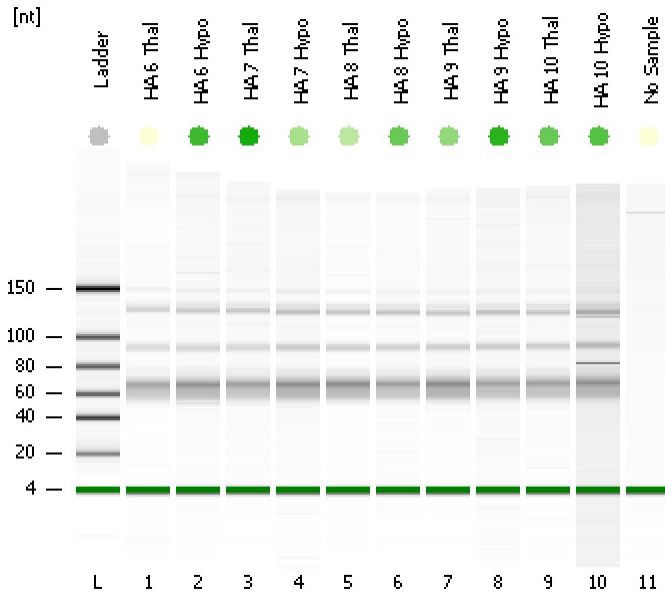


Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
Modified: 9/8/2016 1:54:44 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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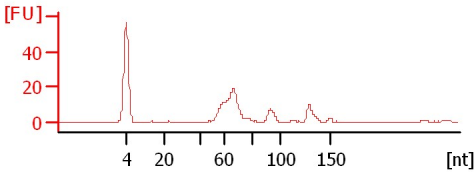
Chip Information:

Chip Lot #:

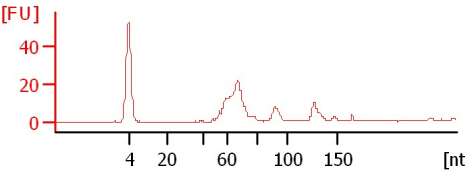
Reagent Kit Lot #:

Chip Comments:

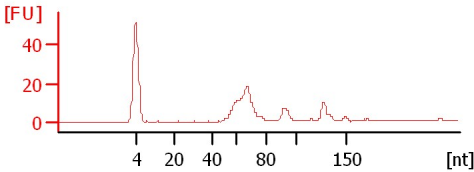
HA 6 Thal
1 % miRNA; Concentration: 4.60 pg/µl



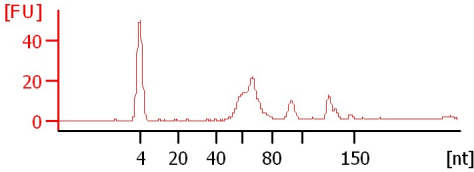
HA 6 Hypo
10 % miRNA; Concentration: 72.30 pg/µl



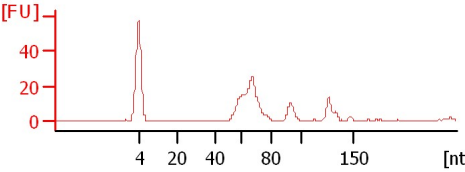
HA 7 Thal
12 % miRNA; Concentration: 72.60 pg/µl



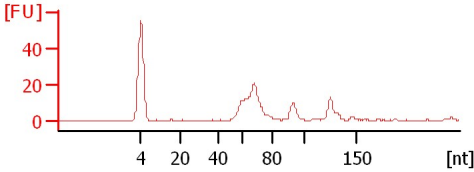
HA 7 Hypo
5 % miRNA; Concentration: 32.40 pg/µl



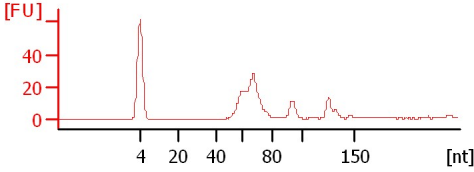
HA 8 Thal
4 % miRNA; Concentration: 24.30 pg/µl



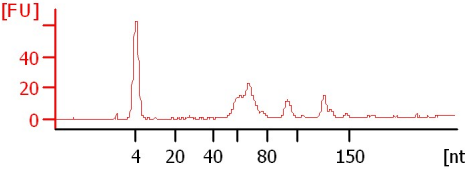
HA 8 Hypo
8 % miRNA; Concentration: 45.60 pg/µl



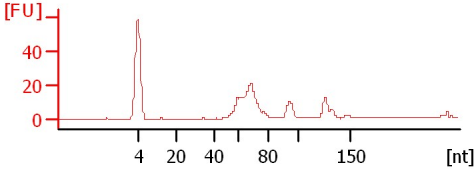
HA 9 Thal
6 % miRNA; Concentration: 40.30 pg/µl



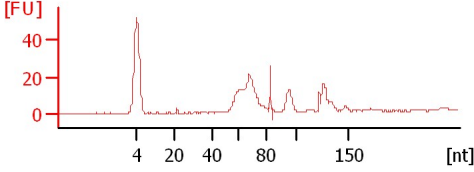
HA 9 Hypo
11 % miRNA; Concentration: 73.80 pg/µl



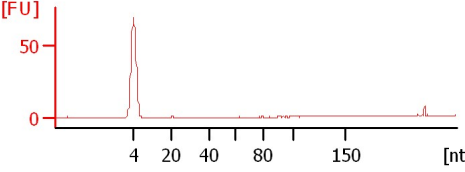
HA 10 Thal
8 % miRNA; Concentration: 50.80 pg/µl



