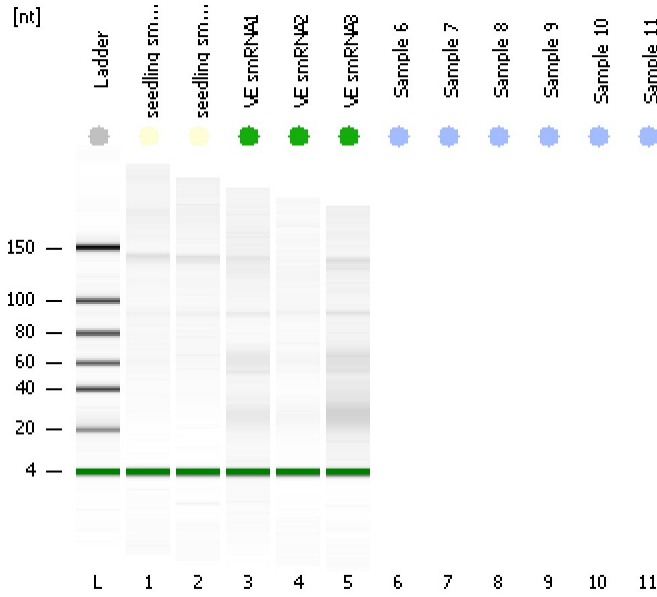


Assay Class: Small RNA  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-05\2016-12-05\_003.xad

Created: 12/5/2016 2:42:41 PM  
Modified: 12/5/2016 3:03:11 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

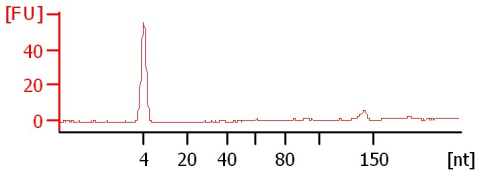
© Copyright 2007 - 2009 Agilent Technologies, Inc.

Chip Information:

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

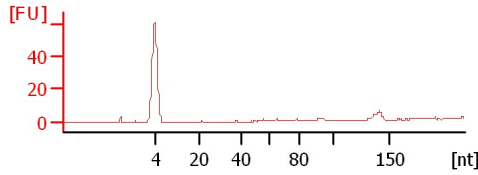
**seedling smRNA 1**

1 % miRNA; Concentration: 1.90 pg/µl



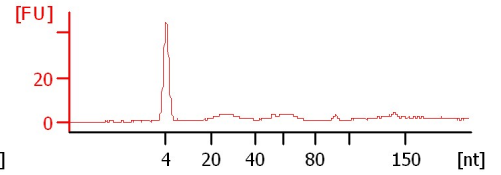
**seedling smRNA 2**

1 % miRNA; Concentration: 1.70 pg/µl



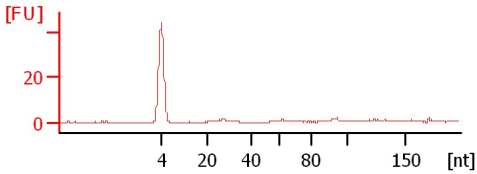
**VE smRNA1**

44 % miRNA; Concentration: 429.20 pg/µl



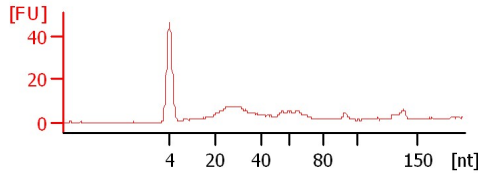
**VE smRNA2**

36 % miRNA; Concentration: 85.70 pg/µl



**VE smRNA3**













60 % miRNA; Concentration: 832.50 pg/µl



Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-05\2016-12-05\_003.xad

Created: 12/5/2016 2:42:41 PM  
 Modified: 12/5/2016 3:03:11 PM

**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Status	Result Label	Result Color
seedling smRNA 1		✓	1 % miRNA; Concentration: 1.90 pg/μl	
seedling smRNA 2		✓	1 % miRNA; Concentration: 1.70 pg/μl	
VE smRNA1		✓	44 % miRNA; Concentration: 429.20 pg/μl	
VE smRNA2		✓	36 % miRNA; Concentration: 85.70 pg/μl	
VE smRNA3		✓	60 % miRNA; Concentration: 832.50 pg/μl	
Sample 6				
Sample 7				
Sample 8				
Sample 9				
Sample 10				
Sample 11				
Ladder		✓	Number of Peaks: 6	

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Small RNA  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-05\2016-12-05\_003.xad

Created: 12/5/2016 2:42:41 PM  
Modified: 12/5/2016 3:03:11 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/ $\mu$ l] : 2500  
Lower Marker Concentration [pg/ $\mu$ l] : 500  
Upper Marker Concentration [pg/ $\mu$ 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

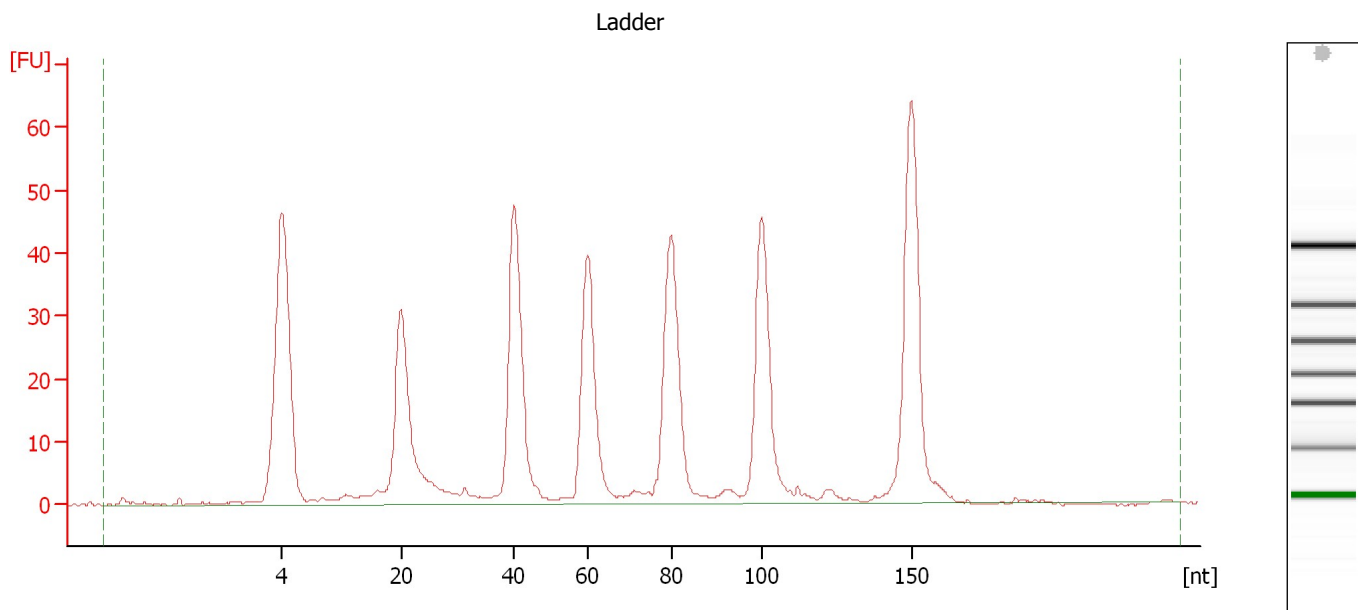
**Ladder**

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\2016-12-05\2016-12-05\_003.xad

Created: 12/5/2016 2:42:41 PM  
Modified: 12/5/2016 3:03:11 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Result Flagging Color:

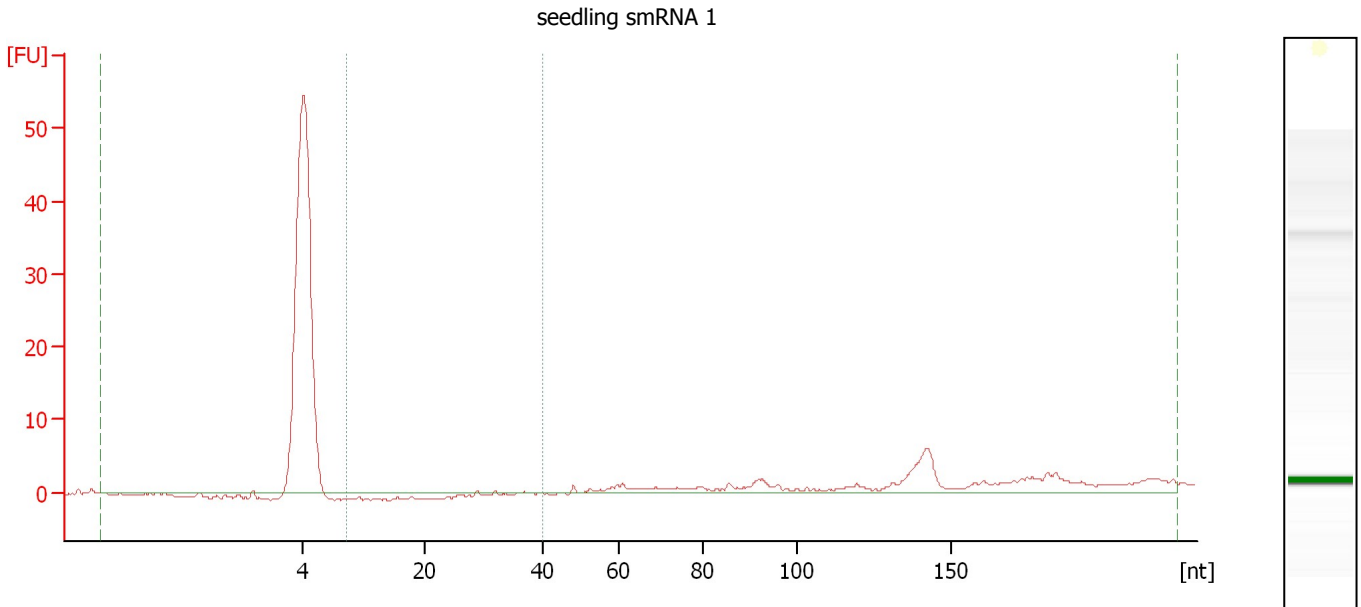
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-05\2016-12-05\_003.xad

Created: 12/5/2016 2:42:41 PM  
 Modified: 12/5/2016 3:03:11 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : seedling smRNA 1**

Small RNA Concentration [pg/μl]:	174.7	Result Flagging Color:	<span style="background-color: yellow; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
miRNA Concentration [pg/μl]:	1.9	Result Flagging Label:	1 % miRNA; Concentration: 1.90 pg/μl
miRNA / Small RNA Ratio [%]:	1		

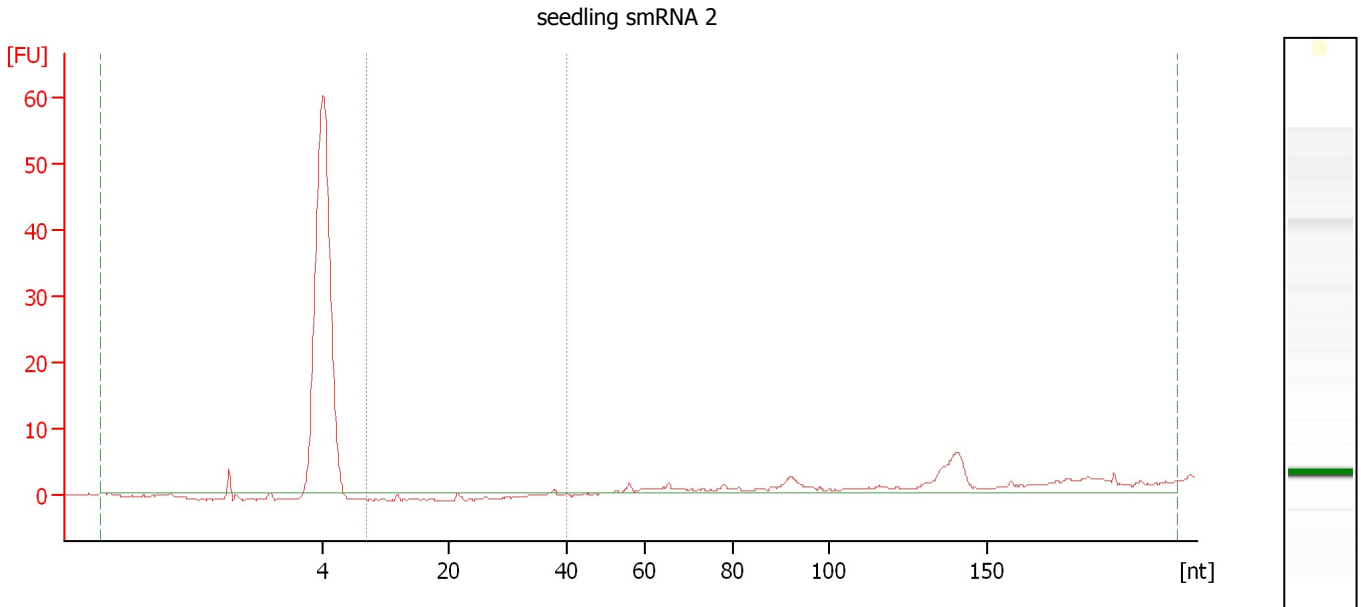
**Region table for sample 1 : seedling smRNA 1**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	223	66	100.0	174.7	100	<span style="background-color: maroon; border: 1px solid black; display: inline-block; width: 15px; height: 15px;"></span>
miRNA	10	40	33	11.1	1.9	1	<span style="background-color: green; border: 1px solid black; display: inline-block; width: 15px; height: 15px;"></span>

Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-05\2016-12-05\_003.xad

Created: 12/5/2016 2:42:41 PM  
 Modified: 12/5/2016 3:03:11 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : seedling smRNA 2**

Small RNA Concentration [pg/μl]:	175.7	Result Flagging Color:	<span style="background-color: yellow; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
miRNA Concentration [pg/μl]:	1.7	Result Flagging Label:	1 % miRNA; Concentration: 1.70 pg/μl
miRNA / Small RNA Ratio [%]:	1		

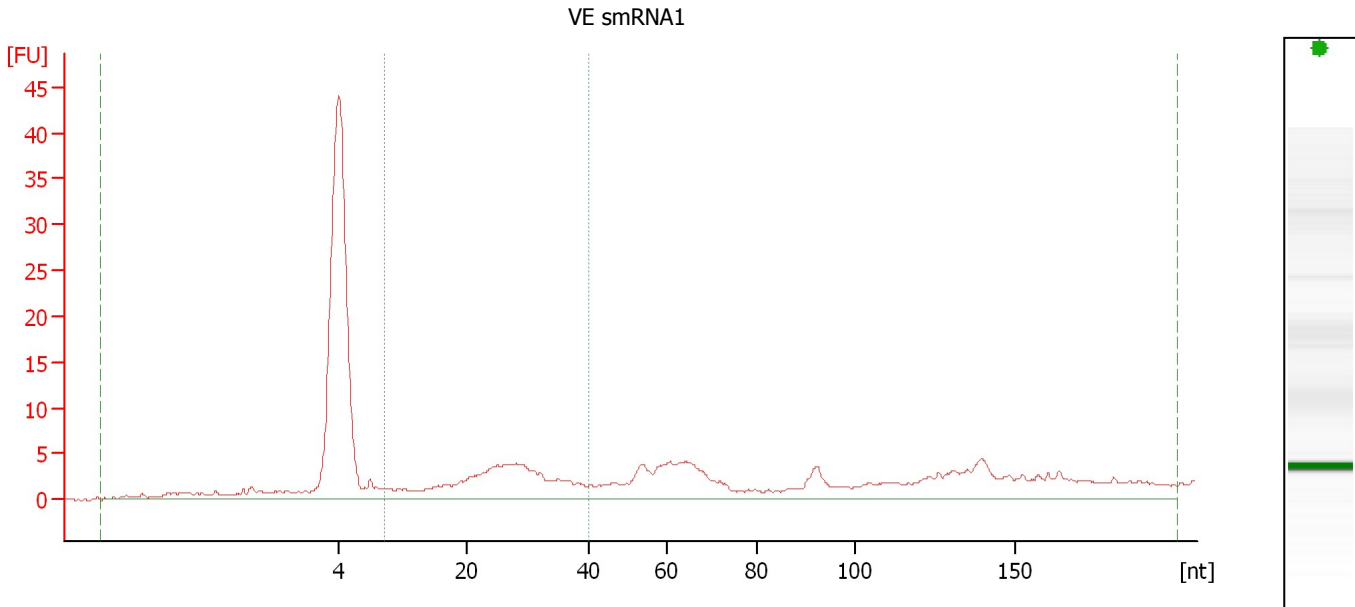
**Region table for sample 2 : seedling smRNA 2**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	210	60	100.0	175.7	100	<span style="background-color: maroon; border: 1px solid black; display: inline-block; width: 15px; height: 15px;"></span>
miRNA	10	40	37	9.4	1.7	1	<span style="background-color: green; border: 1px solid black; display: inline-block; width: 15px; height: 15px;"></span>

Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-05\2016-12-05\_003.xad

Created: 12/5/2016 2:42:41 PM  
 Modified: 12/5/2016 3:03:11 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : VE smRNA1**

Small RNA Concentration [pg/μl]:	974.8	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	429.2	Result Flagging Label:	44 % miRNA; Concentration: 429.20 pg/μl
miRNA / Small RNA Ratio [%]:	44		

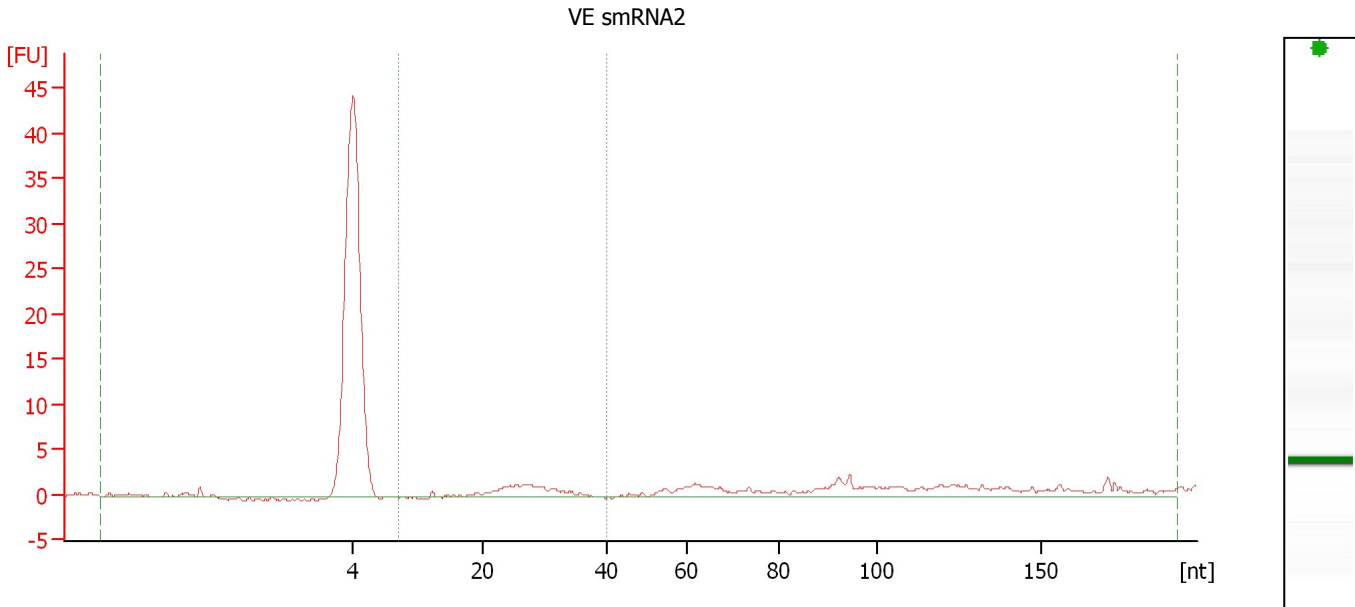
**Region table for sample 3 : VE smRNA1**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	200	59	100.0	974.8	100	<span style="background-color: maroon; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	26	29.4	429.2	44	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-05\2016-12-05\_003.xad

Created: 12/5/2016 2:42:41 PM  
 Modified: 12/5/2016 3:03:11 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : VE smRNA2**

Small RNA Concentration [pg/μl]:	237.5	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	85.7	Result Flagging Label:	36 % miRNA; Concentration: 85.70 pg/μl
miRNA / Small RNA Ratio [%]:	36		

**Region table for sample 4 : VE smRNA2**

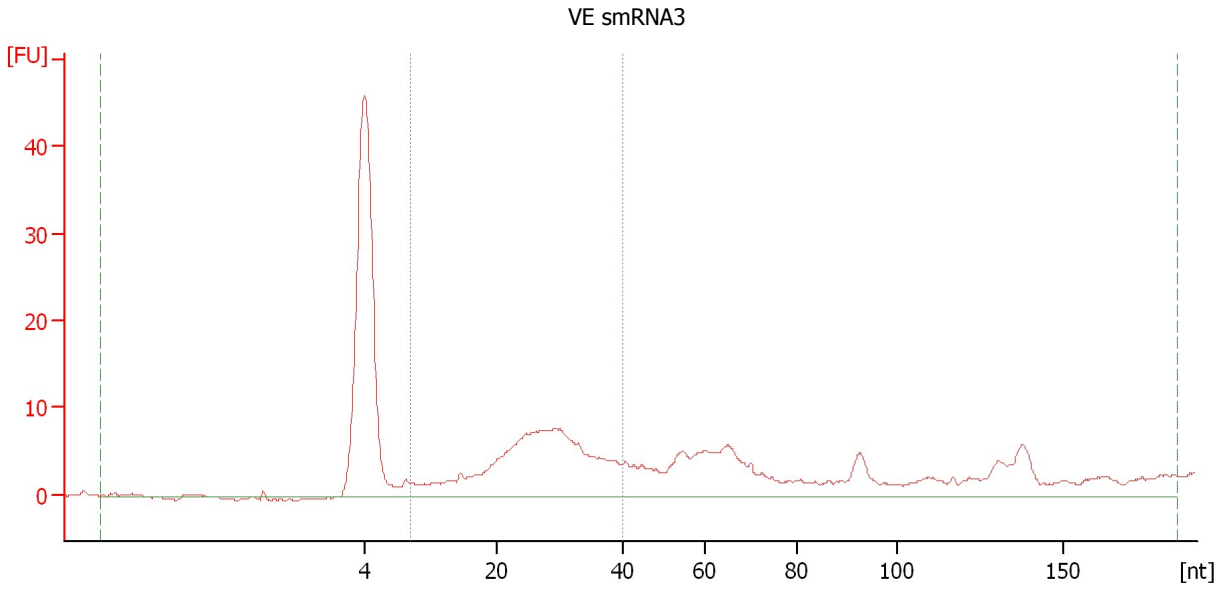
Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	191	40	100.0	237.5	100	<span style="background-color: purple; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	27	16.5	85.7	36	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>



Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-05\2016-12-05\_003.xad

Created: 12/5/2016 2:42:41 PM  
 Modified: 12/5/2016 3:03:11 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : VE smRNA3**

Small RNA Concentration [pg/μl]:	1,384.4	Result Flagging Color:	<span style="background-color: green; color: black;"> </span>
miRNA Concentration [pg/μl]:	832.5	Result Flagging Label:	60 % miRNA; Concentration: 832.50 pg/μl
miRNA / Small RNA Ratio [%]:	60		

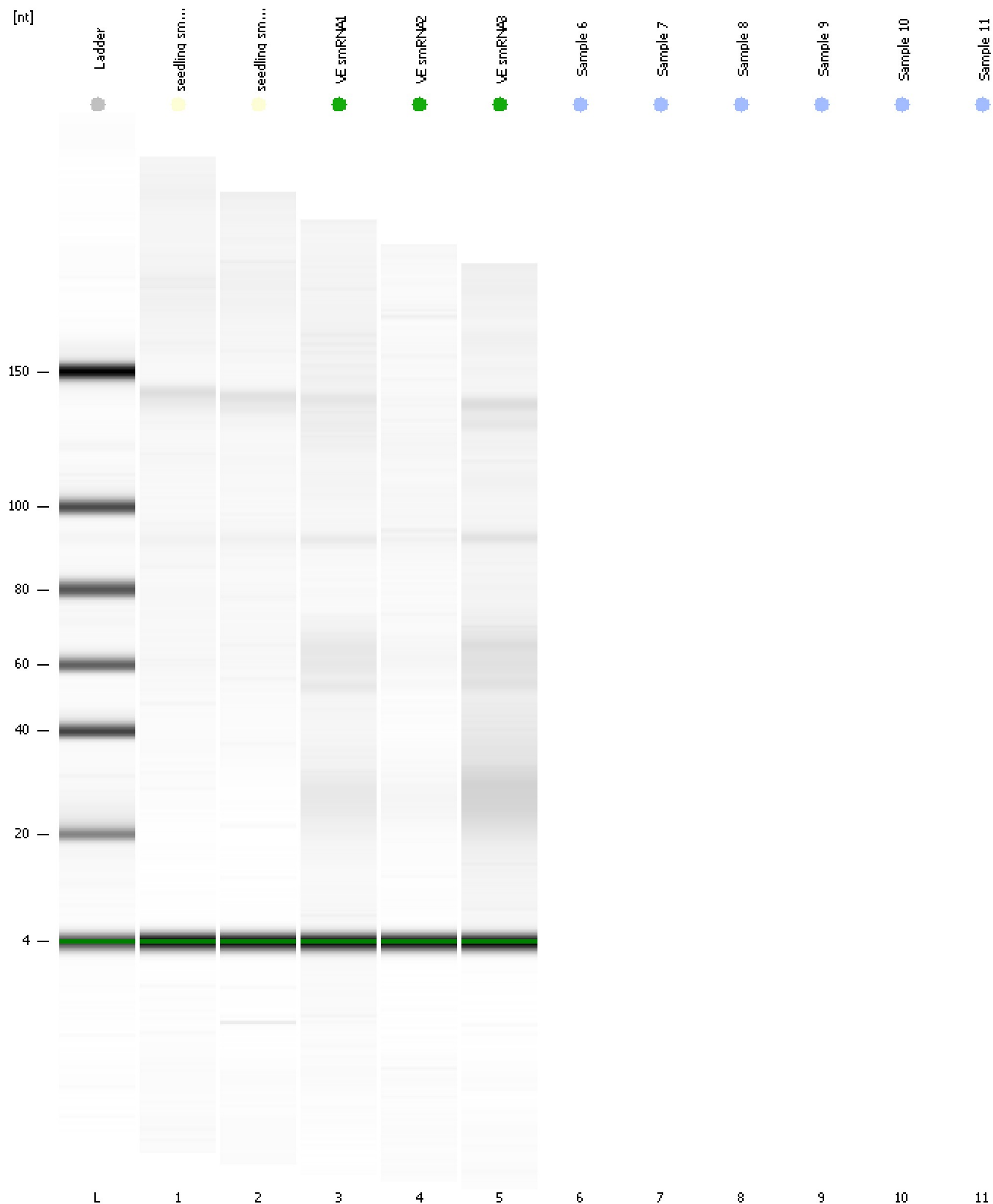
**Region table for sample 5 : VE smRNA3**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	184	52	97.0	1,384.4	100	<span style="background-color: maroon; color: black;"> </span>
miRNA	10	40	27	27.3	832.5	60	<span style="background-color: green; color: black;"> </span>

Assay Class: Small RNA  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-05\2016-12-05\_003.xad

Created: 12/5/2016 2:42:41 PM  
Modified: 12/5/2016 3:03:11 PM

**Gel Image**



Assay Class: Small RNA  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-05\2016-12-05\_003.xad

Created: 12/5/2016 2:42:41 PM  
Modified: 12/5/2016 3:03:11 PM

**Invalid Samples**

- Sample 6 has not been run, no results available.
- Sample 7 has not been run, no results available.
- Sample 8 has not been run, no results available.
- Sample 9 has not been run, no results available.
- Sample 10 has not been run, no results available.
- Sample 11 has not been run, no results available.

Assay Class: Small RNA  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-05\2016-12-05\_003.xad

Created: 12/5/2016 2:42:41 PM  
 Modified: 12/5/2016 3:03:11 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 6)		Instrument	Run		12/5/2016 3:03:08 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-12-05\2016-12-05_003.xad)		Instrument	Run		12/5/2016 2:42:46 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		12/5/2016 2:42:46 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		12/5/2016 2:42:46 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		12/5/2016 2:42:46 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		12/5/2016 2:42:46 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		12/5/2016 2:42:46 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		12/5/2016 2:42:46 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1