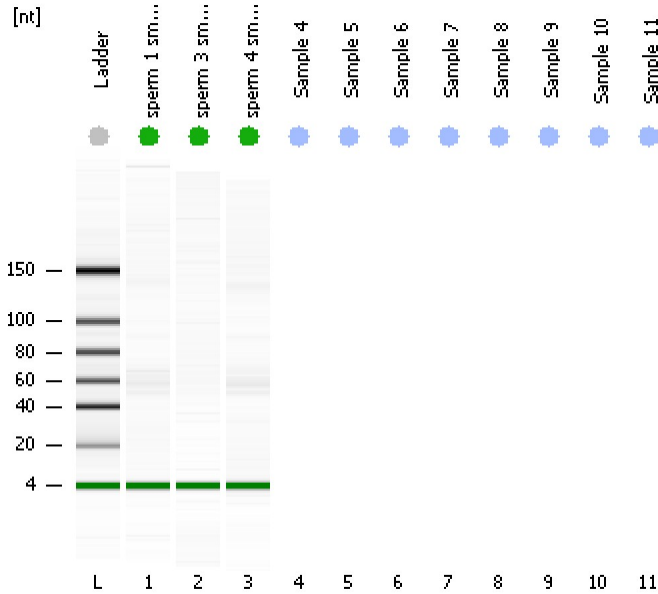


Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-14\2016-12-14_003.xad

Created: 12/14/2016 11:07:11 AM
Modified: 12/14/2016 11:23:50 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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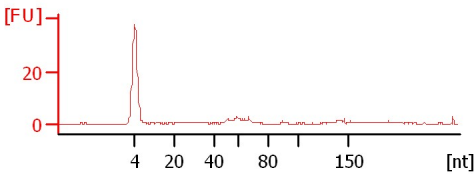
Chip Information:

Chip Lot #:

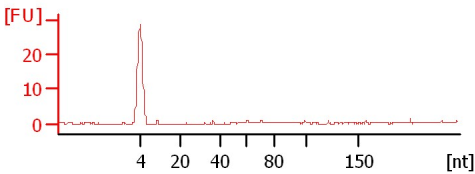
Reagent Kit Lot #:

Chip Comments:

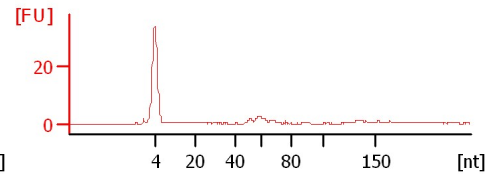
sperm 1 smRNA
36 % miRNA; Concentration: 108.40 pg/µl



sperm 3 smRNA
13 % miRNA; Concentration: 6.50 pg/µl















sperm 4 smRNA
36 % miRNA; Concentration: 180.10 pg/µl



Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-14\2016-12-14_003.xad

Created: 12/14/2016 11:07:11 AM
 Modified: 12/14/2016 11:23:50 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
sperm 1 smRNA		✓	36 % miRNA; Concentration: 108.40 pg/μl	
sperm 3 smRNA		✓	13 % miRNA; Concentration: 6.50 pg/μl	
sperm 4 smRNA		✓	36 % miRNA; Concentration: 180.10 pg/μl	
Sample 4				
Sample 5				
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\2016-12-14\2016-12-14_003.xad

Created: 12/14/2016 11:07:11 AM
Modified: 12/14/2016 11:23:50 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

