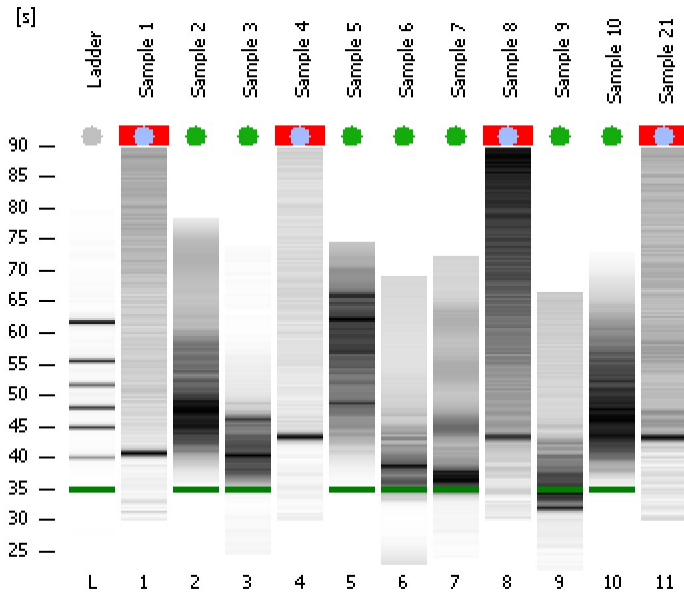


Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
 Modified: 1/8/2015 2:18:06 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

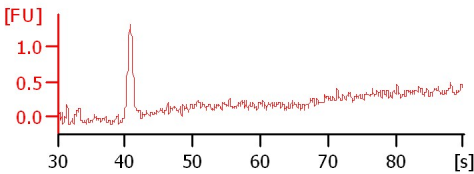
Assay Class: Small RNA
 Version: 1.2
 Assay Comments: Small RNA Analysis 6 - 150 nucleotides

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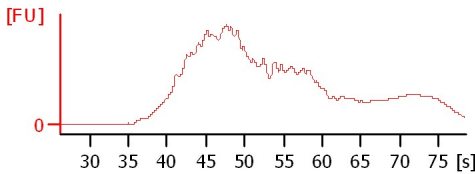
Chip Information:

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

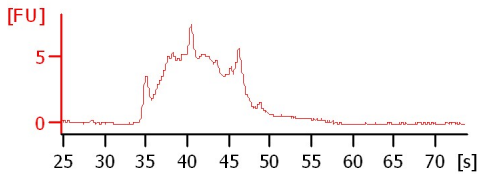
Sample 1
 All Other Samples



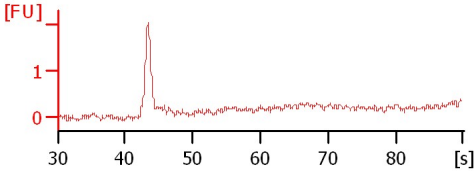
Sample 2
 41 % miRNA; Concentration: 95834.60 p...



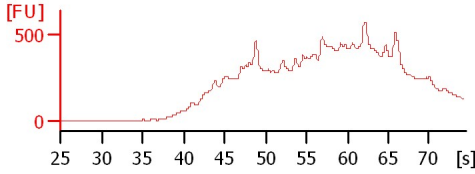
Sample 3
 82 % miRNA; Concentration: 6208.30 pg/μl



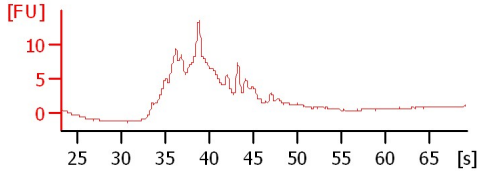
Sample 4
 All Other Samples



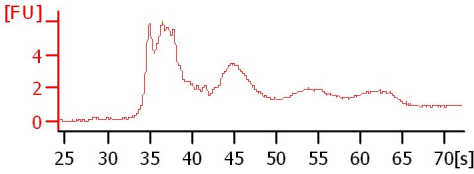
Sample 5
 22 % miRNA; Concentration: 33995.10 p...



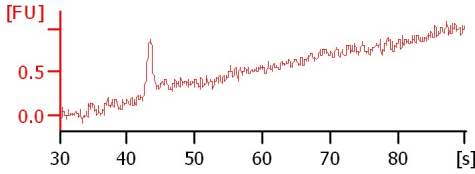
Sample 6
 71 % miRNA; Concentration: 5052.60 pg/μl



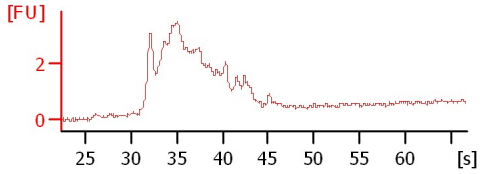
Sample 7
 55 % miRNA; Concentration: 1806.90 pg/μl



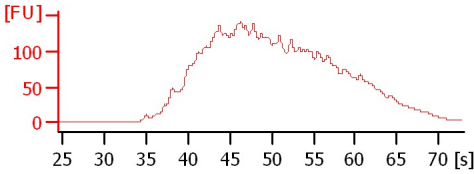
Sample 8
 All Other Samples



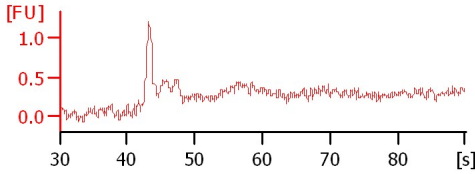
Sample 9
 46 % miRNA; Concentration: 1288 pg/μl



Sample 10
 50 % miRNA; Concentration: 31724.30 p...















