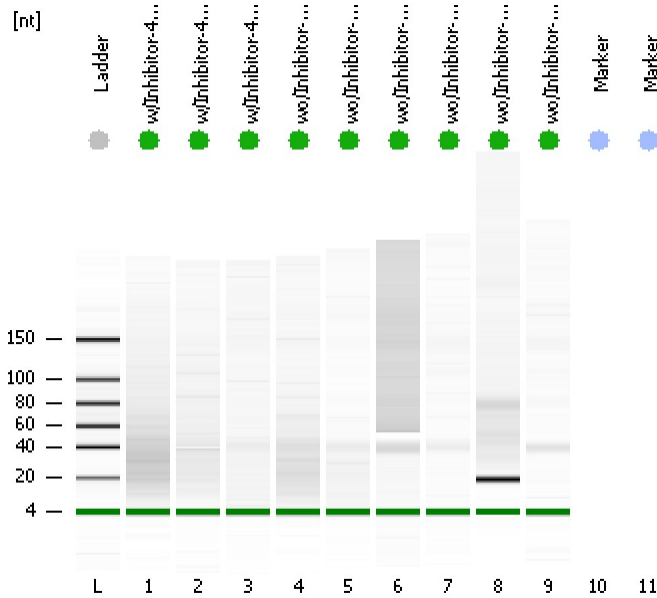


Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20_002.xad

Created: 4/20/2012 12:13:12 PM
Modified: 4/20/2012 12:40:20 PM

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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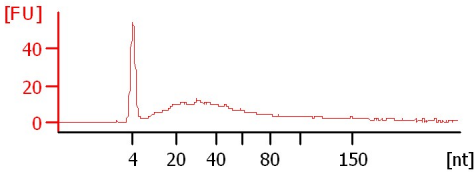
Chip Information:

Chip Lot #:

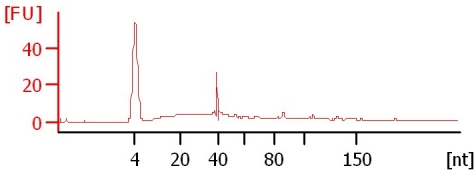
Reagent Kit Lot #:

Chip Comments:

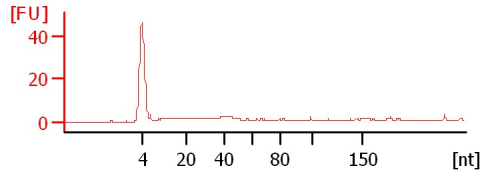
w/Inhibitor-4 1:2
66 % miRNA; Concentration: 978 pg/µl



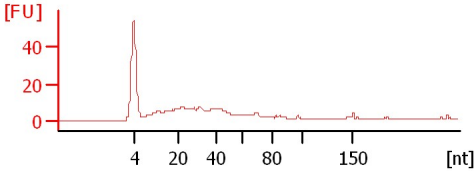
w/Inhibitor-4 1:4
58 % miRNA; Concentration: 493.50 pg/µl



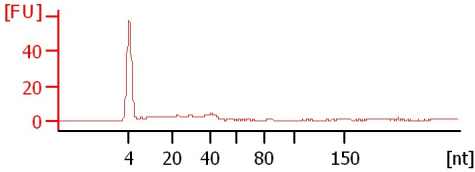
w/Inhibitor-4 1:8
50 % miRNA; Concentration: 261 pg/µl



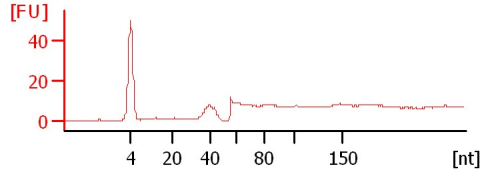
wo/Inhibitor-1 1:20
64 % miRNA; Concentration: 707.40 pg/µl



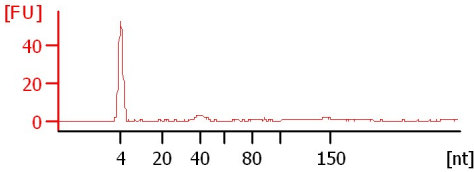
wo/Inhibitor-1 1:40
70 % miRNA; Concentration: 255.60 pg/µl



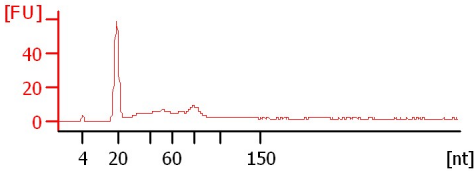
wo/Inhibitor-1 1:80
15 % miRNA; Concentration: 173.60 pg/µl



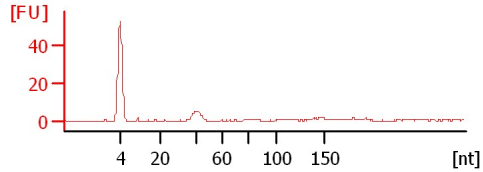
wo/Inhibitor-2 1:20
35 % miRNA; Concentration: 72.10 pg/µl



wo/Inhibitor-2 1:40
69 % miRNA; Concentration: 28165.70 p...















