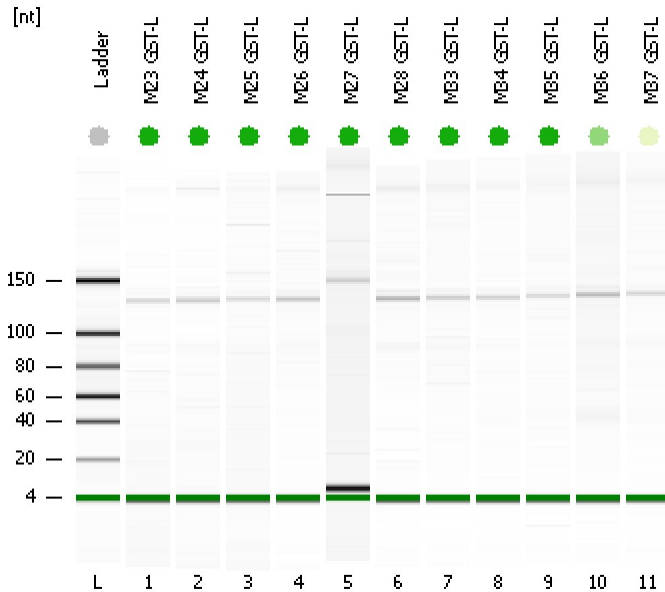


Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
Modified: 7/25/2016 2:04:20 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

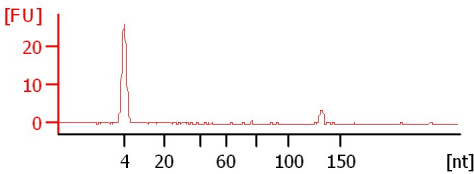
Assay Class: Small RNA
Version: 1.2
Assay Comments: Small RNA Analysis 6 - 150 nucleotides

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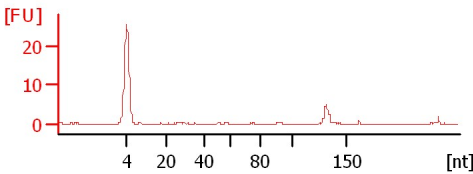
Chip Information:

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

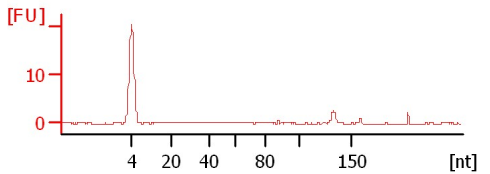
M23 GST-L
16 % miRNA; Concentration: 2.80 pg/µl



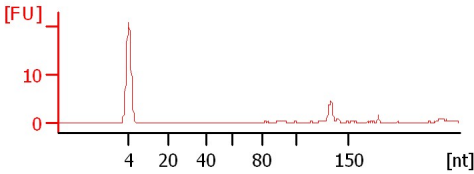
M24 GST-L
21 % miRNA; Concentration: 8.70 pg/µl



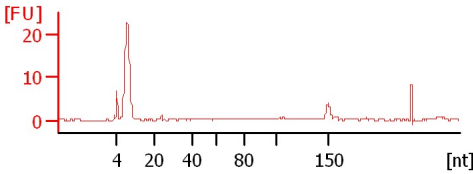
M25 GST-L
52 % miRNA; Concentration: 43.70 pg/µl



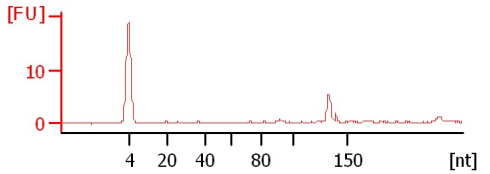
M26 GST-L
24 % miRNA; Concentration: 35.60 pg/µl



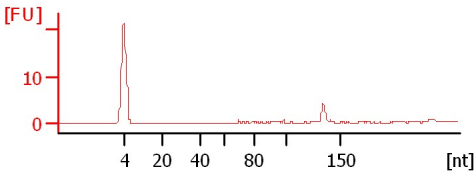
M27 GST-L
14 % miRNA; Concentration: 1215.40 pg/µl



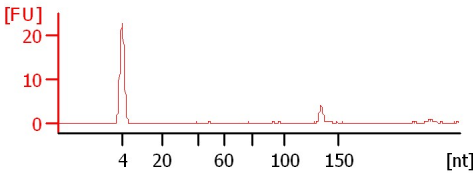
M28 GST-L
18 % miRNA; Concentration: 23.70 pg/µl



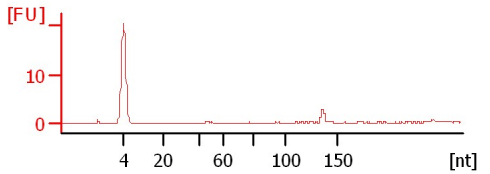
M33 GST-L
28 % miRNA; Concentration: 49.30 pg/µl



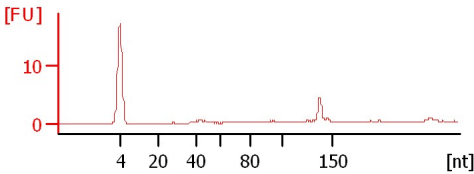
M34 GST-L
32 % miRNA; Concentration: 32.70 pg/µl



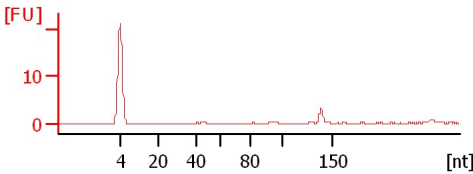
M35 GST-L
17 % miRNA; Concentration: 17.70 pg/µl



