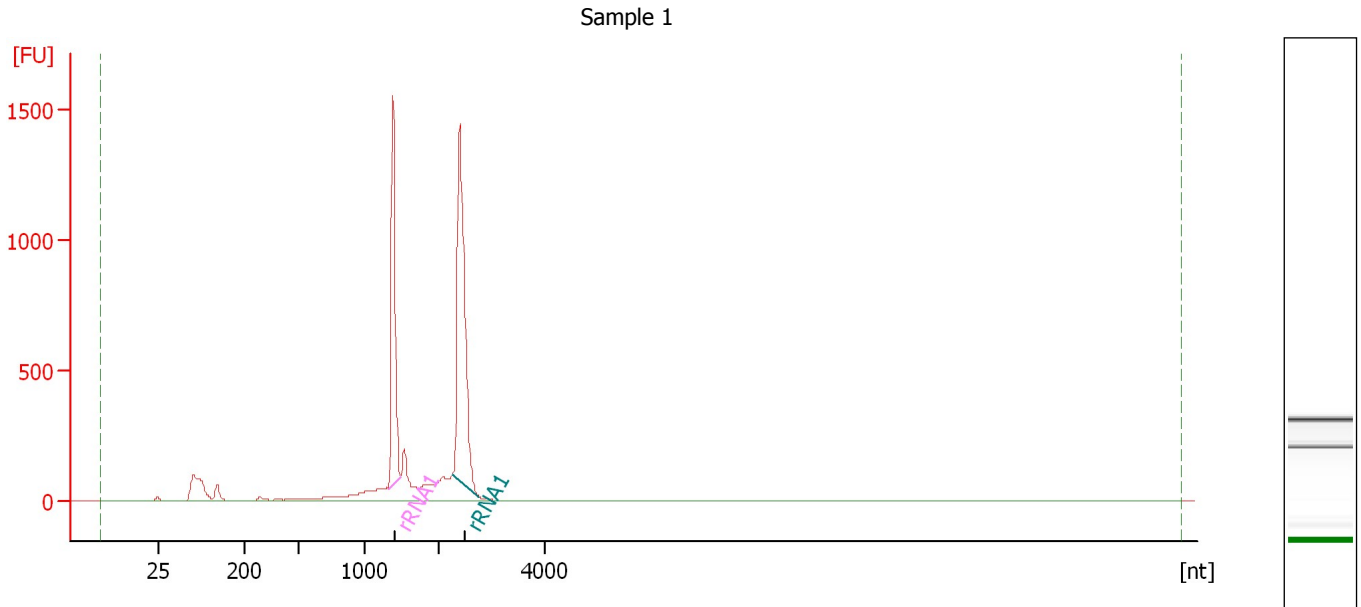
Overall Results for Ladder

RNA Area: 227.8 RNA Concentration: 150 ng/μl

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-07\2016-07-07_002.xad

Created: 7/7/2016 4:45:56 PM
Modified: 7/7/2016 5:01:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Sample 1

