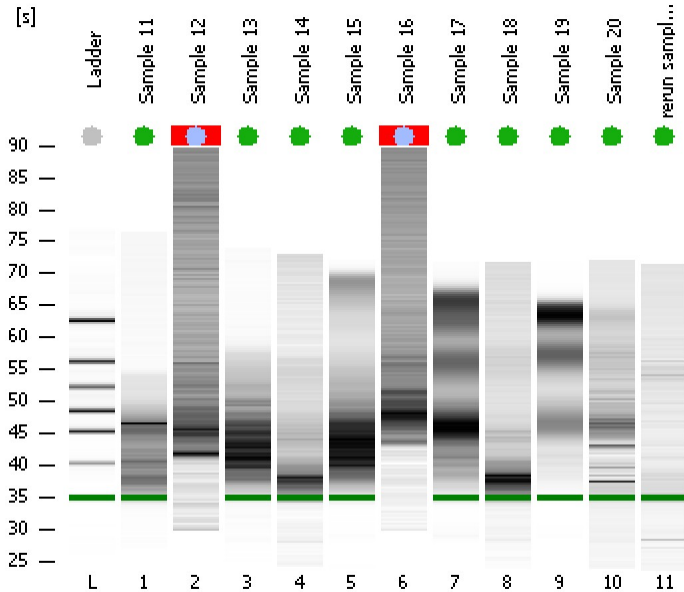


Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
 Modified: 1/21/2015 2:22:41 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

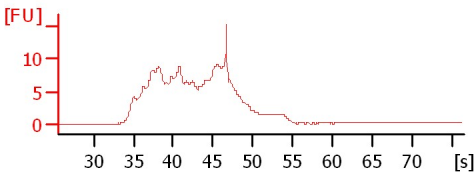
Assay Class: Small RNA
 Version: 1.2
 Assay Comments: Small RNA Analysis 6 - 150 nucleotides

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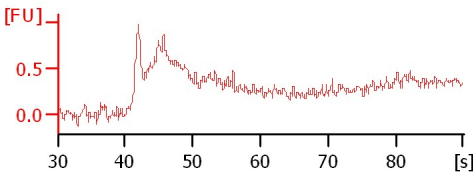
Chip Information:

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

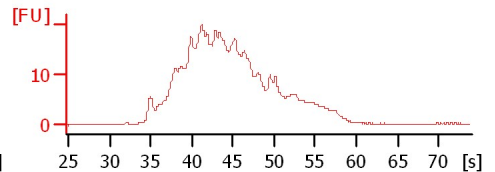
Sample 11
 73 % miRNA; Concentration: 7817.70 pg/ul



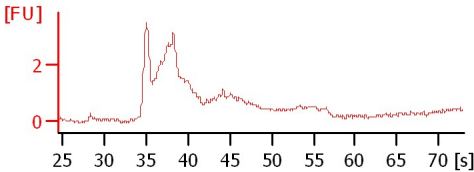
Sample 12
 All Other Samples



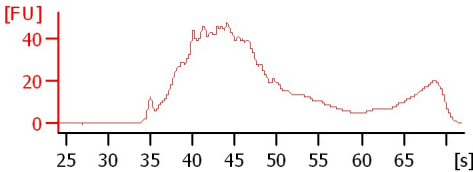
Sample 13
 77 % miRNA; Concentration: 12314.50 p...



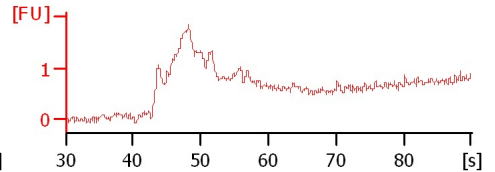
Sample 14
 73 % miRNA; Concentration: 2028.90 pg/ul



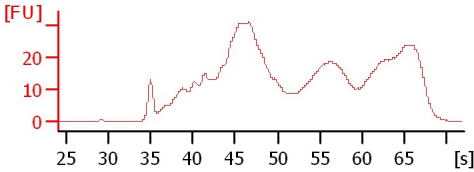
Sample 15
 73 % miRNA; Concentration: 13775.40 p...



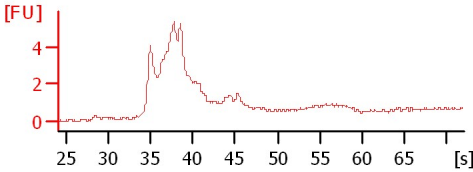
Sample 16
 All Other Samples



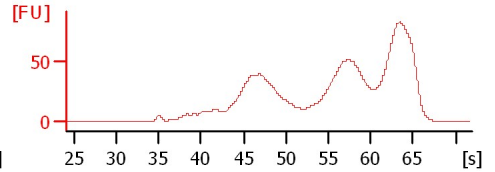
Sample 17
 49 % miRNA; Concentration: 4860.90 pg/ul



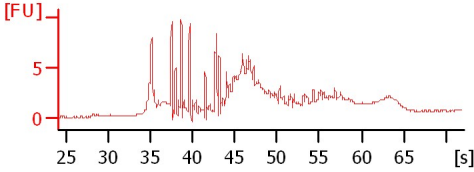
Sample 18
 71 % miRNA; Concentration: 2742.70 pg/ul



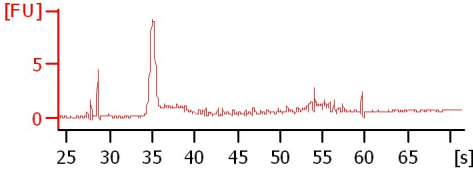
Sample 19
 28 % miRNA; Concentration: 8008.40 pg/ul



