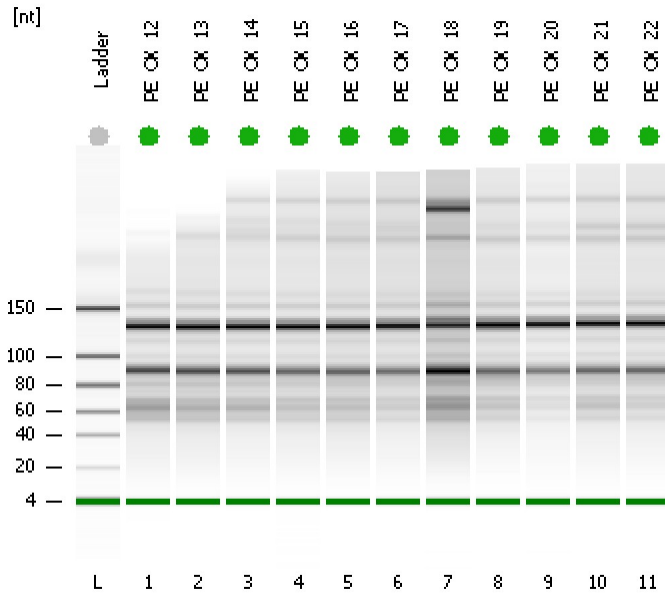


Assay Class: Small RNA  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
Modified: 8/6/2019 9:46:04 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

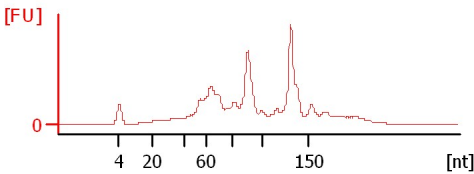
Assay Class: Small RNA  
Version: 1.2  
Assay Comments: Small RNA Analysis 6 - 150 nucleotides

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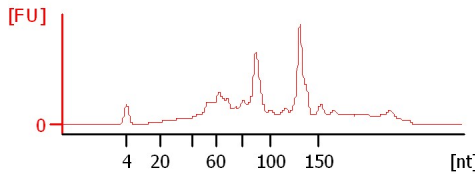
Chip Information:

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

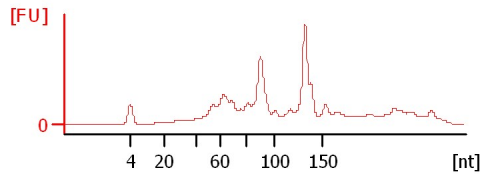
**PE\_OX\_12**  
23 % miRNA; Concentration: 5258.80 pg/μl



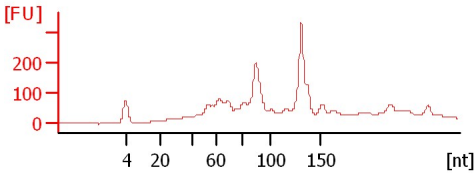
**PE\_OX\_13**  
23 % miRNA; Concentration: 5707.50 pg/μl



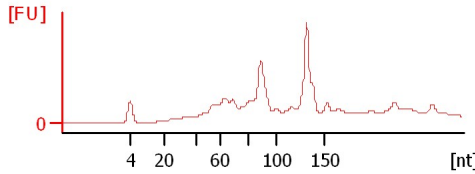
**PE\_OX\_14**  
20 % miRNA; Concentration: 4146.90 pg/μl



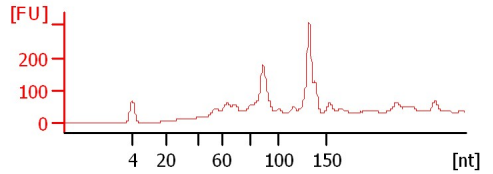
**PE\_OX\_15**  
21 % miRNA; Concentration: 4034.30 pg/μl



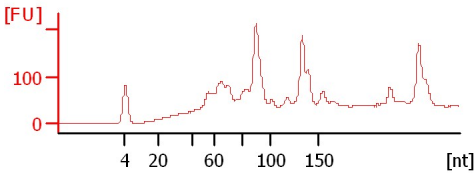
**PE\_OX\_16**  
22 % miRNA; Concentration: 4767.20 pg/μl



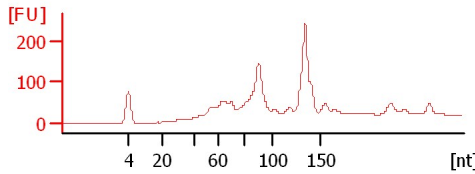
**PE\_OX\_17**  
20 % miRNA; Concentration: 3607.10 pg/μl



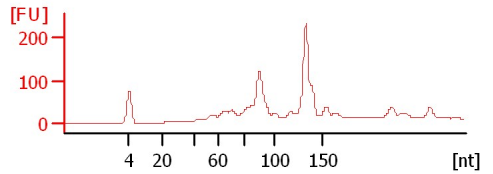
**PE\_OX\_18**  
23 % miRNA; Concentration: 4379 pg/μl



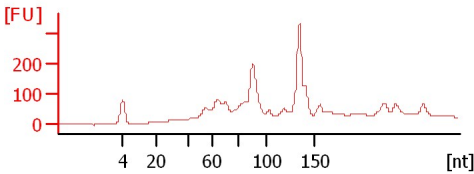
**PE\_OX\_19**  
17 % miRNA; Concentration: 2328.50 pg/μl



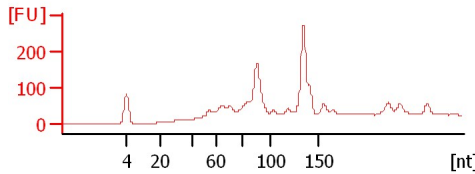
**PE\_OX\_20**  
17 % miRNA; Concentration: 1710 pg/μl



**PE\_OX\_21**  
19 % miRNA; Concentration: 3412.70 pg/μl















**PE\_OX\_22**  
18 % miRNA; Concentration: 2528.50 pg/μl



Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
 Modified: 8/6/2019 9:46:04 AM