Sample 21
 All Other Samples



Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
 Modified: 1/8/2015 2:18:06 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
Sample 1		✓	All Other Samples	
Sample 2		✓	41 % miRNA; Concentration: 95834.60 pg/μl	
Sample 3		✓	82 % miRNA; Concentration: 6208.30 pg/μl	
Sample 4		✓	All Other Samples	
Sample 5		✓	22 % miRNA; Concentration: 33995.10 pg/μl	
Sample 6		✓	71 % miRNA; Concentration: 5052.60 pg/μl	
Sample 7		✓	55 % miRNA; Concentration: 1806.90 pg/μl	
Sample 8		✓	All Other Samples	
Sample 9		✓	46 % miRNA; Concentration: 1288 pg/μl	
Sample 10		✓	50 % miRNA; Concentration: 31724.30 pg/μl	
Sample 21		✓	All Other Samples	
Ladder		✓	Number of Peaks: 6	

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
Modified: 1/8/2015 2:18:06 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

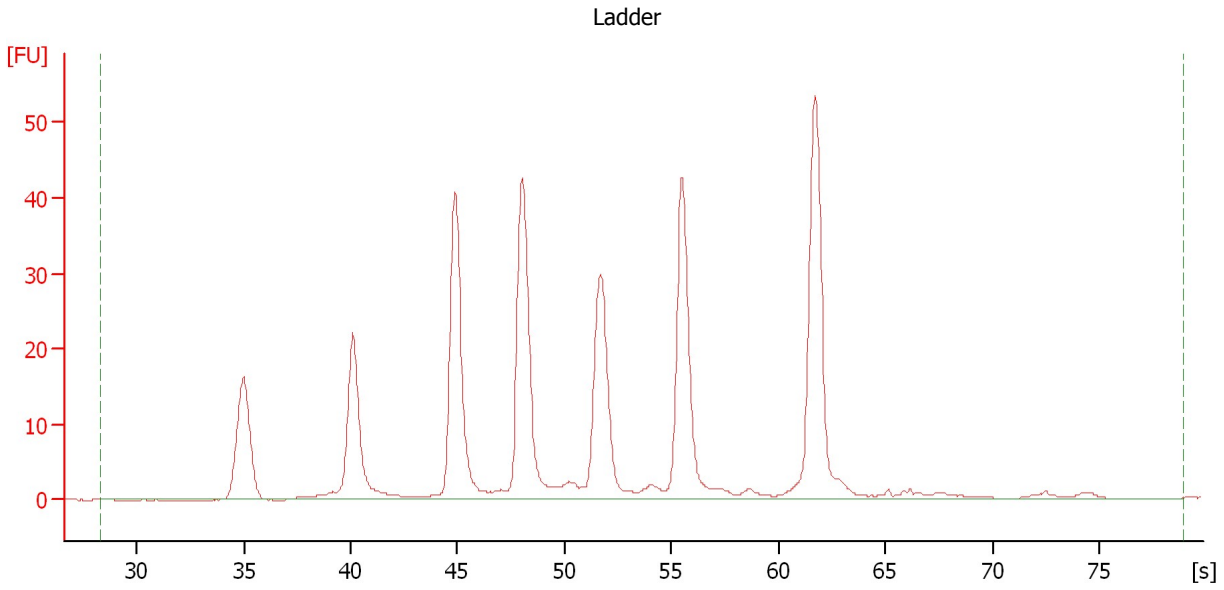
Ladder

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

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
Modified: 1/8/2015 2:18:06 PM

Electropherogram Summary



Overall Results for Ladder

Result Flagging Color:

Result Flagging Label:

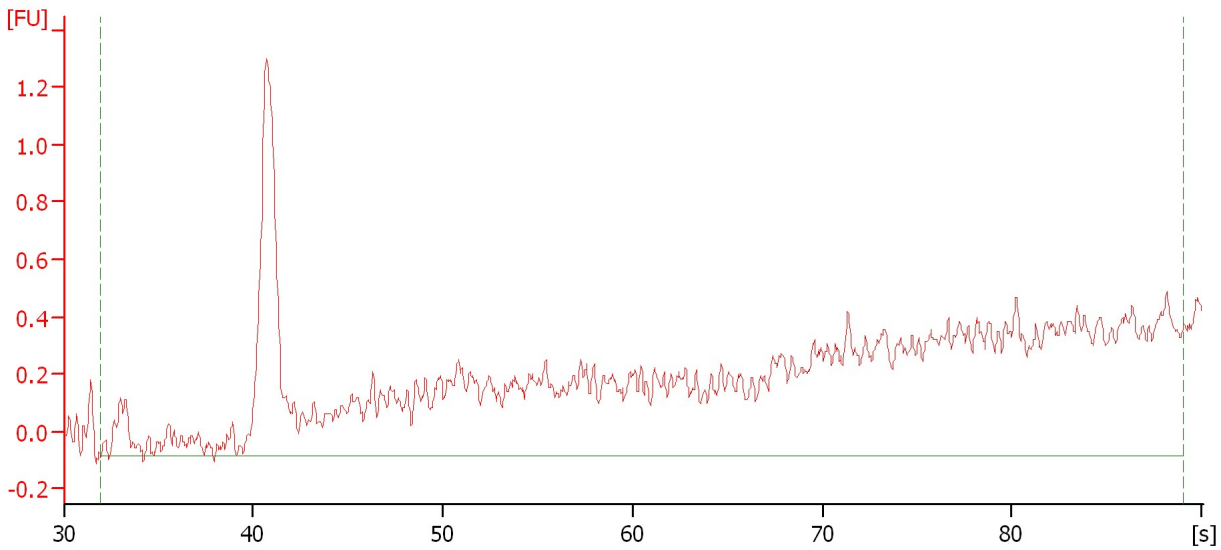
Number of Peaks: 6

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
Modified: 1/8/2015 2:18:06 PM

Electropherogram Summary Continued ...