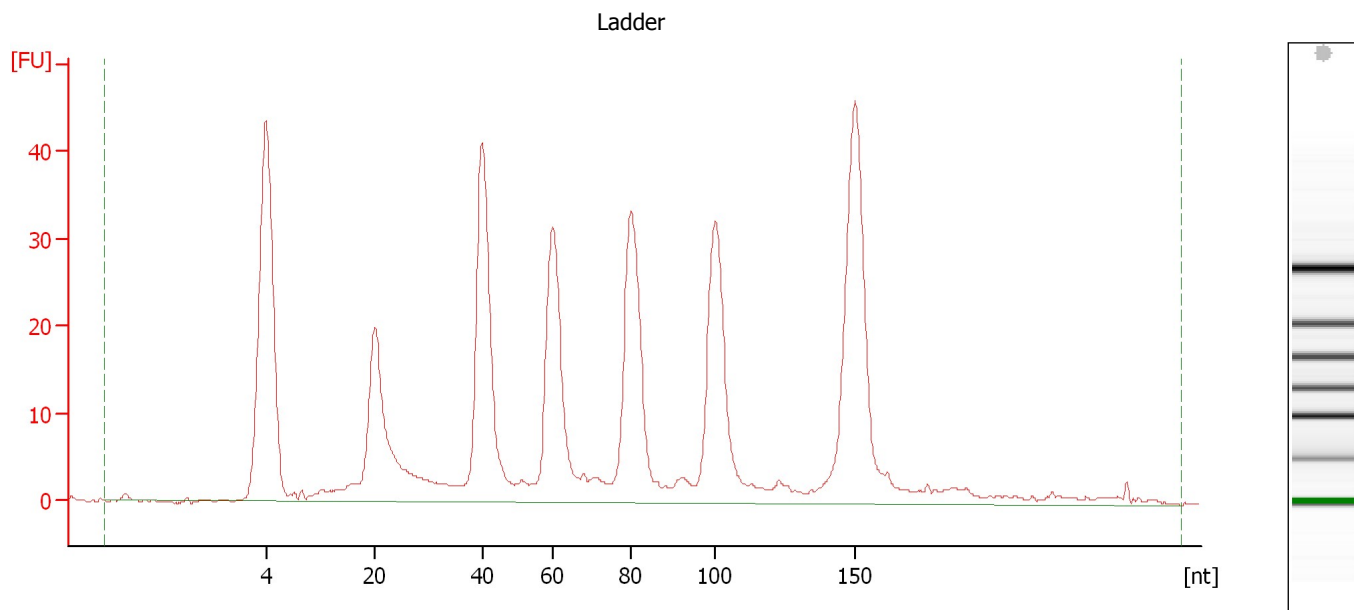
Ladder

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

Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-14\2016-12-14_003.xad

Created: 12/14/2016 11:07:11 AM
Modified: 12/14/2016 11:23:50 AM

Electropherogram Summary



Overall Results for Ladder

Result Flagging Color:

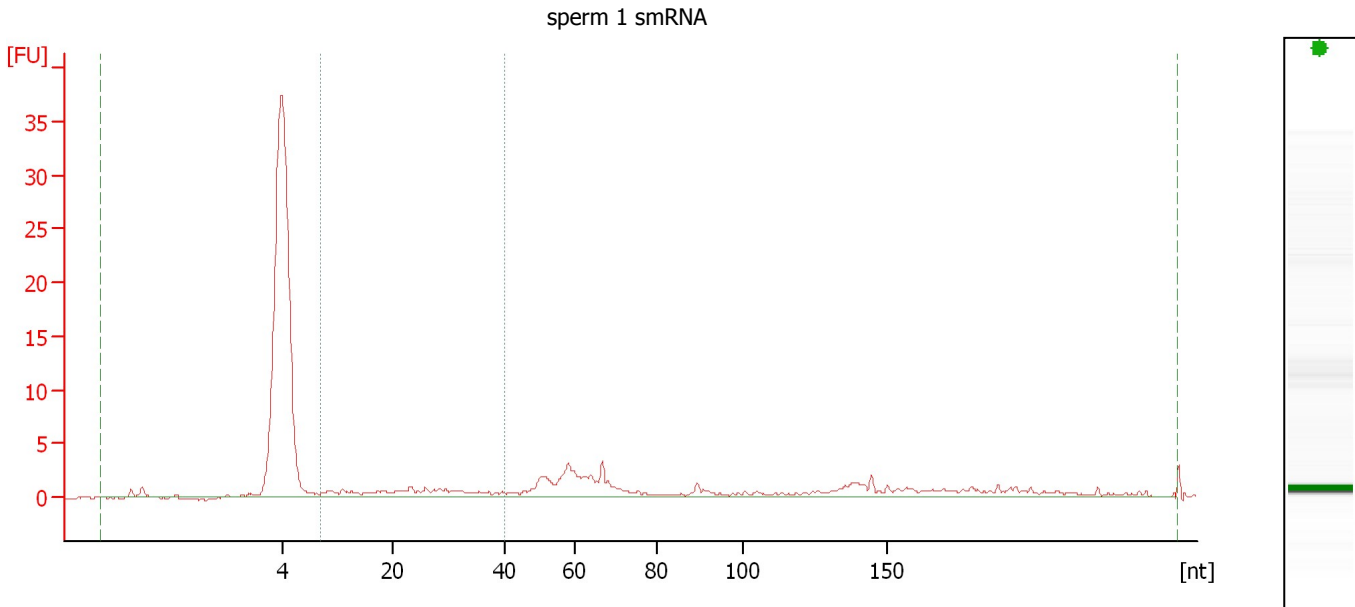
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-14\2016-12-14_003.xad

