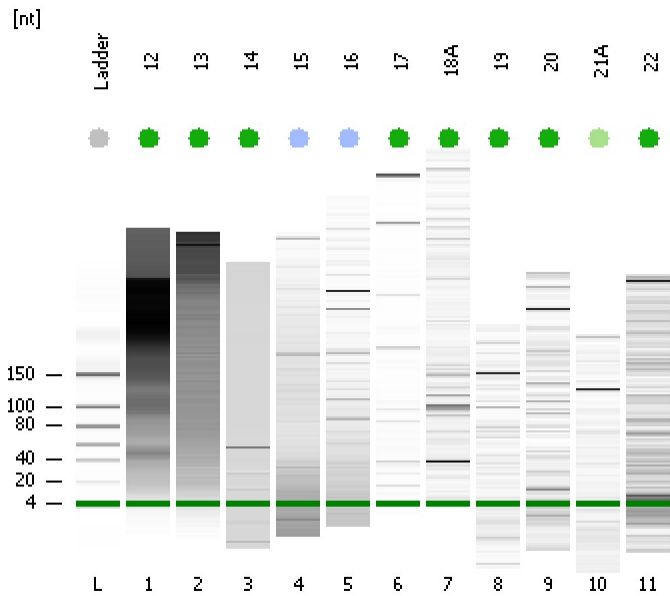


Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
Modified: 5/15/2019 11:19:36 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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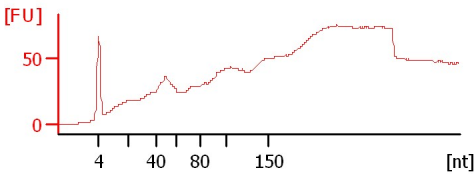
Chip Information:

Chip Lot #:

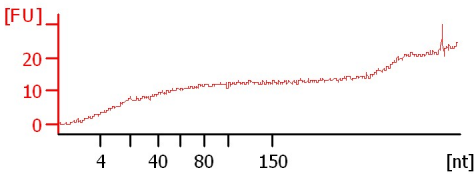
Reagent Kit Lot #:

Chip Comments:

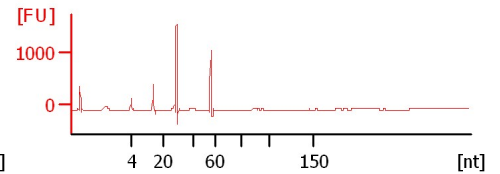
12
33 % miRNA; Concentration: 9499 pg/µl



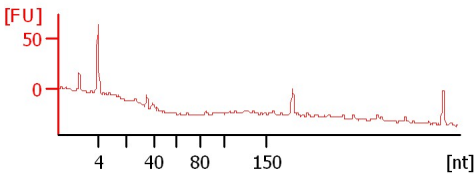
13
40 % miRNA; Concentration: 84915.90 p...



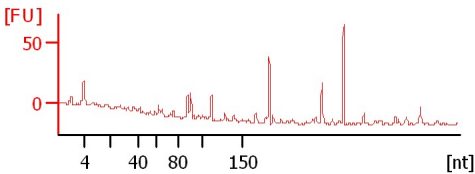
14
84 % miRNA; Concentration: 38833.80 p...



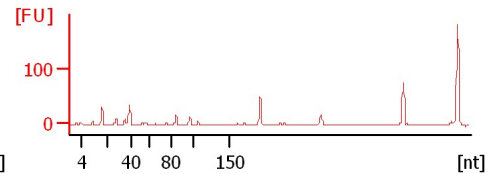
15
All Other Samples



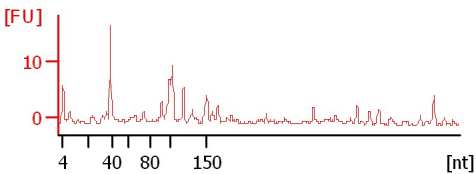
16
All Other Samples



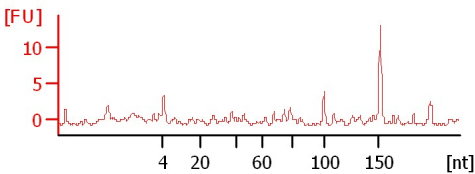
17
72 % miRNA; Concentration: 59187.80 p...



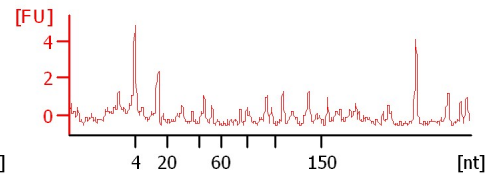
18A
57 % miRNA; Concentration: 5844.70 pg/µl



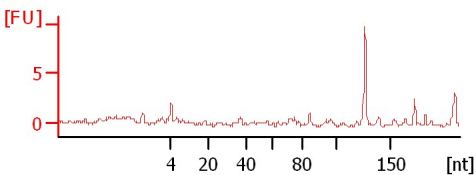
19
43 % miRNA; Concentration: 6525.60 pg/µl



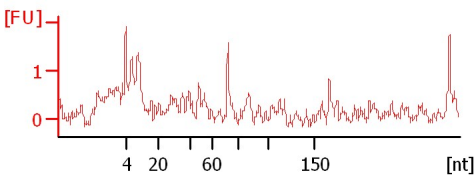
20
45 % miRNA; Concentration: 2629.20 pg/µl



21A
5 % miRNA; Concentration: 1917 pg/µl










22
55 % miRNA; Concentration: 12834.70 p...



Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
 Modified: 5/15/2019 11:19:36 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
12		✓	33 % miRNA; Concentration: 9499 pg/μl	
13		✓	40 % miRNA; Concentration: 84915.90 pg/μl	
14		✓	84 % miRNA; Concentration: 38833.80 pg/μl	
15		✓	All Other Samples	
16		✓	All Other Samples	
17		✓	72 % miRNA; Concentration: 59187.80 pg/μl	
18A		✓	57 % miRNA; Concentration: 5844.70 pg/μl	
19		✓	43 % miRNA; Concentration: 6525.60 pg/μl	
20		✓	45 % miRNA; Concentration: 2629.20 pg/μl	
21A		✓	5 % miRNA; Concentration: 1917 pg/μl	
22		✓	55 % miRNA; Concentration: 12834.70 pg/μl	
Ladder		✓	Number of Peaks: 7	

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
Modified: 5/15/2019 11:19:36 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

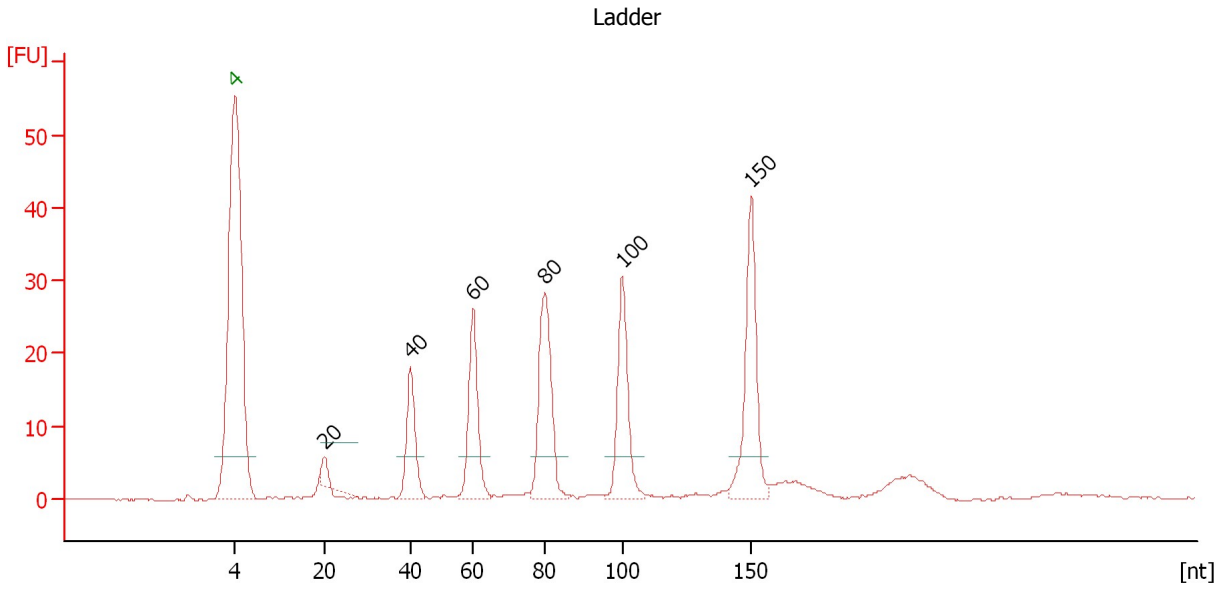
Ladder

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\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
Modified: 5/15/2019 11:19:36 AM

Electropherogram Summary



Overall Results for Ladder

Result Flagging Color:

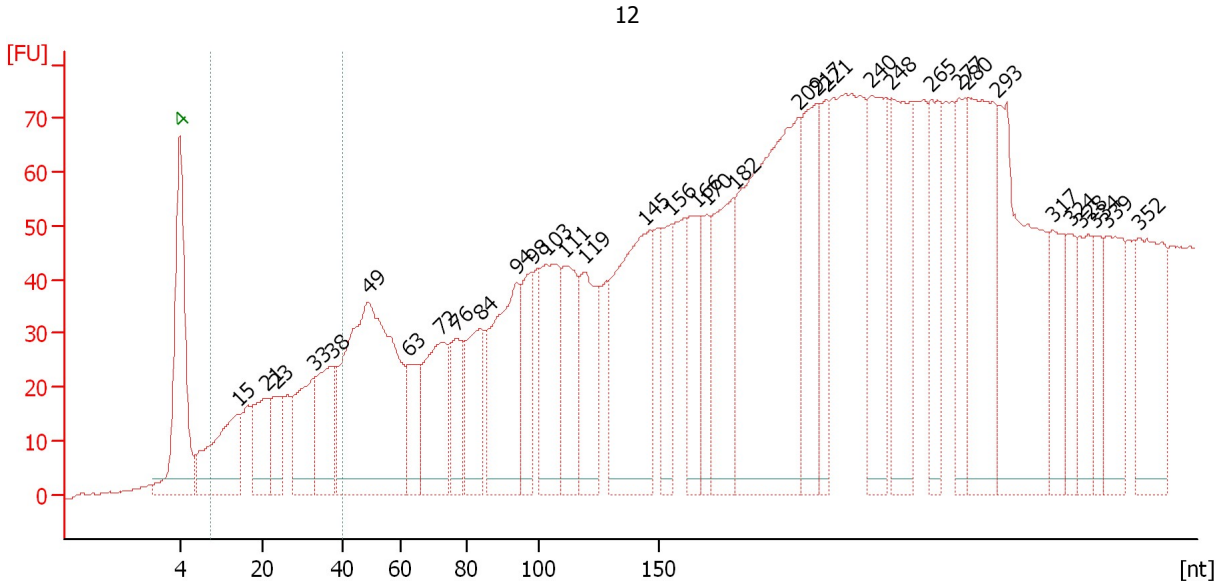
Result Flagging Label:

Number of Peaks: 7

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
 Modified: 5/15/2019 11:19:36 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 12

Small RNA Concentration [pg/μl]: 28,876.5
 miRNA Concentration [pg/μl]: 9,499.0
 miRNA / Small RNA Ratio [%]: 33

Result Flagging Color:
 Result Flagging Label: 33 % miRNA;
 Concentration: 9499
 pg/μl