wo/Inhibitor-3 1:80
35 % miRNA; Concentration: 46 pg/µl



Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20_002.xad

Created: 4/20/2012 12:13:12 PM
 Modified: 4/20/2012 12:40:20 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
w/Inhibitor-4 1:2		✓	66 % miRNA; Concentration: 978 pg/μl	
w/Inhibitor-4 1:4		✓	58 % miRNA; Concentration: 493.50 pg/μl	
w/Inhibitor-4 1:8		✓	50 % miRNA; Concentration: 261 pg/μl	
wo/Inhibitor-1 1:20		✓	64 % miRNA; Concentration: 707.40 pg/μl	
wo/Inhibitor-1 1:40		✓	70 % miRNA; Concentration: 255.60 pg/μl	
wo/Inhibitor-1 1:80		✓	15 % miRNA; Concentration: 173.60 pg/μl	
wo/Inhibitor-2 1:20		✓	35 % miRNA; Concentration: 72.10 pg/μl	
wo/Inhibitor-2 1:40		✓	69 % miRNA; Concentration: 28165.70 pg/μl	
wo/Inhibitor-3 1:80		✓	35 % miRNA; Concentration: 46 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_002.xad

Created: 4/20/2012 12:13:12 PM
Modified: 4/20/2012 12:40:20 PM

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/μl] : 2500
Lower Marker Concentration [pg/μl] : 500
Upper Marker Concentration [pg/μl] : 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

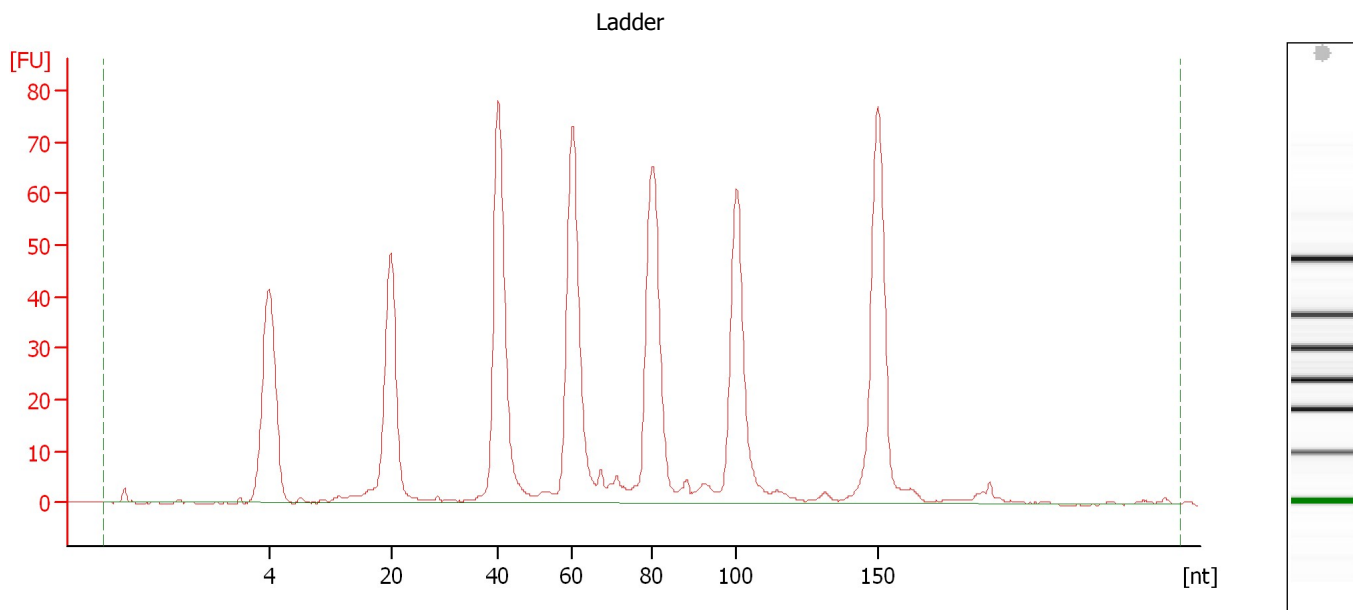
Ladder

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_002.xad

Created: 4/20/2012 12:13:12 PM
Modified: 4/20/2012 12:40:20 PM

Electropherogram Summary



Overall Results for Ladder

Result Flagging Color:

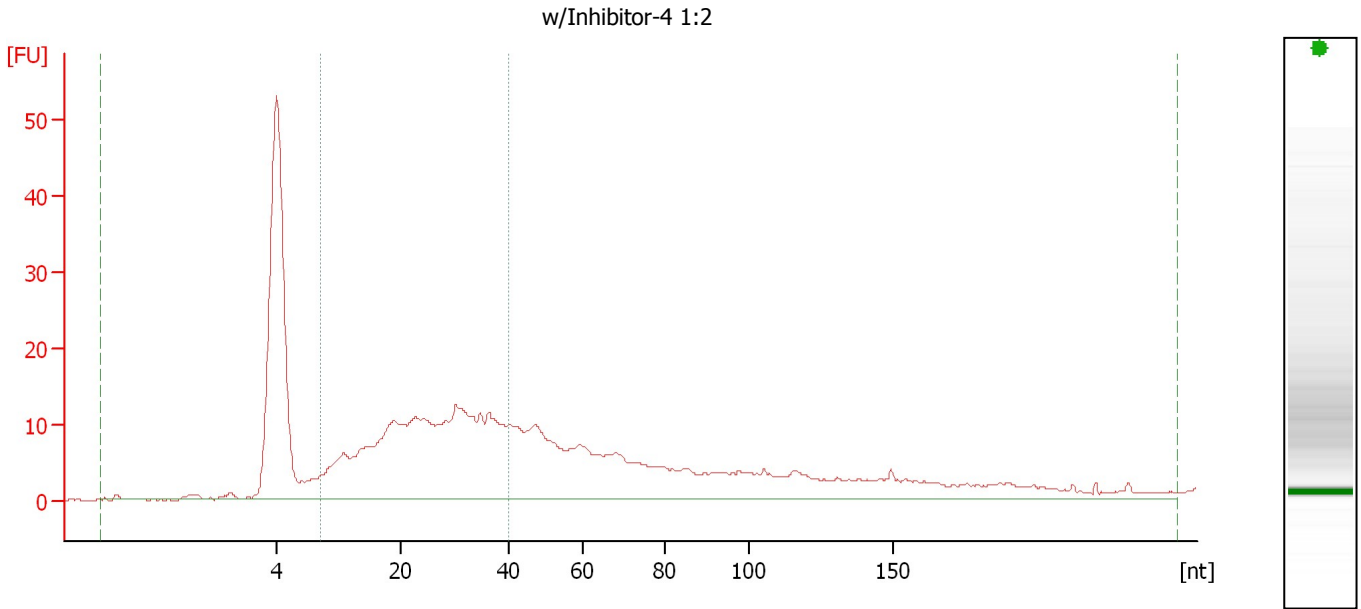
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20_002.xad