**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Status	Result Label	Result Color
PE_OX_12		✓	23 % miRNA; Concentration: 5258.80 pg/μl	
PE_OX_13		✓	23 % miRNA; Concentration: 5707.50 pg/μl	
PE_OX_14		✓	20 % miRNA; Concentration: 4146.90 pg/μl	
PE_OX_15		✓	21 % miRNA; Concentration: 4034.30 pg/μl	
PE_OX_16		✓	22 % miRNA; Concentration: 4767.20 pg/μl	
PE_OX_17		✓	20 % miRNA; Concentration: 3607.10 pg/μl	
PE_OX_18		✓	23 % miRNA; Concentration: 4379 pg/μl	
PE_OX_19		✓	17 % miRNA; Concentration: 2328.50 pg/μl	
PE_OX_20		✓	17 % miRNA; Concentration: 1710 pg/μl	
PE_OX_21		✓	19 % miRNA; Concentration: 3412.70 pg/μl	
PE_OX_22		✓	18 % miRNA; Concentration: 2528.50 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\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
Modified: 8/6/2019 9:46:04 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/ $\mu$ l] : 2500

Lower Marker Concentration [pg/ $\mu$ l] : 500

Upper Marker Concentration [pg/ $\mu$ 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

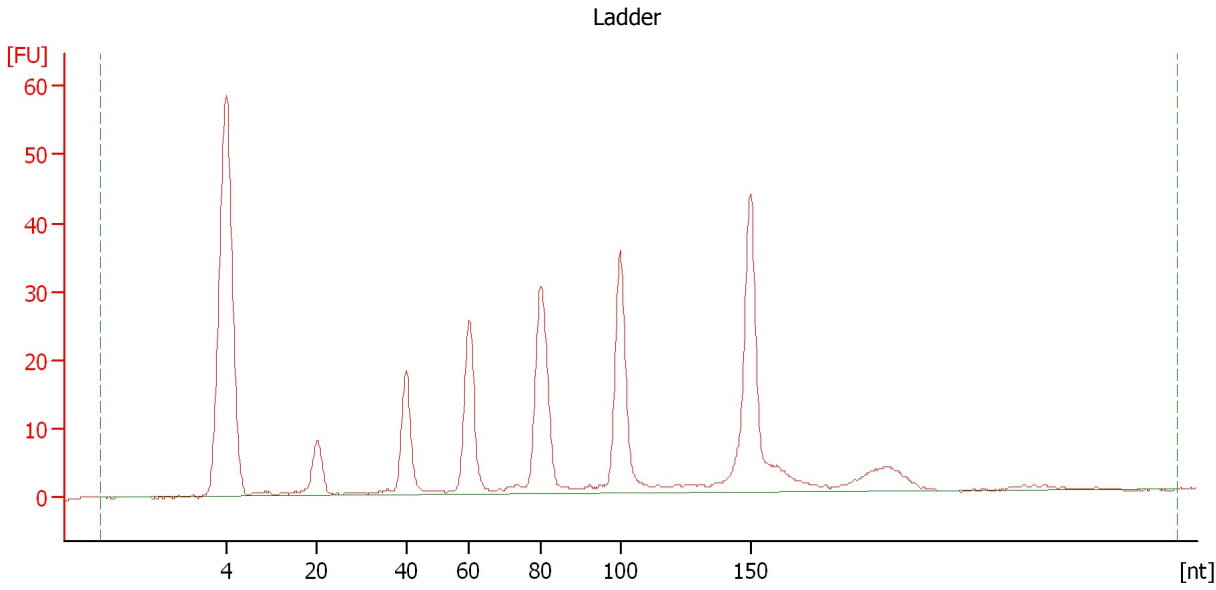
### Ladder

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\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
Modified: 8/6/2019 9:46:04 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Result Flagging Color:

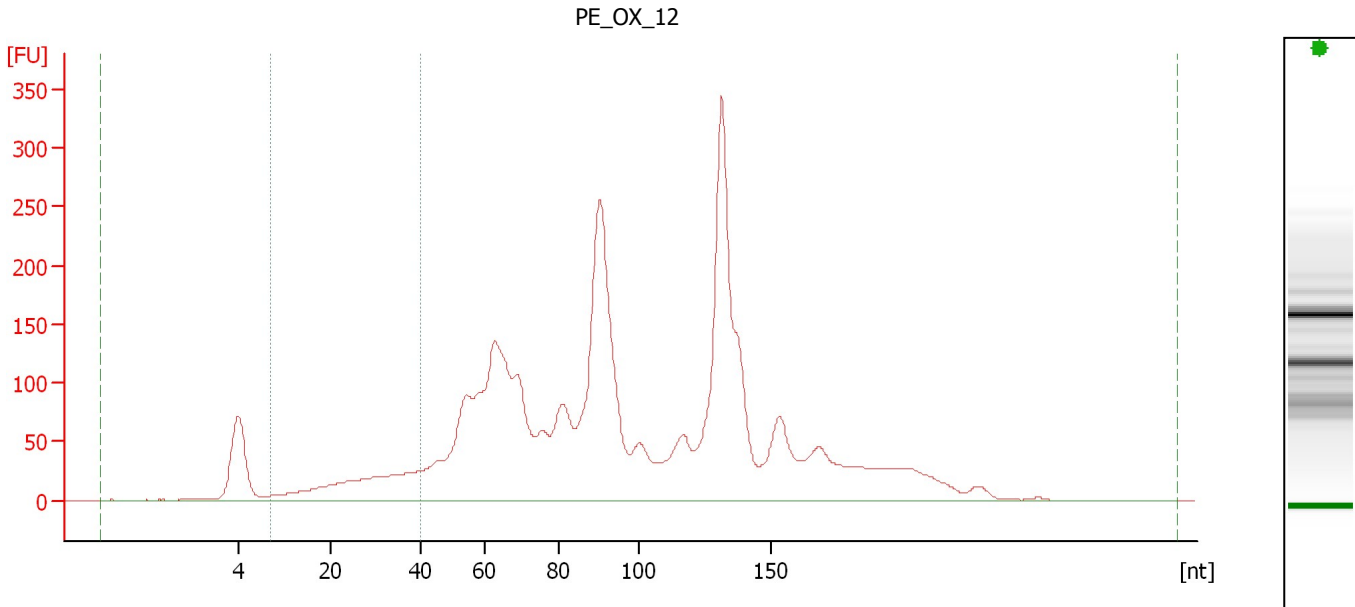
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
 Modified: 8/6/2019 9:46:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : PE\_OX\_12**

