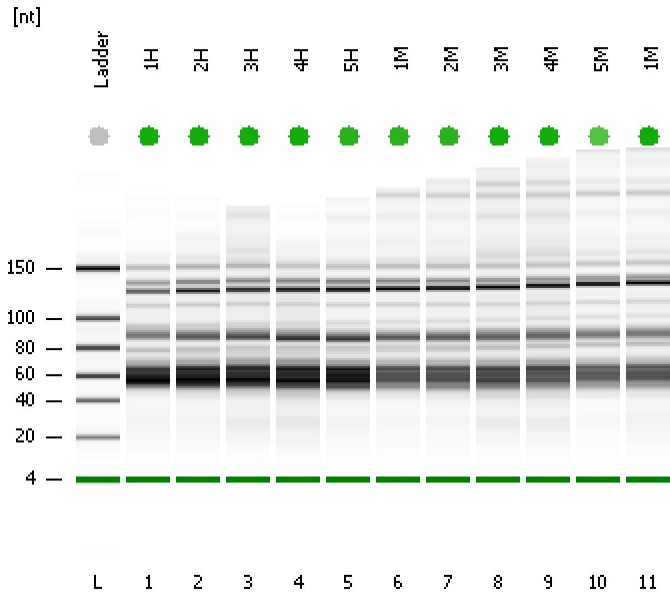


Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
Modified: 3/8/2013 11:33:57 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\Small RNA Series II.xsy

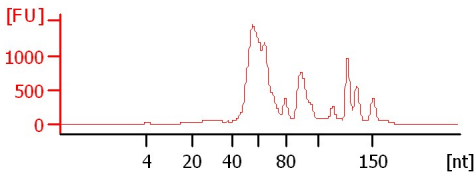
Assay Class: Small RNA
Version: 1.2
Assay Comments: Small RNA Analysis 6 - 150 nucleotides

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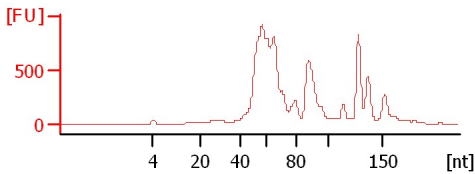
Chip Information:

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

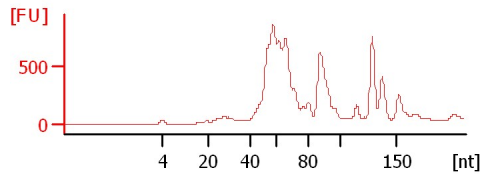
1H
13 % miRNA; Concentration: 5093.40 pg/μl



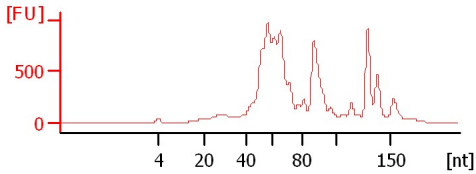
2H
12 % miRNA; Concentration: 3585.90 pg/μl



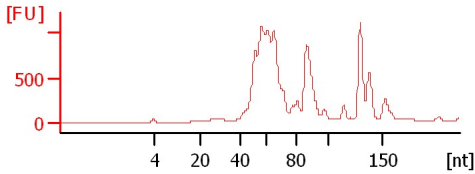
3H
15 % miRNA; Concentration: 5513.90 pg/μl



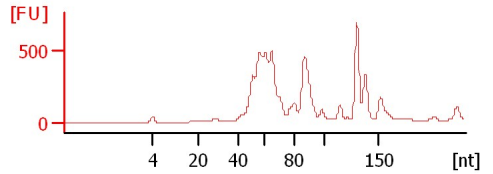
4H
17 % miRNA; Concentration: 6159.10 pg/μl



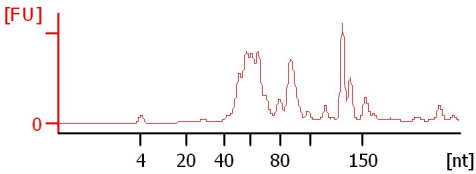
5H
11 % miRNA; Concentration: 3817.10 pg/μl



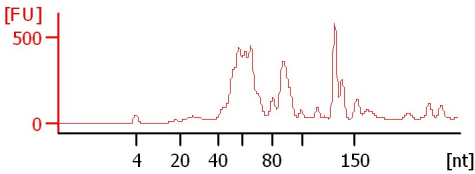
1M
11 % miRNA; Concentration: 2274.40 pg/μl



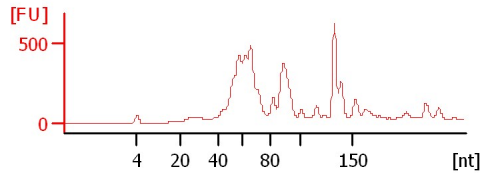
2M
11 % miRNA; Concentration: 1635.10 pg/μl



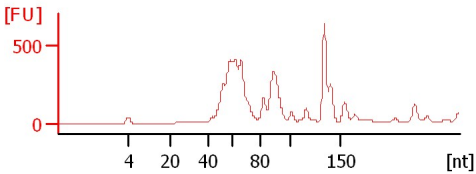
3M
16 % miRNA; Concentration: 2646 pg/μl



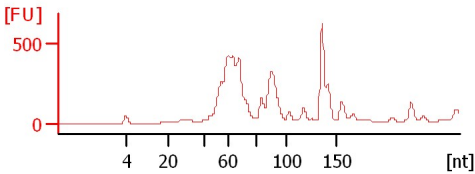
4M
16 % miRNA; Concentration: 3014.10 pg/μl



5M
9 % miRNA; Concentration: 1533.80 pg/μl















1M
13 % miRNA; Concentration: 2086.10 pg/μl



Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
Modified: 3/8/2013 11:33:57 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
1H		✓	13 % miRNA; Concentration: 5093.40 pg/μl	
2H		✓	12 % miRNA; Concentration: 3585.90 pg/μl	
3H		✓	15 % miRNA; Concentration: 5513.90 pg/μl	
4H		✓	17 % miRNA; Concentration: 6159.10 pg/μl	
5H		✓	11 % miRNA; Concentration: 3817.10 pg/μl	
1M		✓	11 % miRNA; Concentration: 2274.40 pg/μl	
2M		✓	11 % miRNA; Concentration: 1635.10 pg/μl	
3M		✓	16 % miRNA; Concentration: 2646 pg/μl	
4M		✓	16 % miRNA; Concentration: 3014.10 pg/μl	
5M		✓	9 % miRNA; Concentration: 1533.80 pg/μl	
1M		✓	13 % miRNA; Concentration: 2086.10 pg/μl	
Ladder		✓	Number of Peaks: 6	

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
Modified: 3/8/2013 11:33:57 AM

Electrophoresis Assay Details

General Analysis Settings

Number of Available Sample and Ladder Wells (Max.) : 12
Minimum Visible Range [s] : 30
Maximum Visible Range [s] : 90
Start Analysis Time Range [s] : 31
End Analysis Time Range [s] : 89
Ladder Concentration [pg/ μ l] : 2500
Lower Marker Concentration [pg/ μ l] : 500
Upper Marker Concentration [pg/ 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] : 30
Integration End Time [s] : 89
Slope Threshold : 0.6
Height Threshold [FU] : 3
Area Threshold : 0.2
Width Threshold [s] : 0.5
Baseline Plateau [s] : 60

Filter Settings

Filter Width [s] : 0.5
Polynomial Order : 4

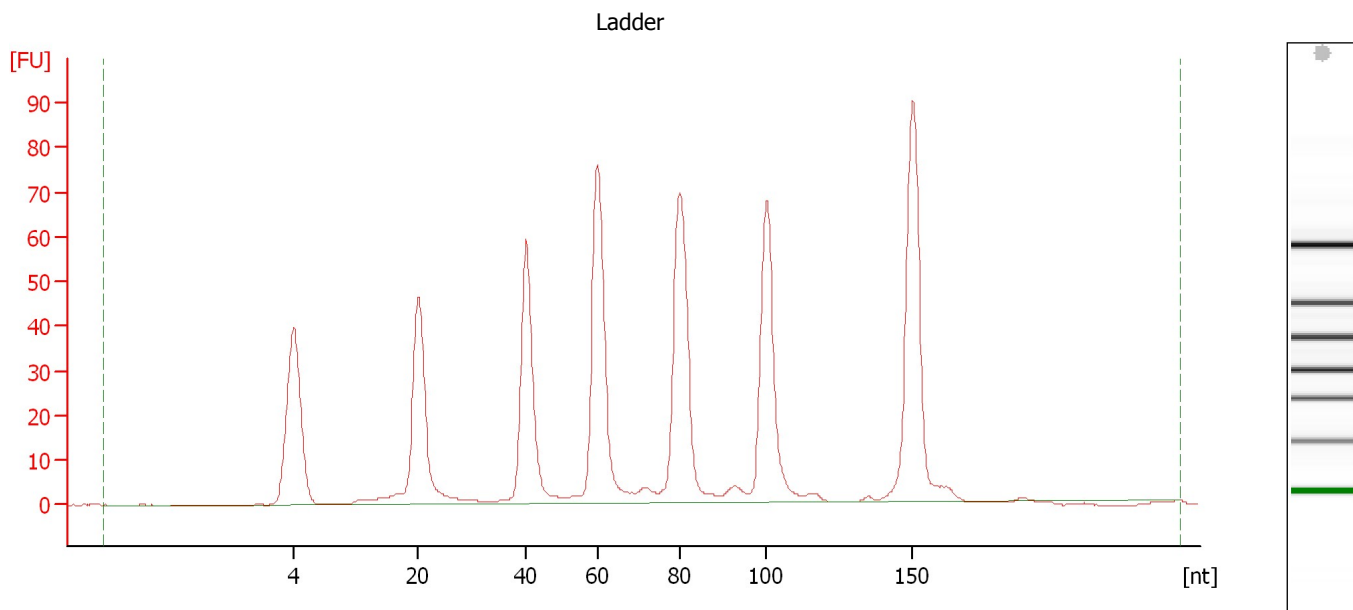
Ladder

Ladder Peak	Size
1	4
2	20
3	40
4	60
5	80
6	100
7	150

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
Modified: 3/8/2013 11:33:57 AM

Electropherogram Summary



Overall Results for Ladder

Result Flagging Color:

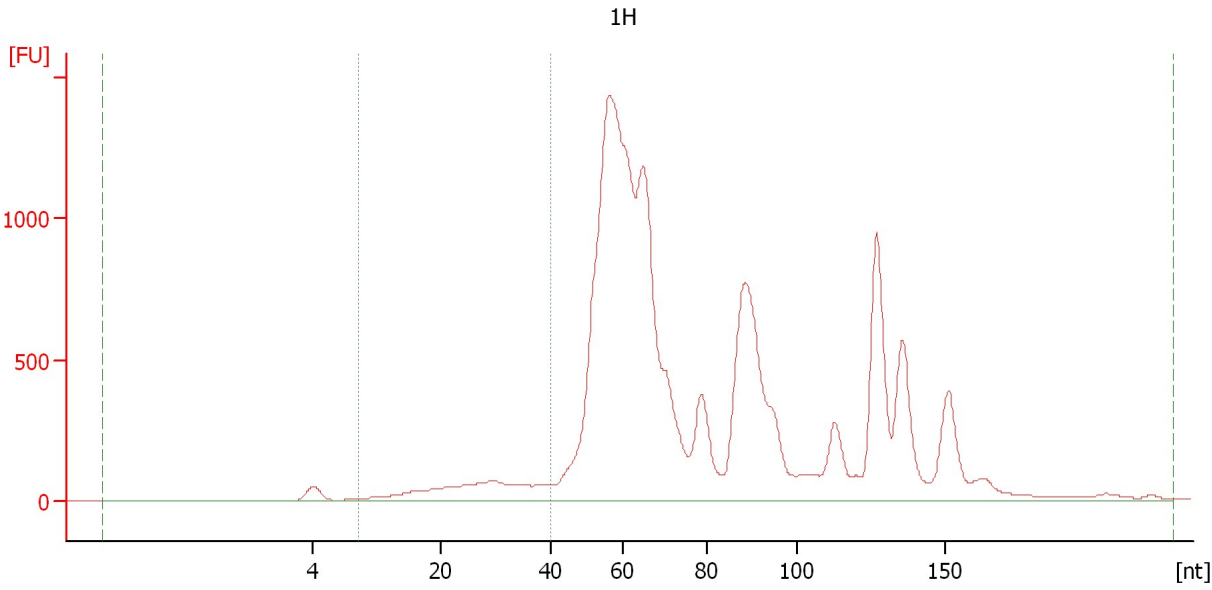
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
 Modified: 3/8/2013 11:33:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 1H

Small RNA Concentration [pg/μl]: 37,886.6
 miRNA Concentration [pg/μl]: 5,093.4
 miRNA / Small RNA Ratio [%]: 13

Result Flagging Color:
 Result Flagging Label: 13 % miRNA;
 Concentration: 5093.40 pg/μl

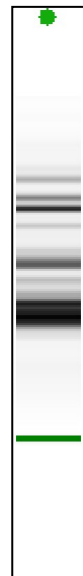
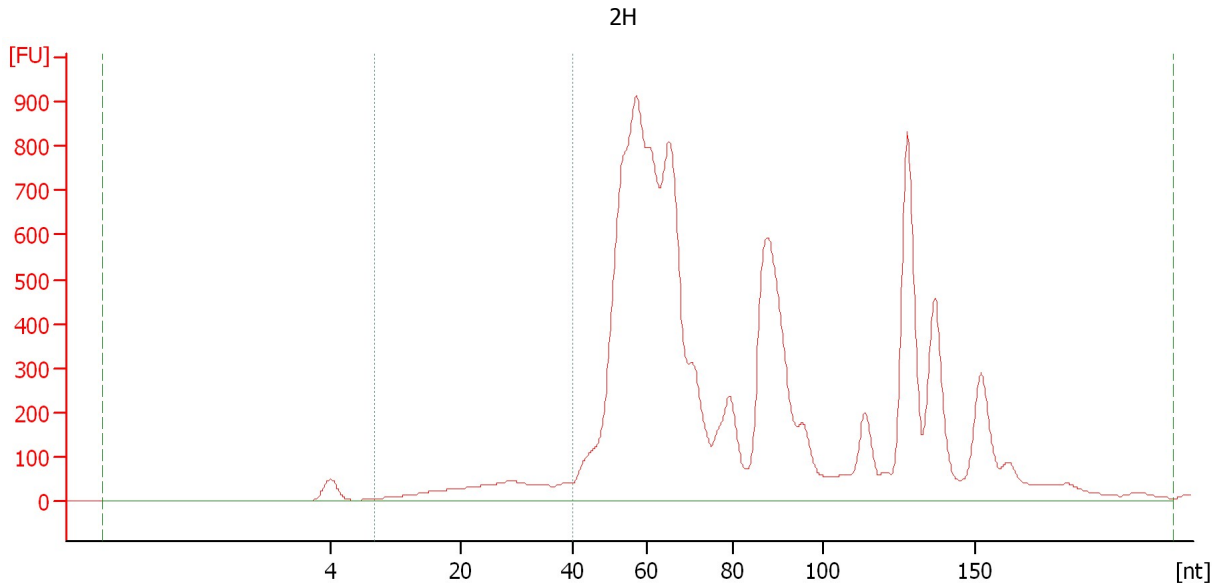
Region table for sample 1 : 1H

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	226	83	43.9	37,886.6	100	
miRNA	10	40	27	29.4	5,093.4	13	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
 Modified: 3/8/2013 11:33:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 2H

Small RNA Concentration [pg/μl]: 29,637.1
 miRNA Concentration [pg/μl]: 3,585.9
 miRNA / Small RNA Ratio [%]: 12

Result Flagging Color:
 Result Flagging Label: 12 % miRNA;
 Concentration: 3585.90 pg/μl

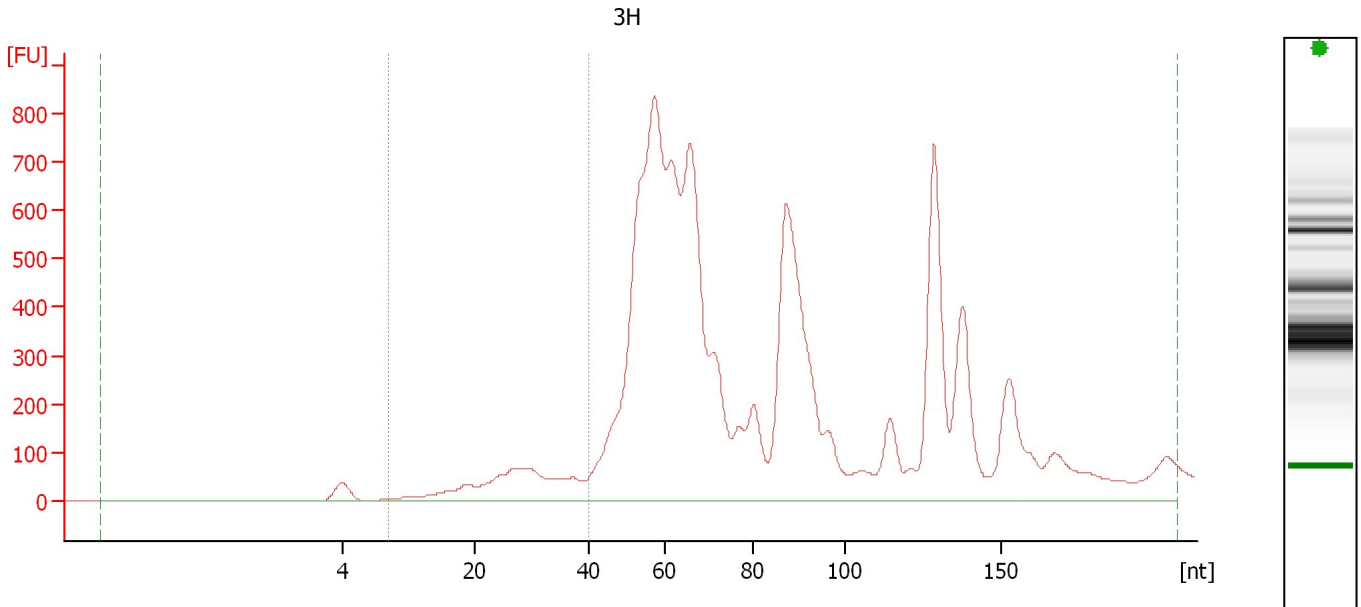
Region table for sample 2 : 2H

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	215	85	44.2	29,637.1	100	
miRNA	10	40	27	29.9	3,585.9	12	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
 Modified: 3/8/2013 11:33:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 3H