Created: 12/14/2016 11:07:11 AM
 Modified: 12/14/2016 11:23:50 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sperm 1 smRNA

Small RNA Concentration [pg/μl]:	299.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	108.4	Result Flagging Label:	36 % miRNA; Concentration: 108.40 pg/μl
miRNA / Small RNA Ratio [%]:	36		

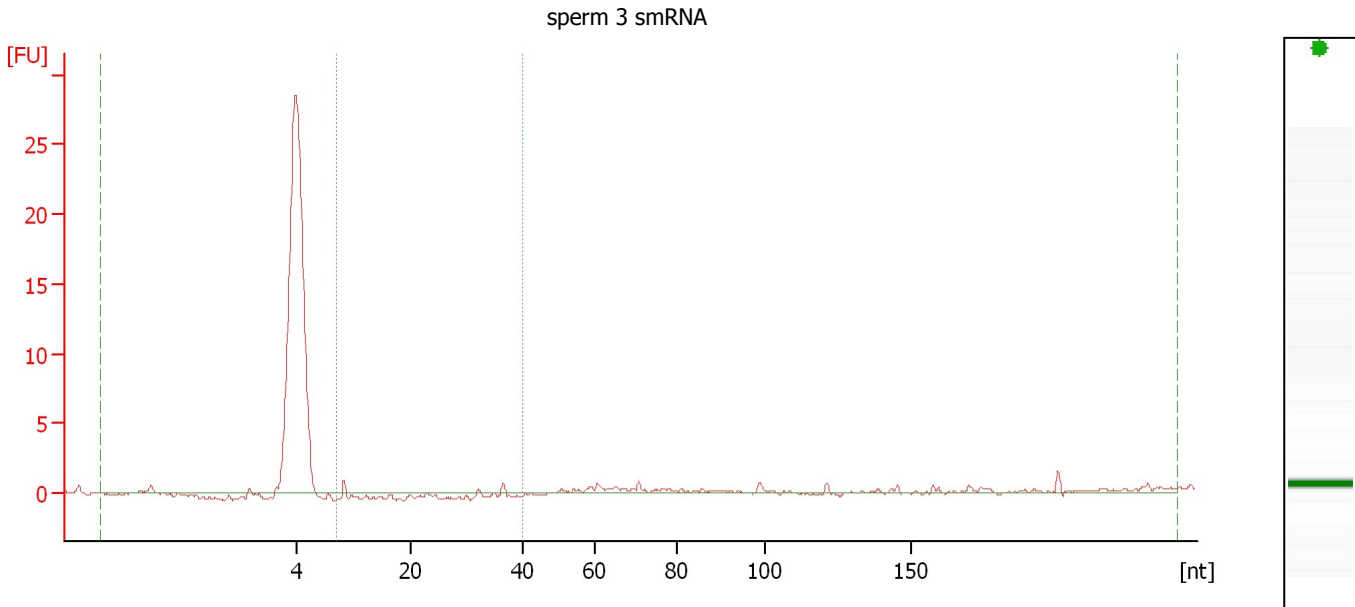
Region table for sample 1 : sperm 1 smRNA

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	251	44	100.0	299.5	100	
miRNA	10	40	24	34.5	108.4	36	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-14\2016-12-14_003.xad

Created: 12/14/2016 11:07:11 AM
 Modified: 12/14/2016 11:23:50 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sperm 3 smRNA

Small RNA Concentration [pg/μl]:	50.2	Result Flagging Color:	
miRNA Concentration [pg/μl]:	6.5	Result Flagging Label:	13 % miRNA; Concentration: 6.50 pg/μl
miRNA / Small RNA Ratio [%]:	13		