Small RNA Concentration [pg/μl]:	22,604.9	Result Flagging Color:	<span style="background-color: green; color: black;"> </span>
miRNA Concentration [pg/μl]:	5,258.8	Result Flagging Label:	23 % miRNA; Concentration: 5258.80 pg/μl
miRNA / Small RNA Ratio [%]:	23		

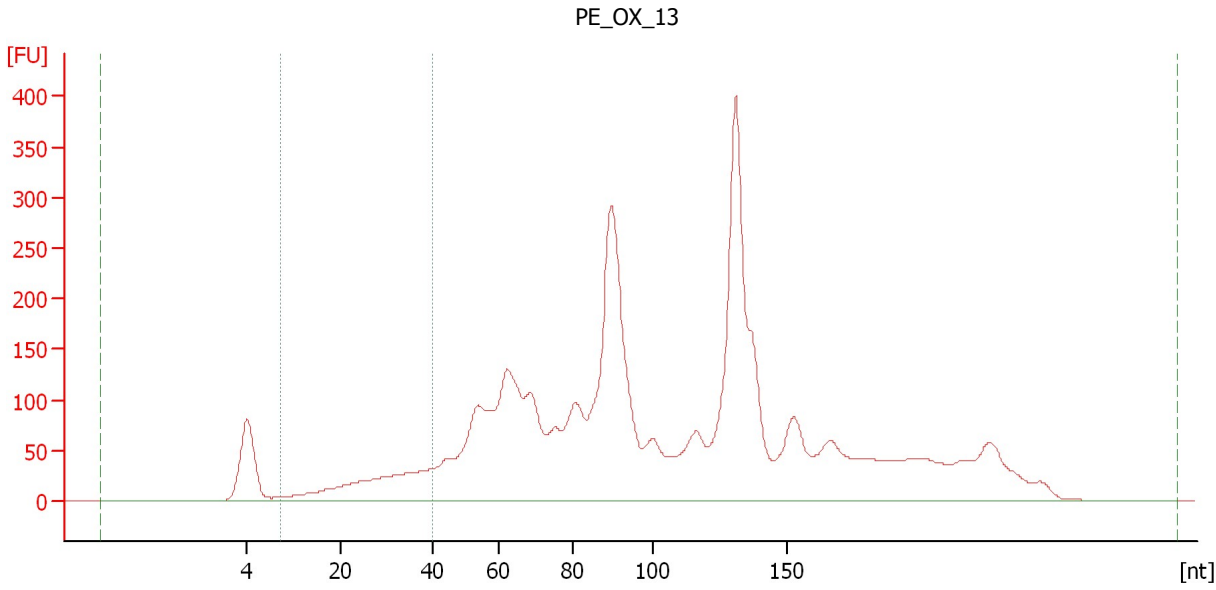
**Region table for sample 1 : PE\_OX\_12**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	303	102	47.7	22,604.9	100	<span style="background-color: maroon; color: black;"> </span>
miRNA	10	40	28	29.0	5,258.8	23	<span style="background-color: green; color: black;"> </span>

Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
 Modified: 8/6/2019 9:46:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : PE\_OX\_13**

Small RNA Concentration [pg/μl]:	24,290.9	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	5,707.5	Result Flagging Label:	23 % miRNA; Concentration: 5707.50 pg/μl
miRNA / Small RNA Ratio [%]:	23		

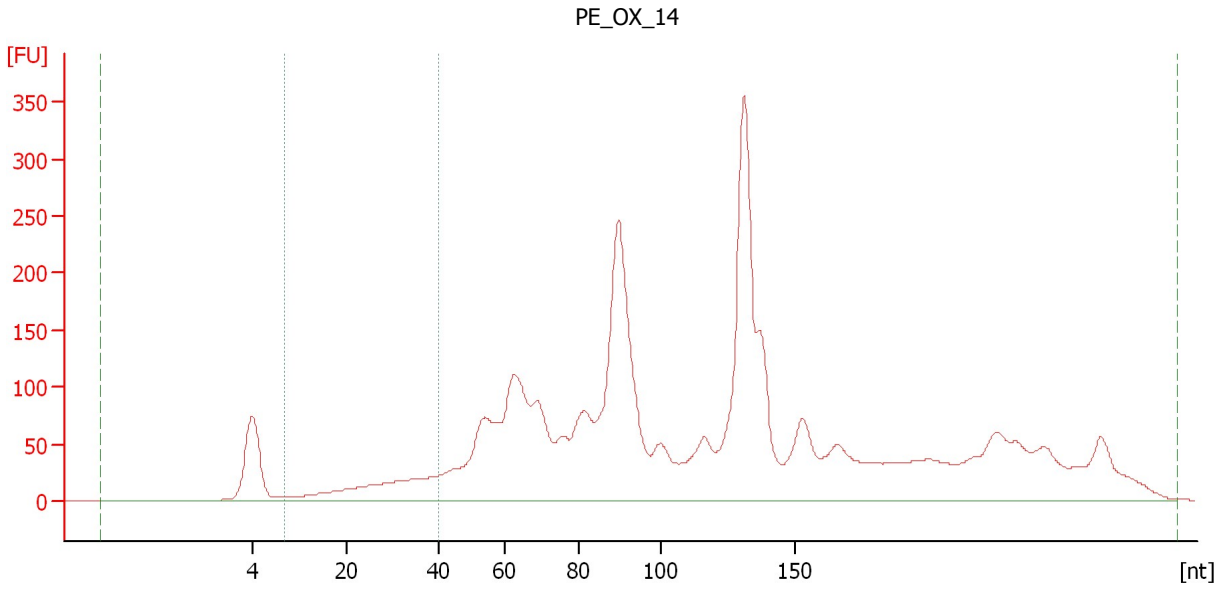
**Region table for sample 2 : PE\_OX\_13**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	295	112	49.9	24,290.9	100	<span style="background-color: purple; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	28	28.0	5,707.5	23	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
 Modified: 8/6/2019 9:46:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : PE\_OX\_14**