RNA Area: 5,372.4 rRNA Contamination: 58.1 %
RNA Concentration: 3,537 ng/μl

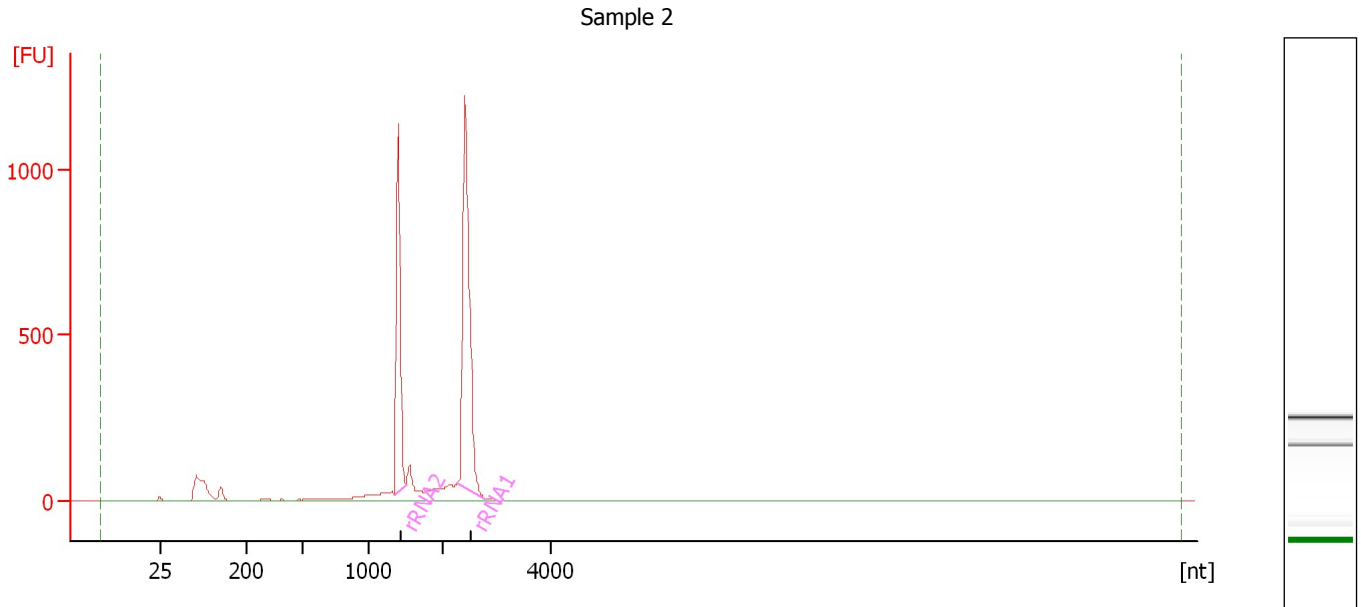
Fragment table for sample 1 : Sample 1

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|-------|-----------------|---------------|---------|-----------------|
| rRNA1 | 1,333 | 1,482 | 1,238.9 | 23.1 |
| rRNA1 | 2,243 | 2,764 | 1,879.9 | 35.0 |

Assay Class: mRNA Nano
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-07\2016-07-07_002.xad

Created: 7/7/2016 4:45:56 PM
 Modified: 7/7/2016 5:01:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Sample 2