Created: 4/20/2012 12:13:12 PM
 Modified: 4/20/2012 12:40:20 PM

Electropherogram Summary Continued ...



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

Small RNA Concentration [pg/μl]:	1,488.0	Result Flagging Color:	
miRNA Concentration [pg/μl]:	978.0	Result Flagging Label:	66 % miRNA; Concentration: 978 pg/μl
miRNA / Small RNA Ratio [%]:	66		

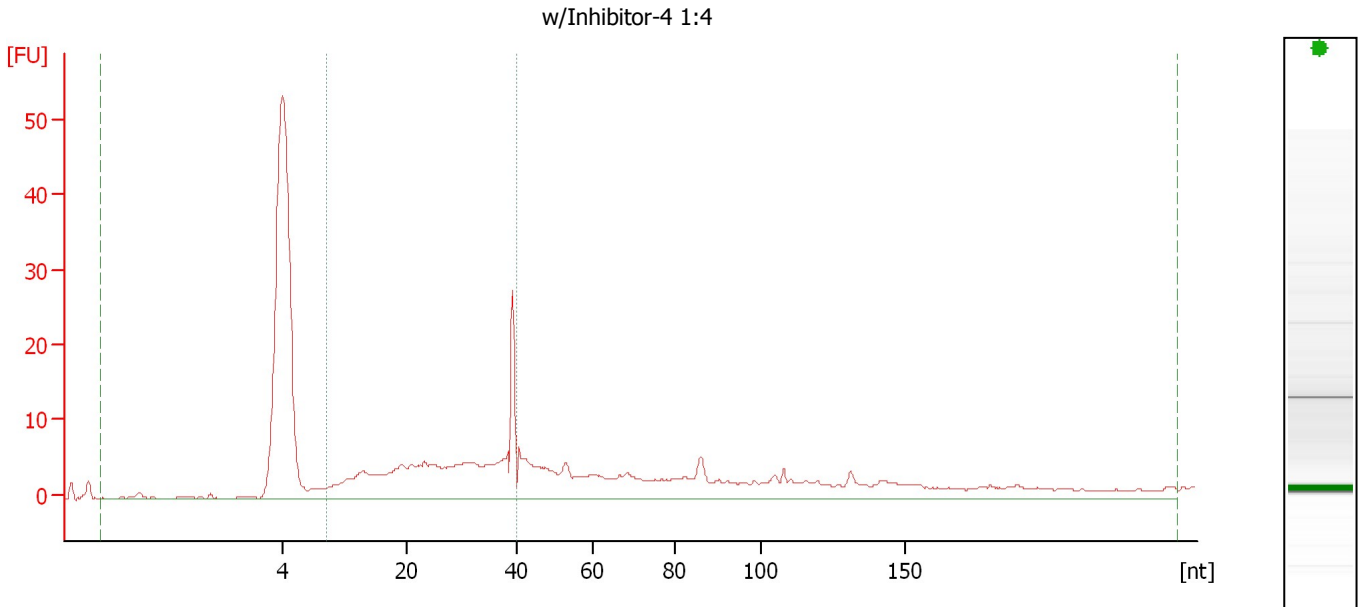
Region table for sample 1 : w/Inhibitor-4 1:2

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	249	56	100.0	1,488.0	100	
miRNA	10	40	25	32.7	978.0	66	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20_002.xad

Created: 4/20/2012 12:13:12 PM
 Modified: 4/20/2012 12:40:20 PM

Electropherogram Summary Continued ...



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

Small RNA Concentration [pg/μl]:	848.4	Result Flagging Color:	
miRNA Concentration [pg/μl]:	493.5	Result Flagging Label:	58 % miRNA; Concentration: 493.50 pg/μl
miRNA / Small RNA Ratio [%]:	58		

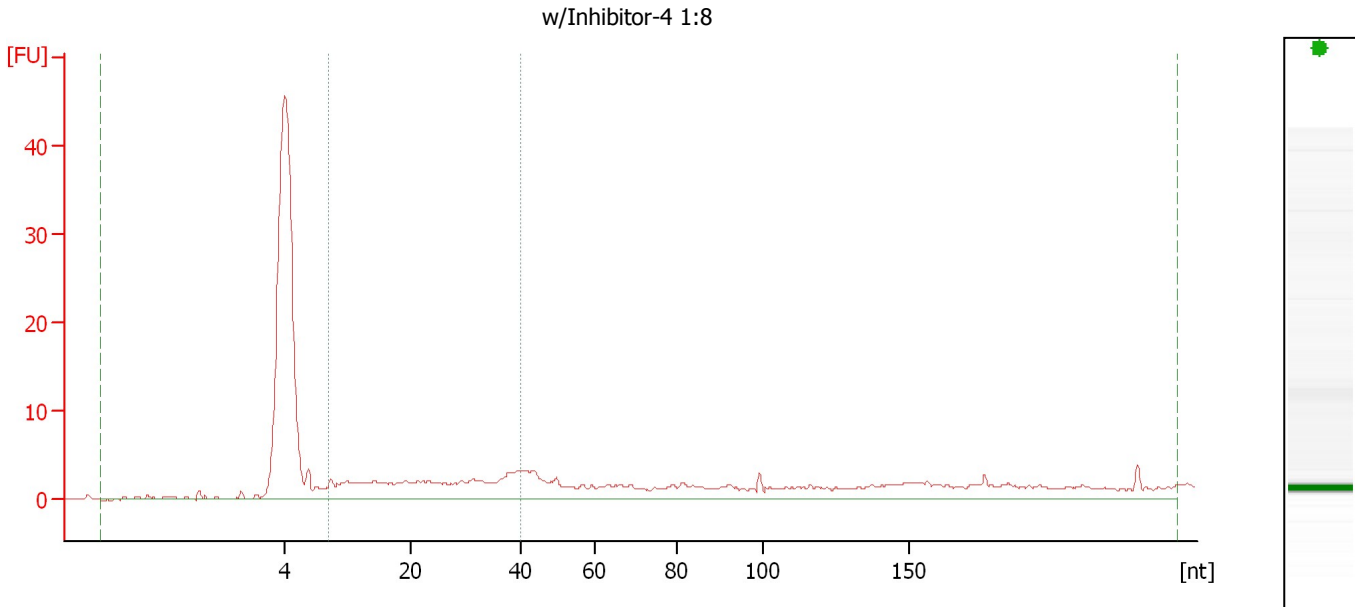
Region table for sample 2 : w/Inhibitor-4 1:4

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	244	59	100.0	848.4	100	
miRNA	10	40	27	34.2	493.5	58	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20_002.xad

Created: 4/20/2012 12:13:12 PM
 Modified: 4/20/2012 12:40:20 PM

Electropherogram Summary Continued ...



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

Small RNA Concentration [pg/μl]:	522.3	Result Flagging Color:	
miRNA Concentration [pg/μl]:	261.0	Result Flagging Label:	50 % miRNA; Concentration: 261 pg/μl
miRNA / Small RNA Ratio [%]:	50		

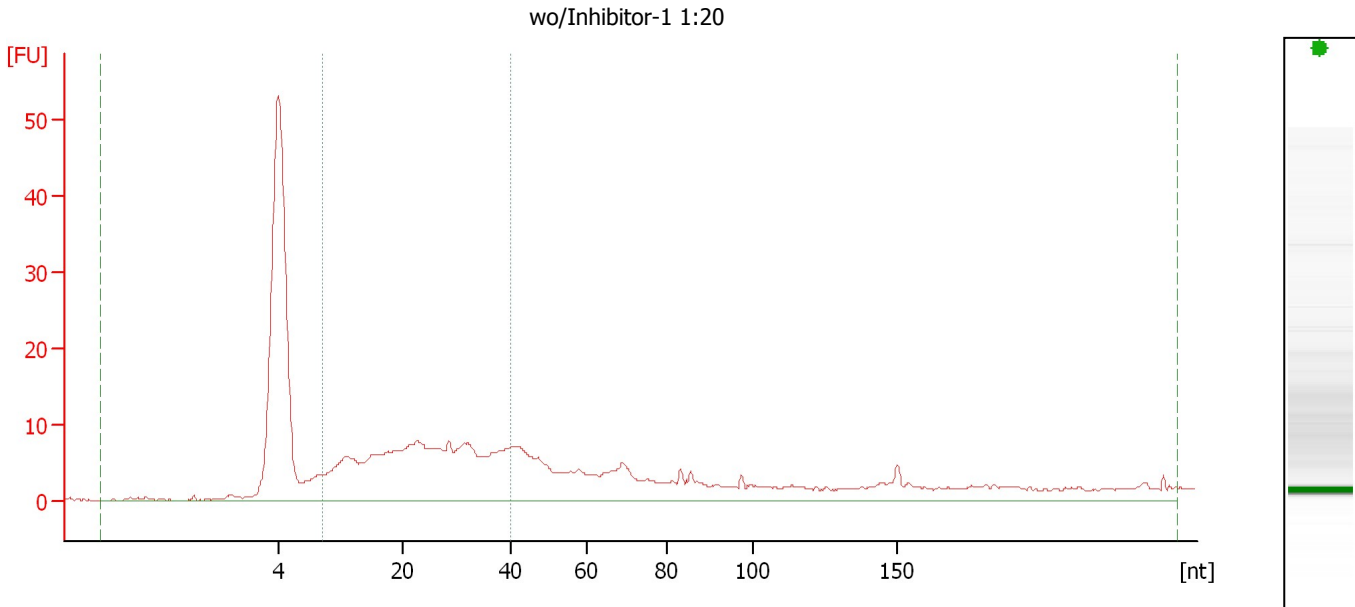
Region table for sample 3 : w/Inhibitor-4 1:8