Small RNA Concentration [pg/μl]: 36,976.3
 miRNA Concentration [pg/μl]: 5,513.9
 miRNA / Small RNA Ratio [%]: 15

Result Flagging Color:
 Result Flagging Label: 15 % miRNA;
 Concentration: 5513.90 pg/μl

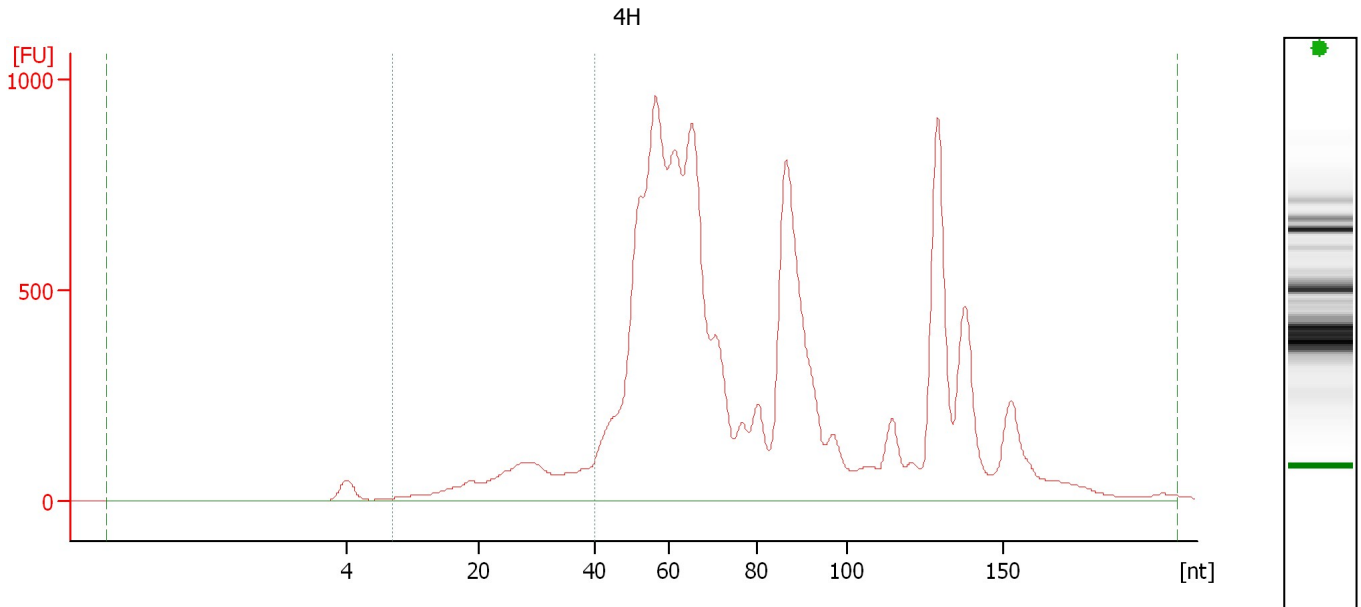
Region table for sample 3 : 3H

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	207	88	47.0	36,976.3	100	
miRNA	10	40	27	26.4	5,513.9	15	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
 Modified: 3/8/2013 11:33:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 4H

Small RNA Concentration [pg/μl]:	35,281.8	Result Flagging Color:	
miRNA Concentration [pg/μl]:	6,159.1	Result Flagging Label:	17 % miRNA; Concentration: 6159.10 pg/μl
miRNA / Small RNA Ratio [%]:	17		

