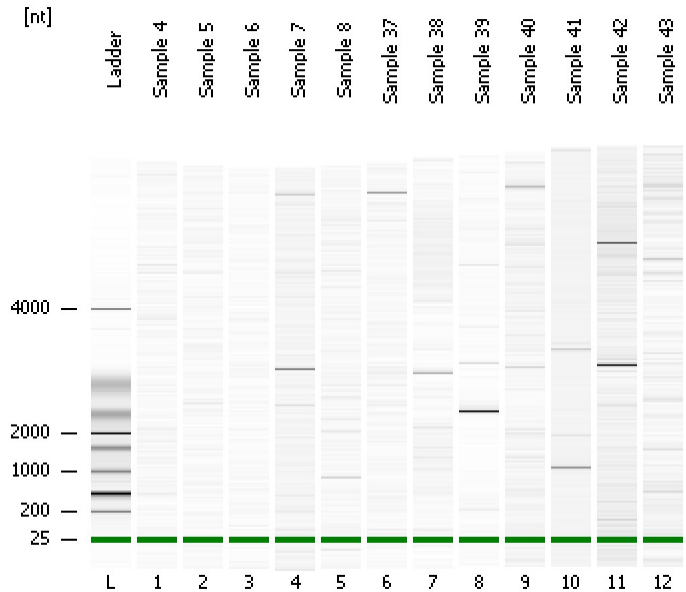


Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 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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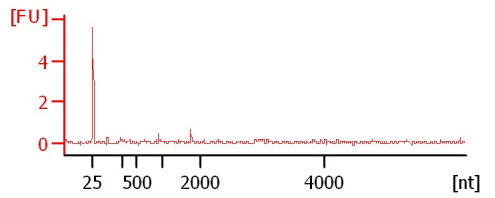
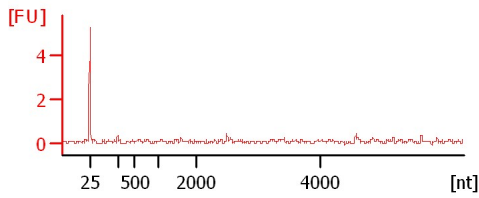
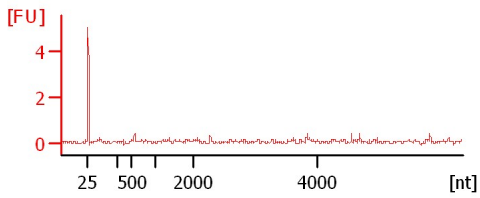
Chip Information:

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

Sample 4

Sample 5

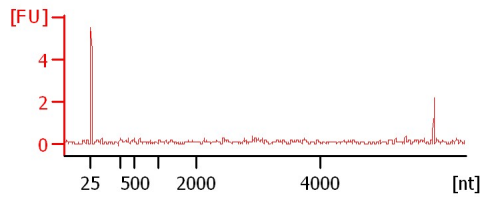
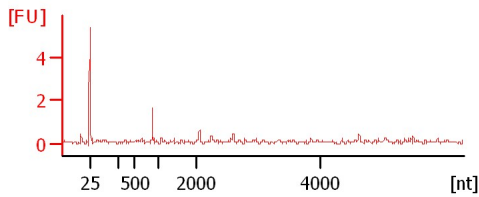
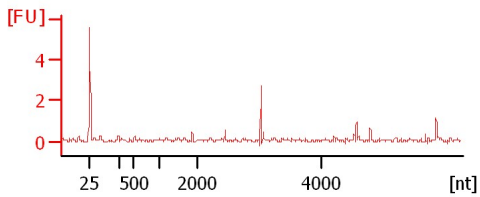
Sample 6



Sample 7

Sample 8

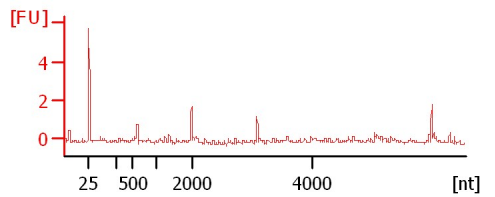
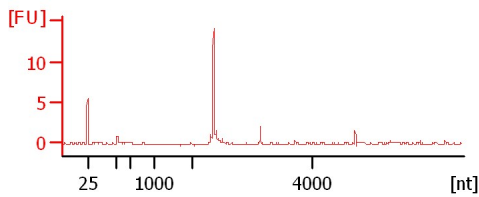
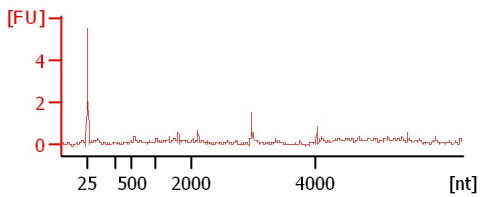
Sample 37