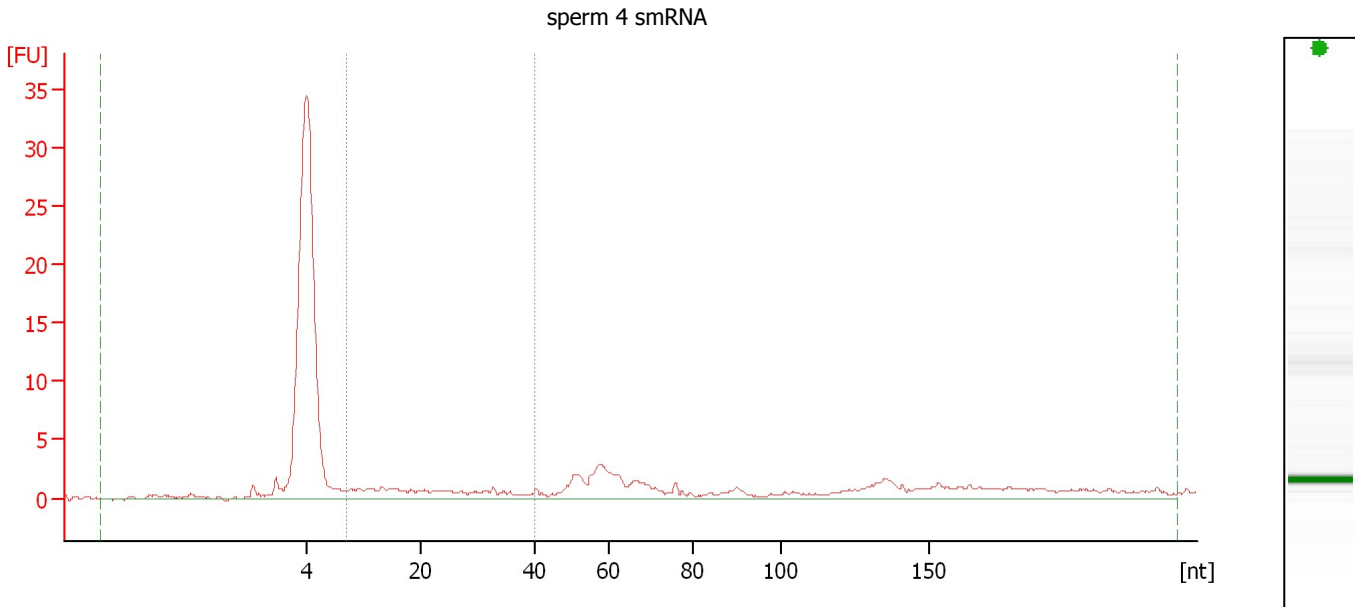
Region table for sample 2 : sperm 3 smRNA

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	241	23	100.0	50.2	100	
miRNA	10	40	24	53.7	6.5	13	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-14\2016-12-14_003.xad

Created: 12/14/2016 11:07:11 AM
 Modified: 12/14/2016 11:23:50 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sperm 4 smRNA

Small RNA Concentration [pg/μl]:	495.1	Result Flagging Color:	
miRNA Concentration [pg/μl]:	180.1	Result Flagging Label:	36 % miRNA; Concentration: 180.10 pg/μl
miRNA / Small RNA Ratio [%]:	36		

