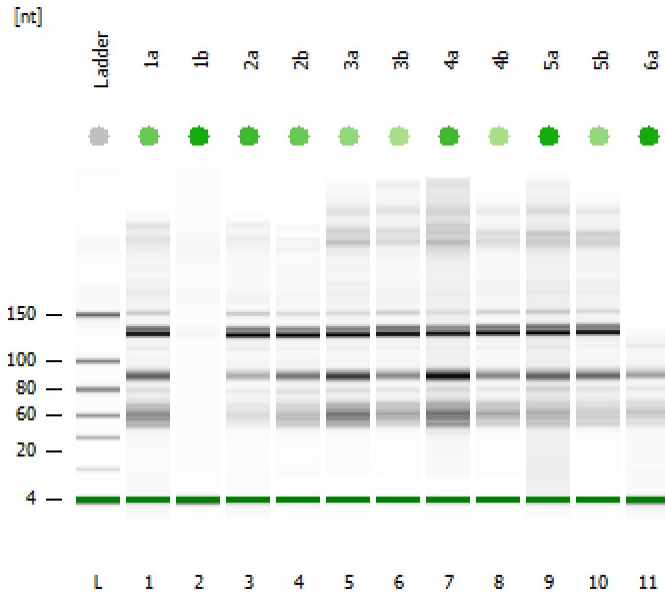


Assay Class: Small RNA
 Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
 Modified: 12/11/2019 10:24:57 AM

Electrophoresis File Run Summary



Instrument Information:

Instrument Name: DE34903152 Firmware: C.01.069
 Serial#: DE34903152 Type: G2938C

Assay Information:

Assay Origin Path: C:\Program Files (x86)\Agilent\2100 bioanalyzer\2100 expert\assays\RNA\Small RNA Series II.xsy

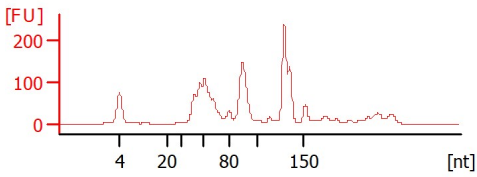
Assay Class: Small RNA
 Version: 1.2
 Assay Comments: Small RNA Analysis 6 - 150 nucleotides

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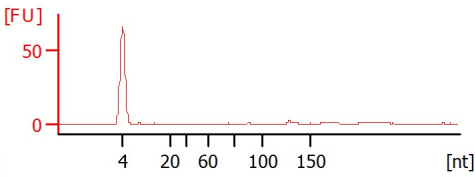
Chip Information:

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

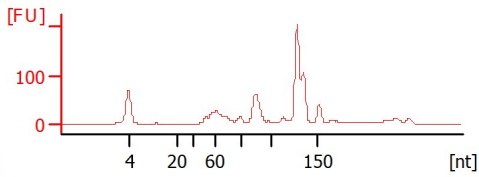
1a
 8 % miRNA; Concentration: 770.70 pg/µl



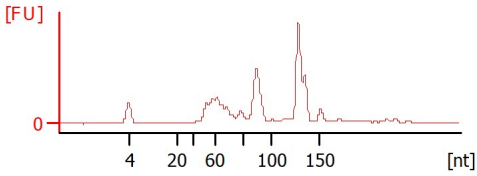
1b
 33 % miRNA; Concentration: 212.10 pg/µl



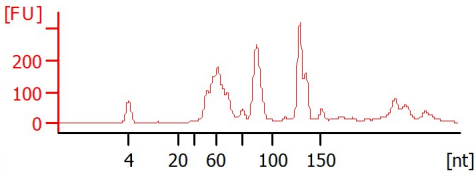
2a
 10 % miRNA; Concentration: 588.40 pg/µl



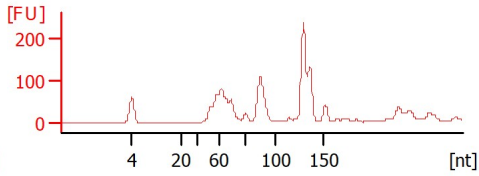
2b
 8 % miRNA; Concentration: 1065 pg/µl



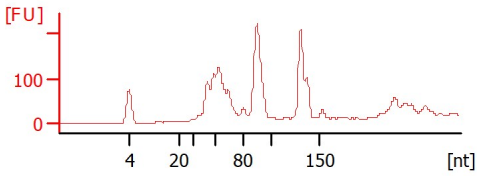
3a
 6 % miRNA; Concentration: 1118.80 pg/µl



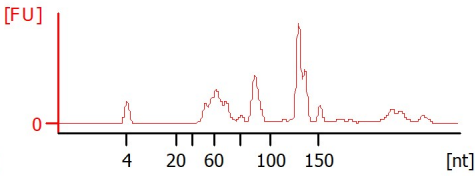
3b
 5 % miRNA; Concentration: 612 pg/µl



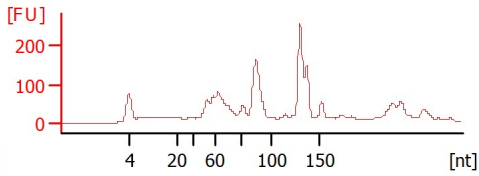
4a
 10 % miRNA; Concentration: 1689.40 pg/µl



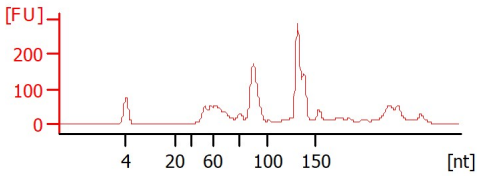
4b
 5 % miRNA; Concentration: 698.20 pg/µl



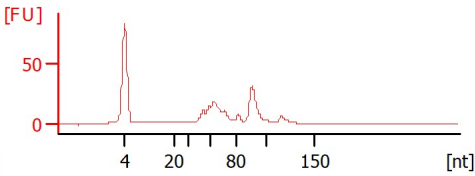
5a
 23 % miRNA; Concentration: 3067.10 pg/µl



