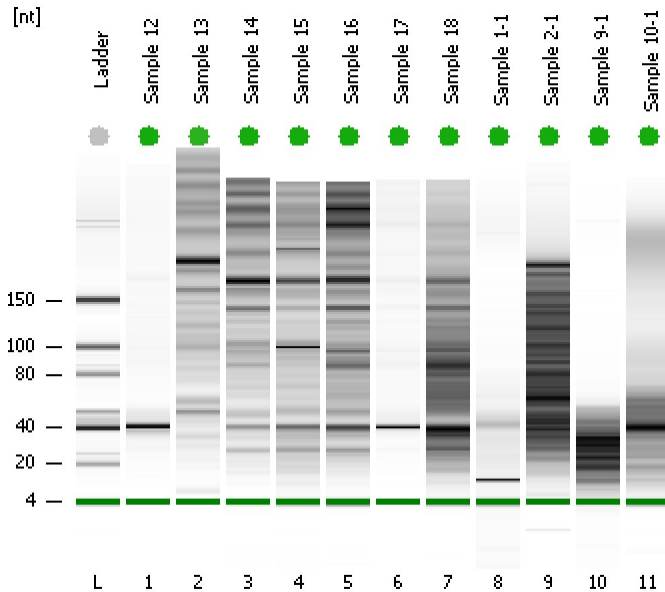


Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_002.xad

Created: 9/12/2014 11:02:39 AM
Modified: 9/12/2014 11:33:24 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

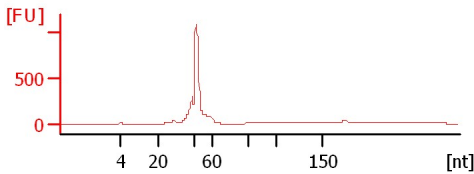
Assay Class: Small RNA
Version: 1.2
Assay Comments: Small RNA Analysis 6 - 150 nucleotides

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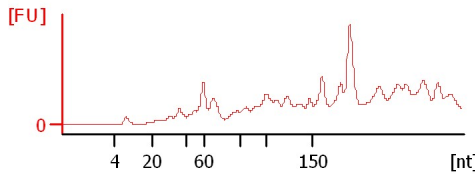
Chip Information:

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

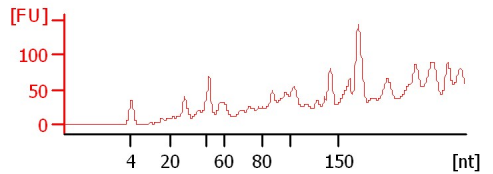
Sample 12
25 % miRNA; Concentration: 7305 pg/µl



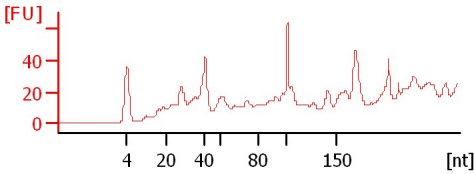
Sample 13
11 % miRNA; Concentration: 22627.70 p...



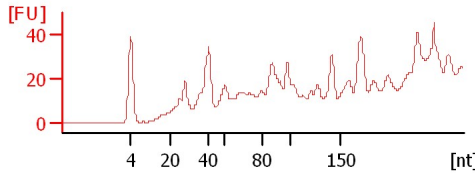
Sample 14
17 % miRNA; Concentration: 2265.80 pg/µl



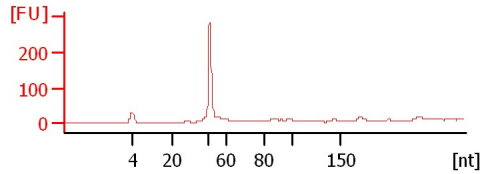
Sample 15
30 % miRNA; Concentration: 1868 pg/µl



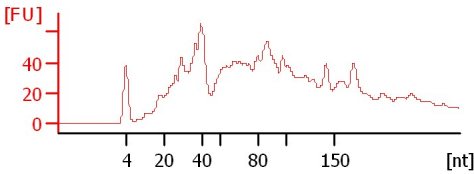
Sample 16
20 % miRNA; Concentration: 1163.80 pg/µl



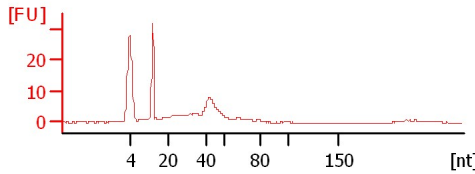
Sample 17
16 % miRNA; Concentration: 895.50 pg/µl



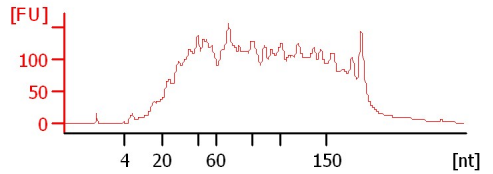
Sample 18
31 % miRNA; Concentration: 3688.40 pg/µl



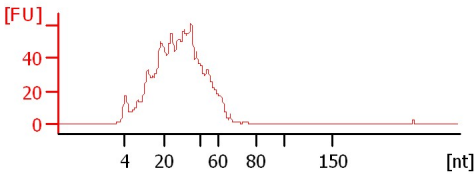
Sample 1-1
66 % miRNA; Concentration: 758.40 pg/µl



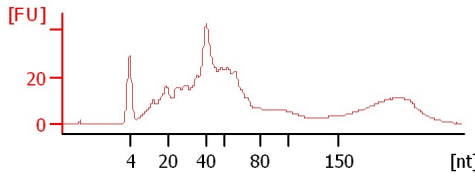
Sample 2-1
26 % miRNA; Concentration: 140997.50 ...



Sample 9-1
84 % miRNA; Concentration: 14484.70 p...