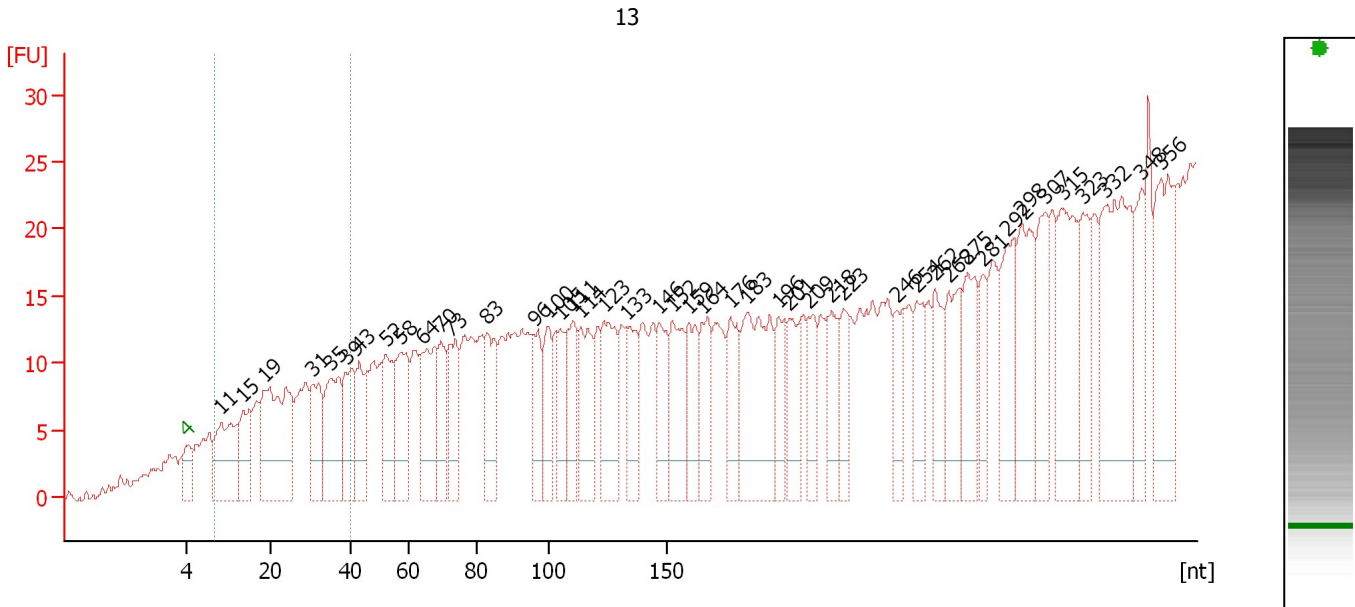
Region table for sample 1 : 12

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	368	200	49.2	28,876.5	100	
miRNA	10	40	26	34.1	9,499.0	33	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
 Modified: 5/15/2019 11:19:36 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 13

Small RNA Concentration [pg/μl]:	209,937.6	Result Flagging Color:	
miRNA Concentration [pg/μl]:	84,915.9	Result Flagging Label:	40 % miRNA; Concentration: 84915.90 pg/μl
miRNA / Small RNA Ratio [%]:	40		

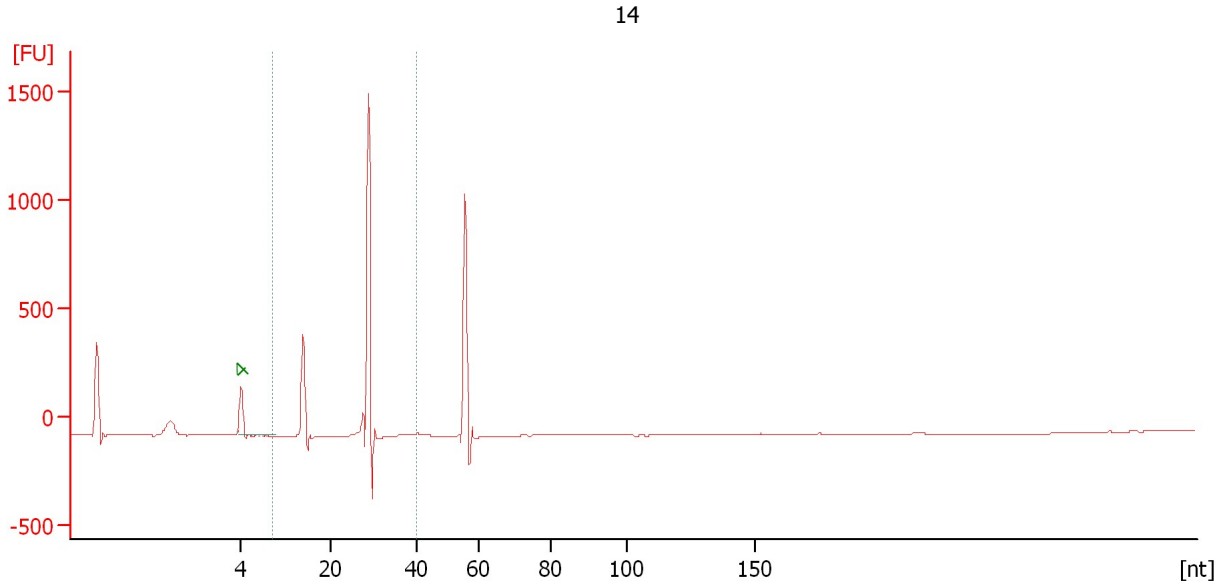
Region table for sample 2 : 13

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	362	198	54.9	209,937.6	100	
miRNA	10	40	25	35.0	84,915.9	40	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
 Modified: 5/15/2019 11:19:36 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 14