RNA Area: 3,651.4 rRNA Contamination: 64.1 %
 RNA Concentration: 2,404 ng/μl

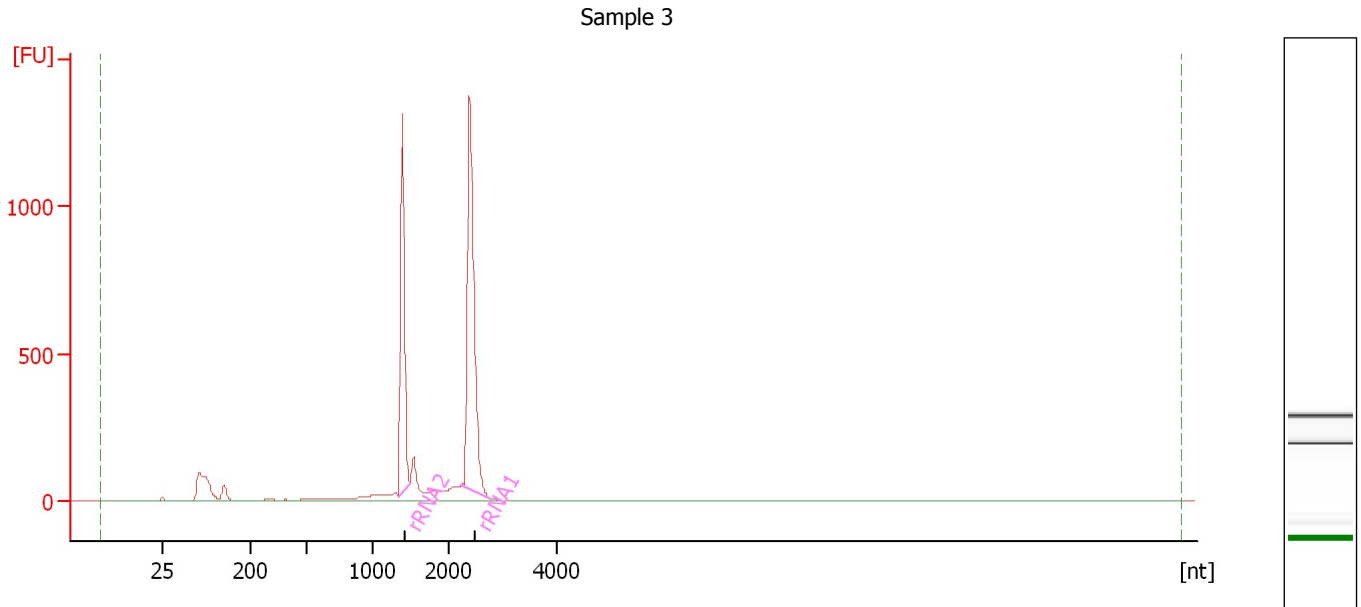
Fragment table for sample 2 : Sample 2

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|-------|-----------------|---------------|---------|-----------------|
| rRNA2 | 1,341 | 1,499 | 905.6 | 24.8 |
| rRNA1 | 2,260 | 2,762 | 1,433.4 | 39.3 |

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-07\2016-07-07_002.xad

Created: 7/7/2016 4:45:56 PM
Modified: 7/7/2016 5:01:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Sample 3

RNA Area: 4,167.5 rRNA Contamination: 64.4 %
RNA Concentration: 2,744 ng/μl

Fragment table for sample 3 : Sample 3

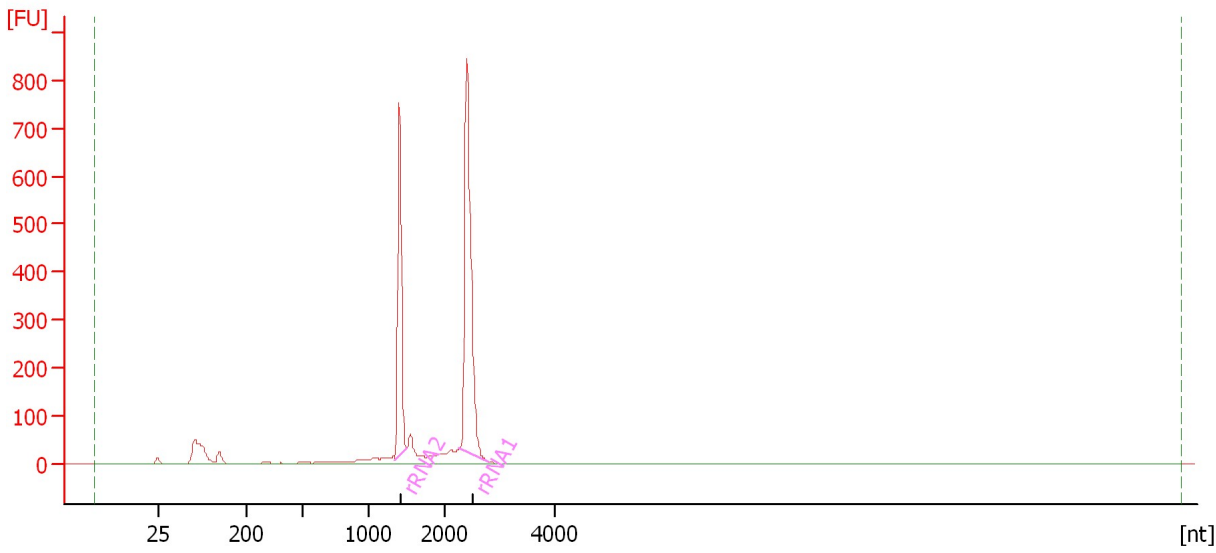
| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|-------|-----------------|---------------|---------|-----------------|
| rRNA2 | 1,338 | 1,496 | 1,027.1 | 24.6 |
| rRNA1 | 2,248 | 2,790 | 1,656.6 | 39.7 |

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-07\2016-07-07_002.xad

Created: 7/7/2016 4:45:56 PM
Modified: 7/7/2016 5:01:38 PM

Electropherogram Summary Continued ...

