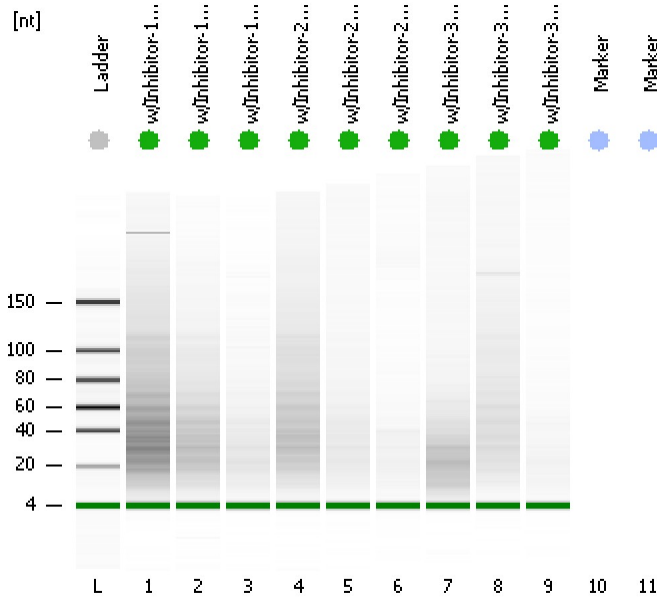


Assay Class: Small RNA  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
Modified: 4/20/2012 11:58:11 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

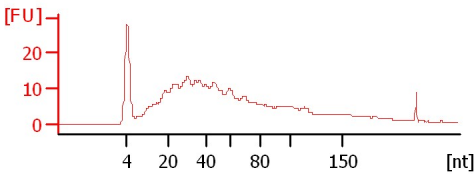
Assay Class: Small RNA  
Version: 1.2  
Assay Comments: Small RNA Analysis 6 - 150 nucleotides

© Copyright 2007 - 2009 Agilent Technologies, Inc.

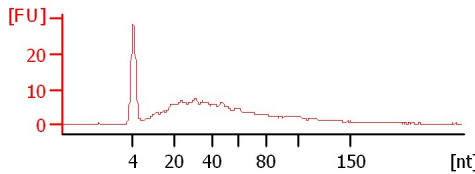
Chip Information:

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

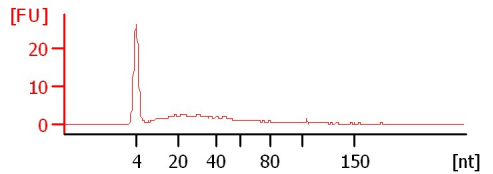
**w/Inhibitor-1 1:2**  
67 % miRNA; Concentration: 2482.30 pg/µl



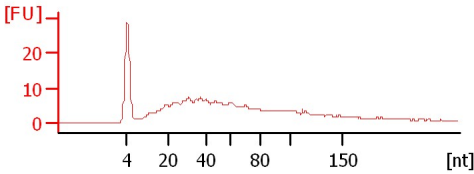
**w/Inhibitor-1 1:4**  
72 % miRNA; Concentration: 1432.80 pg/µl



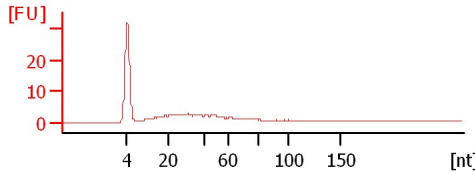
**w/Inhibitor-1 1:8**  
75 % miRNA; Concentration: 656 pg/µl



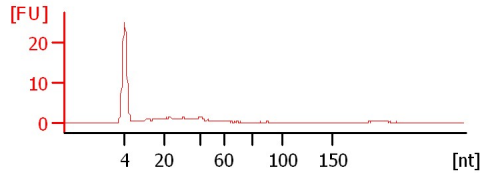
**w/Inhibitor-2 1:2**  
62 % miRNA; Concentration: 1319.20 pg/µl



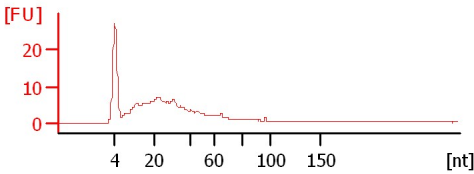
**w/Inhibitor-2 1:4**  
67 % miRNA; Concentration: 550.10 pg/µl



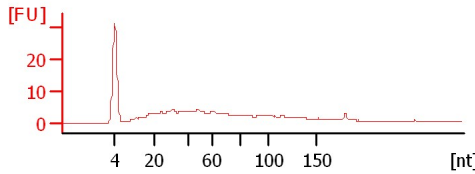
**w/Inhibitor-2 1:8**  
76 % miRNA; Concentration: 356.90 pg/µl



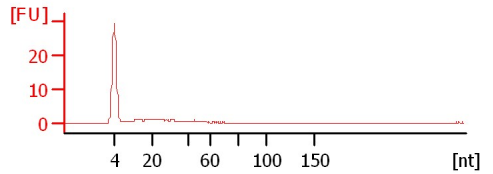
**w/Inhibitor-3 1:2**  
81 % miRNA; Concentration: 1608.70 pg/µl



**w/Inhibitor-3 1:4**  
57 % miRNA; Concentration: 781.40 pg/µl















**w/Inhibitor-3 1:8**  
70 % miRNA; Concentration: 337.40 pg/µl



Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
 Modified: 4/20/2012 11:58:11 AM