HA 10 Hypo
9 % miRNA; Concentration: 65.50 pg/µl













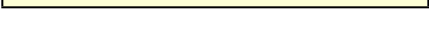

No Sample
1 % miRNA; Concentration: 0.40 pg/µl



Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
 Modified: 9/8/2016 1:54:44 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
HA 6 Thal		✓	1 % miRNA; Concentration: 4.60 pg/μl	
HA 6 Hypo		✓	10 % miRNA; Concentration: 72.30 pg/μl	
HA 7 Thal		✓	12 % miRNA; Concentration: 72.60 pg/μl	
HA 7 Hypo		✓	5 % miRNA; Concentration: 32.40 pg/μl	
HA 8 Thal		✓	4 % miRNA; Concentration: 24.30 pg/μl	
HA 8 Hypo		✓	8 % miRNA; Concentration: 45.60 pg/μl	
HA 9 Thal		✓	6 % miRNA; Concentration: 40.30 pg/μl	
HA 9 Hypo		✓	11 % miRNA; Concentration: 73.80 pg/μl	
HA 10 Thal		✓	8 % miRNA; Concentration: 50.80 pg/μl	
HA 10 Hypo		✓	9 % miRNA; Concentration: 65.50 pg/μl	
No Sample		✓	1 % miRNA; Concentration: 0.40 pg/μl	
Ladder		✓	Number of Peaks: 6	

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
Modified: 9/8/2016 1:54:44 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

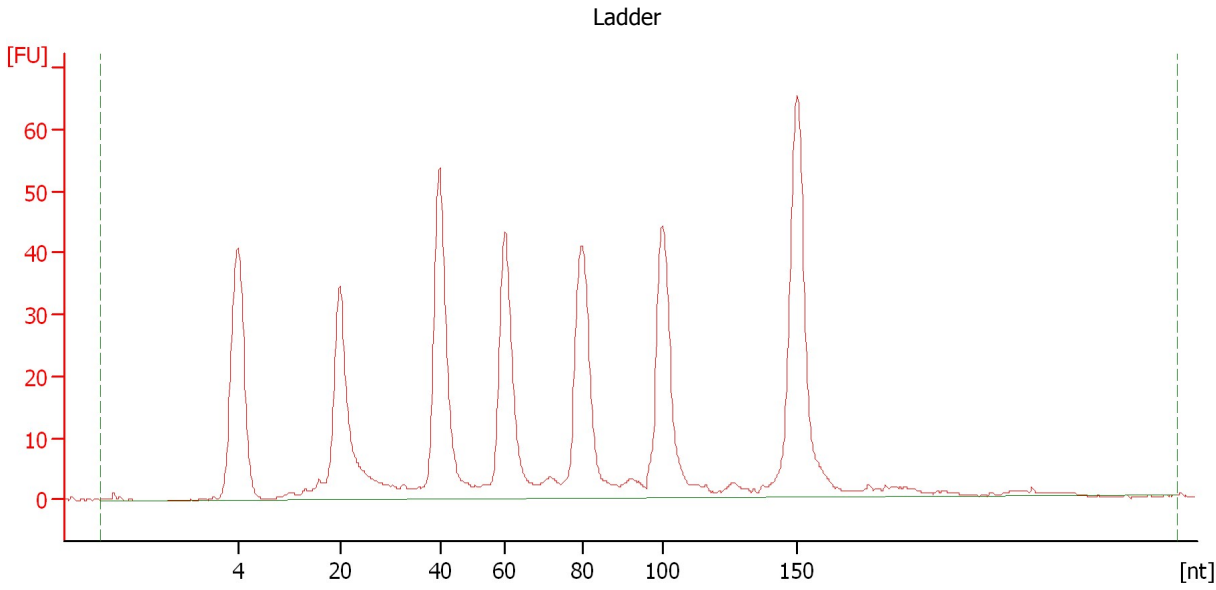
Ladder

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

Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
Modified: 9/8/2016 1:54:44 PM

Electropherogram Summary



Overall Results for Ladder

Result Flagging Color:

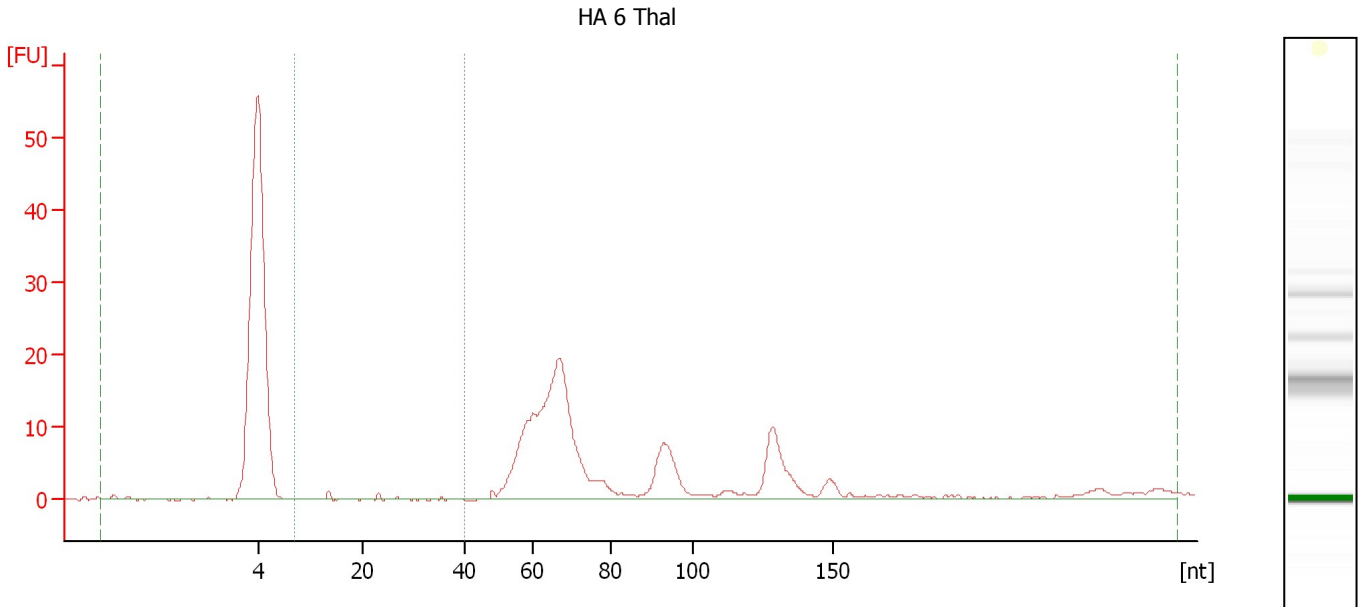
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
 Modified: 9/8/2016 1:54:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : HA 6 Thal