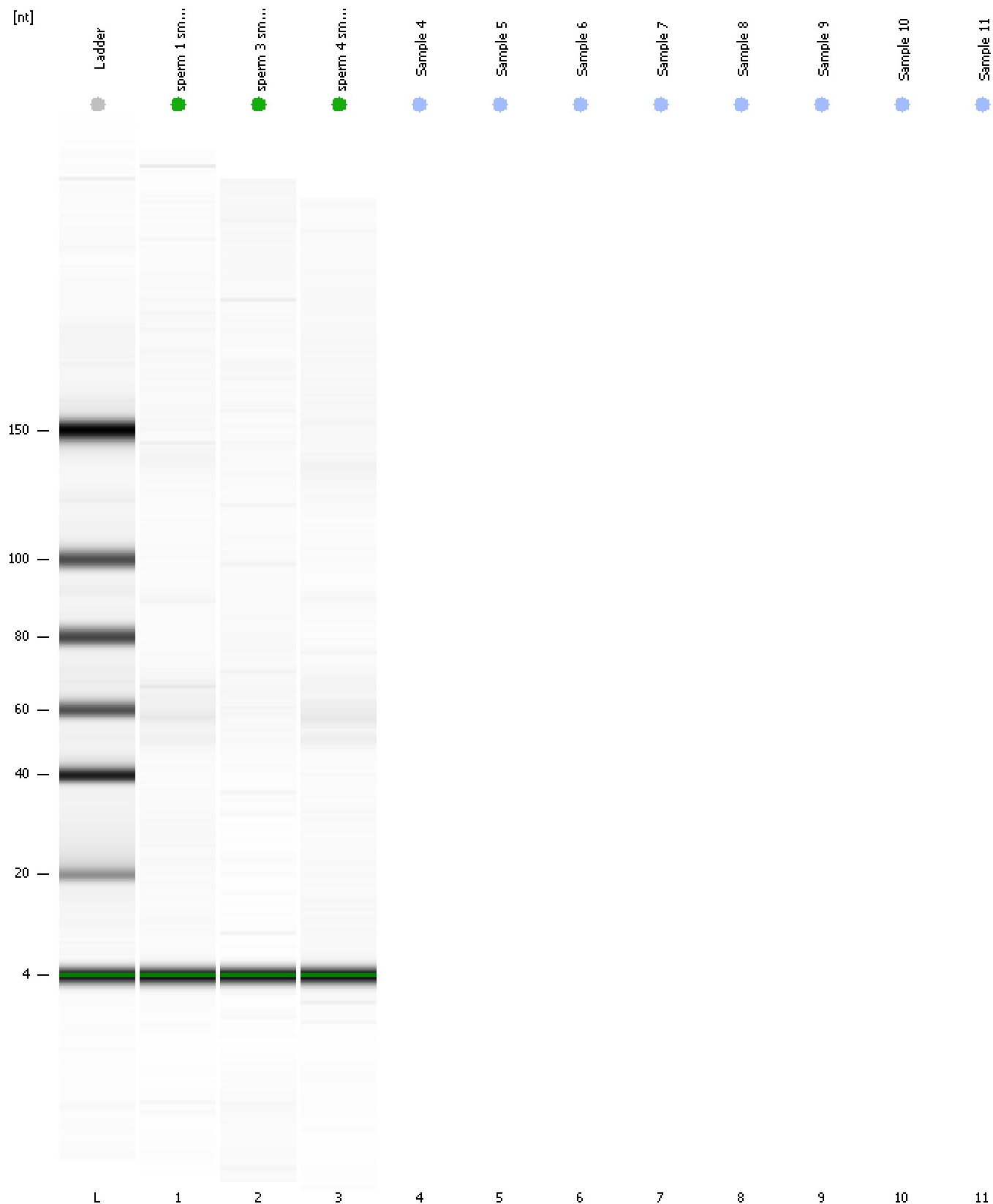
Region table for sample 3 : sperm 4 smRNA

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	234	54	100.0	495.1	100	
miRNA	10	40	22	38.6	180.1	36	

Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-14\2016-12-14_003.xad

Created: 12/14/2016 11:07:11 AM
Modified: 12/14/2016 11:23:50 AM

Gel Image



Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-14\2016-12-14_003.xad

Created: 12/14/2016 11:07:11 AM
Modified: 12/14/2016 11:23:50 AM

Invalid Samples

Sample 4 has not been run, no results available.

Sample 5 has not been run, no results available.

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\2016-12-14\2016-12-14_003.xad

Created: 12/14/2016 11:07:11 AM
 Modified: 12/14/2016 11:23:50 AM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 4)		Instrument	Run		12/14/2016 11:23:49 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-12-14\2016-12-14_003.xad)		Instrument	Run		12/14/2016 11:07:17 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		12/14/2016 11:07:17 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		12/14/2016 11:07:17 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		12/14/2016 11:07:17 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		12/14/2016 11:07:17 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		12/14/2016 11:07:17 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		12/14/2016 11:07:17 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1