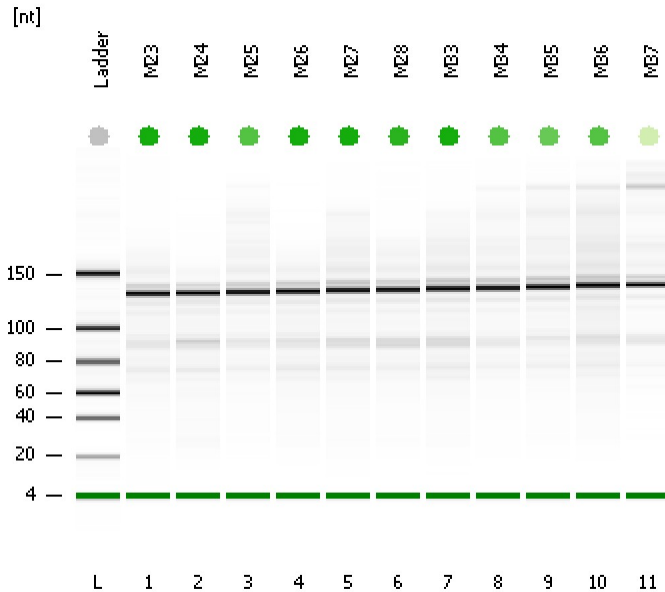


Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
Modified: 7/27/2016 3:17:12 PM

Electrophoresis File Run Summary



Instrument Information:

Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

Assay Information:

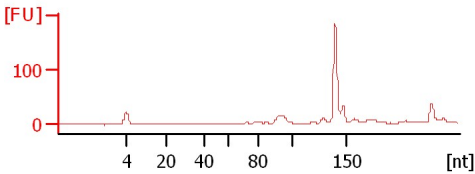
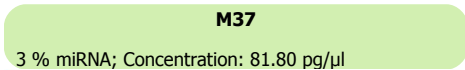
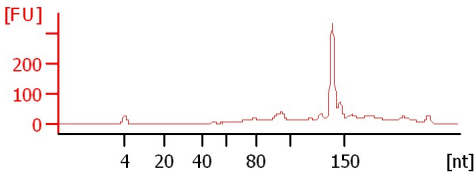
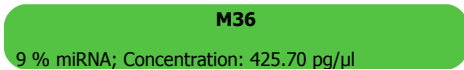
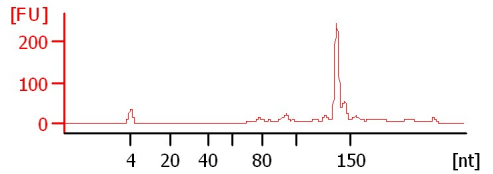
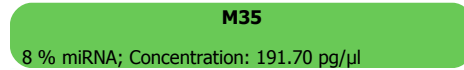
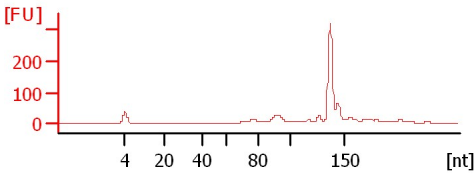
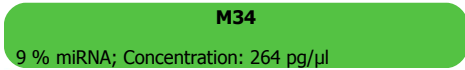
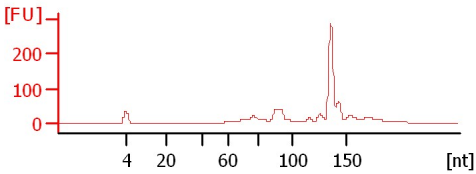
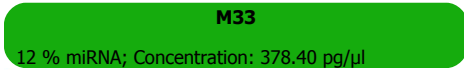
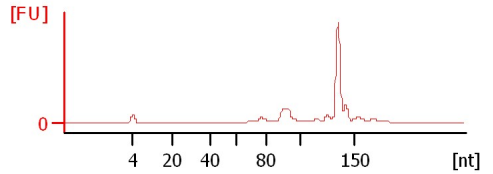
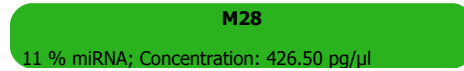
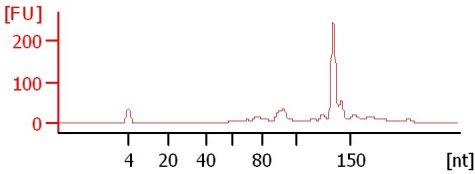
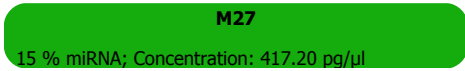
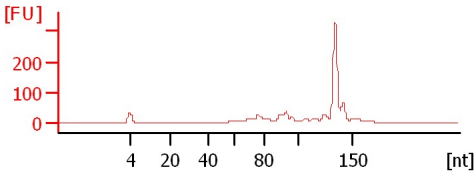
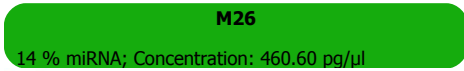
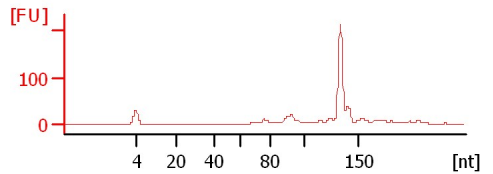
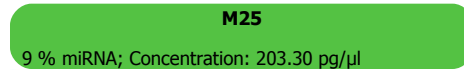
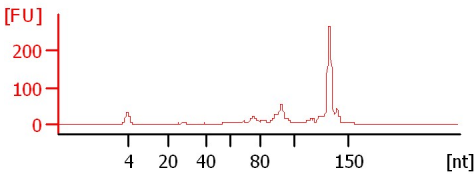
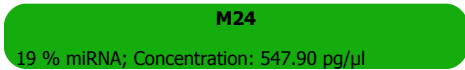
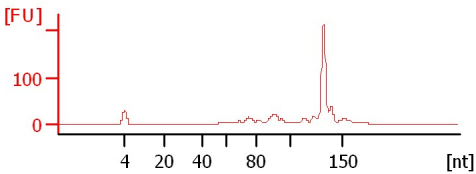
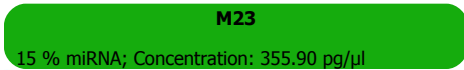
Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\RNA\Small RNA Series II.xsy