Sample 20
 50 % miRNA; Concentration: 5941.90 pg/ul















rerun sample 1
 41 % miRNA; Concentration: 349.50 pg/ul



Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
 Modified: 1/21/2015 2:22:41 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
Sample 11		✓	73 % miRNA; Concentration: 7817.70 pg/μl	
Sample 12		✓	All Other Samples	
Sample 13		✓	77 % miRNA; Concentration: 12314.50 pg/μl	
Sample 14		✓	73 % miRNA; Concentration: 2028.90 pg/μl	
Sample 15		✓	73 % miRNA; Concentration: 13775.40 pg/μl	
Sample 16		✓	All Other Samples	
Sample 17		✓	49 % miRNA; Concentration: 4860.90 pg/μl	
Sample 18		✓	71 % miRNA; Concentration: 2742.70 pg/μl	
Sample 19		✓	28 % miRNA; Concentration: 8008.40 pg/μl	
Sample 20		✓	50 % miRNA; Concentration: 5941.90 pg/μl	
rerun sample 1		✓	41 % miRNA; Concentration: 349.50 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\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
Modified: 1/21/2015 2:22:41 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

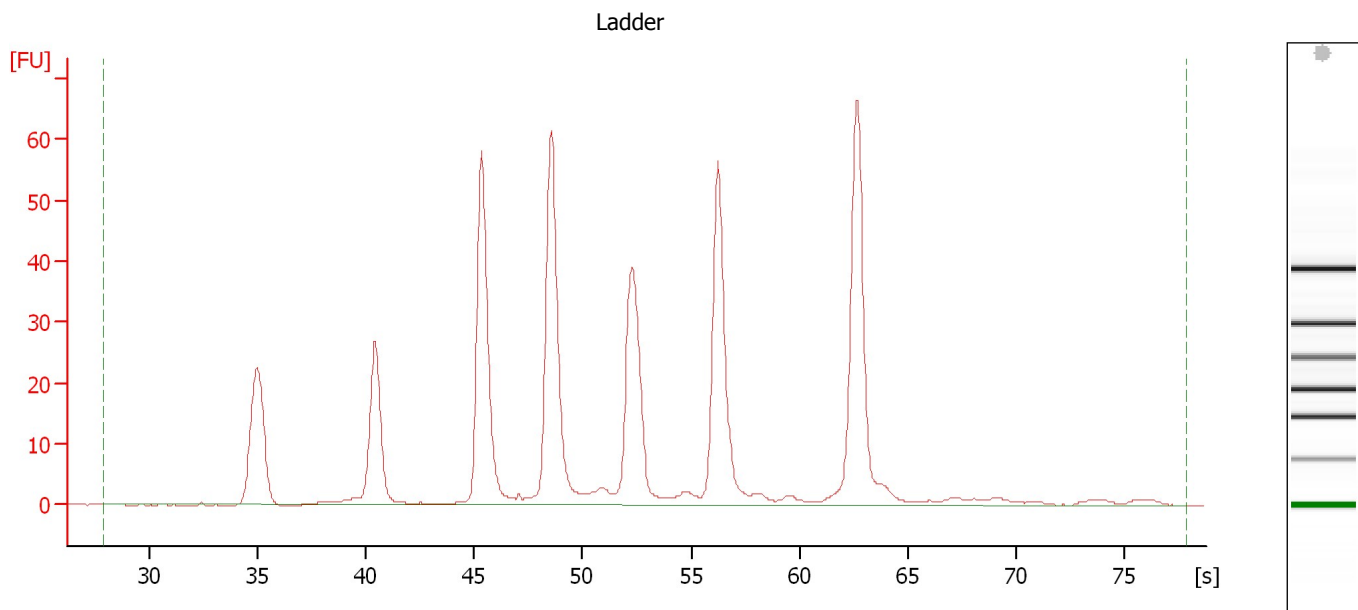
Ladder

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

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
Modified: 1/21/2015 2:22:41 PM

Electropherogram Summary



Overall Results for Ladder

Result Flagging Color:

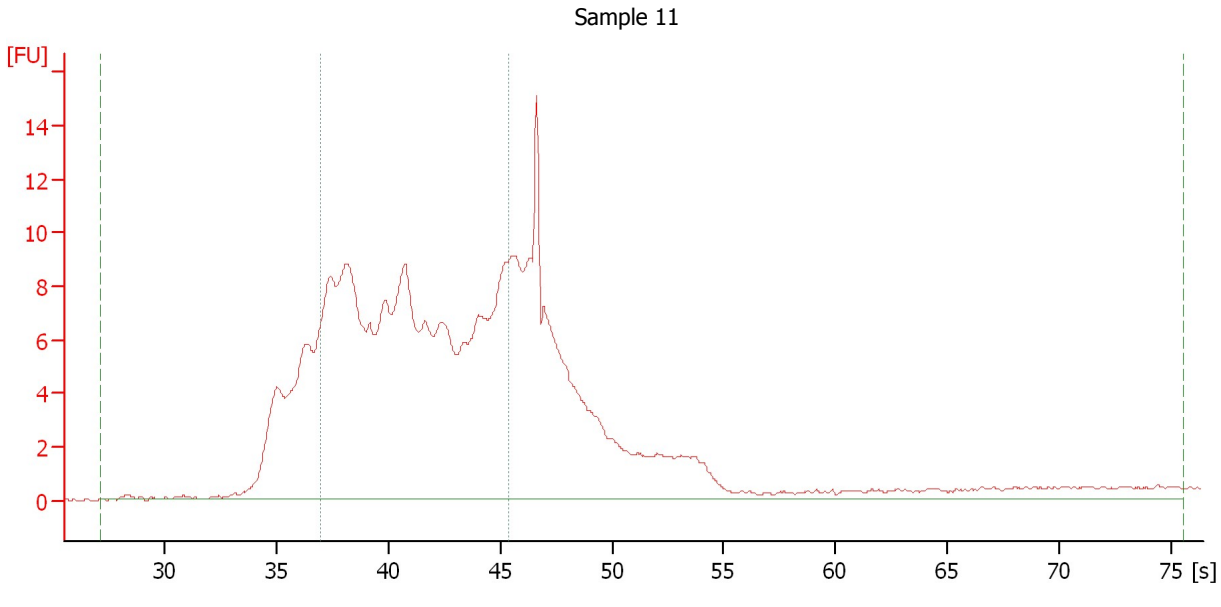
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
 Modified: 1/21/2015 2:22:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Sample 11

Small RNA Concentration [pg/μl]:	10,643.7	Result Flagging Color:	
miRNA Concentration [pg/μl]:	7,817.7	Result Flagging Label:	73 % miRNA; Concentration: 7817.70 pg/μl
miRNA / Small RNA Ratio [%]:	73		

Region table for sample 1 : Sample 11

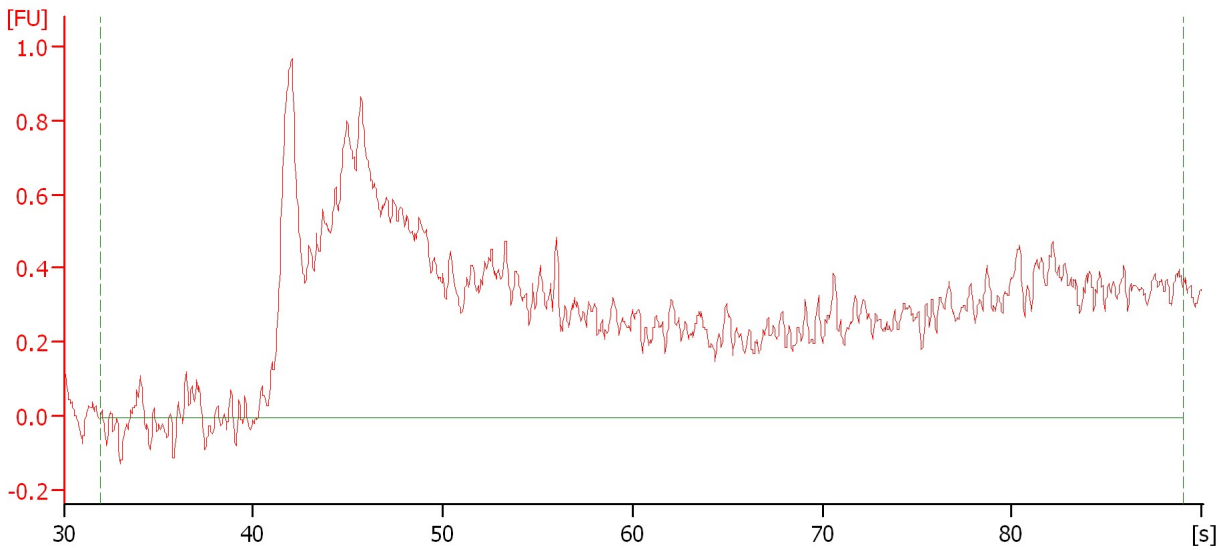
Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	251	41	100.0	10,643.7	100	
miRNA	10	40	23	39.5	7,817.7	73	

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
Modified: 1/21/2015 2:22:41 PM

Electropherogram Summary Continued ...

Sample 12



Overall Results for sample 2 : Sample 12

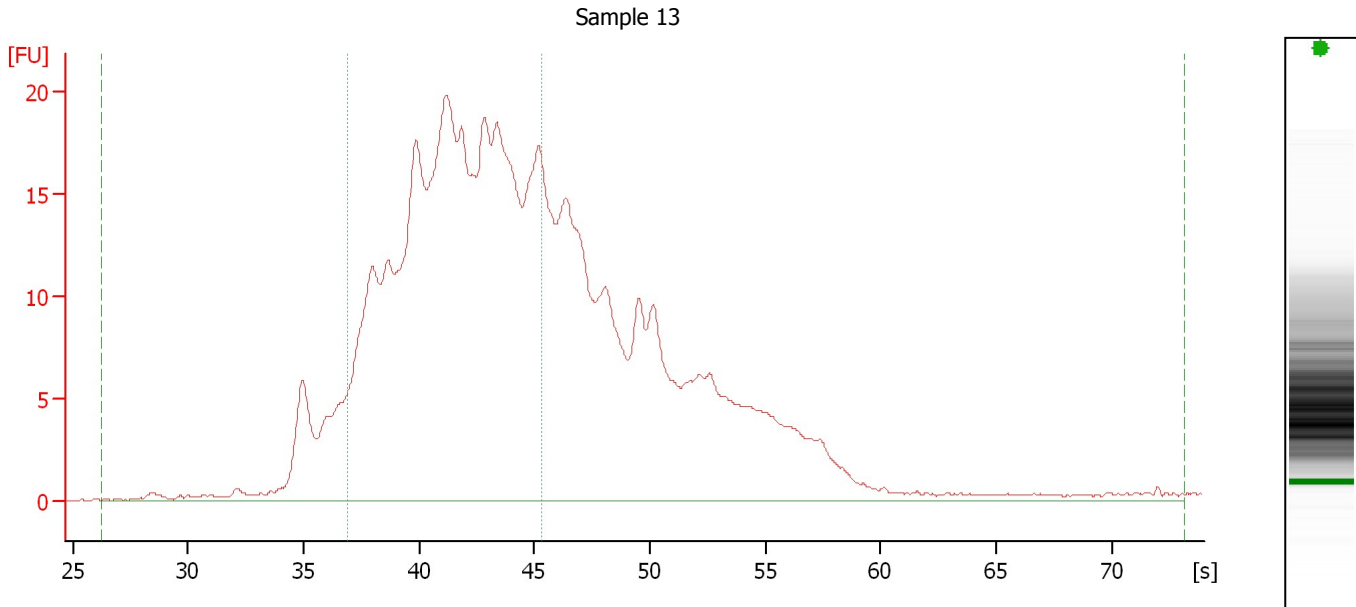
Result Flagging Color:

Result Flagging Label: All Other Samples

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
 Modified: 1/21/2015 2:22:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Sample 13

Small RNA Concentration [pg/μl]:	16,090.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	12,314.5	Result Flagging Label:	77 % miRNA; Concentration: 12314.50 pg/μl
miRNA / Small RNA Ratio [%]:	77		

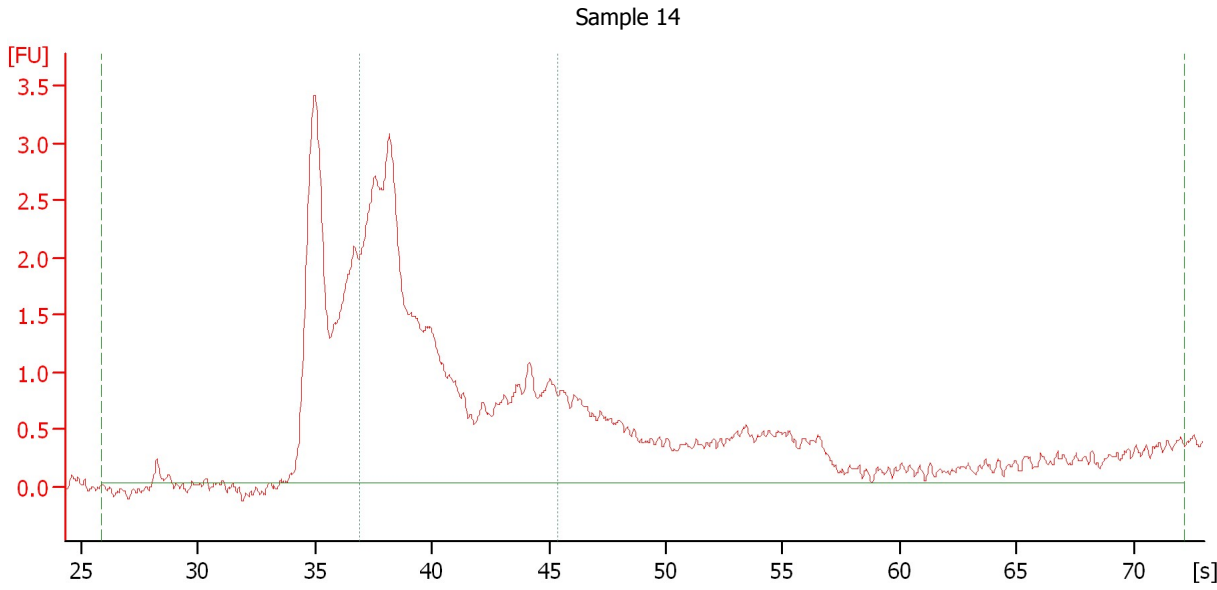
Region table for sample 3 : Sample 13

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	232	44	74.2	16,090.5	100	
miRNA	10	40	25	33.4	12,314.5	77	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
 Modified: 1/21/2015 2:22:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Sample 14

Small RNA Concentration [pg/μl]:	2,792.7	Result Flagging Color:	
miRNA Concentration [pg/μl]:	2,028.9	Result Flagging Label:	73 % miRNA; Concentration: 2028.90 pg/μl
miRNA / Small RNA Ratio [%]:	73		

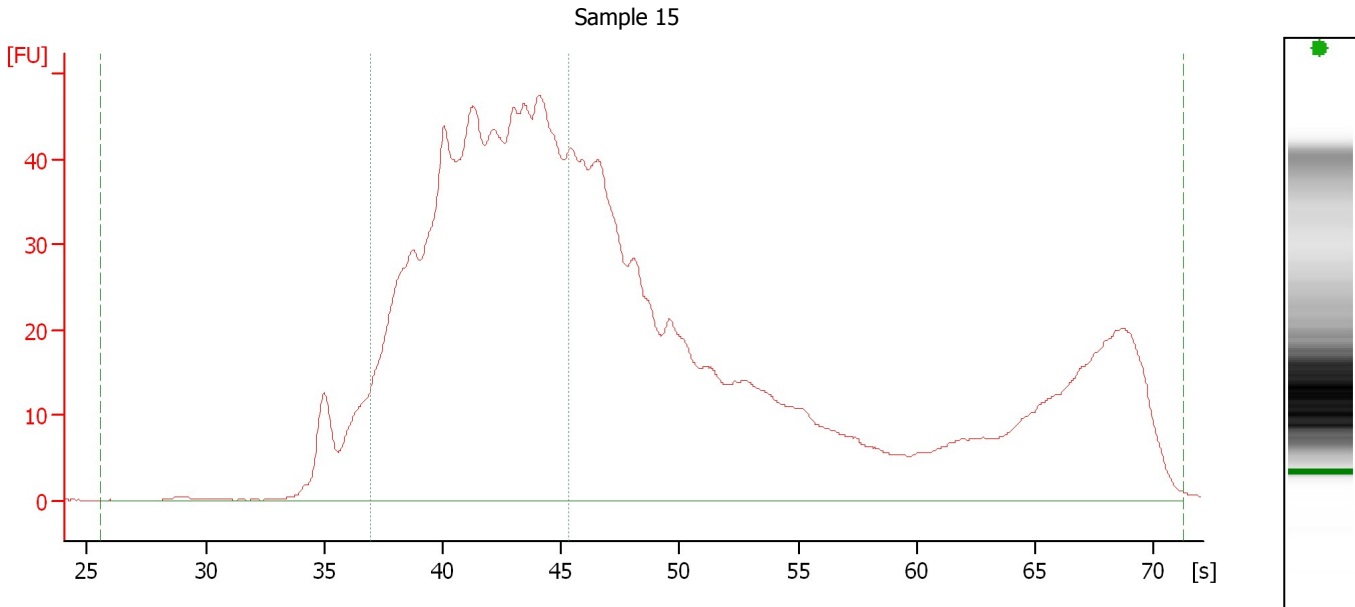
Region table for sample 4 : Sample 14

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	224	46	100.0	2,792.7	100	
miRNA	10	40	20	44.9	2,028.9	73	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
 Modified: 1/21/2015 2:22:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Sample 15

Small RNA Concentration [pg/μl]:	18,987.6	Result Flagging Color:	
miRNA Concentration [pg/μl]:	13,775.4	Result Flagging Label:	73 % miRNA; Concentration: 13775.40 pg/μl
miRNA / Small RNA Ratio [%]:	73		

Region table for sample 5 : Sample 15

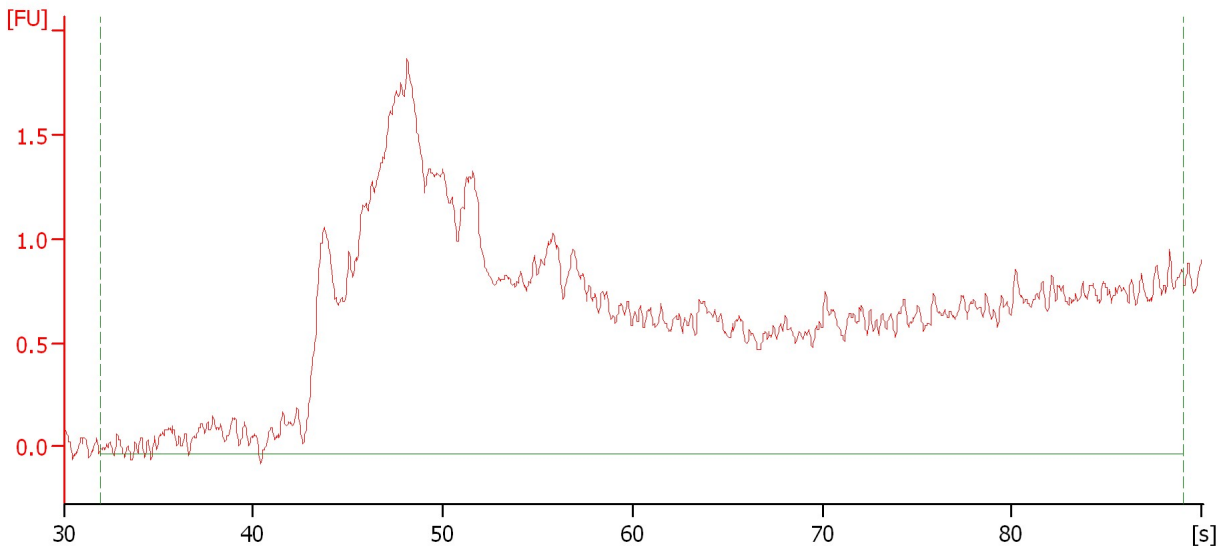
Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	217	66	87.2	18,987.6	100	
miRNA	10	40	25	32.9	13,775.4	73	

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
Modified: 1/21/2015 2:22:41 PM

Electropherogram Summary Continued ...

Sample 16



Overall Results for sample 6 : Sample 16

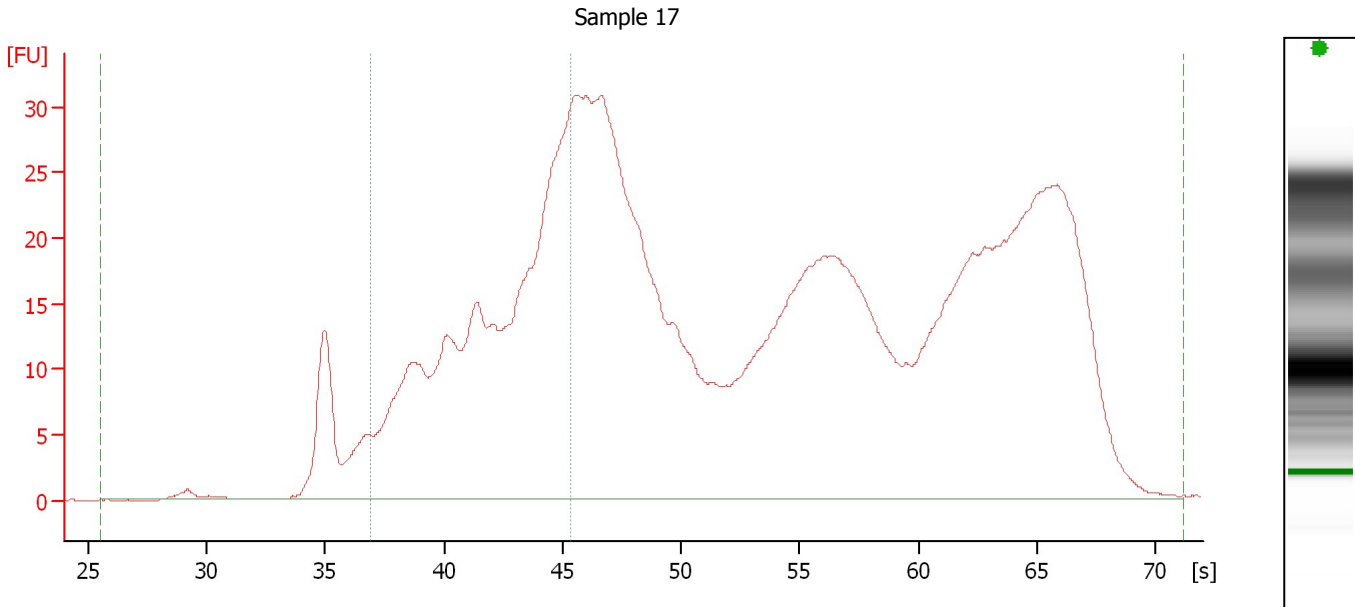
Result Flagging Color:

Result Flagging Label: All Other Samples

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
 Modified: 1/21/2015 2:22:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Sample 17

Small RNA Concentration [pg/μl]:	9,990.4	Result Flagging Color:	
miRNA Concentration [pg/μl]:	4,860.9	Result Flagging Label:	49 % miRNA; Concentration: 4860.90 pg/μl
miRNA / Small RNA Ratio [%]:	49		

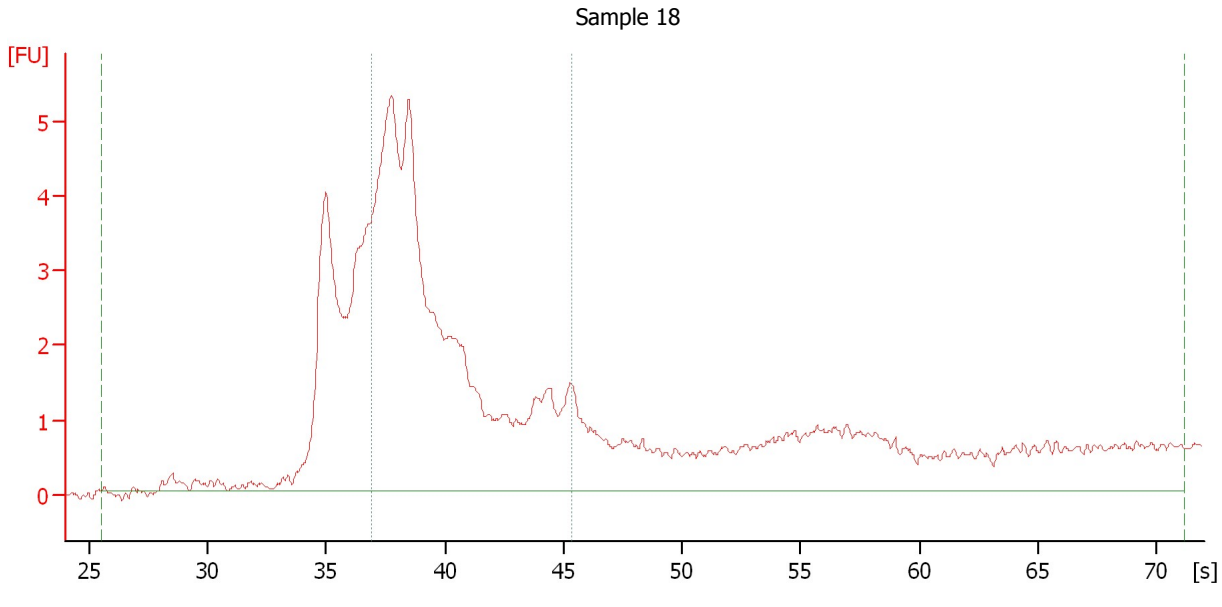
Region table for sample 7 : Sample 17

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	217	88	63.4	9,990.4	100	
miRNA	10	40	27	32.8	4,860.9	49	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
 Modified: 1/21/2015 2:22:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : Sample 18

Small RNA Concentration [pg/μl]:	3,847.0	Result Flagging Color:	
miRNA Concentration [pg/μl]:	2,742.7	Result Flagging Label:	71 % miRNA; Concentration: 2742.70 pg/μl
miRNA / Small RNA Ratio [%]:	71		

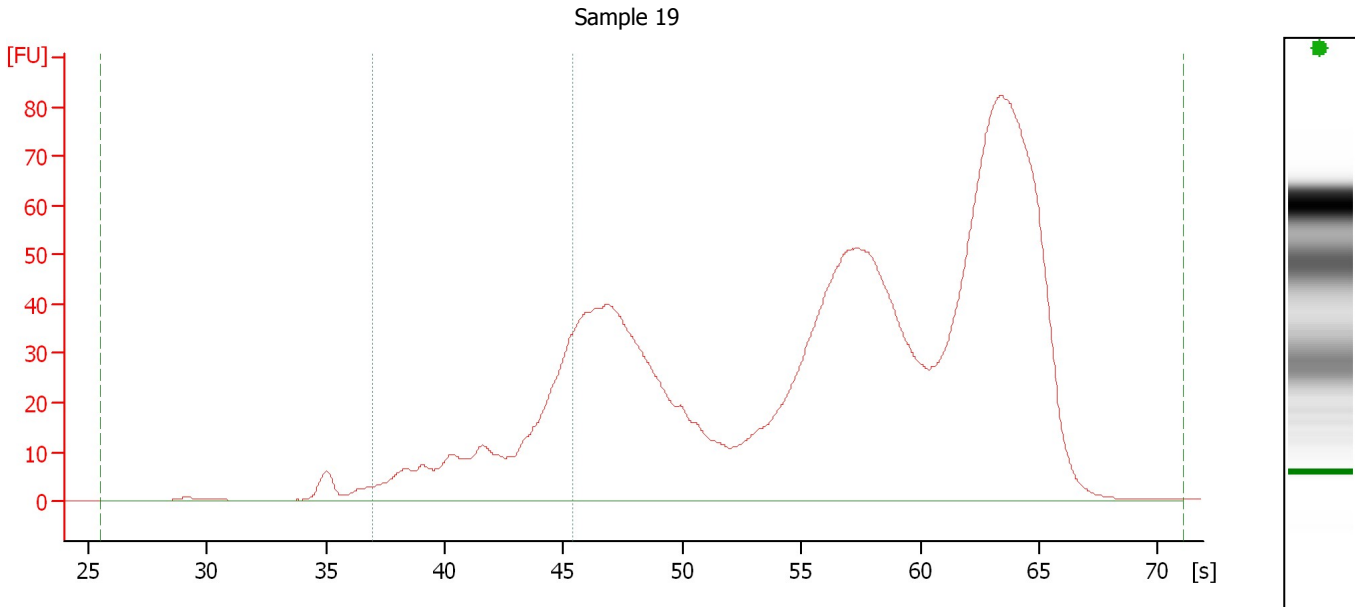
Region table for sample 8 : Sample 18

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	217	53	100.0	3,847.0	100	
miRNA	10	40	19	44.3	2,742.7	71	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
 Modified: 1/21/2015 2:22:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : Sample 19

Small RNA Concentration [pg/μl]:	28,912.1	Result Flagging Color:	
miRNA Concentration [pg/μl]:	8,008.4	Result Flagging Label:	28 % miRNA; Concentration: 8008.40 pg/μl
miRNA / Small RNA Ratio [%]:	28		

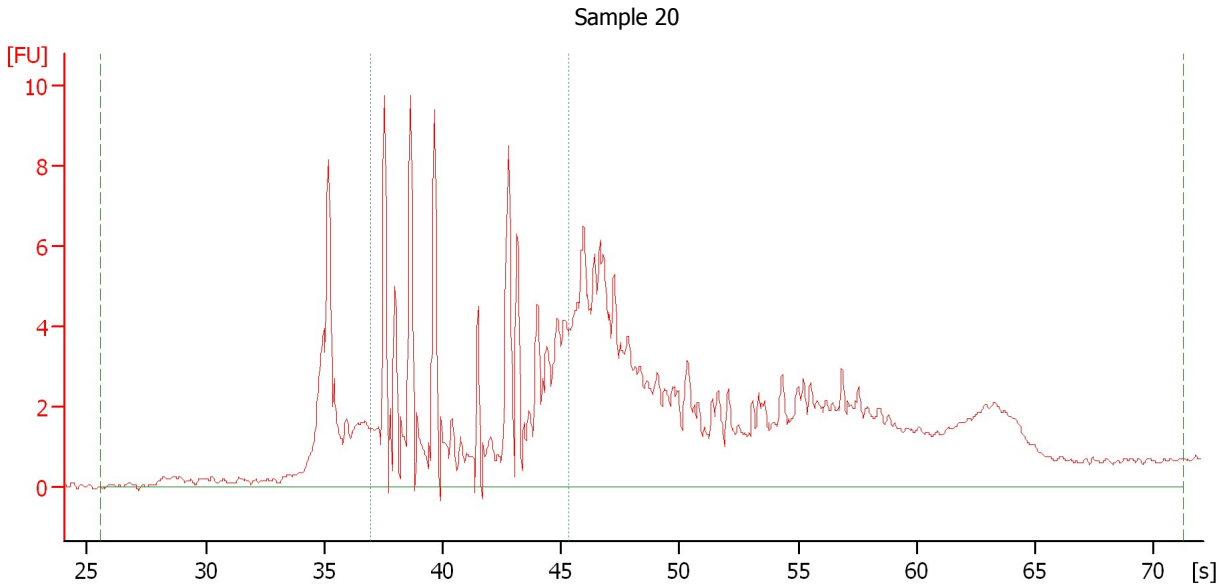
Region table for sample 9 : Sample 19

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	216	105	45.7	28,912.1	100	
miRNA	10	40	28	31.3	8,008.4	28	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
 Modified: 1/21/2015 2:22:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : Sample 20

Small RNA Concentration [pg/μl]:	11,828.4	Result Flagging Color:	
miRNA Concentration [pg/μl]:	5,941.9	Result Flagging Label:	50 % miRNA; Concentration: 5941.90 pg/μl
miRNA / Small RNA Ratio [%]:	50		