Sample 1



Overall Results for sample 1 : Sample 1

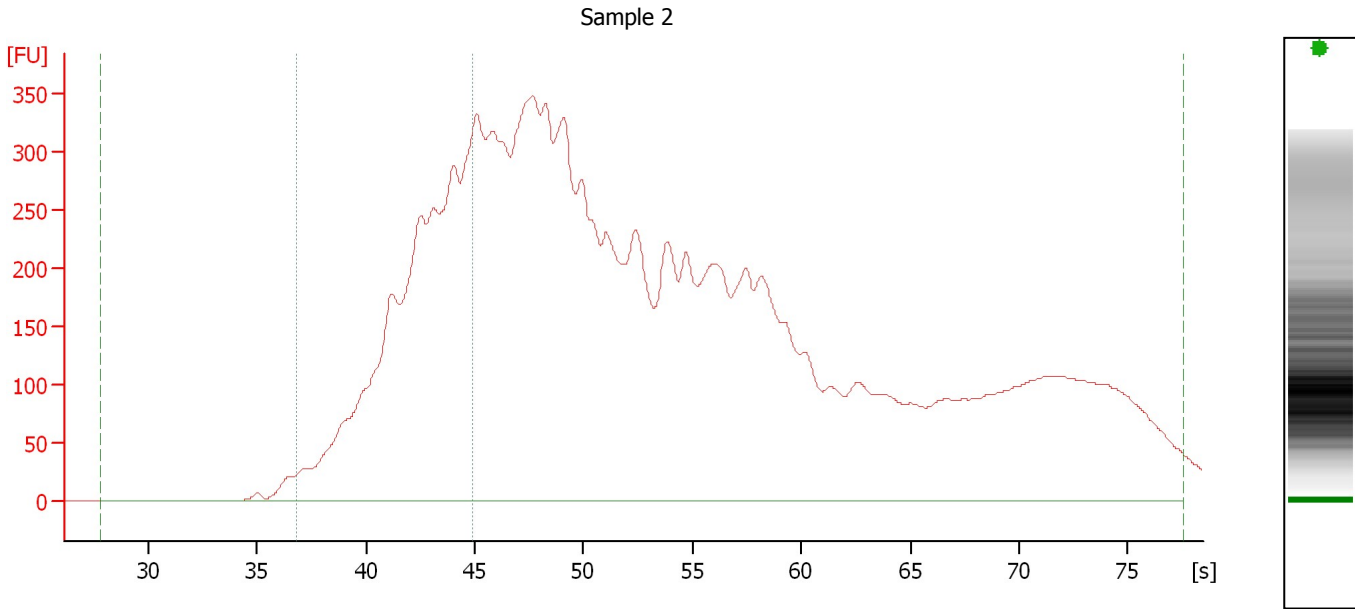
Result Flagging Color:

Result Flagging Label: All Other Samples

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
 Modified: 1/8/2015 2:18:06 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Sample 2

Small RNA Concentration [pg/μl]:	232,329.2	Result Flagging Color:	
miRNA Concentration [pg/μl]:	95,834.6	Result Flagging Label:	41 % miRNA; Concentration: 95834.60 pg/μl
miRNA / Small RNA Ratio [%]:	41		

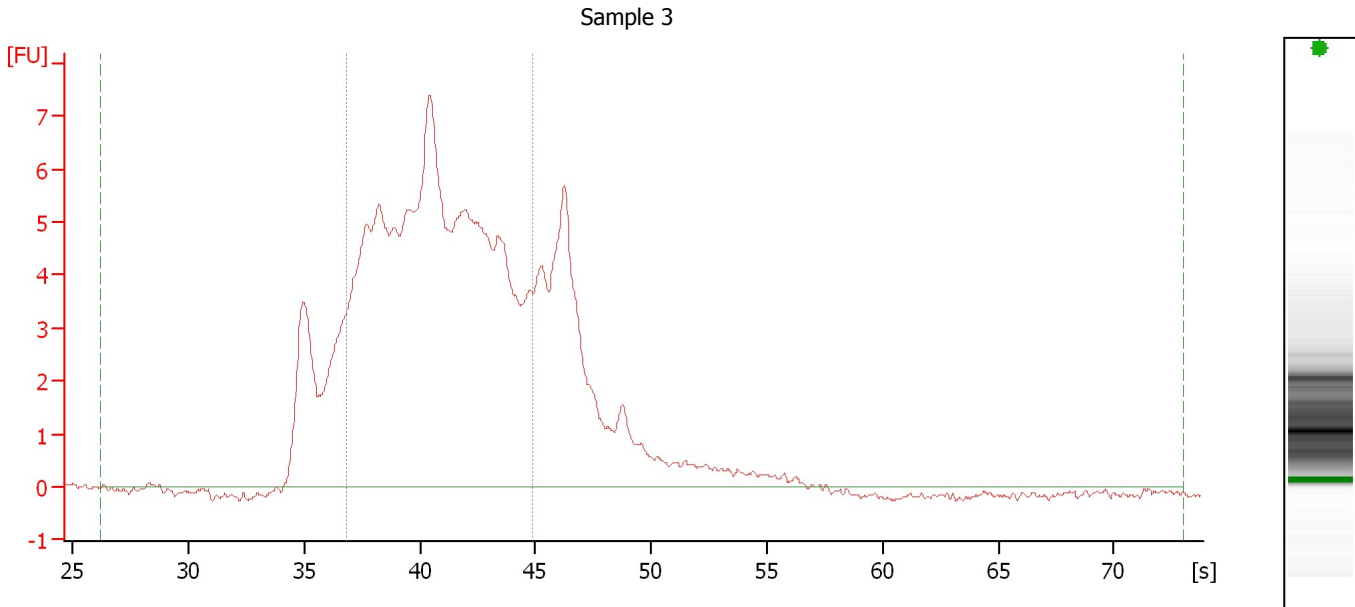
Region table for sample 2 : Sample 2

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	276	101	68.0	232,329.2	100	
miRNA	10	40	29	25.7	95,834.6	41	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
 Modified: 1/8/2015 2:18:06 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Sample 3

