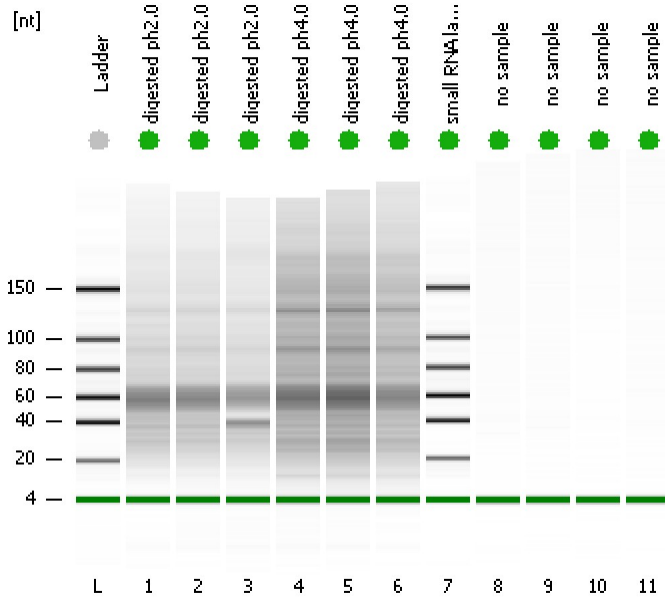


Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
Modified: 2/15/2013 11:27:13 AM

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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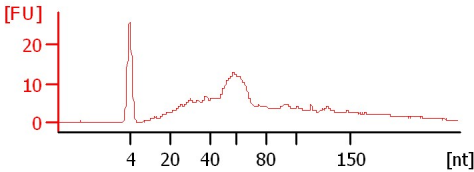
Chip Information:

Chip Lot #:

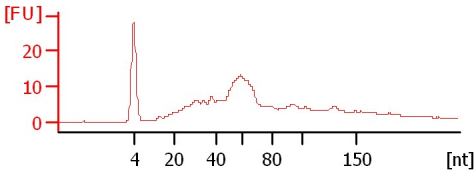
Reagent Kit Lot #:

Chip Comments:

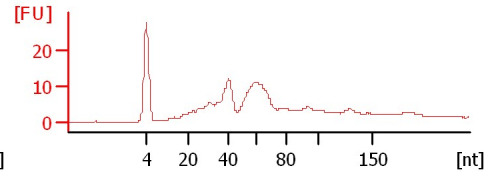
digested pH2.0
39 % miRNA; Concentration: 747.30 pg/µl



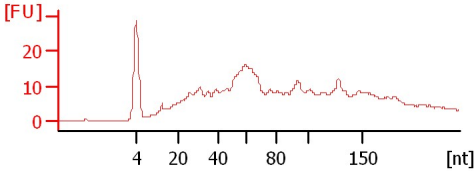
digested pH2.0
39 % miRNA; Concentration: 712.10 pg/µl



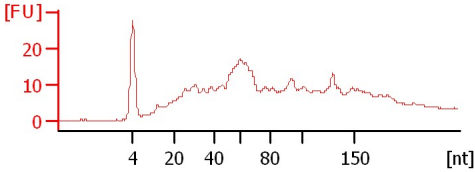
digested pH2.0
41 % miRNA; Concentration: 640.20 pg/µl



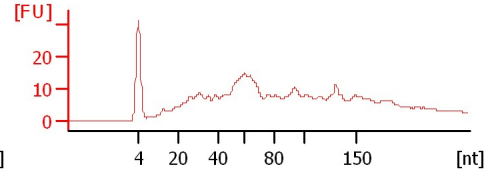
digested pH4.0
37 % miRNA; Concentration: 1127.90 pg/µl



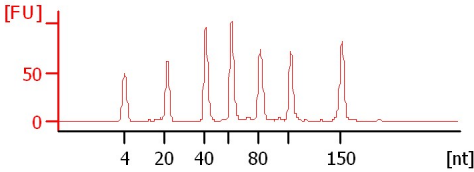
digested pH4.0
37 % miRNA; Concentration: 1283.40 pg/µl



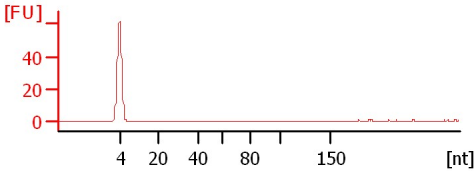
digested pH4.0
37 % miRNA; Concentration: 949.40 pg/µl



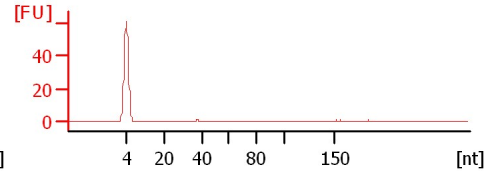
small RNA ladder
33 % miRNA; Concentration: 819 pg/µl



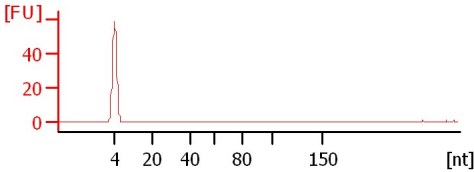
no sample
13 % miRNA; Concentration: 11 pg/µl



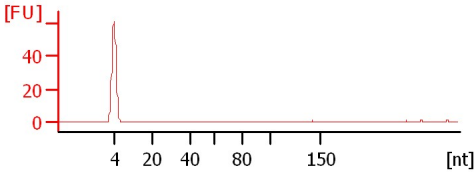
no sample
22 % miRNA; Concentration: 16.90 pg/µl



no sample
15 % miRNA; Concentration: 9.40 pg/µl















no sample
23 % miRNA; Concentration: 19.80 pg/µl



Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
 Modified: 2/15/2013 11:27:13 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
digested ph2.0		✓	39 % miRNA; Concentration: 747.30 pg/μl	
digested ph2.0		✓	39 % miRNA; Concentration: 712.10 pg/μl	
digested ph2.0		✓	41 % miRNA; Concentration: 640.20 pg/μl	
digested ph4.0		✓	37 % miRNA; Concentration: 1127.90 pg/μl	
digested ph4.0		✓	37 % miRNA; Concentration: 1283.40 pg/μl	
digested ph4.0		✓	37 % miRNA; Concentration: 949.40 pg/μl	
small RNA ladder		✓	33 % miRNA; Concentration: 819 pg/μl	
no sample		✓	13 % miRNA; Concentration: 11 pg/μl	
no sample		✓	22 % miRNA; Concentration: 16.90 pg/μl	
no sample		✓	15 % miRNA; Concentration: 9.40 pg/μl	
no sample		✓	23 % miRNA; Concentration: 19.80 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\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
Modified: 2/15/2013 11:27:13 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/ 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