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	242	64	100.0	522.3	100	
miRNA	10	40	24	38.1	261.0	50	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20_002.xad

Created: 4/20/2012 12:13:12 PM
 Modified: 4/20/2012 12:40:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : wo/Inhibitor-1 1:20

Small RNA Concentration [pg/μl]:	1,097.2	Result Flagging Color:	
miRNA Concentration [pg/μl]:	707.4	Result Flagging Label:	64 % miRNA; Concentration: 707.40 pg/μl
miRNA / Small RNA Ratio [%]:	64		

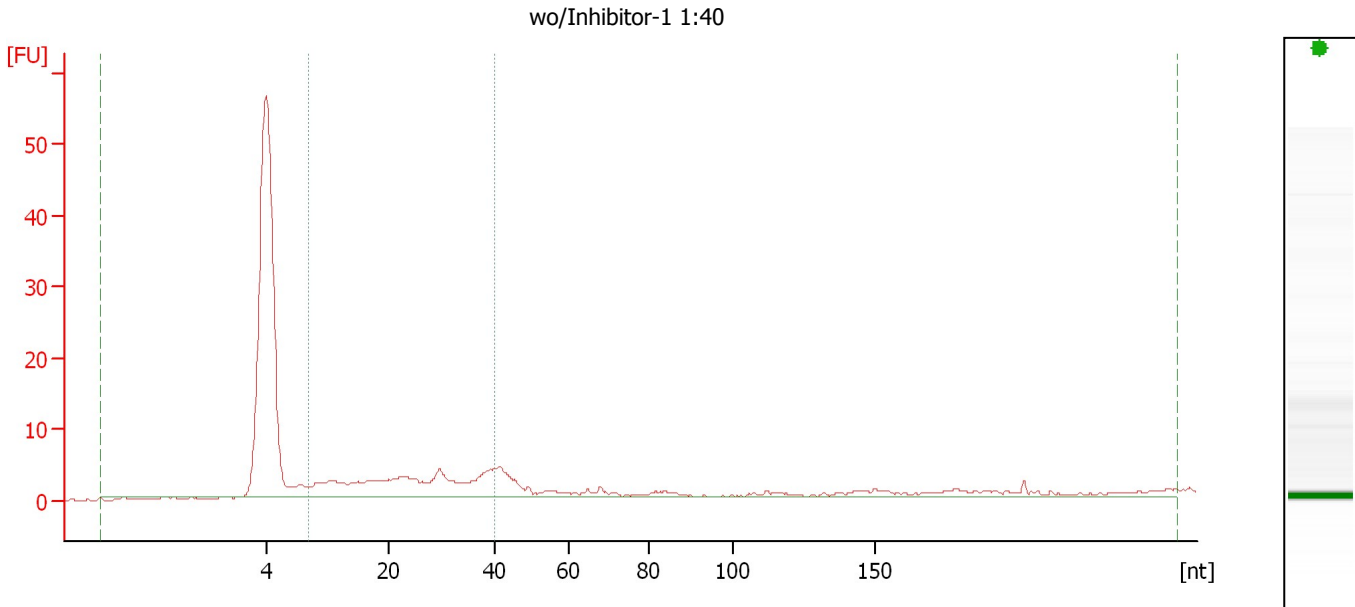
Region table for sample 4 : wo/Inhibitor-1 1:20

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	247	58	100.0	1,097.2	100	
miRNA	10	40	24	35.3	707.4	64	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20_002.xad

Created: 4/20/2012 12:13:12 PM
 Modified: 4/20/2012 12:40:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : wo/Inhibitor-1 1:40

Small RNA Concentration [pg/μl]:	363.3	Result Flagging Color:	
miRNA Concentration [pg/μl]:	255.6	Result Flagging Label:	70 % miRNA; Concentration: 255.60 pg/μl
miRNA / Small RNA Ratio [%]:	70		

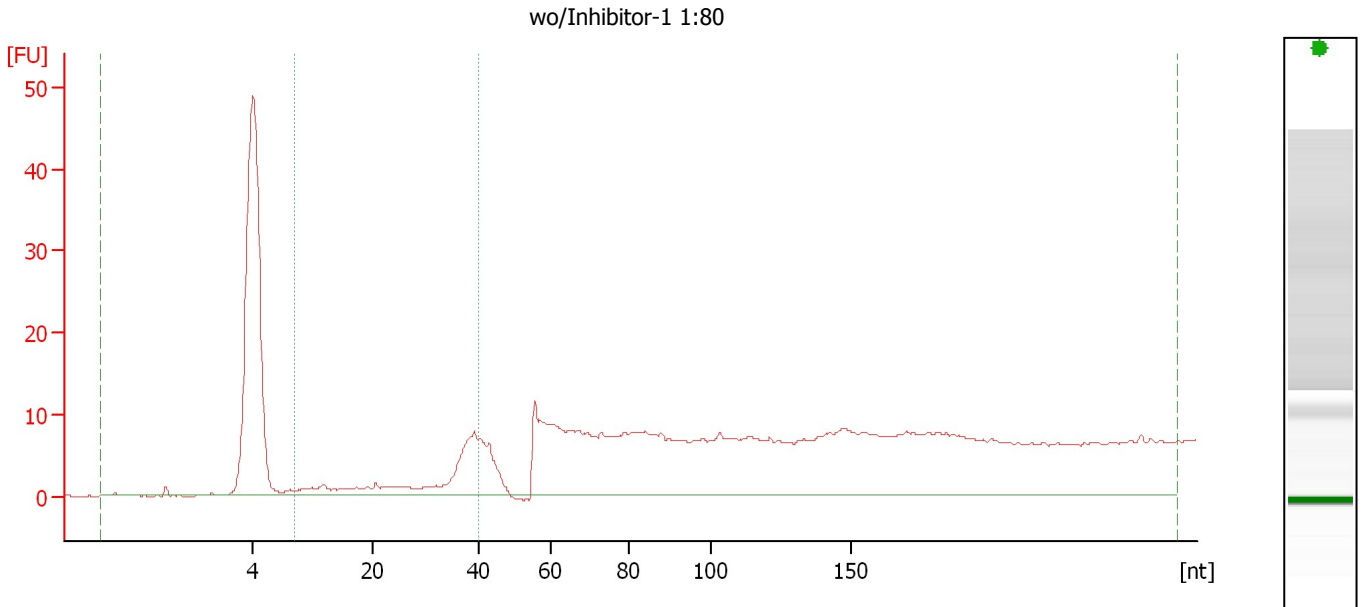
Region table for sample 5 : wo/Inhibitor-1 1:40