Small RNA Concentration [pg/μl]:	7,582.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	6,208.3	Result Flagging Label:	82 % miRNA; Concentration: 6208.30 pg/μl
miRNA / Small RNA Ratio [%]:	82		

Region table for sample 3 : Sample 3

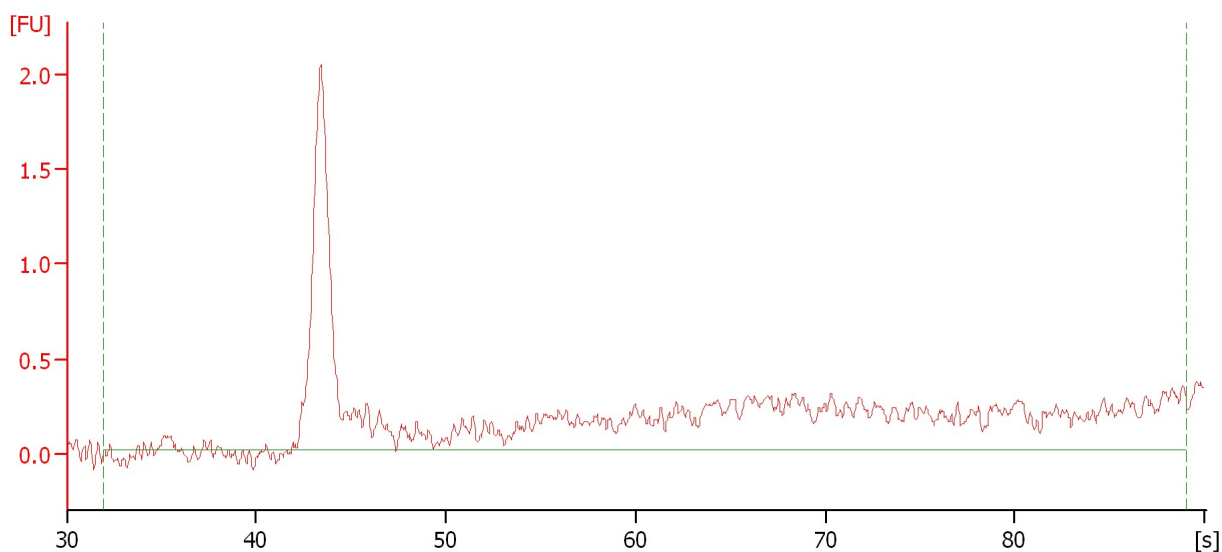
Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	240	30	62.8	7,582.5	100	
miRNA	10	40	23	35.8	6,208.3	82	

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
Modified: 1/8/2015 2:18:06 PM

Electropherogram Summary Continued ...

Sample 4



Overall Results for sample 4 : Sample 4

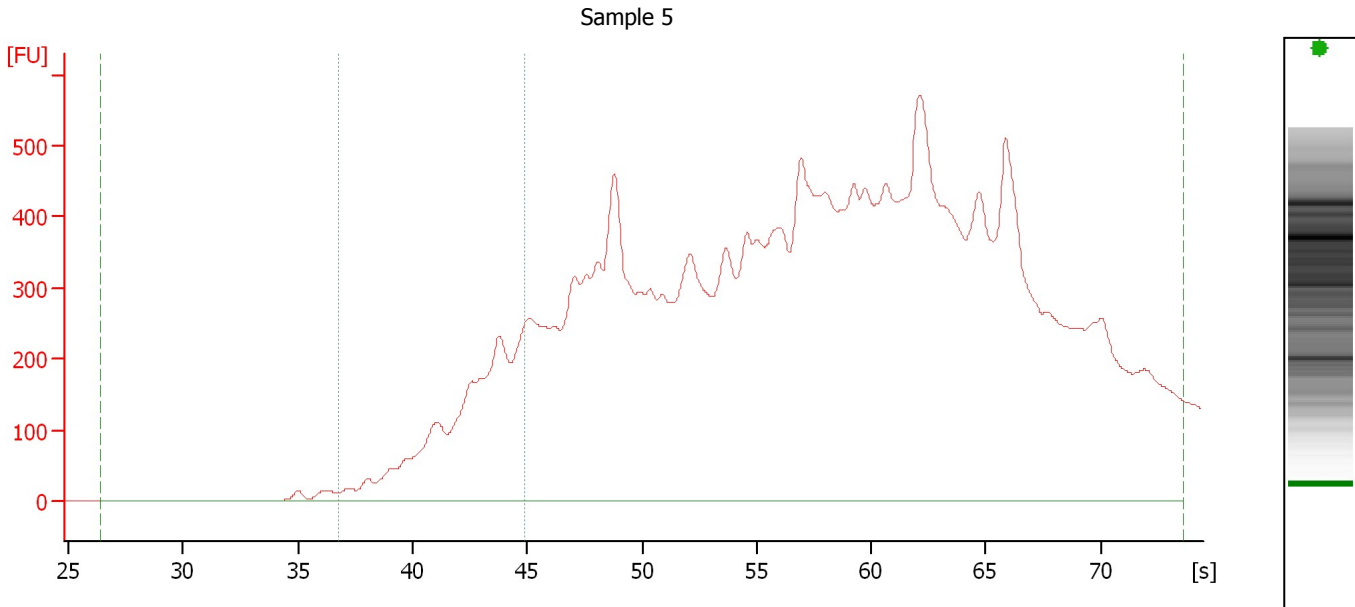
Result Flagging Color:

Result Flagging Label: All Other Samples

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
 Modified: 1/8/2015 2:18:06 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Sample 5

Small RNA Concentration [pg/μl]:	152,887.0	Result Flagging Color:	
miRNA Concentration [pg/μl]:	33,995.1	Result Flagging Label:	22 % miRNA; Concentration: 33995.10 pg/μl
miRNA / Small RNA Ratio [%]:	22		

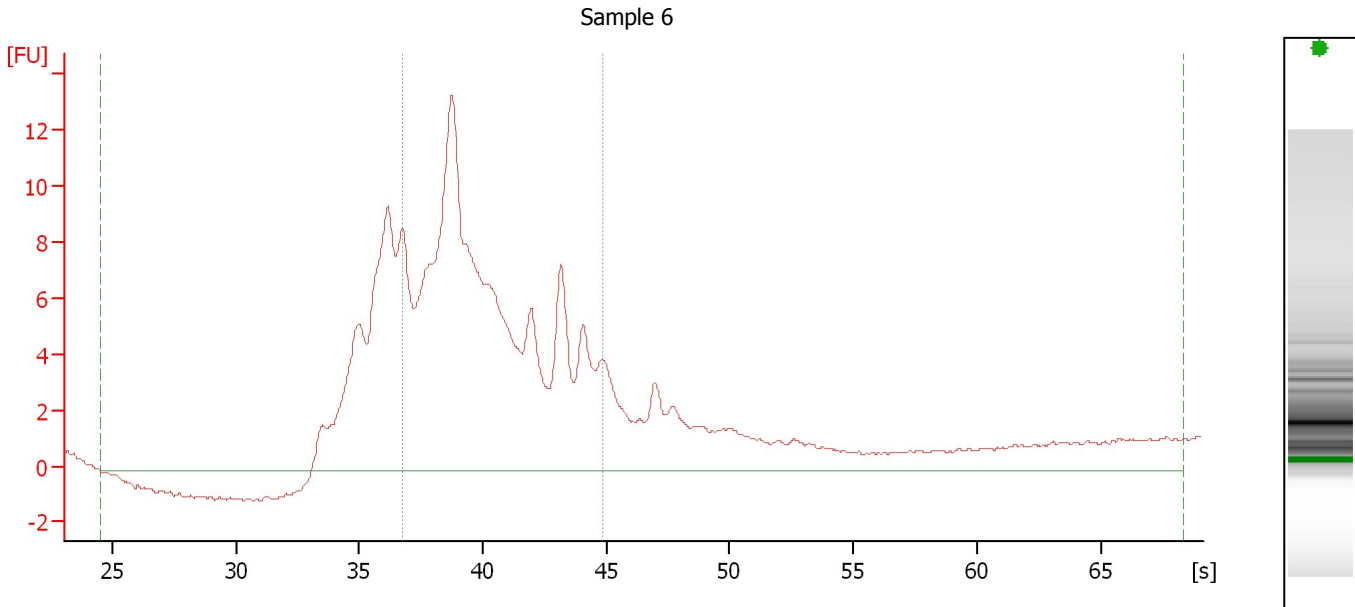
Region table for sample 5 : Sample 5

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	245	122	47.5	152,887.0	100	
miRNA	10	40	30	25.1	33,995.1	22	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
 Modified: 1/8/2015 2:18:06 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Sample 6

Small RNA Concentration [pg/μl]:	7,131.1	Result Flagging Color:	
miRNA Concentration [pg/μl]:	5,052.6	Result Flagging Label:	71 % miRNA; Concentration: 5052.60 pg/μl
miRNA / Small RNA Ratio [%]:	71		

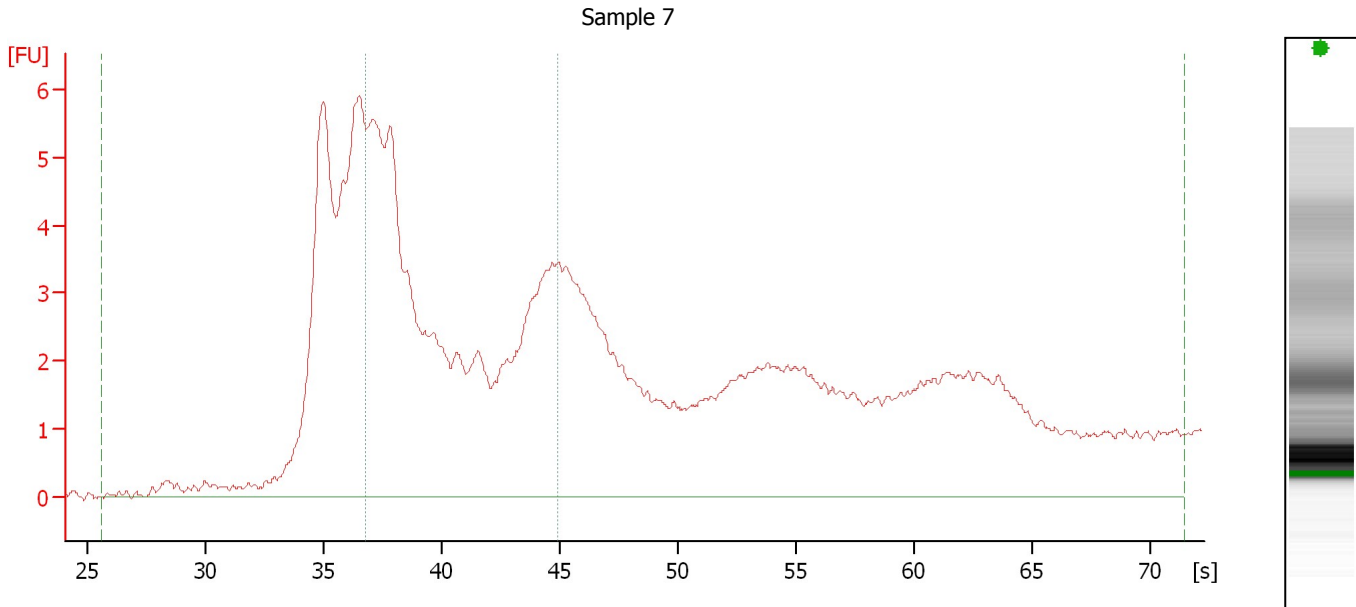
Region table for sample 6 : Sample 6

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	203	42	100.0	7,131.1	100	
miRNA	10	40	21	39.3	5,052.6	71	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
 Modified: 1/8/2015 2:18:06 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Sample 7

Small RNA Concentration [pg/μl]:	3,310.0	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,806.9	Result Flagging Label:	55 % miRNA; Concentration: 1806.90 pg/μl
miRNA / Small RNA Ratio [%]:	55		

Region table for sample 7 : Sample 7

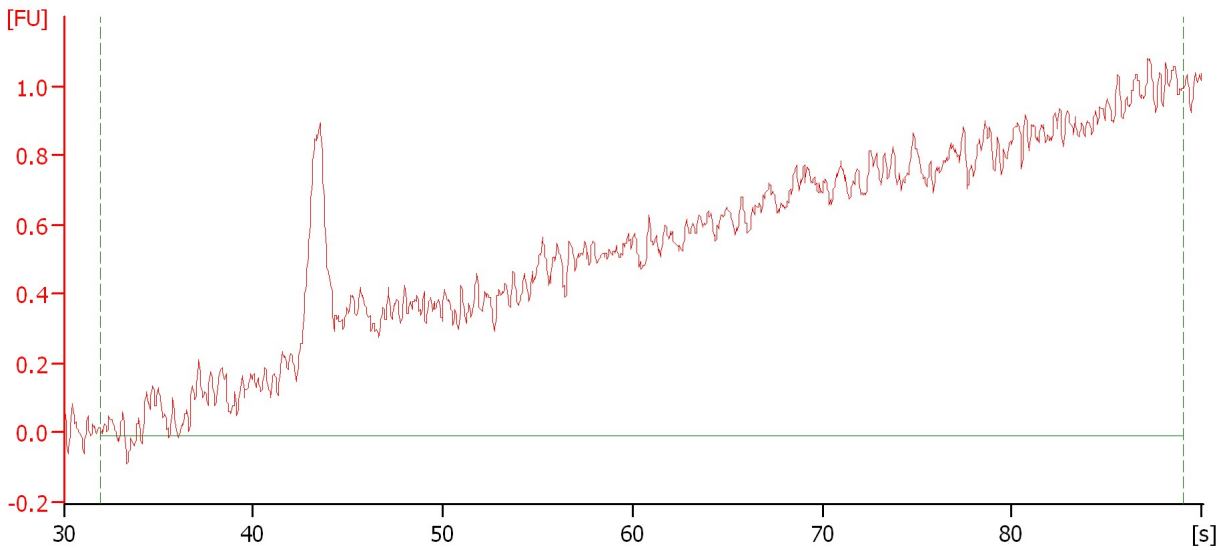
Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	227	67	92.5	3,310.0	100	
miRNA	10	40	22	45.0	1,806.9	55	

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
Modified: 1/8/2015 2:18:06 PM

Electropherogram Summary Continued ...

Sample 8



Overall Results for sample 8 : Sample 8

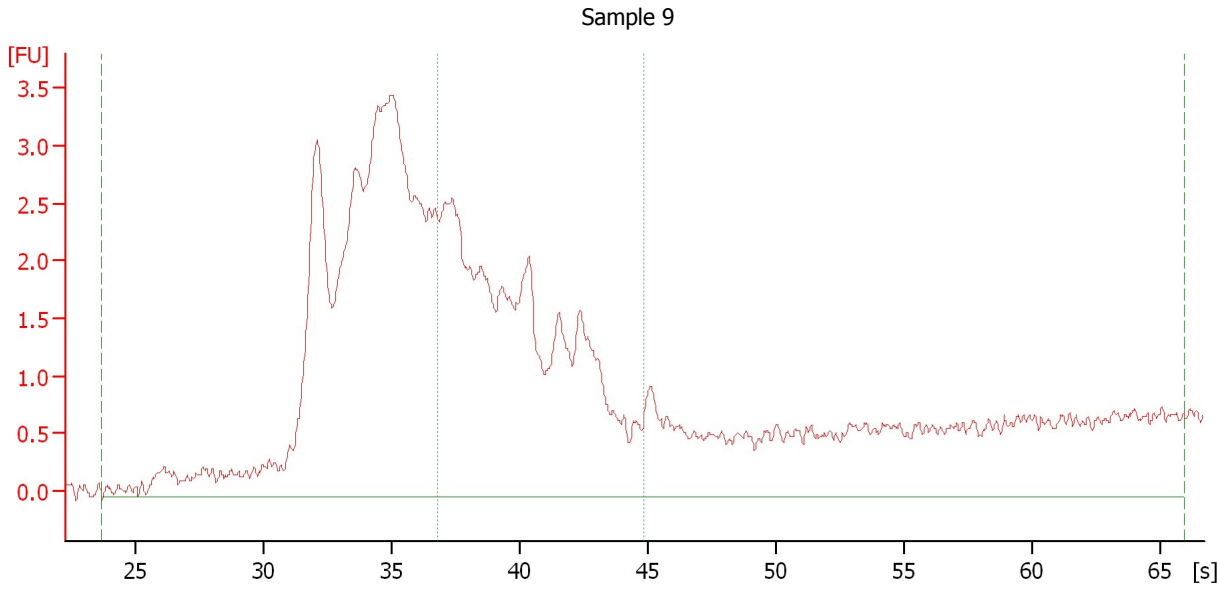
Result Flagging Color:

Result Flagging Label: All Other Samples

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
 Modified: 1/8/2015 2:18:06 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : Sample 9

Small RNA Concentration [pg/μl]:	2,795.8	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,288.0	Result Flagging Label:	46 % miRNA; Concentration: 1288 pg/μl
miRNA / Small RNA Ratio [%]:	46		

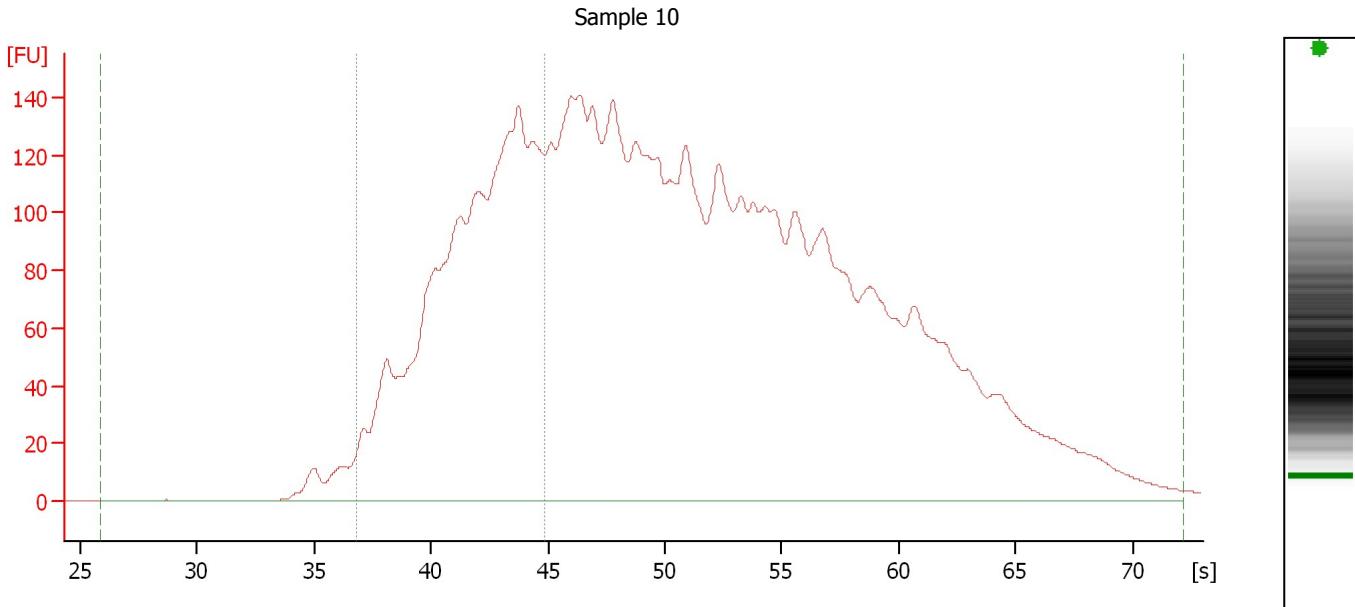
Region table for sample 9 : Sample 9

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	184	42	100.0	2,795.8	100	
miRNA	10	40	20	39.8	1,288.0	46	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
 Modified: 1/8/2015 2:18:06 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : Sample 10

Small RNA Concentration [pg/μl]:	63,030.1	Result Flagging Color:	
miRNA Concentration [pg/μl]:	31,724.3	Result Flagging Label:	50 % miRNA; Concentration: 31724.30 pg/μl
miRNA / Small RNA Ratio [%]:	50		

Region table for sample 10 : Sample 10

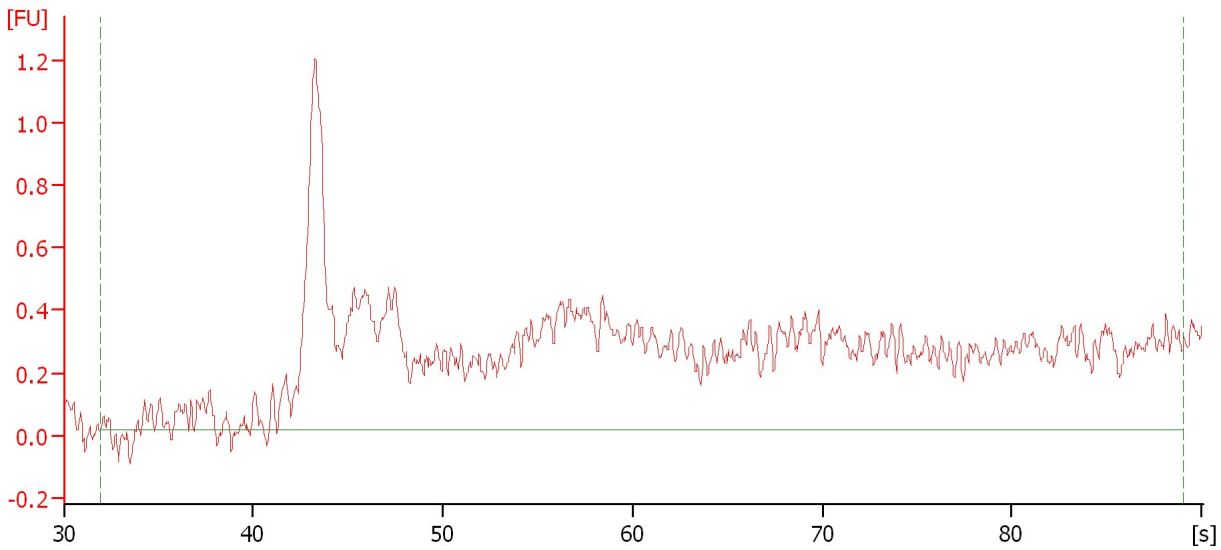
Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	233	77	60.6	63,030.1	100	
miRNA	10	40	27	29.3	31,724.3	50	

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
Modified: 1/8/2015 2:18:06 PM

Electropherogram Summary Continued ...

Sample 21



Overall Results for sample 11 : Sample 21

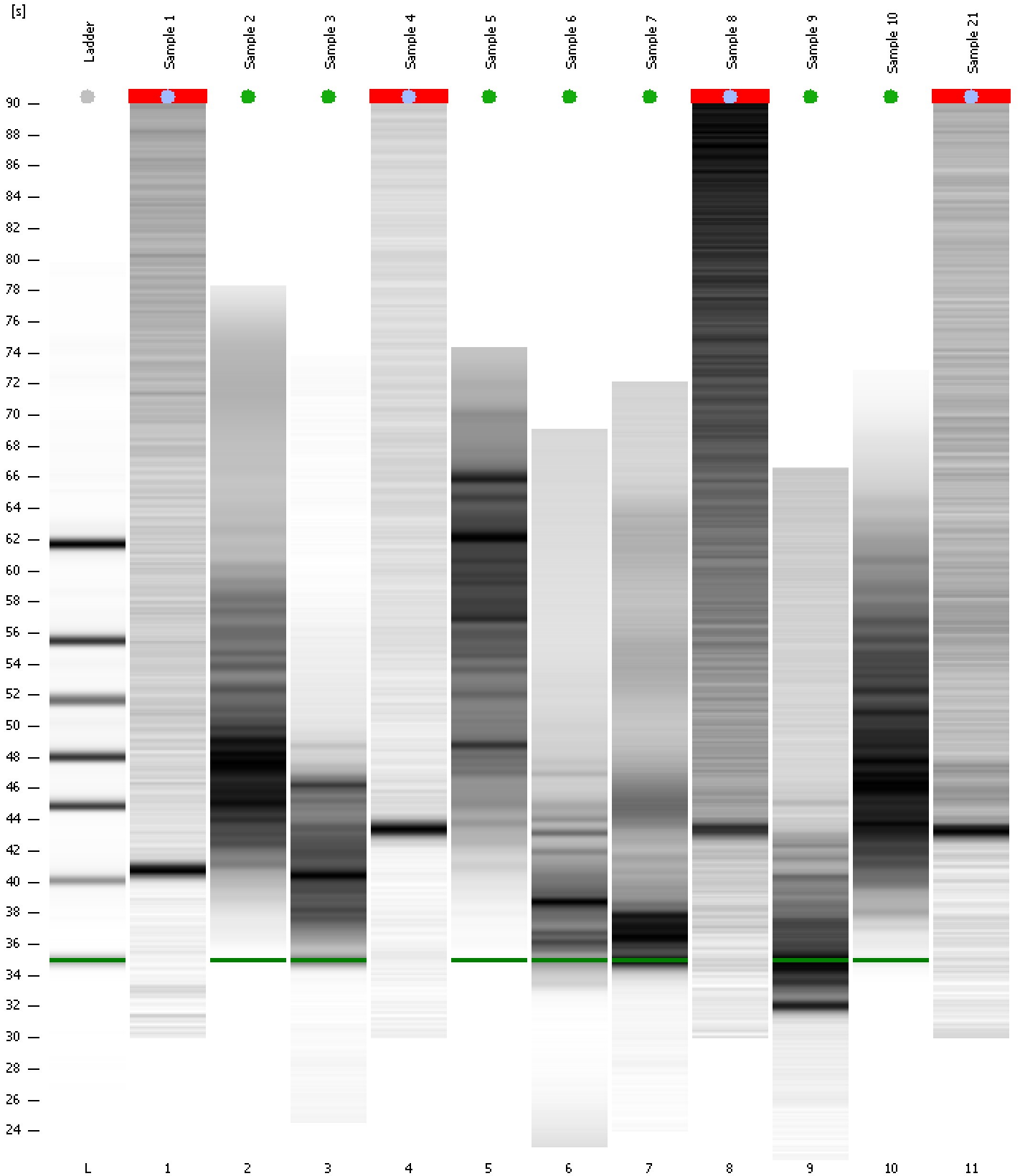
Result Flagging Color:

Result Flagging Label: All Other Samples

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad

Created: 1/8/2015 1:46:05 PM
Modified: 1/8/2015 2:18:06 PM

Gel Image



Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad
 Created: 1/8/2015 1:46:05 PM
 Modified: 1/8/2015 2:18:06 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		1/8/2015 2:18:03 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-01-08\2015-01-08_003.xad)		Instrument	Run		1/8/2015 1:46:11 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/8/2015 1:46:11 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/8/2015 1:46:11 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/8/2015 1:46:11 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/8/2015 1:46:11 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/8/2015 1:46:11 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/8/2015 1:46:11 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1