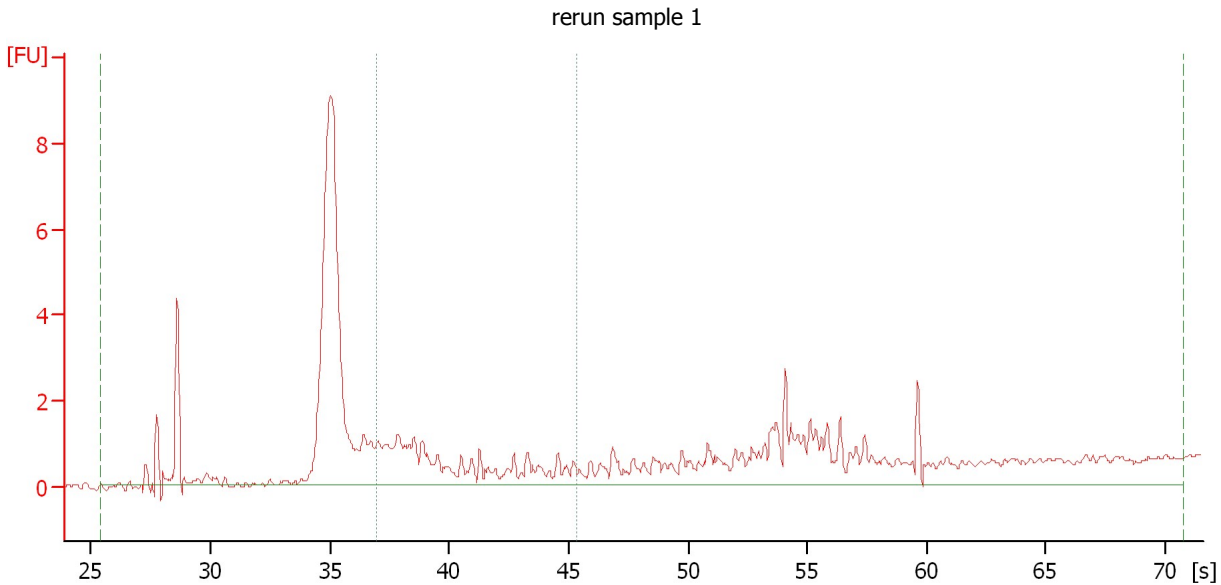
Region table for sample 10 : Sample 20

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	217	69	76.9	11,828.4	100	
miRNA	10	40	24	40.1	5,941.9	50	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
 Modified: 1/21/2015 2:22:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : rerun sample 1

Small RNA Concentration [pg/μl]:	847.3	Result Flagging Color:	
miRNA Concentration [pg/μl]:	349.5	Result Flagging Label:	41 % miRNA; Concentration: 349.50 pg/μl
miRNA / Small RNA Ratio [%]:	41		

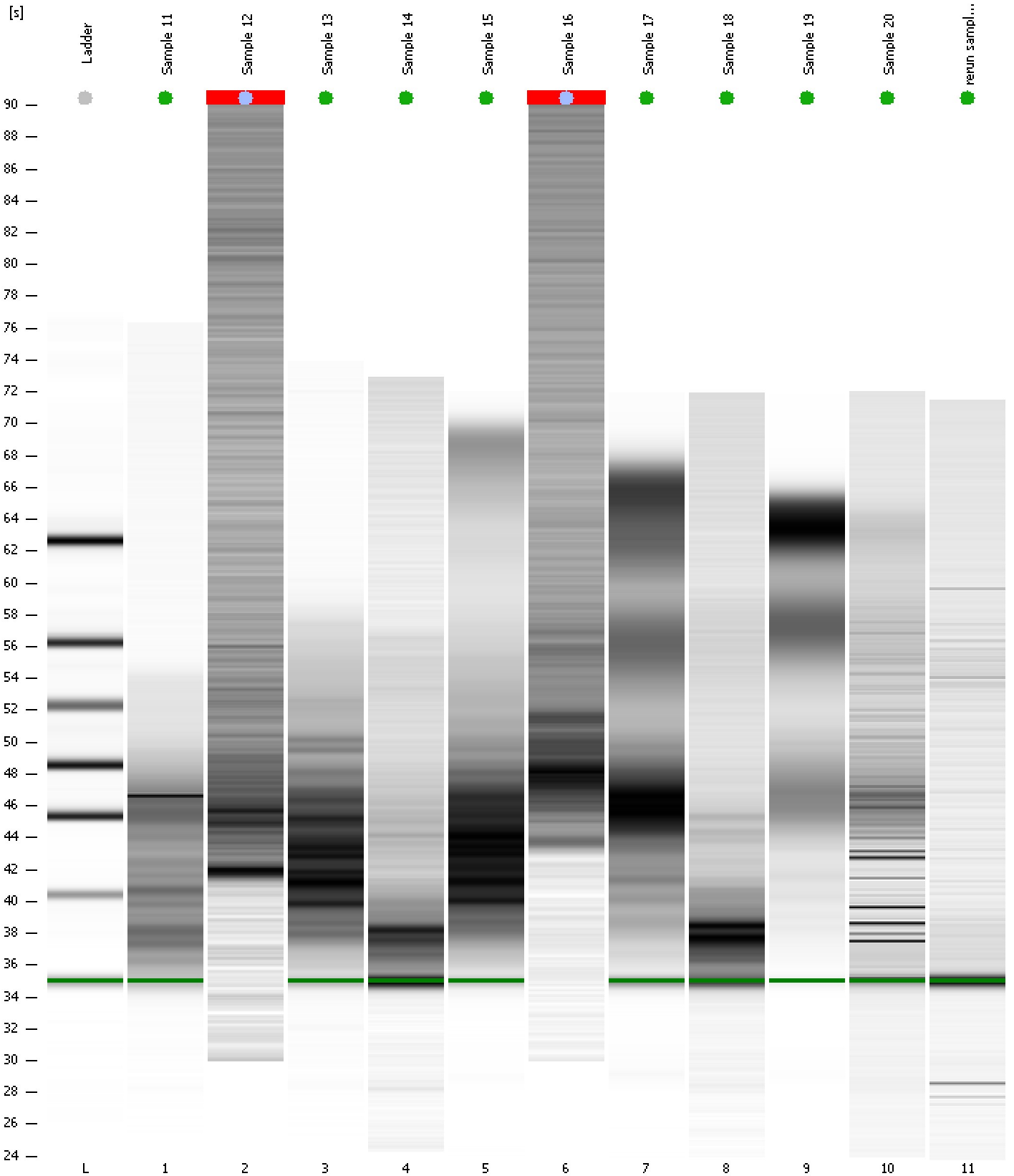
Region table for sample 11 : rerun sample 1

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	213	68	95.7	847.3	100	
miRNA	10	40	20	44.2	349.5	41	

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
Modified: 1/21/2015 2:22:41 PM

Gel Image



Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad

Created: 1/21/2015 1:50:41 PM
 Modified: 1/21/2015 2:22:41 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		1/21/2015 2:22:38 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-01-21\2015-01-21_003.xad)		Instrument	Run		1/21/2015 1:50:47 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/21/2015 1:50:47 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/21/2015 1:50:47 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/21/2015 1:50:47 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/21/2015 1:50:47 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/21/2015 1:50:47 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/21/2015 1:50:47 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1