Small RNA Concentration [pg/μl]:	46,063.7	Result Flagging Color:	
miRNA Concentration [pg/μl]:	38,833.8	Result Flagging Label:	84 % miRNA; Concentration: 38833.80 pg/μl
miRNA / Small RNA Ratio [%]:	84		

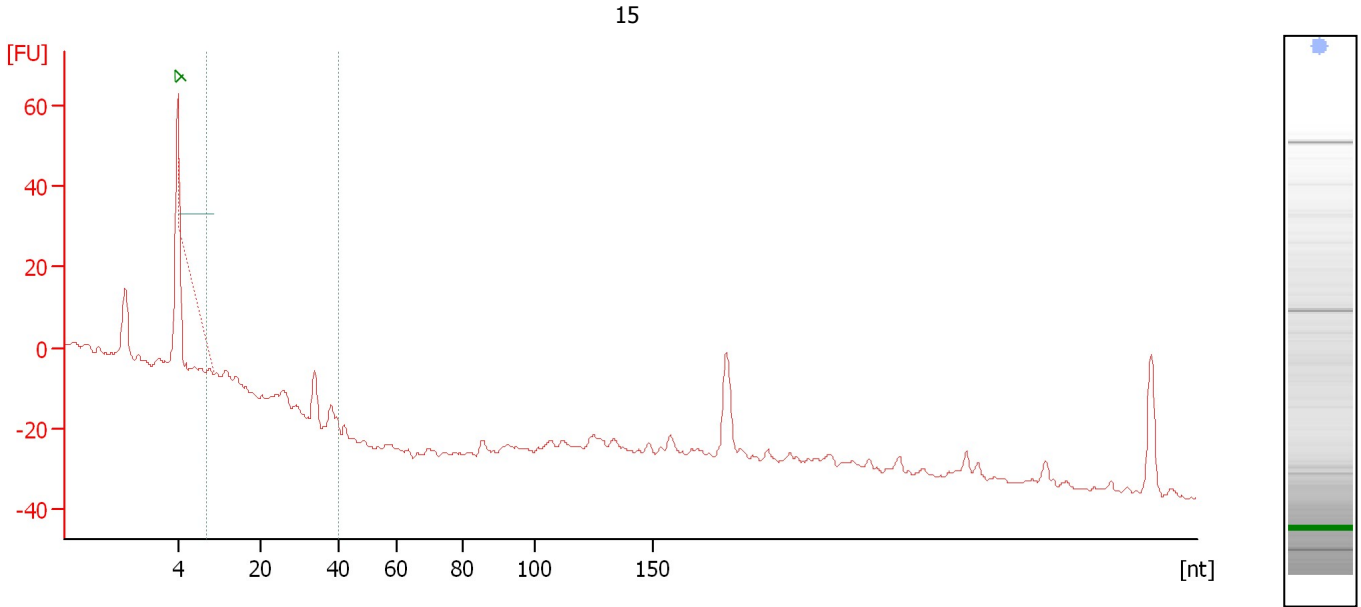
Region table for sample 3 : 14

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	315	80	100.0	46,063.7	100	
miRNA	10	40	26	22.1	38,833.8	84	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
 Modified: 5/15/2019 11:19:36 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 15

Small RNA Concentration [pg/μl]: 1,252.1
 miRNA Concentration [pg/μl]: 0.0
 miRNA / Small RNA Ratio [%]: 0

Result Flagging Color:
 Result Flagging Label: All Other Samples

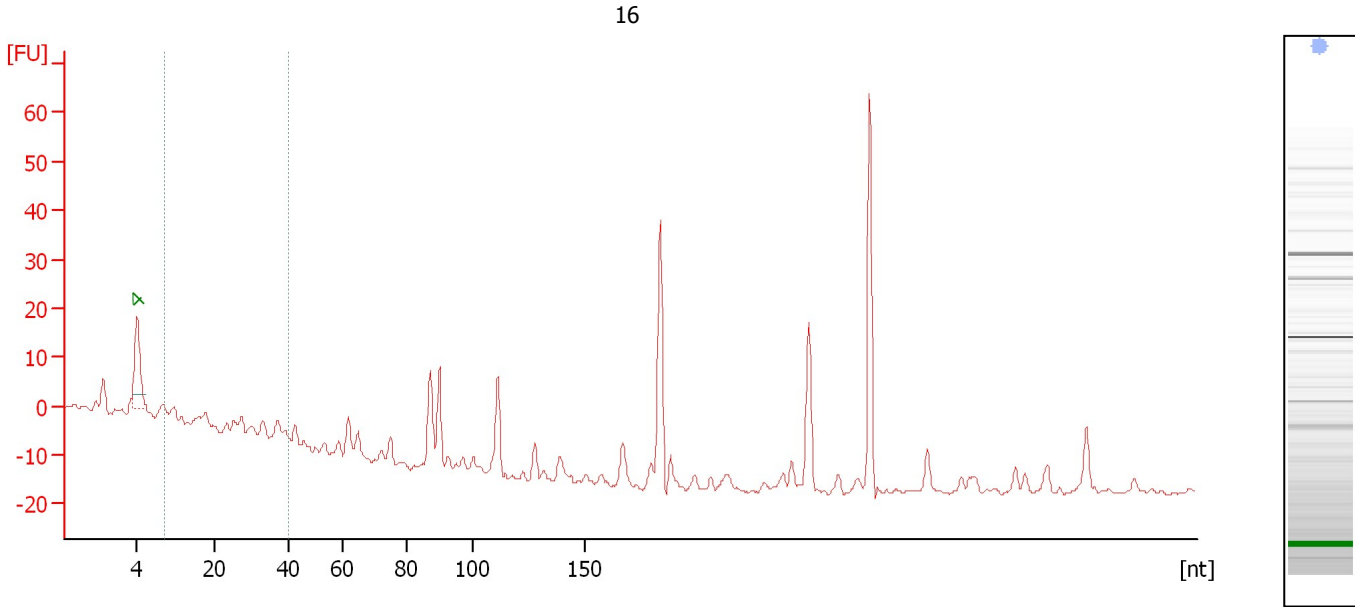
Region table for sample 4 : 15

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	371	3	50.5	1,252.1	100	
miRNA	10	40	0	0.0	0.0	0	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
 Modified: 5/15/2019 11:19:36 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 16