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

Sample Name	Sample Comment	Status	Result Label	Result Color
w/Inhibitor-1 1:2		✓	67 % miRNA; Concentration: 2482.30 pg/μl	
w/Inhibitor-1 1:4		✓	72 % miRNA; Concentration: 1432.80 pg/μl	
w/Inhibitor-1 1:8		✓	75 % miRNA; Concentration: 656 pg/μl	
w/Inhibitor-2 1:2		✓	62 % miRNA; Concentration: 1319.20 pg/μl	
w/Inhibitor-2 1:4		✓	67 % miRNA; Concentration: 550.10 pg/μl	
w/Inhibitor-2 1:8		✓	76 % miRNA; Concentration: 356.90 pg/μl	
w/Inhibitor-3 1:2		✓	81 % miRNA; Concentration: 1608.70 pg/μl	
w/Inhibitor-3 1:4		✓	57 % miRNA; Concentration: 781.40 pg/μl	
w/Inhibitor-3 1:8		✓	70 % miRNA; Concentration: 337.40 pg/μl	
Marker				
Marker				
Ladder		✓	Number of Peaks: 6	

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Small RNA  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
Modified: 4/20/2012 11:58:11 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

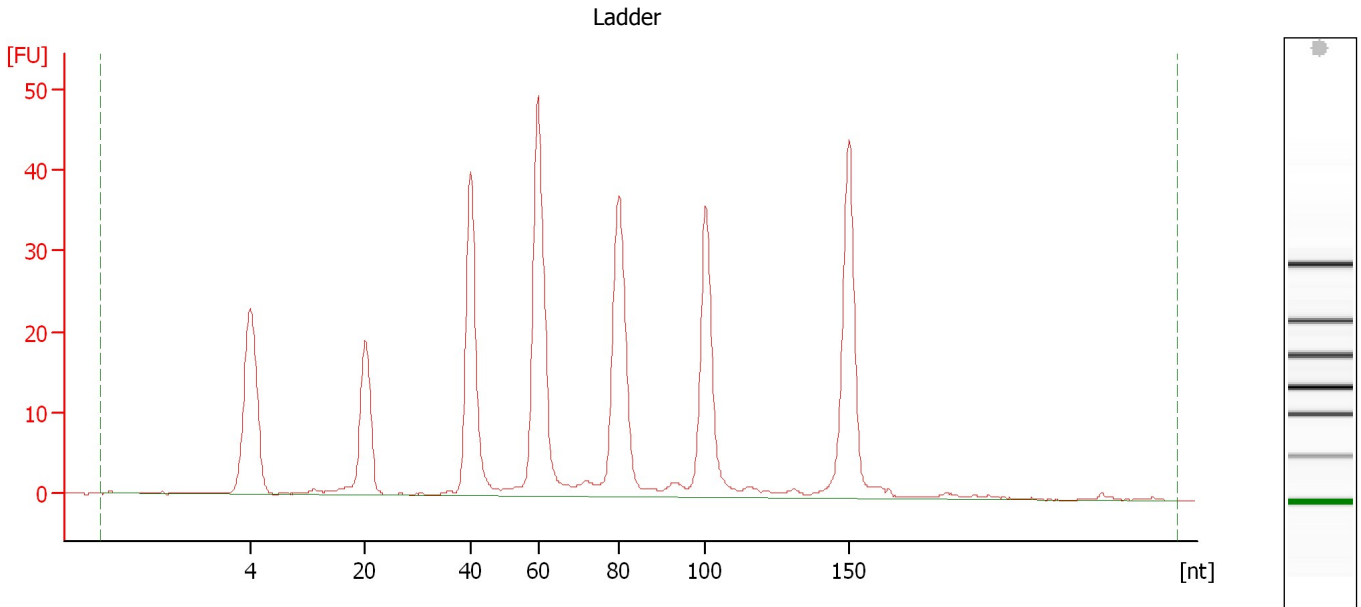
### Ladder

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

Assay Class: Small RNA  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
Modified: 4/20/2012 11:58:11 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Result Flagging Color:

