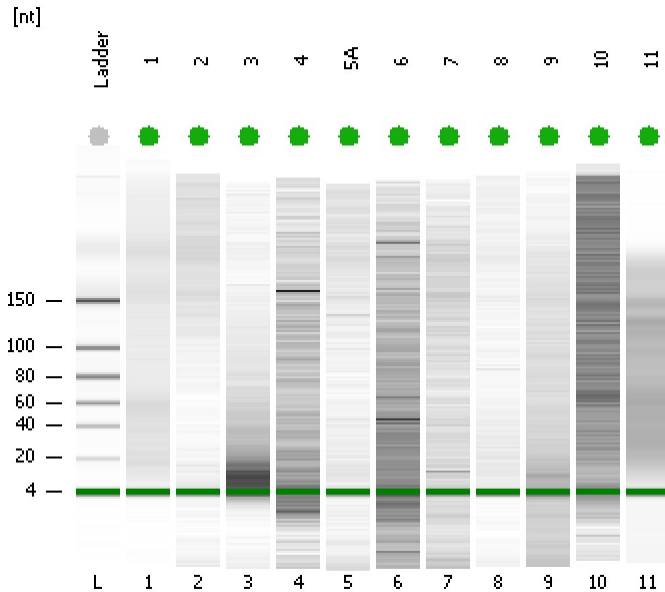


Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
Modified: 5/15/2019 10:20:24 AM

Electrophoresis File Run Summary



Instrument Information:

Instrument Name: DE34903152 Firmware: C.01.069
Serial#: DE34903152 Type: G2938C

Assay Information:

Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\RNA\Small RNA Series II.xsy

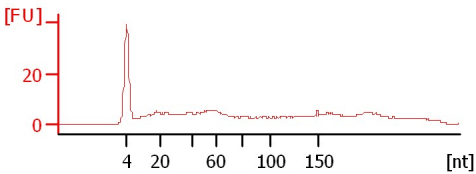
Assay Class: Small RNA
Version: 1.2
Assay Comments: Small RNA Analysis 6 - 150 nucleotides

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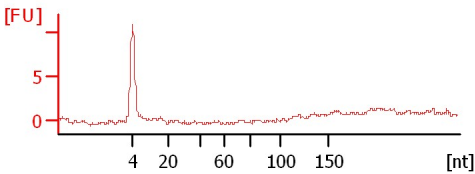
Chip Information:

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

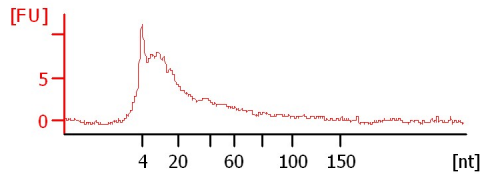
1
56 % miRNA; Concentration: 3171.70 pg/μl



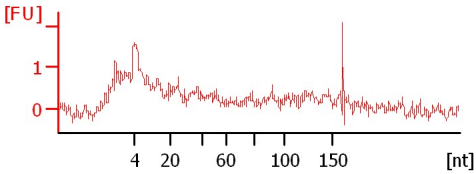
2
14 % miRNA; Concentration: 180.20 pg/μl



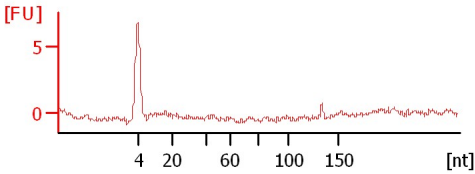
3
79 % miRNA; Concentration: 7208.70 pg/μl



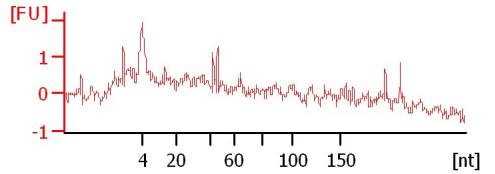
4
63 % miRNA; Concentration: 29490 pg/μl



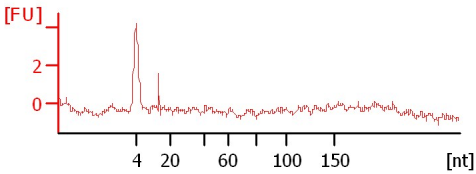
5A
20 % miRNA; Concentration: 47.90 pg/μl



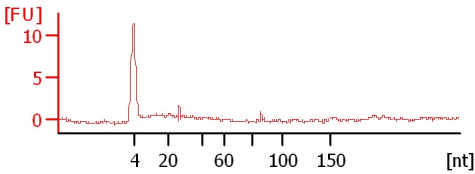
6
70 % miRNA; Concentration: 15832.10 p...



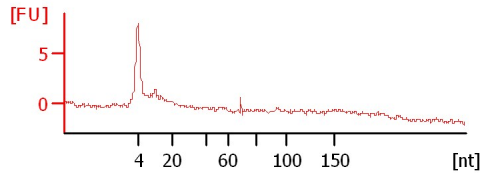
7
55 % miRNA; Concentration: 155.50 pg/μl



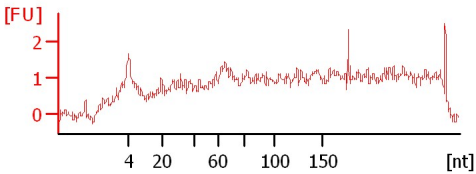
8
80 % miRNA; Concentration: 1702.80 pg/μl



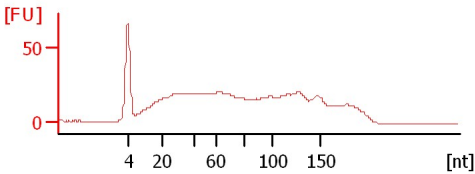
9
84 % miRNA; Concentration: 765.90 pg/μl



10
45 % miRNA; Concentration: 53275.50 p...