M36 GST-L
6 % miRNA; Concentration: 8.30 pg/µl













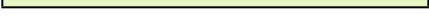

M37 GST-L
2 % miRNA; Concentration: 1.50 pg/µl



Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
 Modified: 7/25/2016 2:04:20 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
M23 GST-L		✓	16 % miRNA; Concentration: 2.80 pg/μl	
M24 GST-L		✓	21 % miRNA; Concentration: 8.70 pg/μl	
M25 GST-L		✓	52 % miRNA; Concentration: 43.70 pg/μl	
M26 GST-L		✓	24 % miRNA; Concentration: 35.60 pg/μl	
M27 GST-L		✓	14 % miRNA; Concentration: 1215.40 pg/μl	
M28 GST-L		✓	18 % miRNA; Concentration: 23.70 pg/μl	
M33 GST-L		✓	28 % miRNA; Concentration: 49.30 pg/μl	
M34 GST-L		✓	32 % miRNA; Concentration: 32.70 pg/μl	
M35 GST-L		✓	17 % miRNA; Concentration: 17.70 pg/μl	
M36 GST-L		✓	6 % miRNA; Concentration: 8.30 pg/μl	
M37 GST-L		✓	2 % miRNA; Concentration: 1.50 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\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
Modified: 7/25/2016 2:04:20 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

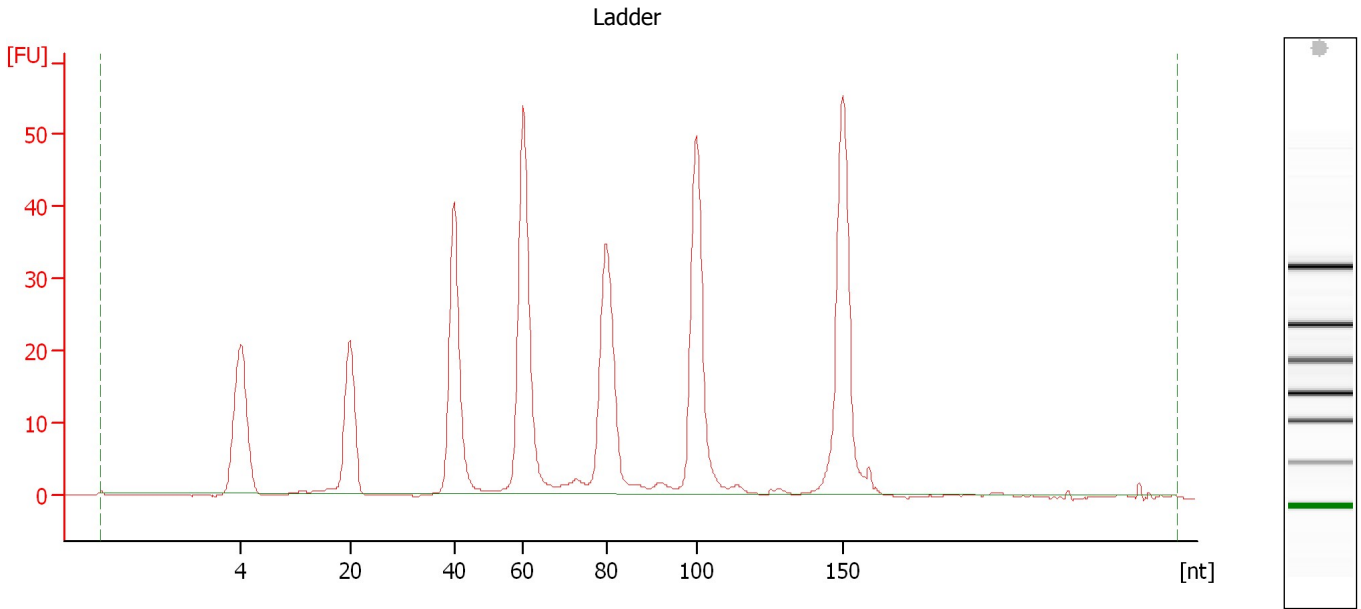
Ladder

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\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
Modified: 7/25/2016 2:04:20 PM

Electropherogram Summary



Overall Results for Ladder

Result Flagging Color:

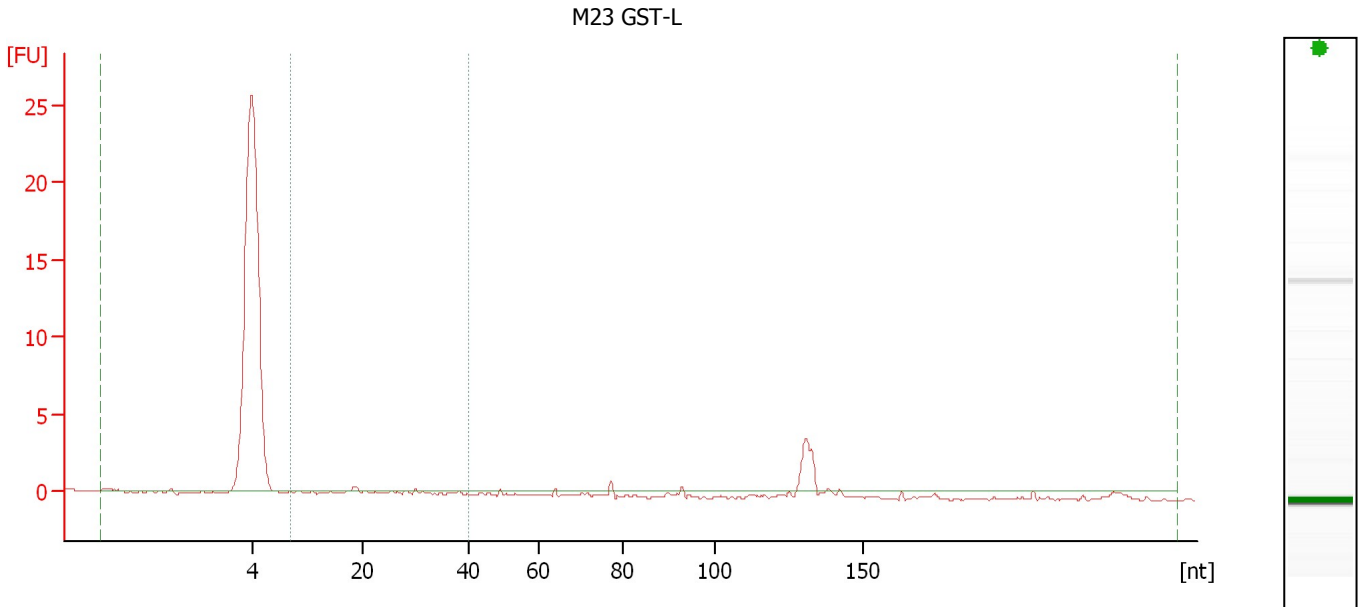
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
 Modified: 7/25/2016 2:04:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : M23 GST-L

Small RNA Concentration [pg/μl]:	18.1	Result Flagging Color:	
miRNA Concentration [pg/μl]:	2.8	Result Flagging Label:	16 % miRNA; Concentration: 2.80 pg/μl
miRNA / Small RNA Ratio [%]:	16		

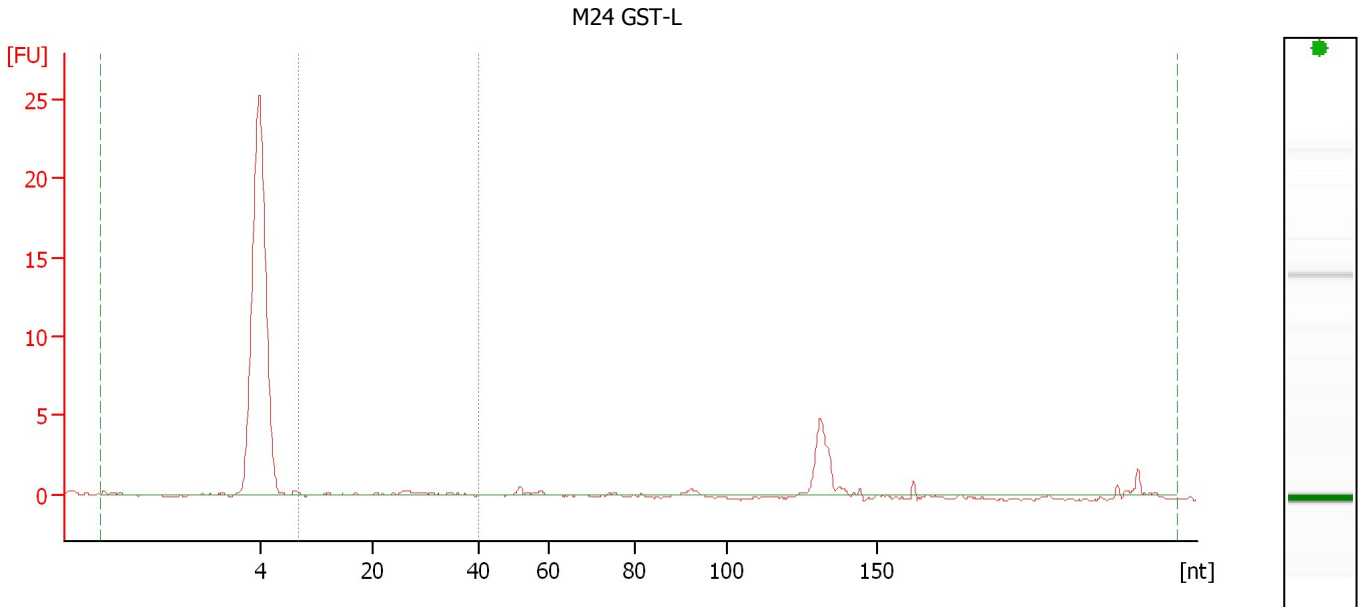
Region table for sample 1 : M23 GST-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	256	16	100.0	18.1	100	
miRNA	10	40	20	18.7	2.8	16	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
 Modified: 7/25/2016 2:04:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : M24 GST-L

Small RNA Concentration [pg/μl]:	41.6	Result Flagging Color:	
miRNA Concentration [pg/μl]:	8.7	Result Flagging Label:	21 % miRNA; Concentration: 8.70 pg/μl
miRNA / Small RNA Ratio [%]:	21		

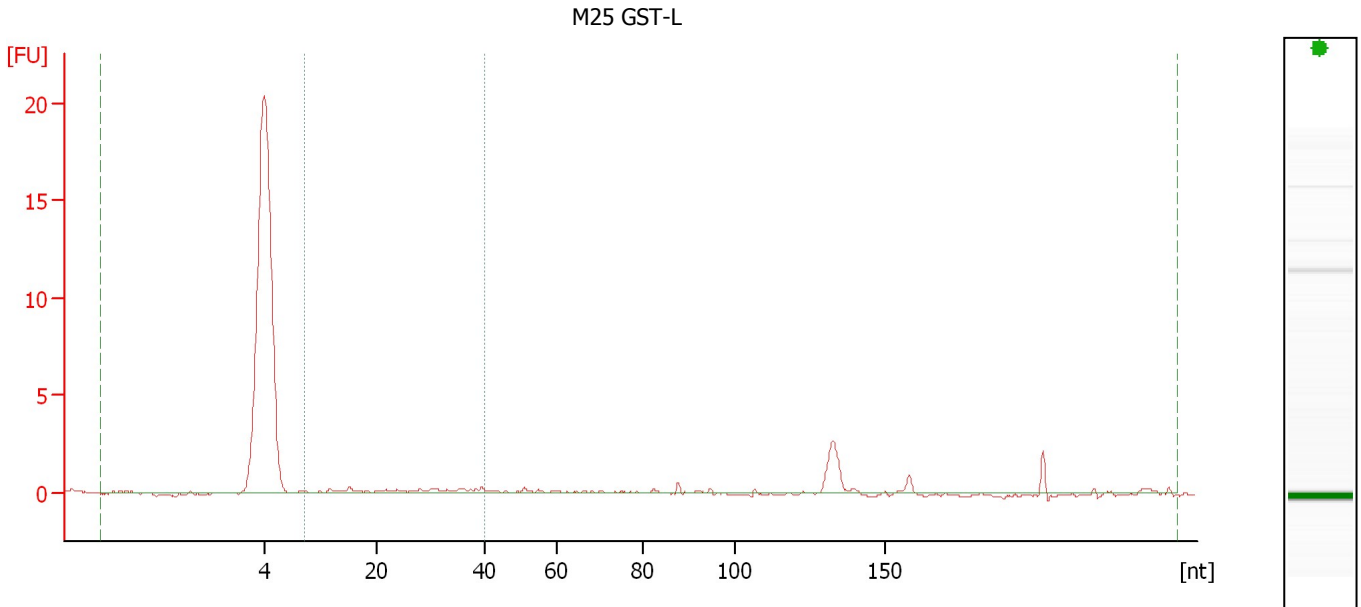
Region table for sample 2 : M24 GST-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	250	30	100.0	41.6	100	
miRNA	10	40	26	21.9	8.7	21	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
 Modified: 7/25/2016 2:04:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : M25 GST-L

Small RNA Concentration [pg/μl]:	83.7	Result Flagging Color:	
miRNA Concentration [pg/μl]:	43.7	Result Flagging Label:	52 % miRNA; Concentration: 43.70 pg/μl
miRNA / Small RNA Ratio [%]:	52		

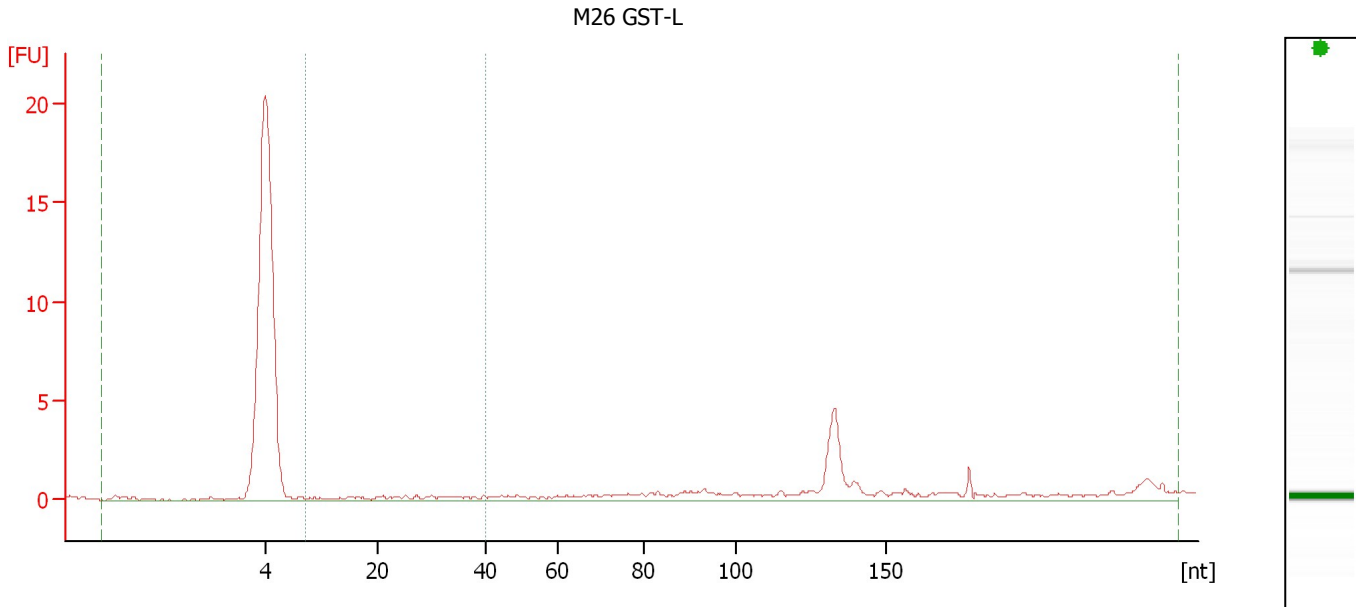
Region table for sample 3 : M25 GST-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	247	29	100.0	83.7	100	
miRNA	10	40	26	34.7	43.7	52	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
 Modified: 7/25/2016 2:04:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : M26 GST-L

Small RNA Concentration [pg/μl]:	148.2	Result Flagging Color:	
miRNA Concentration [pg/μl]:	35.6	Result Flagging Label:	24 % miRNA; Concentration: 35.60 pg/μl
miRNA / Small RNA Ratio [%]:	24		

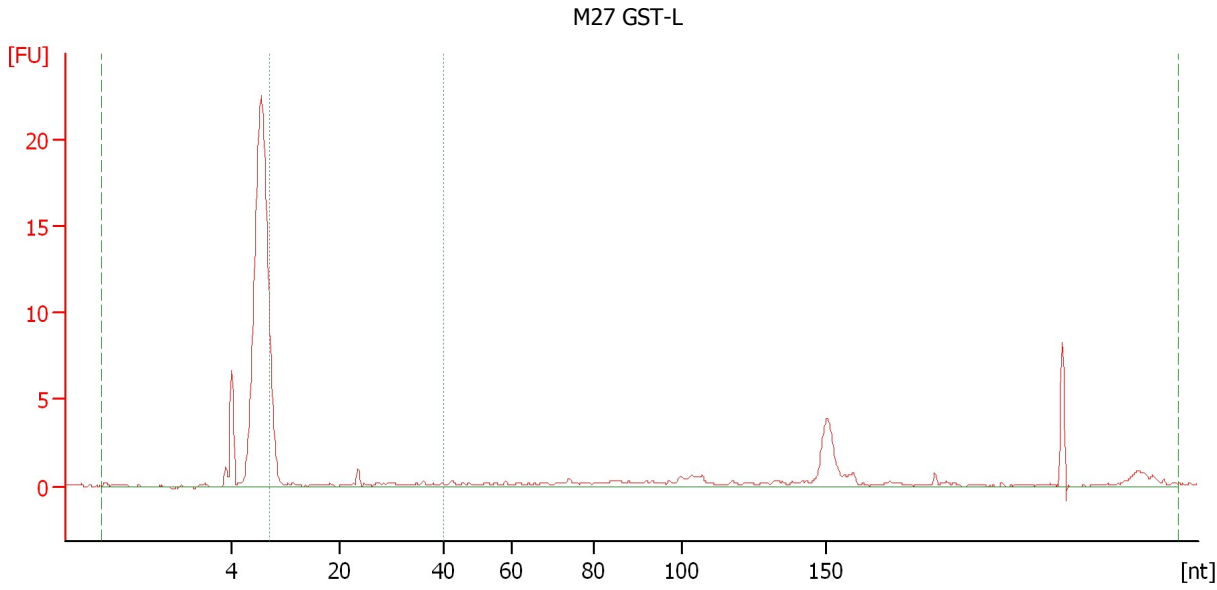
Region table for sample 4 : M26 GST-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	247	65	100.0	148.2	100	
miRNA	10	40	26	33.4	35.6	24	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
 Modified: 7/25/2016 2:04:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : M27 GST-L

Small RNA Concentration [pg/μl]:	8,411.3	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,215.4	Result Flagging Label:	14 % miRNA; Concentration: 1215.40 pg/μl
miRNA / Small RNA Ratio [%]:	14		

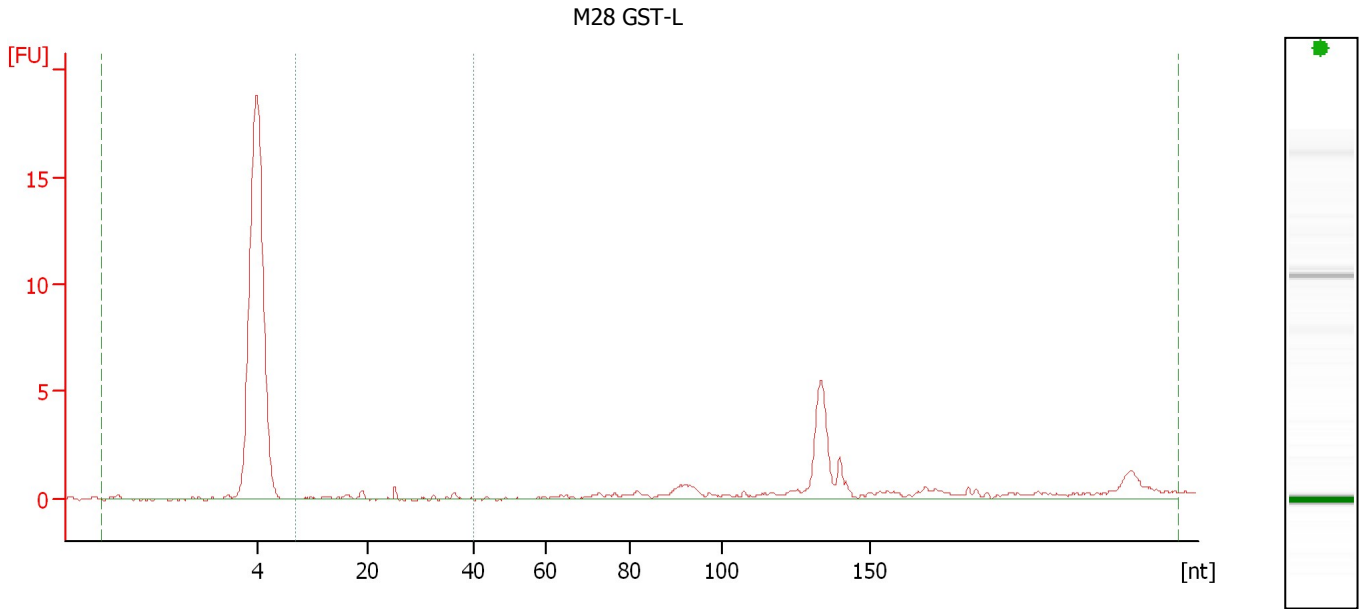
Region table for sample 5 : M27 GST-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	272	61	100.0	8,411.3	100	
miRNA	10	40	14	57.7	1,215.4	14	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
 Modified: 7/25/2016 2:04:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : M28 GST-L

Small RNA Concentration [pg/μl]:	130.1	Result Flagging Color:	
miRNA Concentration [pg/μl]:	23.7	Result Flagging Label:	18 % miRNA; Concentration: 23.70 pg/μl
miRNA / Small RNA Ratio [%]:	18		

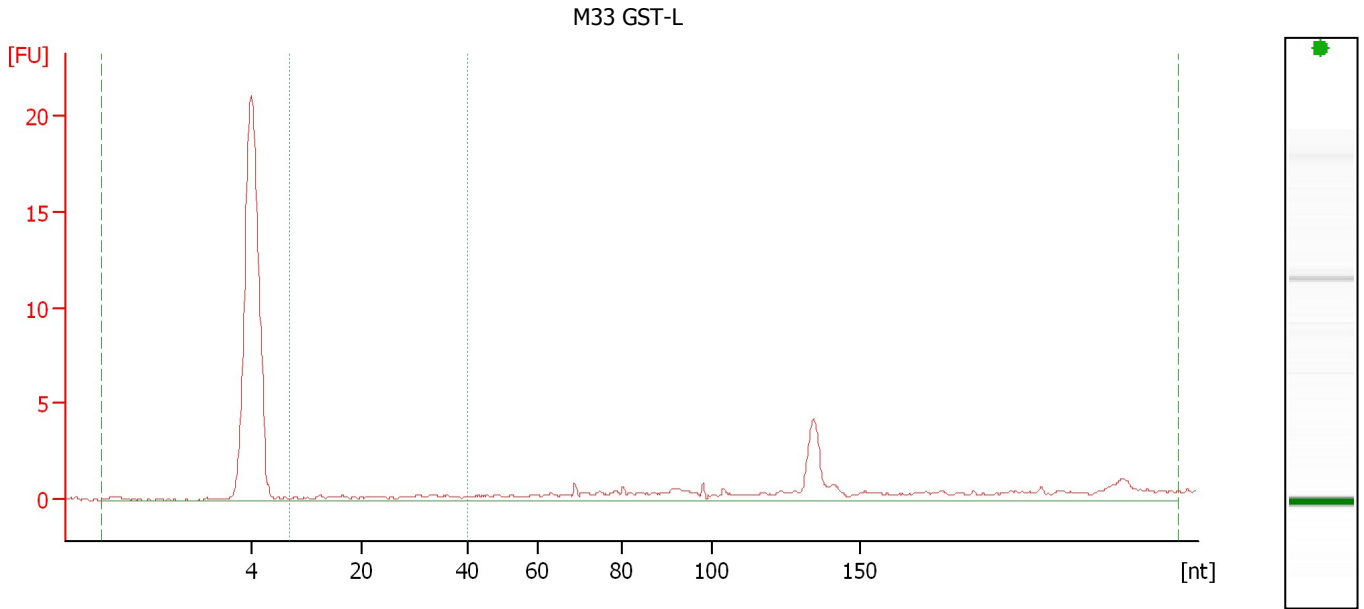
Region table for sample 6 : M28 GST-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	253	72	100.0	130.1	100	
miRNA	10	40	23	36.2	23.7	18	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
 Modified: 7/25/2016 2:04:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : M33 GST-L

Small RNA Concentration [pg/μl]:	175.7	Result Flagging Color:	
miRNA Concentration [pg/μl]:	49.3	Result Flagging Label:	28 % miRNA; Concentration: 49.30 pg/μl
miRNA / Small RNA Ratio [%]:	28		

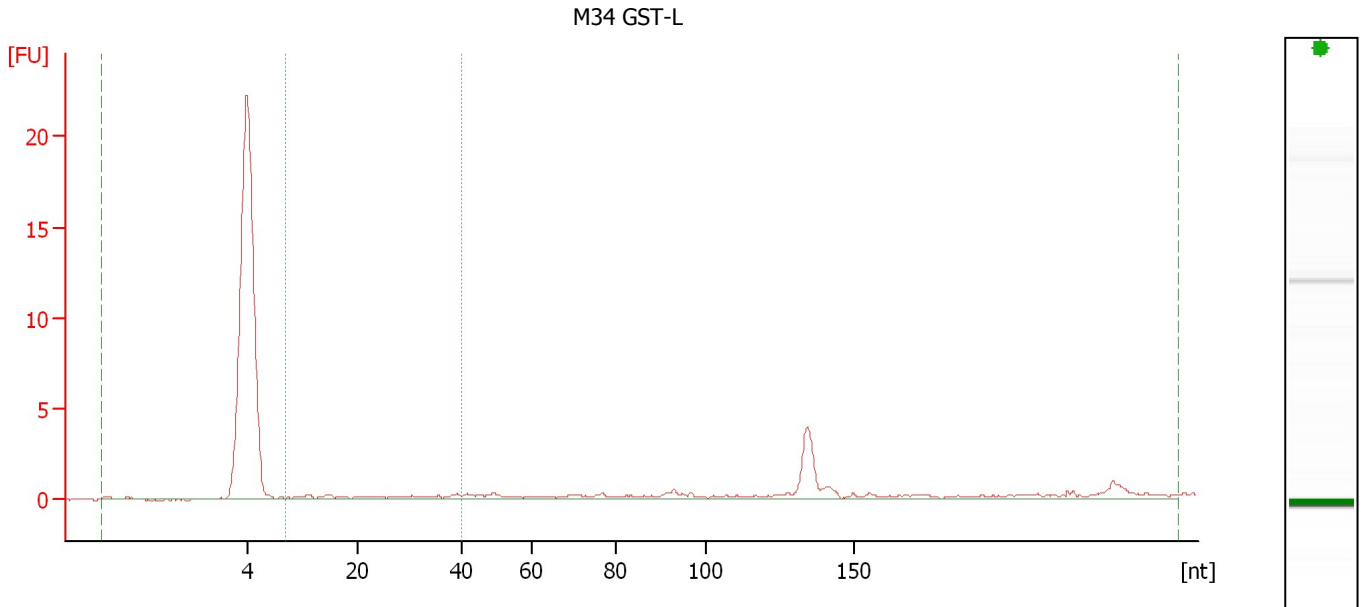
Region table for sample 7 : M33 GST-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	257	72	100.0	175.7	100	
miRNA	10	40	25	34.9	49.3	28	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
 Modified: 7/25/2016 2:04:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : M34 GST-L

Small RNA Concentration [pg/μl]:	103.0	Result Flagging Color:	
miRNA Concentration [pg/μl]:	32.7	Result Flagging Label:	32 % miRNA; Concentration: 32.70 pg/μl
miRNA / Small RNA Ratio [%]:	32		

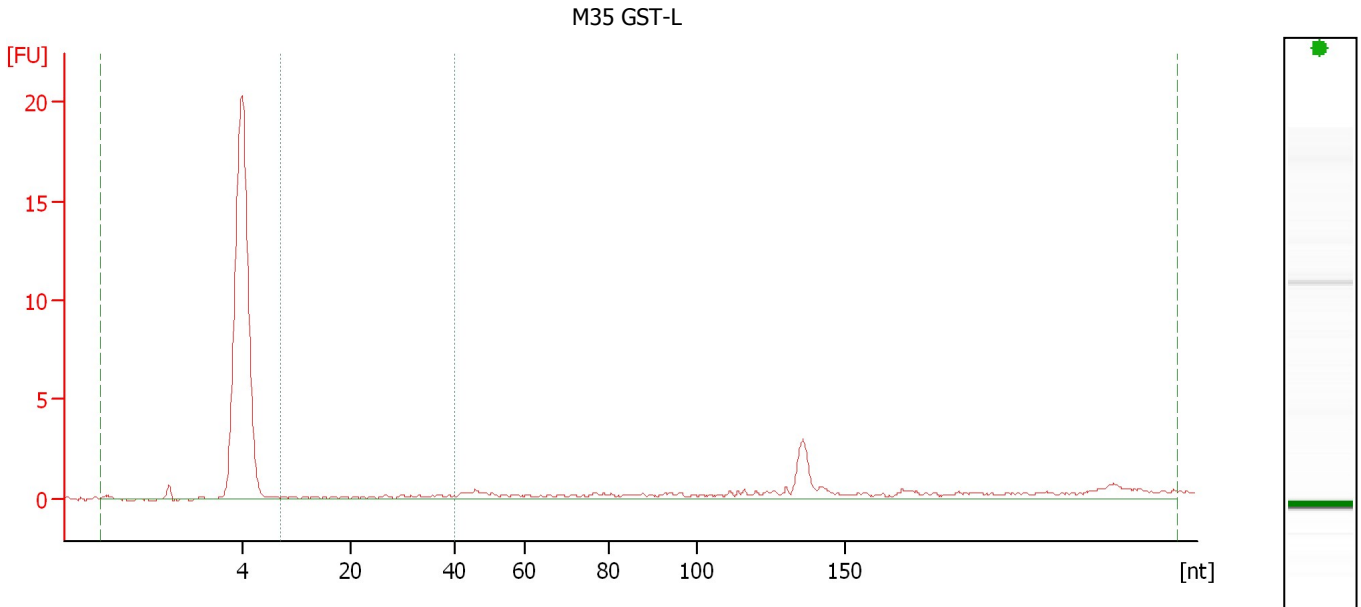
Region table for sample 8 : M34 GST-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	260	54	100.0	103.0	100	
miRNA	10	40	25	37.0	32.7	32	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
 Modified: 7/25/2016 2:04:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : M35 GST-L

Small RNA Concentration [pg/μl]:	101.3	Result Flagging Color:	
miRNA Concentration [pg/μl]:	17.7	Result Flagging Label:	17 % miRNA; Concentration: 17.70 pg/μl
miRNA / Small RNA Ratio [%]:	17		

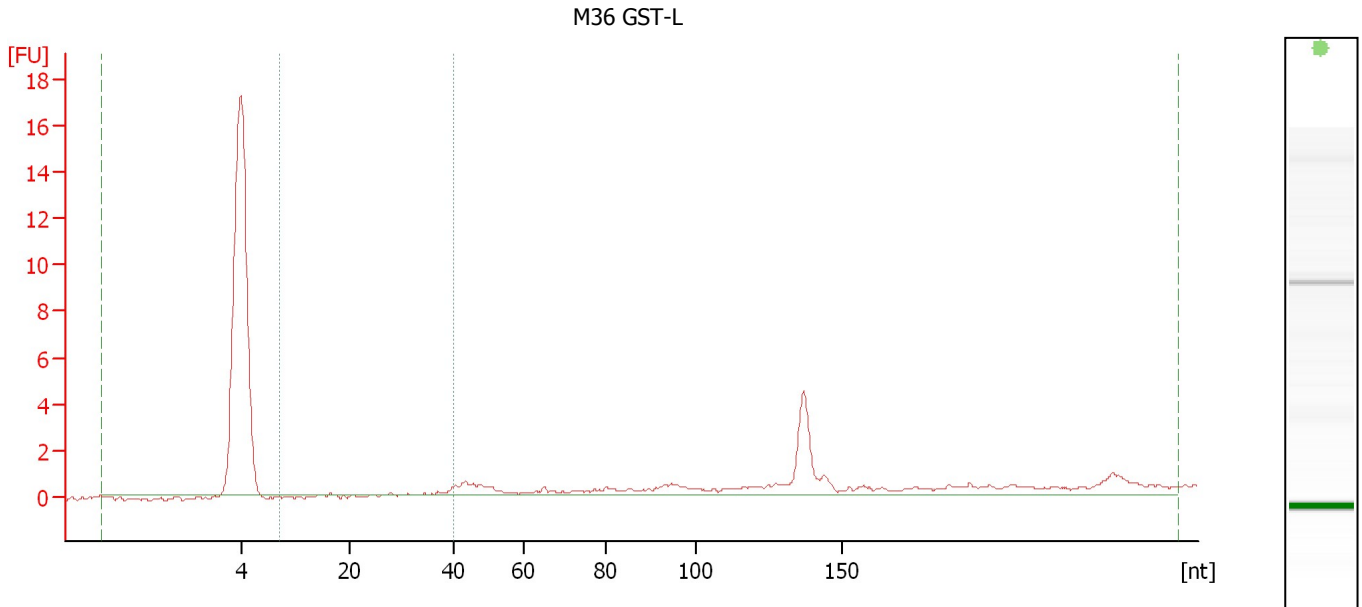
Region table for sample 9 : M35 GST-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	263	63	100.0	101.3	100	
miRNA	10	40	27	32.5	17.7	17	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
 Modified: 7/25/2016 2:04:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : M36 GST-L

Small RNA Concentration [pg/μl]:	141.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	8.3	Result Flagging Label:	6 % miRNA; Concentration: 8.30 pg/μl
miRNA / Small RNA Ratio [%]:	6		

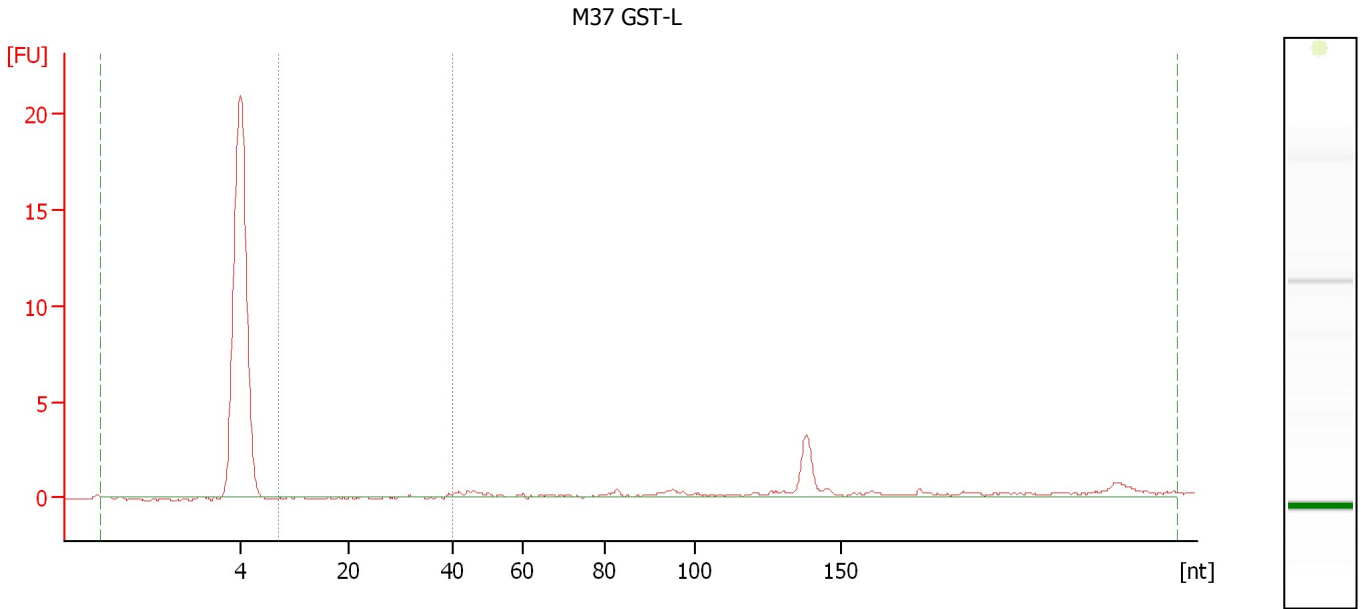
Region table for sample 10 : M36 GST-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	265	83	100.0	141.5	100	
miRNA	10	40	34	20.0	8.3	6	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
 Modified: 7/25/2016 2:04:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : M37 GST-L

Small RNA Concentration [pg/μl]:	58.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1.5	Result Flagging Label:	2 % miRNA; Concentration: 1.50 pg/μl
miRNA / Small RNA Ratio [%]:	2		

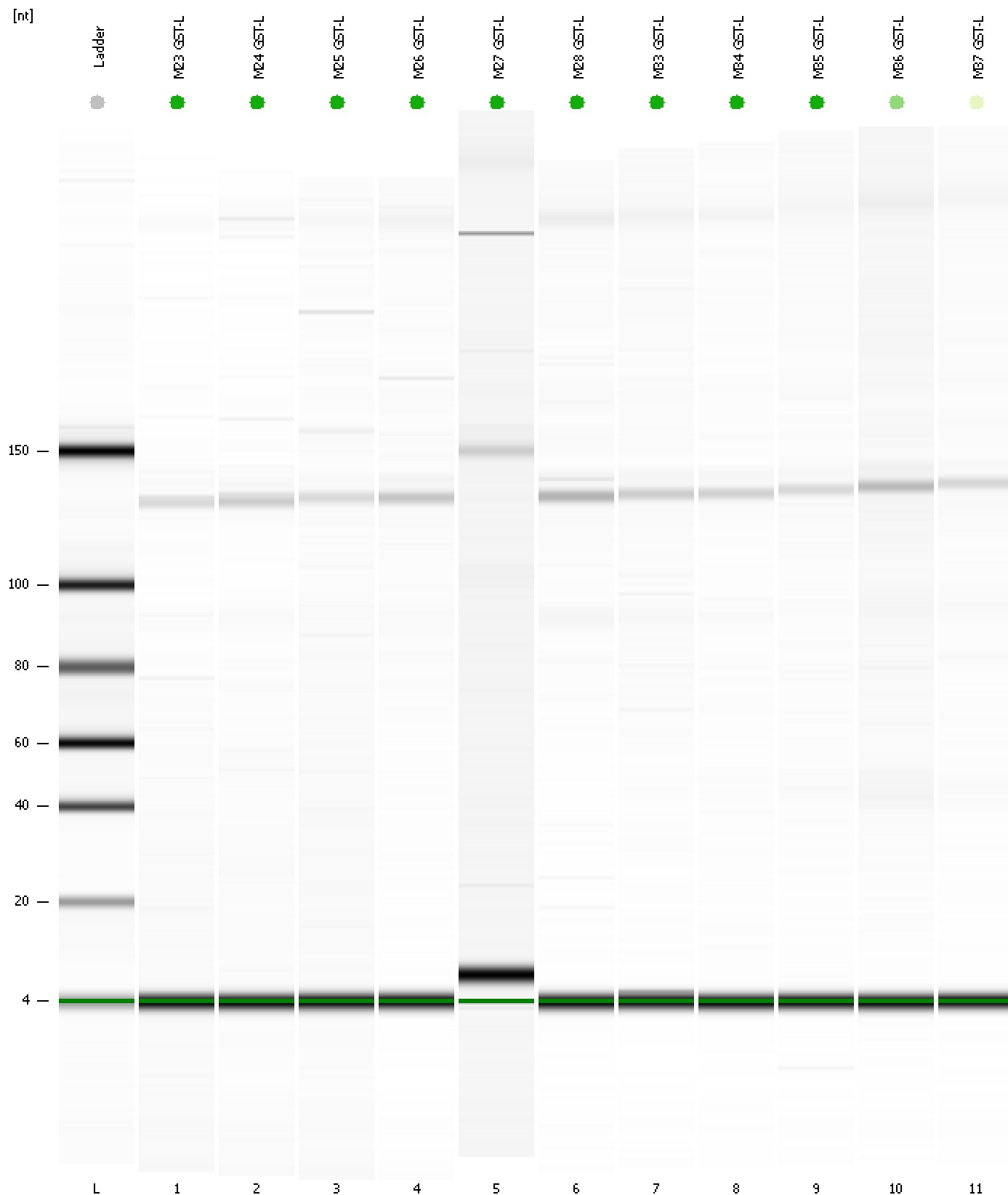
Region table for sample 11 : M37 GST-L

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	265	55	100.0	58.5	100	
miRNA	10	40	36	13.0	1.5	2	

Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
Modified: 7/25/2016 2:04:20 PM

Gel Image



Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-25\2016-07-25_002.xad

Created: 7/25/2016 1:32:18 PM
 Modified: 7/25/2016 2:04:20 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		7/25/2016 2:04:18 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\2016-07-25\2016-07-25_002.xad)		Instrument	Run		7/25/2016 1:32:23 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		7/25/2016 1:32:23 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/25/2016 1:32:23 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/25/2016 1:32:23 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		7/25/2016 1:32:23 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/25/2016 1:32:23 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/25/2016 1:32:23 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1