5b
 6 % miRNA; Concentration: 666.40 pg/µl















6a
 24 % miRNA; Concentration: 466.50 pg/µl



Assay Class: Small RNA
 Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
 Modified: 12/11/2019 10:24:57 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
1a		✓	8 % miRNA; Concentration: 770.70 pg/μl	
1b		✓	33 % miRNA; Concentration: 212.10 pg/μl	
2a		✓	10 % miRNA; Concentration: 588.40 pg/μl	
2b		✓	8 % miRNA; Concentration: 1065 pg/μl	
3a		✓	6 % miRNA; Concentration: 1118.80 pg/μl	
3b		✓	5 % miRNA; Concentration: 612 pg/μl	
4a		✓	10 % miRNA; Concentration: 1689.40 pg/μl	
4b		✓	5 % miRNA; Concentration: 698.20 pg/μl	
5a		✓	23 % miRNA; Concentration: 3067.10 pg/μl	
5b		✓	6 % miRNA; Concentration: 666.40 pg/μl	
6a		✓	24 % miRNA; Concentration: 466.50 pg/μl	
Ladder		✓	Number of Peaks: 8	

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Small RNA
 Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
 Modified: 12/11/2019 10:24:57 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/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

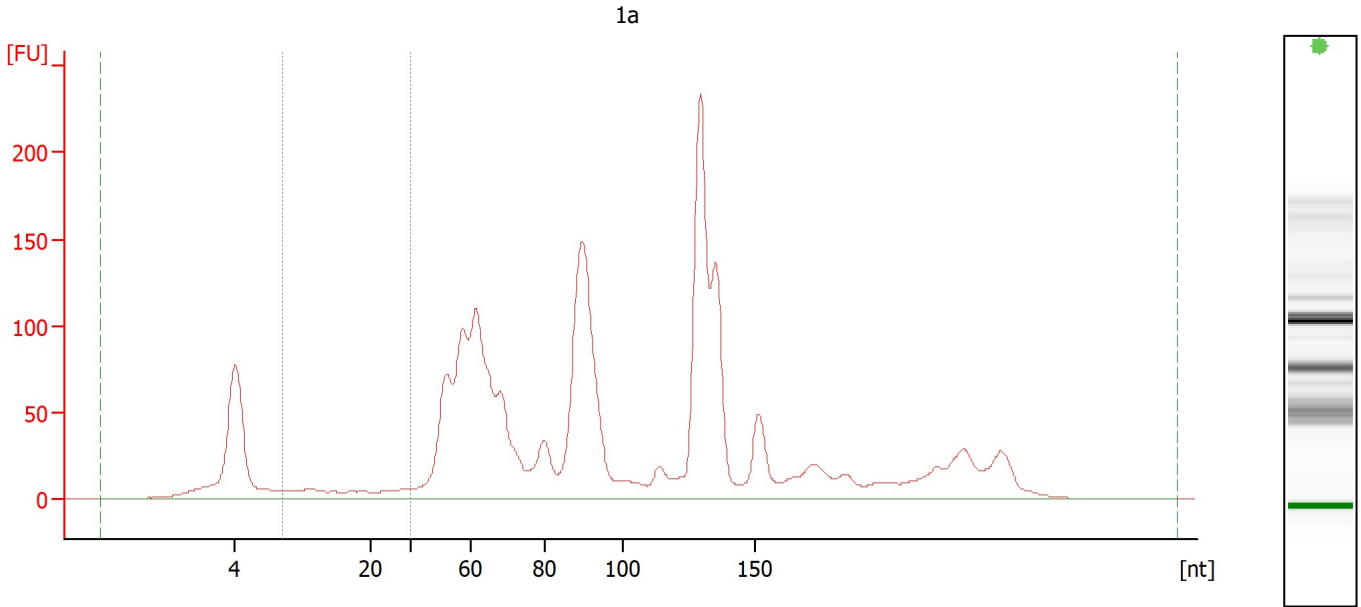
Ladder

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

Assay Class: Small RNA
 Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
 Modified: 12/11/2019 10:24:57 AM

Electropherogram Summary



Overall Results for sample 1 : 1a

Small RNA Concentration [pg/μl]:	9,124.4	Result Flagging Color:	
miRNA Concentration [pg/μl]:	770.7	Result Flagging Label:	8 % miRNA; Concentration: 770.70 pg/μl
miRNA / Small RNA Ratio [%]:	8		

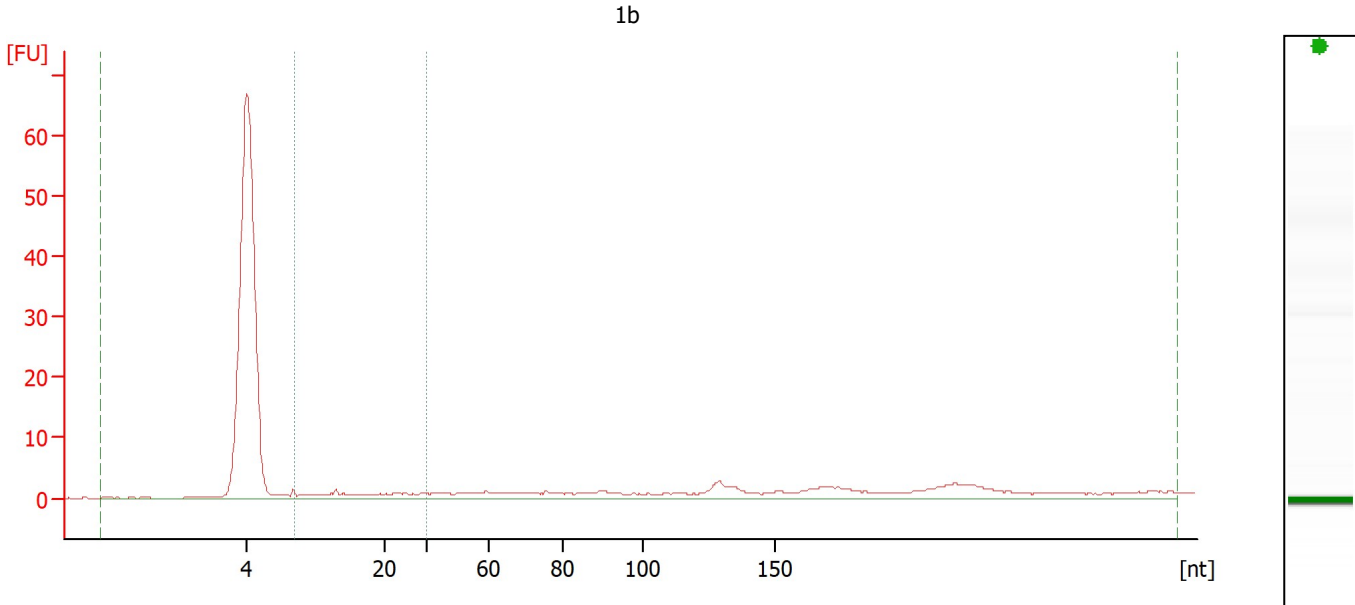
Region table for sample 1 : 1a

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	311	105	58.3	9,124.4	100	
miRNA	10	40	20	43.6	770.7	8	