11
57 % miRNA; Concentration: 6849.80 pg/μl



Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
Modified: 5/15/2019 10:20:24 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
1		✓	56 % miRNA; Concentration: 3171.70 pg/μl	
2		✓	14 % miRNA; Concentration: 180.20 pg/μl	
3		✓	79 % miRNA; Concentration: 7208.70 pg/μl	
4		✓	63 % miRNA; Concentration: 29490 pg/μl	
5A		✓	20 % miRNA; Concentration: 47.90 pg/μl	
6		✓	70 % miRNA; Concentration: 15832.10 pg/μl	
7		✓	55 % miRNA; Concentration: 155.50 pg/μl	
8		✓	80 % miRNA; Concentration: 1702.80 pg/μl	
9		✓	84 % miRNA; Concentration: 765.90 pg/μl	
10		✓	45 % miRNA; Concentration: 53275.50 pg/μl	
11		✓	57 % miRNA; Concentration: 6849.80 pg/μl	
Ladder		✓	Number of Peaks: 6	

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
Modified: 5/15/2019 10:20:24 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

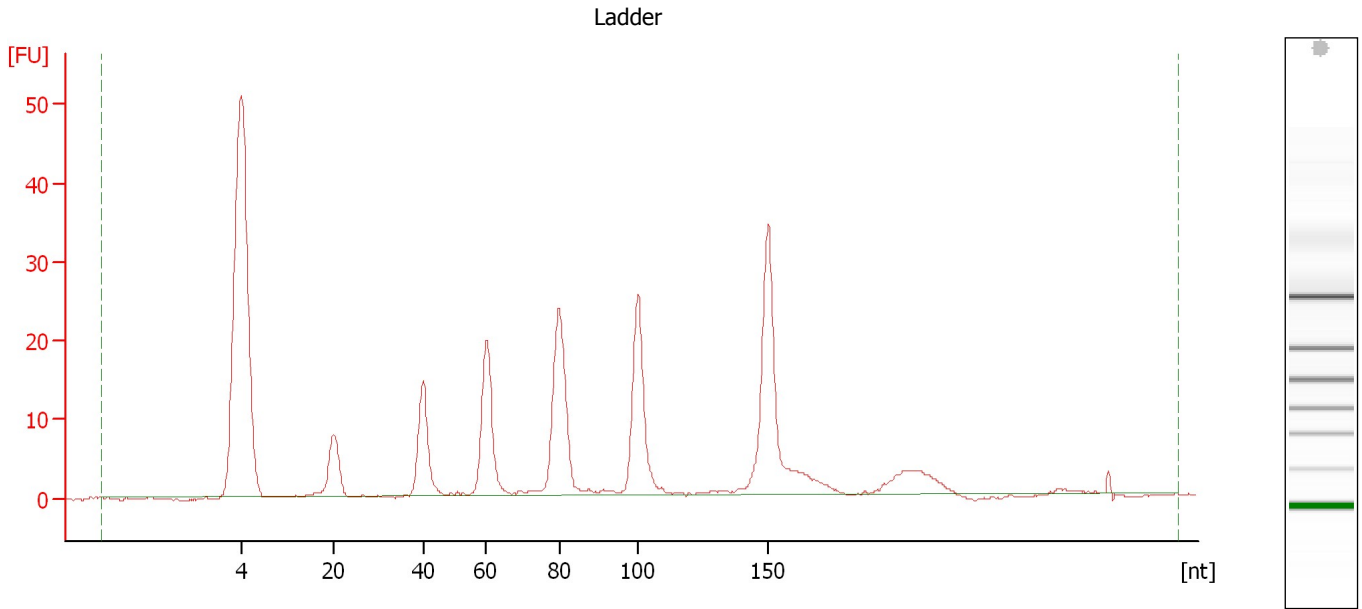
Ladder

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

Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
Modified: 5/15/2019 10:20:24 AM

Electropherogram Summary



Overall Results for Ladder

Result Flagging Color:

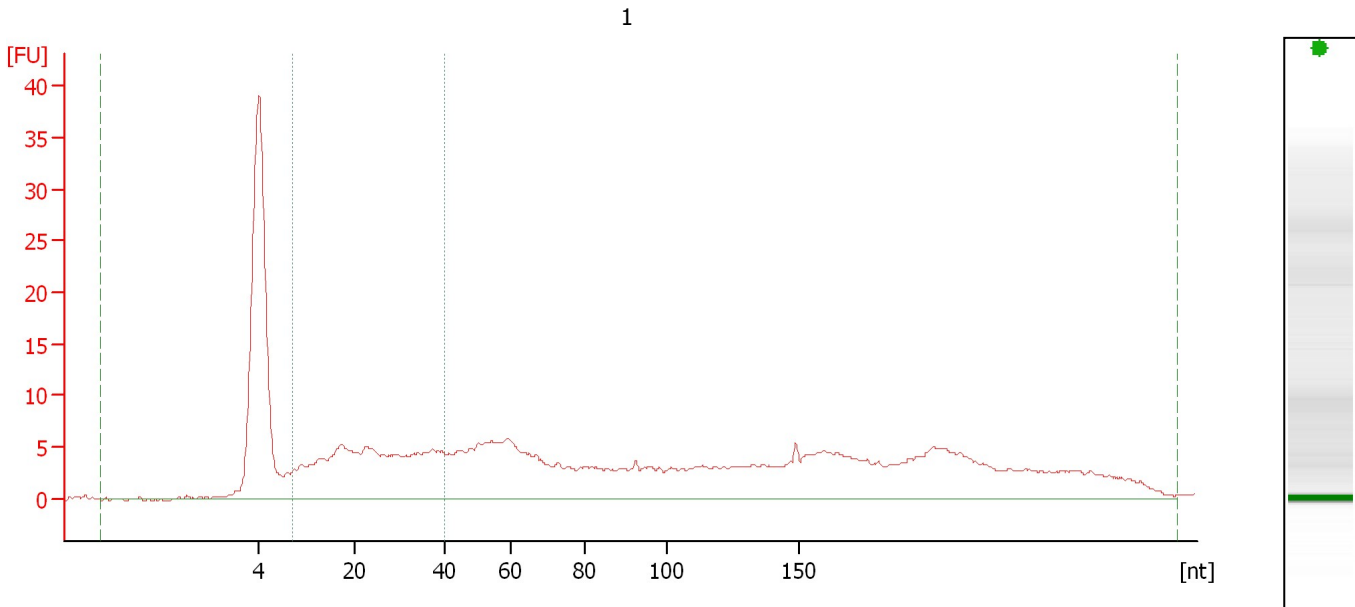
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
 Modified: 5/15/2019 10:20:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 1

Small RNA Concentration [pg/μl]:	5,616.6	Result Flagging Color:	
miRNA Concentration [pg/μl]:	3,171.7	Result Flagging Label:	56 % miRNA; Concentration: 3171.70 pg/μl
miRNA / Small RNA Ratio [%]:	56		

Region table for sample 1 : 1

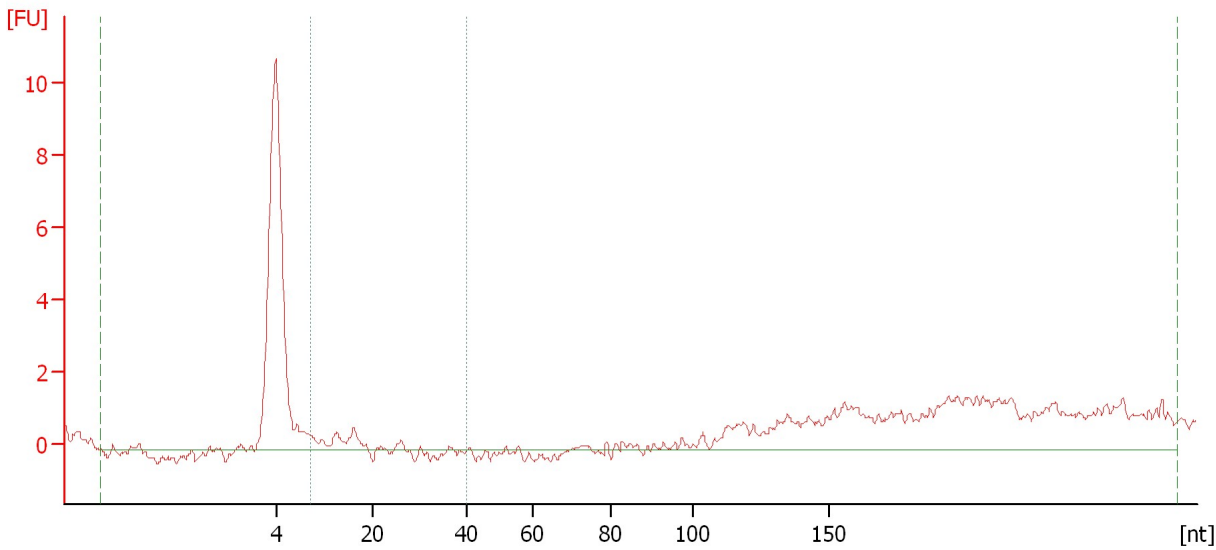
Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	291	99	85.0	5,616.6	100	
miRNA	10	40	24	35.6	3,171.7	56	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
 Modified: 5/15/2019 10:20:24 AM

Electropherogram Summary Continued ...

2



Overall Results for sample 2 : 2

Small RNA Concentration [pg/μl]: 1,285.5
 miRNA Concentration [pg/μl]: 180.2
 miRNA / Small RNA Ratio [%]: 14

Result Flagging Color:
 Result Flagging Label: 14 % miRNA;
 Concentration: 180.20
 pg/μl

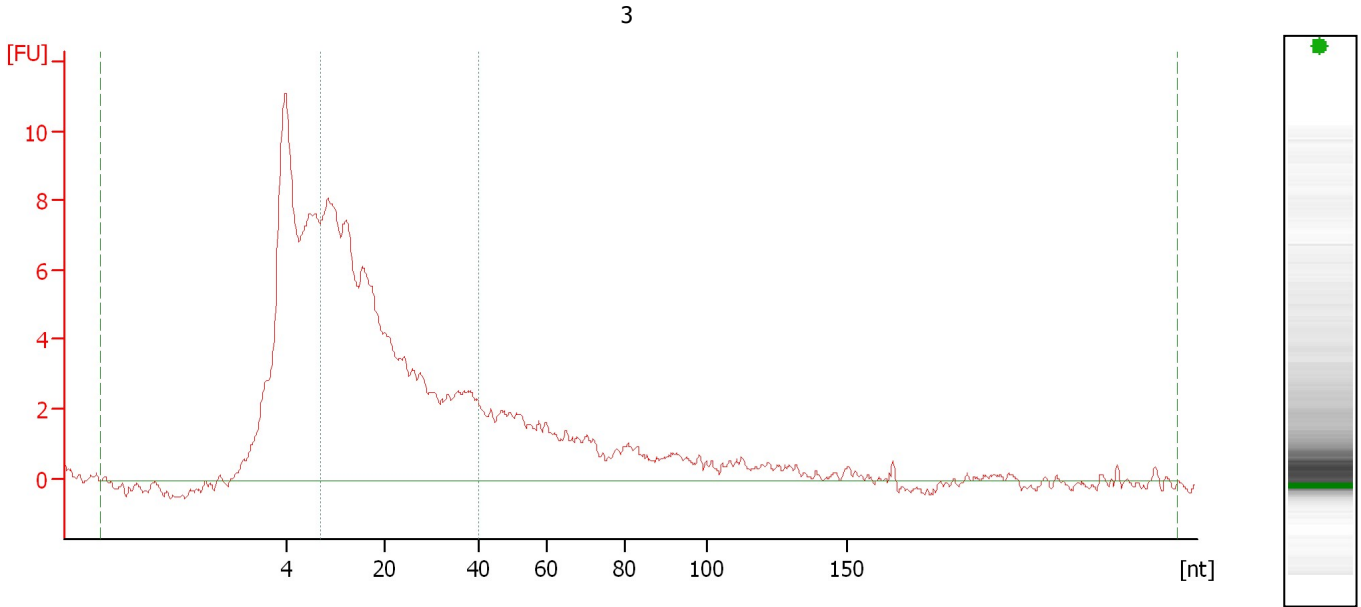
Region table for sample 2 : 2

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	278	140	68.7	1,285.5	100	
miRNA	10	40	16	32.3	180.2	14	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
 Modified: 5/15/2019 10:20:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 3

Small RNA Concentration [pg/μl]:	9,094.9	Result Flagging Color:	
miRNA Concentration [pg/μl]:	7,208.7	Result Flagging Label:	79 % miRNA; Concentration: 7208.70 pg/μl
miRNA / Small RNA Ratio [%]:	79		

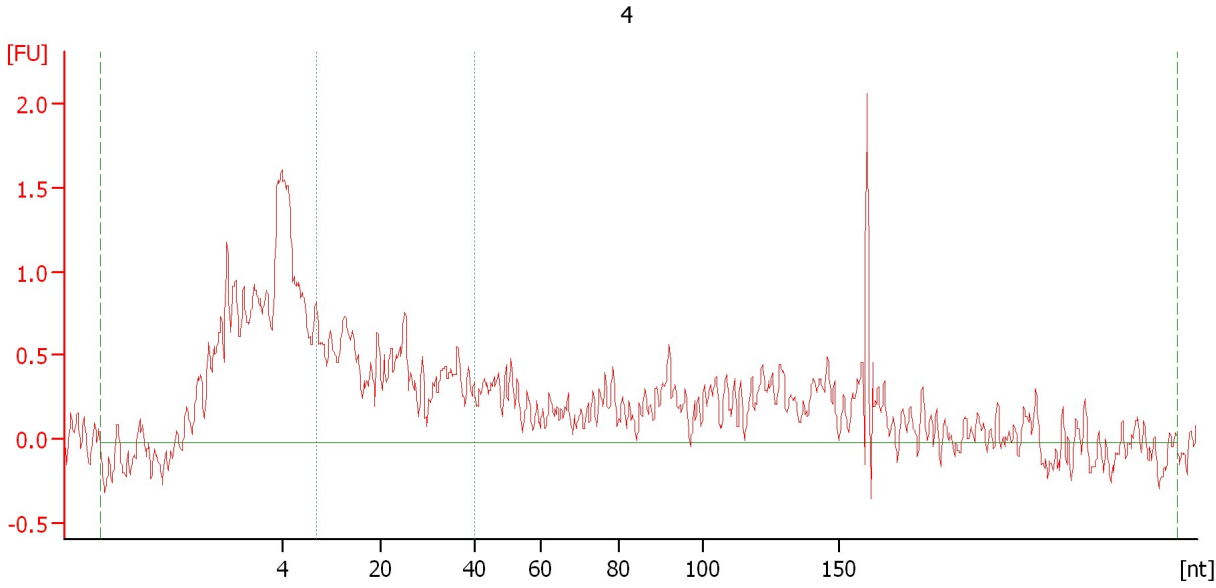
Region table for sample 3 : 3

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	269	28	100.0	9,094.9	100	
miRNA	10	40	20	42.3	7,208.7	79	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
 Modified: 5/15/2019 10:20:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 4

Small RNA Concentration [pg/μl]: 46,804.4
 miRNA Concentration [pg/μl]: 29,490.0
 miRNA / Small RNA Ratio [%]: 63

Result Flagging Color: ████████
 Result Flagging Label: 63 % miRNA;
 Concentration: 29490
 pg/μl

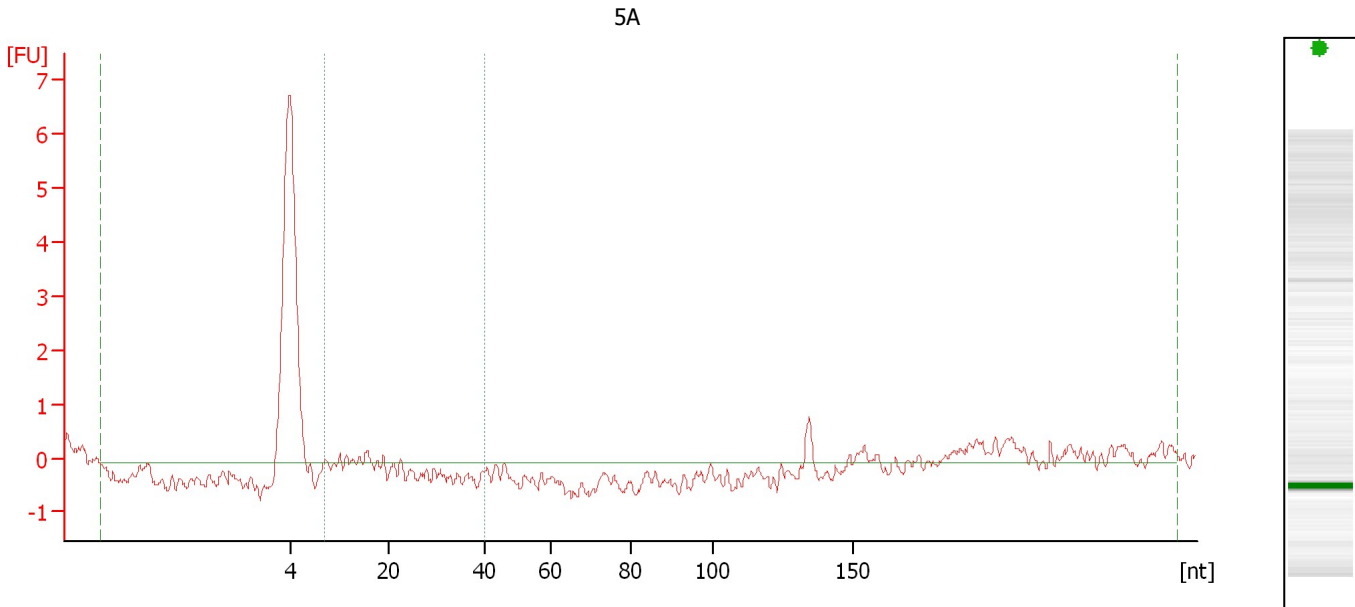
Region table for sample 4 : 4

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	272	55	100.0	46,804.4	100	████
miRNA	10	40	22	40.3	29,490.0	63	████

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
 Modified: 5/15/2019 10:20:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 5A

Small RNA Concentration [pg/μl]: 245.1
 miRNA Concentration [pg/μl]: 47.9
 miRNA / Small RNA Ratio [%]: 20

Result Flagging Color:
 Result Flagging Label: 20 % miRNA;
 Concentration: 47.90
 pg/μl

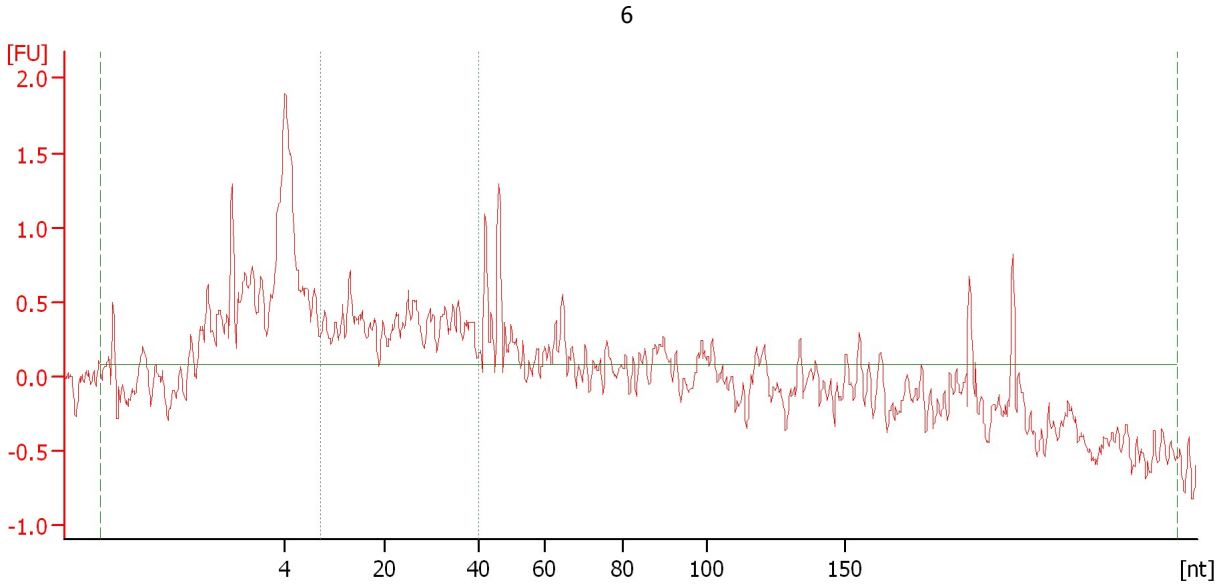
Region table for sample 5 : 5A

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	267	76	100.0	245.1	100	
miRNA	10	40	15	18.6	47.9	20	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
 Modified: 5/15/2019 10:20:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 6

Small RNA Concentration [pg/μl]:	22,458.0	Result Flagging Color:	
miRNA Concentration [pg/μl]:	15,832.1	Result Flagging Label:	70 % miRNA; Concentration: 15832.10 pg/μl
miRNA / Small RNA Ratio [%]:	70		

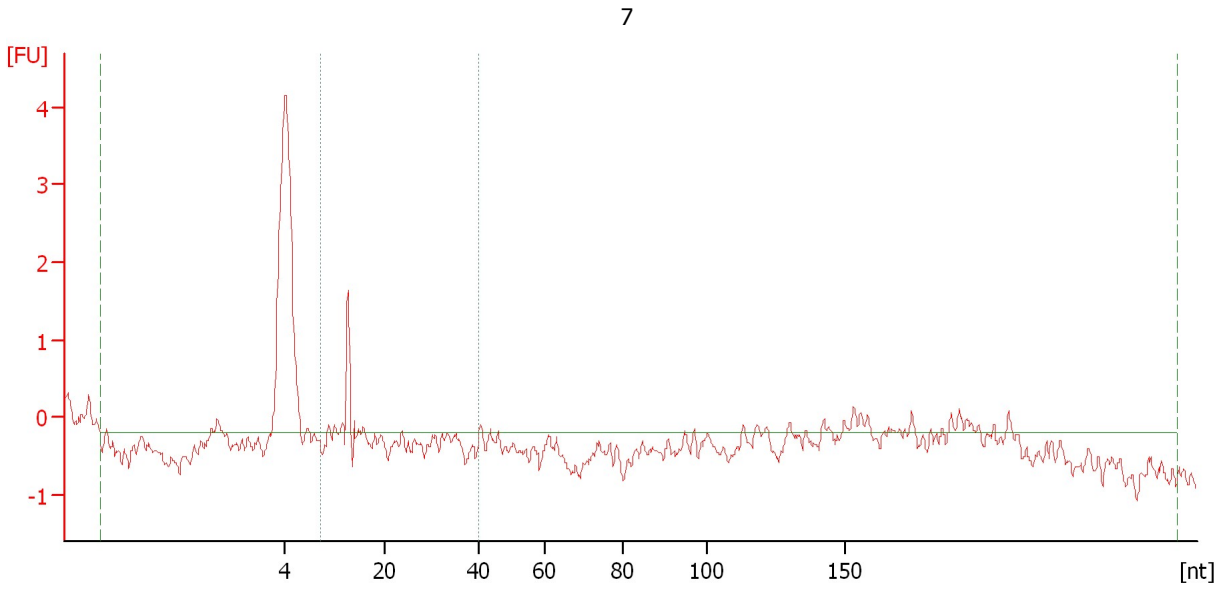
Region table for sample 6 : 6

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	270	26	100.0	22,458.0	100	
miRNA	10	40	24	37.1	15,832.1	70	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
 Modified: 5/15/2019 10:20:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 7