Sample 4



Overall Results for sample 4 : Sample 4

RNA Area: 2,314.0 rRNA Contamination: 65.7 %
RNA Concentration: 1,524 ng/μl

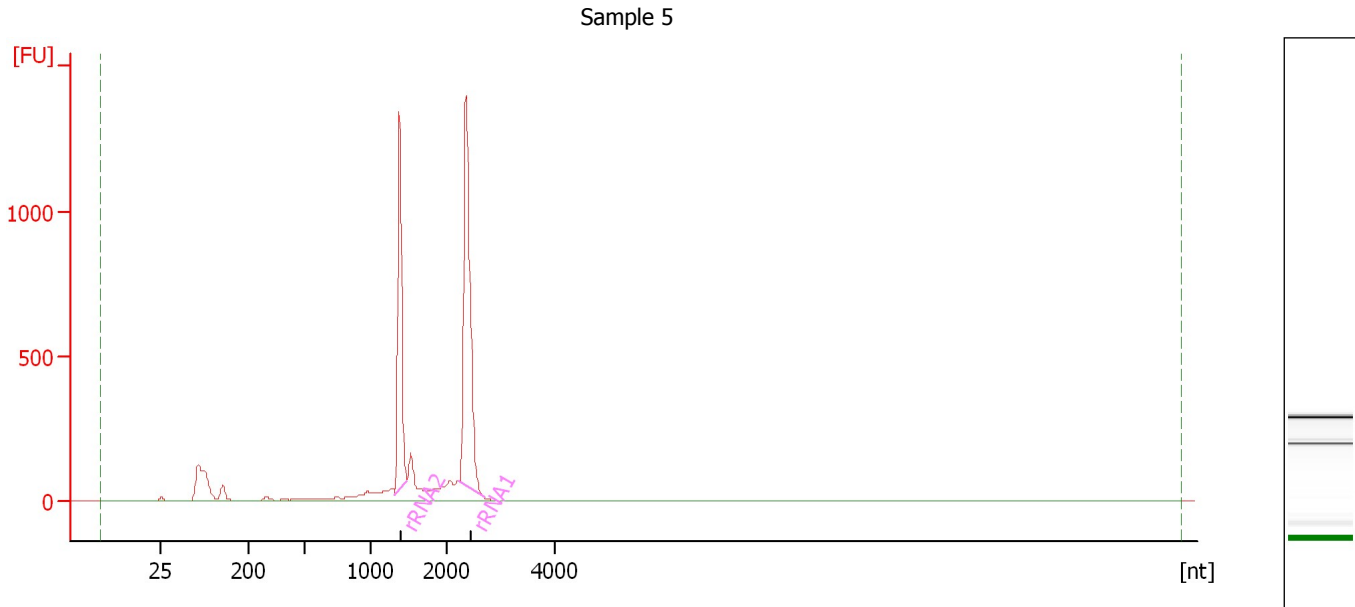
Fragment table for sample 4 : Sample 4

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|-------|-----------------|---------------|-------|-----------------|
| rRNA2 | 1,341 | 1,498 | 574.4 | 24.8 |
| rRNA1 | 2,248 | 2,789 | 945.3 | 40.9 |

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-07\2016-07-07_002.xad

Created: 7/7/2016 4:45:56 PM
Modified: 7/7/2016 5:01:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Sample 5