Small RNA Concentration [pg/μl]:	402.0	Result Flagging Color:	
miRNA Concentration [pg/μl]:	4.6	Result Flagging Label:	1 % miRNA; Concentration: 4.60 pg/μl
miRNA / Small RNA Ratio [%]:	1		

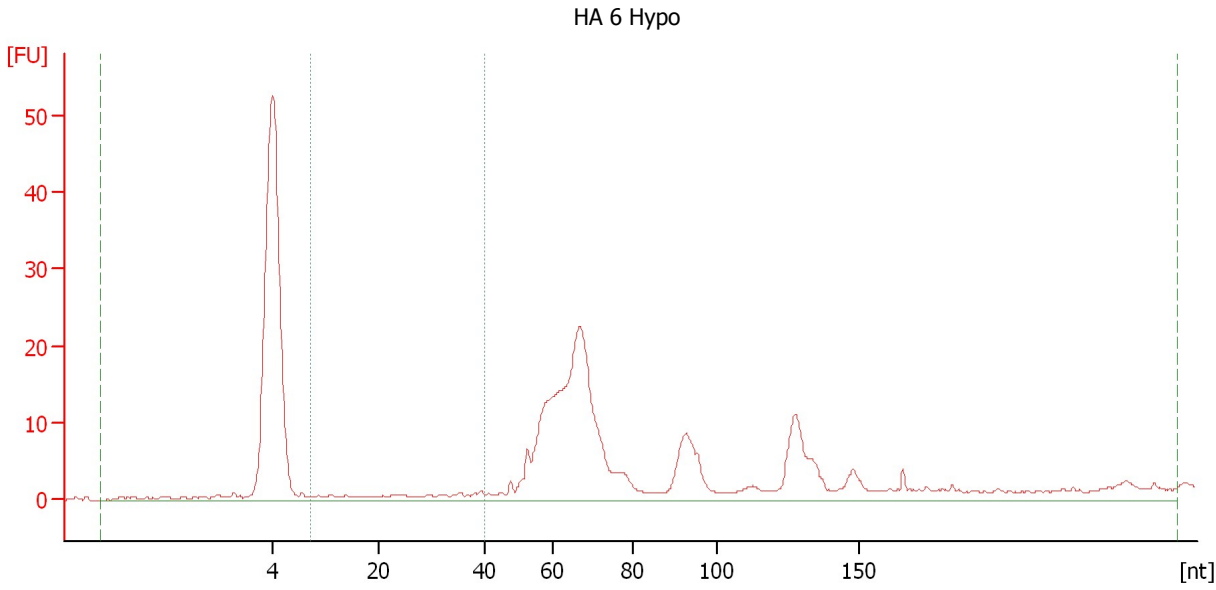
Region table for sample 1 : HA 6 Thal

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	274	60	97.4	402.0	100	
miRNA	10	40	20	28.6	4.6	1	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
 Modified: 9/8/2016 1:54:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : HA 6 Hypo

Small RNA Concentration [pg/μl]:	699.0	Result Flagging Color:	
miRNA Concentration [pg/μl]:	72.3	Result Flagging Label:	10 % miRNA; Concentration: 72.30 pg/μl
miRNA / Small RNA Ratio [%]:	10		

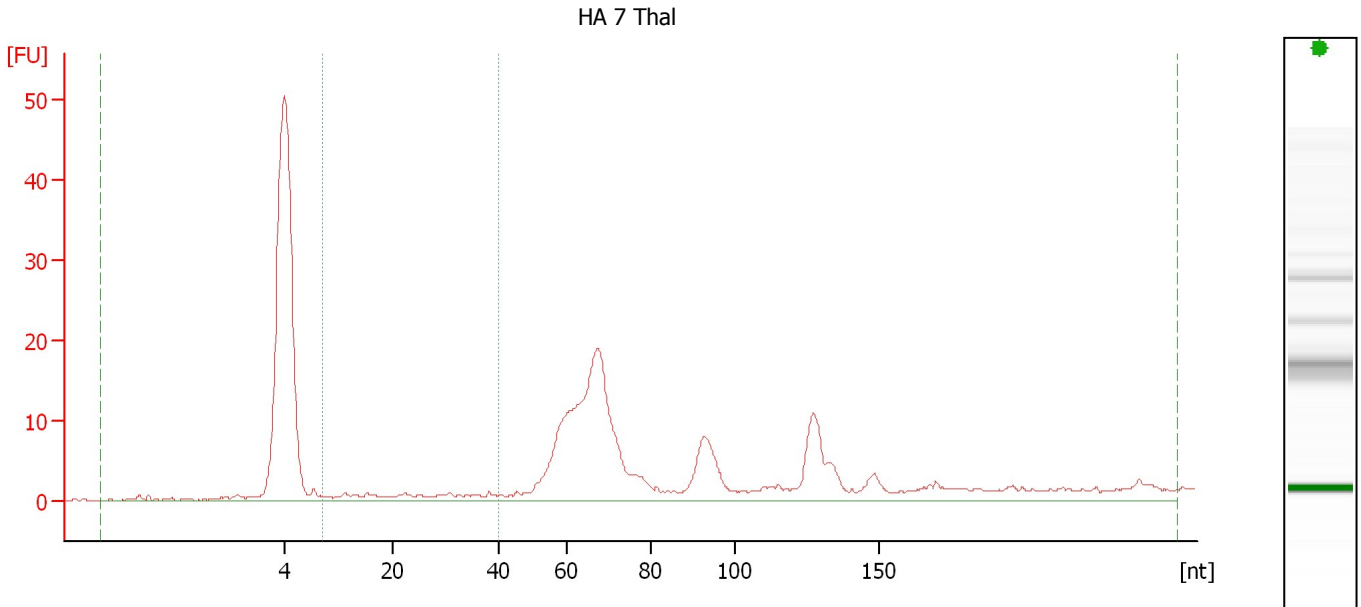
Region table for sample 2 : HA 6 Hypo

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	263	75	88.9	699.0	100	
miRNA	10	40	25	36.5	72.3	10	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
 Modified: 9/8/2016 1:54:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : HA 7 Thal