Small RNA Concentration [pg/μl]: 281.5
 miRNA Concentration [pg/μl]: 155.5
 miRNA / Small RNA Ratio [%]: 55

Result Flagging Color: ████████
 Result Flagging Label: 55 % miRNA;
 Concentration: 155.50
 pg/μl

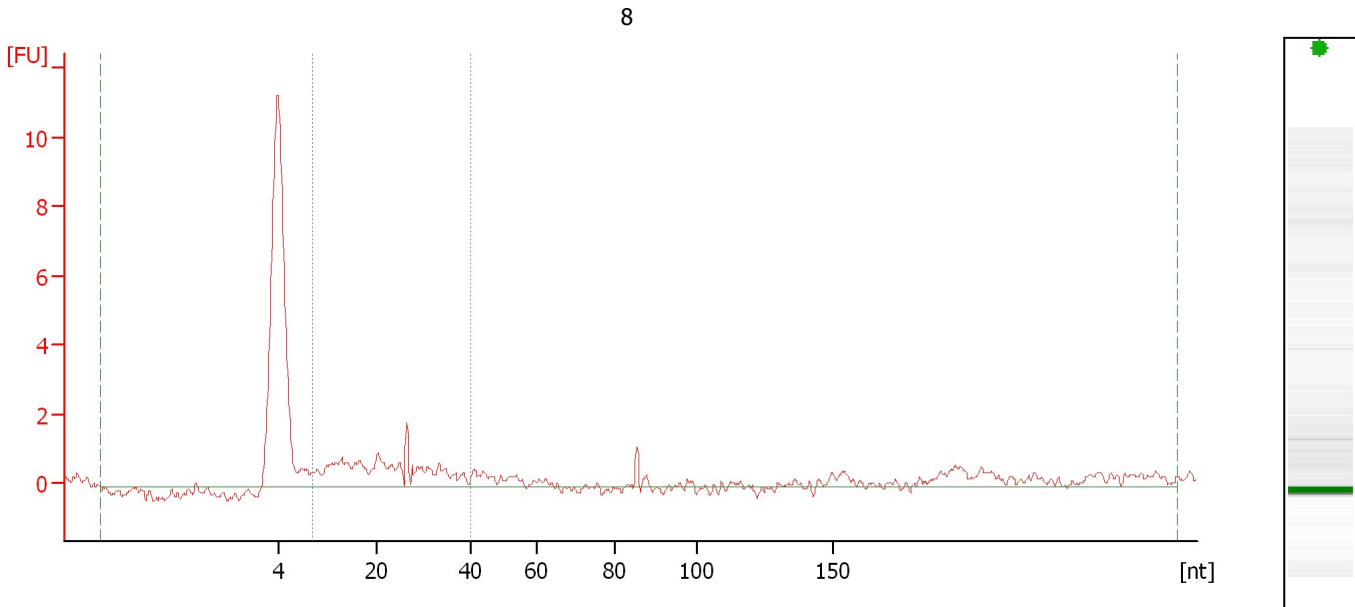
Region table for sample 7 : 7

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	270	30	100.0	281.5	100	████
miRNA	10	40	14	8.7	155.5	55	████

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
 Modified: 5/15/2019 10:20:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 8

Small RNA Concentration [pg/μl]:	2,123.7	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,702.8	Result Flagging Label:	80 % miRNA; Concentration: 1702.80 pg/μl
miRNA / Small RNA Ratio [%]:	80		

Region table for sample 8 : 8

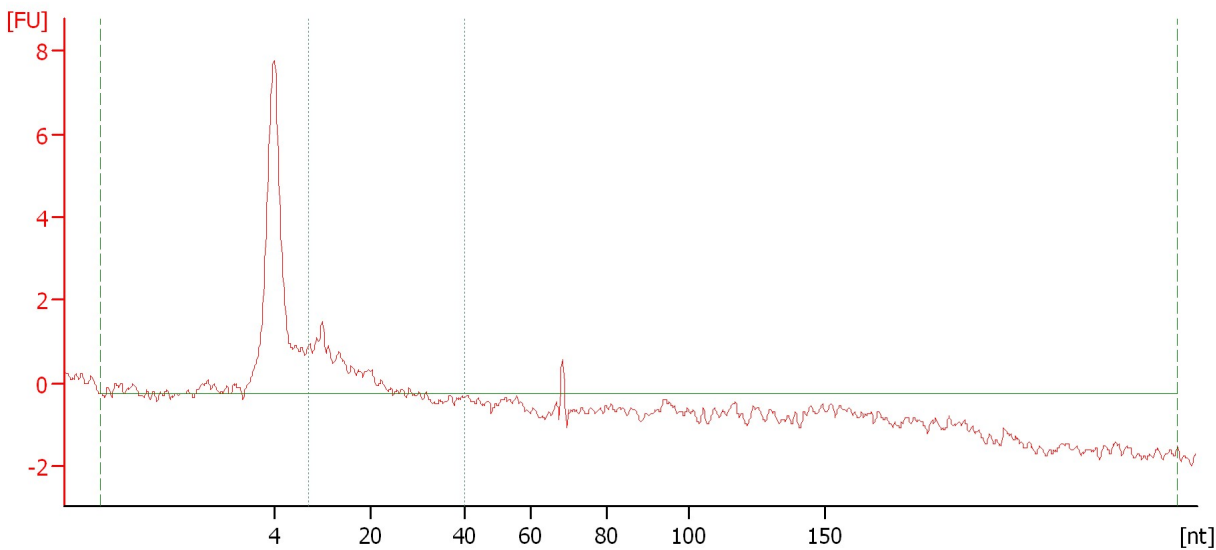
Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	275	58	100.0	2,123.7	100	
miRNA	10	40	22	35.7	1,702.8	80	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
 Modified: 5/15/2019 10:20:24 AM

Electropherogram Summary Continued ...