RNA Area: 4,545.9 rRNA Contamination: 58.9 %
RNA Concentration: 2,993 ng/μl

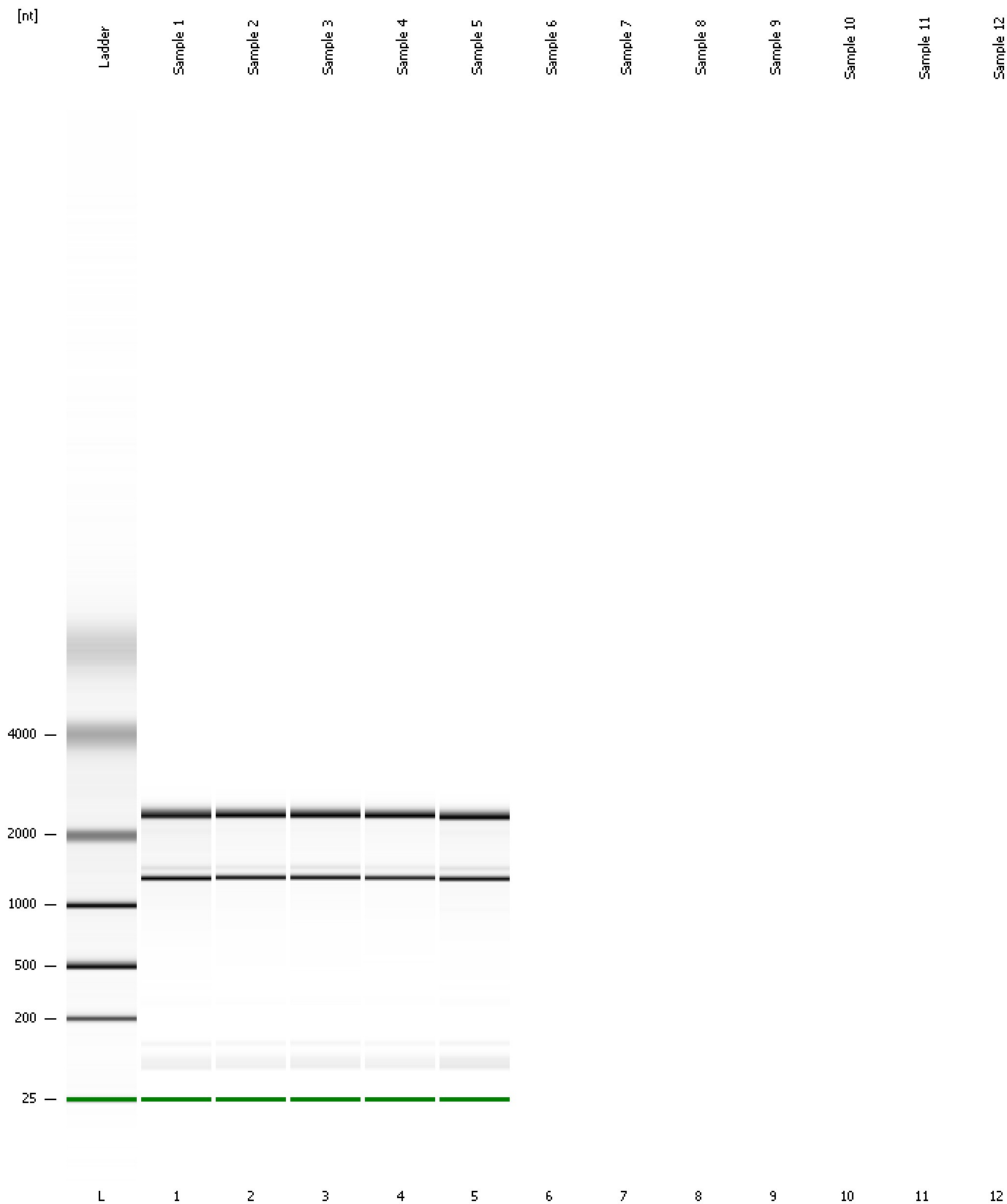
Fragment table for sample 5 : Sample 5

| Name | Start Size [nt] | End Size [nt] | Area | % of total Area |
|-------|-----------------|---------------|---------|-----------------|
| rRNA2 | 1,325 | 1,472 | 1,068.0 | 23.5 |
| rRNA1 | 2,218 | 2,703 | 1,607.5 | 35.4 |