Sample 38

Sample 39

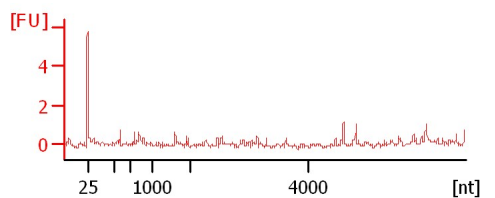
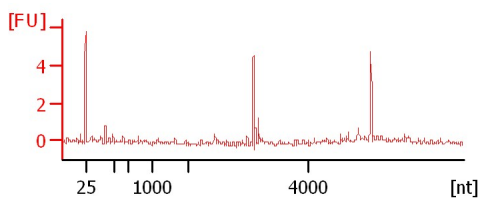
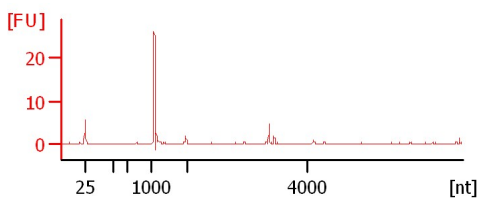
Sample 40



Sample 41

Sample 42

Sample 43



Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
Sample 4		✓		
Sample 5		✓		
Sample 6		✓		
Sample 7		✓		
Sample 8		✓		
Sample 37		✓		
Sample 38		✓		
Sample 39		✓		
Sample 40		✓		
Sample 41		✓		
Sample 42		✓		
Sample 43		✓		
Ladder		✓		

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 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

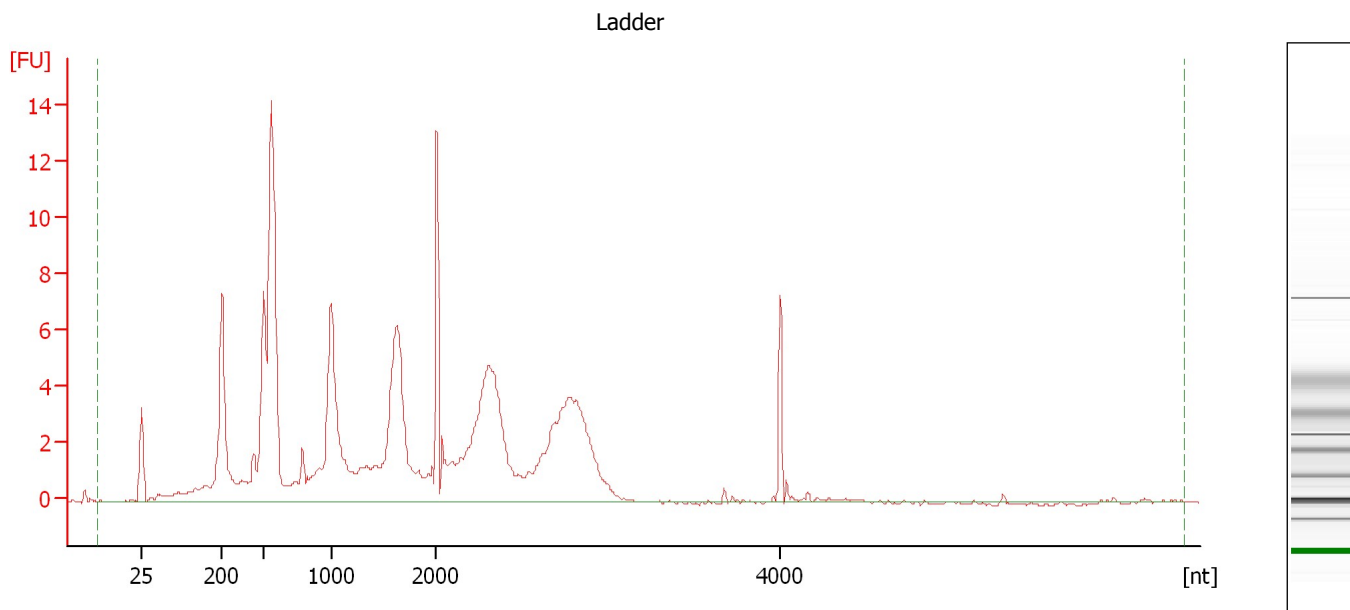
Ladder

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\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 PM

Electropherogram Summary



Overall Results for Ladder

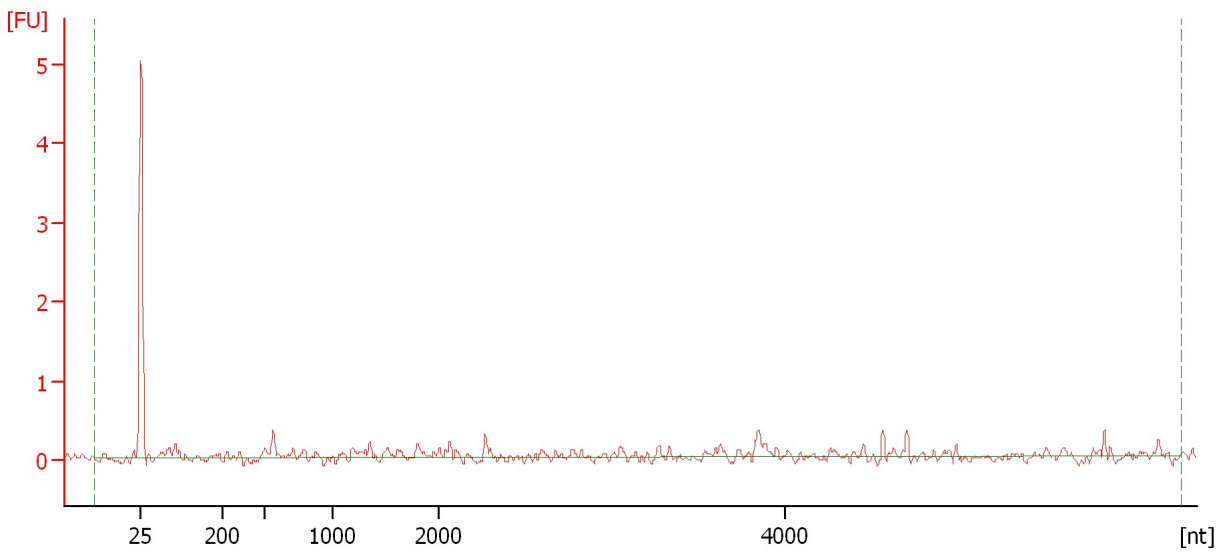
RNA Area: 181.9 RNA Concentration: 150 ng/μl