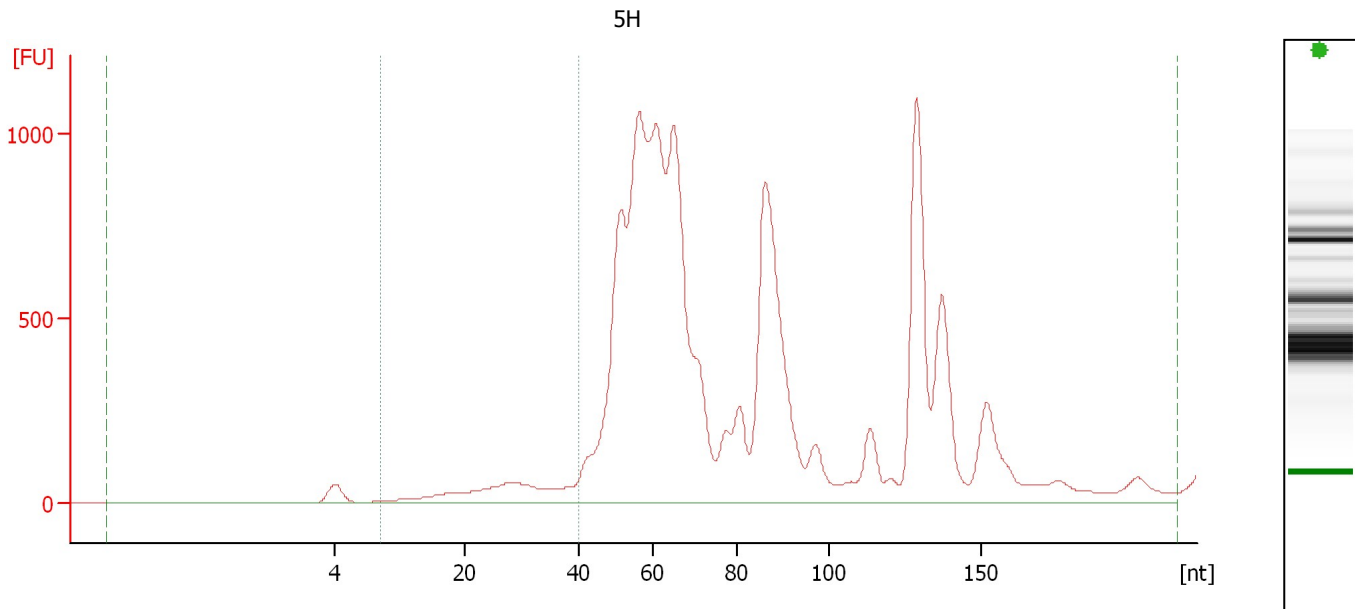
Region table for sample 4 : 4H

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	206	82	44.3	35,281.8	100	
miRNA	10	40	28	27.5	6,159.1	17	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
 Modified: 3/8/2013 11:33:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 5H

Small RNA Concentration [pg/μl]: 35,037.0
 miRNA Concentration [pg/μl]: 3,817.1
 miRNA / Small RNA Ratio [%]: 11

Result Flagging Color:
 Result Flagging Label: 11 % miRNA;
 Concentration: 3817.10 pg/μl

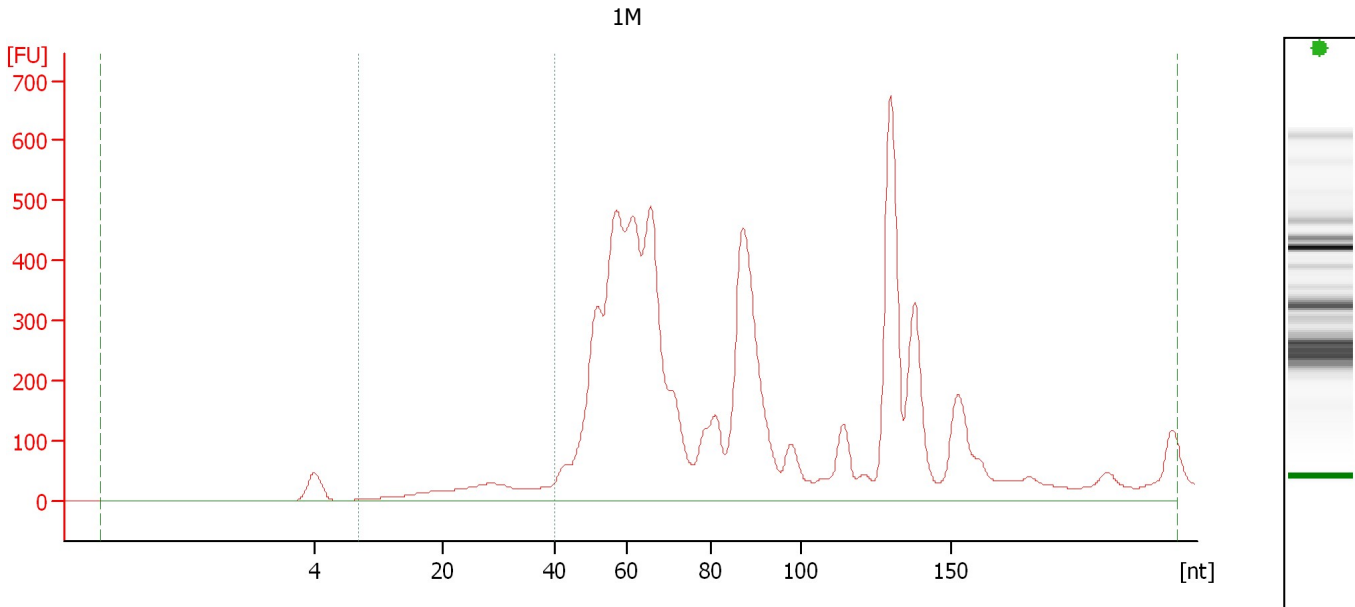
Region table for sample 5 : 5H

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	214	86	45.4	35,037.0	100	
miRNA	10	40	27	28.5	3,817.1	11	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
 Modified: 3/8/2013 11:33:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 1M

Small RNA Concentration [pg/μl]: 19,913.2
 miRNA Concentration [pg/μl]: 2,274.4
 miRNA / Small RNA Ratio [%]: 11

Result Flagging Color:
 Result Flagging Label: 11 % miRNA;
 Concentration: 2274.40 pg/μl

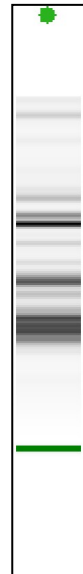
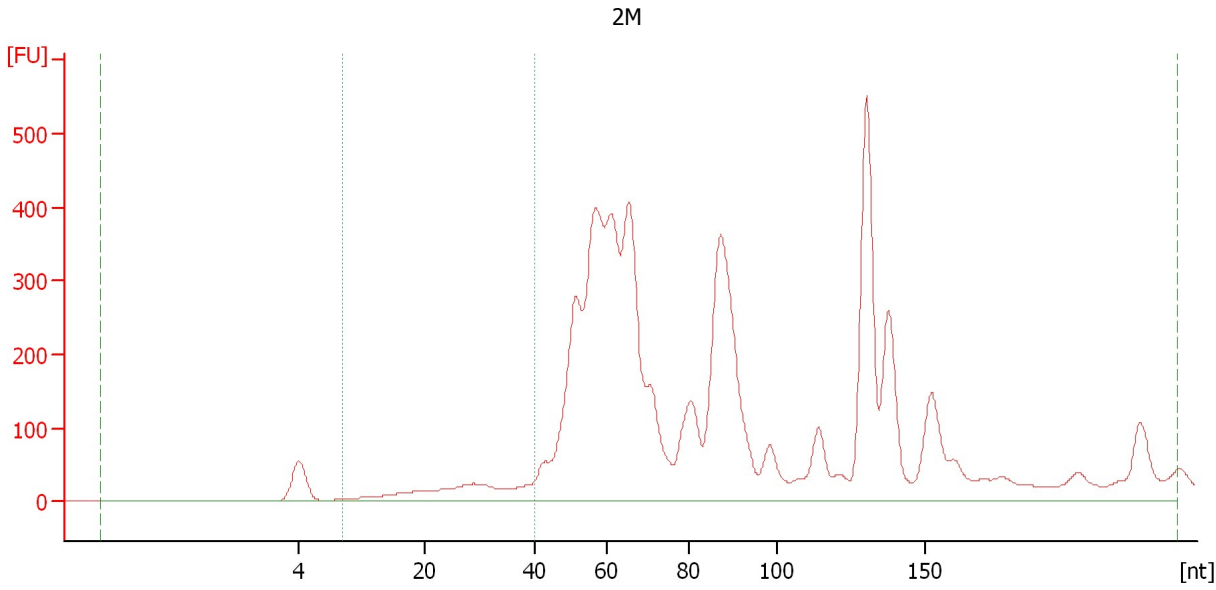
Region table for sample 6 : 1M