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	257	42	100.0	363.3	100	
miRNA	10	40	25	36.6	255.6	70	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20_002.xad

Created: 4/20/2012 12:13:12 PM
 Modified: 4/20/2012 12:40:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : wo/Inhibitor-1 1:80

Small RNA Concentration [pg/μl]:	1,158.4	Result Flagging Color:	
miRNA Concentration [pg/μl]:	173.6	Result Flagging Label:	15 % miRNA; Concentration: 173.60 pg/μl
miRNA / Small RNA Ratio [%]:	15		

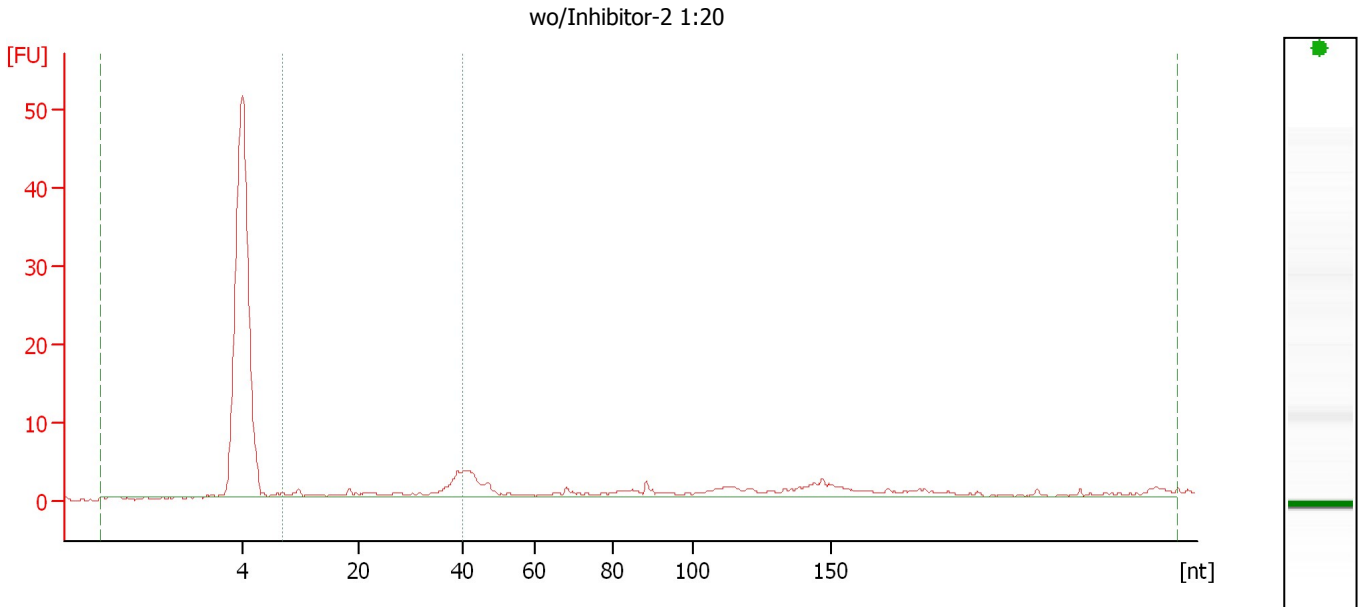
Region table for sample 6 : wo/Inhibitor-1 1:80

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	267	121	65.0	1,158.4	100	
miRNA	10	40	30	32.3	173.6	15	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20_002.xad

Created: 4/20/2012 12:13:12 PM
 Modified: 4/20/2012 12:40:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : wo/Inhibitor-2 1:20

Small RNA Concentration [pg/μl]:	206.6	Result Flagging Color:	
miRNA Concentration [pg/μl]:	72.1	Result Flagging Label:	35 % miRNA; Concentration: 72.10 pg/μl
miRNA / Small RNA Ratio [%]:	35		

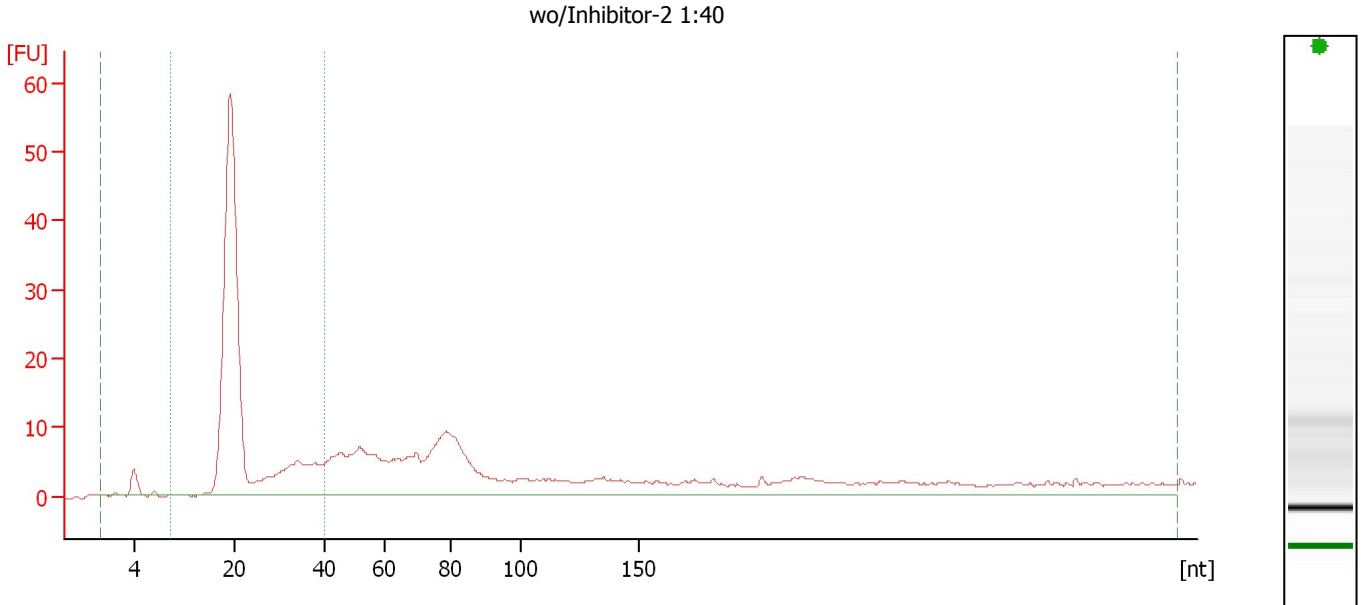
Region table for sample 7 : wo/Inhibitor-2 1:20

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	276	56	100.0	206.6	100	
miRNA	10	40	28	35.7	72.1	35	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20_002.xad

Created: 4/20/2012 12:13:12 PM
 Modified: 4/20/2012 12:40:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : wo/Inhibitor-2 1:40

Small RNA Concentration [pg/μl]:	40,836.3	Result Flagging Color:	
miRNA Concentration [pg/μl]:	28,165.7	Result Flagging Label:	69 % miRNA; Concentration: 28165.70 pg/μl
miRNA / Small RNA Ratio [%]:	69		

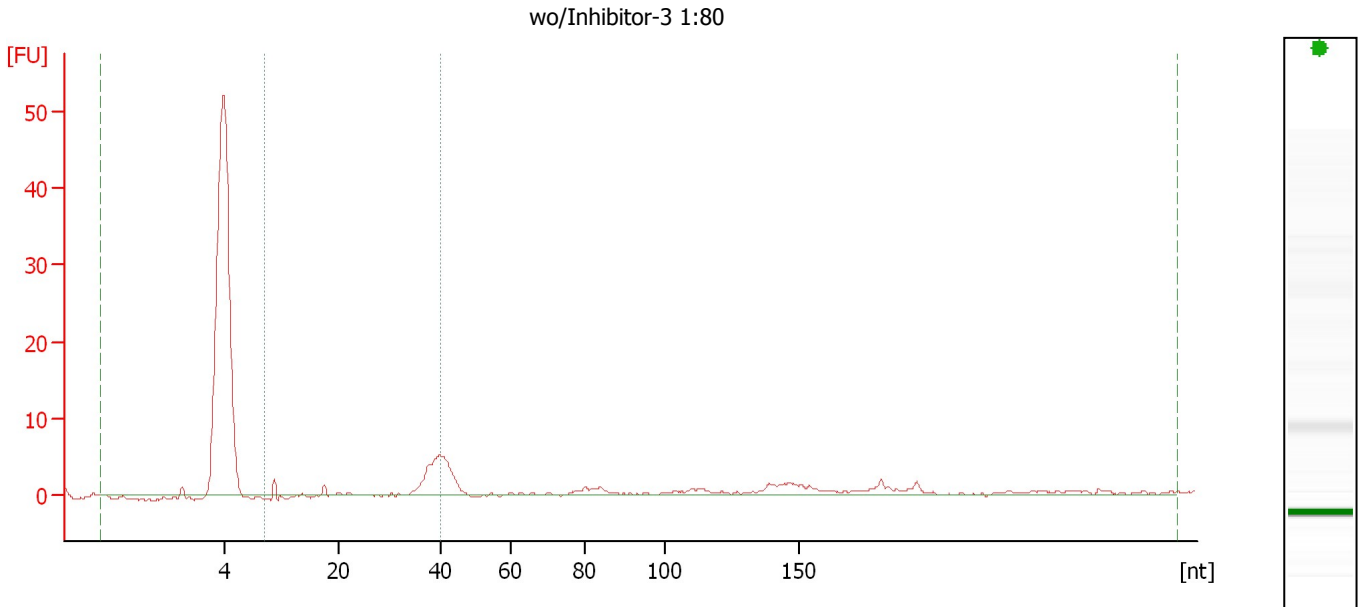
Region table for sample 8 : wo/Inhibitor-2 1:40