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-07\2016-07-07_002.xad

Created: 7/7/2016 4:45:56 PM
Modified: 7/7/2016 5:01:38 PM

Gel Image

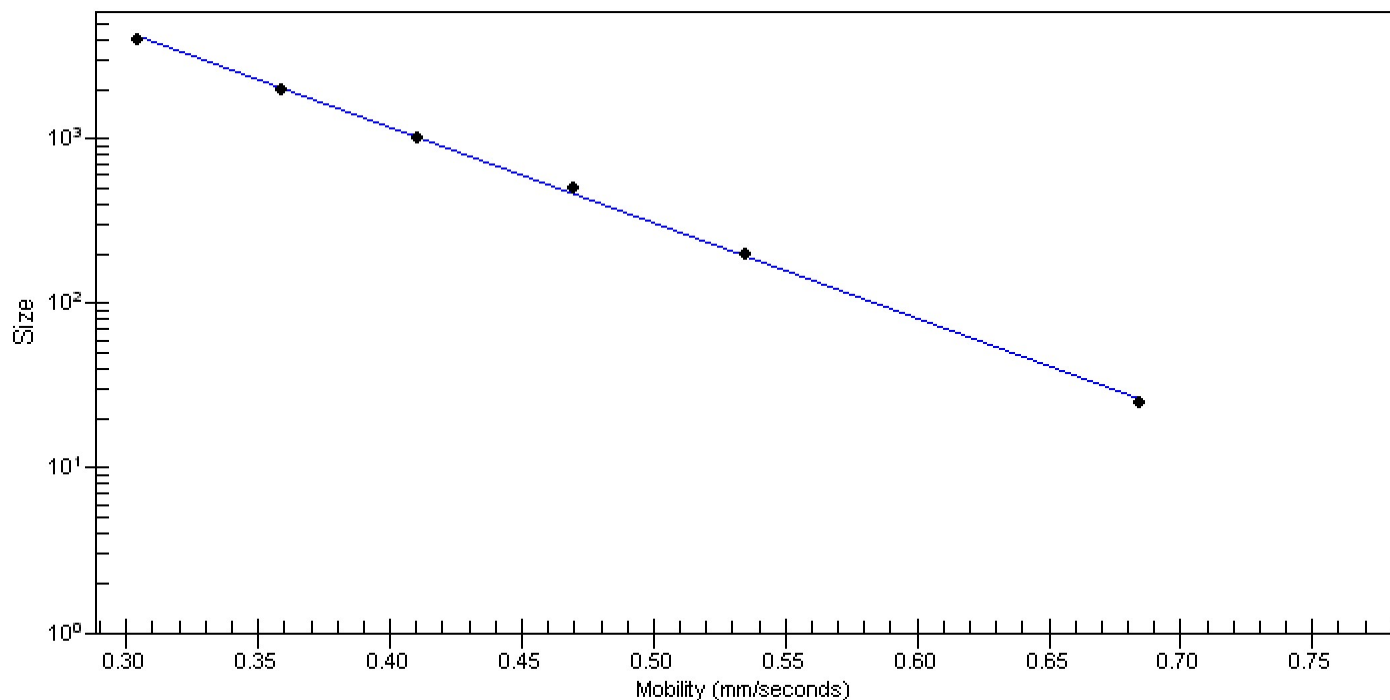


Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-07\2016-07-07_002.xad

Created: 7/7/2016 4:45:56 PM
Modified: 7/7/2016 5:01:38 PM

Curves

Standard Curve



Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-07\2016-07-07_002.xad

Created: 7/7/2016 4:45:56 PM
Modified: 7/7/2016 5:01:38 PM

Invalid Samples

Sample 6 has not been run, no results available.

Sample 7 has not been run, no results available.

Sample 8 has not been run, no results available.

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Sample 12 has not been run, no results available.

Assay Class: mRNA Nano
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-07\2016-07-07_002.xad

Created: 7/7/2016 4:45:56 PM
 Modified: 7/7/2016 5:01:38 PM

Run Logbook

| Description | Number | Source | Category | Sub Category | Time | Time Zone | User | Host |
|--|--------|------------|----------|--------------|---------------------|-------------------------------------|----------|----------|
| Run ended on port 1 (Number of wells acquired: 6) | | Instrument | Run | | 7/7/2016 5:01:38 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\2016-07-07\2016-07-07_002.xad) | | Instrument | Run | | 7/7/2016 4:46:01 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B | | Instrument | Run | | 7/7/2016 4:46:01 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name : | | Instrument | Run | | 7/7/2016 4:46:01 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies | | Instrument | Run | | 7/7/2016 4:46:01 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086 | | Instrument | Run | | 7/7/2016 4:46:01 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069 | | Instrument | Run | | 7/7/2016 4:46:01 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode | | Instrument | Run | | 7/7/2016 4:46:01 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |