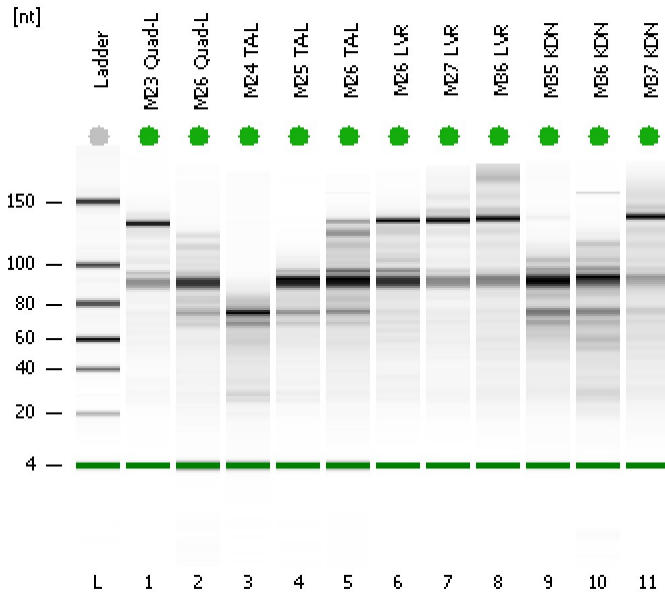


Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
Modified: 8/4/2016 1:56:58 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

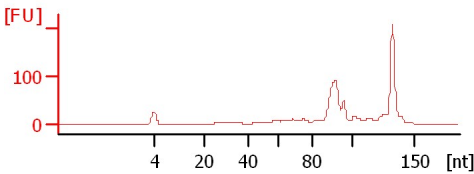
Assay Class: Small RNA
Version: 1.2
Assay Comments: Small RNA Analysis 6 - 150 nucleotides

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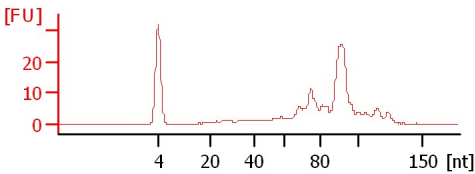
Chip Information:

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

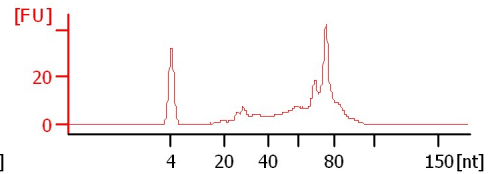
M23 Quad-L
22 % miRNA; Concentration: 875.50 pg/µl



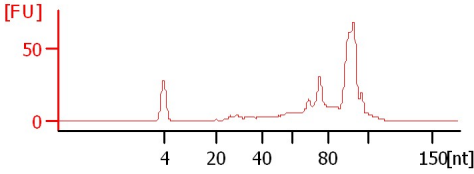
M26 Quad-L
23 % miRNA; Concentration: 168.20 pg/µl



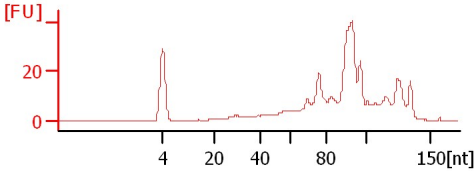
M24 TA-L
49 % miRNA; Concentration: 631.90 pg/µl



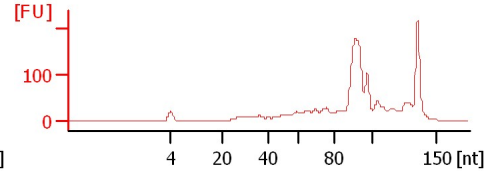
M25 TA-L
24 % miRNA; Concentration: 441.80 pg/µl



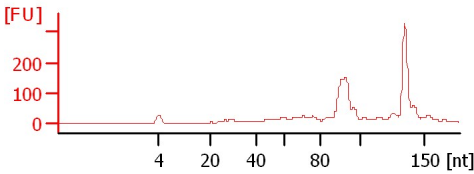
M26 TA-L
20 % miRNA; Concentration: 323.30 pg/µl



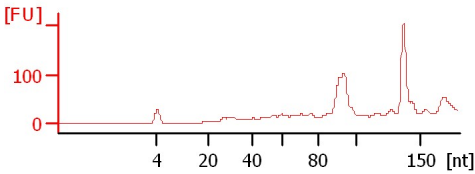
M26 LVR
21 % miRNA; Concentration: 1918.20 pg/µl



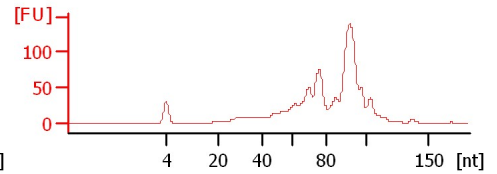
M27 LVR
24 % miRNA; Concentration: 1750 pg/µl



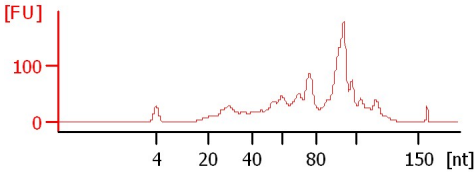
M36 LVR
28 % miRNA; Concentration: 1917.30 pg/µl



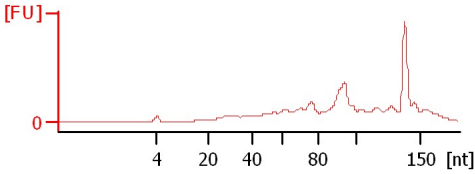
M35 KDN
25 % miRNA; Concentration: 1260.60 pg/µl