Small RNA Concentration [pg/μl]:	21,087.0	Result Flagging Color:	<span style="background-color: green; color: black;"> </span>
miRNA Concentration [pg/μl]:	4,146.9	Result Flagging Label:	20 % miRNA; Concentration: 4146.90 pg/μl
miRNA / Small RNA Ratio [%]:	20		

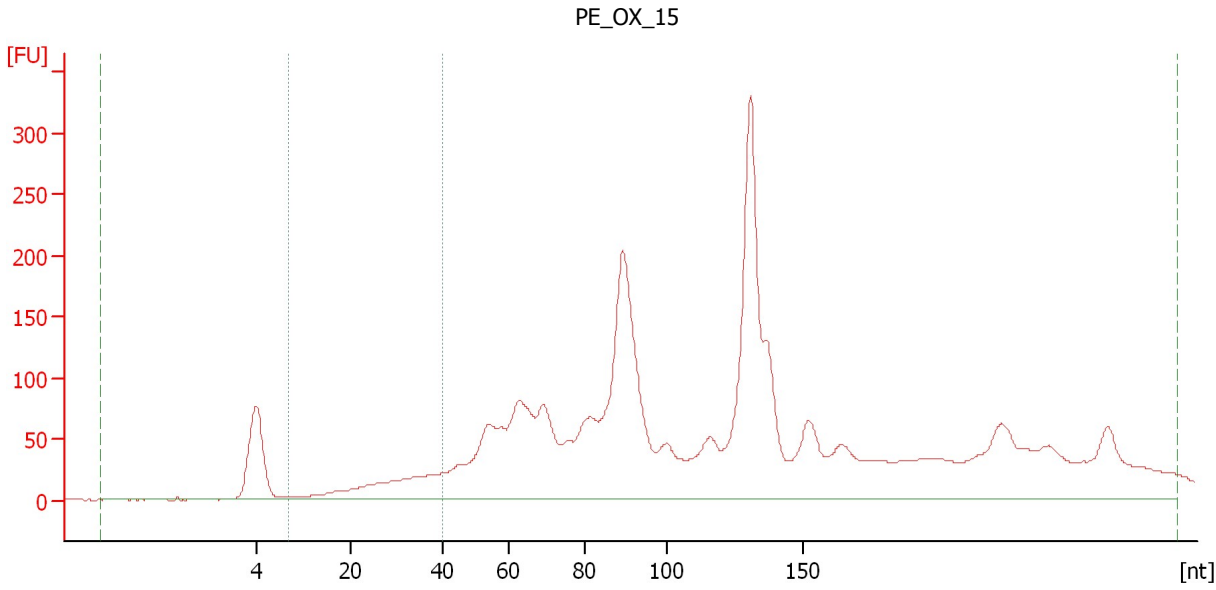
**Region table for sample 3 : PE\_OX\_14**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	291	126	53.2	21,086.9	100	<span style="background-color: maroon; color: black;"> </span>
miRNA	10	40	28	28.6	4,146.9	20	<span style="background-color: green; color: black;"> </span>

Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
 Modified: 8/6/2019 9:46:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : PE\_OX\_15**

Small RNA Concentration [pg/μl]:	19,484.4	Result Flagging Color:	<span style="background-color: green; color: green;"> </span>
miRNA Concentration [pg/μl]:	4,034.3	Result Flagging Label:	21 % miRNA; Concentration: 4034.30 pg/μl
miRNA / Small RNA Ratio [%]:	21		

**Region table for sample 4 : PE\_OX\_15**

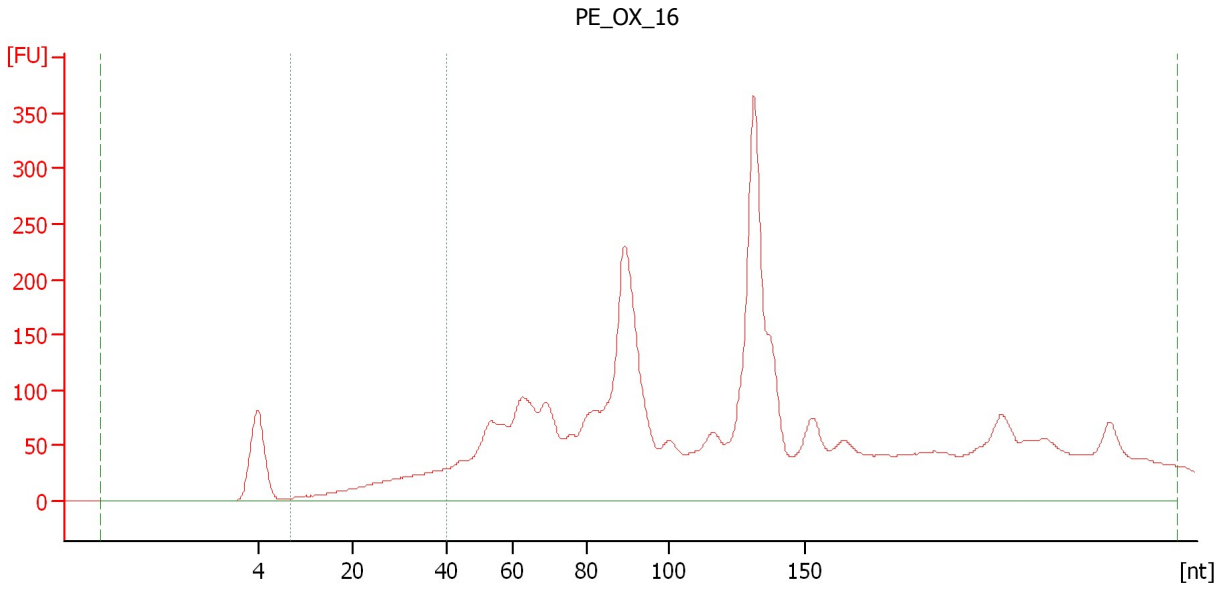
Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	288	130	53.8	19,484.4	100	<span style="background-color: maroon; color: maroon;"> </span>
miRNA	10	40	29	27.0	4,034.3	21	<span style="background-color: green; color: green;"> </span>



Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
 Modified: 8/6/2019 9:46:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : PE\_OX\_16**

Small RNA Concentration [pg/μl]:	21,671.2	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	4,767.2	Result Flagging Label:	22 % miRNA; Concentration: 4767.20 pg/μl
miRNA / Small RNA Ratio [%]:	22		

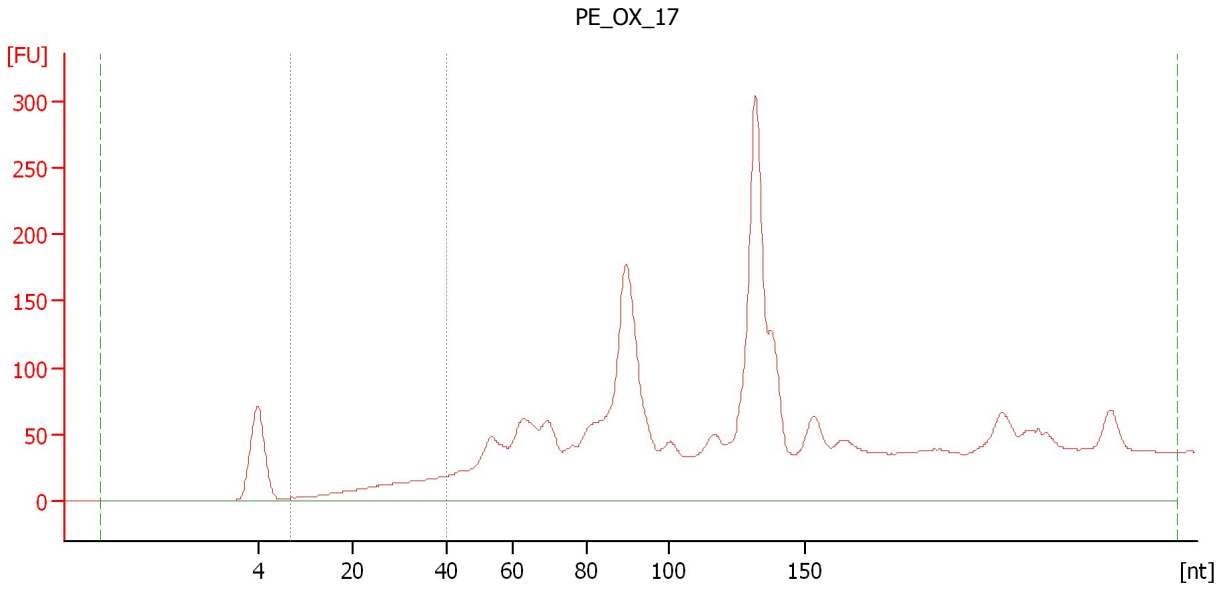
**Region table for sample 5 : PE\_OX\_16**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	287	133	53.7	21,671.2	100	<span style="background-color: purple; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	29	27.4	4,767.2	22	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
 Modified: 8/6/2019 9:46:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : PE\_OX\_17**

Small RNA Concentration [pg/μl]:	18,496.9	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	3,607.1	Result Flagging Label:	20 % miRNA; Concentration: 3607.10 pg/μl
miRNA / Small RNA Ratio [%]:	20		

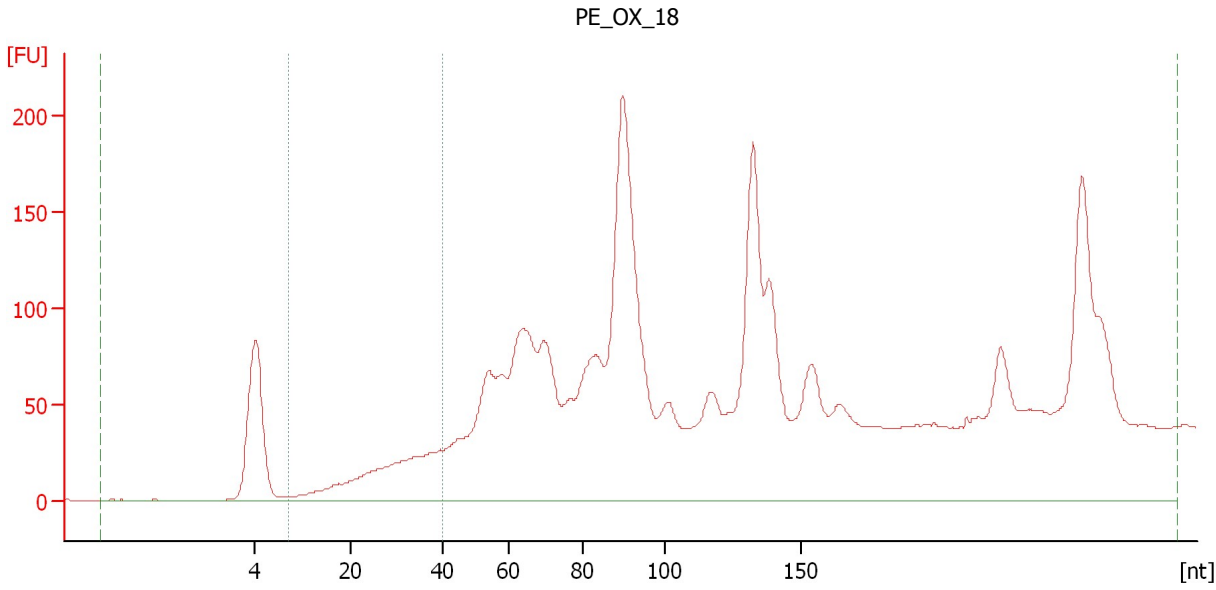
**Region table for sample 6 : PE\_OX\_17**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	287	140	51.6	18,496.9	100	<span style="background-color: maroon; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	28	28.0	3,607.1	20	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
 Modified: 8/6/2019 9:46:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : PE\_OX\_18**