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	380	108	95.9	40,836.3	100	
miRNA	10	40	22	27.2	28,165.7	69	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20_002.xad

Created: 4/20/2012 12:13:12 PM
 Modified: 4/20/2012 12:40:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : wo/Inhibitor-3 1:80

Small RNA Concentration [pg/μl]:	130.5	Result Flagging Color:	████████
miRNA Concentration [pg/μl]:	46.0	Result Flagging Label:	35 % miRNA; Concentration: 46 pg/μl
miRNA / Small RNA Ratio [%]:	35		

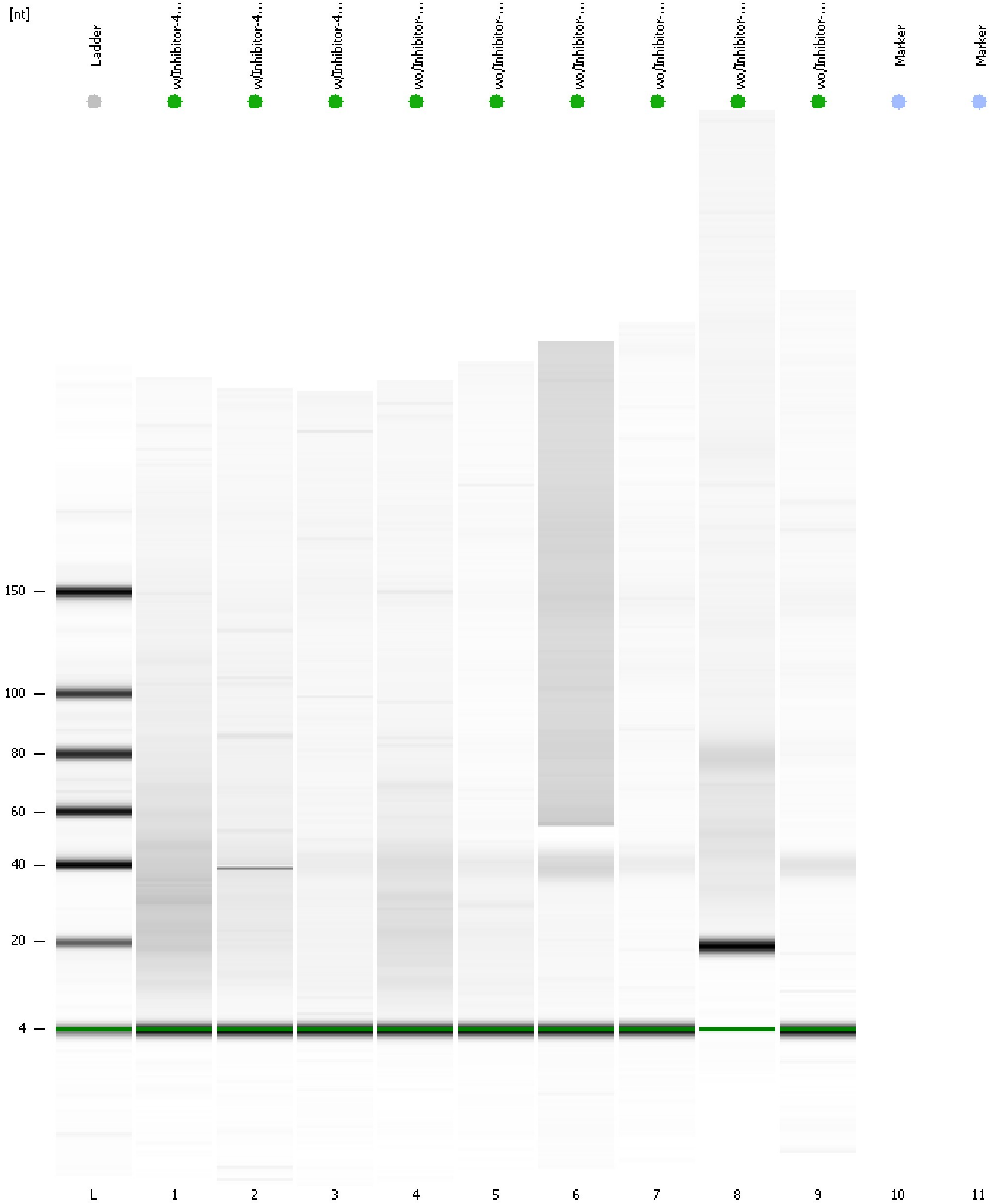
Region table for sample 9 : wo/Inhibitor-3 1:80

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	291	47	100.0	130.5	100	████
miRNA	10	40	34	24.4	46.0	35	████

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20_002.xad

Created: 4/20/2012 12:13:12 PM
Modified: 4/20/2012 12:40:20 PM

Gel Image



Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-20\2012-04-20_002.xad

Created: 4/20/2012 12:13:12 PM
Modified: 4/20/2012 12:40:20 PM

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_002.xad

Created: 4/20/2012 12:13:12 PM
 Modified: 4/20/2012 12:40:20 PM

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 12:40:16 PM	(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_002.xad)		Instrument	Run		4/20/2012 12:13:17 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/20/2012 12:13:17 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/20/2012 12:13:17 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/20/2012 12:13:17 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/20/2012 12:13:17 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/20/2012 12:13:17 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/20/2012 12:13:17 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1