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:



Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
 Modified: 7/27/2016 3:17:12 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
M23		✓	15 % miRNA; Concentration: 355.90 pg/μl	
M24		✓	19 % miRNA; Concentration: 547.90 pg/μl	
M25		✓	9 % miRNA; Concentration: 203.30 pg/μl	
M26		✓	14 % miRNA; Concentration: 460.60 pg/μl	
M27		✓	15 % miRNA; Concentration: 417.20 pg/μl	
M28		✓	11 % miRNA; Concentration: 426.50 pg/μl	
M33		✓	12 % miRNA; Concentration: 378.40 pg/μl	
M34		✓	9 % miRNA; Concentration: 264 pg/μl	
M35		✓	8 % miRNA; Concentration: 191.70 pg/μl	
M36		✓	9 % miRNA; Concentration: 425.70 pg/μl	
M37		✓	3 % miRNA; Concentration: 81.80 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\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
Modified: 7/27/2016 3:17:12 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

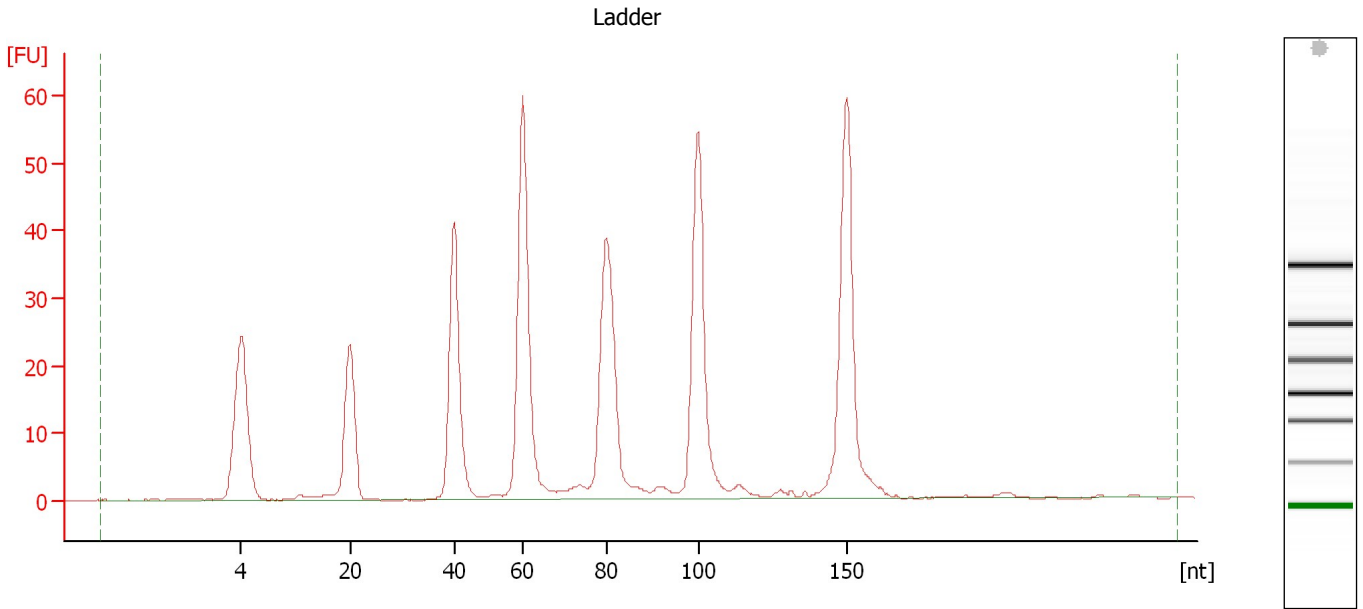
Ladder

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

Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
Modified: 7/27/2016 3:17:12 PM

Electropherogram Summary



Overall Results for Ladder

Result Flagging Color:

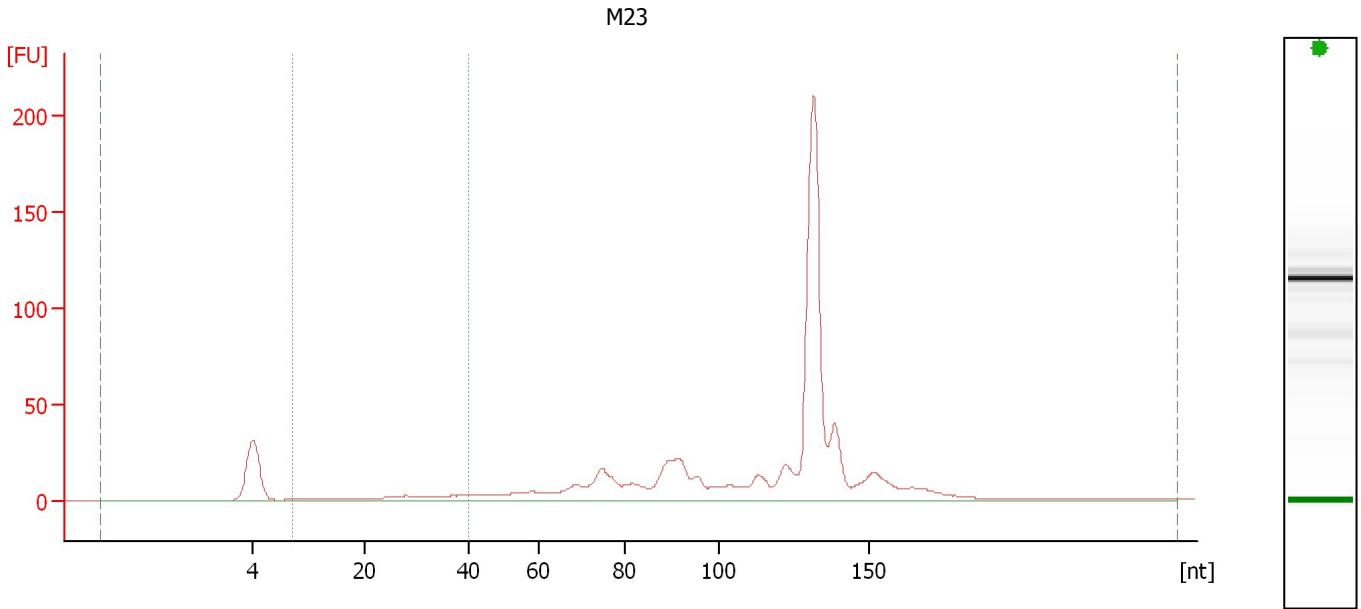
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
 Modified: 7/27/2016 3:17:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : M23