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	225	94	48.3	19,913.2	100	
miRNA	10	40	27	28.7	2,274.4	11	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
 Modified: 3/8/2013 11:33:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 2M

Small RNA Concentration [pg/μl]: 14,715.9
 miRNA Concentration [pg/μl]: 1,635.1
 miRNA / Small RNA Ratio [%]: 11

Result Flagging Color:
 Result Flagging Label: 11 % miRNA;
 Concentration: 1635.10 pg/μl

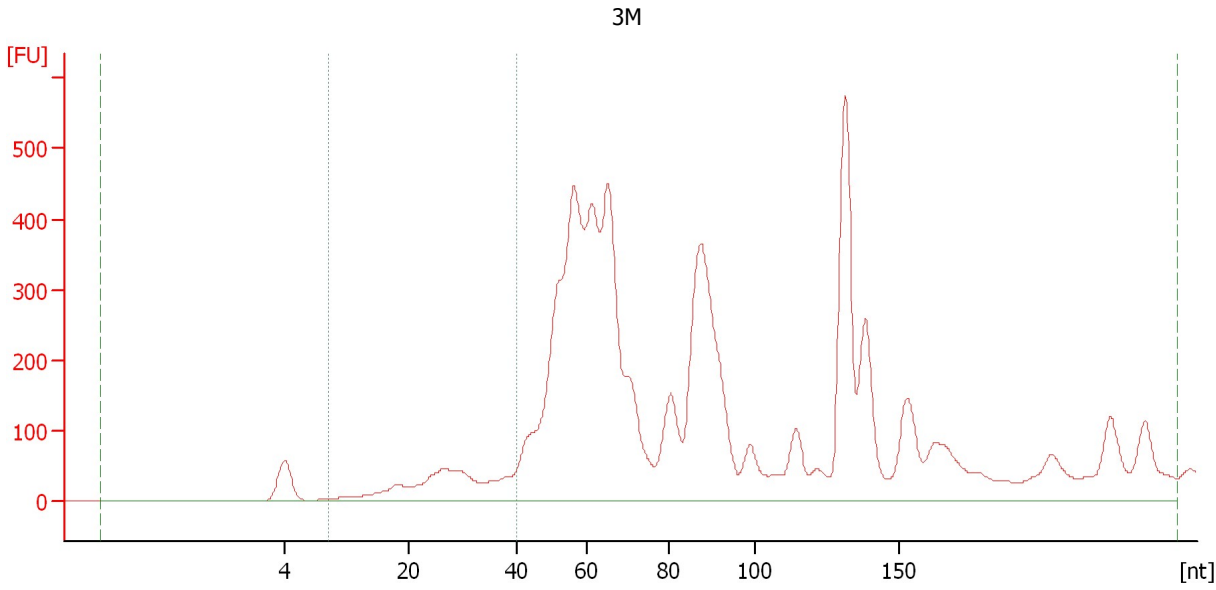
Region table for sample 7 : 2M

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	235	96	51.0	14,715.9	100	
miRNA	10	40	27	29.3	1,635.1	11	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
 Modified: 3/8/2013 11:33:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 3M

Small RNA Concentration [pg/μl]: 17,063.0
 miRNA Concentration [pg/μl]: 2,646.0
 miRNA / Small RNA Ratio [%]: 16

Result Flagging Color:
 Result Flagging Label: 16 % miRNA;
 Concentration: 2646
 pg/μl