M36 KDN
38 % miRNA; Concentration: 3578.30 pg/µl















M37 KDN
31 % miRNA; Concentration: 4805.20 pg/µl



Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
 Modified: 8/4/2016 1:56:58 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
M23 Quad-L		✓	22 % miRNA; Concentration: 875.50 pg/μl	
M26 Quad-L		✓	23 % miRNA; Concentration: 168.20 pg/μl	
M24 TA-L		✓	49 % miRNA; Concentration: 631.90 pg/μl	
M25 TA-L		✓	24 % miRNA; Concentration: 441.80 pg/μl	
M26 TA-L		✓	20 % miRNA; Concentration: 323.30 pg/μl	
M26 LVR		✓	21 % miRNA; Concentration: 1918.20 pg/μl	
M27 LVR		✓	24 % miRNA; Concentration: 1750 pg/μl	
M36 LVR		✓	28 % miRNA; Concentration: 1917.30 pg/μl	
M35 KDN		✓	25 % miRNA; Concentration: 1260.60 pg/μl	
M36 KDN		✓	38 % miRNA; Concentration: 3578.30 pg/μl	
M37 KDN		✓	31 % miRNA; Concentration: 4805.20 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\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
Modified: 8/4/2016 1:56:58 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/ 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

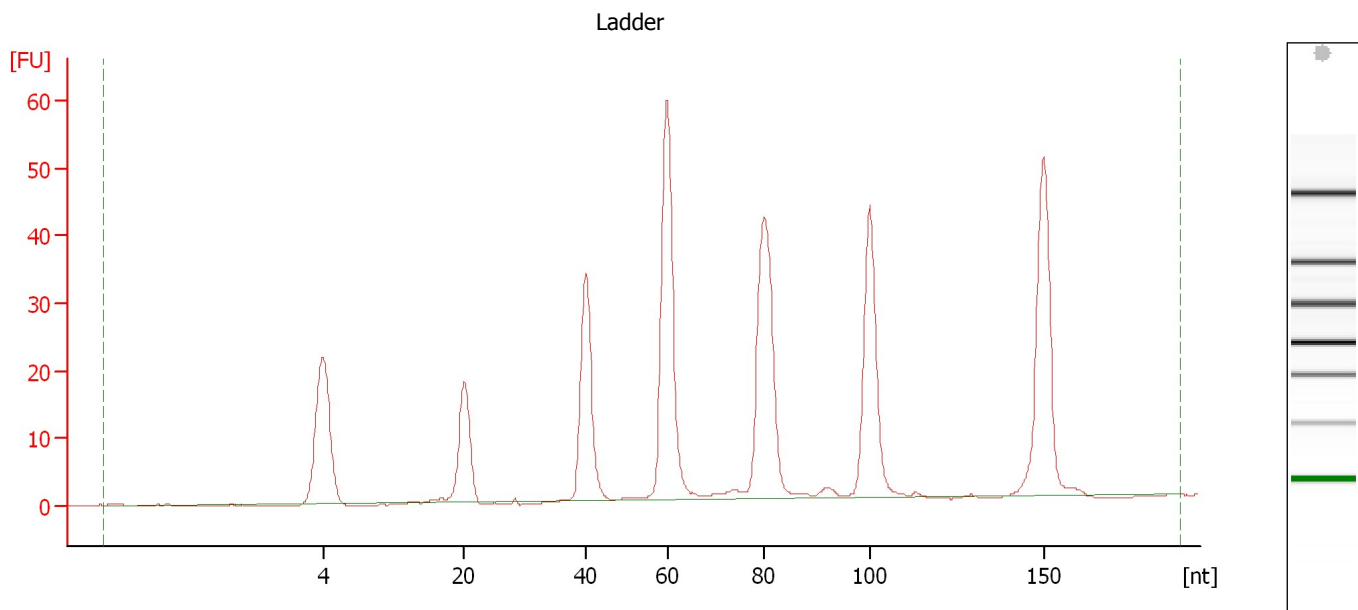
Ladder

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

Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
Modified: 8/4/2016 1:56:58 PM

Electropherogram Summary



Overall Results for Ladder

Result Flagging Color:

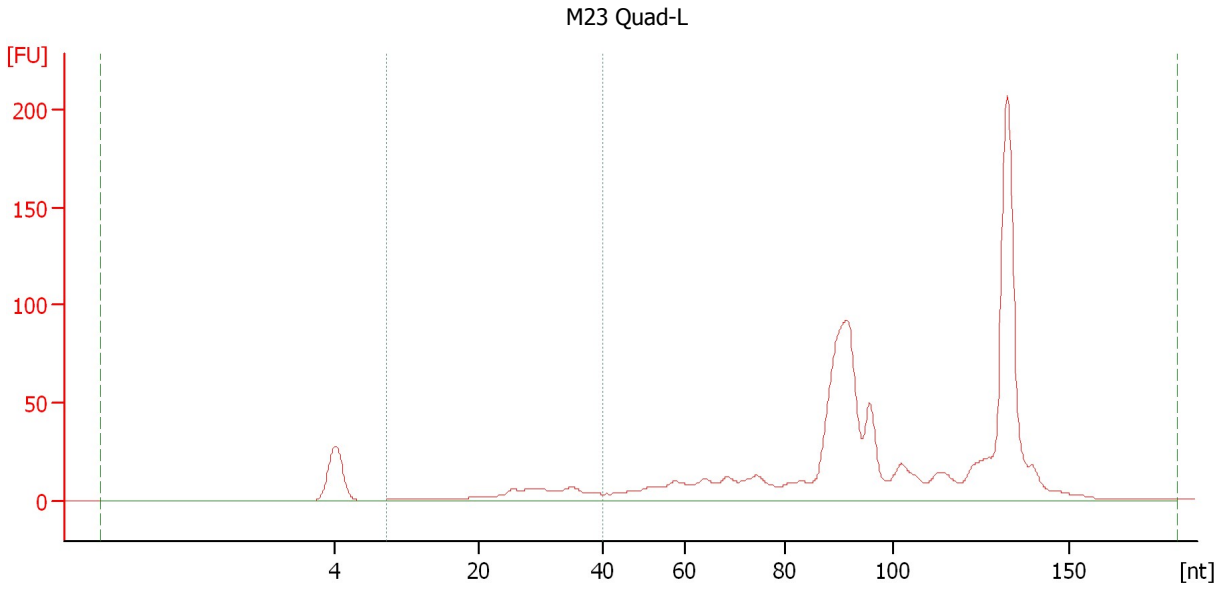
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
 Modified: 8/4/2016 1:56:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : M23 Quad-L

Small RNA Concentration [pg/μl]:	4,034.8	Result Flagging Color:	
miRNA Concentration [pg/μl]:	875.5	Result Flagging Label:	22 % miRNA; Concentration: 875.50 pg/μl
miRNA / Small RNA Ratio [%]:	22		

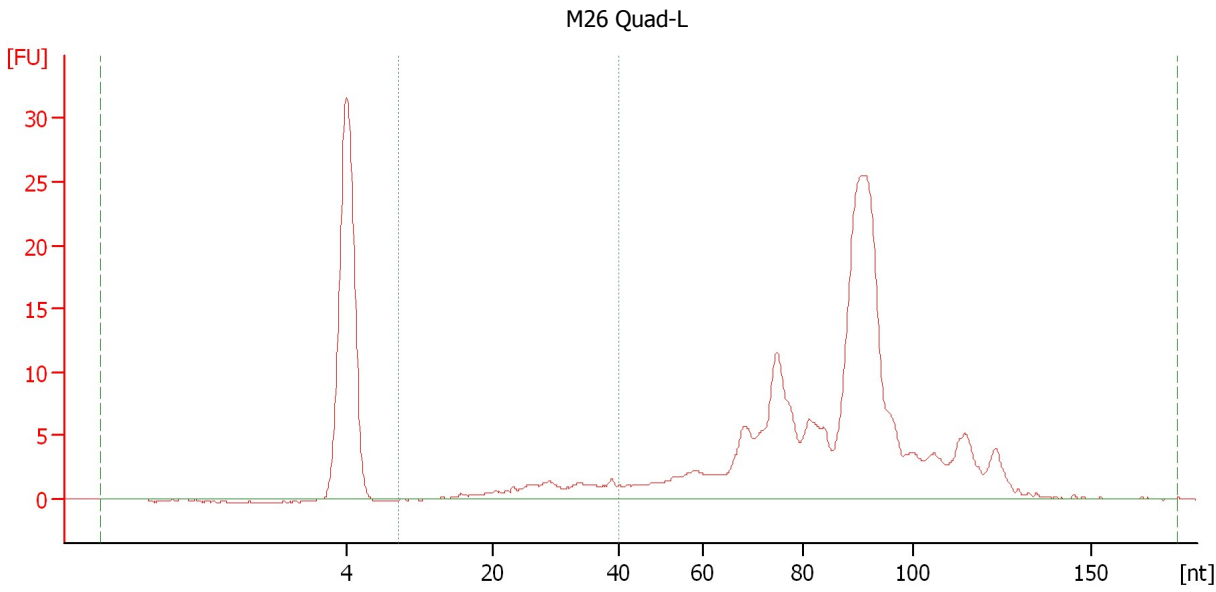
Region table for sample 1 : M23 Quad-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	180	97	37.3	4,034.8	100	
miRNA	10	40	29	23.9	875.5	22	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
 Modified: 8/4/2016 1:56:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : M26 Quad-L

Small RNA Concentration [pg/μl]:	744.0	Result Flagging Color:	
miRNA Concentration [pg/μl]:	168.2	Result Flagging Label:	23 % miRNA; Concentration: 168.20 pg/μl
miRNA / Small RNA Ratio [%]:	23		

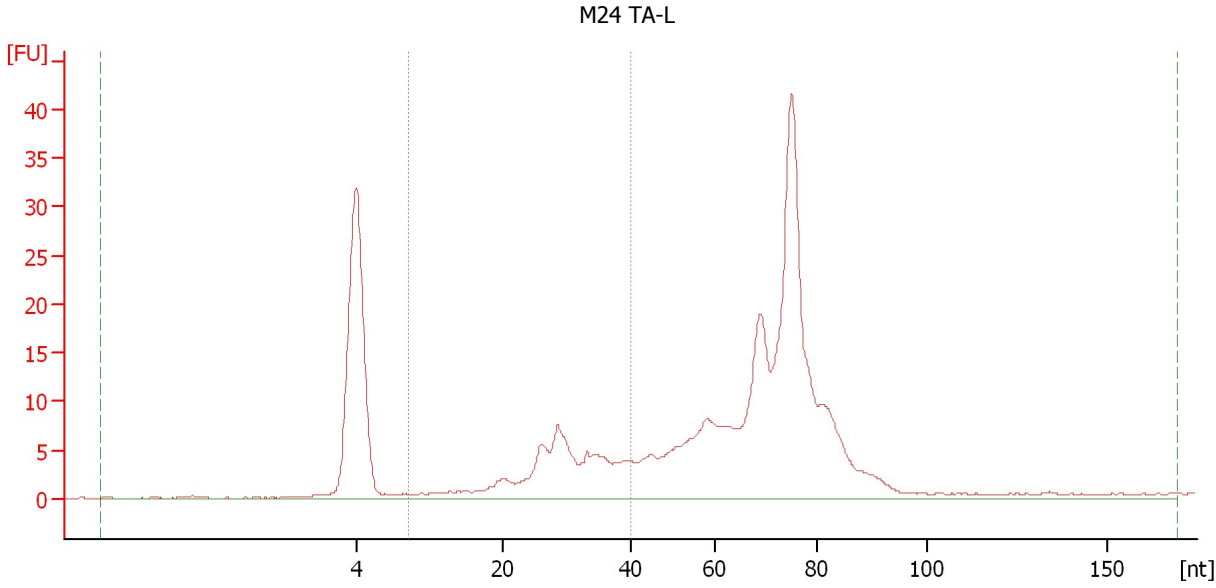
Region table for sample 2 : M26 Quad-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	174	68	54.8	744.0	100	
miRNA	10	40	29	22.7	168.2	23	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
 Modified: 8/4/2016 1:56:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : M24 TA-L

Small RNA Concentration [pg/μl]:	1,301.4	Result Flagging Color:	
miRNA Concentration [pg/μl]:	631.9	Result Flagging Label:	49 % miRNA; Concentration: 631.90 pg/μl
miRNA / Small RNA Ratio [%]:	49		

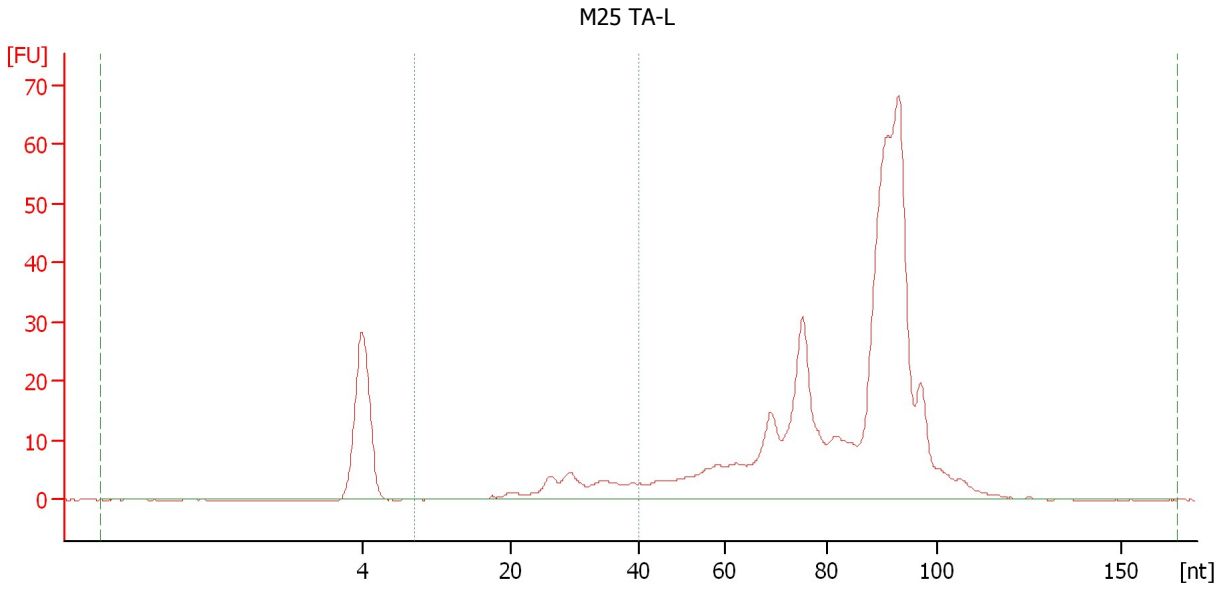
Region table for sample 3 : M24 TA-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	169	55	57.0	1,301.4	100	
miRNA	10	40	29	23.8	631.9	49	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
 Modified: 8/4/2016 1:56:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : M25 TA-L

Small RNA Concentration [pg/μl]:	1,852.3	Result Flagging Color:	
miRNA Concentration [pg/μl]:	441.8	Result Flagging Label:	24 % miRNA; Concentration: 441.80 pg/μl
miRNA / Small RNA Ratio [%]:	24		

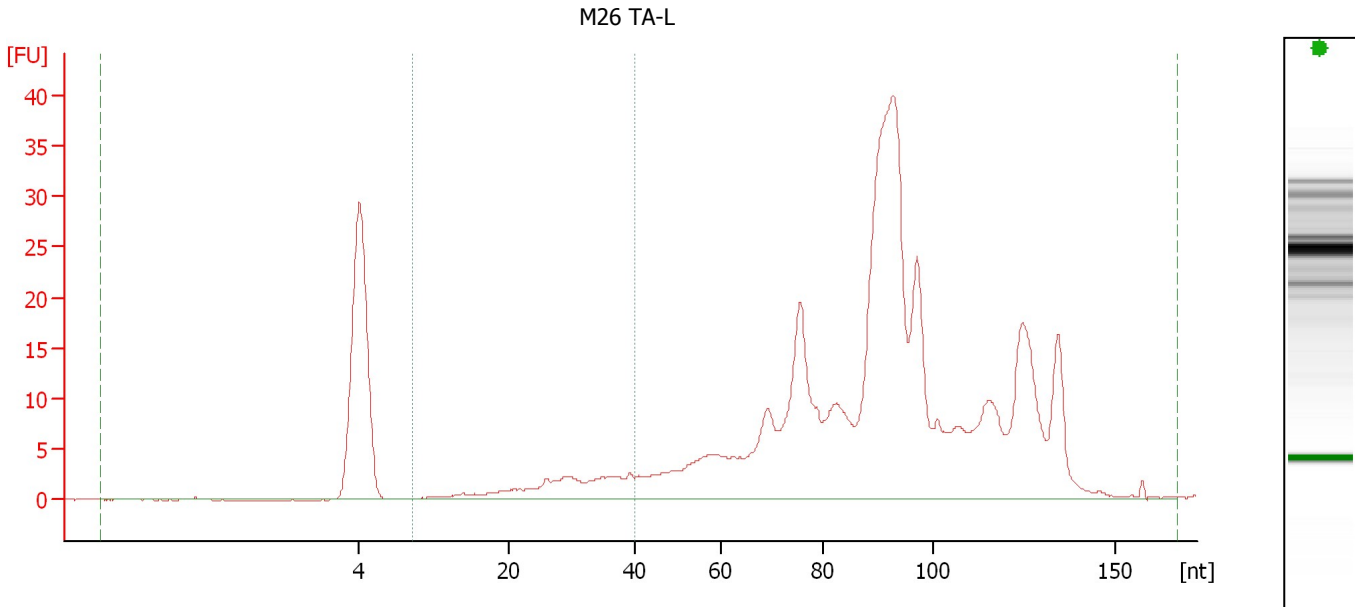
Region table for sample 4 : M25 TA-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	165	73	38.9	1,852.3	100	
miRNA	10	40	30	19.7	441.8	24	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
 Modified: 8/4/2016 1:56:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : M26 TA-L

Small RNA Concentration [pg/μl]:	1,608.0	Result Flagging Color:	
miRNA Concentration [pg/μl]:	323.3	Result Flagging Label:	20 % miRNA; Concentration: 323.30 pg/μl
miRNA / Small RNA Ratio [%]:	20		

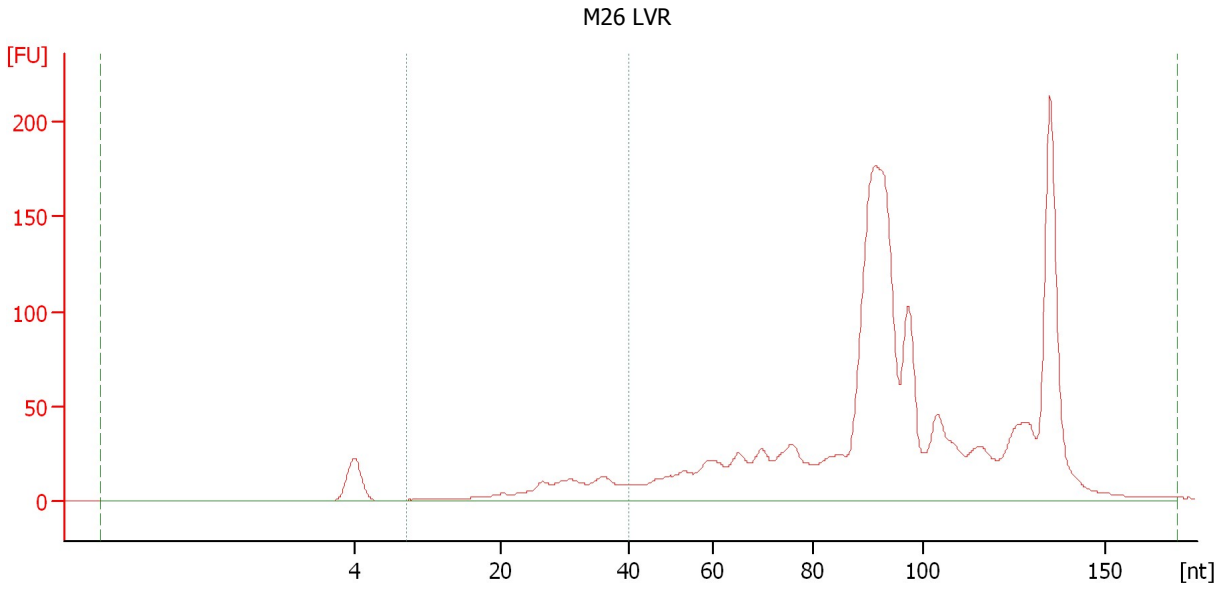
Region table for sample 5 : M26 TA-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	167	82	44.0	1,608.0	100	
miRNA	10	40	29	25.8	323.3	20	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
 Modified: 8/4/2016 1:56:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : M26 LVR

Small RNA Concentration [pg/μl]:	9,108.9	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,918.2	Result Flagging Label:	21 % miRNA; Concentration: 1918.20 pg/μl
miRNA / Small RNA Ratio [%]:	21		

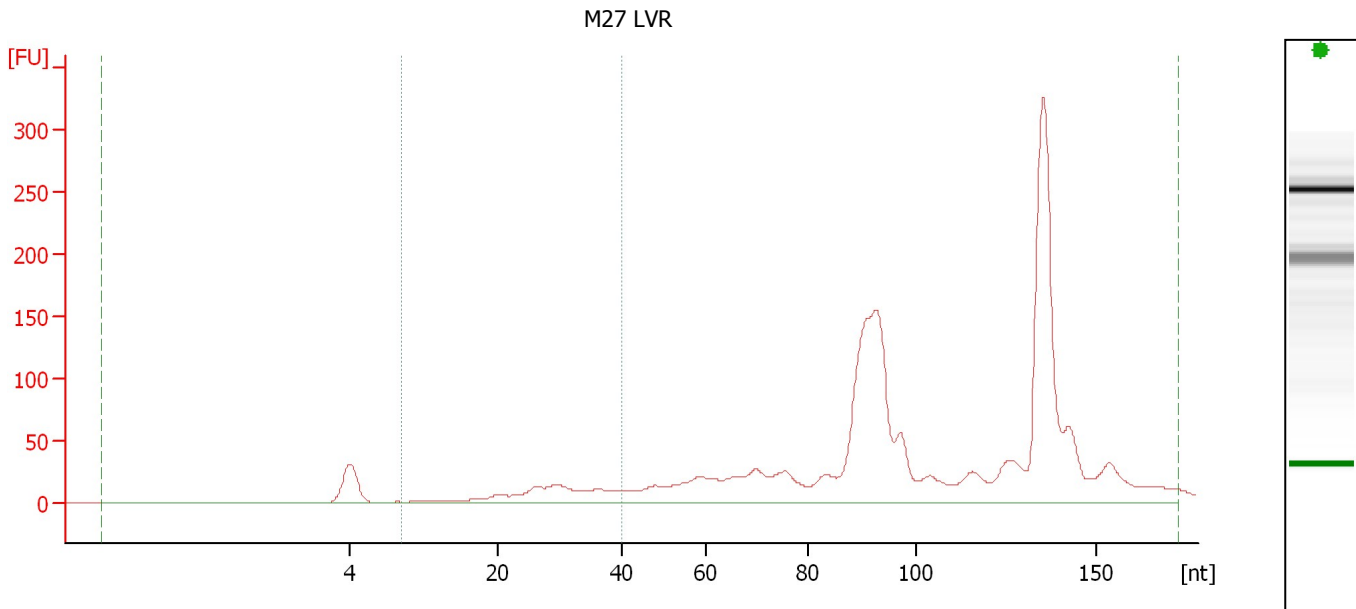
Region table for sample 6 : M26 LVR

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	170	94	33.7	9,108.9	100	
miRNA	10	40	30	23.5	1,918.2	21	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
 Modified: 8/4/2016 1:56:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : M27 LVR

Small RNA Concentration [pg/μl]:	7,185.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,750.0	Result Flagging Label:	24 % miRNA; Concentration: 1750 pg/μl
miRNA / Small RNA Ratio [%]:	24		

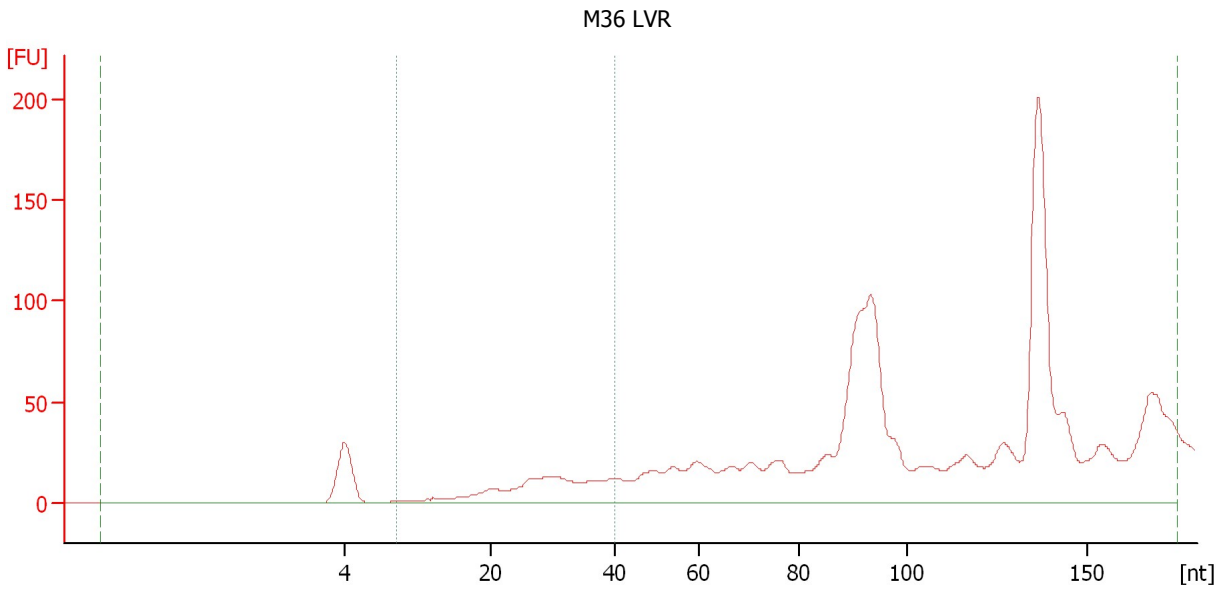
Region table for sample 7 : M27 LVR

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	173	102	37.8	7,185.5	100	
miRNA	10	40	29	24.7	1,750.0	24	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
 Modified: 8/4/2016 1:56:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : M36 LVR

Small RNA Concentration [pg/μl]:	6,741.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,917.3	Result Flagging Label:	28 % miRNA; Concentration: 1917.30 pg/μl
miRNA / Small RNA Ratio [%]:	28		

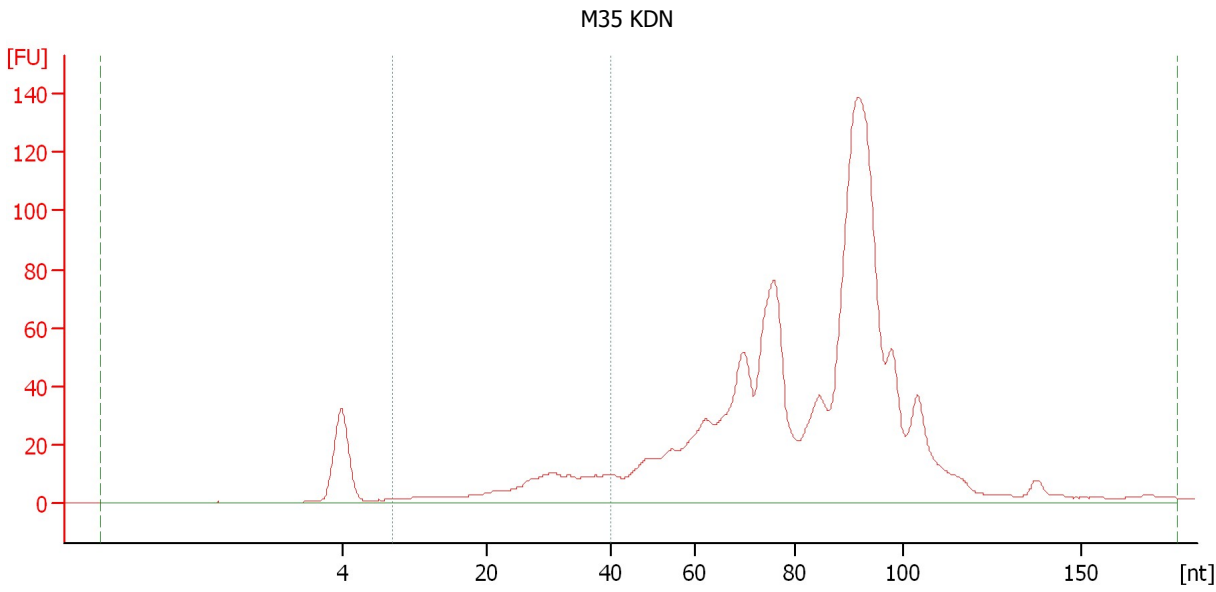
Region table for sample 8 : M36 LVR

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	175	104	42.0	6,741.5	100	
miRNA	10	40	28	26.0	1,917.3	28	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
 Modified: 8/4/2016 1:56:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : M35 KDN

Small RNA Concentration [pg/μl]:	4,979.7	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,260.6	Result Flagging Label:	25 % miRNA; Concentration: 1260.60 pg/μl
miRNA / Small RNA Ratio [%]:	25		

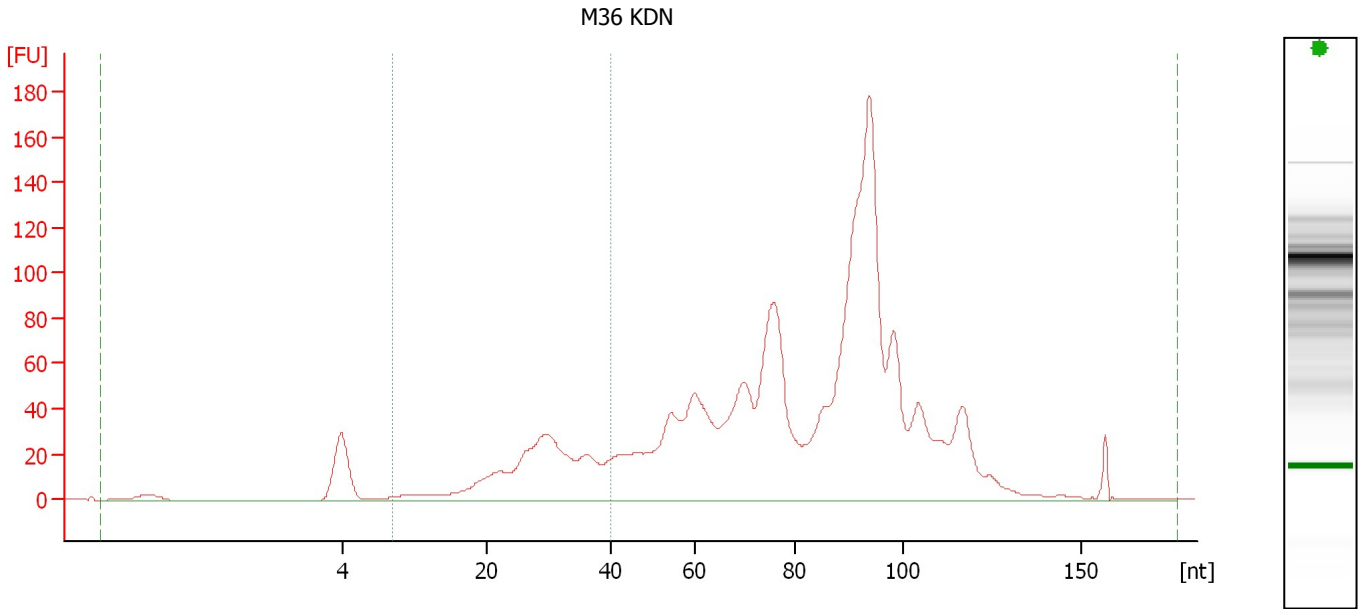
Region table for sample 9 : M35 KDN

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	177	78	36.1	4,979.7	100	
miRNA	10	40	29	27.0	1,260.6	25	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
 Modified: 8/4/2016 1:56:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : M36 KDN

Small RNA Concentration [pg/μl]:	9,342.0	Result Flagging Color:	
miRNA Concentration [pg/μl]:	3,578.3	Result Flagging Label:	38 % miRNA; Concentration: 3578.30 pg/μl
miRNA / Small RNA Ratio [%]:	38		

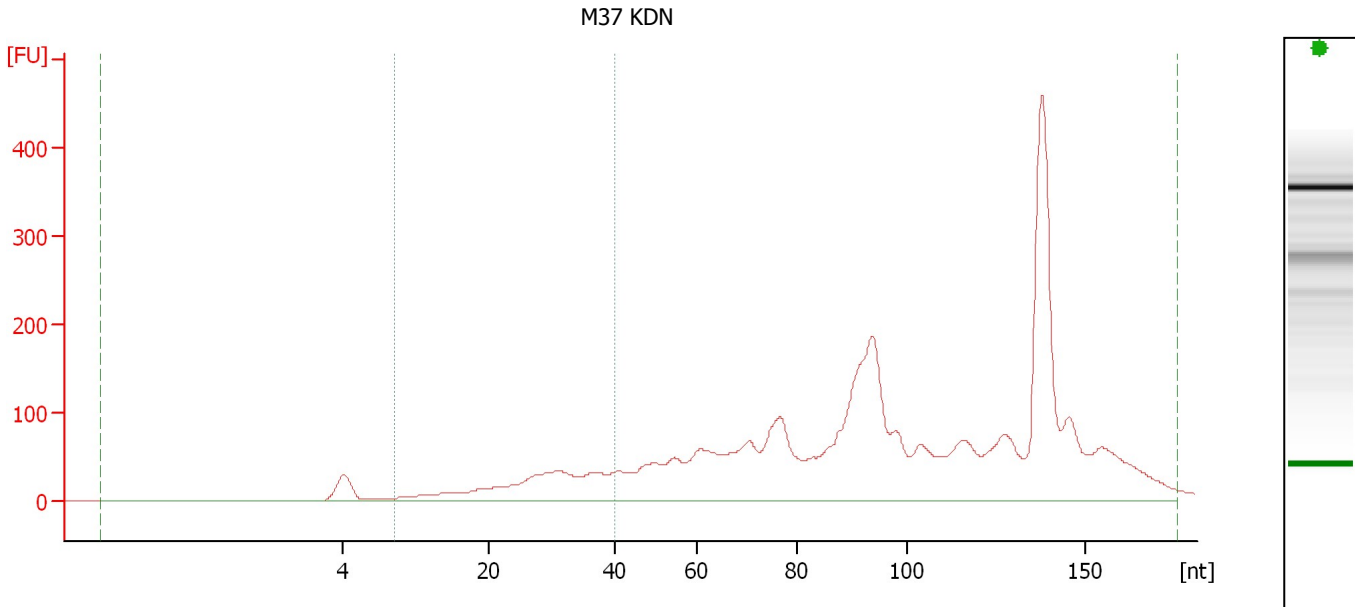
Region table for sample 10 : M36 KDN

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	177	76	38.5	9,342.0	100	
miRNA	10	40	29	23.7	3,578.3	38	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
 Modified: 8/4/2016 1:56:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : M37 KDN

Small RNA Concentration [pg/μl]:	15,370.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	4,805.2	Result Flagging Label:	31 % miRNA; Concentration: 4805.20 pg/μl
miRNA / Small RNA Ratio [%]:	31		

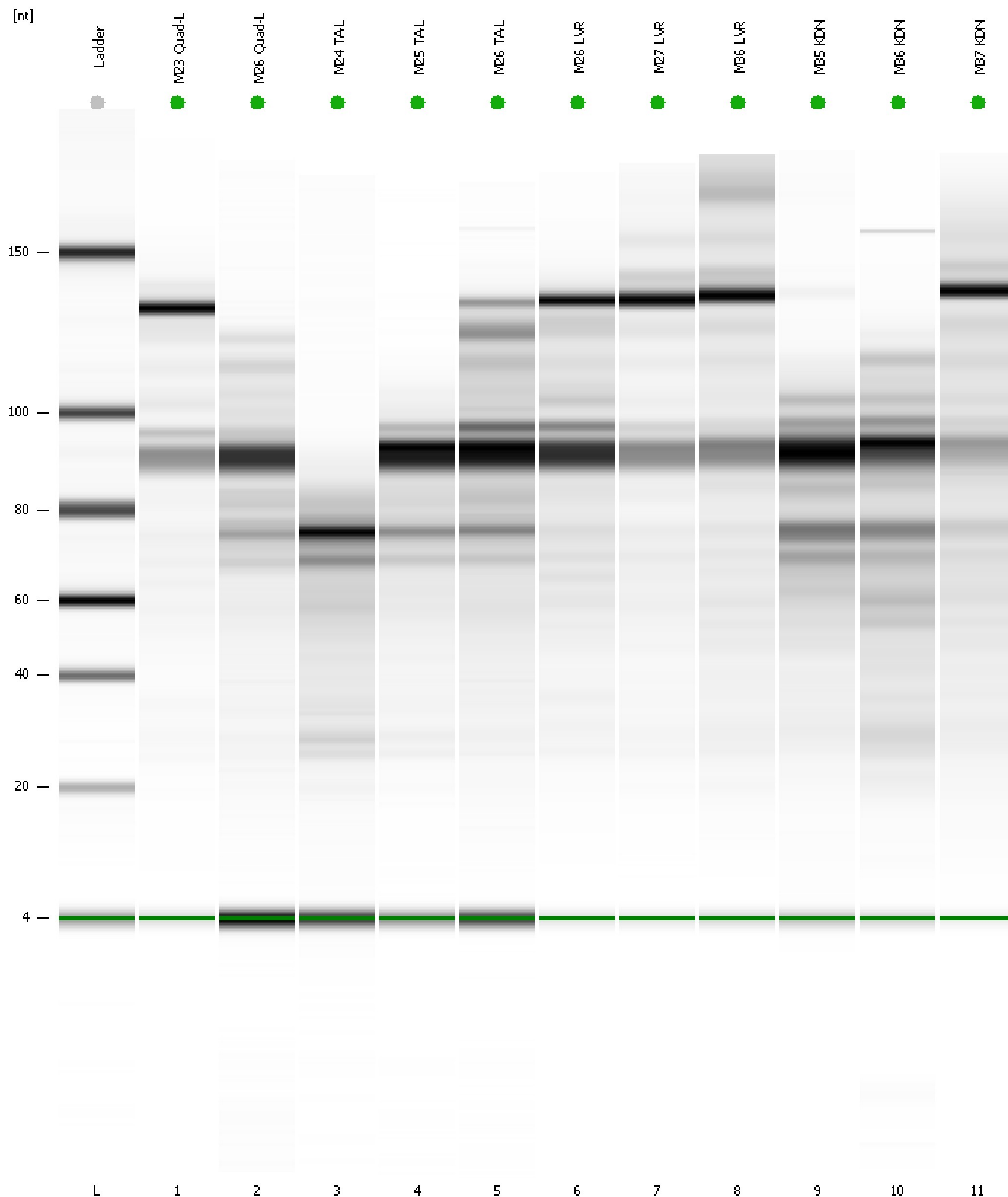
Region table for sample 11 : M37 KDN

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	176	98	41.2	15,370.5	100	
miRNA	10	40	28	27.7	4,805.2	31	

Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad

Created: 8/4/2016 1:24:57 PM
Modified: 8/4/2016 1:56:58 PM

Gel Image



Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-04\2016-08-04_003.xad
 Created: 8/4/2016 1:24:57 PM
 Modified: 8/4/2016 1:56:58 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		8/4/2016 1:56:56 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\2016-08-04\2016-08-04_003.xad)		Instrument	Run		8/4/2016 1:25:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		8/4/2016 1:25:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/4/2016 1:25:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/4/2016 1:25:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		8/4/2016 1:25:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/4/2016 1:25:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/4/2016 1:25:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1