Small RNA Concentration [pg/μl]:	617.7	Result Flagging Color:	
miRNA Concentration [pg/μl]:	72.6	Result Flagging Label:	12 % miRNA; Concentration: 72.60 pg/μl
miRNA / Small RNA Ratio [%]:	12		

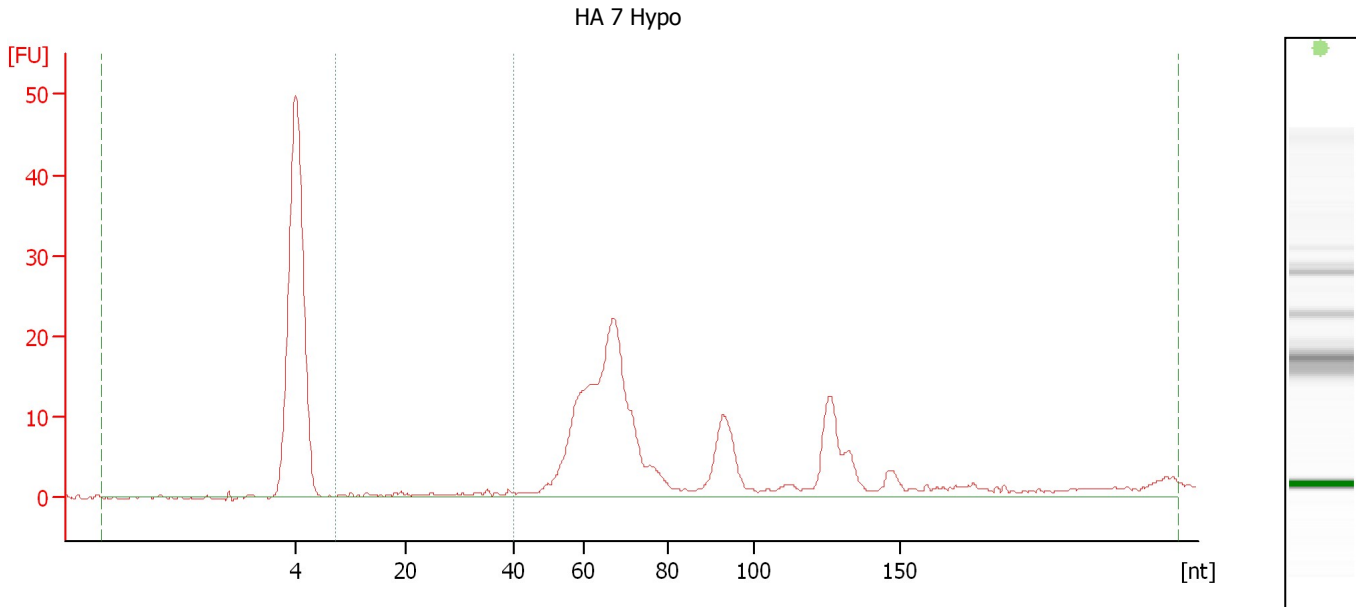
Region table for sample 3 : HA 7 Thal

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	254	75	89.3	617.7	100	
miRNA	10	40	24	36.5	72.6	12	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
 Modified: 9/8/2016 1:54:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : HA 7 Hypo

Small RNA Concentration [pg/μl]:	609.1	Result Flagging Color:	
miRNA Concentration [pg/μl]:	32.4	Result Flagging Label:	5 % miRNA; Concentration: 32.40 pg/μl
miRNA / Small RNA Ratio [%]:	5		

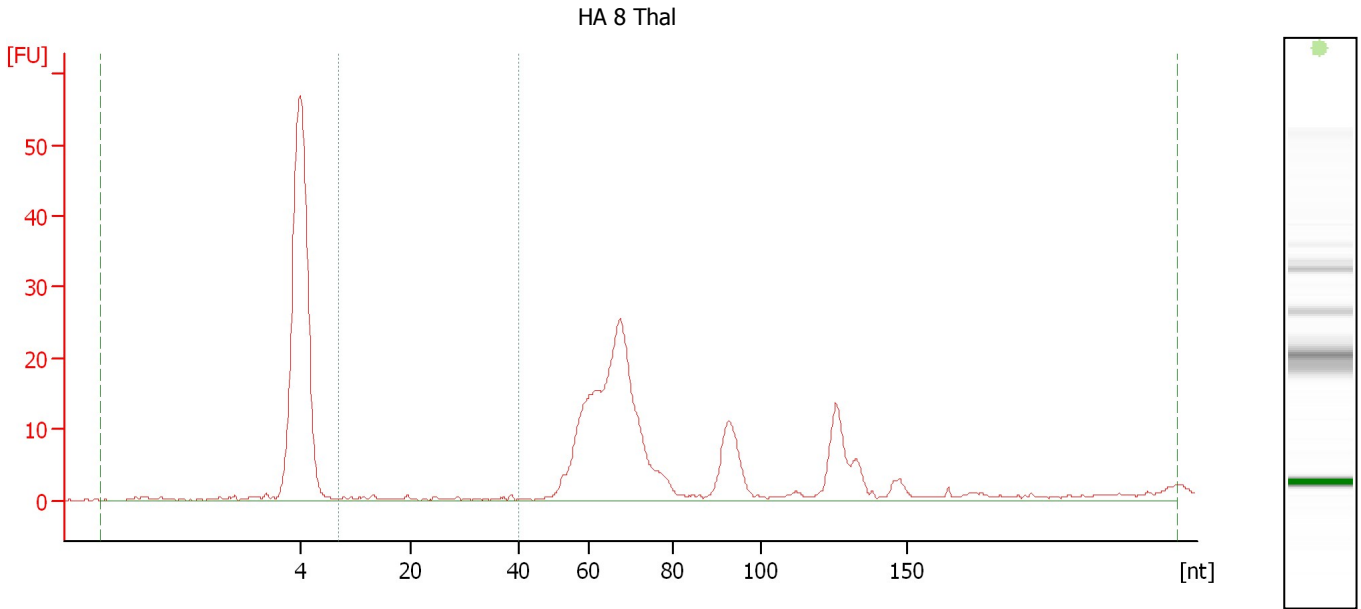
Region table for sample 4 : HA 7 Hypo

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	246	71	83.7	609.1	100	
miRNA	10	40	26	34.1	32.4	5	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
 Modified: 9/8/2016 1:54:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : HA 8 Thal