Small RNA Concentration [pg/μl]: 2,381.4
 miRNA Concentration [pg/μl]: 355.9
 miRNA / Small RNA Ratio [%]: 15

Result Flagging Color:
 Result Flagging Label: 15 % miRNA;
 Concentration: 355.90
 pg/μl

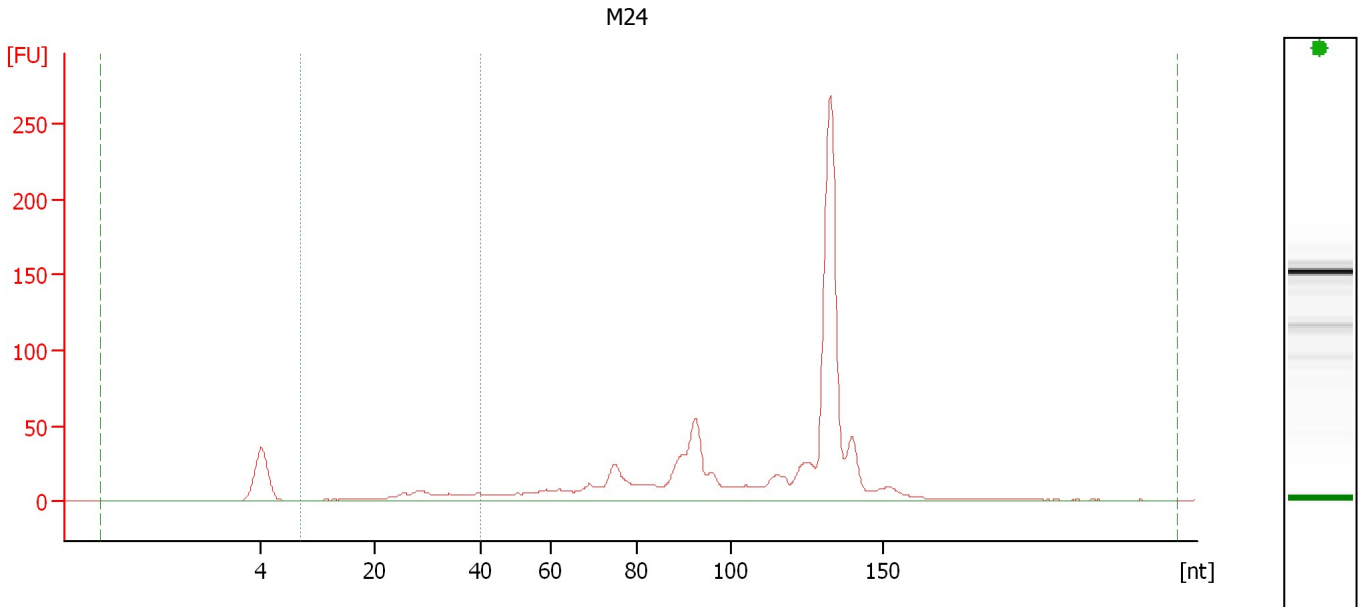
Region table for sample 1 : M23

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	252	111	40.7	2,381.4	100	
miRNA	10	40	27	30.8	355.9	15	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
 Modified: 7/27/2016 3:17:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : M24

Small RNA Concentration [pg/μl]: 2,815.9
 miRNA Concentration [pg/μl]: 547.9
 miRNA / Small RNA Ratio [%]: 19

Result Flagging Color:
 Result Flagging Label: 19 % miRNA;
 Concentration: 547.90
 pg/μl

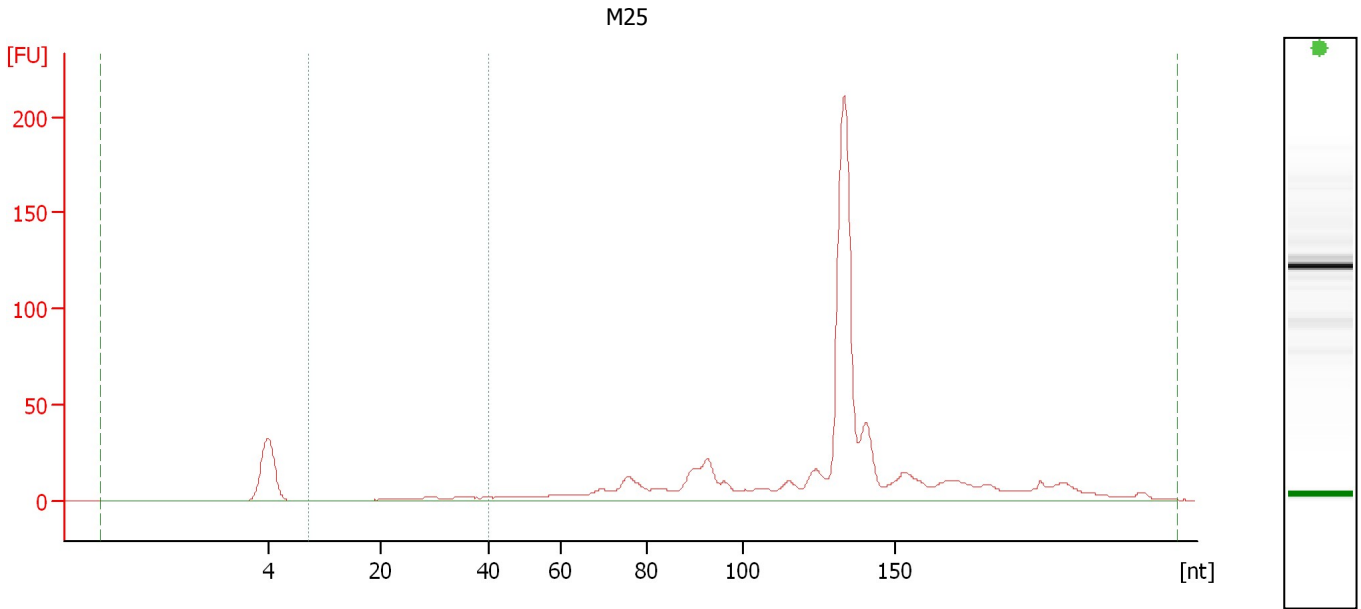
Region table for sample 2 : M24

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	246	105	40.5	2,815.9	100	
miRNA	10	40	29	25.5	547.9	19	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
 Modified: 7/27/2016 3:17:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : M25

Small RNA Concentration [pg/μl]: 2,153.7
 miRNA Concentration [pg/μl]: 203.3
 miRNA / Small RNA Ratio [%]: 9

Result Flagging Color:
 Result Flagging Label: 9 % miRNA;
 Concentration: 203.30
 pg/μl

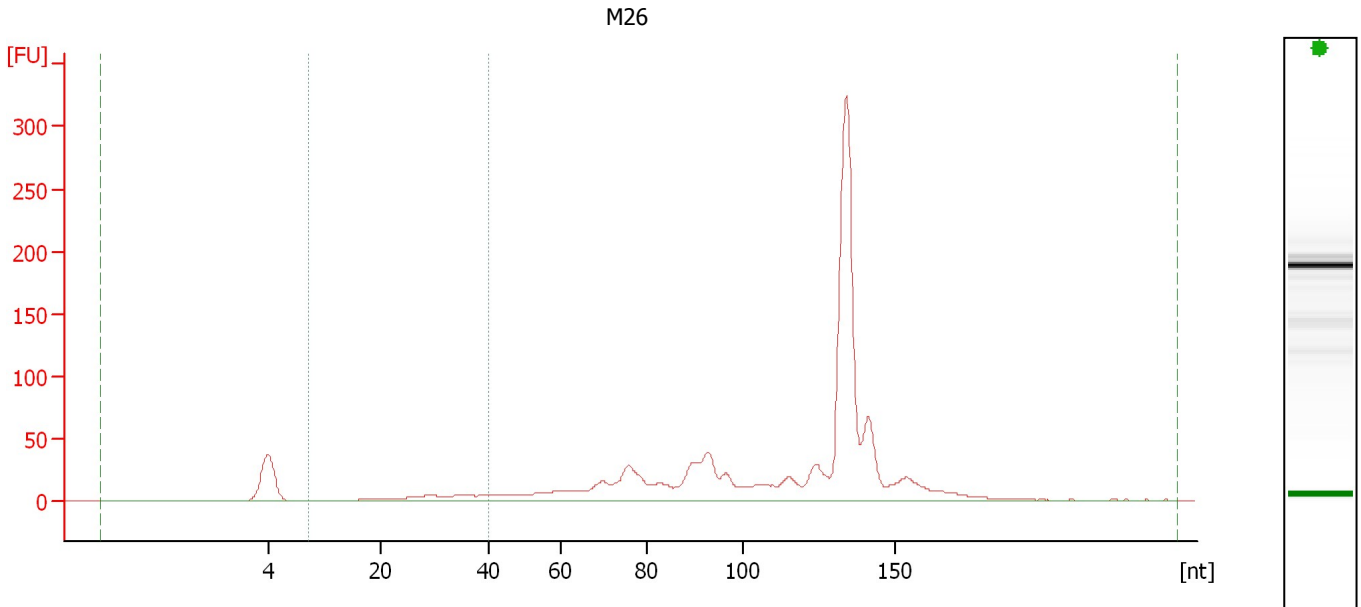
Region table for sample 3 : M25

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	241	123	39.5	2,153.7	100	
miRNA	10	40	29	26.6	203.3	9	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
 Modified: 7/27/2016 3:17:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : M26

Small RNA Concentration [pg/μl]: 3,181.3
 miRNA Concentration [pg/μl]: 460.6
 miRNA / Small RNA Ratio [%]: 14

Result Flagging Color:
 Result Flagging Label: 14 % miRNA;
 Concentration: 460.60
 pg/μl

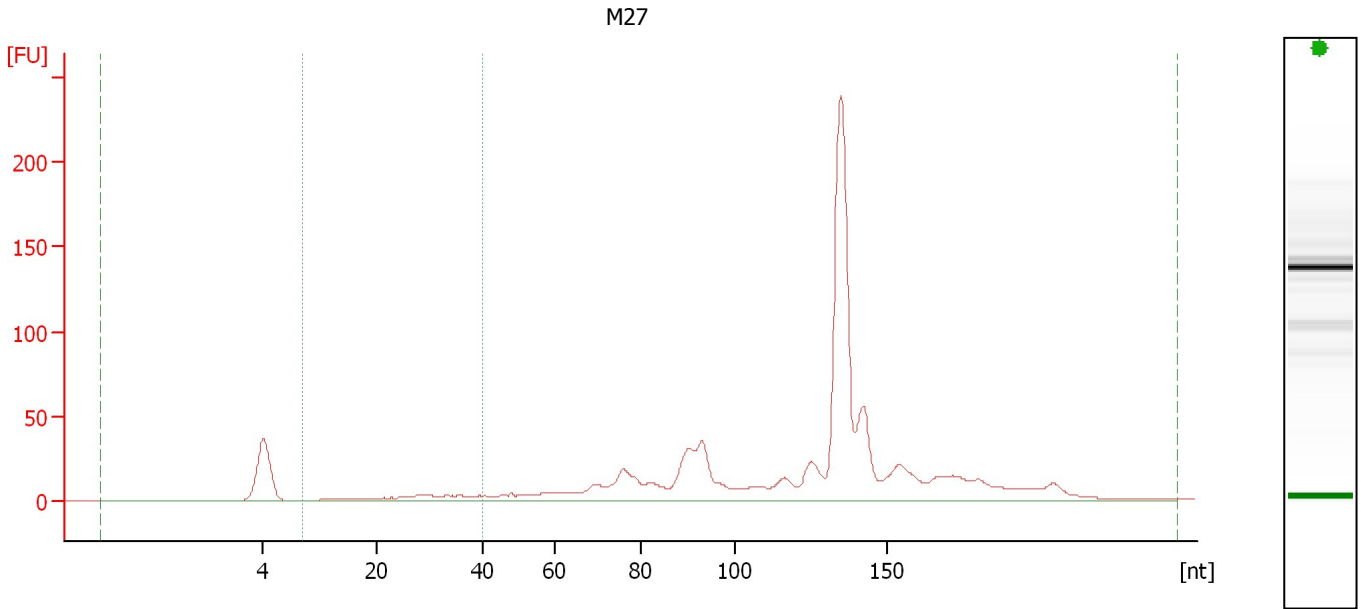
Region table for sample 4 : M26

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	241	111	38.0	3,181.3	100	
miRNA	10	40	29	26.4	460.6	14	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
 Modified: 7/27/2016 3:17:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : M27

Small RNA Concentration [pg/μl]: 2,809.9
 miRNA Concentration [pg/μl]: 417.2
 miRNA / Small RNA Ratio [%]: 15

Result Flagging Color:
 Result Flagging Label: 15 % miRNA;
 Concentration: 417.20
 pg/μl

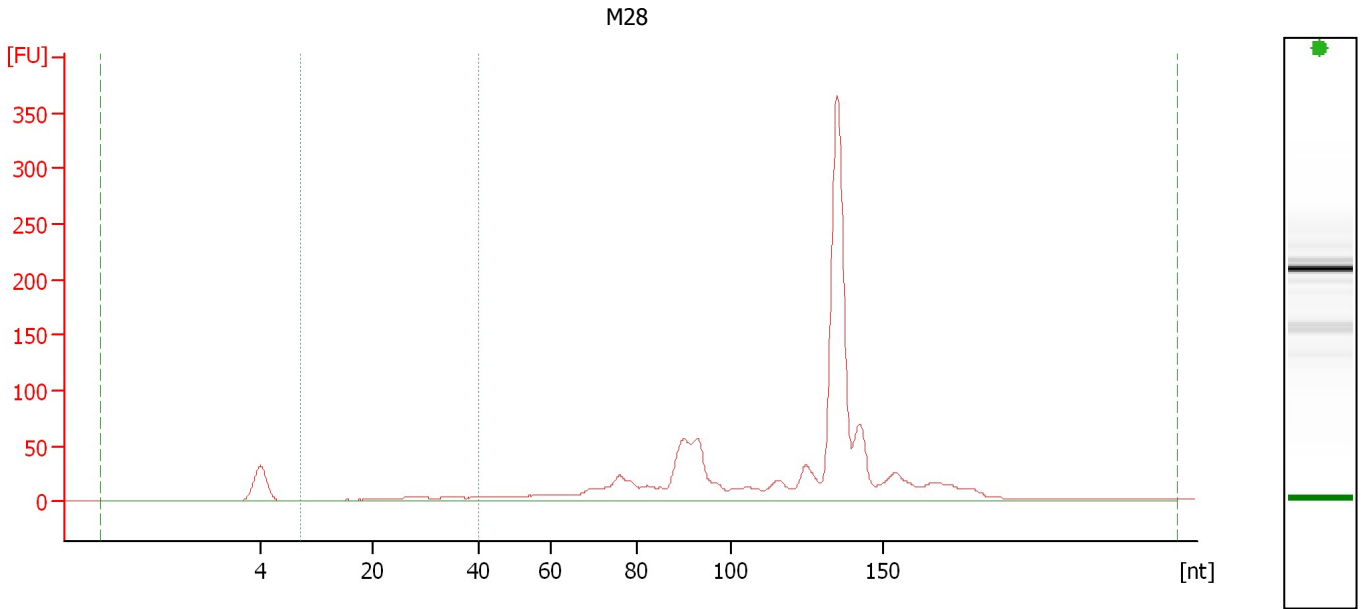
Region table for sample 5 : M27

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	245	120	40.1	2,809.9	100	
miRNA	10	40	27	28.8	417.2	15	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
 Modified: 7/27/2016 3:17:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : M28

Small RNA Concentration [pg/μl]: 3,934.0
 miRNA Concentration [pg/μl]: 426.5
 miRNA / Small RNA Ratio [%]: 11

Result Flagging Color:
 Result Flagging Label: 11 % miRNA;
 Concentration: 426.50
 pg/μl

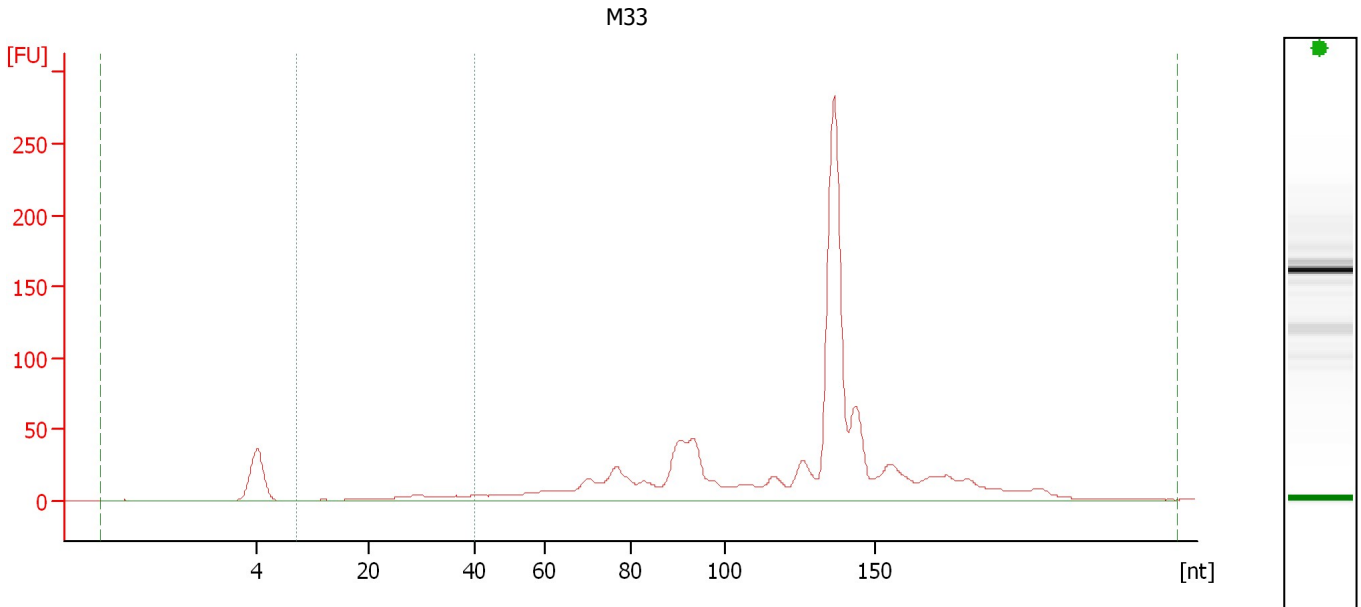
Region table for sample 6 : M28

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	247	118	34.8	3,934.0	100	
miRNA	10	40	28	27.0	426.5	11	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
 Modified: 7/27/2016 3:17:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : M33

Small RNA Concentration [pg/μl]: 3,241.6
 miRNA Concentration [pg/μl]: 378.4
 miRNA / Small RNA Ratio [%]: 12

Result Flagging Color:
 Result Flagging Label: 12 % miRNA;
 Concentration: 378.40
 pg/μl

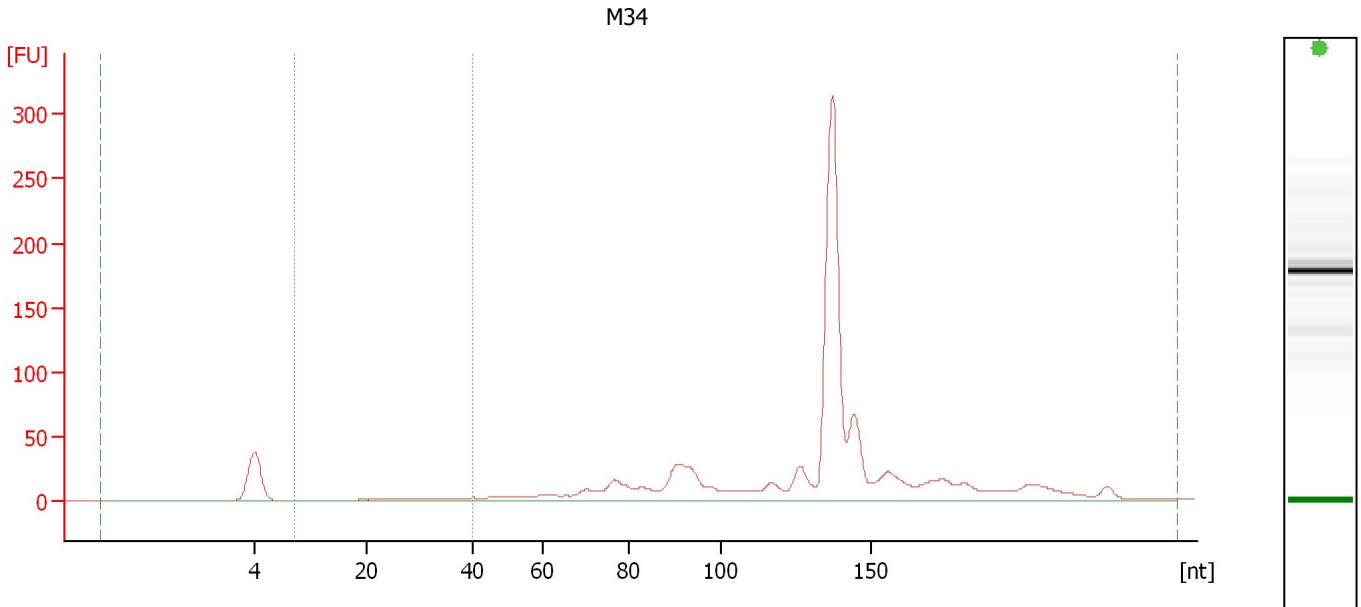
Region table for sample 7 : M33

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	249	120	38.0	3,241.6	100	
miRNA	10	40	29	26.2	378.4	12	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
 Modified: 7/27/2016 3:17:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : M34

Small RNA Concentration [pg/μl]: 2,837.5
 miRNA Concentration [pg/μl]: 264.0
 miRNA / Small RNA Ratio [%]: 9

Result Flagging Color:
 Result Flagging Label: 9 % miRNA;
 Concentration: 264
 pg/μl

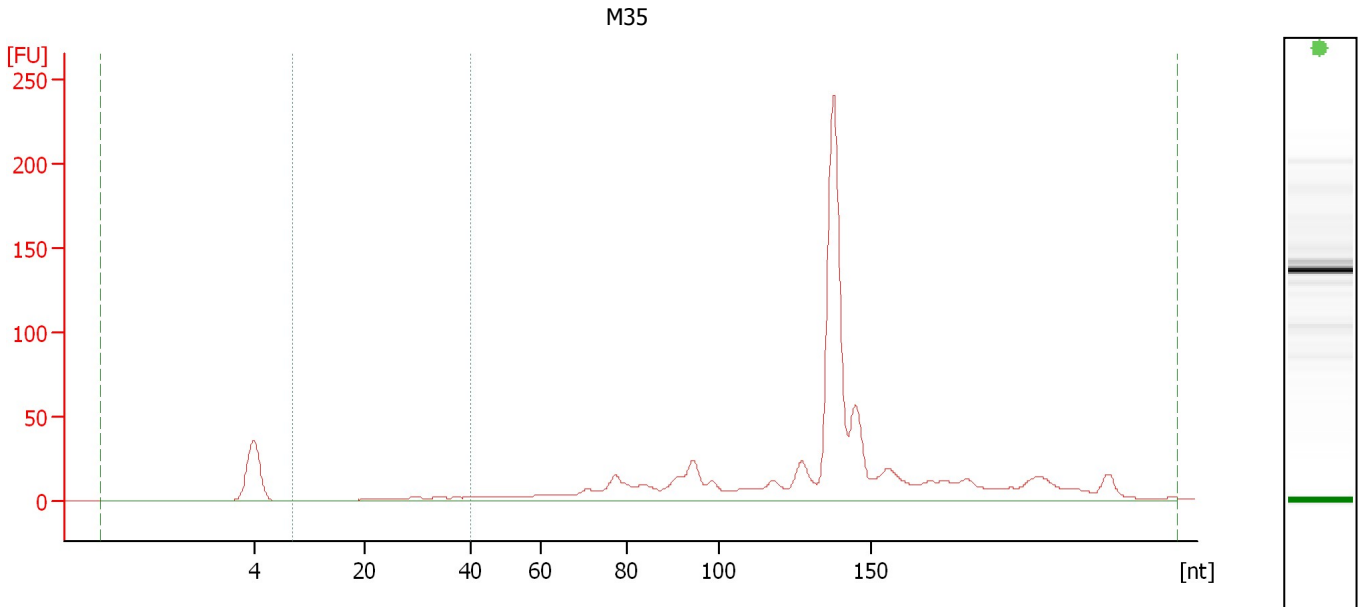
Region table for sample 8 : M34

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	251	128	37.7	2,837.5	100	
miRNA	10	40	27	30.1	264.0	9	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
 Modified: 7/27/2016 3:17:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : M35

Small RNA Concentration [pg/μl]: 2,396.2
 miRNA Concentration [pg/μl]: 191.7
 miRNA / Small RNA Ratio [%]: 8

Result Flagging Color:
 Result Flagging Label: 8 % miRNA;
 Concentration: 191.70
 pg/μl

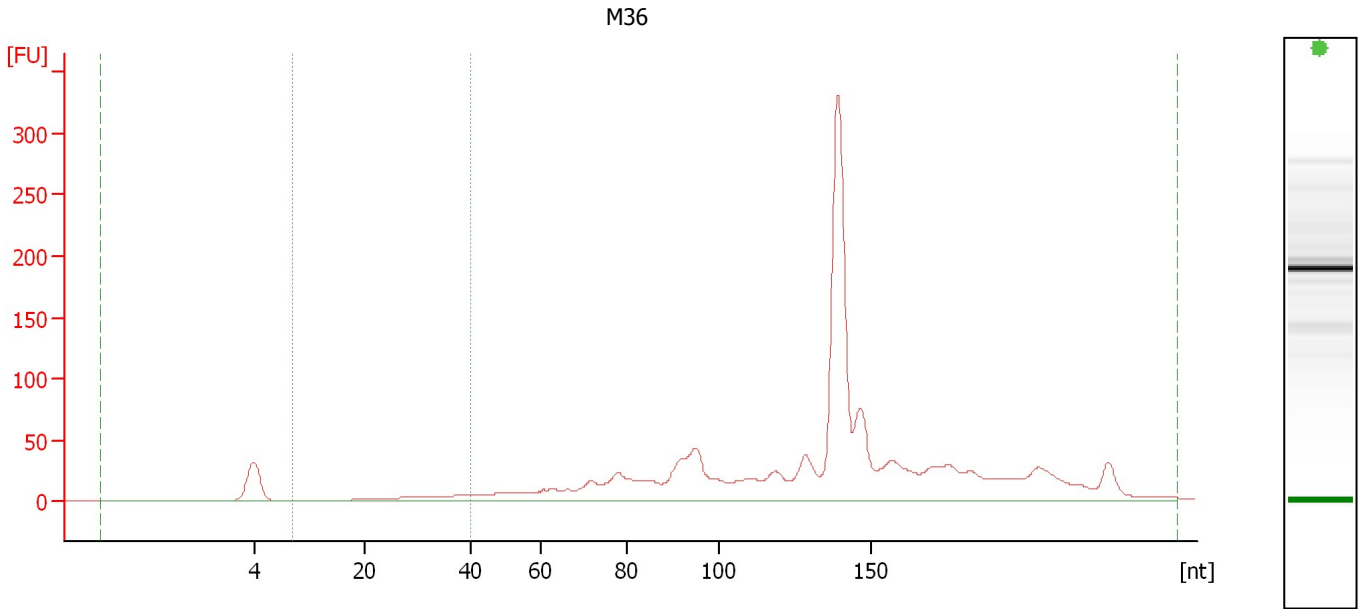
Region table for sample 9 : M35

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	252	131	38.7	2,396.2	100	
miRNA	10	40	29	24.9	191.7	8	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
 Modified: 7/27/2016 3:17:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : M36

Small RNA Concentration [pg/μl]: 4,786.5
 miRNA Concentration [pg/μl]: 425.7
 miRNA / Small RNA Ratio [%]: 9

Result Flagging Color:
 Result Flagging Label: 9 % miRNA;
 Concentration: 425.70
 pg/μl

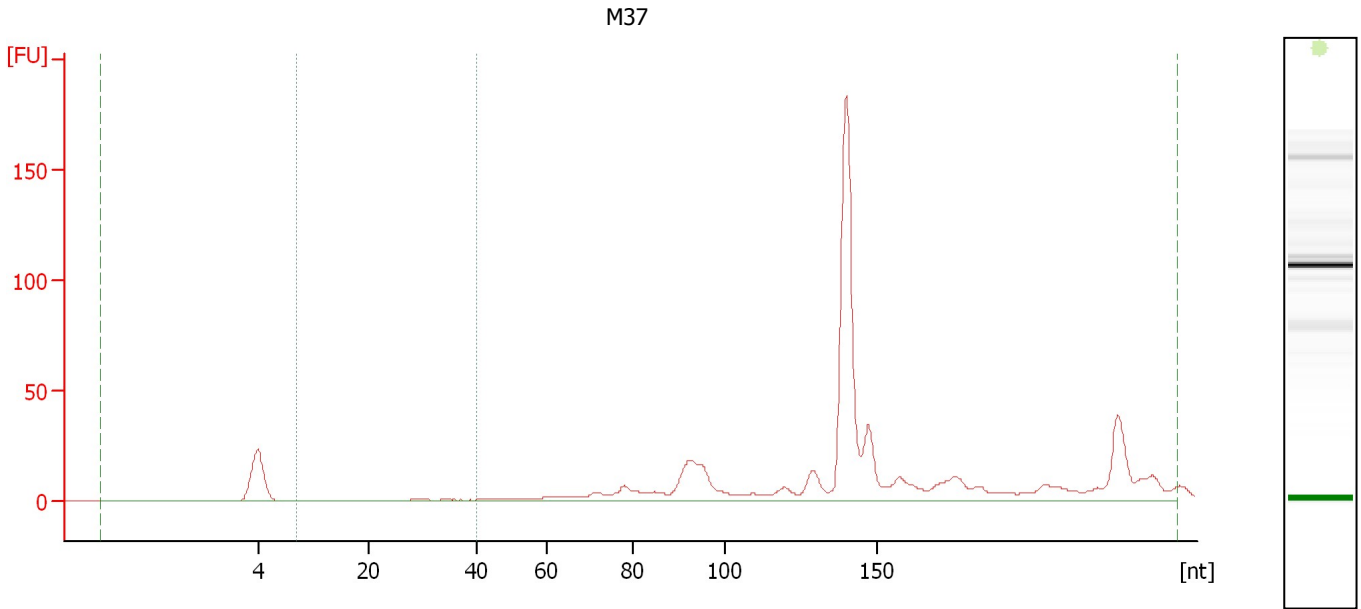
Region table for sample 10 : M36

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	252	135	37.1	4,786.5	100	
miRNA	10	40	30	23.9	425.7	9	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
 Modified: 7/27/2016 3:17:12 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : M37

Small RNA Concentration [pg/μl]: 2,385.8
 miRNA Concentration [pg/μl]: 81.8
 miRNA / Small RNA Ratio [%]: 3

Result Flagging Color:
 Result Flagging Label: 3 % miRNA;
 Concentration: 81.80
 pg/μl

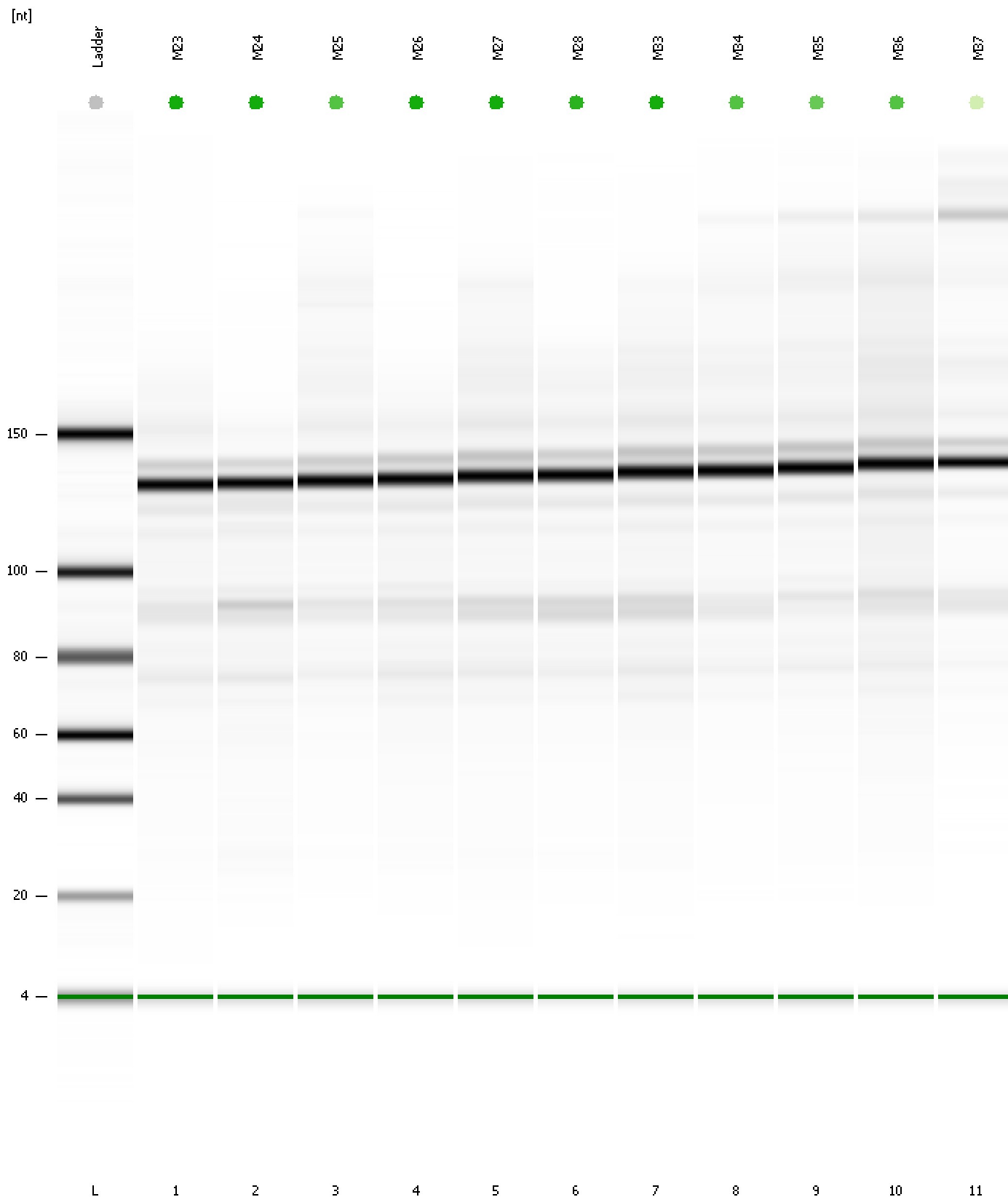
Region table for sample 11 : M37

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	249	145	39.0	2,385.8	100	
miRNA	10	40	30	20.8	81.8	3	

Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
Modified: 7/27/2016 3:17:12 PM

Gel Image



Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad

Created: 7/27/2016 2:45:14 PM
 Modified: 7/27/2016 3:17:12 PM

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		7/27/2016 3:17:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-07-27\2016-07-27_001.xad)		Instrument	Run		7/27/2016 2:45:19 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		7/27/2016 2:45:19 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/27/2016 2:45:19 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/27/2016 2:45:19 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		7/27/2016 2:45:19 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/27/2016 2:45:19 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/27/2016 2:45:19 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1