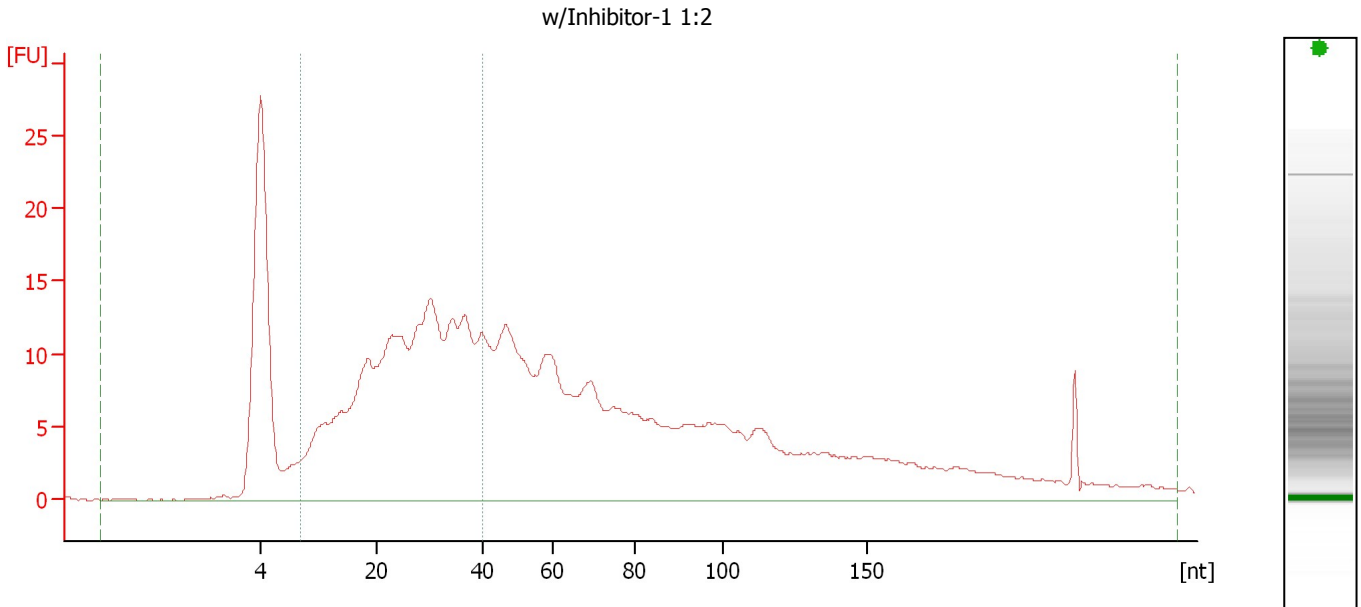
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
 Modified: 4/20/2012 11:58:11 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : w/Inhibitor-1 1:2**

Small RNA Concentration [pg/μl]:	3,724.9	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	2,482.3	Result Flagging Label:	67 % miRNA; Concentration: 2482.30 pg/μl
miRNA / Small RNA Ratio [%]:	67		

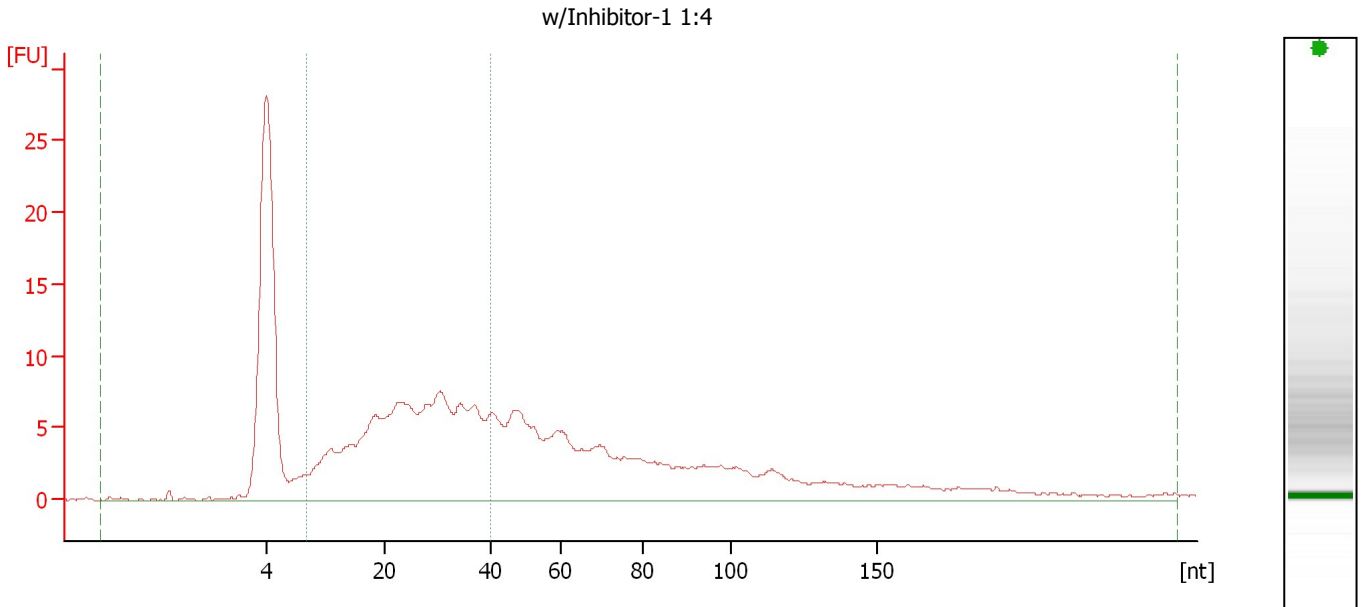
**Region table for sample 1 : w/Inhibitor-1 1:2**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	256	66	86.0	3,724.9	100	<span style="background-color: maroon; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	26	31.5	2,482.3	67	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
 Modified: 4/20/2012 11:58:11 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : w/Inhibitor-1 1:4**

Small RNA Concentration [pg/μl]:	2,000.0	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	1,432.8	Result Flagging Label:	72 % miRNA; Concentration: 1432.80 pg/μl
miRNA / Small RNA Ratio [%]:	72		