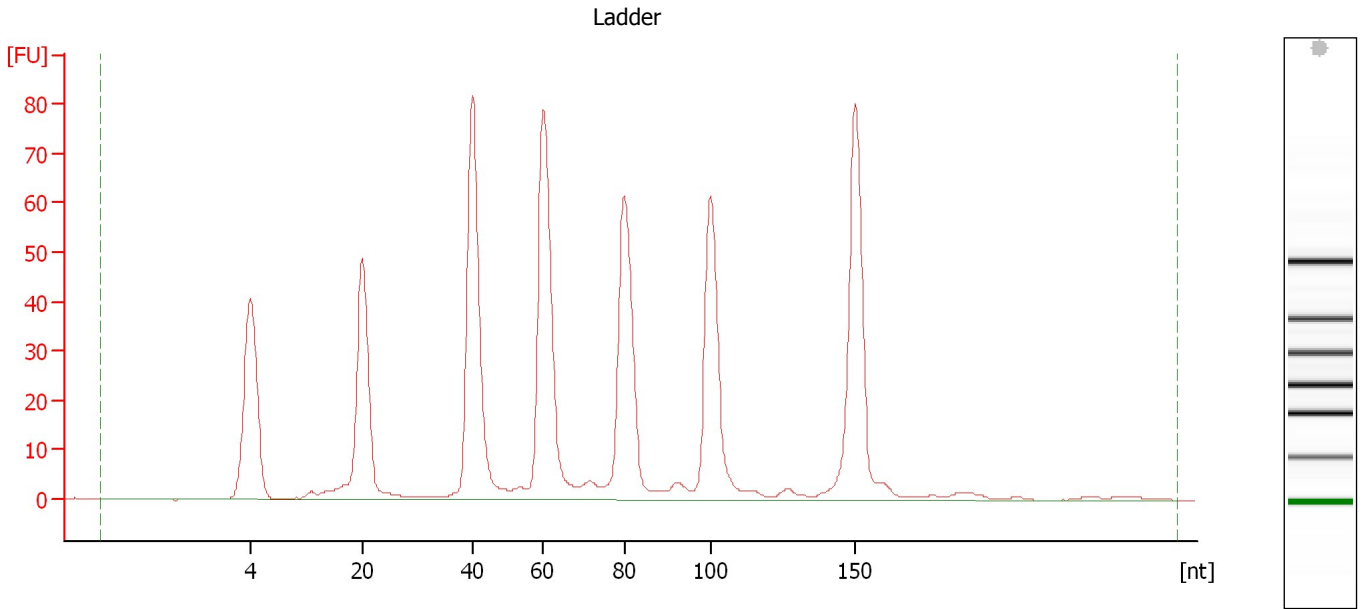
Ladder

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\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
Modified: 2/15/2013 11:27:13 AM

Electropherogram Summary



Overall Results for Ladder

Result Flagging Color:

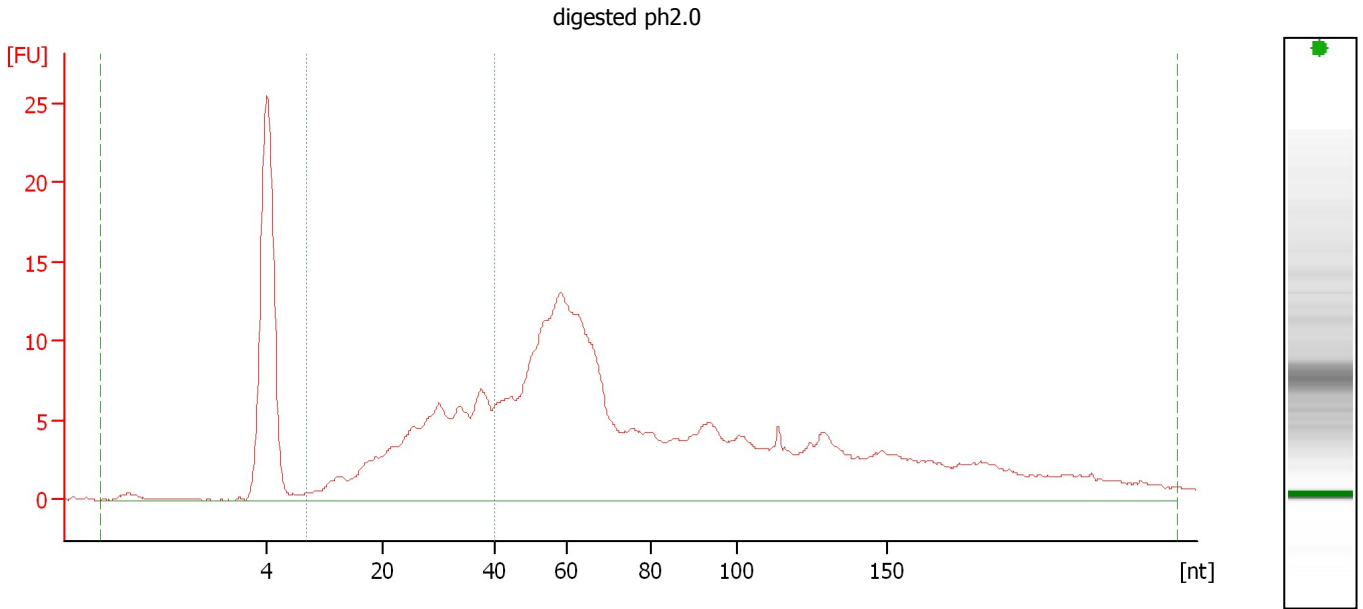
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
 Modified: 2/15/2013 11:27:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : digested ph2.0

Small RNA Concentration [pg/μl]:	1,893.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	747.3	Result Flagging Label:	39 % miRNA; Concentration: 747.30 pg/μl
miRNA / Small RNA Ratio [%]:	39		

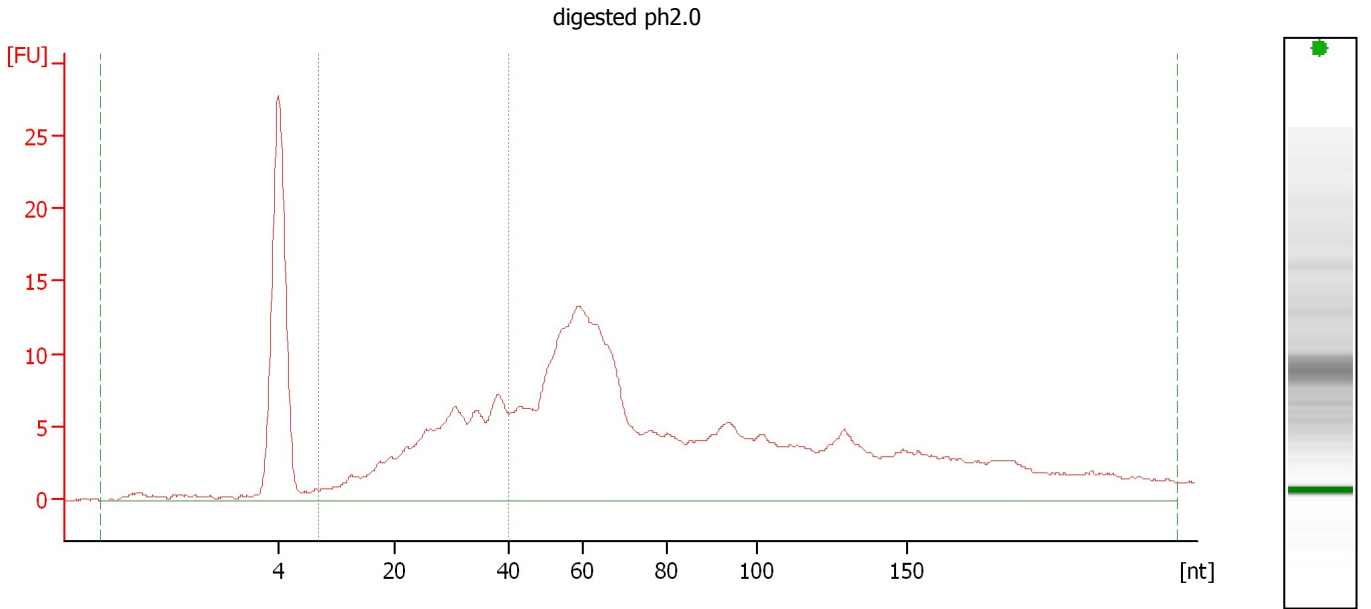
Region table for sample 1 : digested ph2.0

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	248	77	75.7	1,893.5	100	
miRNA	10	40	29	26.6	747.3	39	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
 Modified: 2/15/2013 11:27:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : digested ph2.0

Small RNA Concentration [pg/μl]:	1,840.3	Result Flagging Color:	
miRNA Concentration [pg/μl]:	712.1	Result Flagging Label:	39 % miRNA; Concentration: 712.10 pg/μl
miRNA / Small RNA Ratio [%]:	39		

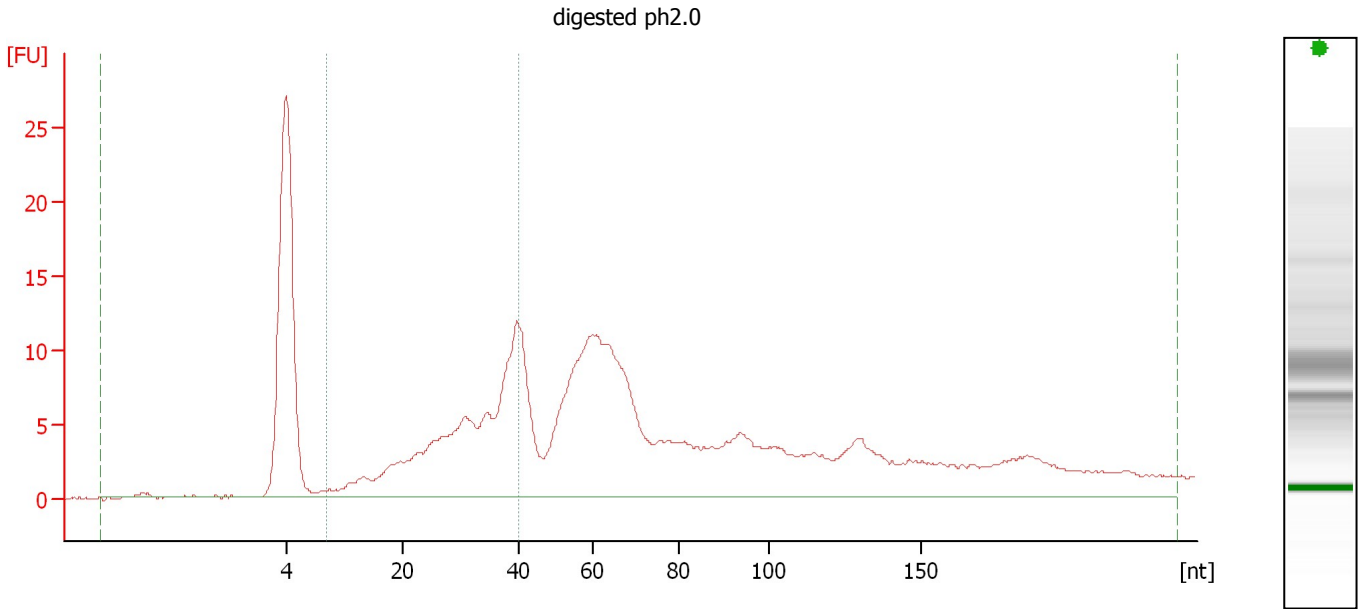
Region table for sample 2 : digested ph2.0

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	239	78	75.5	1,840.3	100	
miRNA	10	40	28	27.1	712.1	39	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
 Modified: 2/15/2013 11:27:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : digested ph2.0

Small RNA Concentration [pg/μl]:	1,555.9	Result Flagging Color:	
miRNA Concentration [pg/μl]:	640.2	Result Flagging Label:	41 % miRNA; Concentration: 640.20 pg/μl
miRNA / Small RNA Ratio [%]:	41		

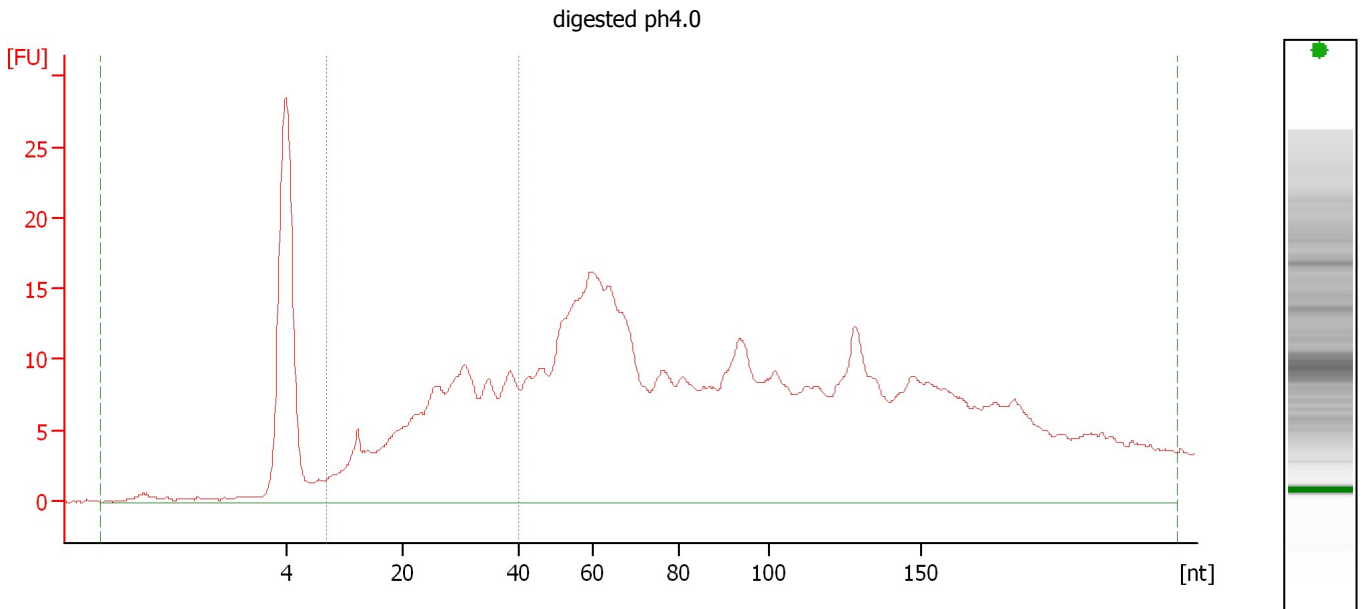
Region table for sample 3 : digested ph2.0

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	234	76	77.3	1,555.9	100	
miRNA	10	40	30	25.9	640.2	41	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
 Modified: 2/15/2013 11:27:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : digested ph4.0

Small RNA Concentration [pg/μl]:	3,046.4	Result Flagging Color:	████████
miRNA Concentration [pg/μl]:	1,127.9	Result Flagging Label:	37 % miRNA; Concentration: 1127.90 pg/μl
miRNA / Small RNA Ratio [%]:	37		

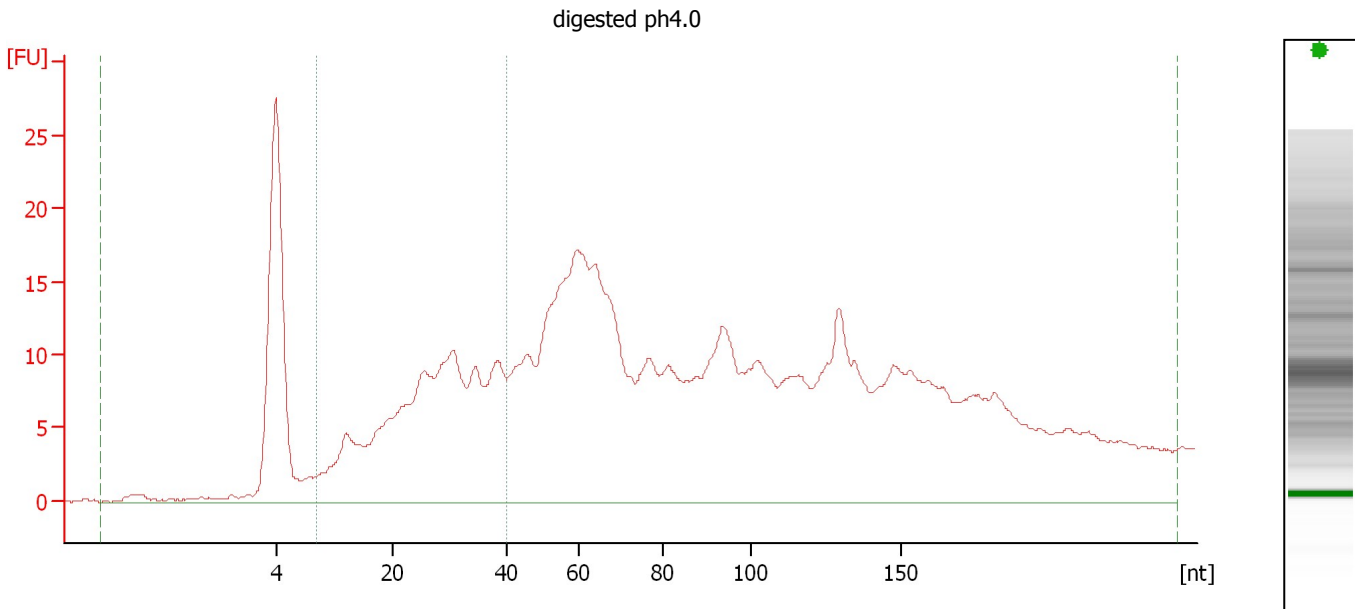
Region table for sample 4 : digested ph4.0

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	234	91	67.0	3,046.4	100	████
miRNA	10	40	27	29.9	1,127.9	37	████

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
 Modified: 2/15/2013 11:27:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : digested ph4.0

Small RNA Concentration [pg/μl]:	3,422.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,283.4	Result Flagging Label:	37 % miRNA; Concentration: 1283.40 pg/μl
miRNA / Small RNA Ratio [%]:	37		

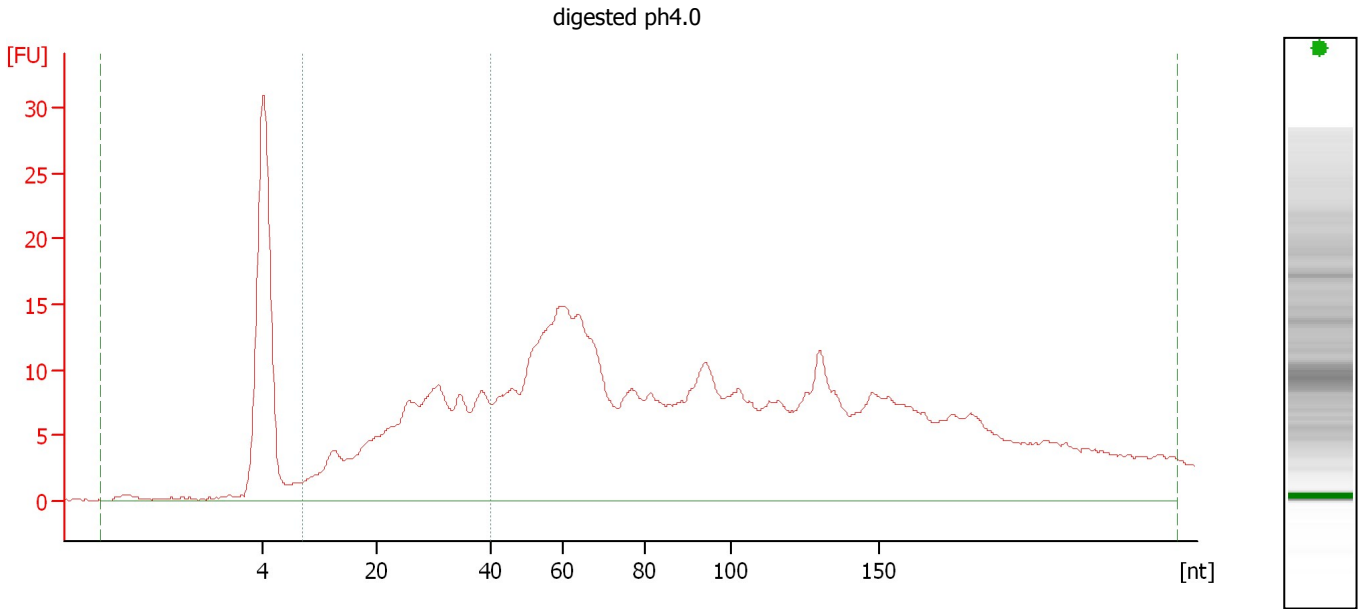
Region table for sample 5 : digested ph4.0

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	241	93	67.2	3,422.5	100	
miRNA	10	40	27	30.0	1,283.4	37	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
 Modified: 2/15/2013 11:27:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : digested ph4.0

Small RNA Concentration [pg/μl]:	2,590.7	Result Flagging Color:	
miRNA Concentration [pg/μl]:	949.4	Result Flagging Label:	37 % miRNA; Concentration: 949.40 pg/μl
miRNA / Small RNA Ratio [%]:	37		

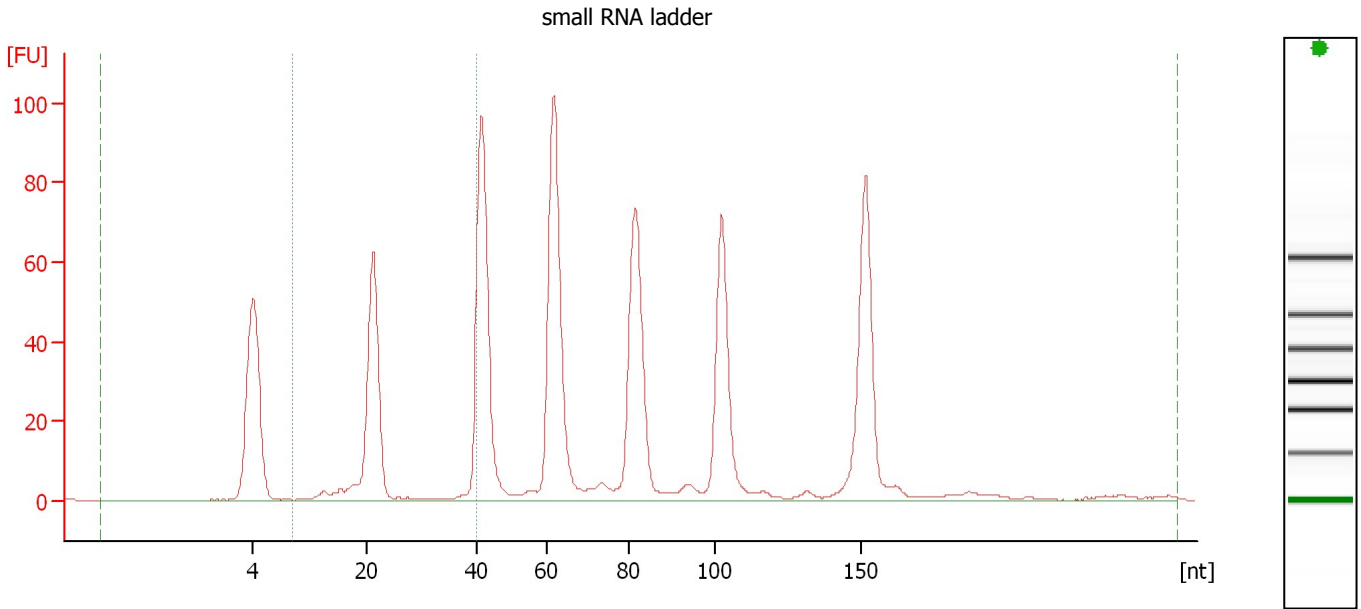
Region table for sample 6 : digested ph4.0

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	250	95	68.8	2,590.7	100	
miRNA	10	40	27	29.6	949.4	37	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
 Modified: 2/15/2013 11:27:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : small RNA ladder

Small RNA Concentration [pg/μl]:	2,468.2	Result Flagging Color:	
miRNA Concentration [pg/μl]:	819.0	Result Flagging Label:	33 % miRNA; Concentration: 819 pg/μl
miRNA / Small RNA Ratio [%]:	33		

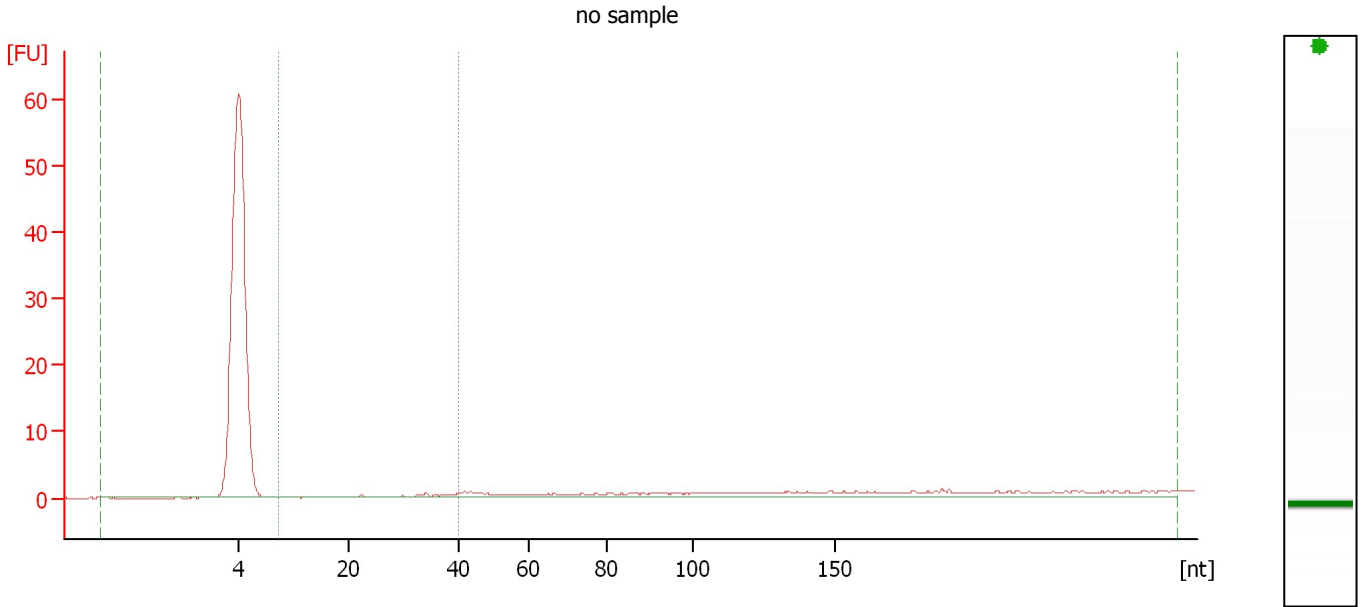
Region table for sample 7 : small RNA ladder

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	258	77	66.5	2,468.2	100	
miRNA	10	40	23	28.4	819.0	33	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
 Modified: 2/15/2013 11:27:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : no sample

Small RNA Concentration [pg/μl]:	83.5	Result Flagging Color:	████████
miRNA Concentration [pg/μl]:	11.0	Result Flagging Label:	13 % miRNA; Concentration: 11 pg/μl
miRNA / Small RNA Ratio [%]:	13		

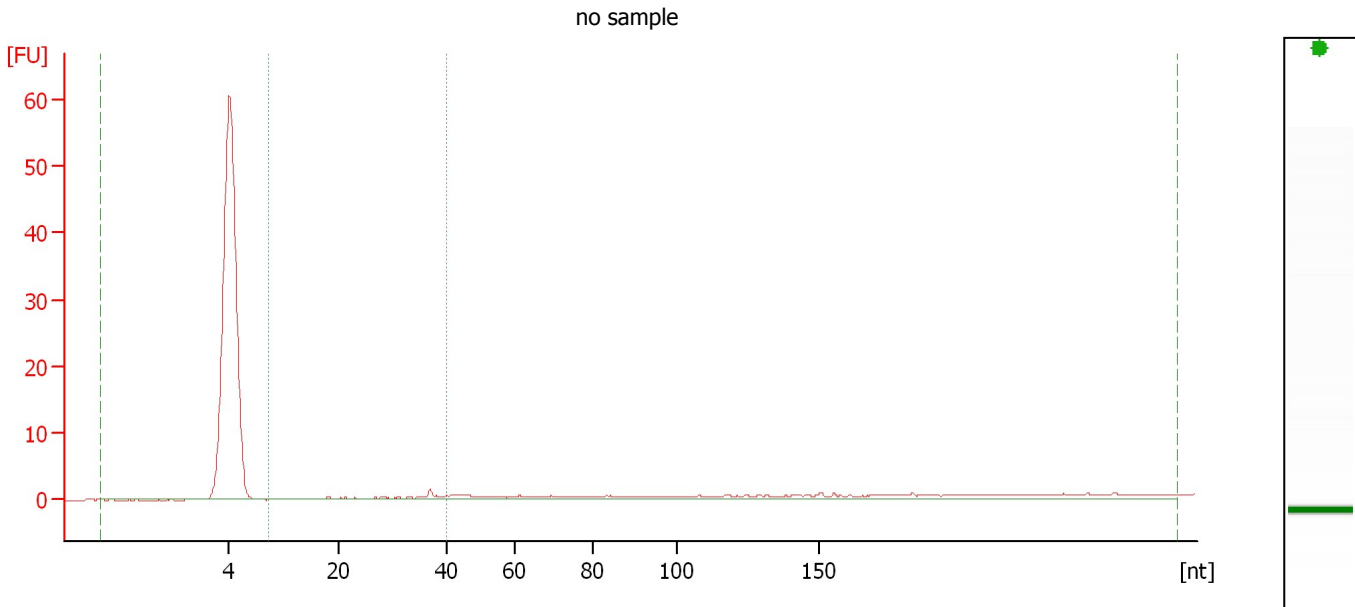
Region table for sample 8 : no sample

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	269	56	100.0	83.5	100	████
miRNA	10	40	30	26.2	11.0	13	████

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
 Modified: 2/15/2013 11:27:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : no sample

Small RNA Concentration [pg/μl]:	77.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	16.9	Result Flagging Label:	22 % miRNA; Concentration: 16.90 pg/μl
miRNA / Small RNA Ratio [%]:	22		

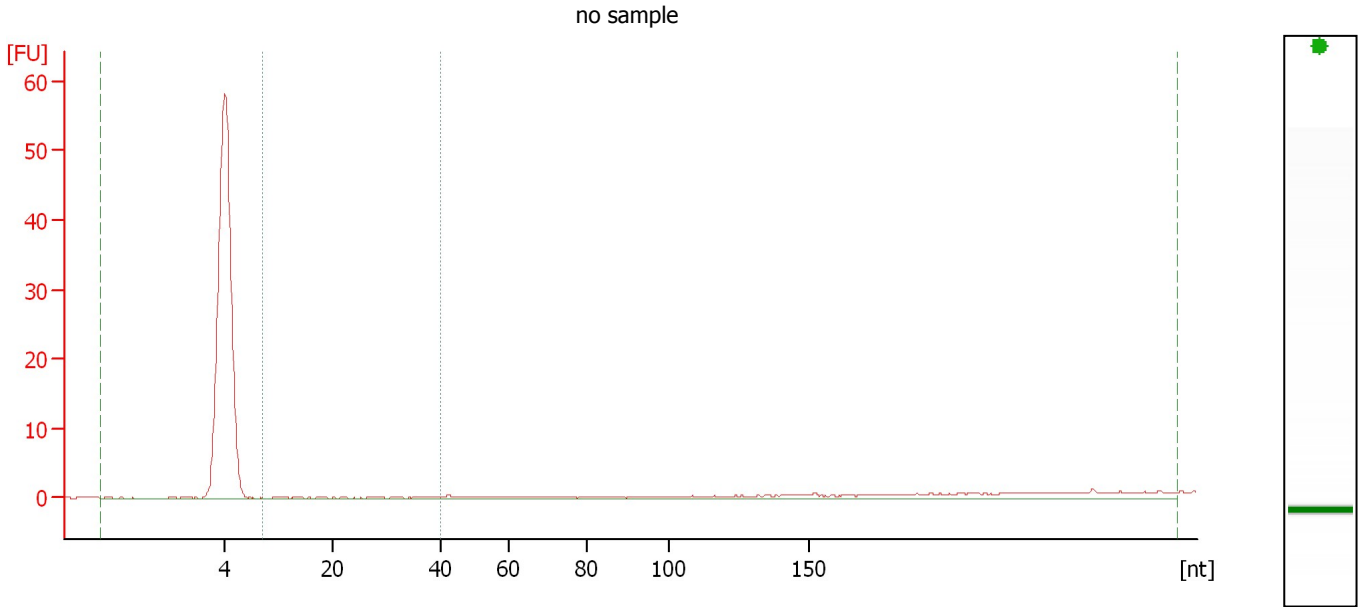
Region table for sample 9 : no sample

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	277	52	100.0	77.5	100	
miRNA	10	40	29	31.2	16.9	22	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
 Modified: 2/15/2013 11:27:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : no sample

Small RNA Concentration [pg/μl]:	61.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	9.4	Result Flagging Label:	15 % miRNA; Concentration: 9.40 pg/μl
miRNA / Small RNA Ratio [%]:	15		

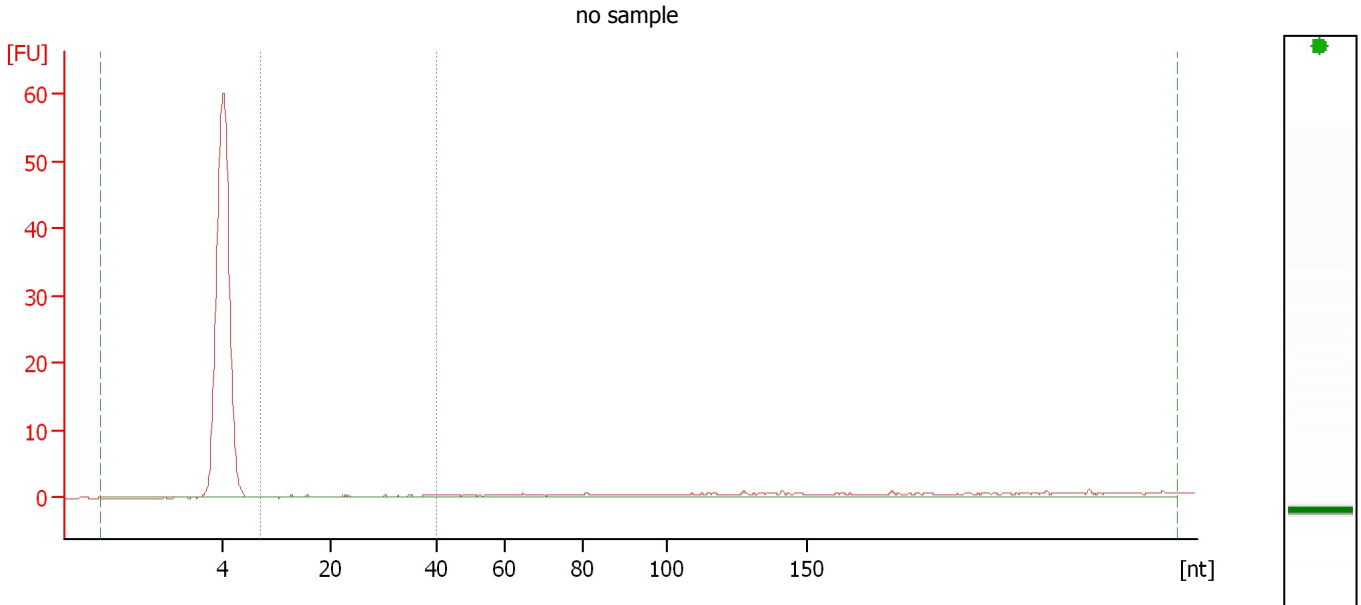
Region table for sample 10 : no sample

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	281	55	100.0	61.5	100	
miRNA	10	40	26	38.4	9.4	15	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
 Modified: 2/15/2013 11:27:13 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : no sample

Small RNA Concentration [pg/μl]:	85.6	Result Flagging Color:	
miRNA Concentration [pg/μl]:	19.8	Result Flagging Label:	23 % miRNA; Concentration: 19.80 pg/μl
miRNA / Small RNA Ratio [%]:	23		

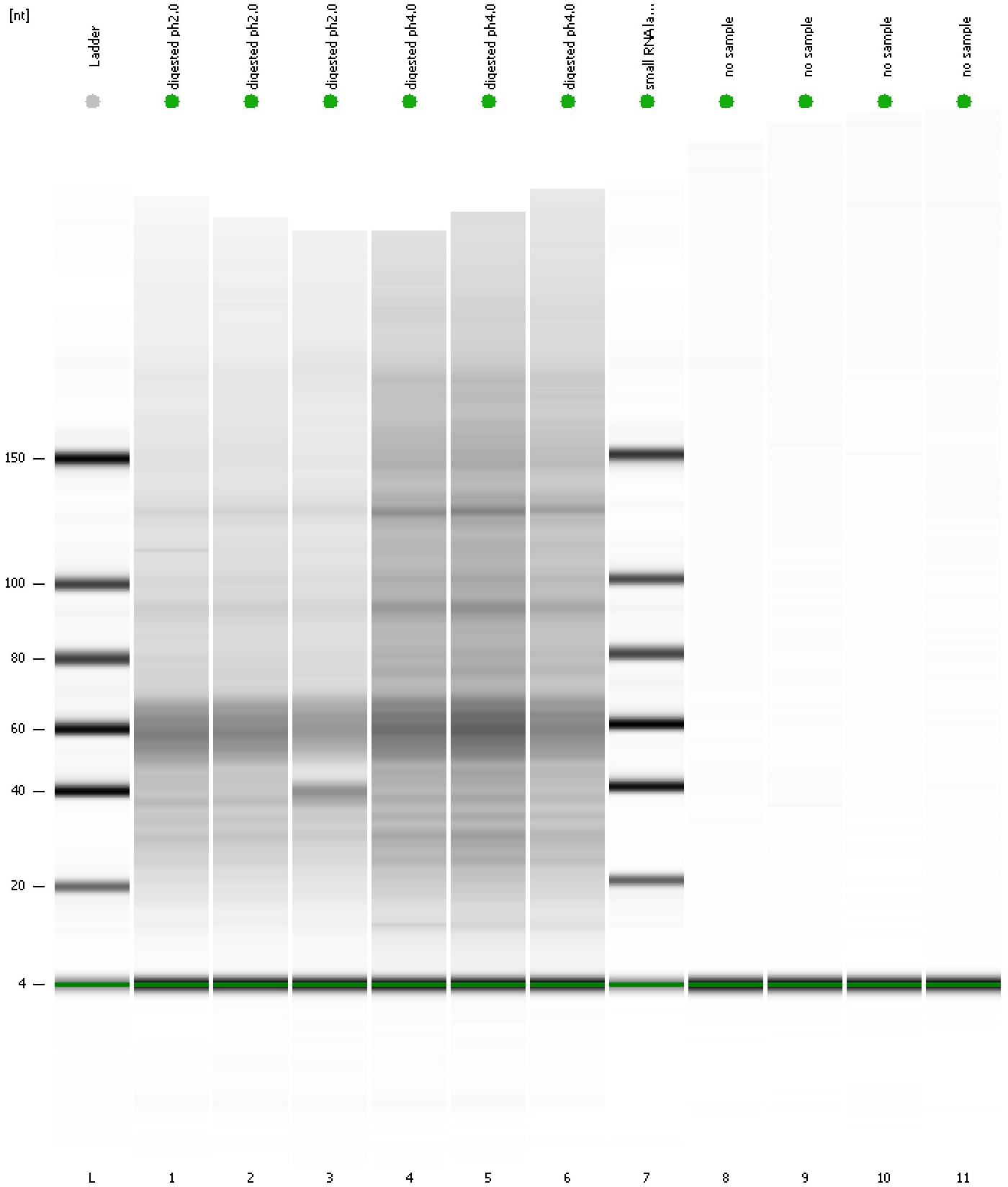
Region table for sample 11 : no sample

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	282	54	100.0	85.6	100	
miRNA	10	40	26	34.8	19.8	23	

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
Modified: 2/15/2013 11:27:13 AM

Gel Image



Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad

Created: 2/15/2013 10:51:42 AM
 Modified: 2/15/2013 11:27:13 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		2/15/2013 11:23:38 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-02-15\2013-02-15_002.xad)		Instrument	Run		2/15/2013 10:51:48 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		2/15/2013 10:51:48 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		2/15/2013 10:51:48 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		2/15/2013 10:51:48 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		2/15/2013 10:51:48 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		2/15/2013 10:51:48 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		2/15/2013 10:51:48 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1