Sample 10-1
43 % miRNA; Concentration: 3112.90 pg/µl



Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_002.xad

Created: 9/12/2014 11:02:39 AM
 Modified: 9/12/2014 11:33:24 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
Sample 12		✓	25 % miRNA; Concentration: 7305 pg/μl	
Sample 13		✓	11 % miRNA; Concentration: 22627.70 pg/μl	
Sample 14		✓	17 % miRNA; Concentration: 2265.80 pg/μl	
Sample 15		✓	30 % miRNA; Concentration: 1868 pg/μl	
Sample 16		✓	20 % miRNA; Concentration: 1163.80 pg/μl	
Sample 17		✓	16 % miRNA; Concentration: 895.50 pg/μl	
Sample 18		✓	31 % miRNA; Concentration: 3688.40 pg/μl	
Sample 1-1		✓	66 % miRNA; Concentration: 758.40 pg/μl	
Sample 2-1		✓	26 % miRNA; Concentration: 140997.50 pg/μl	
Sample 9-1		✓	84 % miRNA; Concentration: 14484.70 pg/μl	
Sample 10-1		✓	43 % miRNA; Concentration: 3112.90 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_002.xad

Created: 9/12/2014 11:02:39 AM
Modified: 9/12/2014 11:33:24 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

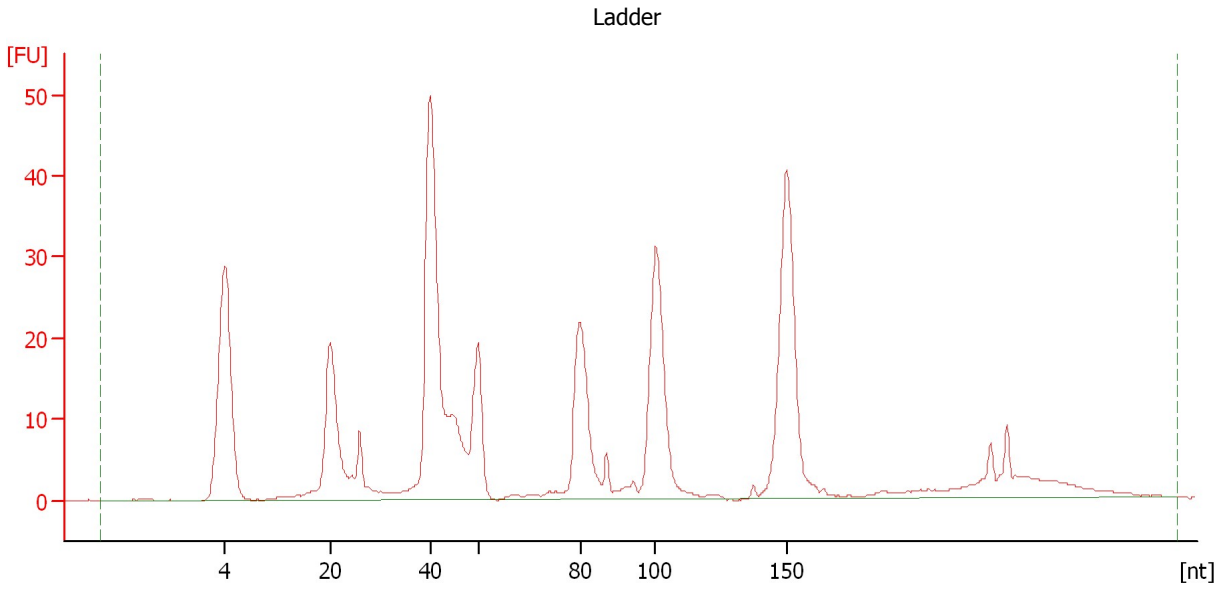
Ladder

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_002.xad

Created: 9/12/2014 11:02:39 AM
Modified: 9/12/2014 11:33:24 AM

Electropherogram Summary



Overall Results for Ladder

Result Flagging Color:

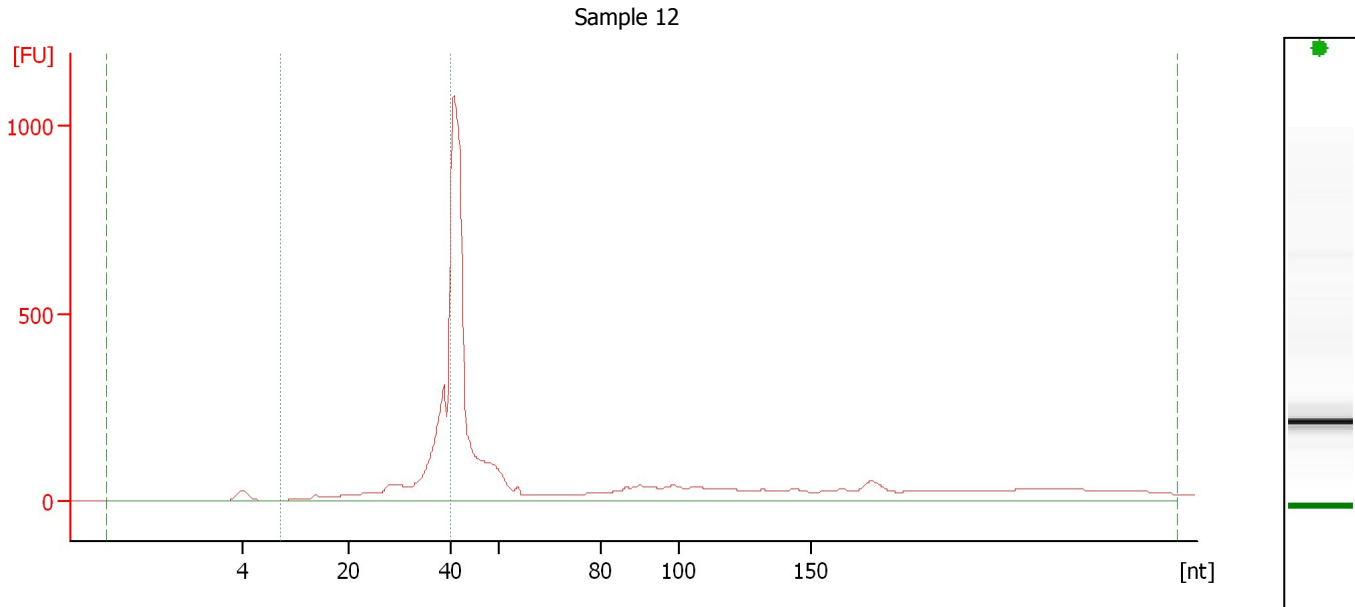
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_002.xad

Created: 9/12/2014 11:02:39 AM
 Modified: 9/12/2014 11:33:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Sample 12

Small RNA Concentration [pg/μl]:	29,131.9	Result Flagging Color:	
miRNA Concentration [pg/μl]:	7,305.0	Result Flagging Label:	25 % miRNA; Concentration: 7305 pg/μl
miRNA / Small RNA Ratio [%]:	25		

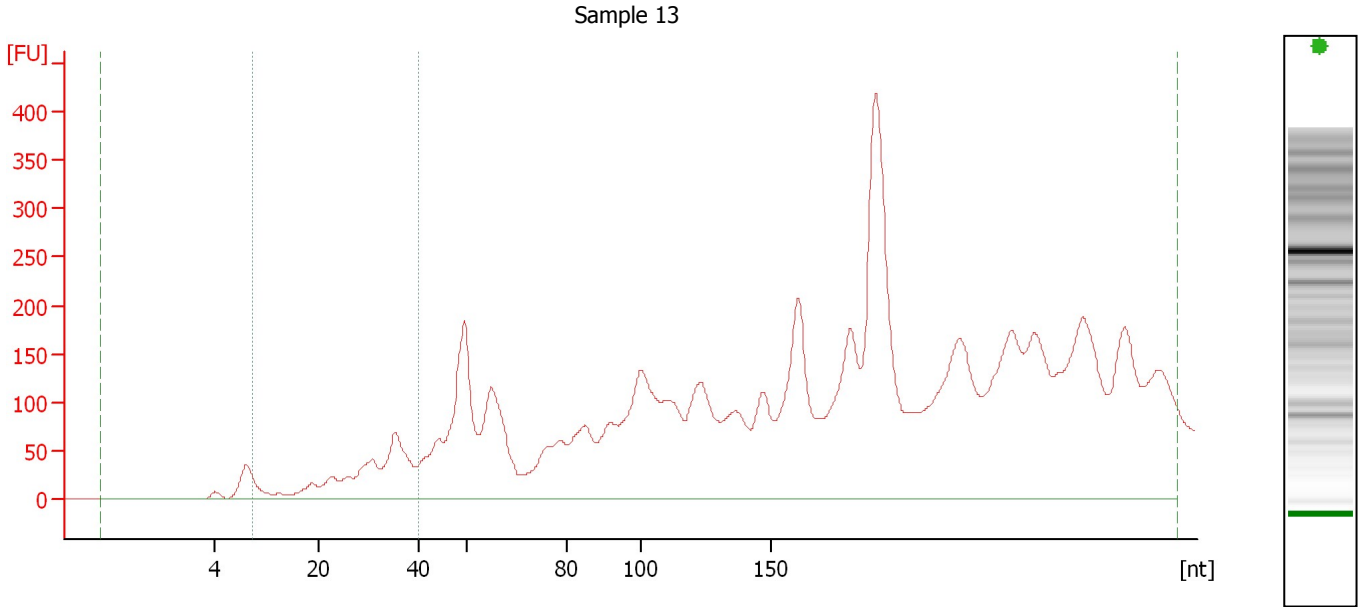
Region table for sample 1 : Sample 12

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	288	94	80.5	29,131.9	100	
miRNA	10	40	34	21.1	7,305.0	25	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_002.xad

Created: 9/12/2014 11:02:39 AM
 Modified: 9/12/2014 11:33:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Sample 13

Small RNA Concentration [pg/μl]:	206,435.3	Result Flagging Color:	
miRNA Concentration [pg/μl]:	22,627.7	Result Flagging Label:	11 % miRNA; Concentration: 22627.70 pg/μl
miRNA / Small RNA Ratio [%]:	11		

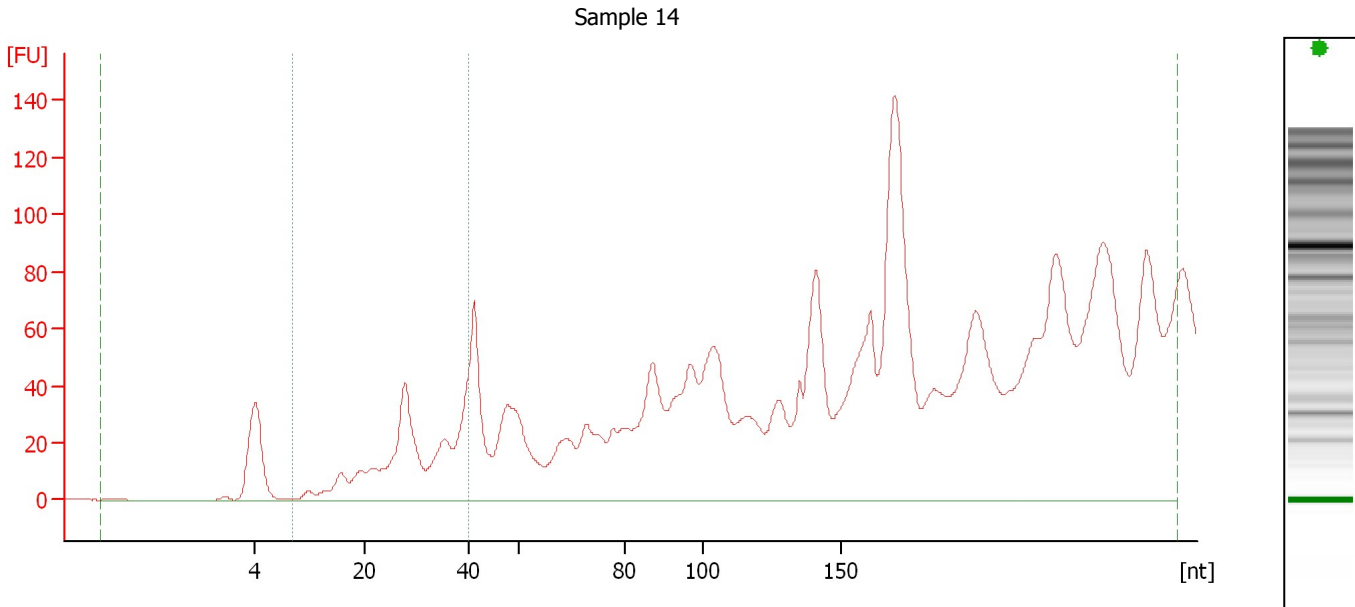
Region table for sample 2 : Sample 13

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	307	177	45.3	206,435.3	100	
miRNA	10	40	29	27.9	22,627.7	11	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_002.xad

Created: 9/12/2014 11:02:39 AM
 Modified: 9/12/2014 11:33:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Sample 14

Small RNA Concentration [pg/μl]:	13,409.3	Result Flagging Color:	
miRNA Concentration [pg/μl]:	2,265.8	Result Flagging Label:	17 % miRNA; Concentration: 2265.80 pg/μl
miRNA / Small RNA Ratio [%]:	17		

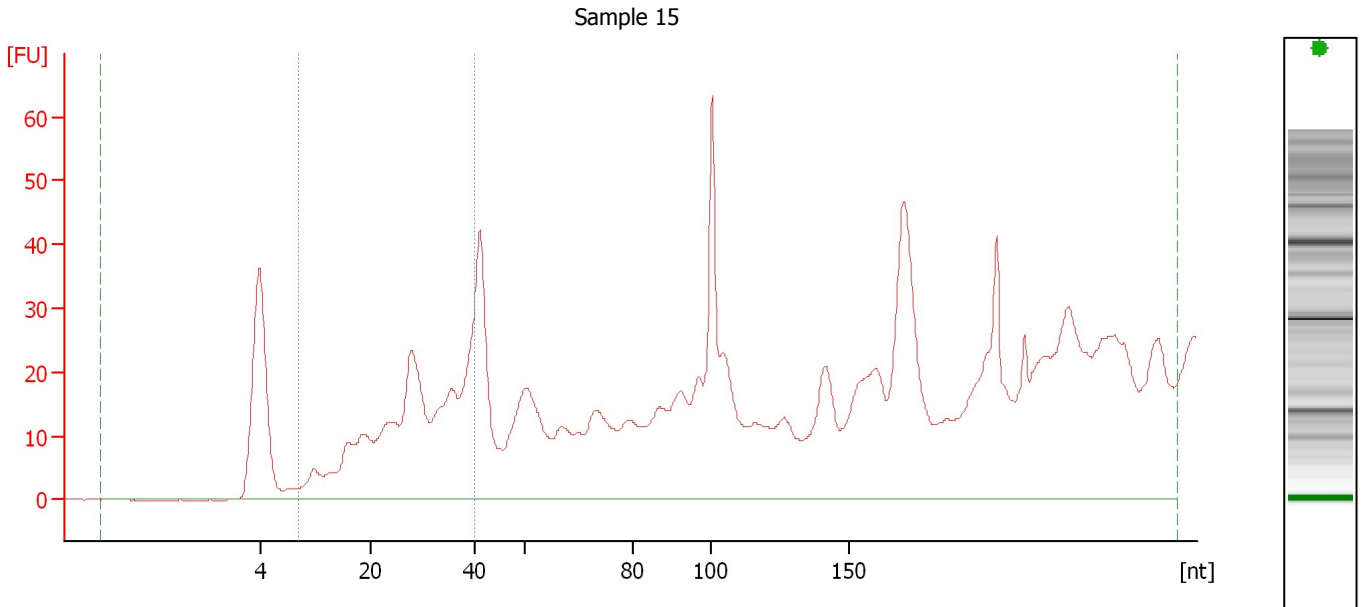
Region table for sample 3 : Sample 14

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	273	158	47.6	13,409.3	100	
miRNA	10	40	29	25.5	2,265.8	17	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_002.xad

Created: 9/12/2014 11:02:39 AM
 Modified: 9/12/2014 11:33:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Sample 15

Small RNA Concentration [pg/μl]:	6,274.7	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,868.0	Result Flagging Label:	30 % miRNA; Concentration: 1868 pg/μl
miRNA / Small RNA Ratio [%]:	30		

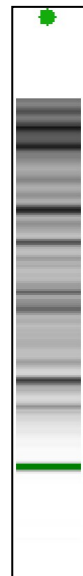
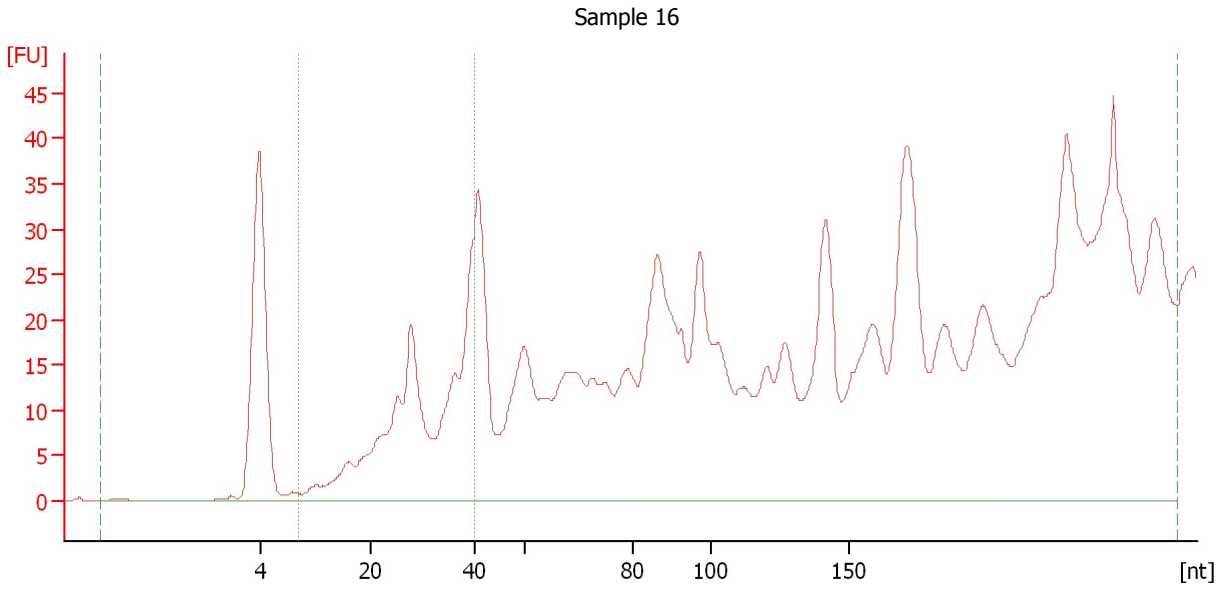
Region table for sample 4 : Sample 15

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	269	134	59.9	6,274.7	100	
miRNA	10	40	28	28.6	1,868.0	30	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_002.xad

Created: 9/12/2014 11:02:39 AM
 Modified: 9/12/2014 11:33:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Sample 16

Small RNA Concentration [pg/μl]:	5,705.9	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,163.8	Result Flagging Label:	20 % miRNA; Concentration: 1163.80 pg/μl
miRNA / Small RNA Ratio [%]:	20		

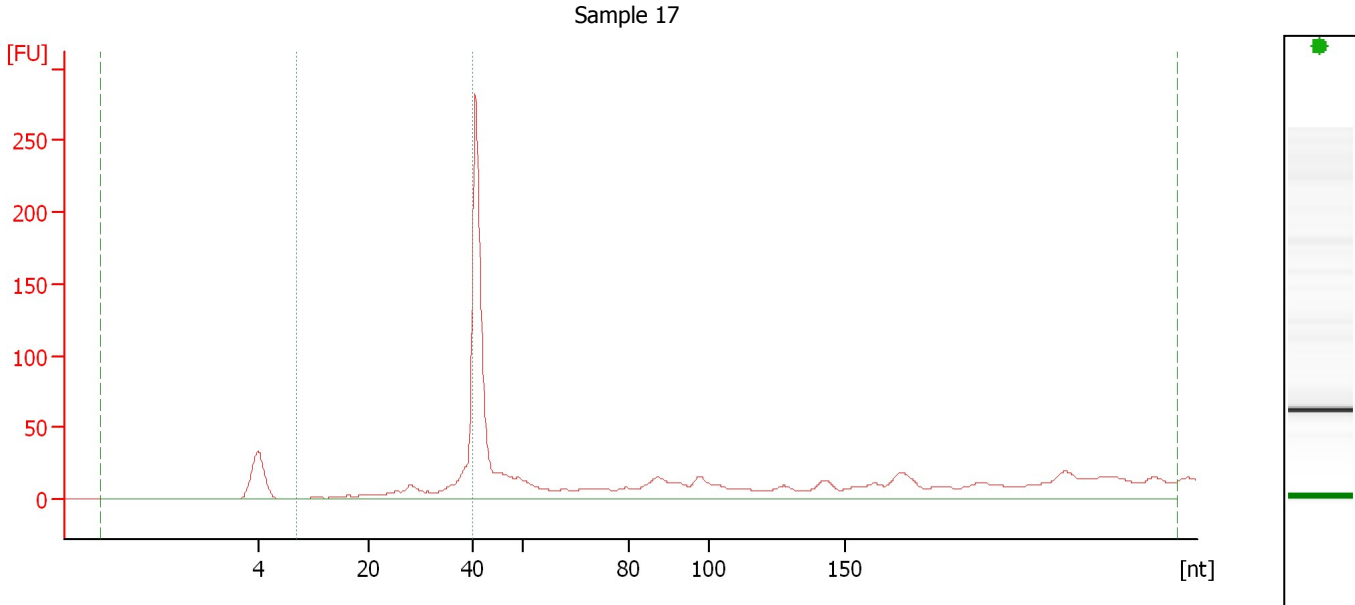
Region table for sample 5 : Sample 16

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	269	144	55.7	5,705.9	100	
miRNA	10	40	29	25.9	1,163.8	20	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_002.xad

Created: 9/12/2014 11:02:39 AM
 Modified: 9/12/2014 11:33:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Sample 17

Small RNA Concentration [pg/μl]:	5,493.6	Result Flagging Color:	
miRNA Concentration [pg/μl]:	895.5	Result Flagging Label:	16 % miRNA; Concentration: 895.50 pg/μl
miRNA / Small RNA Ratio [%]:	16		

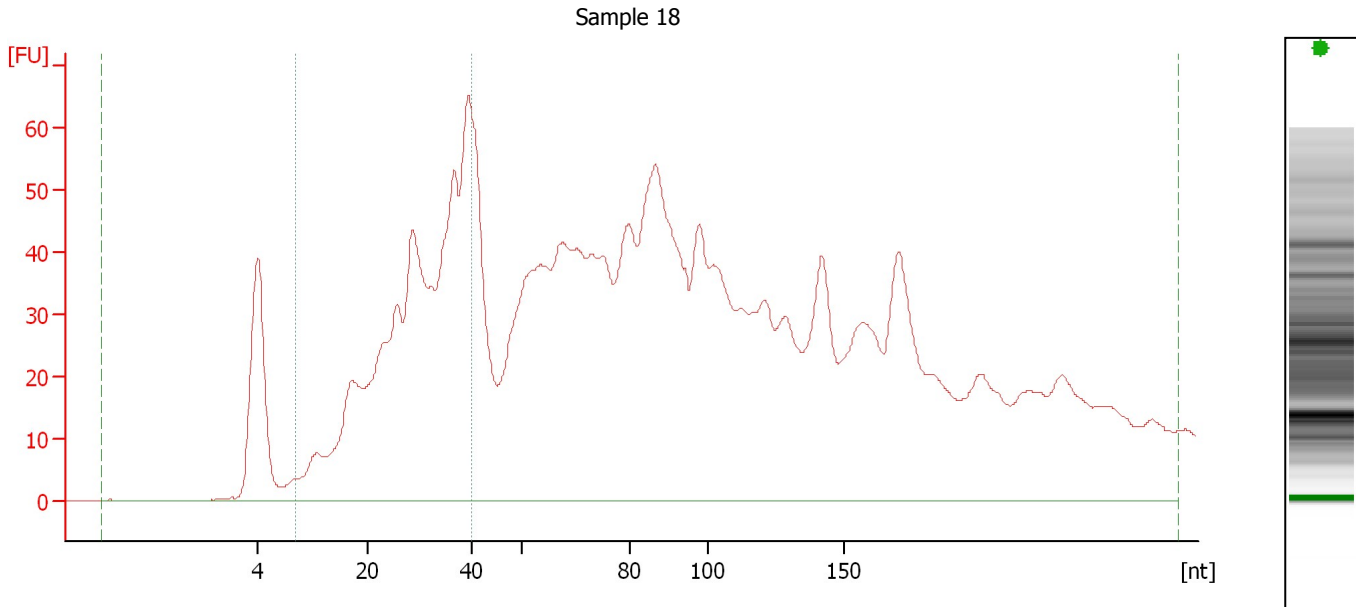
Region table for sample 6 : Sample 17

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	271	112	72.7	5,493.6	100	
miRNA	10	40	33	23.4	895.5	16	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_002.xad

Created: 9/12/2014 11:02:39 AM
 Modified: 9/12/2014 11:33:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Sample 18

Small RNA Concentration [pg/μl]:	11,734.7	Result Flagging Color:	
miRNA Concentration [pg/μl]:	3,688.4	Result Flagging Label:	31 % miRNA; Concentration: 3688.40 pg/μl
miRNA / Small RNA Ratio [%]:	31		

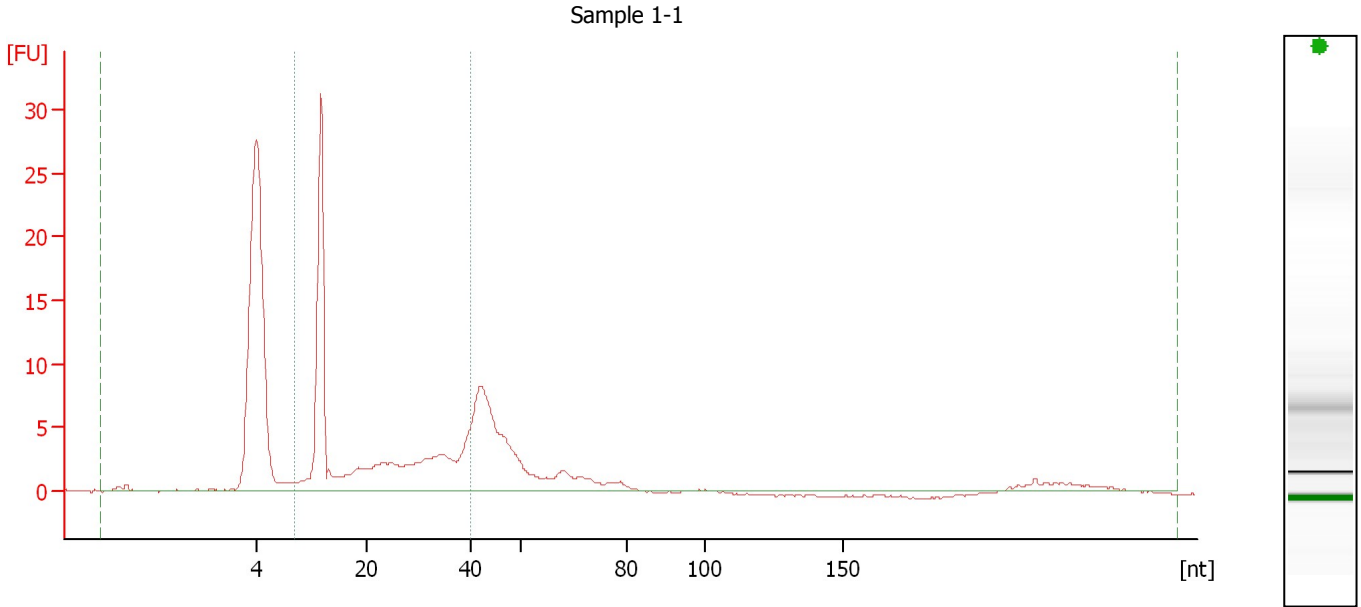
Region table for sample 7 : Sample 18

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	272	104	64.9	11,734.7	100	
miRNA	10	40	29	26.7	3,688.4	31	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_002.xad

Created: 9/12/2014 11:02:39 AM
 Modified: 9/12/2014 11:33:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : Sample 1-1

Small RNA Concentration [pg/μl]:	1,156.4	Result Flagging Color:	
miRNA Concentration [pg/μl]:	758.4	Result Flagging Label:	66 % miRNA; Concentration: 758.40 pg/μl
miRNA / Small RNA Ratio [%]:	66		

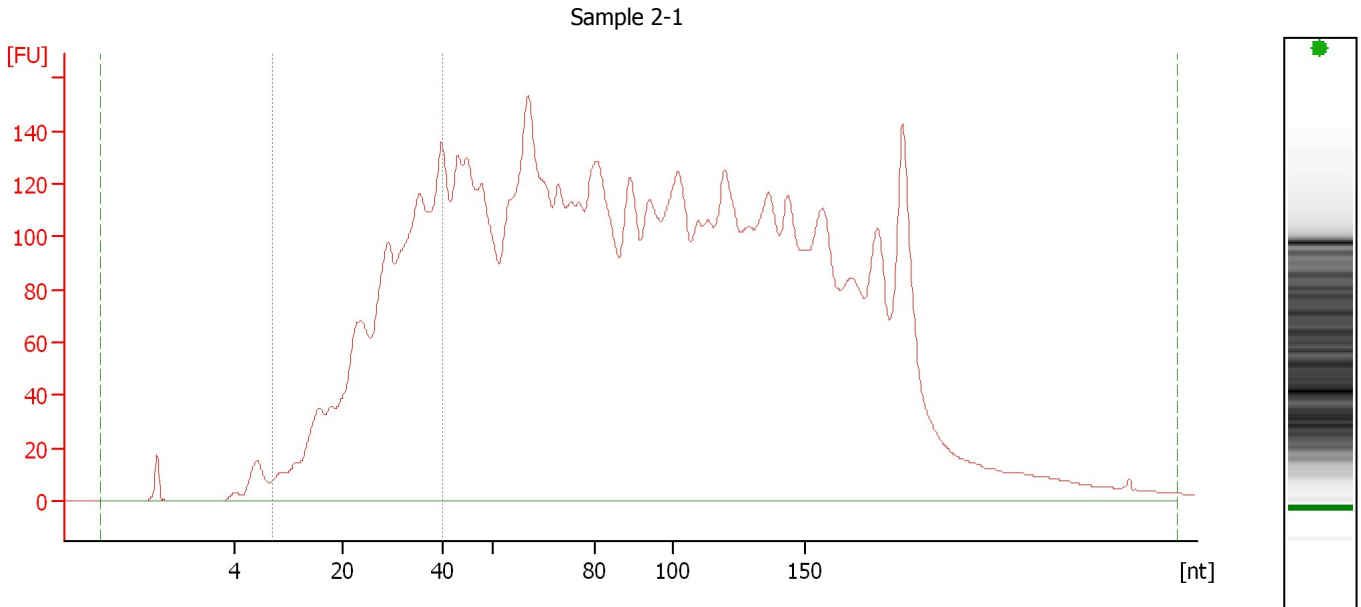
Region table for sample 8 : Sample 1-1

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	272	33	100.0	1,156.4	100	
miRNA	10	40	22	42.8	758.4	66	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_002.xad

Created: 9/12/2014 11:02:39 AM
 Modified: 9/12/2014 11:33:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : Sample 2-1

Small RNA Concentration [pg/μl]:	544,567.2	Result Flagging Color:	
miRNA Concentration [pg/μl]:	140,997.5	Result Flagging Label:	26 % miRNA; Concentration: 140997.50 pg/μl
miRNA / Small RNA Ratio [%]:	26		

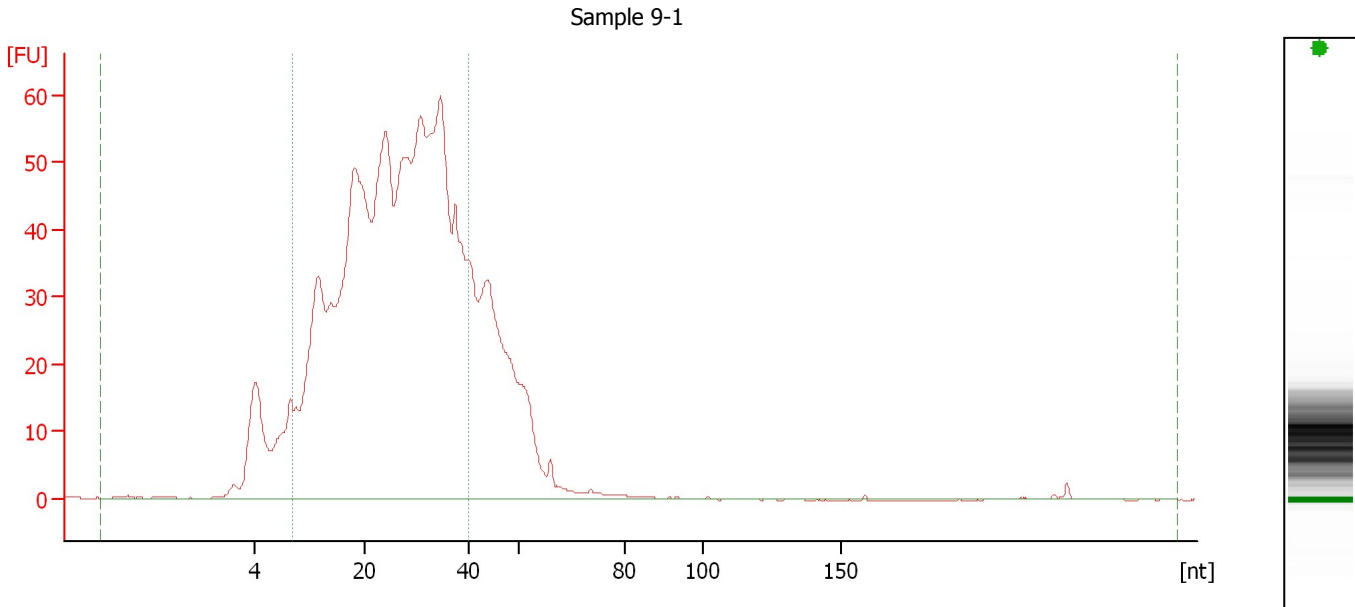
Region table for sample 9 : Sample 2-1

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	290	99	55.6	544,567.2	100	
miRNA	10	40	29	26.0	140,997.5	26	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_002.xad

Created: 9/12/2014 11:02:39 AM
 Modified: 9/12/2014 11:33:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : Sample 9-1

Small RNA Concentration [pg/μl]:	17,343.4	Result Flagging Color:	████████
miRNA Concentration [pg/μl]:	14,484.7	Result Flagging Label:	84 % miRNA; Concentration: 14484.70 pg/μl
miRNA / Small RNA Ratio [%]:	84		

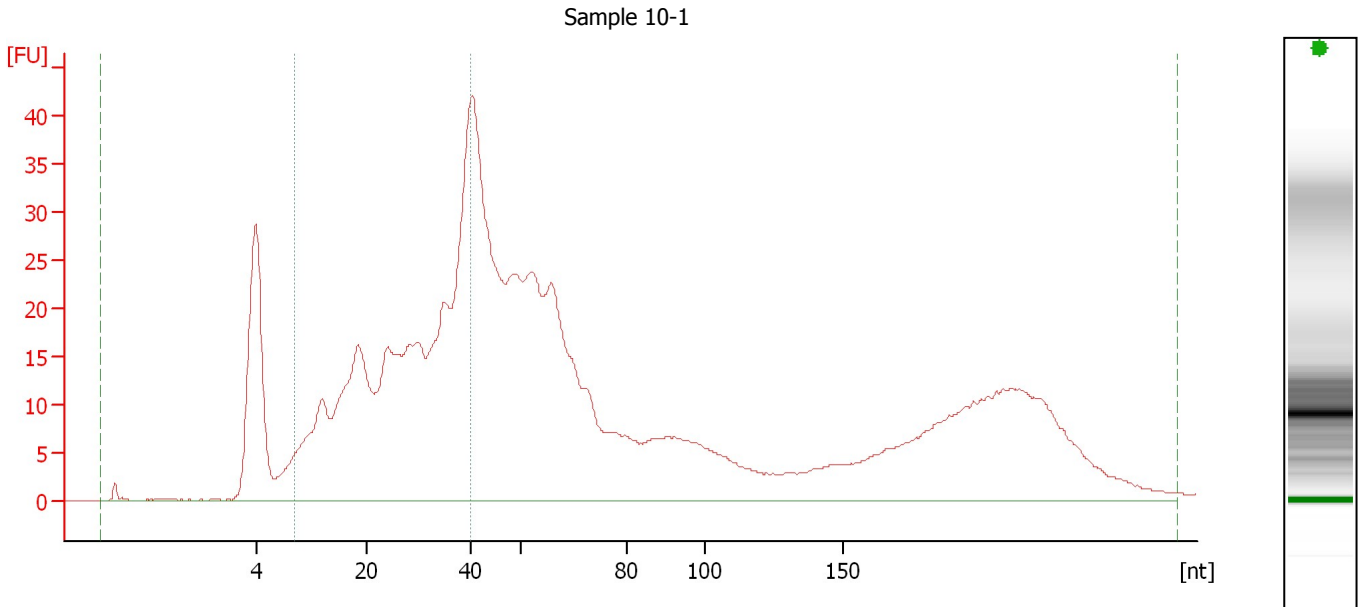
Region table for sample 10 : Sample 9-1

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	273	30	54.5	17,343.4	100	████
miRNA	10	40	26	31.7	14,484.7	84	████

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_002.xad

Created: 9/12/2014 11:02:39 AM
 Modified: 9/12/2014 11:33:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : Sample 10-1

Small RNA Concentration [pg/μl]:	7,176.3	Result Flagging Color:	
miRNA Concentration [pg/μl]:	3,112.9	Result Flagging Label:	43 % miRNA; Concentration: 3112.90 pg/μl
miRNA / Small RNA Ratio [%]:	43		

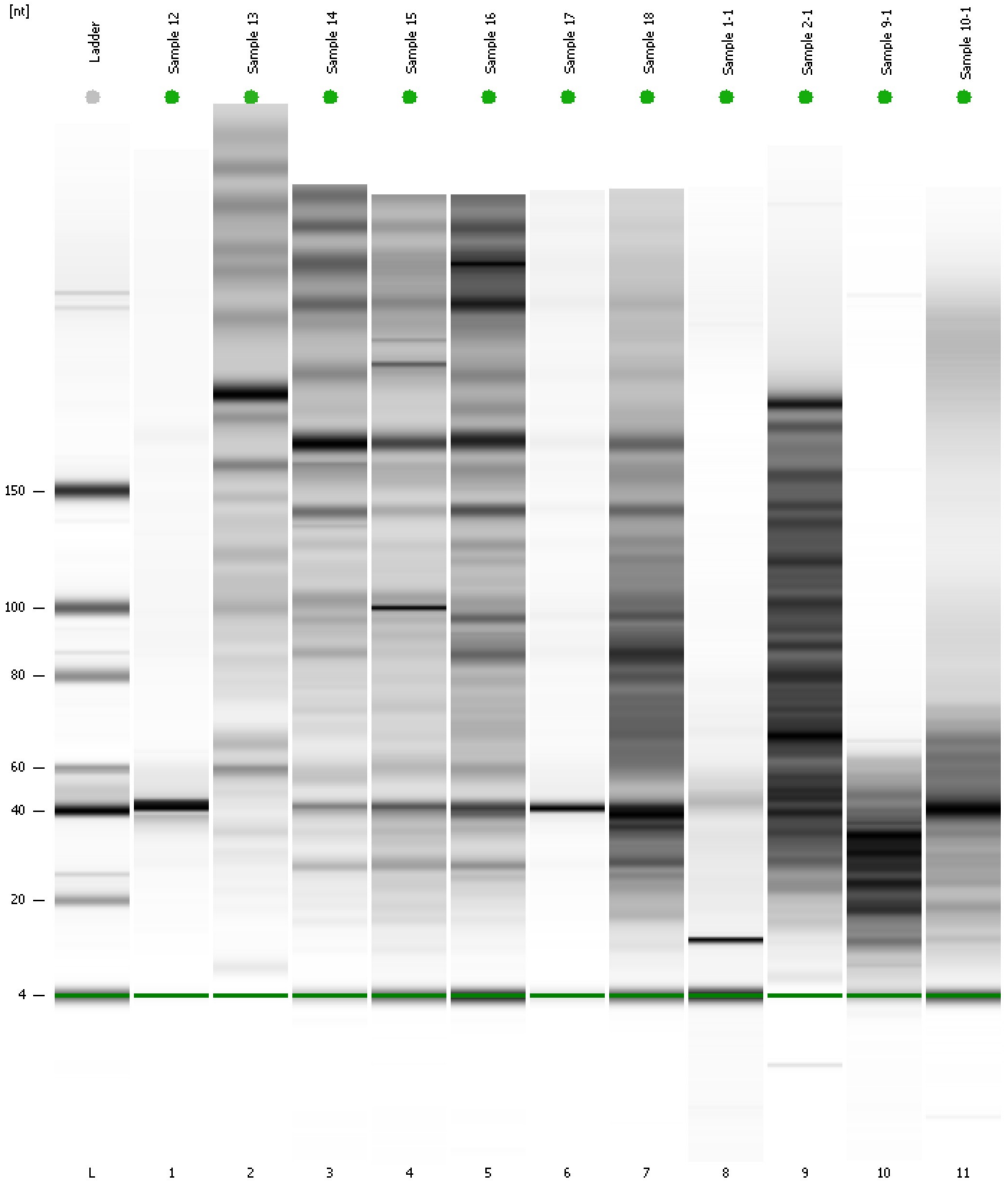
Region table for sample 11 : Sample 10-1

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	272	85	84.2	7,176.3	100	
miRNA	10	40	27	32.7	3,112.9	43	

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_002.xad

Created: 9/12/2014 11:02:39 AM
Modified: 9/12/2014 11:33:24 AM

Gel Image



Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12_002.xad

Created: 9/12/2014 11:02:39 AM
 Modified: 9/12/2014 11:33:24 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 11:33:22 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_002.xad)		Instrument	Run		9/12/2014 11:02:45 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/12/2014 11:02:45 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/12/2014 11:02:45 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/12/2014 11:02:45 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/12/2014 11:02:45 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/12/2014 11:02:45 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/12/2014 11:02:45 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1