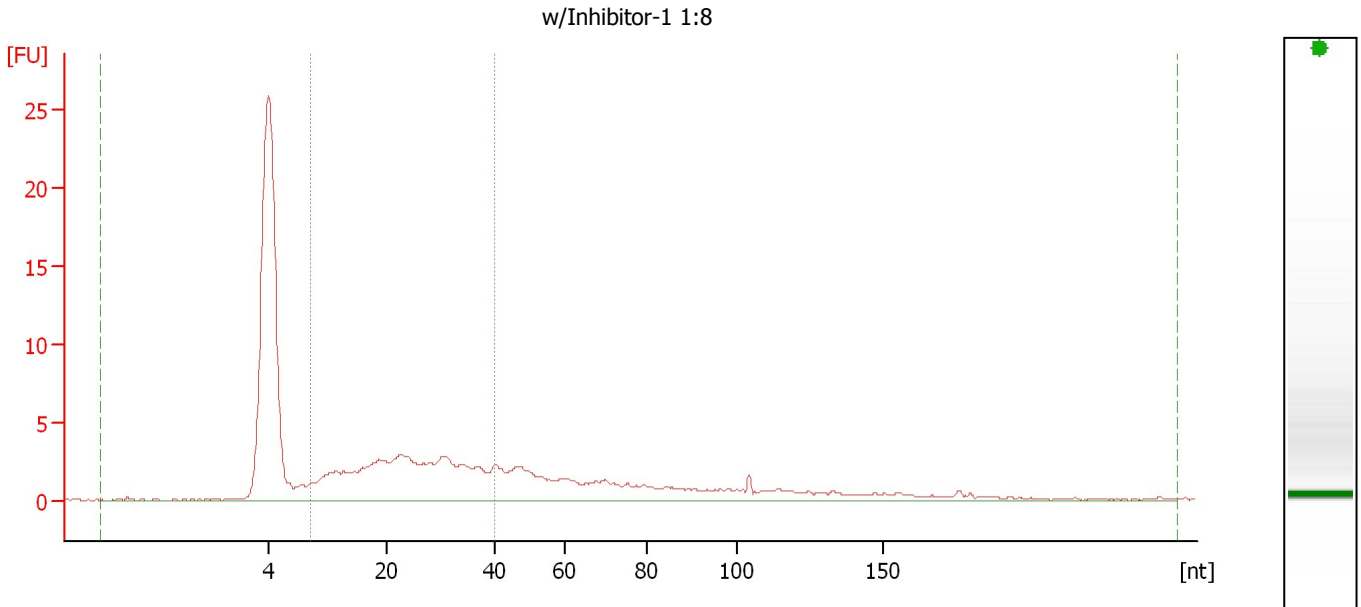
**Region table for sample 2 : w/Inhibitor-1 1:4**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	252	52	95.6	2,000.0	100	<span style="background-color: purple; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	26	32.1	1,432.8	72	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
 Modified: 4/20/2012 11:58:11 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : w/Inhibitor-1 1:8**

Small RNA Concentration [pg/μl]:	879.5	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	656.0	Result Flagging Label:	75 % miRNA; Concentration: 656 pg/μl
miRNA / Small RNA Ratio [%]:	75		

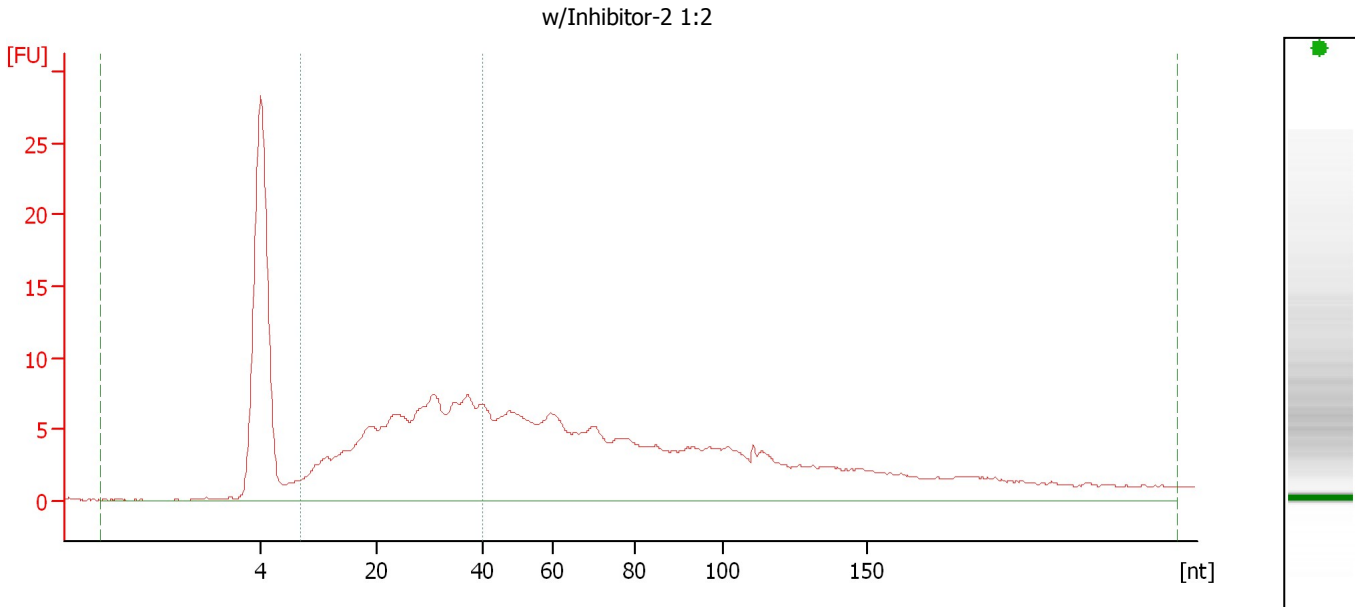
**Region table for sample 3 : w/Inhibitor-1 1:8**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	250	38	100.0	879.5	100	<span style="background-color: purple; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	24	34.3	656.0	75	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
 Modified: 4/20/2012 11:58:11 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : w/Inhibitor-2 1:2**

Small RNA Concentration [pg/μl]:	2,121.6	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	1,319.2	Result Flagging Label:	62 % miRNA; Concentration: 1319.20 pg/μl
miRNA / Small RNA Ratio [%]:	62		

**Region table for sample 4 : w/Inhibitor-2 1:2**

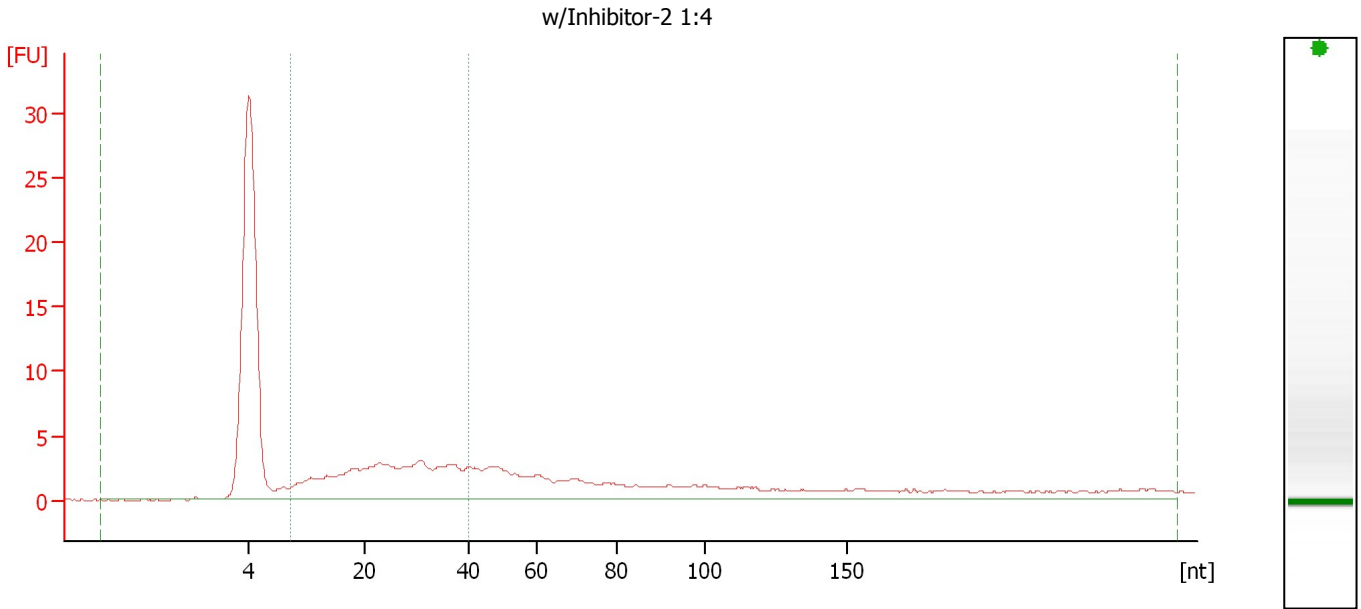
Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	256	69	87.9	2,121.6	100	<span style="background-color: purple; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	26	31.5	1,319.2	62	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>



Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
 Modified: 4/20/2012 11:58:11 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : w/Inhibitor-2 1:4**

Small RNA Concentration [pg/μl]:	820.6	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	550.1	Result Flagging Label:	67 % miRNA; Concentration: 550.10 pg/μl
miRNA / Small RNA Ratio [%]:	67		

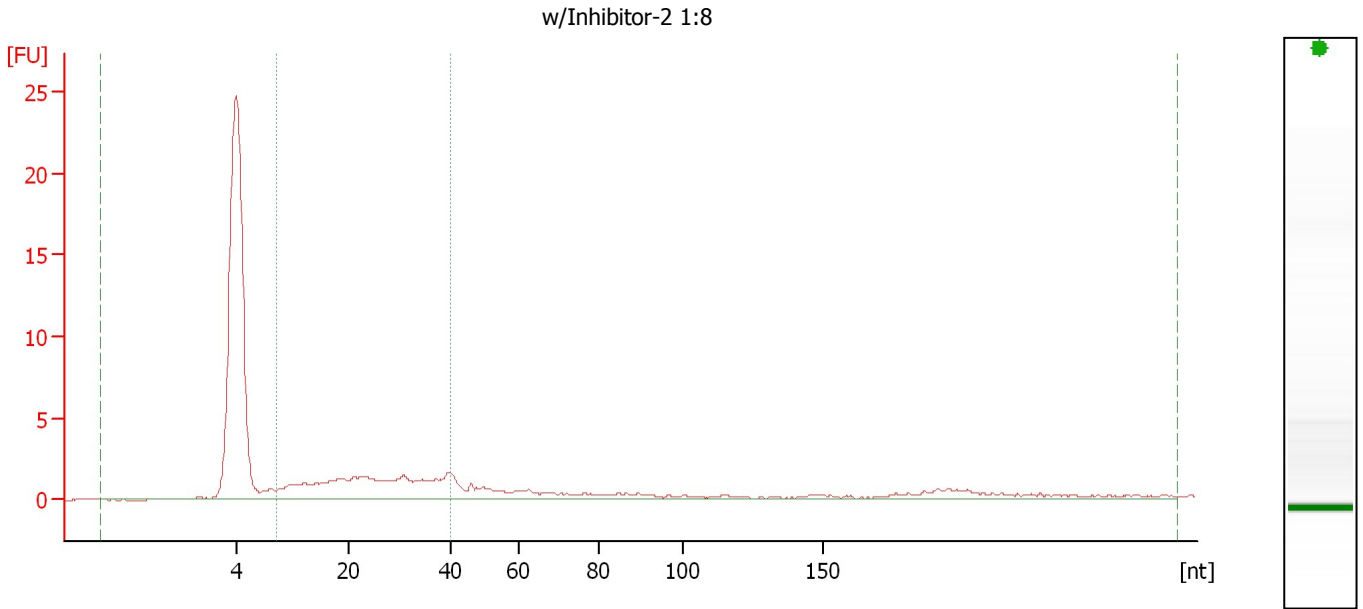
**Region table for sample 5 : w/Inhibitor-2 1:4**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	265	59	100.0	820.6	100	<span style="background-color: maroon; width: 15px; height: 15px; display: inline-block;"></span>
miRNA	10	40	25	33.6	550.1	67	<span style="background-color: green; width: 15px; height: 15px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
 Modified: 4/20/2012 11:58:11 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : w/Inhibitor-2 1:8**

Small RNA Concentration [pg/μl]:	470.4	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	356.9	Result Flagging Label:	76 % miRNA; Concentration: 356.90 pg/μl
miRNA / Small RNA Ratio [%]:	76		

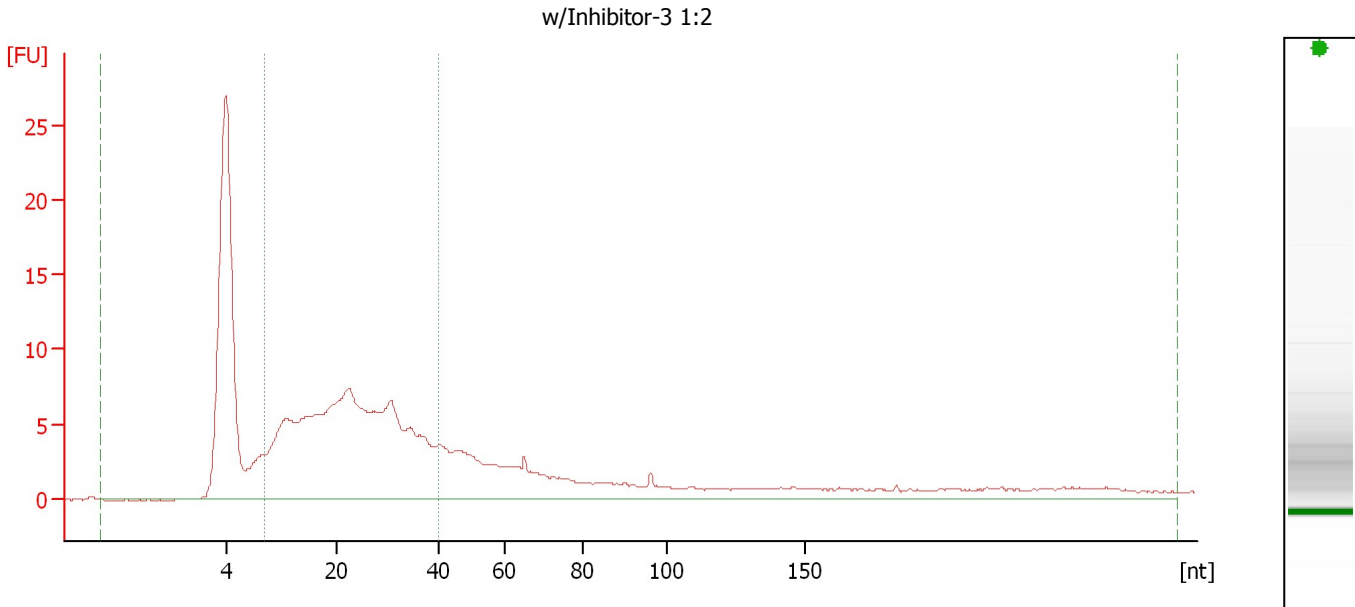
**Region table for sample 6 : w/Inhibitor-2 1:8**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	275	44	100.0	470.4	100	<span style="background-color: purple; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	25	35.1	356.9	76	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
 Modified: 4/20/2012 11:58:11 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : w/Inhibitor-3 1:2**

Small RNA Concentration [pg/μl]:	1,985.6	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	1,608.7	Result Flagging Label:	81 % miRNA; Concentration: 1608.70 pg/μl
miRNA / Small RNA Ratio [%]:	81		

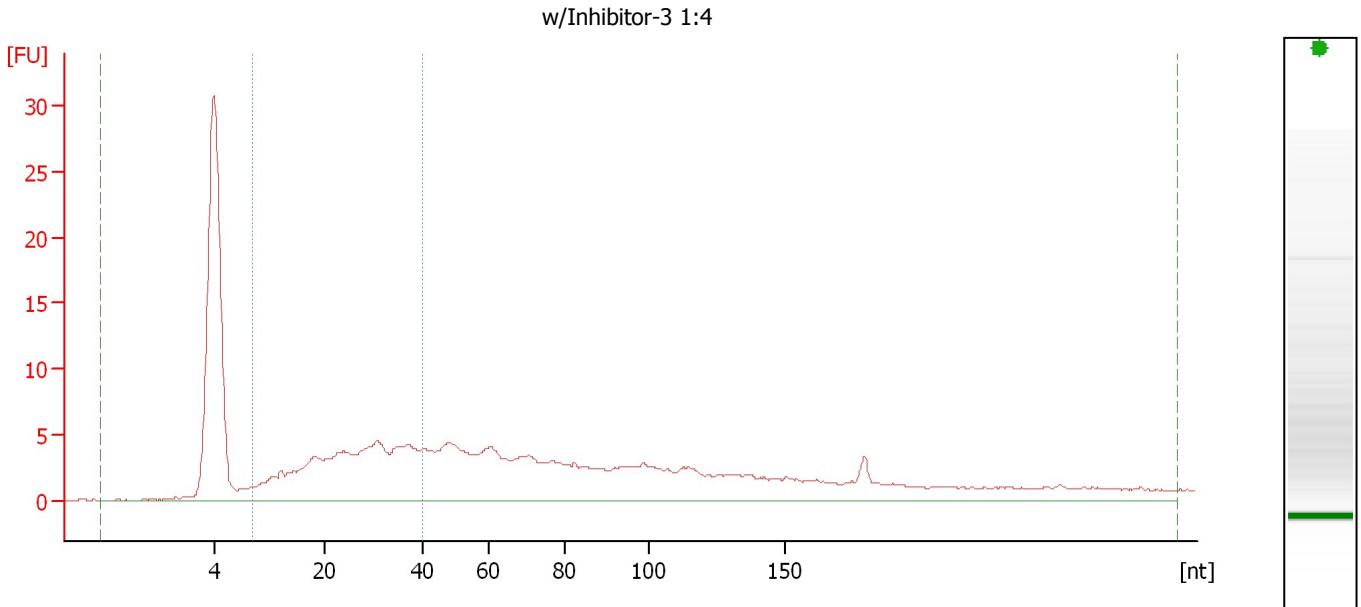
**Region table for sample 7 : w/Inhibitor-3 1:2**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	284	52	100.0	1,985.6	100	<span style="background-color: maroon; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	23	35.1	1,608.7	81	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
 Modified: 4/20/2012 11:58:11 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : w/Inhibitor-3 1:4**

Small RNA Concentration [pg/μl]:	1,373.3	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	781.4	Result Flagging Label:	57 % miRNA; Concentration: 781.40 pg/μl
miRNA / Small RNA Ratio [%]:	57		

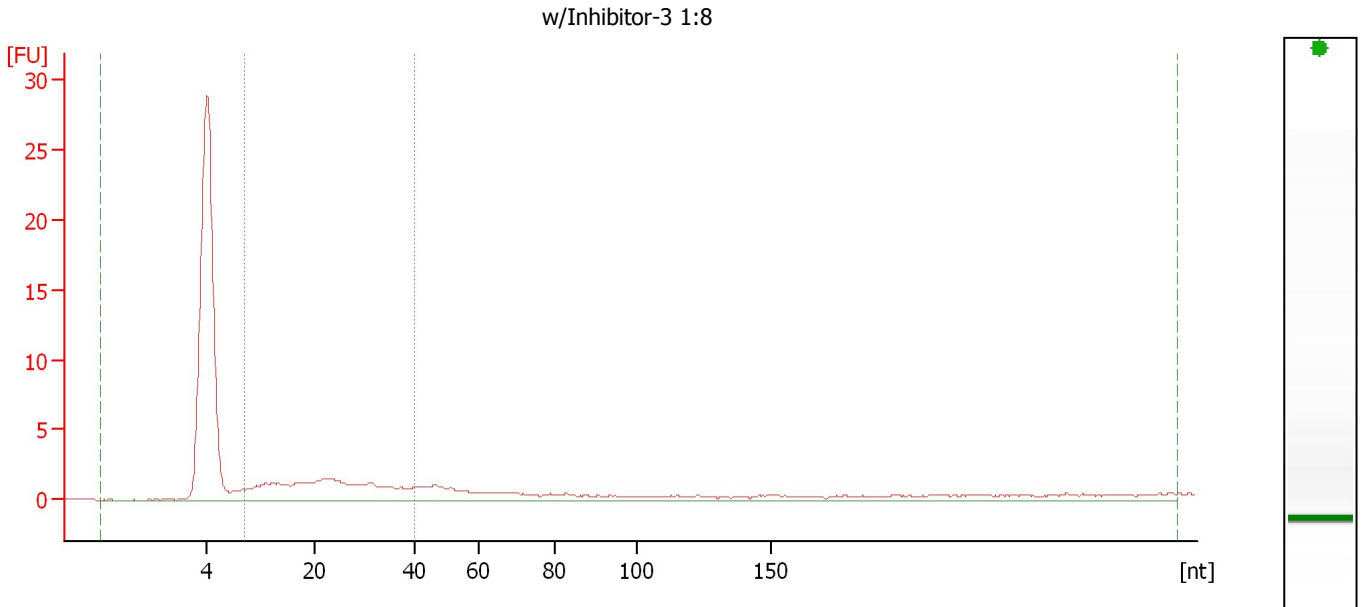
**Region table for sample 8 : w/Inhibitor-3 1:4**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	293	79	95.4	1,373.3	100	<span style="background-color: maroon; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	26	32.0	781.4	57	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
 Modified: 4/20/2012 11:58:11 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : w/Inhibitor-3 1:8**