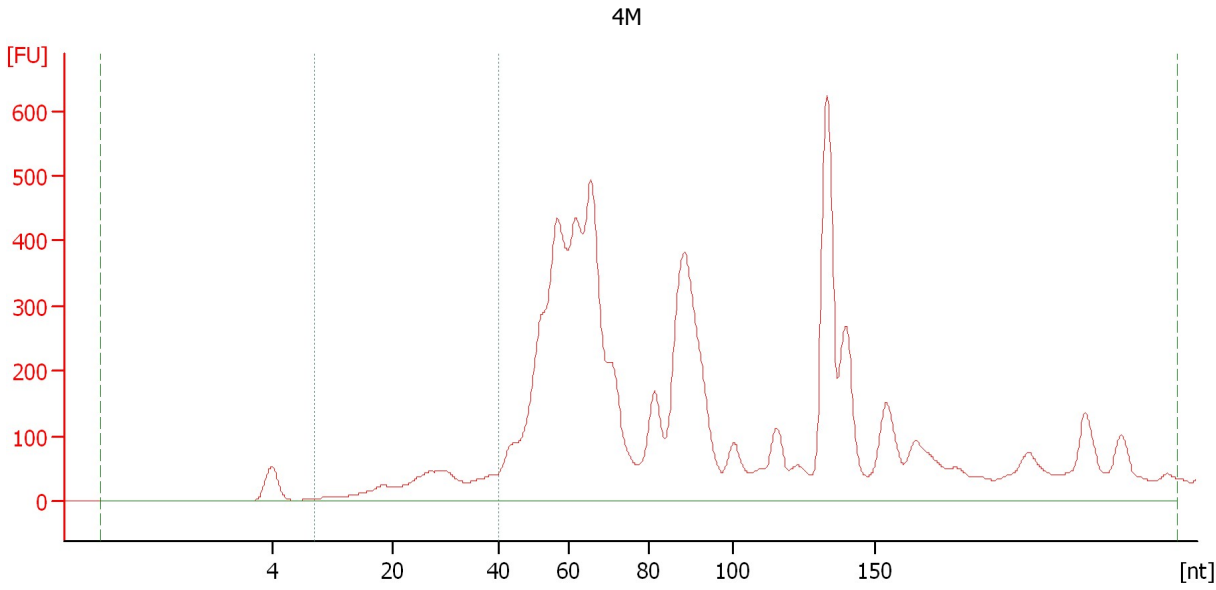
Region table for sample 8 : 3M

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	245	100	55.2	17,062.9	100	
miRNA	10	40	27	27.2	2,646.0	16	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
 Modified: 3/8/2013 11:33:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 4M

Small RNA Concentration [pg/μl]: 19,418.6
 miRNA Concentration [pg/μl]: 3,014.1
 miRNA / Small RNA Ratio [%]: 16

Result Flagging Color: ████████
 Result Flagging Label: 16 % miRNA;
 Concentration: 3014.10 pg/μl

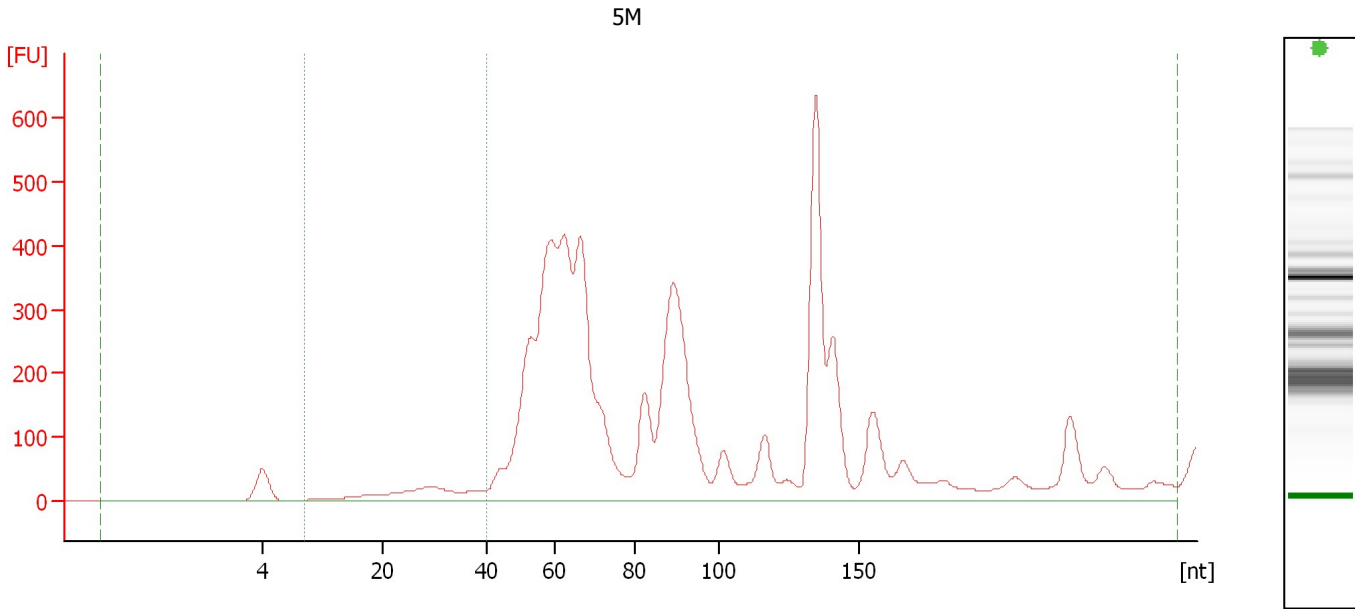
Region table for sample 9 : 4M

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	255	104	55.1	19,418.6	100	████
miRNA	10	40	27	27.5	3,014.1	16	████

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
 Modified: 3/8/2013 11:33:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 5M

Small RNA Concentration [pg/μl]: 16,308.4
 miRNA Concentration [pg/μl]: 1,533.8
 miRNA / Small RNA Ratio [%]: 9

Result Flagging Color:
 Result Flagging Label: 9 % miRNA;
 Concentration: 1533.80 pg/μl