Small RNA Concentration [pg/μl]:	19,397.4	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	4,379.0	Result Flagging Label:	23 % miRNA; Concentration: 4379 pg/μl
miRNA / Small RNA Ratio [%]:	23		

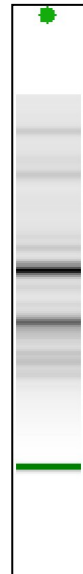
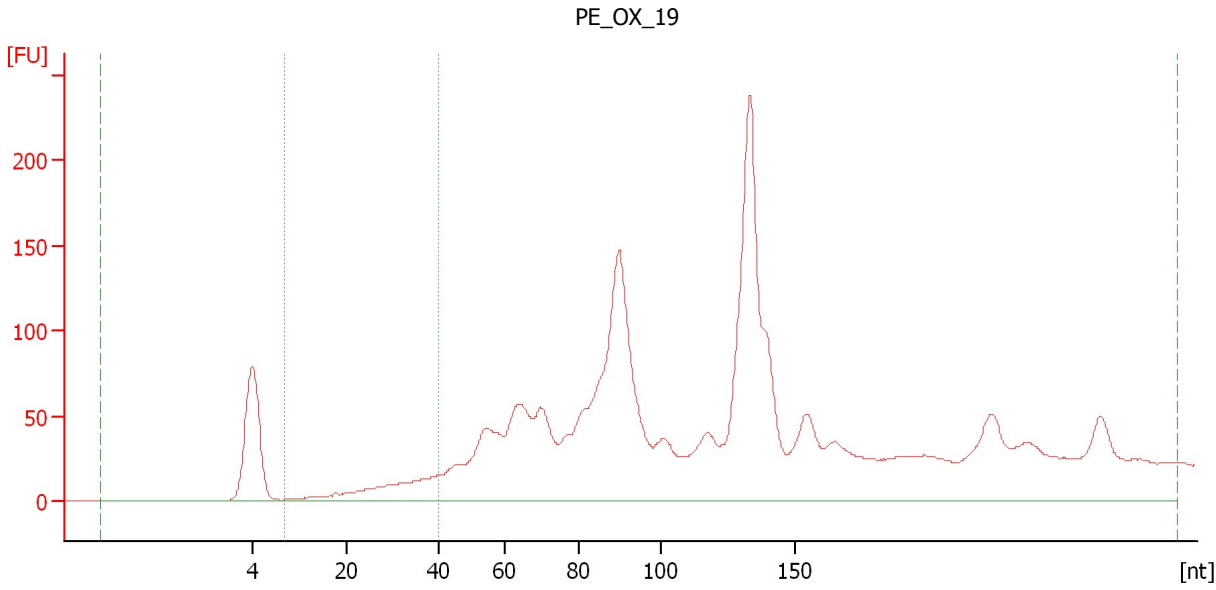
**Region table for sample 7 : PE\_OX\_18**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	289	142	55.0	19,397.4	100	<span style="background-color: #800000; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	29	26.4	4,379.0	23	<span style="background-color: #008000; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
 Modified: 8/6/2019 9:46:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : PE\_OX\_19**

Small RNA Concentration [pg/μl]:	13,842.2	Result Flagging Color:	<span style="background-color: green; color: black;"> </span>
miRNA Concentration [pg/μl]:	2,328.5	Result Flagging Label:	17 % miRNA; Concentration: 2328.50 pg/μl
miRNA / Small RNA Ratio [%]:	17		

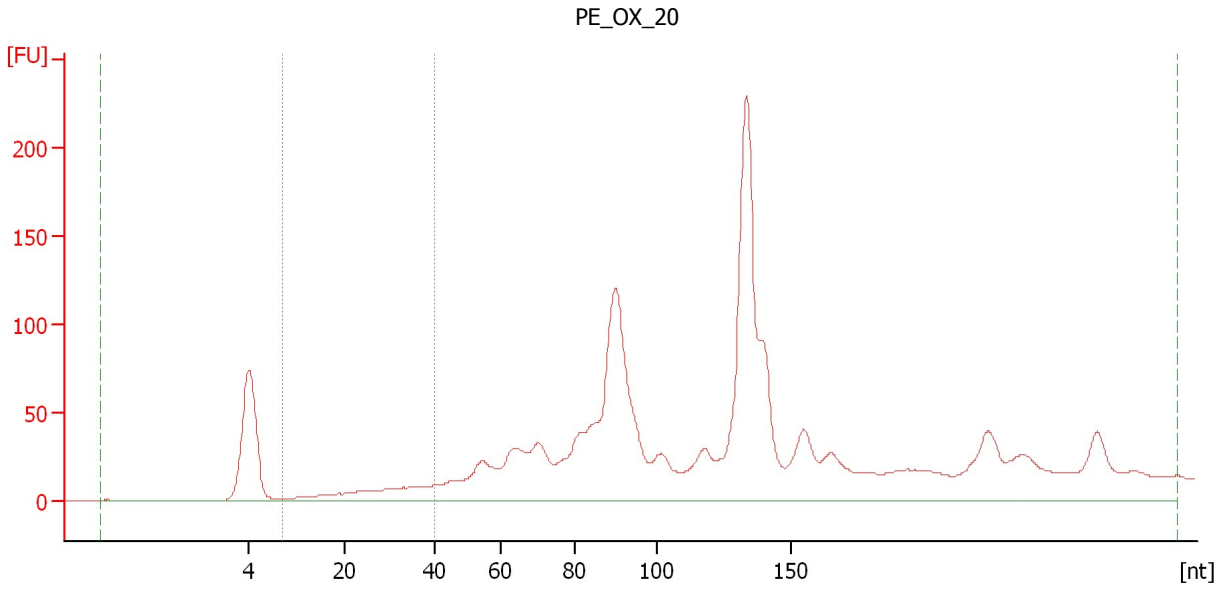
**Region table for sample 8 : PE\_OX\_19**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	291	134	53.8	13,842.1	100	<span style="background-color: maroon; color: black;"> </span>
miRNA	10	40	29	26.2	2,328.5	17	<span style="background-color: green; color: black;"> </span>

Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
 Modified: 8/6/2019 9:46:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : PE\_OX\_20**

Small RNA Concentration [pg/μl]:	10,093.5	Result Flagging Color:	<span style="background-color: green; color: black;"> </span>
miRNA Concentration [pg/μl]:	1,710.0	Result Flagging Label:	17 % miRNA; Concentration: 1710 pg/μl
miRNA / Small RNA Ratio [%]:	17		

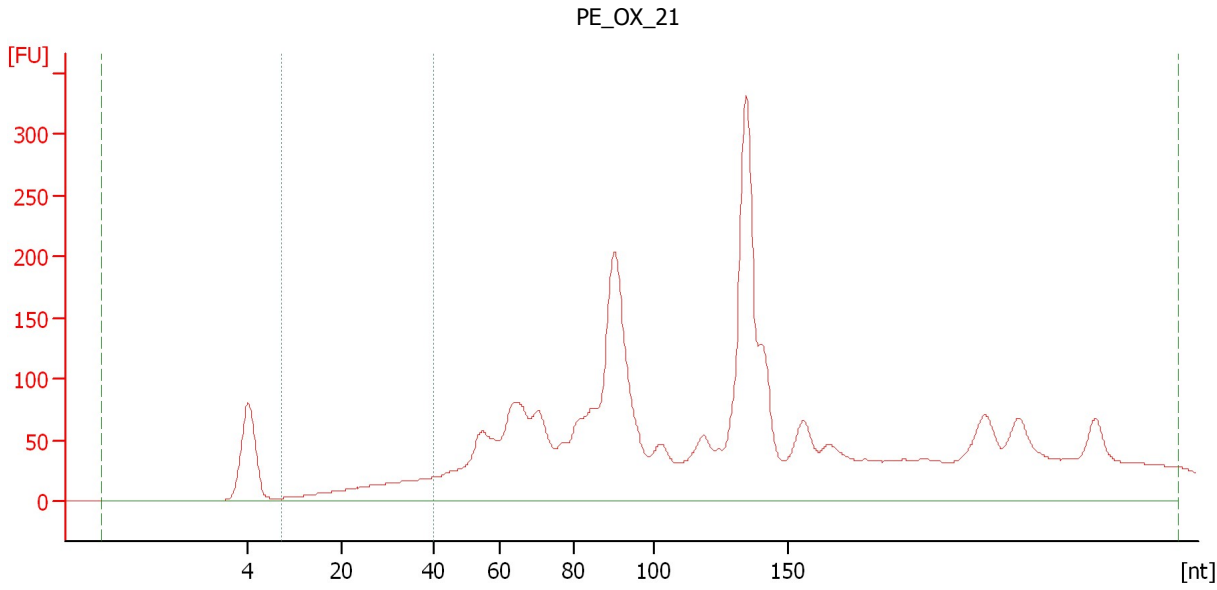
**Region table for sample 9 : PE\_OX\_20**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	294	134	53.2	10,093.5	100	<span style="background-color: maroon; color: black;"> </span>
miRNA	10	40	28	28.4	1,710.0	17	<span style="background-color: green; color: black;"> </span>

Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
 Modified: 8/6/2019 9:46:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : PE\_OX\_21**

Small RNA Concentration [pg/μl]:	17,669.5	Result Flagging Color:	<span style="background-color: green; color: black;">          </span>
miRNA Concentration [pg/μl]:	3,412.7	Result Flagging Label:	19 % miRNA; Concentration: 3412.70 pg/μl
miRNA / Small RNA Ratio [%]:	19		

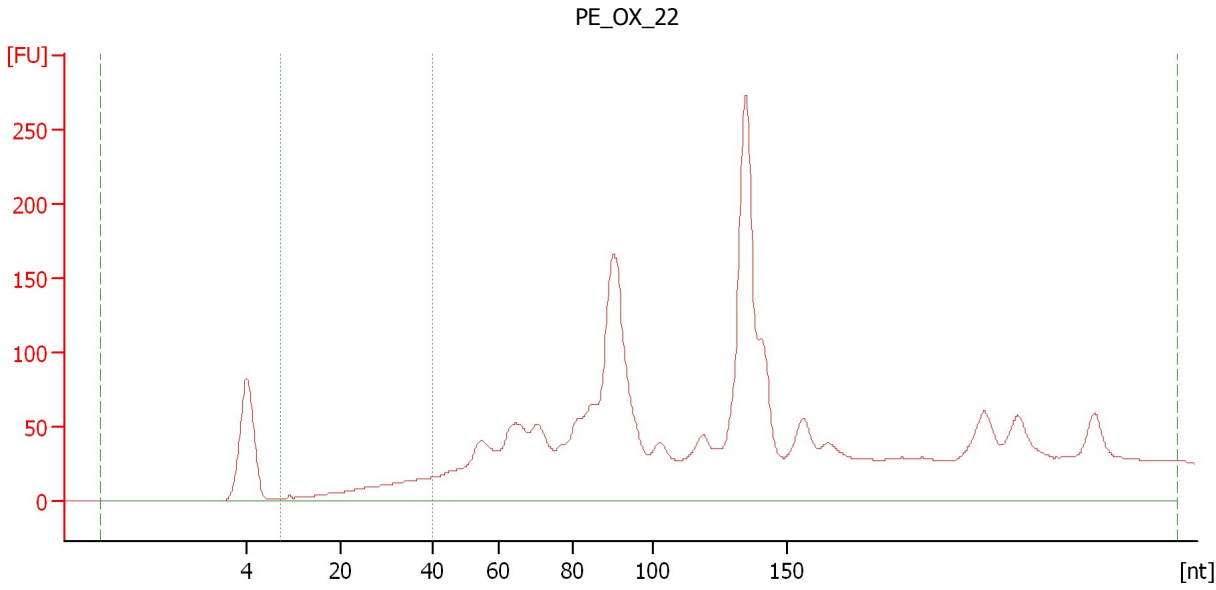
**Region table for sample 10 : PE\_OX\_21**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	295	137	53.4	17,669.5	100	<span style="background-color: maroon; color: black;">          </span>
miRNA	10	40	28	28.4	3,412.7	19	<span style="background-color: green; color: black;">          </span>

Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
 Modified: 8/6/2019 9:46:04 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : PE\_OX\_22**

Small RNA Concentration [pg/μl]:	13,955.8	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	2,528.5	Result Flagging Label:	18 % miRNA; Concentration: 2528.50 pg/μl
miRNA / Small RNA Ratio [%]:	18		

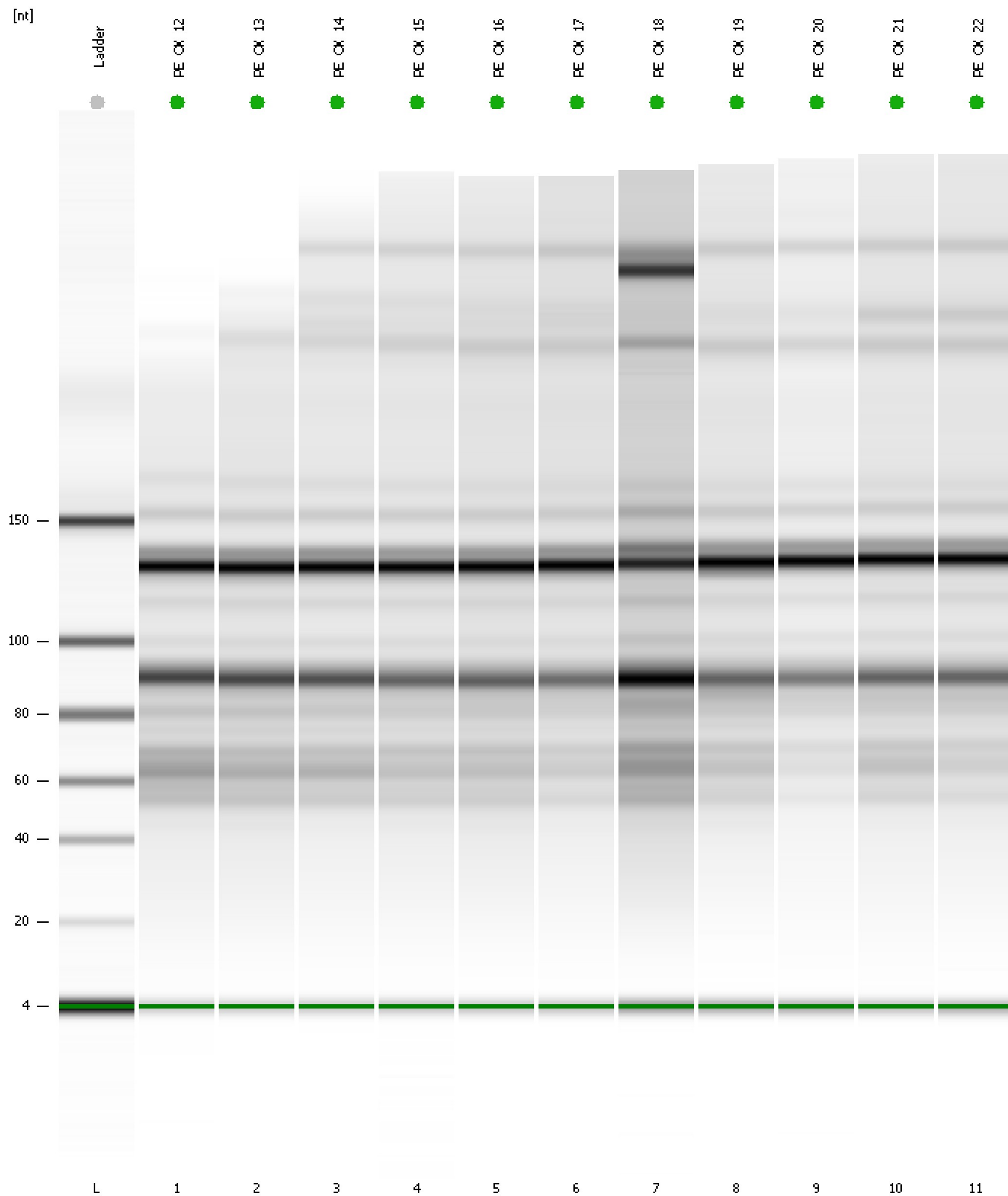
**Region table for sample 11 : PE\_OX\_22**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	295	140	53.0	13,955.8	100	<span style="background-color: #800040; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	29	27.2	2,528.5	18	<span style="background-color: #008080; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-06\2019-08-06\_002.xad

Created: 8/6/2019 9:12:58 AM  
Modified: 8/6/2019 9:46:04 AM

**Gel Image**





Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-06\2019-08-06\_002.xad  
 Created: 8/6/2019 9:12:58 AM  
 Modified: 8/6/2019 9:46:04 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		8/6/2019 9:43:40 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\2019-08-06\2019-08-06_002.xad)		Instrument	Run		8/6/2019 9:13:03 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		8/6/2019 9:13:03 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/6/2019 9:13:03 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/6/2019 9:13:03 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		8/6/2019 9:13:03 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/6/2019 9:13:03 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/6/2019 9:13:03 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1