Small RNA Concentration [pg/μl]:	555.8	Result Flagging Color:	
miRNA Concentration [pg/μl]:	24.3	Result Flagging Label:	4 % miRNA; Concentration: 24.30 pg/μl
miRNA / Small RNA Ratio [%]:	4		

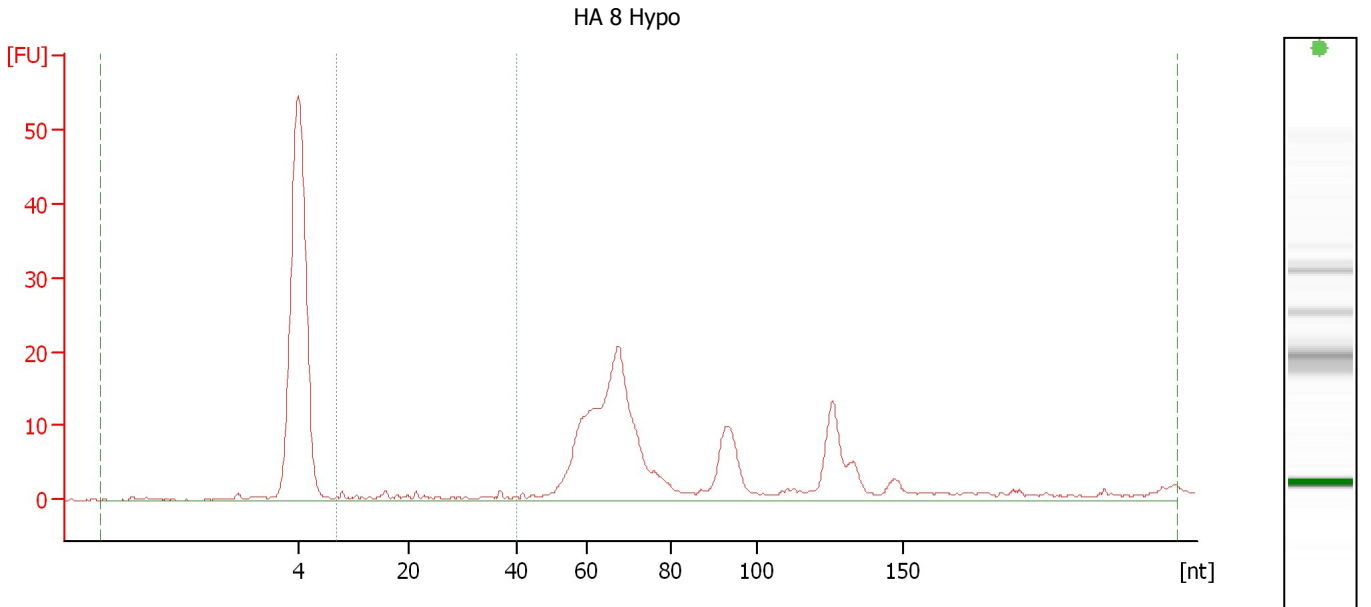
Region table for sample 5 : HA 8 Thal

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	242	63	86.3	555.8	100	
miRNA	10	40	22	41.4	24.3	4	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
 Modified: 9/8/2016 1:54:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : HA 8 Hypo

Small RNA Concentration [pg/μl]:	546.6	Result Flagging Color:	
miRNA Concentration [pg/μl]:	45.6	Result Flagging Label:	8 % miRNA; Concentration: 45.60 pg/μl
miRNA / Small RNA Ratio [%]:	8		

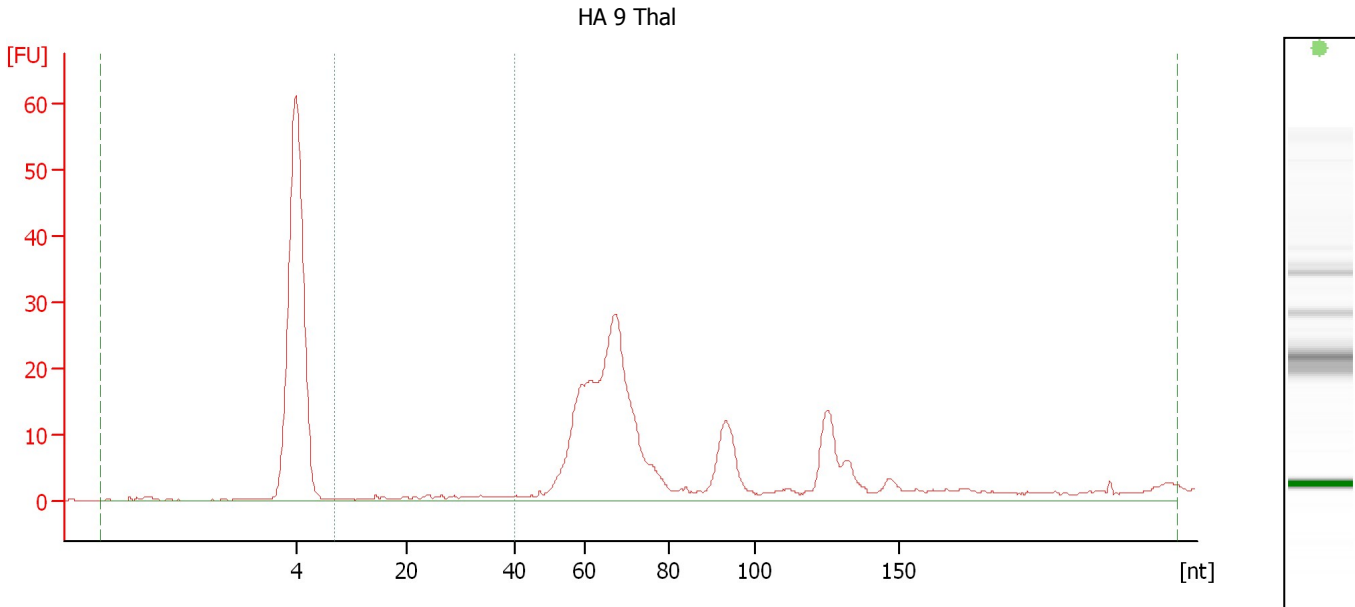
Region table for sample 6 : HA 8 Hypo

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	244	65	87.6	546.6	100	
miRNA	10	40	23	39.2	45.6	8	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
 Modified: 9/8/2016 1:54:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : HA 9 Thal