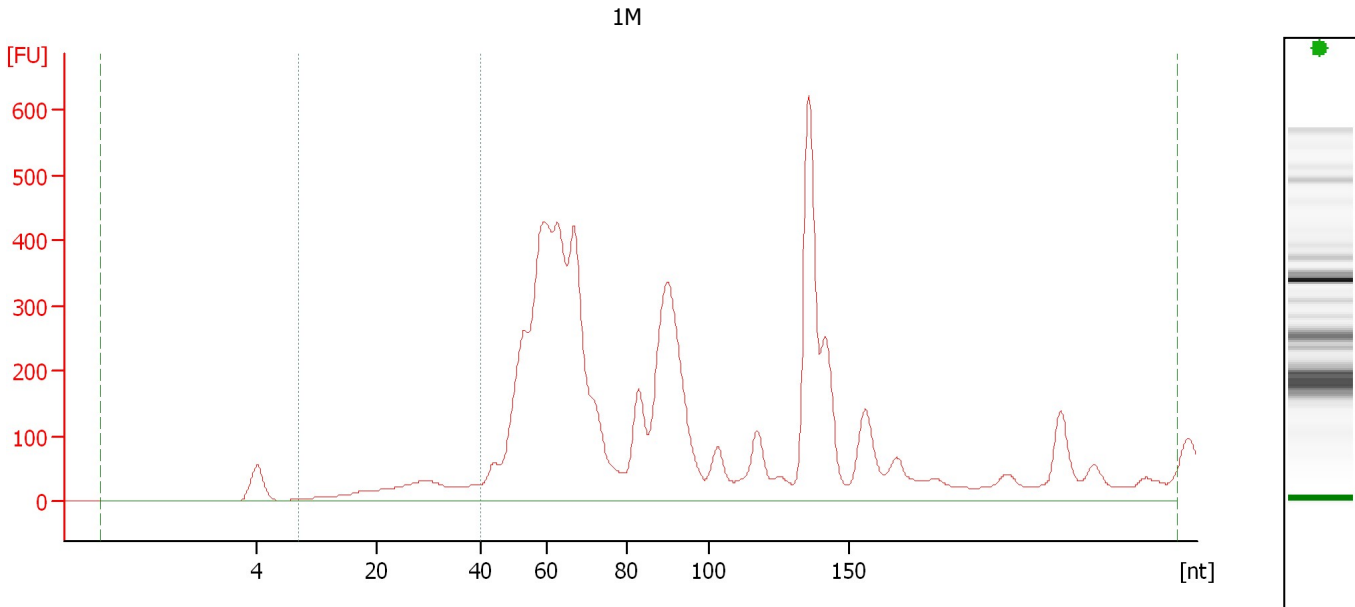
Region table for sample 10 : 5M

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	263	103	53.2	16,308.4	100	
miRNA	10	40	27	28.0	1,533.8	9	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
 Modified: 3/8/2013 11:33:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 1M

Small RNA Concentration [pg/μl]:	16,133.8	Result Flagging Color:	
miRNA Concentration [pg/μl]:	2,086.1	Result Flagging Label:	13 % miRNA; Concentration: 2086.10 pg/μl
miRNA / Small RNA Ratio [%]:	13		

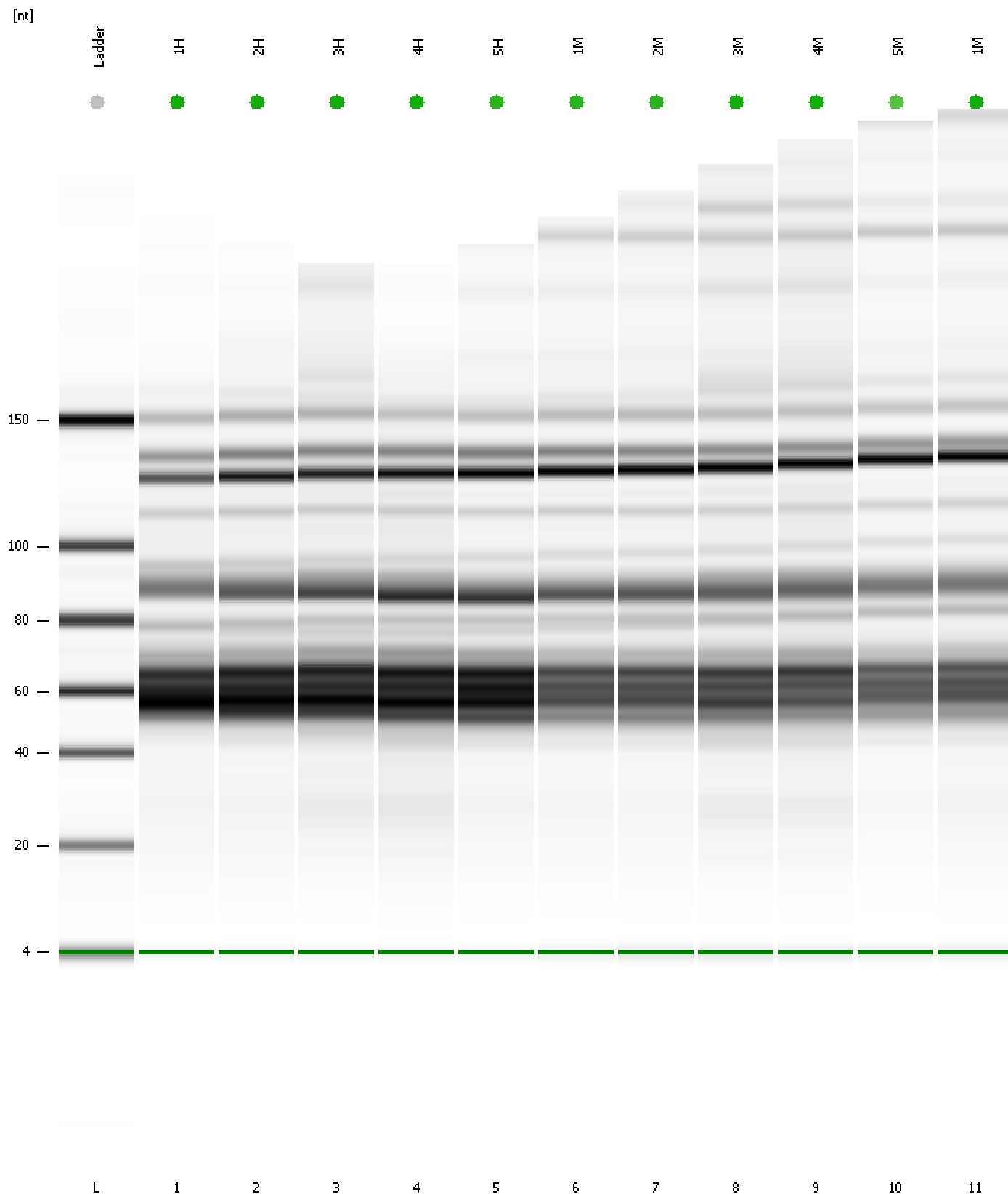
Region table for sample 11 : 1M

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	267	103	55.0	16,133.8	100	
miRNA	10	40	27	28.5	2,086.1	13	

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
Modified: 3/8/2013 11:33:57 AM

Gel Image



Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad

Created: 3/7/2013 11:44:35 AM
 Modified: 3/8/2013 11:33:57 AM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 12)		Instrument	Run		3/7/2013 12:16:32 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-03-07\2013-03-07_001.xad)		Instrument	Run		3/7/2013 11:44:41 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/7/2013 11:44:41 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/7/2013 11:44:41 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/7/2013 11:44:41 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/7/2013 11:44:41 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/7/2013 11:44:41 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/7/2013 11:44:41 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1