Small RNA Concentration [pg/μl]: 1,224.9
 miRNA Concentration [pg/μl]: 0.0
 miRNA / Small RNA Ratio [%]: 0

Result Flagging Color:
 Result Flagging Label: All Other Samples

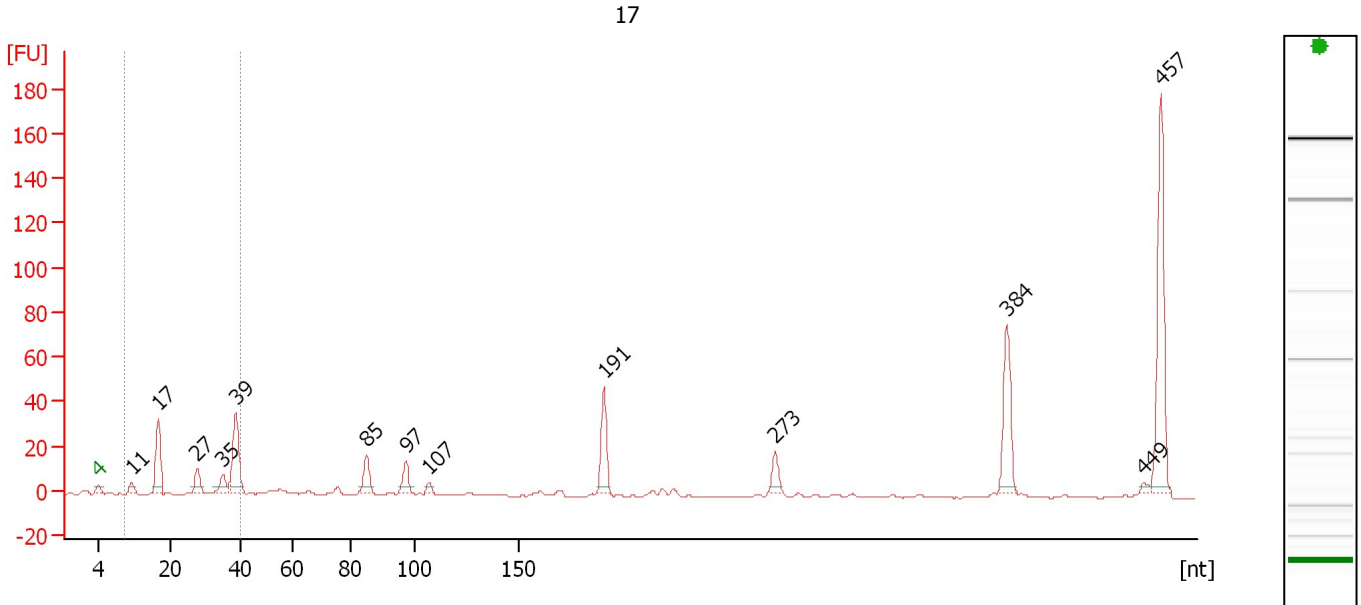
Region table for sample 5 : 16

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	416	185	56.8	1,224.9	100	
miRNA	10	40	0	0.0	0.0	0	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
 Modified: 5/15/2019 11:19:36 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 17

Small RNA Concentration [pg/μl]: 81,744.5
 miRNA Concentration [pg/μl]: 59,187.8
 miRNA / Small RNA Ratio [%]: 72

Result Flagging Color:
 Result Flagging Label: 72 % miRNA;
 Concentration: 59187.80 pg/μl

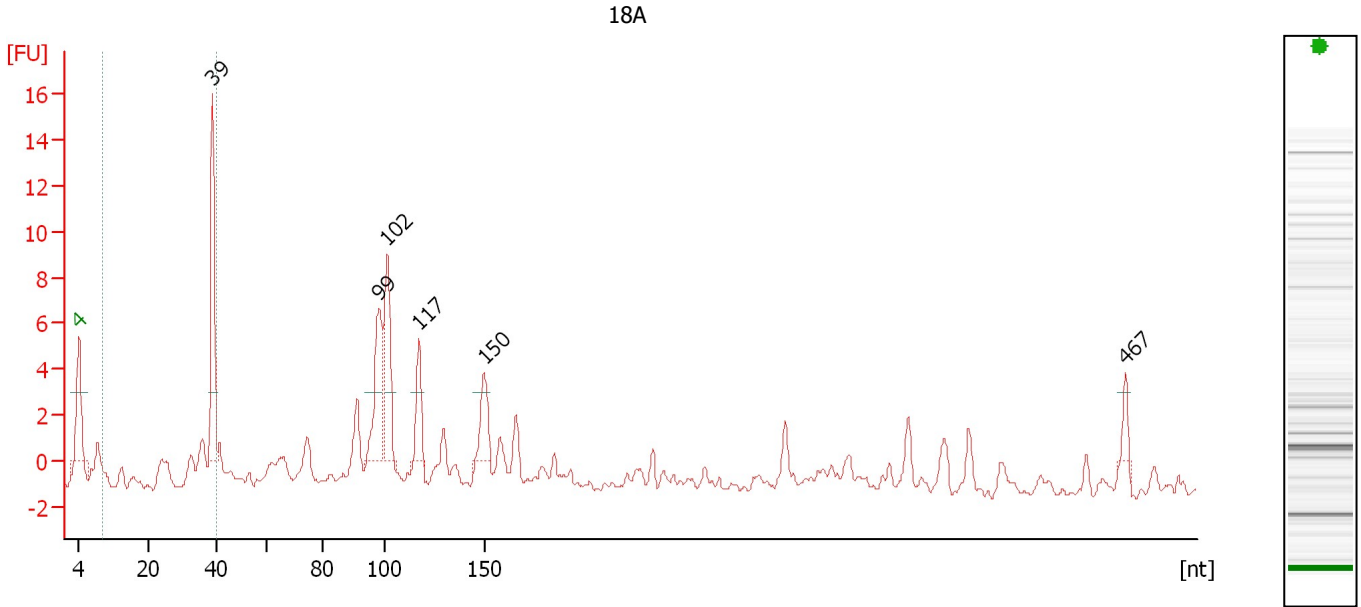
Region table for sample 6 : 17

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	5	465	326	50.5	81,744.5	100	
miRNA	10	40	29	33.8	59,187.8	72	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
 Modified: 5/15/2019 11:19:36 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 18A