Small RNA Concentration [pg/μl]:	646.0	Result Flagging Color:	
miRNA Concentration [pg/μl]:	40.3	Result Flagging Label:	6 % miRNA; Concentration: 40.30 pg/μl
miRNA / Small RNA Ratio [%]:	6		

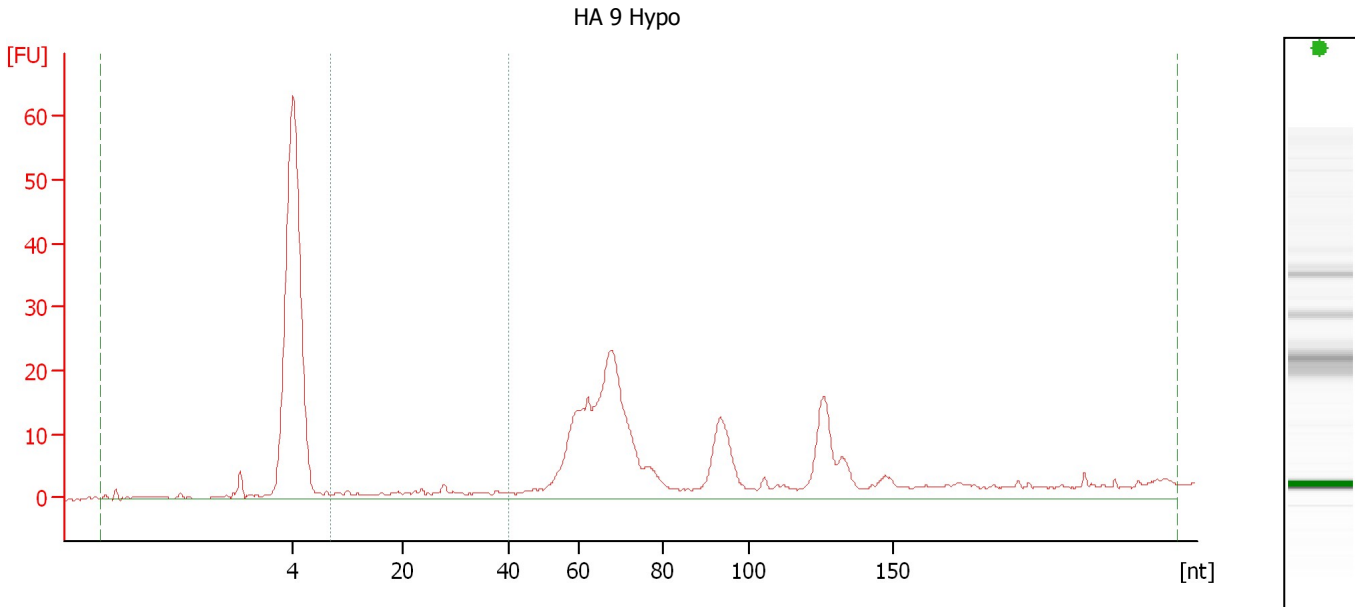
Region table for sample 7 : HA 9 Thal

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	245	70	83.7	646.0	100	
miRNA	10	40	26	32.2	40.3	6	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
 Modified: 9/8/2016 1:54:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : HA 9 Hypo

Small RNA Concentration [pg/μl]:	652.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	73.8	Result Flagging Label:	11 % miRNA; Concentration: 73.80 pg/μl
miRNA / Small RNA Ratio [%]:	11		

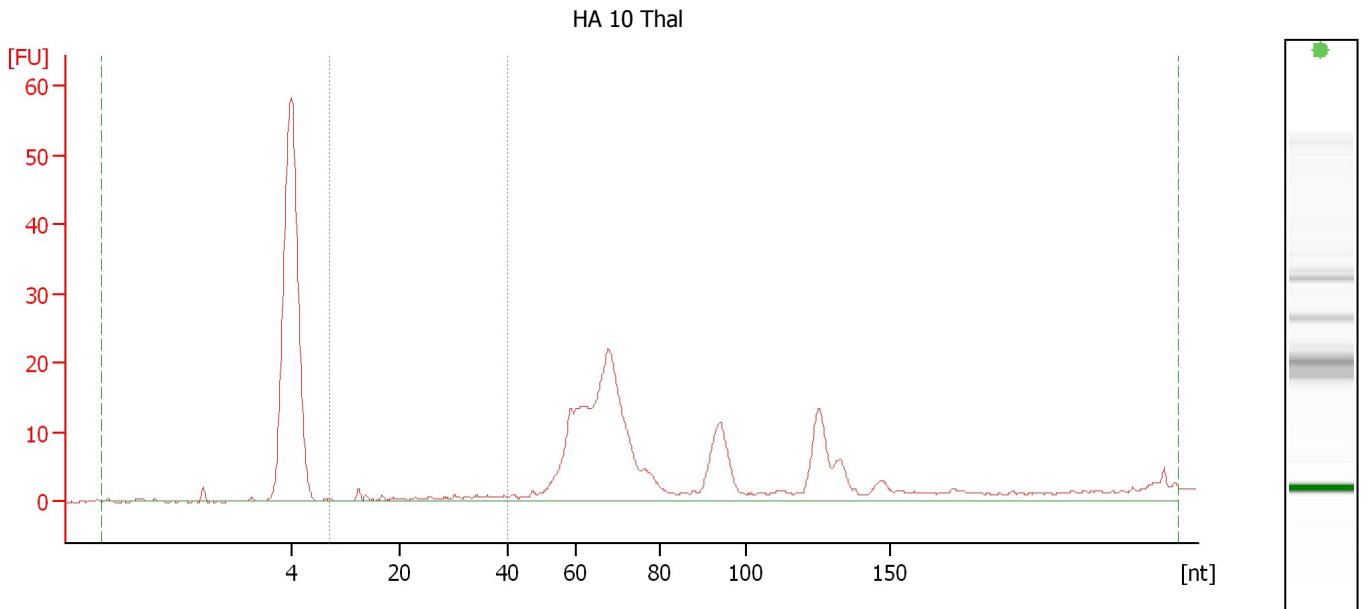
Region table for sample 8 : HA 9 Hypo

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	248	76	86.6	652.5	100	
miRNA	10	40	25	34.9	73.8	11	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
 Modified: 9/8/2016 1:54:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : HA 10 Thal

Small RNA Concentration [pg/μl]:	604.4	Result Flagging Color:	
miRNA Concentration [pg/μl]:	50.8	Result Flagging Label:	8 % miRNA; Concentration: 50.80 pg/μl
miRNA / Small RNA Ratio [%]:	8		

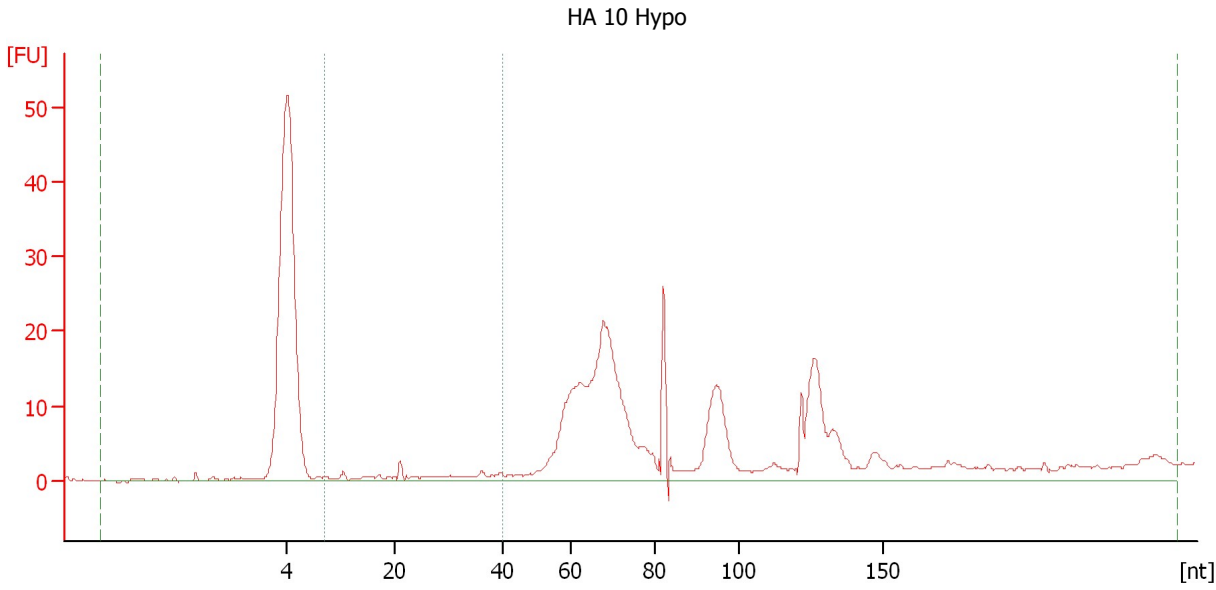
Region table for sample 9 : HA 10 Thal

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	250	74	87.2	604.4	100	
miRNA	10	40	26	34.3	50.8	8	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
 Modified: 9/8/2016 1:54:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : HA 10 Hypo

Small RNA Concentration [pg/μl]:	759.5	Result Flagging Color:	
miRNA Concentration [pg/μl]:	65.5	Result Flagging Label:	9 % miRNA; Concentration: 65.50 pg/μl
miRNA / Small RNA Ratio [%]:	9		