9



Overall Results for sample 9 : 9

Small RNA Concentration [pg/μl]: 916.4
 miRNA Concentration [pg/μl]: 765.9
 miRNA / Small RNA Ratio [%]: 84

Result Flagging Color:
 Result Flagging Label: 84 % miRNA;
 Concentration: 765.90
 pg/μl

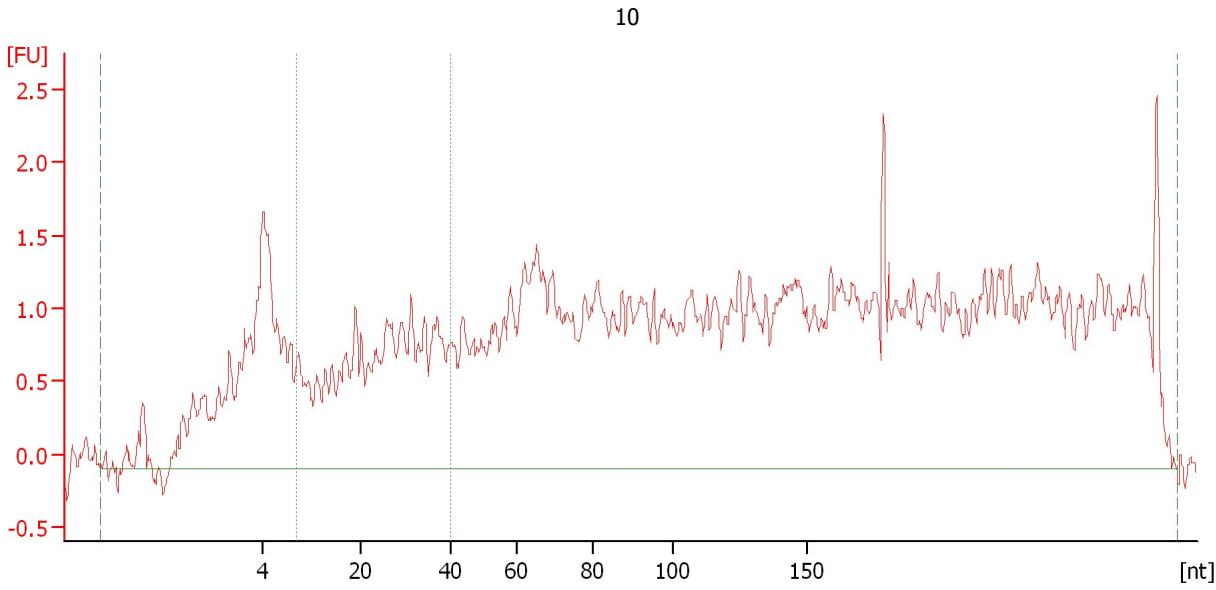
Region table for sample 9 : 9

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	279	8	100.0	916.4	100	
miRNA	10	40	14	26.0	765.9	84	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
 Modified: 5/15/2019 10:20:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 10

Small RNA Concentration [pg/μl]:	119,357.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	53,275.5	Result Flagging Label:	45 % miRNA; Concentration: 53275.50 pg/μl
miRNA / Small RNA Ratio [%]:	45		