Small RNA Concentration [pg/μl]:	482.3	Result Flagging Color:	<span style="background-color: green; color: black;"> </span>
miRNA Concentration [pg/μl]:	337.4	Result Flagging Label:	70 % miRNA; Concentration: 337.40 pg/μl
miRNA / Small RNA Ratio [%]:	70		

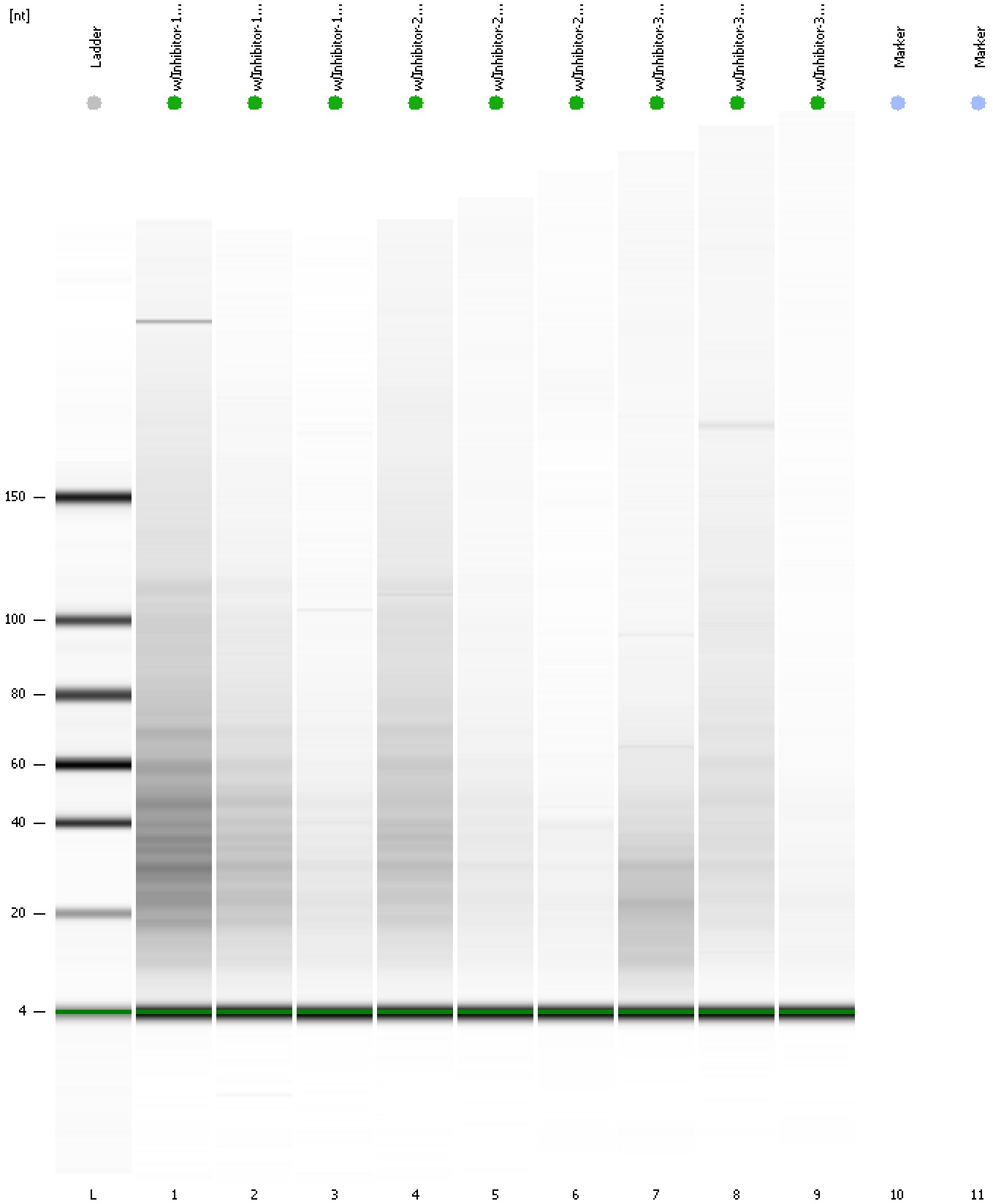
**Region table for sample 9 : w/Inhibitor-3 1:8**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	300	57	100.0	482.3	100	<span style="background-color: maroon; color: black;"> </span>
miRNA	10	40	23	36.2	337.4	70	<span style="background-color: green; color: black;"> </span>

Assay Class: Small RNA  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
Modified: 4/20/2012 11:58:11 AM

**Gel Image**



Assay Class: Small RNA  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
Modified: 4/20/2012 11:58:11 AM

**Invalid Samples**

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20\_001.xad

Created: 4/20/2012 11:30:03 AM  
 Modified: 4/20/2012 11:58:11 AM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 10)		Instrument	Run		4/20/2012 11:58:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-04-20\2012-04-20_001.xad)		Instrument	Run		4/20/2012 11:30:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/20/2012 11:30:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/20/2012 11:30:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/20/2012 11:30:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/20/2012 11:30:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/20/2012 11:30:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/20/2012 11:30:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1