Small RNA Concentration [pg/μl]:	10,233.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	5,844.7	Result Flagging Label:	57 % miRNA; Concentration: 5844.70 pg/μl
miRNA / Small RNA Ratio [%]:	57		

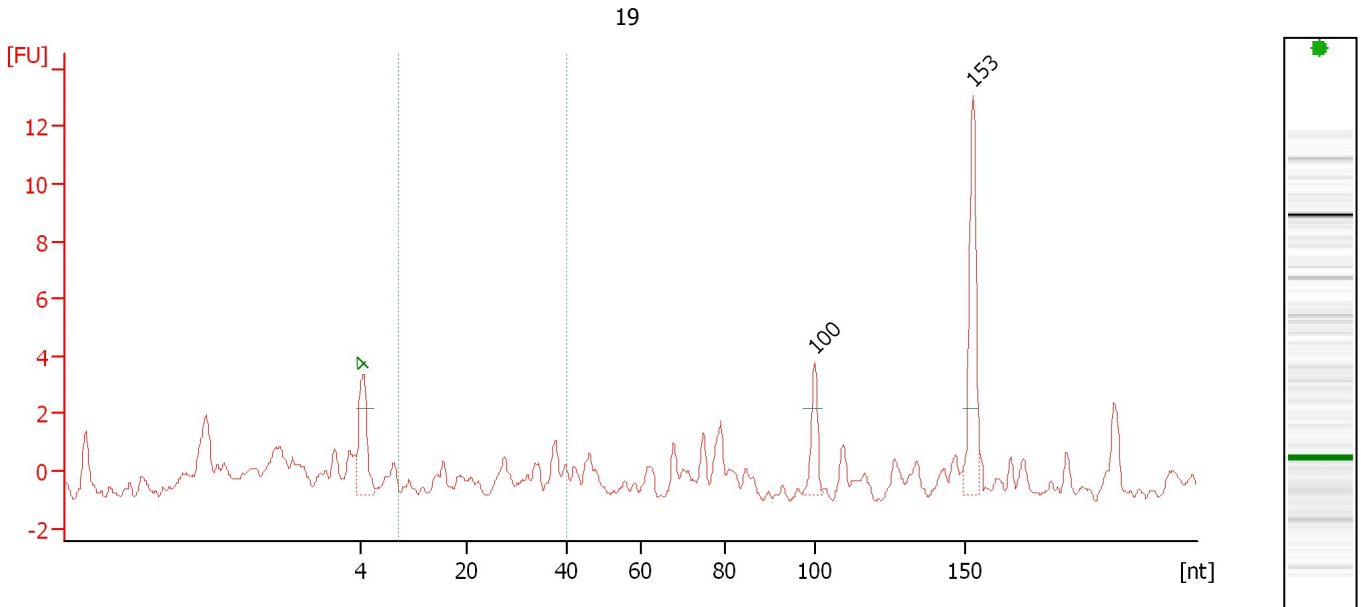
Region table for sample 7 : 18A

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	9	492	132	84.0	10,233.5	100	
miRNA	10	40	39	2.1	5,844.7	57	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
 Modified: 5/15/2019 11:19:36 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 19

Small RNA Concentration [pg/μl]: 15,055.9
 miRNA Concentration [pg/μl]: 6,525.6
 miRNA / Small RNA Ratio [%]: 43

Result Flagging Color:
 Result Flagging Label: 43 % miRNA;
 Concentration: 6525.60 pg/μl

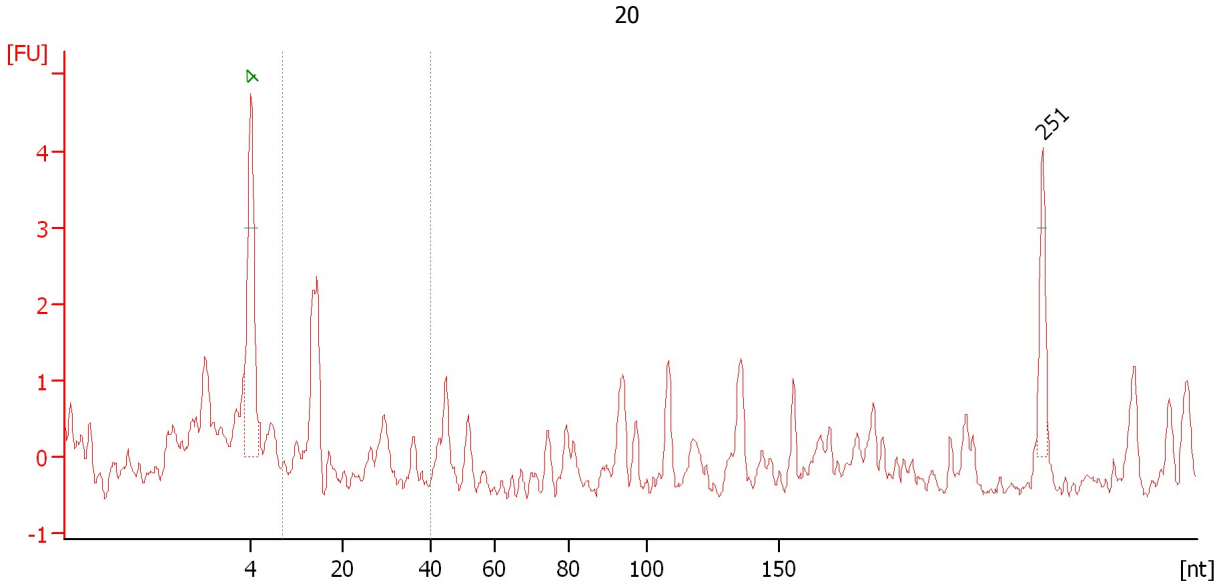
Region table for sample 8 : 19

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	220	75	91.0	15,055.9	100	
miRNA	10	40	27	32.3	6,525.6	43	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
 Modified: 5/15/2019 11:19:36 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 20

Small RNA Concentration [pg/μl]:	5,809.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	2,629.2	Result Flagging Label:	45 % miRNA; Concentration: 2629.20 pg/μl
miRNA / Small RNA Ratio [%]:	45		

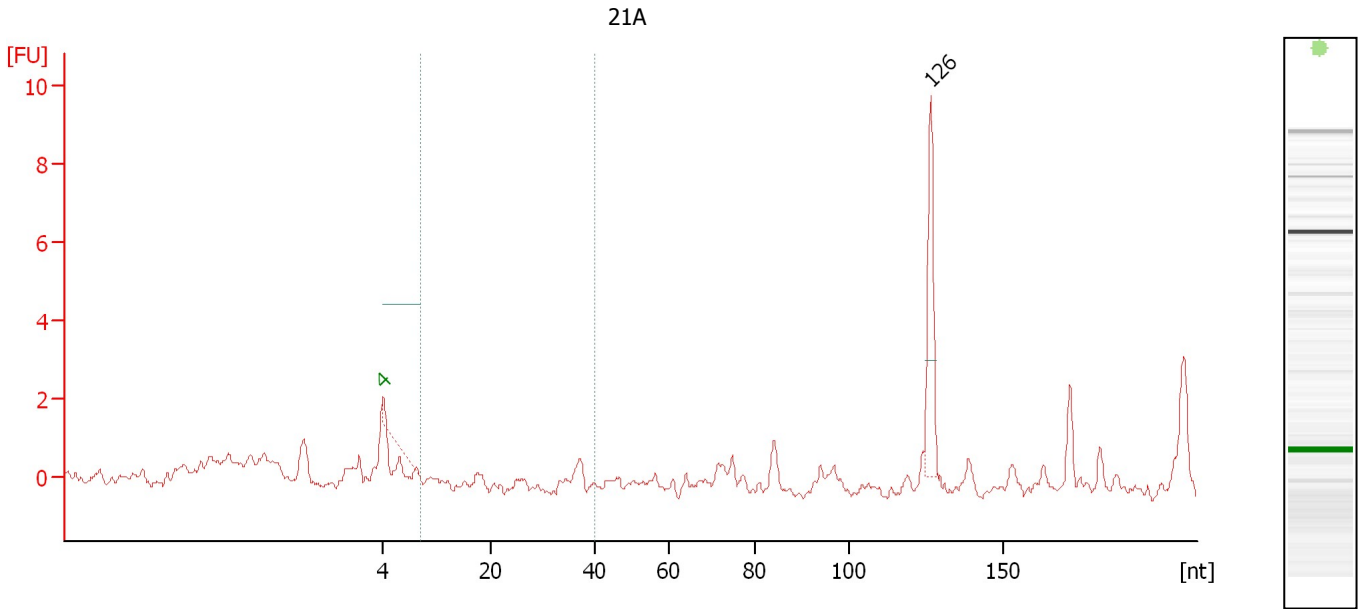
Region table for sample 9 : 20

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	302	92	100.0	5,809.5	100	
miRNA	10	40	19	37.9	2,629.2	45	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
 Modified: 5/15/2019 11:19:36 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 21A

Small RNA Concentration [pg/μl]: 41,789.4
 miRNA Concentration [pg/μl]: 1,917.0
 miRNA / Small RNA Ratio [%]: 5

Result Flagging Color:
 Result Flagging Label: 5 % miRNA;
 Concentration: 1917
 pg/μl