Assay Class: Small RNA
 Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
 Modified: 12/11/2019 10:24:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 1b

Small RNA Concentration [pg/μl]: 633.3
 miRNA Concentration [pg/μl]: 212.1
 miRNA / Small RNA Ratio [%]: 33

Result Flagging Color:
 Result Flagging Label: 33 % miRNA;
 Concentration: 212.10
 pg/μl

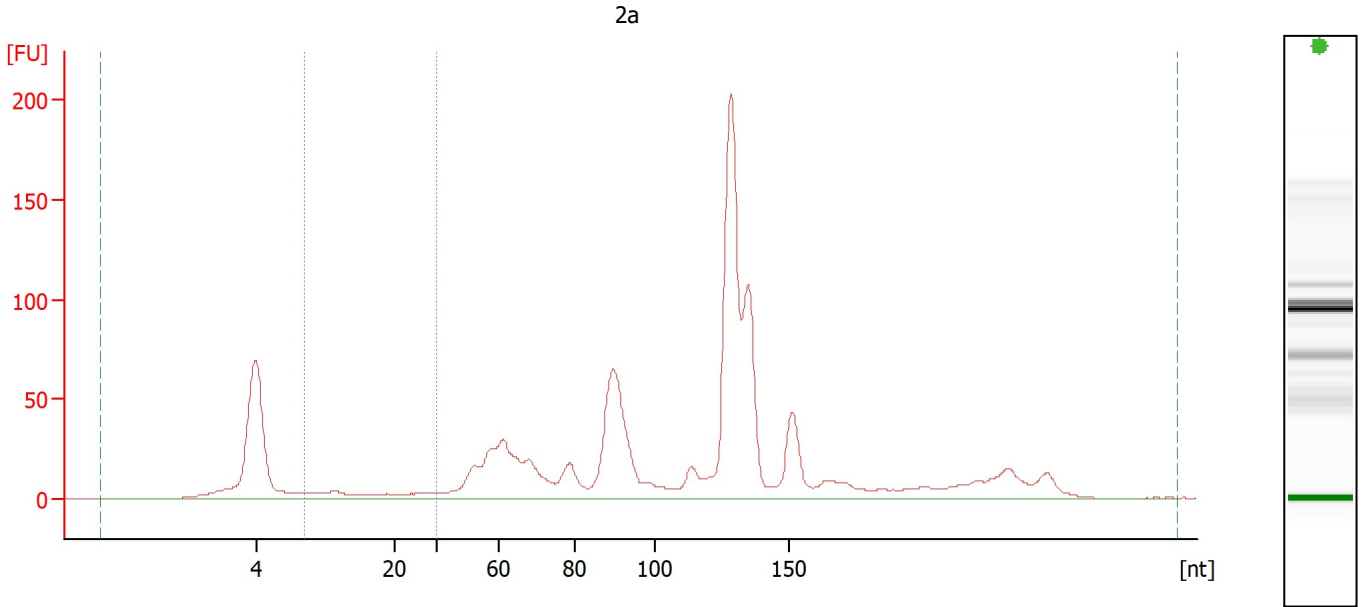
Region table for sample 2 : 1b

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	301	70	100.0	633.3	100	
miRNA	10	40	20	41.5	212.1	33	

Assay Class: Small RNA
 Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
 Modified: 12/11/2019 10:24:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 2a

Small RNA Concentration [pg/μl]: 5,713.0
 miRNA Concentration [pg/μl]: 588.4
 miRNA / Small RNA Ratio [%]: 10

Result Flagging Color:
 Result Flagging Label: 10 % miRNA;
 Concentration: 588.40
 pg/μl

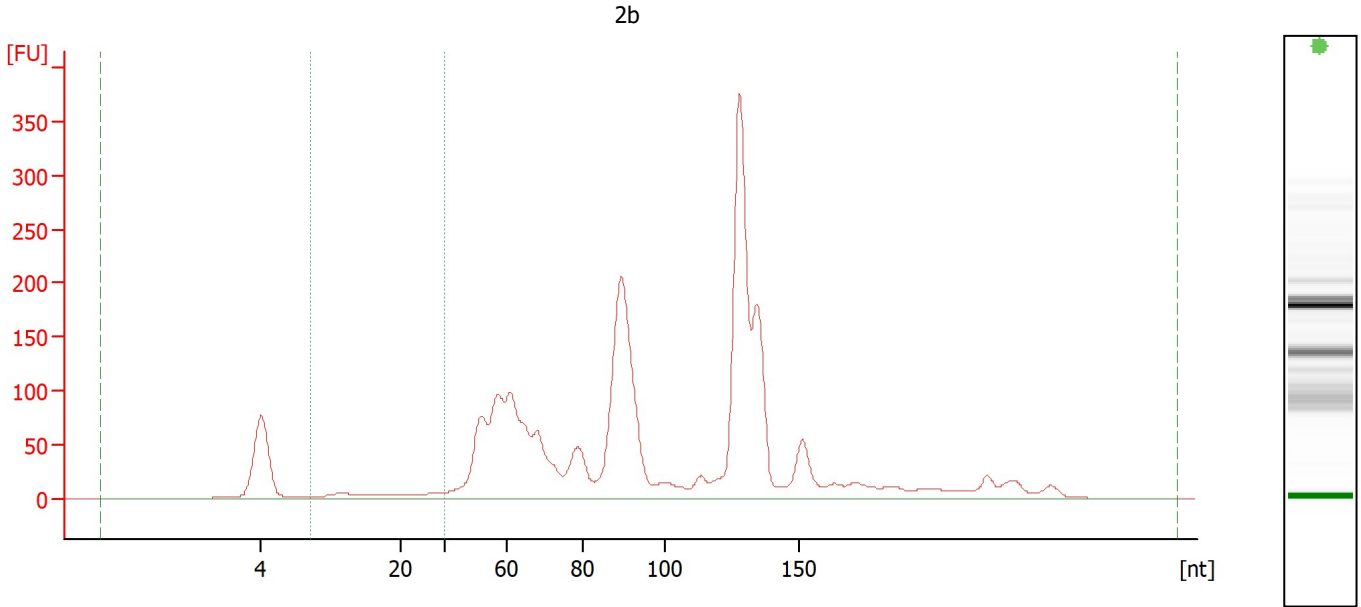
Region table for sample 3 : 2a

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	294	110	56.2	5,713.0	100	
miRNA	10	40	20	43.4	588.4	10	