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 PM

Electropherogram Summary Continued ...

Sample 4



Overall Results for sample 1 : Sample 4

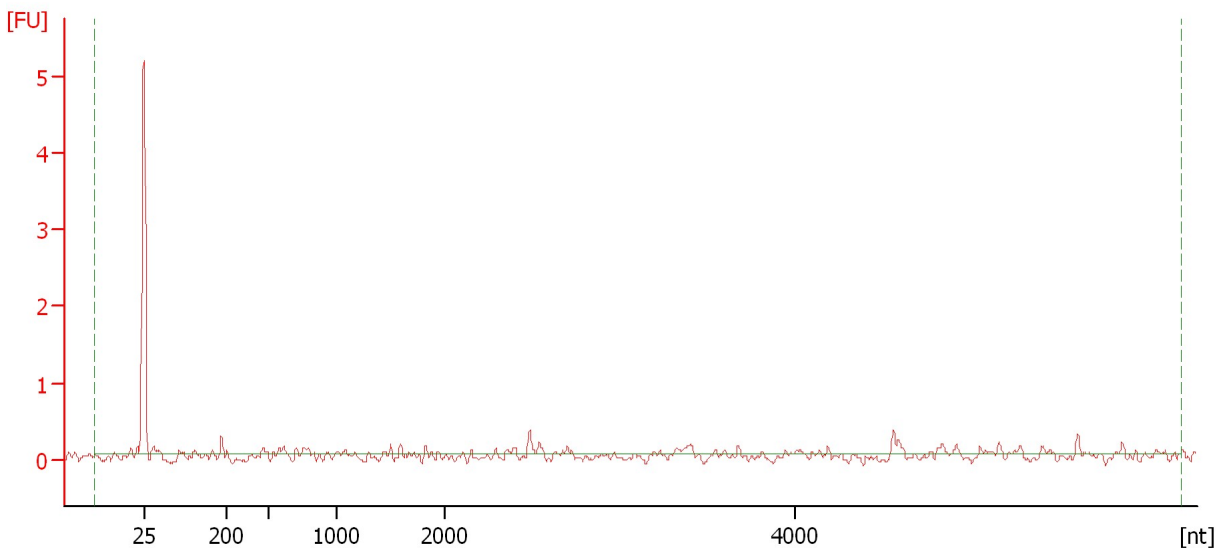
RNA Area: 5.6 rRNA Contamination: 0.0 %
RNA Concentration: 5 ng/μl

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 PM

Electropherogram Summary Continued ...

Sample 5



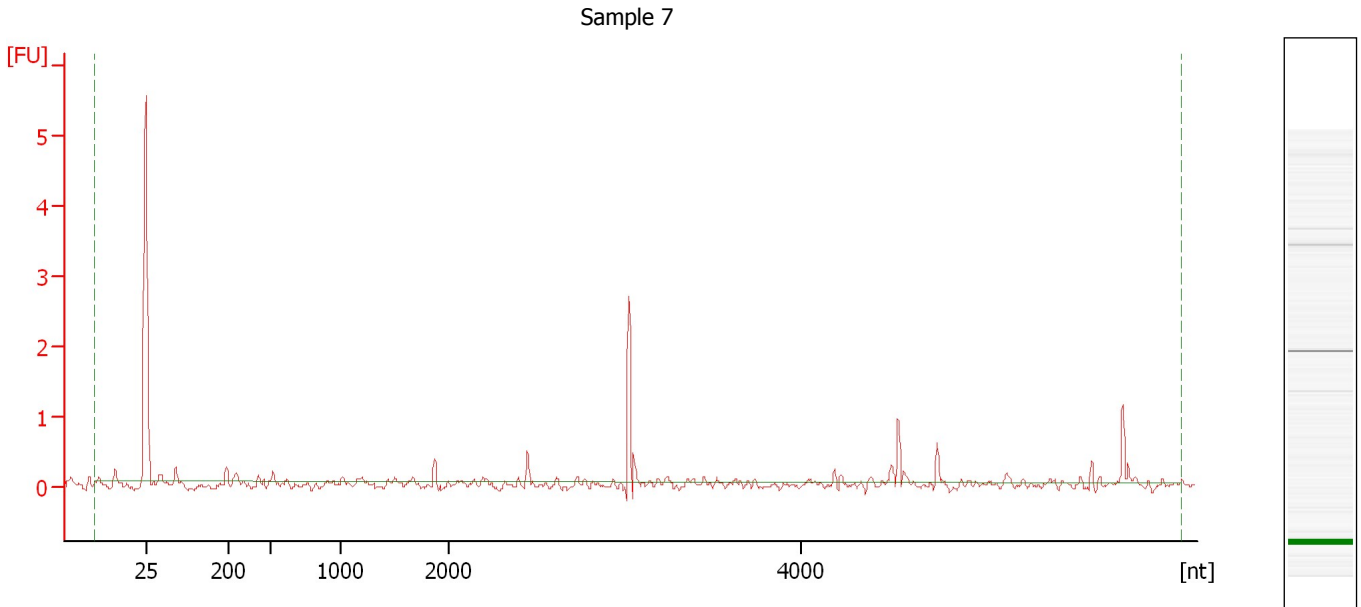
Overall Results for sample 2 : Sample 5

RNA Area:	3.2	rRNA Contamination:	0.0 %
RNA Concentration:	3 ng/μl		

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Sample 7

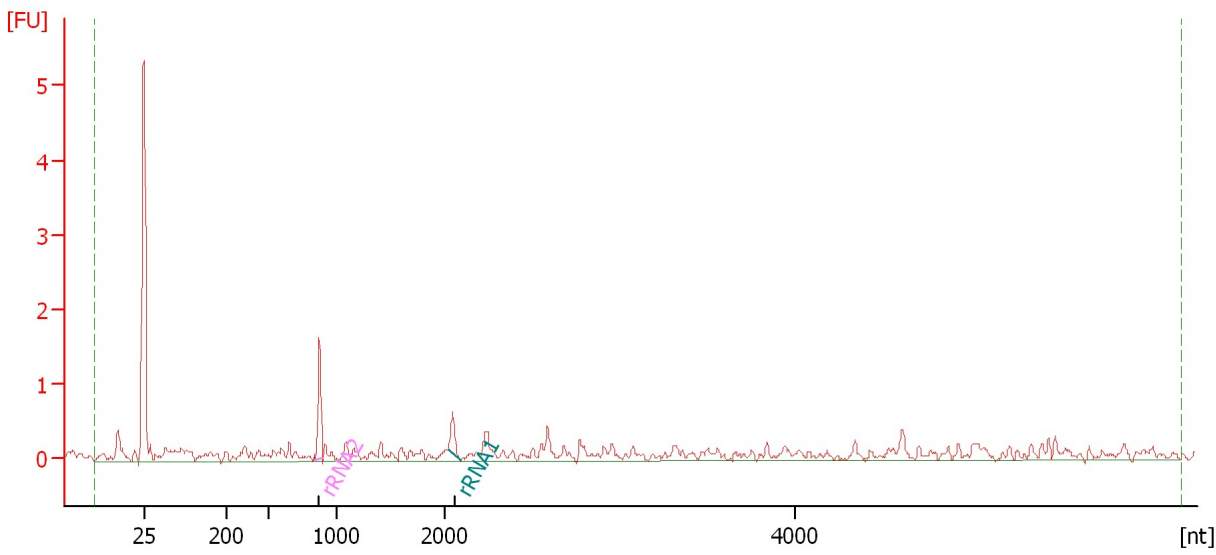
RNA Area:	4.7	rRNA Contamination:	0.0 %
RNA Concentration:	4 ng/μl		

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 PM

Electropherogram Summary Continued ...

Sample 8



Overall Results for sample 5 : Sample 8

RNA Area: 15.6 rRNA Contamination: 10.0 %
RNA Concentration: 13 ng/μl

Fragment table for sample 5 : Sample 8

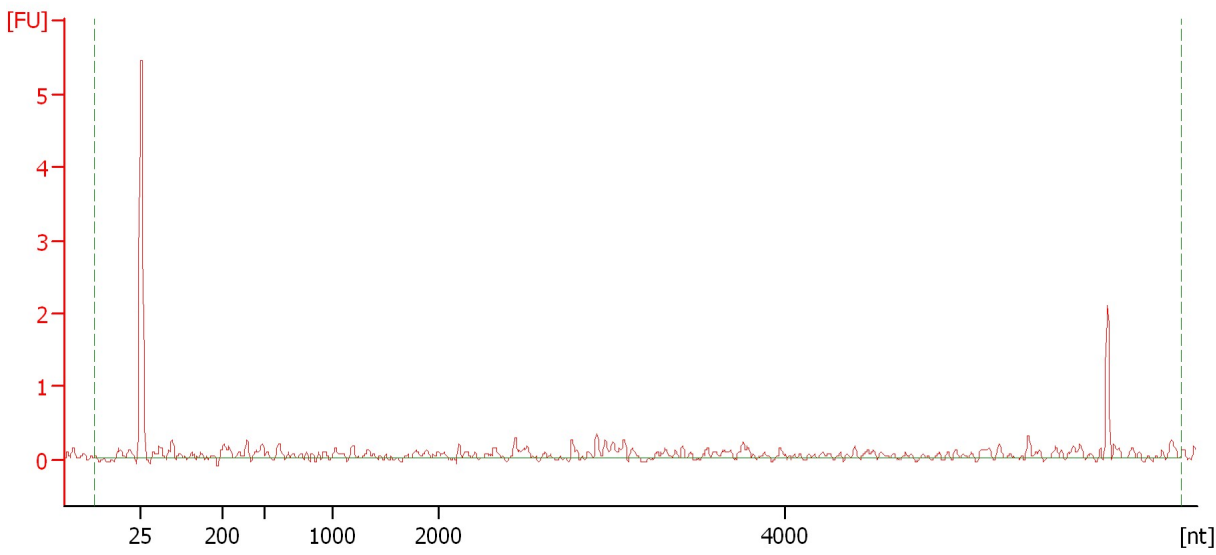
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
rRNA2	841	893	1.1	7.2
rRNA1	2,018	2,086	0.4	2.7

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 PM

Electropherogram Summary Continued ...

Sample 37



Overall Results for sample 6 : Sample 37

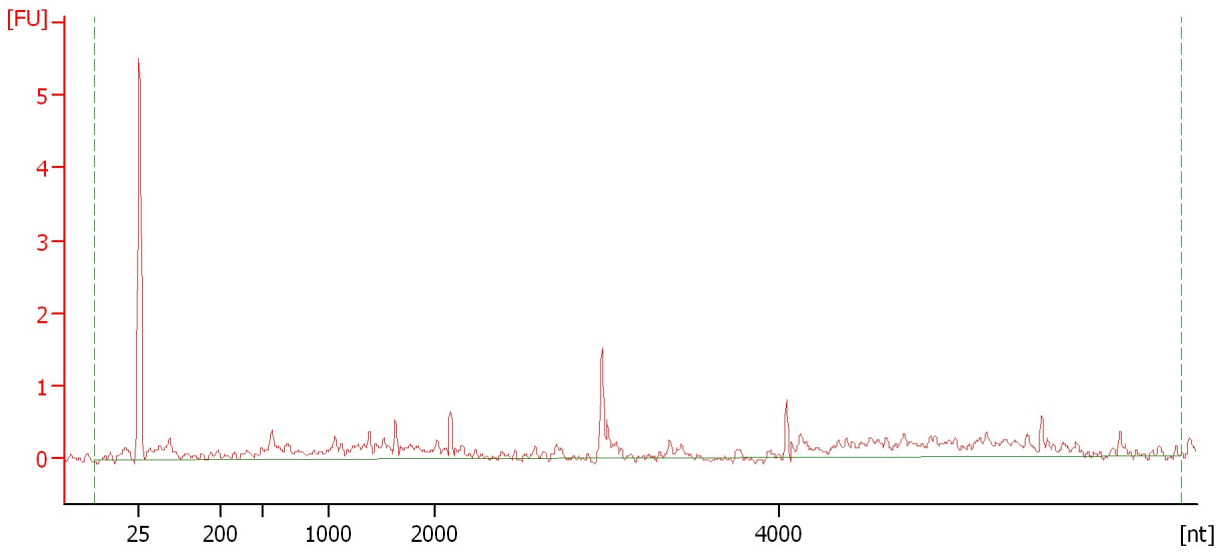
RNA Area: 8.9 rRNA Contamination: 0.0 %
RNA Concentration: 7 ng/μl

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 PM

Electropherogram Summary Continued ...

Sample 38



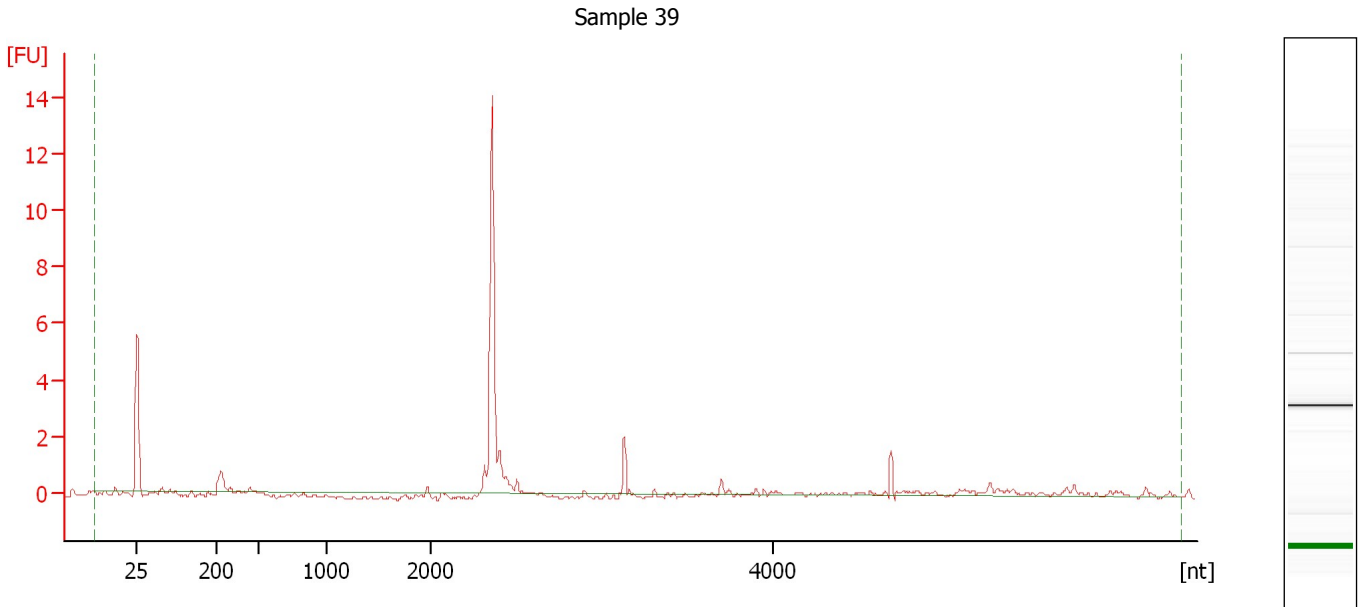
Overall Results for sample 7 : Sample 38

RNA Area: 18.3 rRNA Contamination: 0.0 %
RNA Concentration: 15 ng/μl

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : Sample 39

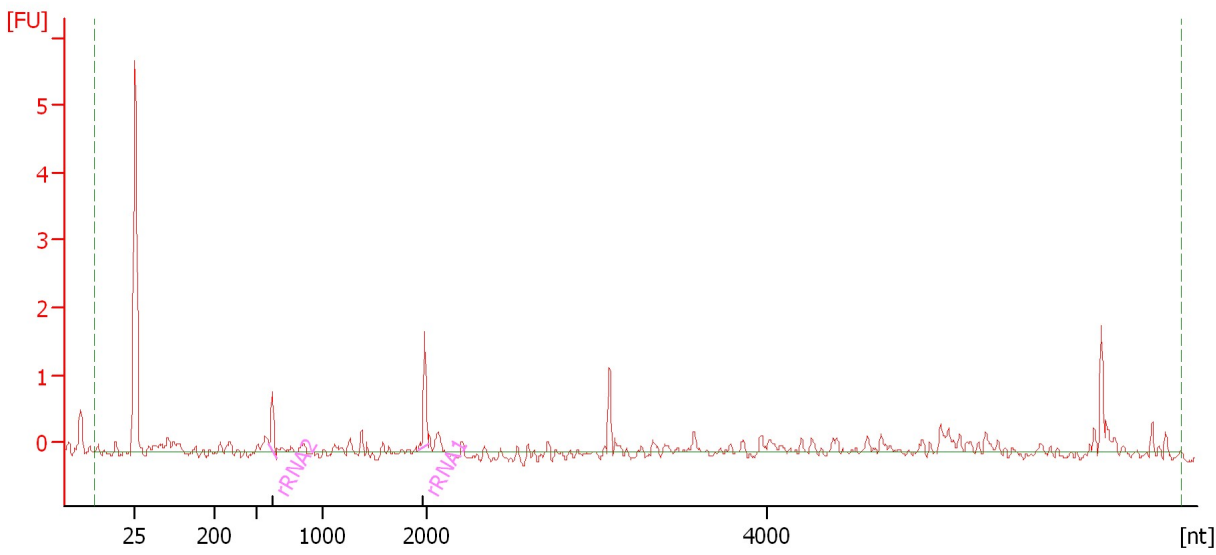
RNA Area:	18.5	rRNA Contamination:	0.0 %
RNA Concentration:	15 ng/μl		

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 PM

Electropherogram Summary Continued ...

Sample 40



Overall Results for sample 9 : Sample 40

RNA Area: 9.8 rRNA Contamination: 16.9 %
RNA Concentration: 8 ng/μl

Fragment table for sample 9 : Sample 40

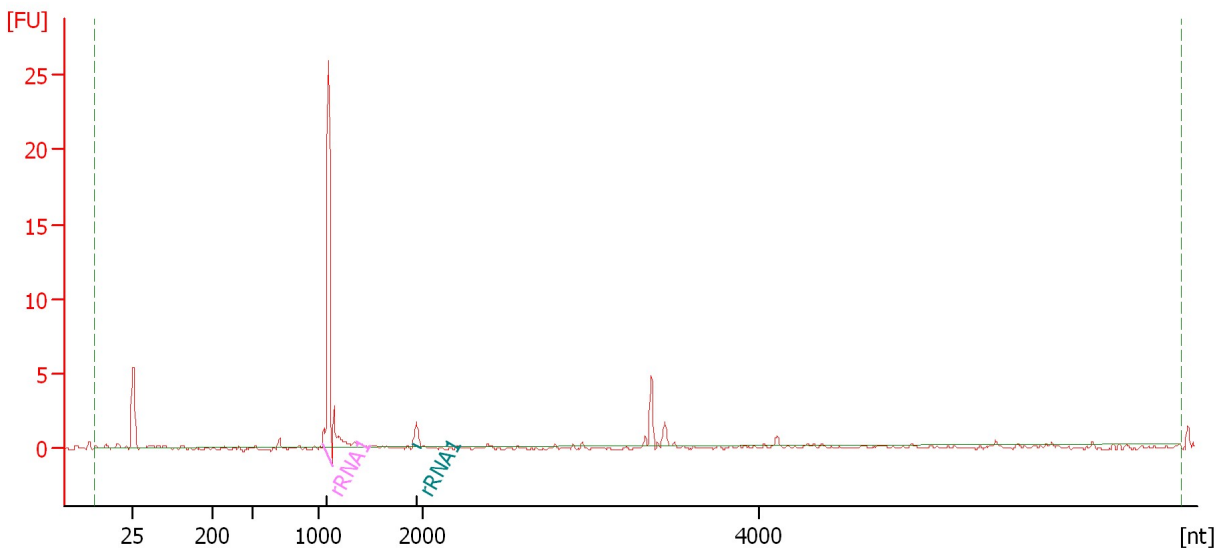
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
rRNA2	592	646	0.7	7.2
rRNA1	1,915	2,004	1.0	9.7

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 PM

Electropherogram Summary Continued ...

Sample 41



Overall Results for sample 10 : Sample 41

RNA Area: 27.4 rRNA Contamination: 75.9 %
RNA Concentration: 23 ng/μl

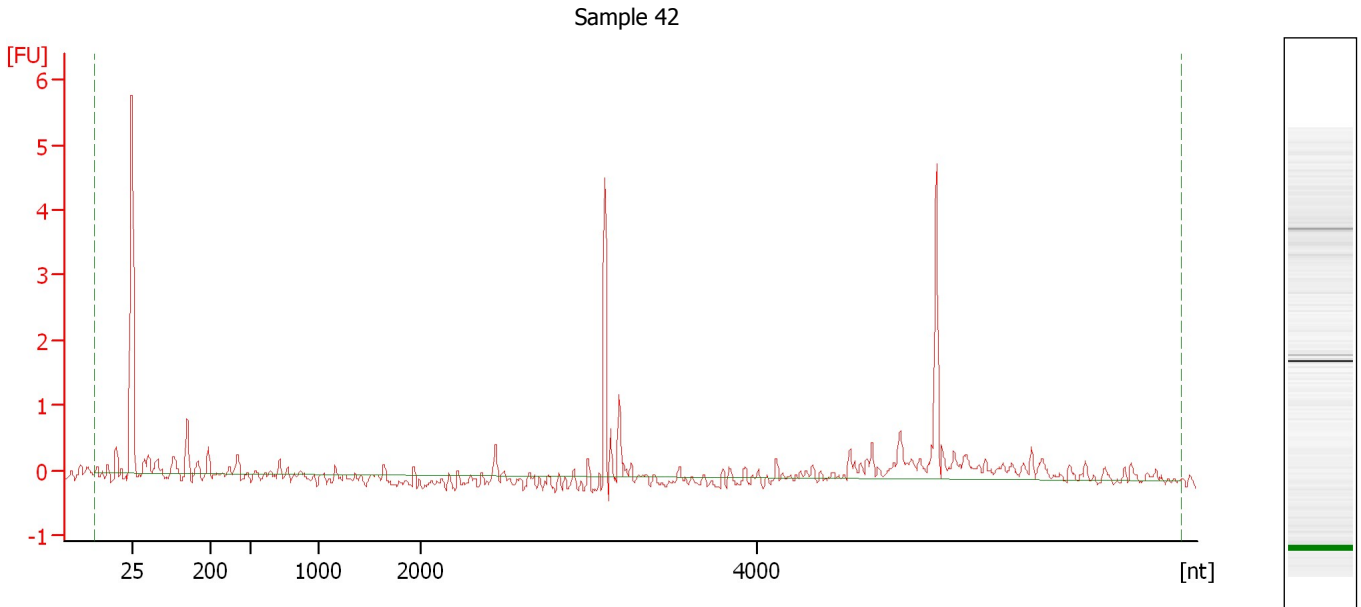
Fragment table for sample 10 : Sample 41

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
rRNA1	1,034	1,127	19.7	71.9
rRNA1	1,906	1,991	1.1	4.0

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : Sample 42

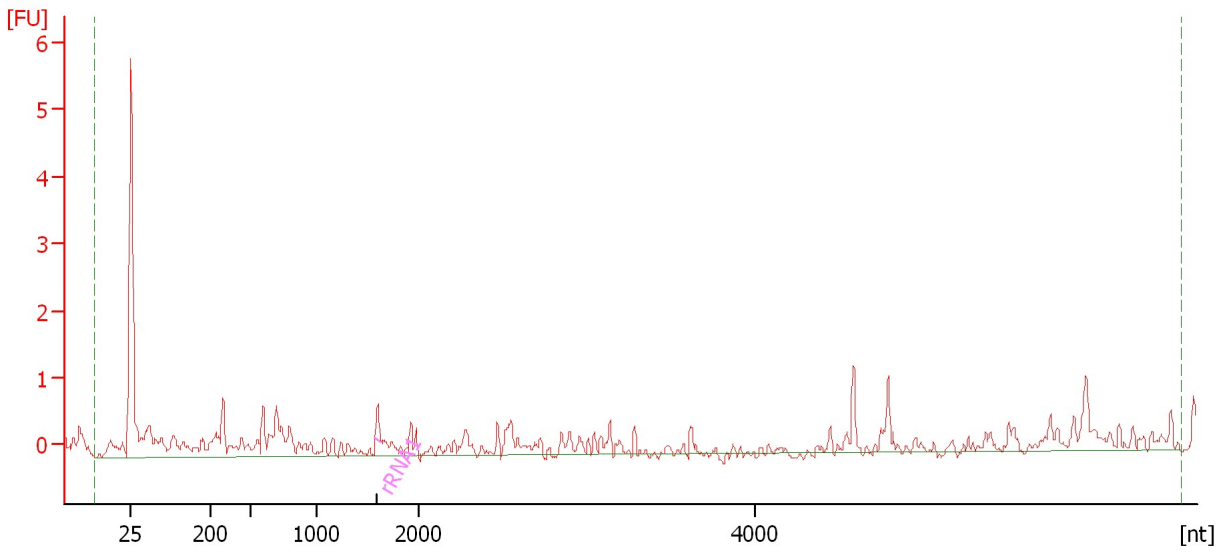
RNA Area:	14.8	rRNA Contamination:	0.0 %
RNA Concentration:	12 ng/μl		

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 PM

Electropherogram Summary Continued ...

Sample 43



Overall Results for sample 12 : Sample 43

RNA Area: 24.2 rRNA Contamination: 1.3 %
RNA Concentration: 20 ng/μl

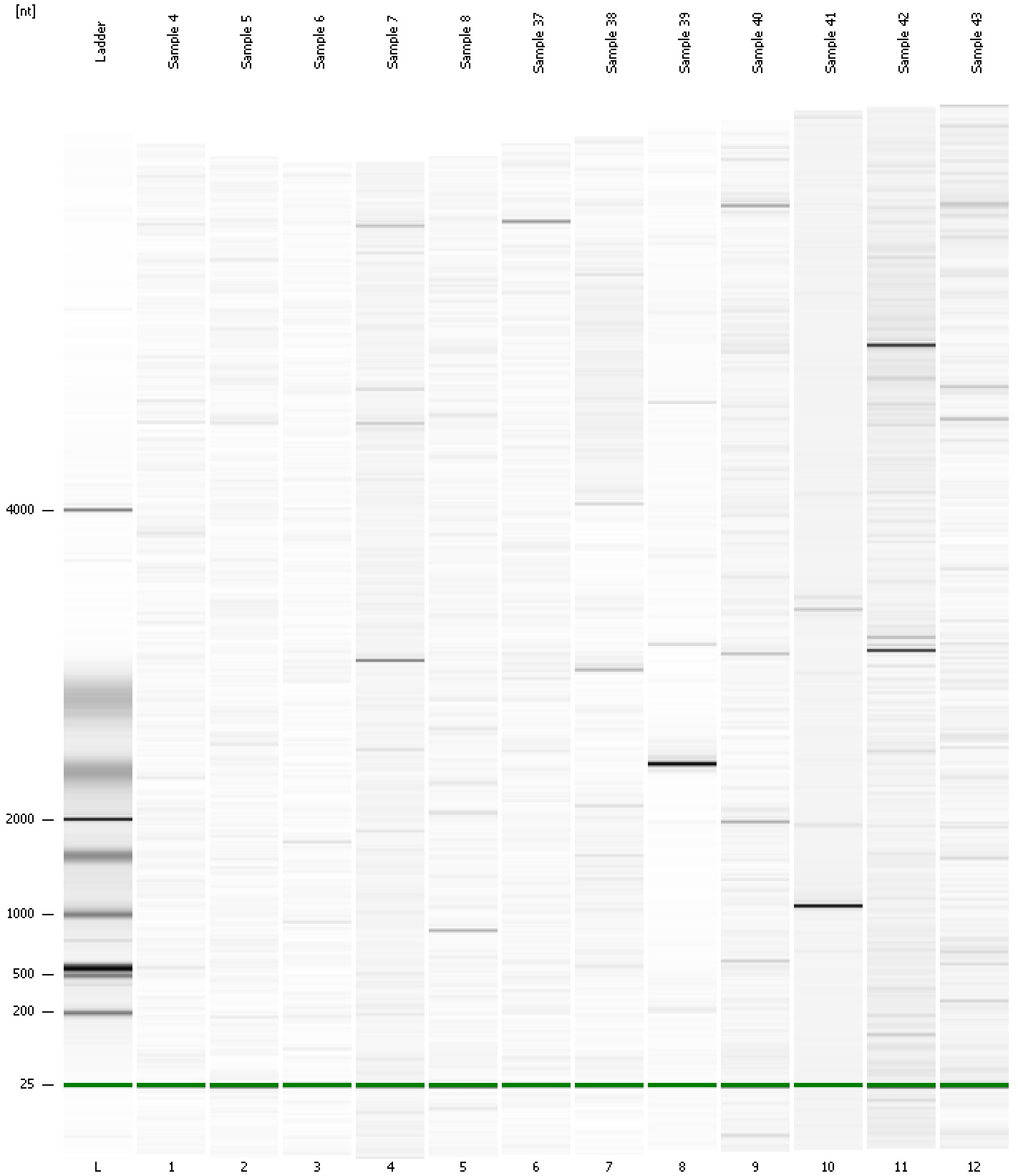
Fragment table for sample 12 : Sample 43

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
rRNA1	1,572	1,626	0.3	1.3

Assay Class: mRNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
Modified: 9/13/2016 12:01:36 PM

Gel Image



Assay Class: mRNA Nano
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-13\2016-09-13_001.xad

Created: 9/13/2016 11:34:26 AM
 Modified: 9/13/2016 12:01:36 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		9/13/2016 12:01:33 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\2016-09-13\2016-09-13_001.xad)		Instrument	Run		9/13/2016 11:34:31 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/13/2016 11:34:31 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/13/2016 11:34:31 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/13/2016 11:34:31 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/13/2016 11:34:31 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/13/2016 11:34:31 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/13/2016 11:34:31 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1