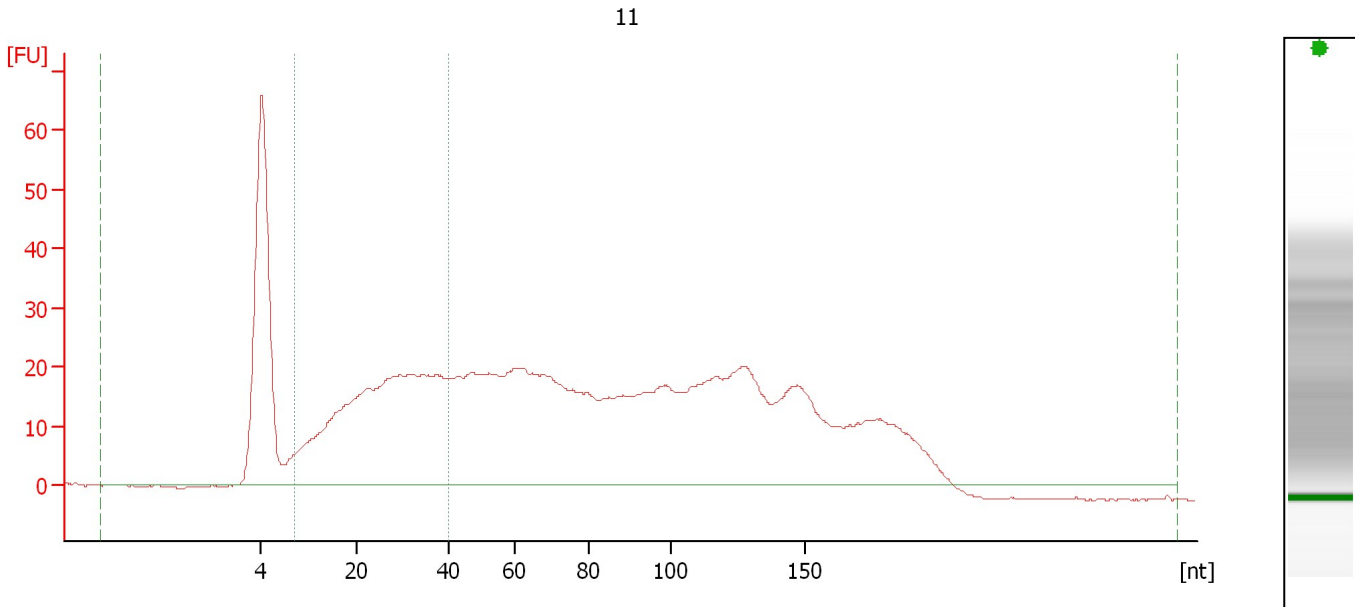
Region table for sample 10 : 10

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	287	127	67.2	119,357.5	100	
miRNA	10	40	25	35.1	53,275.5	45	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
 Modified: 5/15/2019 10:20:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 11

Small RNA Concentration [pg/μl]:	12,003.7	Result Flagging Color:	
miRNA Concentration [pg/μl]:	6,849.8	Result Flagging Label:	57 % miRNA; Concentration: 6849.80 pg/μl
miRNA / Small RNA Ratio [%]:	57		

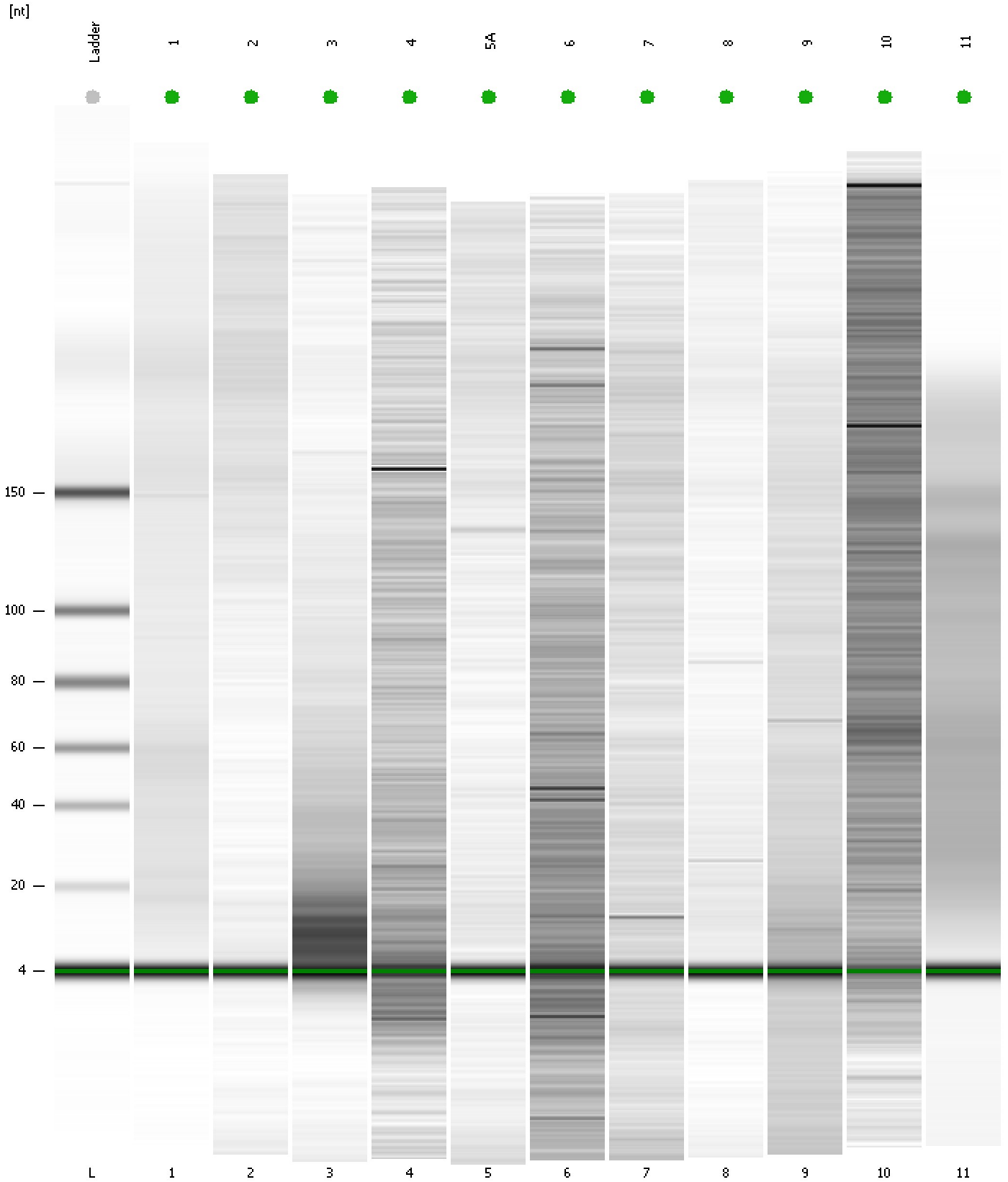
Region table for sample 11 : 11

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	289	78	69.0	12,003.7	100	
miRNA	10	40	26	31.9	6,849.8	57	

Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
Modified: 5/15/2019 10:20:24 AM

Gel Image



Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad

Created: 5/8/2019 9:22:34 AM
 Modified: 5/15/2019 10:20:24 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		5/8/2019 9:54:31 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2019-05-08\2019-05-08_001.xad)		Instrument	Run		5/8/2019 9:22:39 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		5/8/2019 9:22:39 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/8/2019 9:22:39 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/8/2019 9:22:39 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		5/8/2019 9:22:39 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/8/2019 9:22:39 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/8/2019 9:22:39 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1