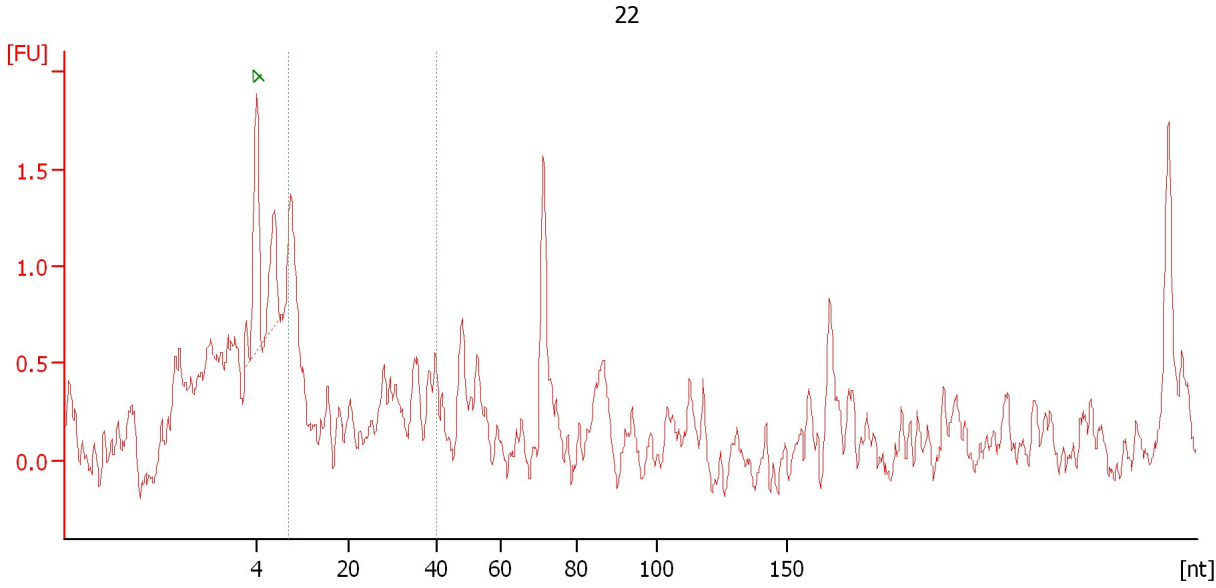
Region table for sample 10 : 21A

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	206	91	69.4	41,789.4	100	
miRNA	10	40	37	0.9	1,917.0	5	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
 Modified: 5/15/2019 11:19:36 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 22

Small RNA Concentration [pg/μl]: 23,141.1
 miRNA Concentration [pg/μl]: 12,834.7
 miRNA / Small RNA Ratio [%]: 55

Result Flagging Color:
 Result Flagging Label: 55 % miRNA;
 Concentration: 12834.70 pg/μl

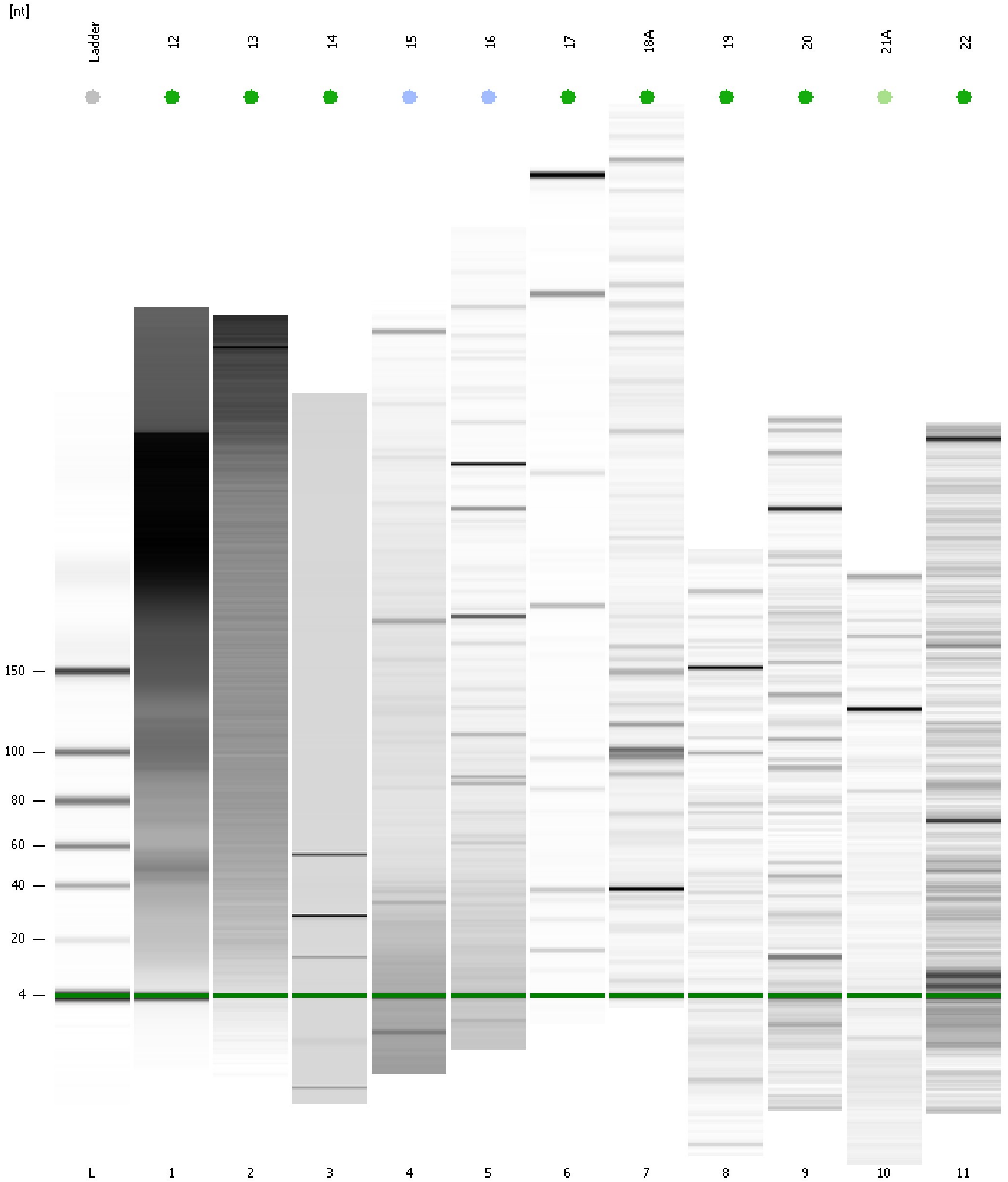
Region table for sample 11 : 22

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	297	90	100.0	23,141.1	100	
miRNA	10	40	22	45.2	12,834.7	55	

Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
Modified: 5/15/2019 11:19:36 AM

Gel Image



Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-15\2019-05-15_004.xad

Created: 5/15/2019 10:29:04 AM
 Modified: 5/15/2019 11:19:36 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		5/15/2019 10:59:46 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\2019-05-15\2019-05-15_004.xad)		Instrument	Run		5/15/2019 10:29:10 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		5/15/2019 10:29:10 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/15/2019 10:29:10 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/15/2019 10:29:10 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		5/15/2019 10:29:10 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/15/2019 10:29:10 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/15/2019 10:29:10 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1