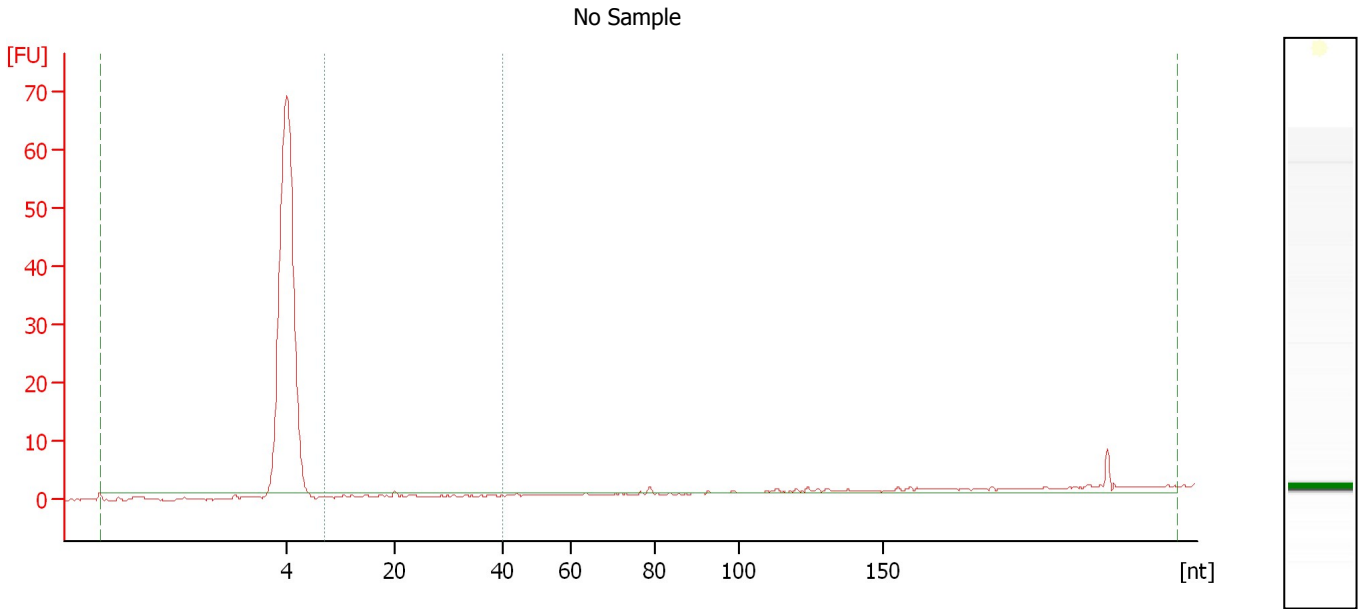
Region table for sample 10 : HA 10 Hypo

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	252	83	79.6	759.5	100	
miRNA	10	40	25	36.0	65.5	9	

Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
 Modified: 9/8/2016 1:54:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : No Sample

Small RNA Concentration [pg/μl]:	33.1	Result Flagging Color:	
miRNA Concentration [pg/μl]:	0.4	Result Flagging Label:	1 % miRNA; Concentration: 0.40 pg/μl
miRNA / Small RNA Ratio [%]:	1		

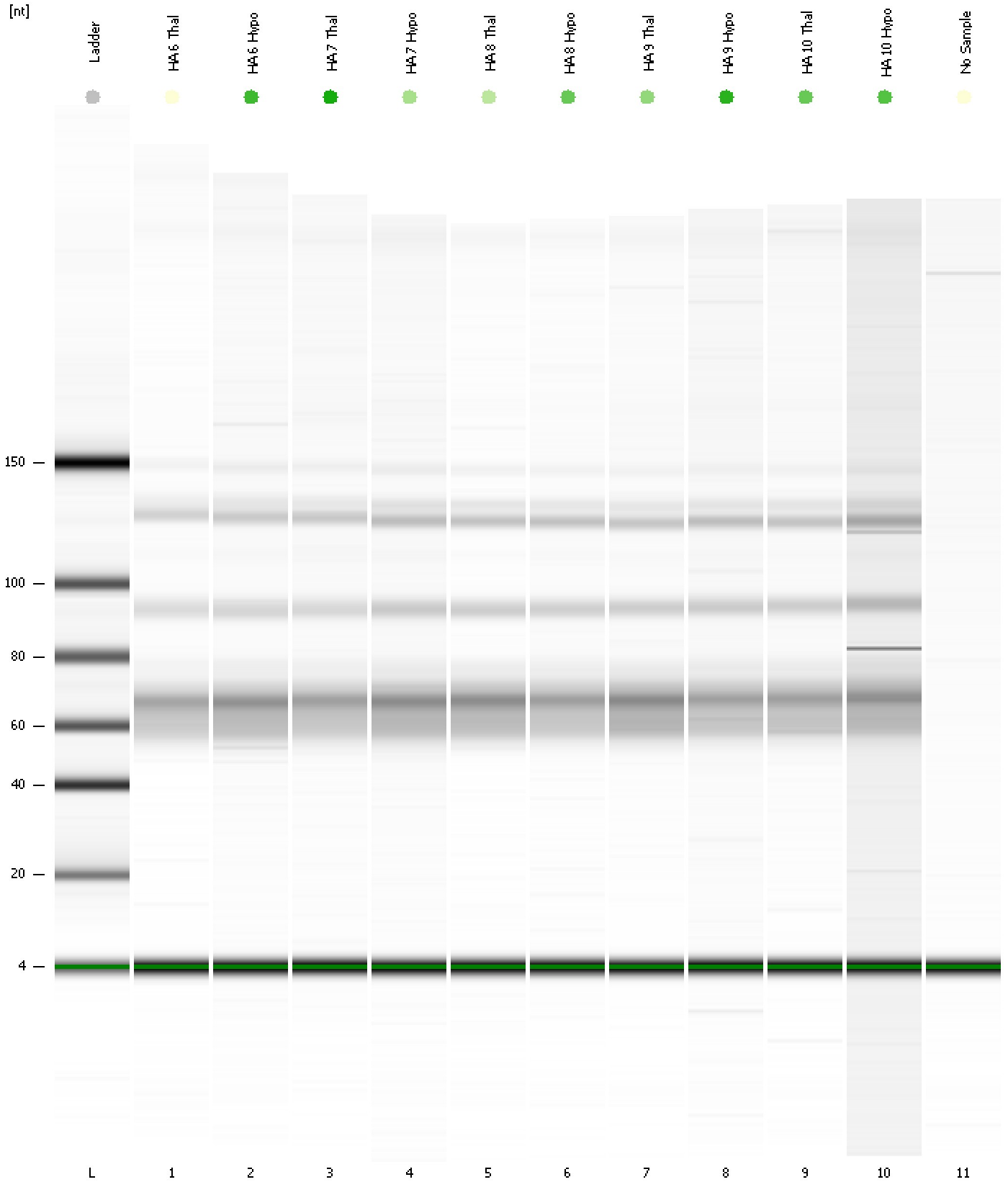
Region table for sample 11 : No Sample

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	252	47	100.0	33.1	100	
miRNA	10	40	20	0.6	0.4	1	

Assay Class: Small RNA
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad

Created: 9/8/2016 1:22:45 PM
Modified: 9/8/2016 1:54:44 PM

Gel Image



Assay Class: Small RNA
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad
 Created: 9/8/2016 1:22:45 PM
 Modified: 9/8/2016 1:54:44 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		9/8/2016 1:54:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-09-08\2016-09-08_002.xad)		Instrument	Run		9/8/2016 1:22:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/8/2016 1:22:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/8/2016 1:22:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/8/2016 1:22:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/8/2016 1:22:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/8/2016 1:22:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/8/2016 1:22:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1