Assay Class: Small RNA
 Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
 Modified: 12/11/2019 10:24:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 2b

Small RNA Concentration [pg/μl]:	13,911.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,065.0	Result Flagging Label:	8 % miRNA; Concentration: 1065 pg/μl
miRNA / Small RNA Ratio [%]:	8		

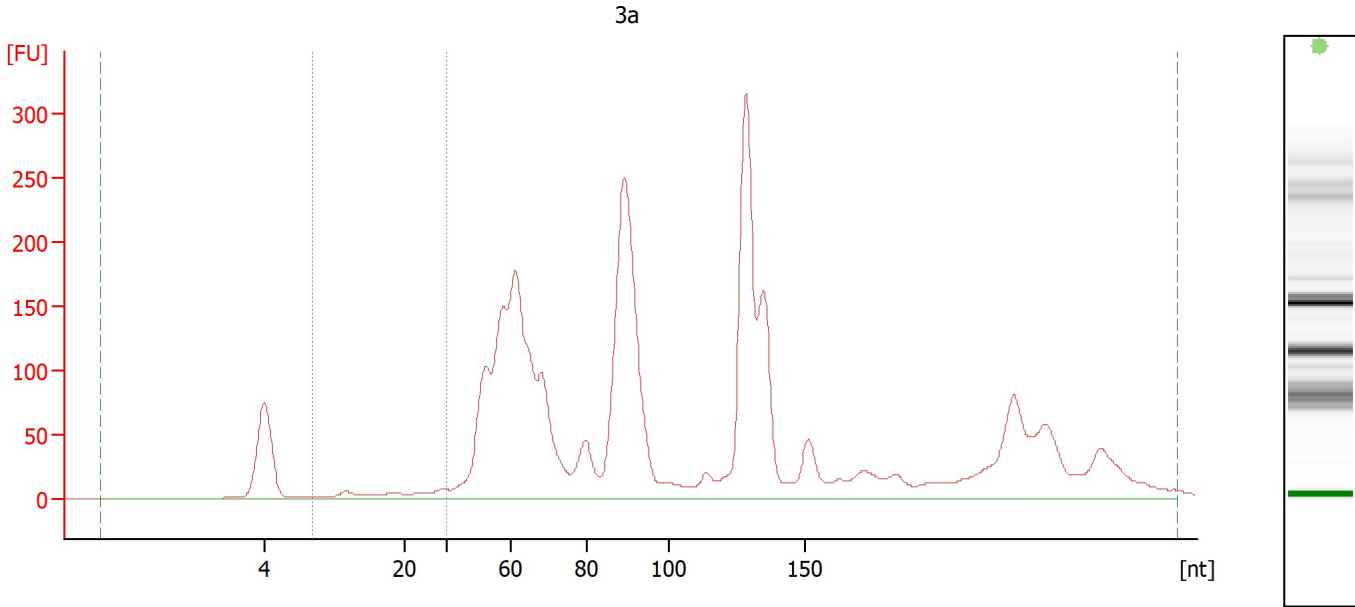
Region table for sample 4 : 2b

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	289	103	49.4	13,911.5	100	
miRNA	10	40	21	42.0	1,065.0	8	

Assay Class: Small RNA
 Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
 Modified: 12/11/2019 10:24:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 3a

Small RNA Concentration [pg/μl]:	19,082.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,118.8	Result Flagging Label:	6 % miRNA; Concentration: 1118.80 pg/μl
miRNA / Small RNA Ratio [%]:	6		

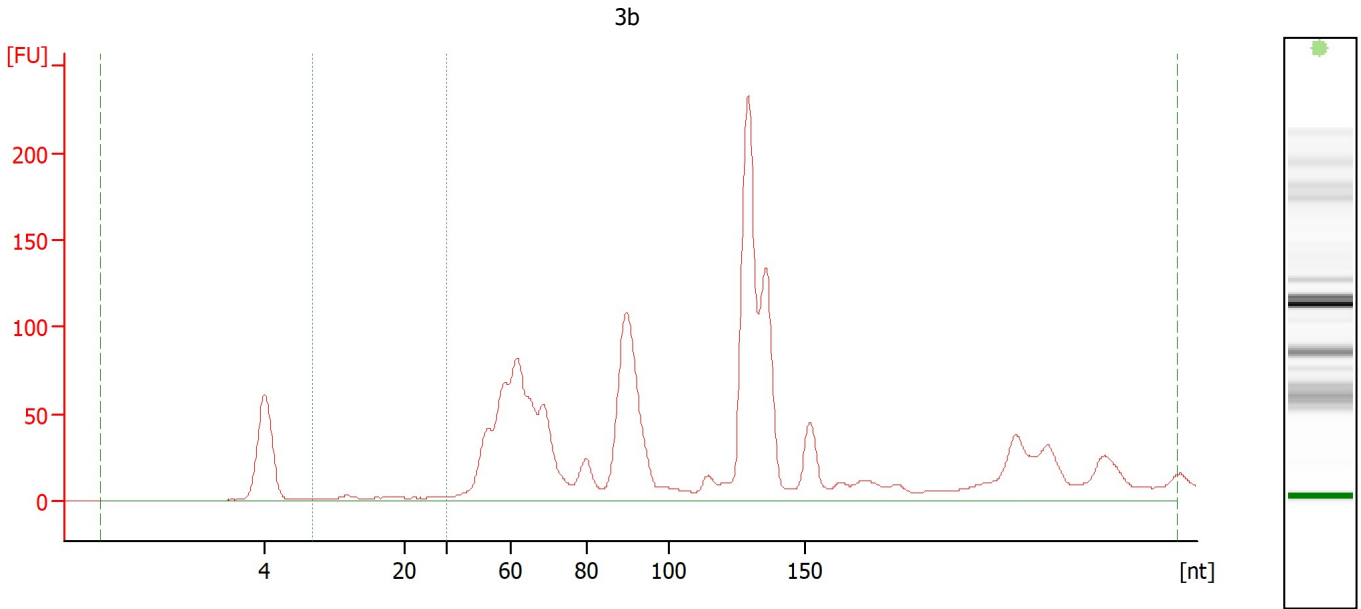
Region table for sample 5 : 3a

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	287	119	57.5	19,082.5	100	
miRNA	10	40	22	40.8	1,118.8	6	

Assay Class: Small RNA
 Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
 Modified: 12/11/2019 10:24:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 3b

Small RNA Concentration [pg/μl]:	12,281.2	Result Flagging Color:	
miRNA Concentration [pg/μl]:	612.0	Result Flagging Label:	5 % miRNA; Concentration: 612 pg/μl
miRNA / Small RNA Ratio [%]:	5		

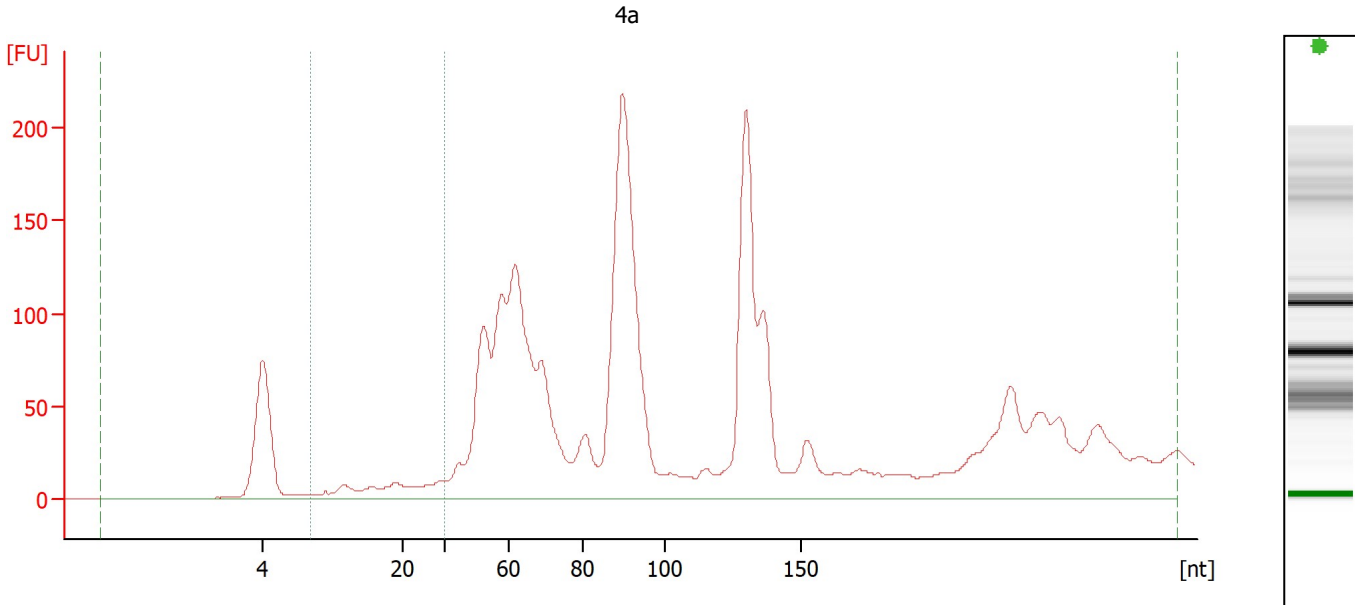
Region table for sample 6 : 3b

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	287	123	56.0	12,281.1	100	
miRNA	10	40	20	41.1	612.0	5	

Assay Class: Small RNA
 Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
 Modified: 12/11/2019 10:24:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 4a

Small RNA Concentration [pg/μl]:	16,278.0	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,689.4	Result Flagging Label:	10 % miRNA; Concentration: 1689.40 pg/μl
miRNA / Small RNA Ratio [%]:	10		

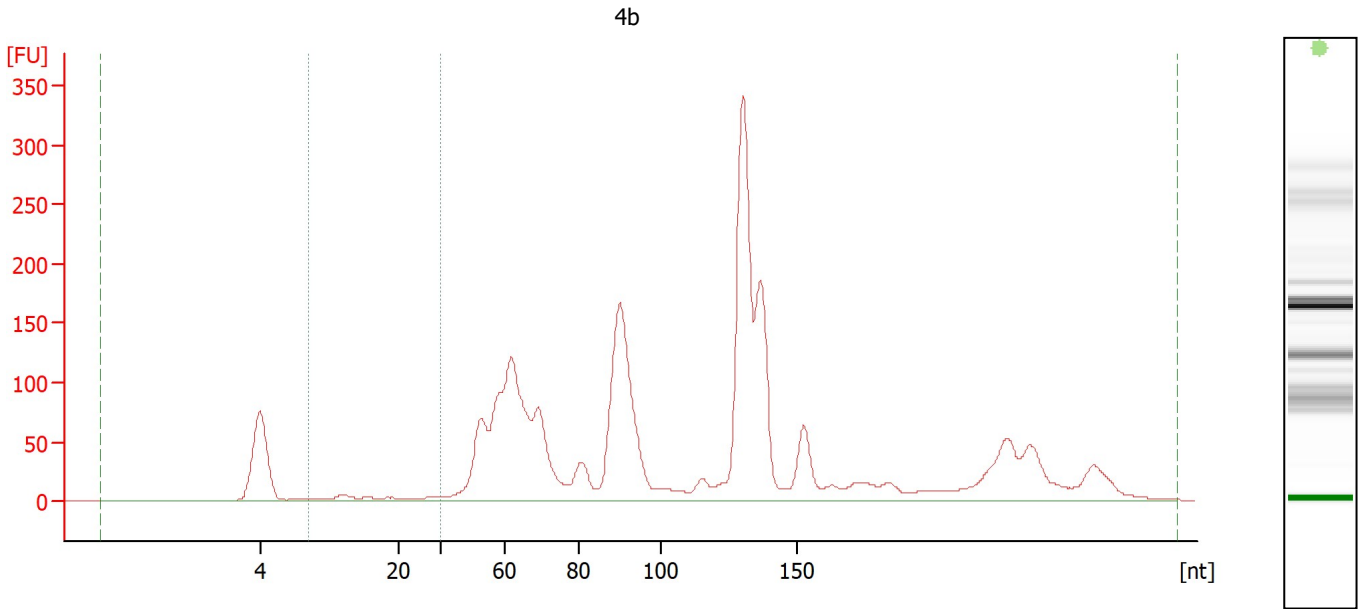
Region table for sample 7 : 4a

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	288	125	60.6	16,278.0	100	
miRNA	10	40	21	39.4	1,689.4	10	

Assay Class: Small RNA
 Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
 Modified: 12/11/2019 10:24:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 4b

Small RNA Concentration [pg/μl]: 14,265.4
 miRNA Concentration [pg/μl]: 698.2
 miRNA / Small RNA Ratio [%]: 5

Result Flagging Color:
 Result Flagging Label: 5 % miRNA;
 Concentration: 698.20
 pg/μl

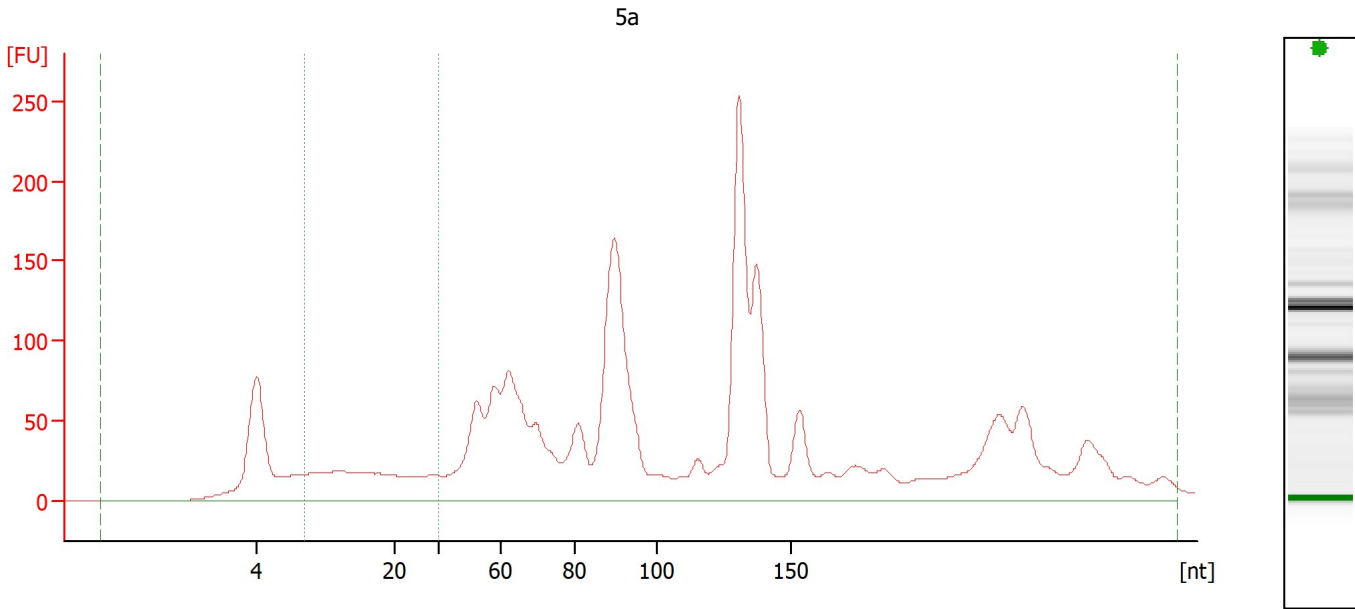
Region table for sample 8 : 4b

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	291	120	53.9	14,265.4	100	
miRNA	10	40	20	41.5	698.2	5	

Assay Class: Small RNA
 Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
 Modified: 12/11/2019 10:24:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 5a

Small RNA Concentration [pg/μl]:	13,395.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	3,067.1	Result Flagging Label:	23 % miRNA; Concentration: 3067.10 pg/μl
miRNA / Small RNA Ratio [%]:	23		

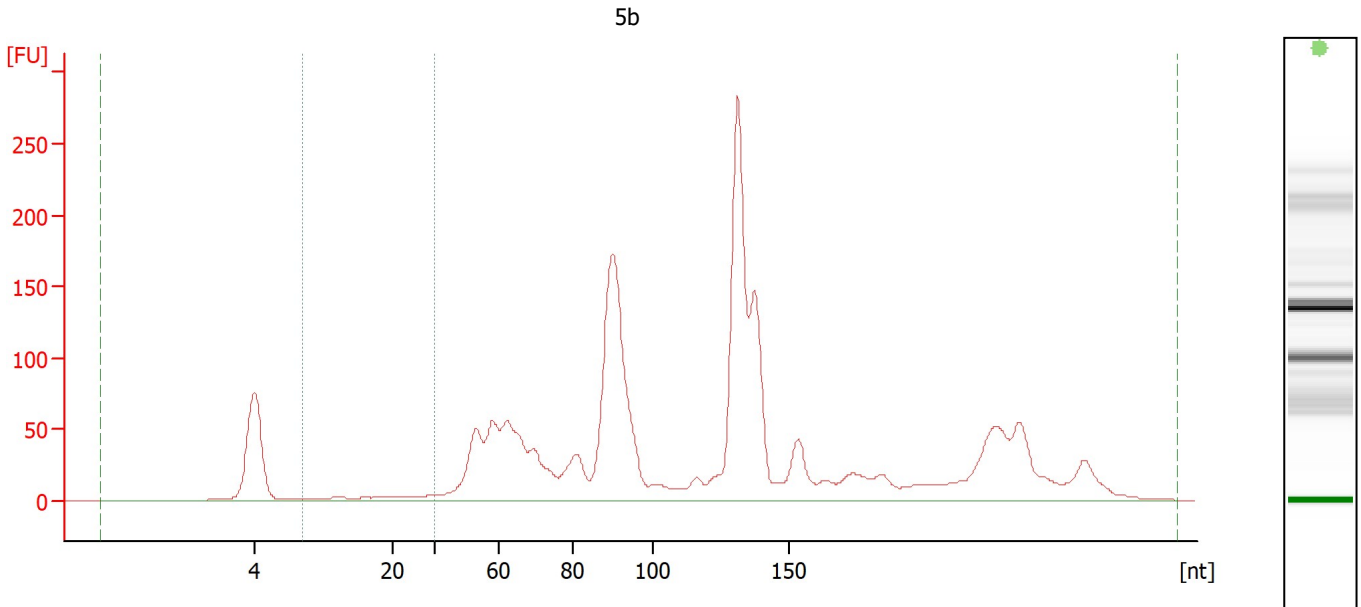
Region table for sample 9 : 5a

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	293	120	63.1	13,395.5	100	
miRNA	10	40	19	41.9	3,067.1	23	

Assay Class: Small RNA
 Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
 Modified: 12/11/2019 10:24:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 5b

Small RNA Concentration [pg/μl]: 11,828.7
 miRNA Concentration [pg/μl]: 666.4
 miRNA / Small RNA Ratio [%]: 6

Result Flagging Color:
 Result Flagging Label: 6 % miRNA;
 Concentration: 666.40
 pg/μl

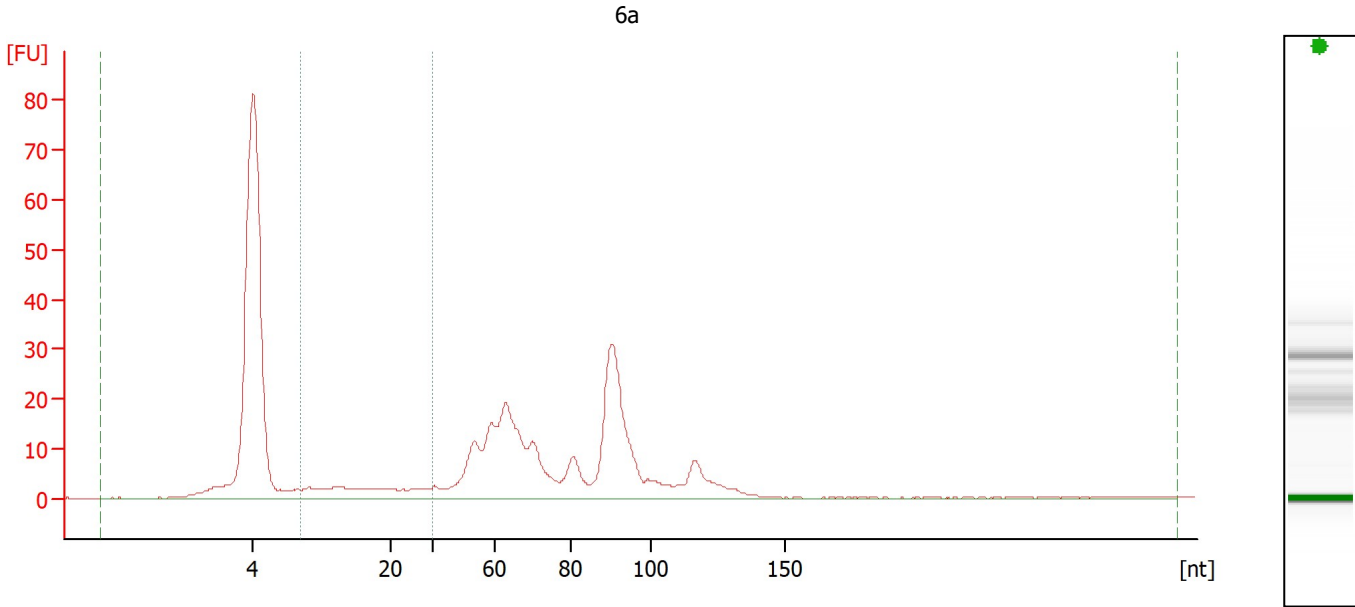
Region table for sample 10 : 5b

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	295	126	53.0	11,828.7	100	
miRNA	10	40	22	40.9	666.4	6	

Assay Class: Small RNA
 Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
 Modified: 12/11/2019 10:24:57 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 6a

Small RNA Concentration [pg/μl]:	1,969.0	Result Flagging Color:	
miRNA Concentration [pg/μl]:	466.5	Result Flagging Label:	24 % miRNA; Concentration: 466.50 pg/μl
miRNA / Small RNA Ratio [%]:	24		

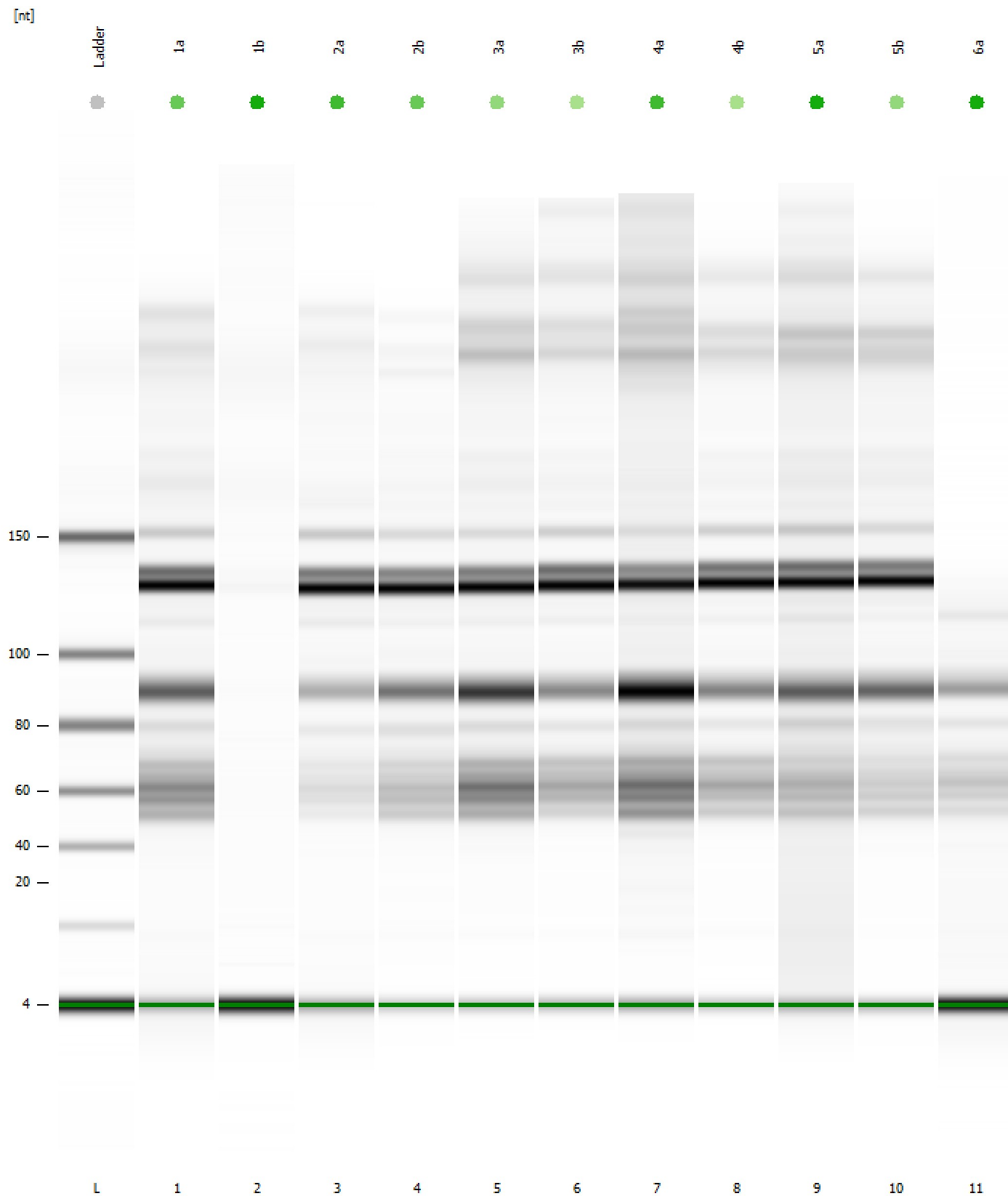
Region table for sample 11 : 6a

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	296	53	92.4	1,969.0	100	
miRNA	10	40	19	42.3	466.5	24	

Assay Class: Small RNA
Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
Modified: 12/11/2019 10:24:57 AM

Gel Image

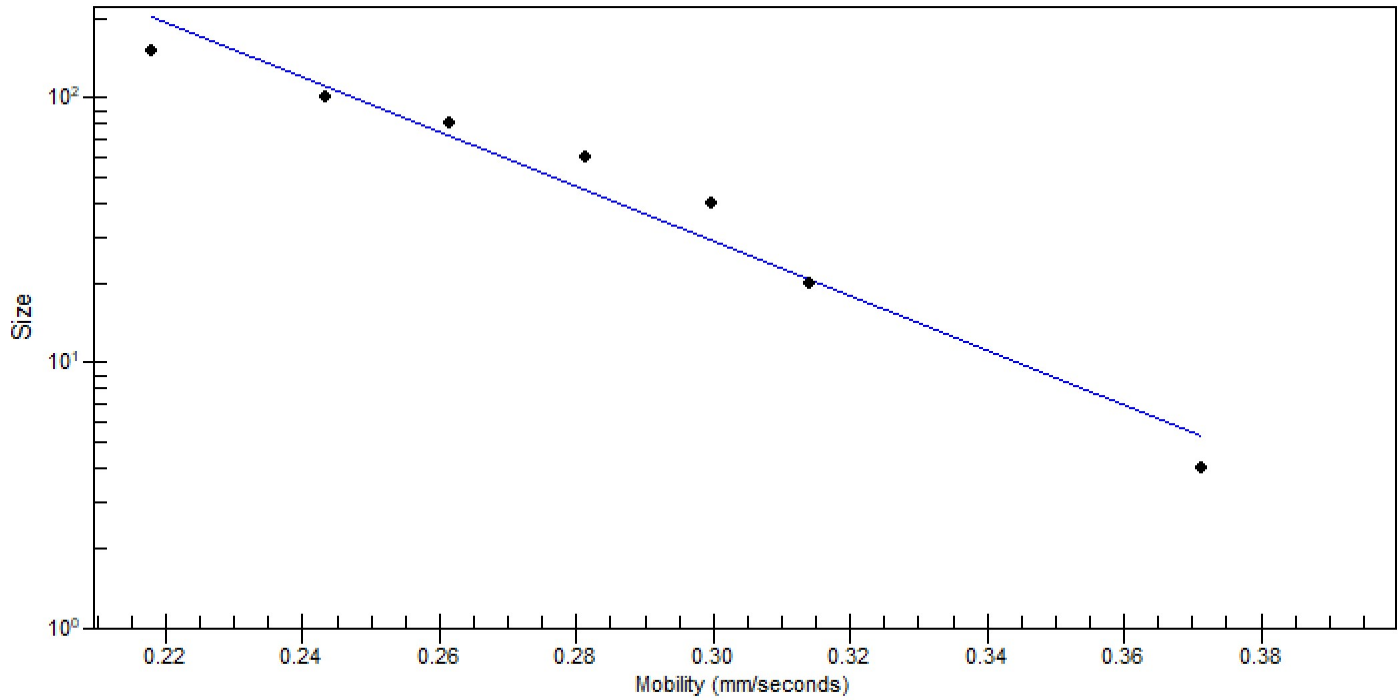


Assay Class: Small RNA
Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
Modified: 12/11/2019 10:24:57 AM

Curves

Standard Curve



Assay Class: Small RNA
 Data Path: Z:\XADs\2019-12-11\Bioanalyzer1_Small RNA_2019-12-11_001.xad

Created: 12/11/2019 9:45:33 AM
 Modified: 12/11/2019 10:24:57 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		12/11/2019 10:17:31 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Run started on port 1 (File: Z:\XADs\2019-12-11\Bioanalyze r1_Small RNA_2019-12-11_001.xad)		Instrument	Run		12/11/2019 9:45:39 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Product Number : G2938C		Instrument	Run		12/11/2019 9:45:39 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Name :		Instrument	Run		12/11/2019 9:45:39 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Vendor : Agilent Technologies		Instrument	Run		12/11/2019 9:45:39 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Serial# : DE34903152		Instrument	Run		12/11/2019 9:45:39 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Firmware : C.01.069		Instrument	Run		12/11/2019 9:45:39 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Cartridge : Electrode		Instrument	Run		12/11/2019 9:45:39 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB