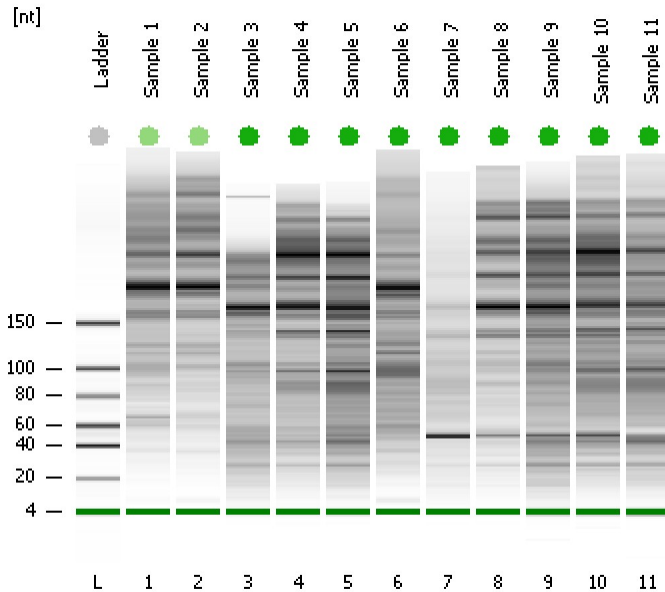


Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
Modified: 9/12/2014 10:55:32 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

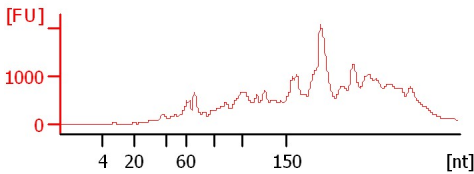
Assay Class: Small RNA
Version: 1.2
Assay Comments: Small RNA Analysis 6 - 150 nucleotides

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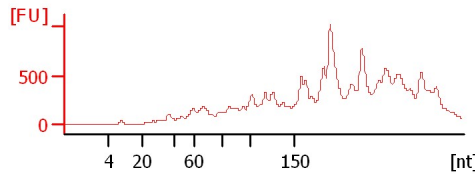
Chip Information:

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

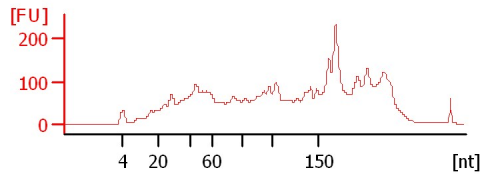
Sample 1
6 % miRNA; Concentration: 18433.60 pg/µl



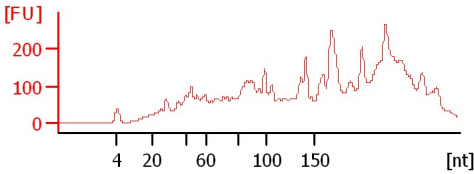
Sample 2
6 % miRNA; Concentration: 23224.20 pg/µl



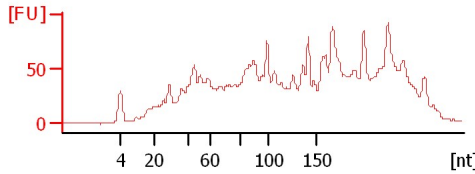
Sample 3
28 % miRNA; Concentration: 4972 pg/µl



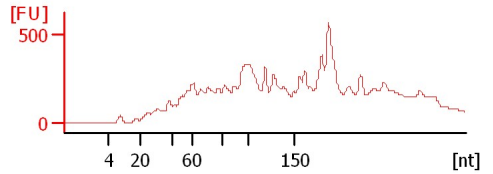
Sample 4
16 % miRNA; Concentration: 3600.80 pg/µl



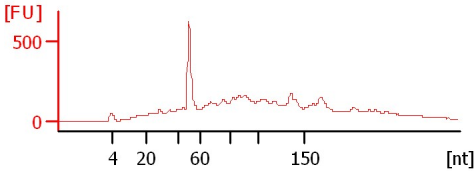
Sample 5
21 % miRNA; Concentration: 2813 pg/µl



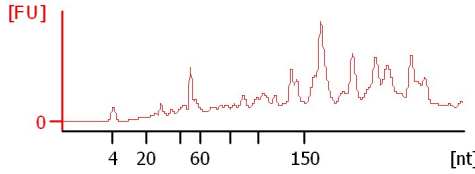
Sample 6
12 % miRNA; Concentration: 66920.30 p...



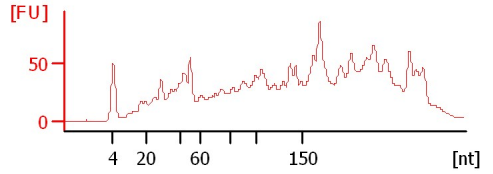
Sample 7
23 % miRNA; Concentration: 3804.70 pg/µl



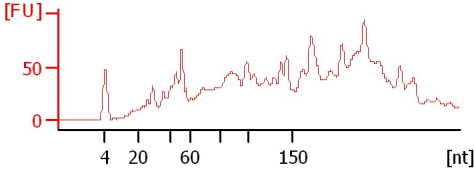
Sample 8
13 % miRNA; Concentration: 2127.40 pg/µl



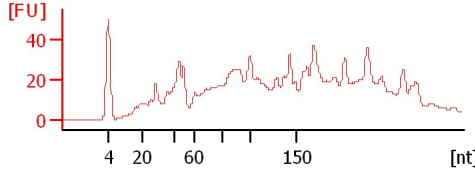
Sample 9
24 % miRNA; Concentration: 1848.60 pg/µl



Sample 10
17 % miRNA; Concentration: 1381.10 pg/µl















Sample 11
21 % miRNA; Concentration: 878.20 pg/µl



Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
 Modified: 9/12/2014 10:55:32 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
Sample 1		✓	6 % miRNA; Concentration: 18433.60 pg/μl	
Sample 2		✓	6 % miRNA; Concentration: 23224.20 pg/μl	
Sample 3		✓	28 % miRNA; Concentration: 4972 pg/μl	
Sample 4		✓	16 % miRNA; Concentration: 3600.80 pg/μl	
Sample 5		✓	21 % miRNA; Concentration: 2813 pg/μl	
Sample 6		✓	12 % miRNA; Concentration: 66920.30 pg/μl	
Sample 7		✓	23 % miRNA; Concentration: 3804.70 pg/μl	
Sample 8		✓	13 % miRNA; Concentration: 2127.40 pg/μl	
Sample 9		✓	24 % miRNA; Concentration: 1848.60 pg/μl	
Sample 10		✓	17 % miRNA; Concentration: 1381.10 pg/μl	
Sample 11		✓	21 % miRNA; Concentration: 878.20 pg/μl	
Ladder		✓	Number of Peaks: 6	

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
Modified: 9/12/2014 10:55:32 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

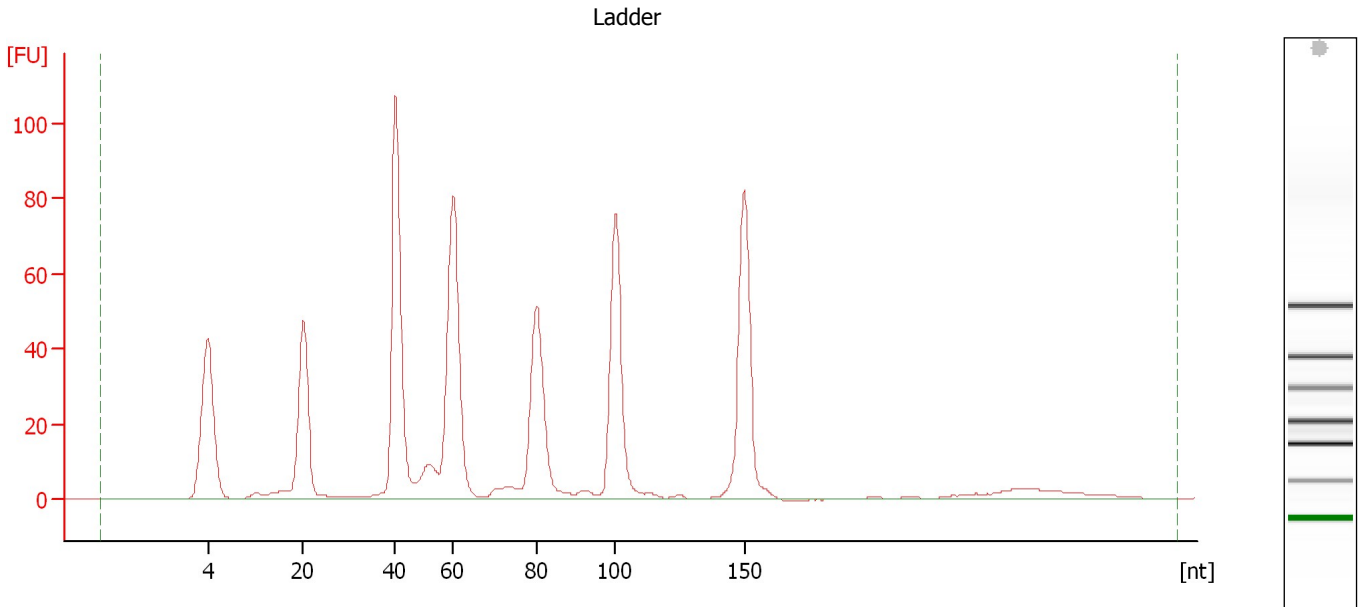
Ladder

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

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
Modified: 9/12/2014 10:55:32 AM

Electropherogram Summary



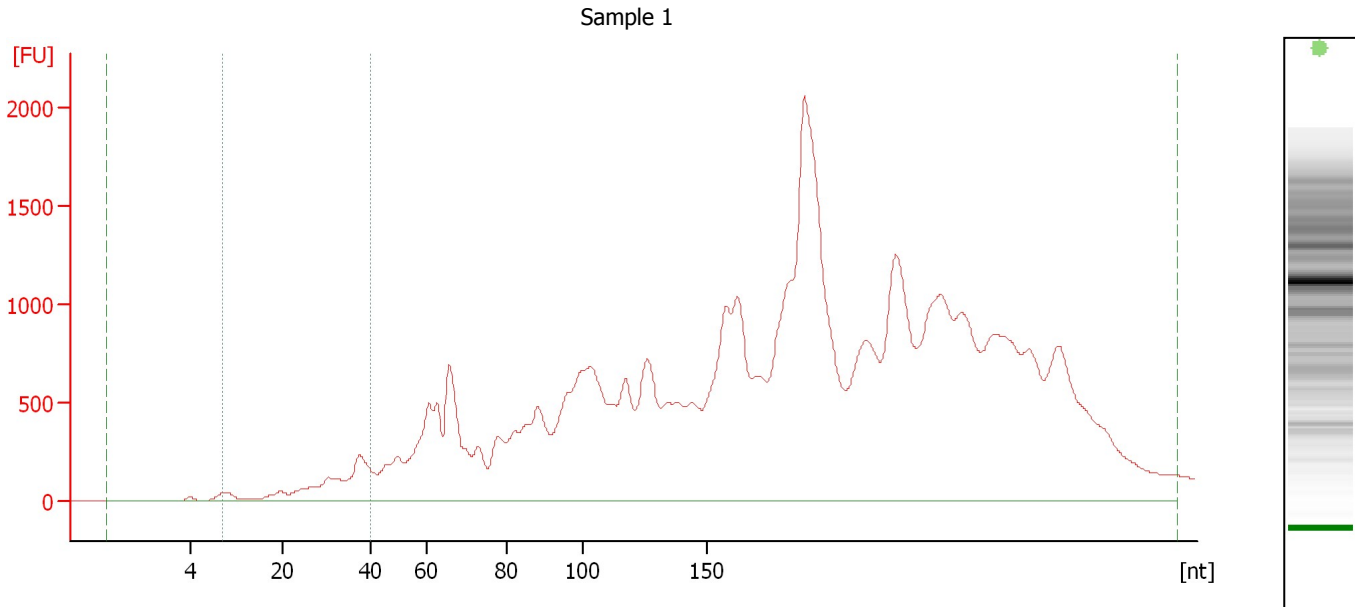
Overall Results for Ladder

Result Flagging Color: Result Flagging Label: Number of Peaks: 6

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
 Modified: 9/12/2014 10:55:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Sample 1

Small RNA Concentration [pg/μl]:	303,704.6	Result Flagging Color:	
miRNA Concentration [pg/μl]:	18,433.6	Result Flagging Label:	6 % miRNA; Concentration: 18433.60 pg/μl
miRNA / Small RNA Ratio [%]:	6		

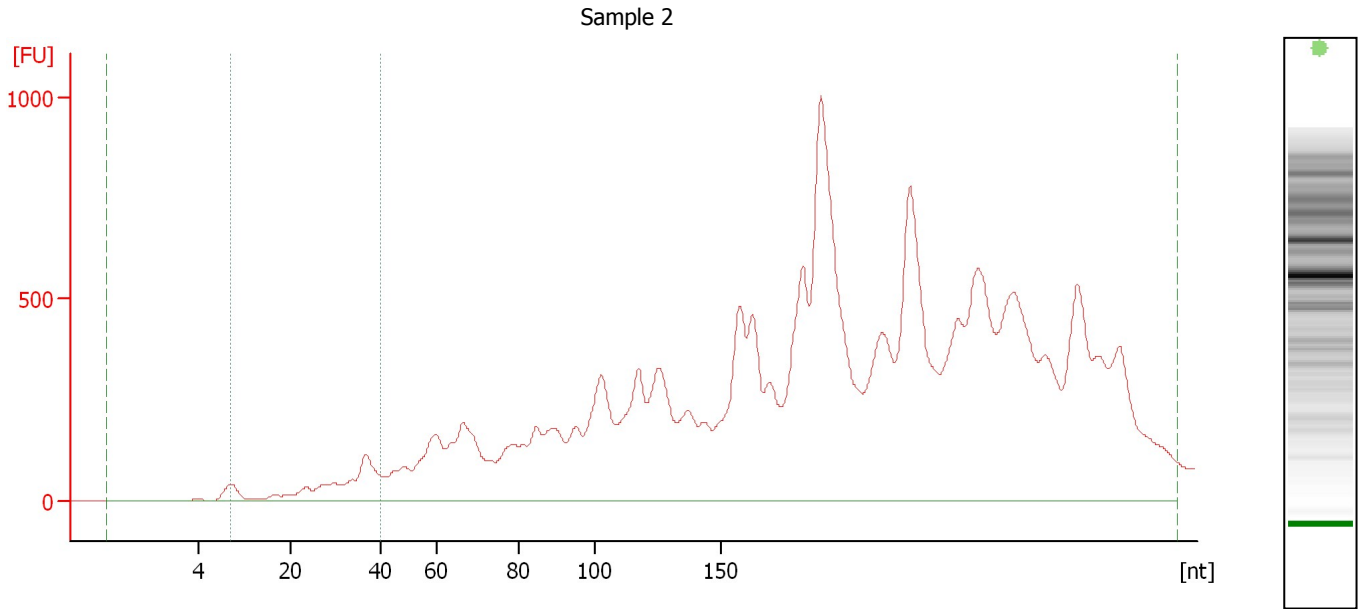
Region table for sample 1 : Sample 1

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	339	187	40.1	303,704.6	100	
miRNA	10	40	30	27.5	18,433.6	6	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
 Modified: 9/12/2014 10:55:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Sample 2

Small RNA Concentration [pg/μl]:	374,454.2	Result Flagging Color:	
miRNA Concentration [pg/μl]:	23,224.3	Result Flagging Label:	6 % miRNA; Concentration: 23224.20 pg/μl
miRNA / Small RNA Ratio [%]:	6		

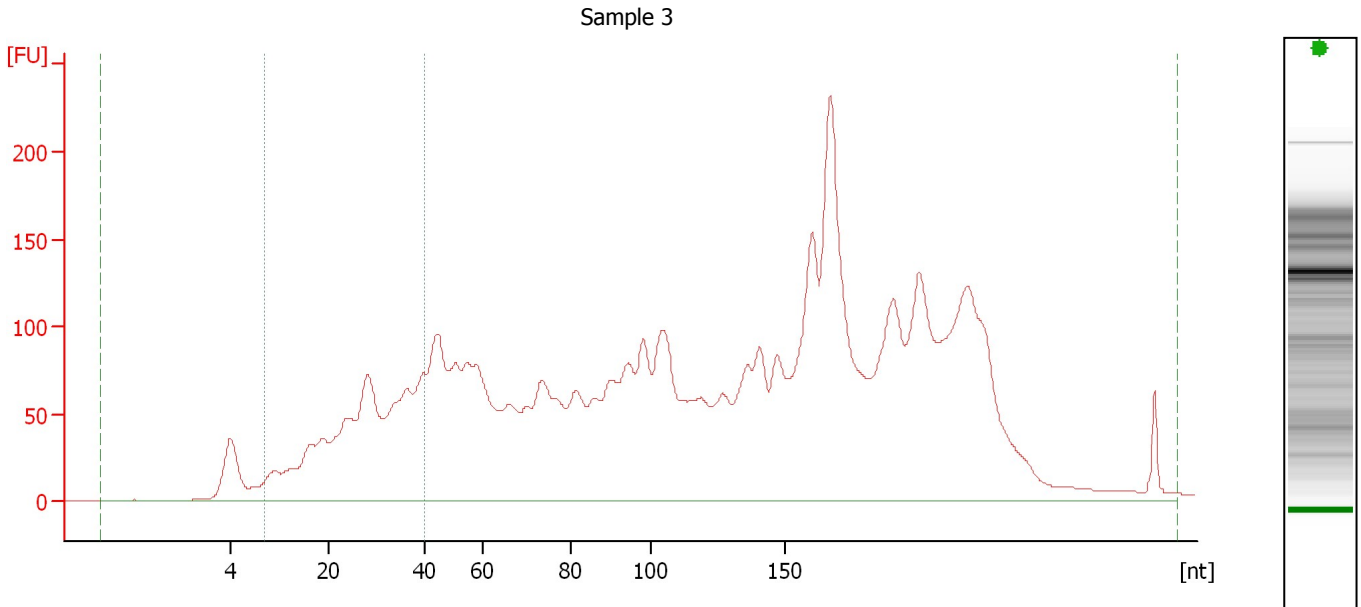
Region table for sample 2 : Sample 2

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	331	197	38.7	374,454.2	100	
miRNA	10	40	29	29.4	23,224.2	6	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
 Modified: 9/12/2014 10:55:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Sample 3

Small RNA Concentration [pg/μl]:	17,846.4	Result Flagging Color:	
miRNA Concentration [pg/μl]:	4,972.0	Result Flagging Label:	28 % miRNA; Concentration: 4972 pg/μl
miRNA / Small RNA Ratio [%]:	28		

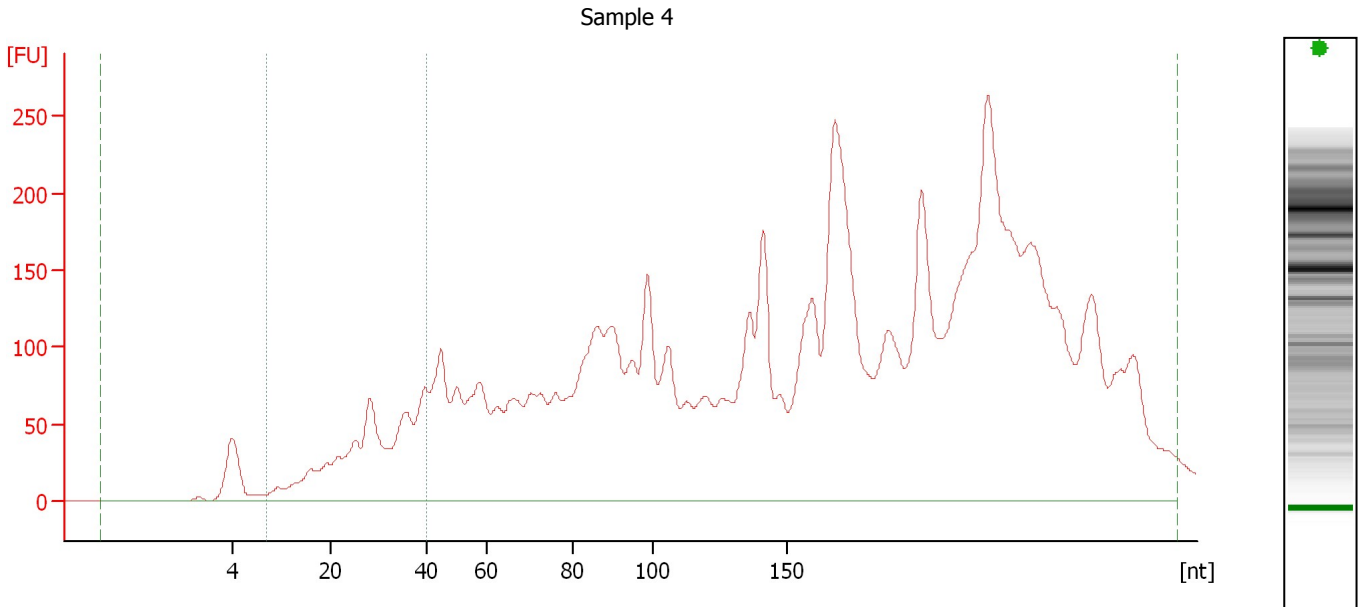
Region table for sample 3 : Sample 3

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	297	128	53.6	17,846.4	100	
miRNA	10	40	27	29.7	4,972.0	28	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
 Modified: 9/12/2014 10:55:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Sample 4

Small RNA Concentration [pg/μl]:	21,928.6	Result Flagging Color:	
miRNA Concentration [pg/μl]:	3,600.8	Result Flagging Label:	16 % miRNA; Concentration: 3600.80 pg/μl
miRNA / Small RNA Ratio [%]:	16		

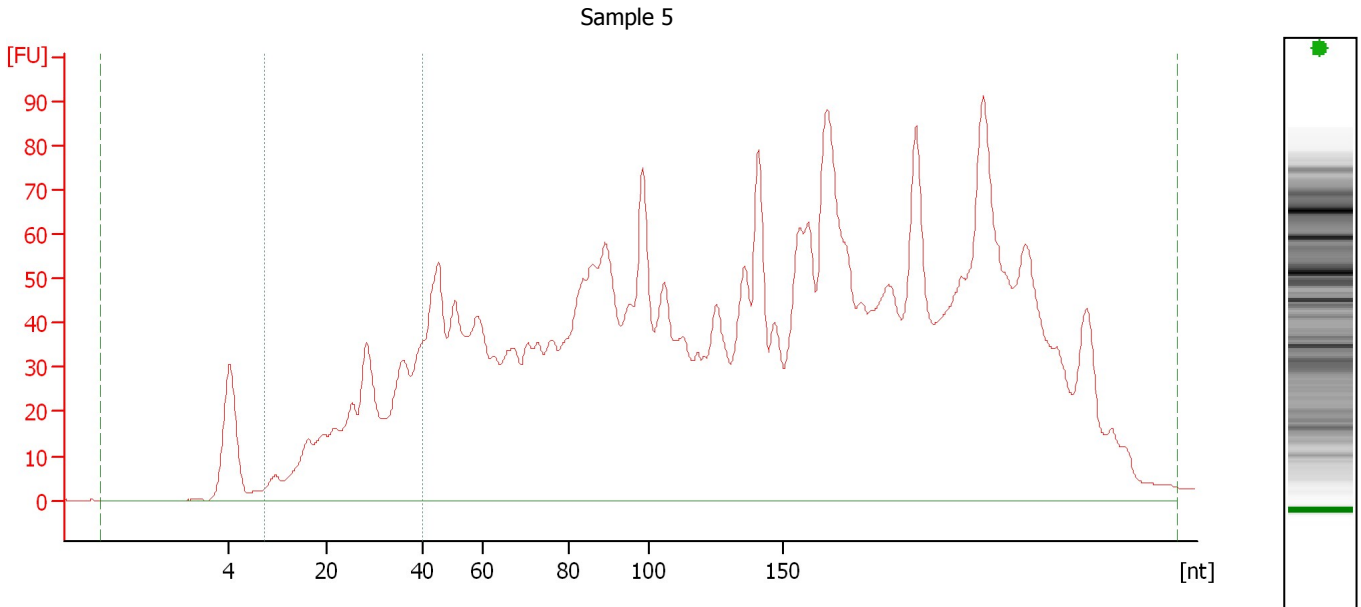
Region table for sample 4 : Sample 4

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	295	160	47.6	21,928.6	100	
miRNA	10	40	29	27.4	3,600.8	16	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
 Modified: 9/12/2014 10:55:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Sample 5

Small RNA Concentration [pg/μl]:	13,663.2	Result Flagging Color:	
miRNA Concentration [pg/μl]:	2,813.0	Result Flagging Label:	21 % miRNA; Concentration: 2813 pg/μl
miRNA / Small RNA Ratio [%]:	21		

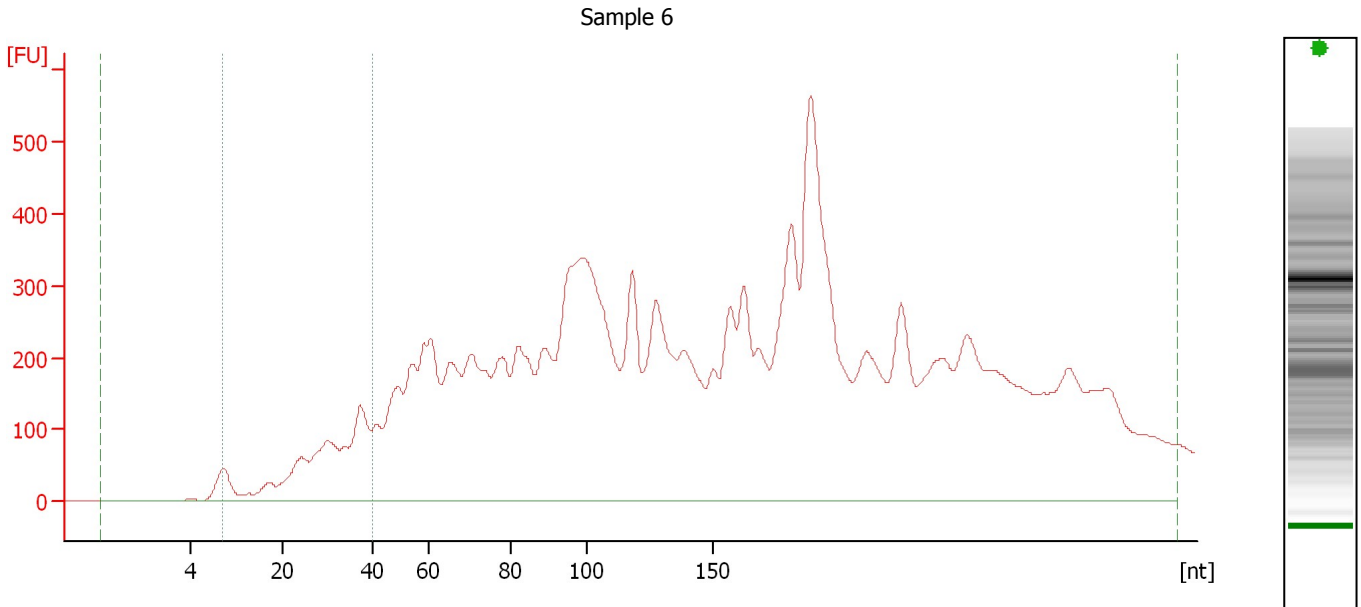
Region table for sample 5 : Sample 5

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	298	141	52.3	13,663.2	100	
miRNA	10	40	28	28.1	2,813.0	21	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
 Modified: 9/12/2014 10:55:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Sample 6

Small RNA Concentration [pg/μl]:	568,767.4	Result Flagging Color:	
miRNA Concentration [pg/μl]:	66,920.3	Result Flagging Label:	12 % miRNA; Concentration: 66920.30 pg/μl
miRNA / Small RNA Ratio [%]:	12		

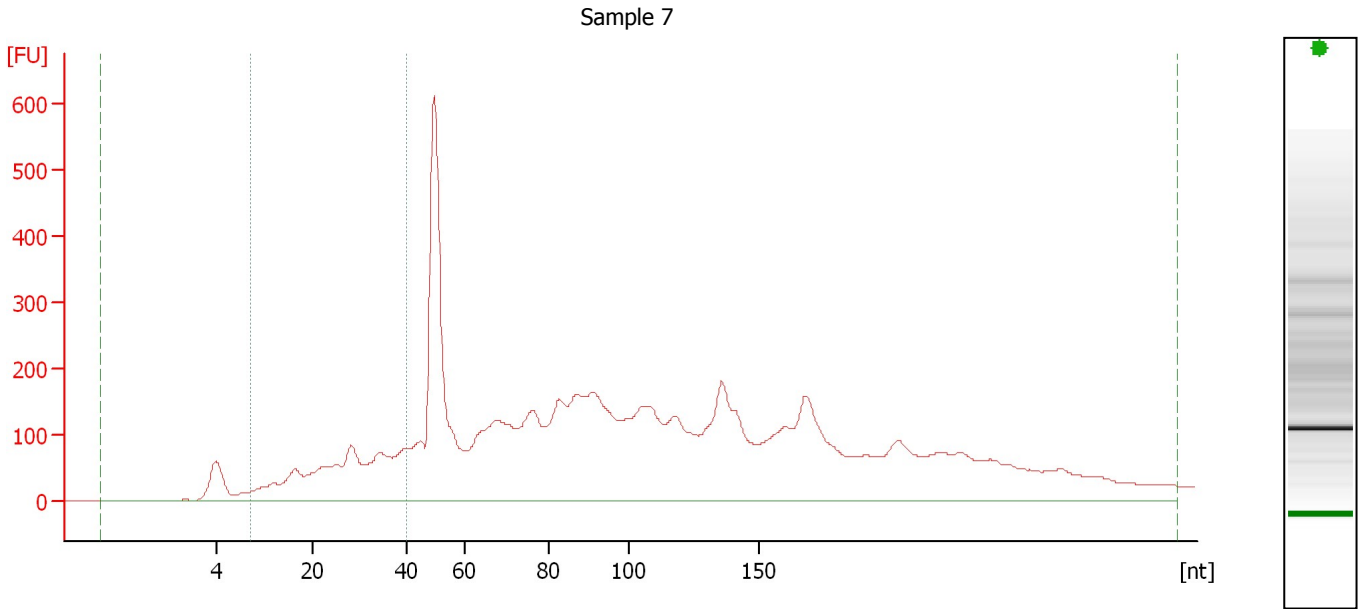
Region table for sample 6 : Sample 6

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	334	162	50.3	568,767.4	100	
miRNA	10	40	29	27.7	66,920.3	12	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
 Modified: 9/12/2014 10:55:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Sample 7

Small RNA Concentration [pg/μl]:	16,705.4	Result Flagging Color:	
miRNA Concentration [pg/μl]:	3,804.7	Result Flagging Label:	23 % miRNA; Concentration: 3804.70 pg/μl
miRNA / Small RNA Ratio [%]:	23		

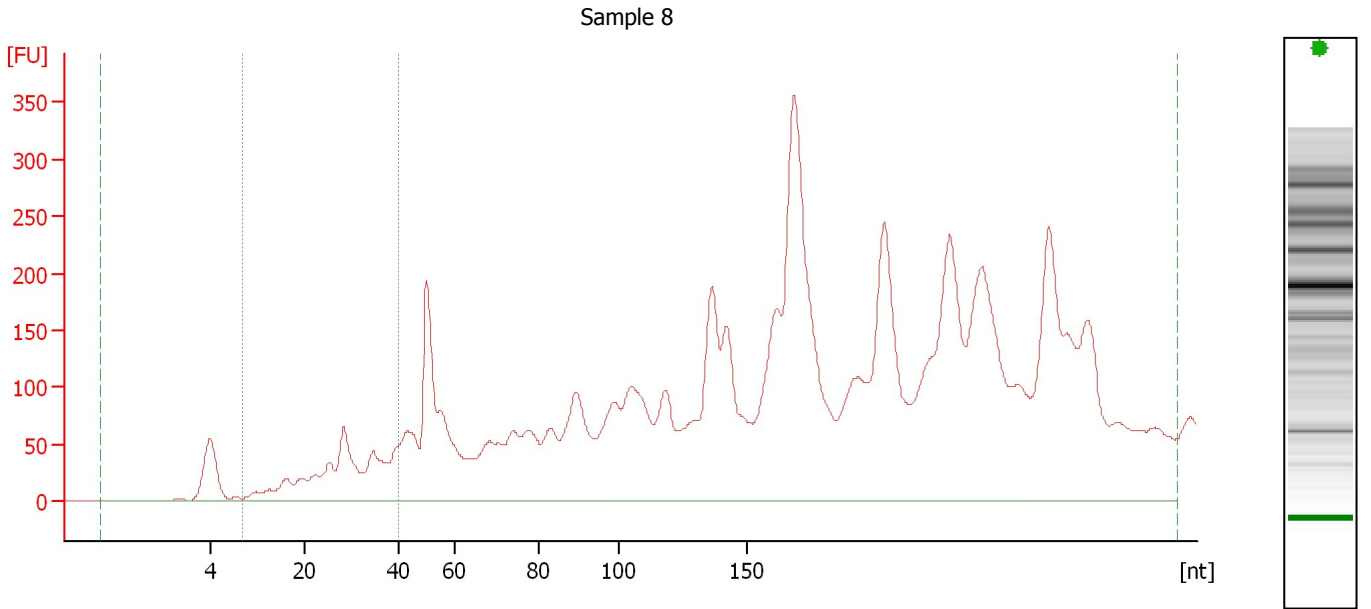
Region table for sample 7 : Sample 7

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	309	121	60.3	16,705.4	100	
miRNA	10	40	27	30.7	3,804.7	23	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
 Modified: 9/12/2014 10:55:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : Sample 8

Small RNA Concentration [pg/μl]:	16,482.7	Result Flagging Color:	
miRNA Concentration [pg/μl]:	2,127.4	Result Flagging Label:	13 % miRNA; Concentration: 2127.40 pg/μl
miRNA / Small RNA Ratio [%]:	13		

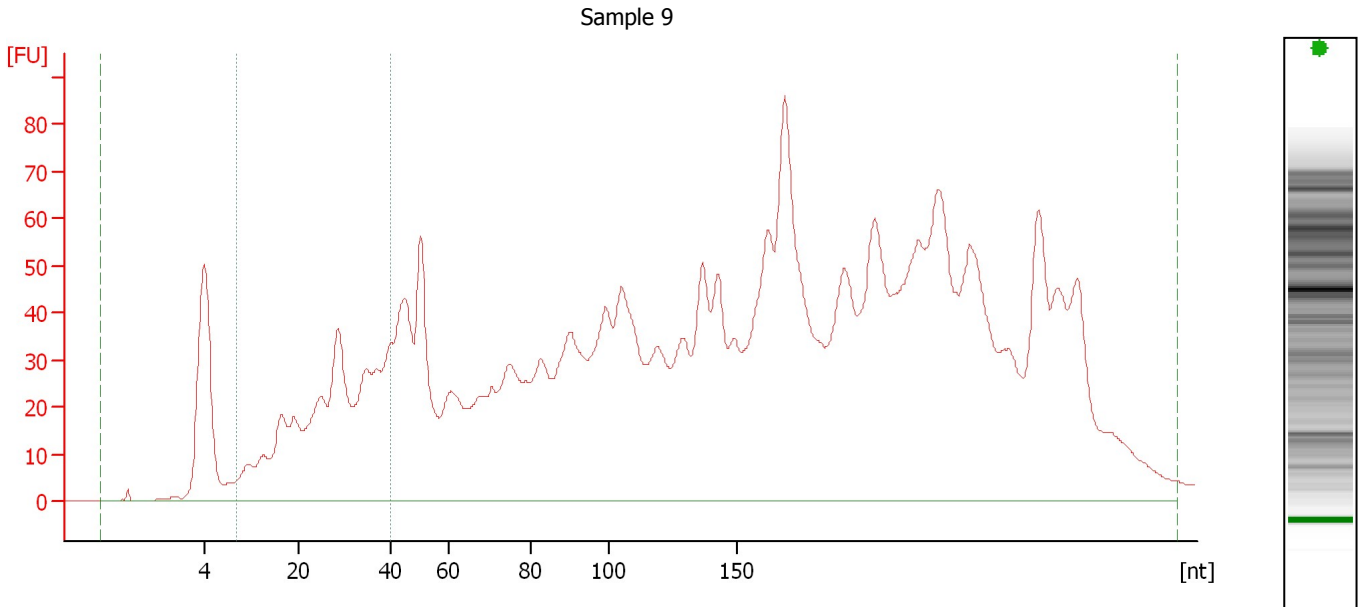
Region table for sample 8 : Sample 8

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	315	175	45.3	16,482.7	100	
miRNA	10	40	28	27.3	2,127.4	13	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
 Modified: 9/12/2014 10:55:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : Sample 9

Small RNA Concentration [pg/μl]:	7,554.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,848.6	Result Flagging Label:	24 % miRNA; Concentration: 1848.60 pg/μl
miRNA / Small RNA Ratio [%]:	24		

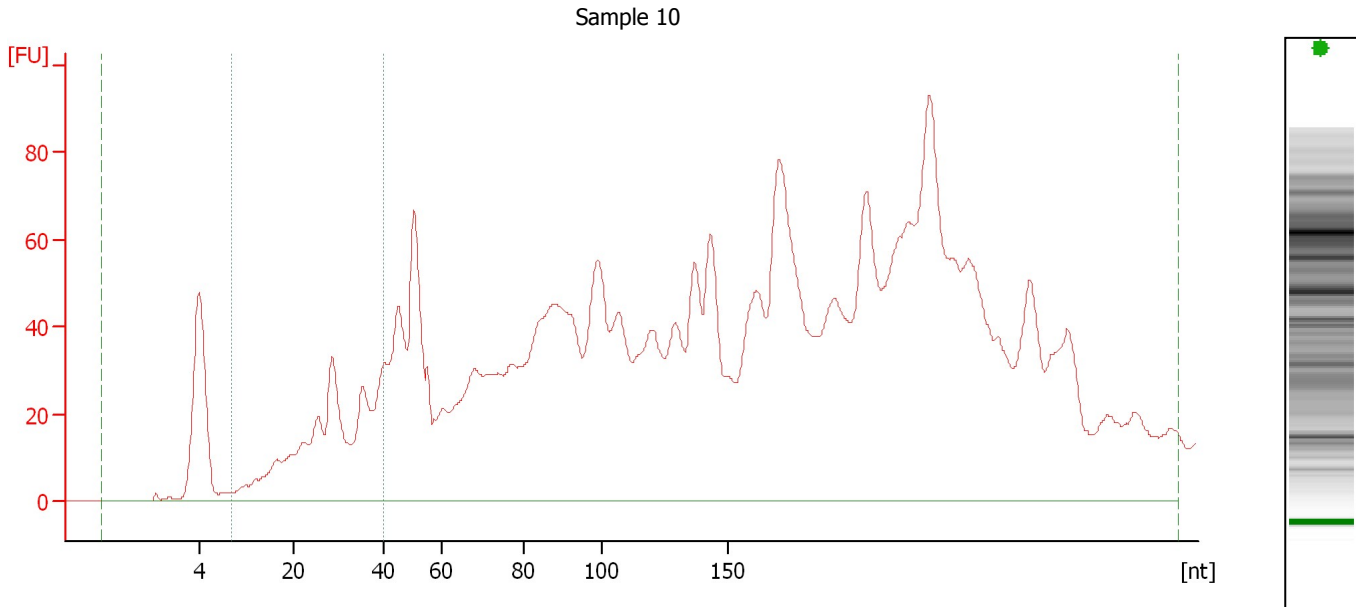
Region table for sample 9 : Sample 9

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	321	153	54.4	7,554.5	100	
miRNA	10	40	27	30.0	1,848.6	24	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
 Modified: 9/12/2014 10:55:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : Sample 10

Small RNA Concentration [pg/μl]:	8,313.6	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,381.1	Result Flagging Label:	17 % miRNA; Concentration: 1381.10 pg/μl
miRNA / Small RNA Ratio [%]:	17		

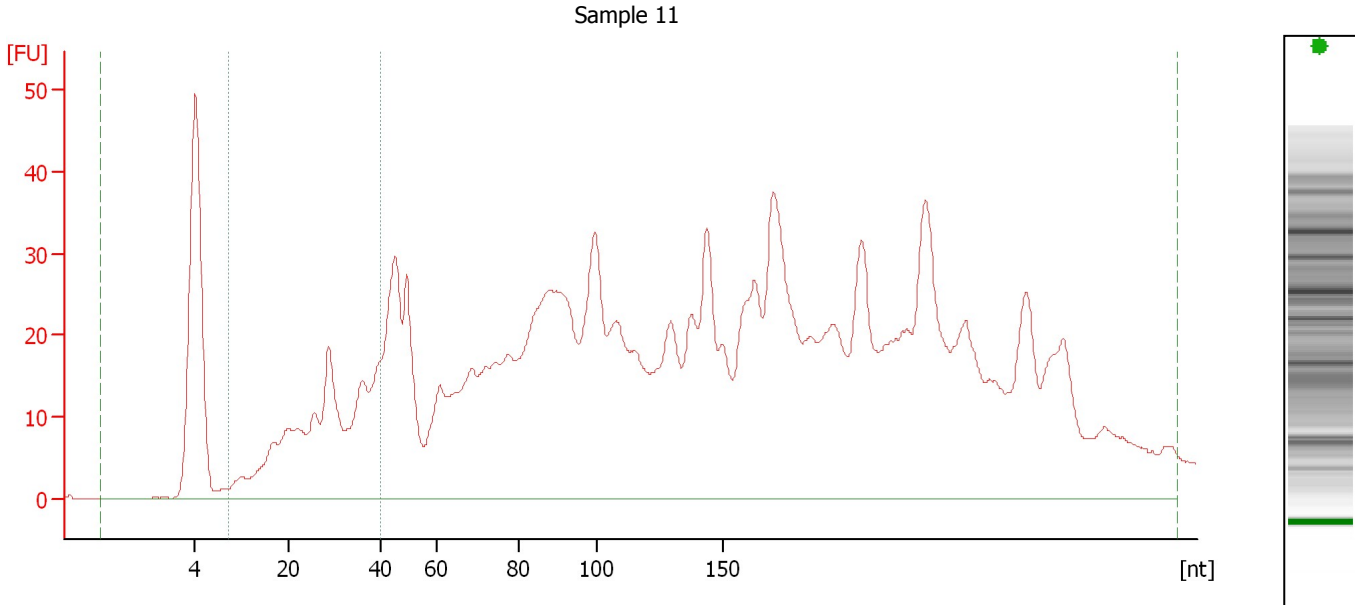
Region table for sample 10 : Sample 10

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	326	160	51.8	8,313.6	100	
miRNA	10	40	28	27.1	1,381.1	17	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
 Modified: 9/12/2014 10:55:32 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : Sample 11

Small RNA Concentration [pg/μl]:	4,195.4	Result Flagging Color:	
miRNA Concentration [pg/μl]:	878.2	Result Flagging Label:	21 % miRNA; Concentration: 878.20 pg/μl
miRNA / Small RNA Ratio [%]:	21		

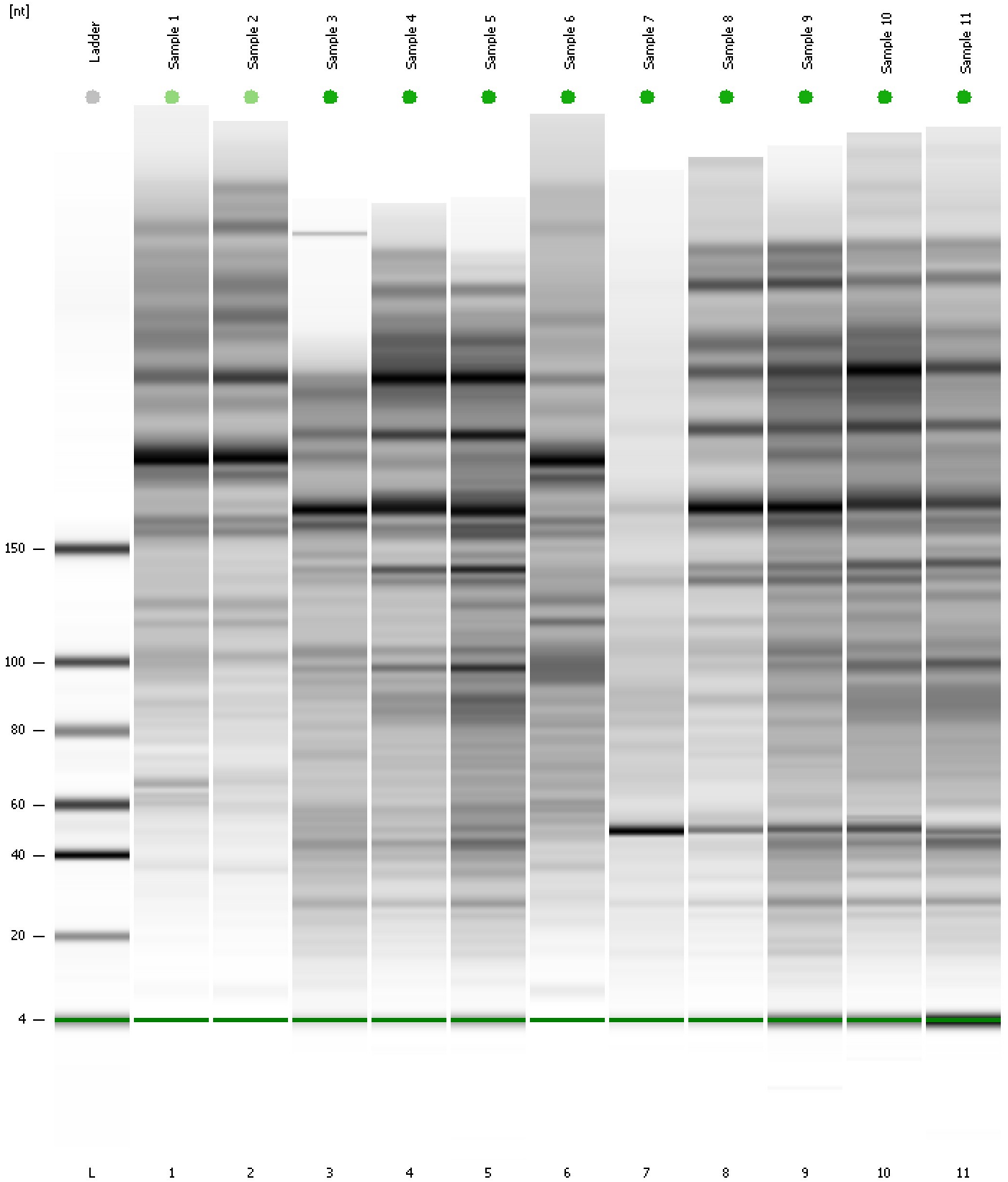
Region table for sample 11 : Sample 11

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	329	147	57.9	4,195.4	100	
miRNA	10	40	28	28.4	878.2	21	

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
Modified: 9/12/2014 10:55:32 AM

Gel Image



Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad

Created: 9/12/2014 10:23:32 AM
 Modified: 9/12/2014 10:55:32 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		9/12/2014 10:55:30 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-09-12\2014-09-12_001.xad)		Instrument	Run		9/12/2014 10:23:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/12/2014 10:23:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/12/2014 10:23:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/12/2014 10:23:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/12/2014 10:23:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/12/2014 10:23:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/12/2014 10:23:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1