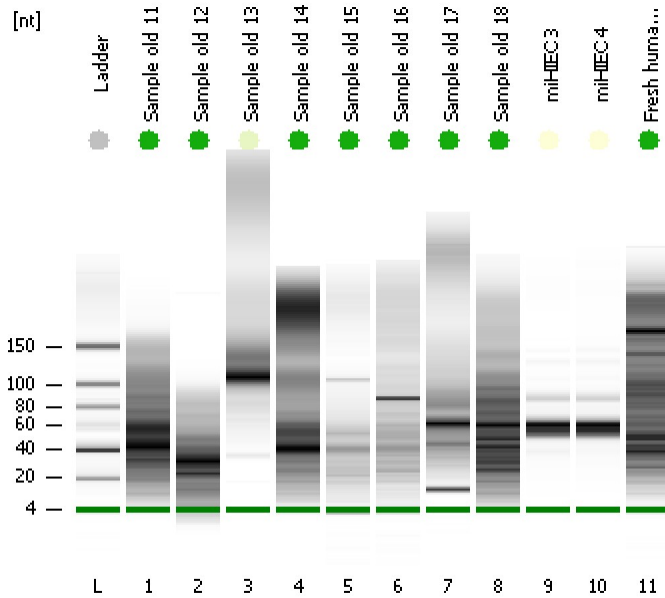


Assay Class: Small RNA  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
Modified: 9/16/2014 1:56:54 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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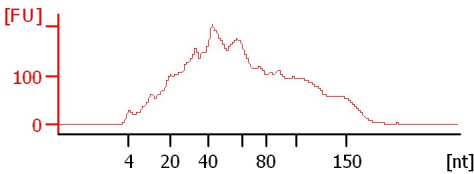
Chip Information:

Chip Lot #: sf18BK40

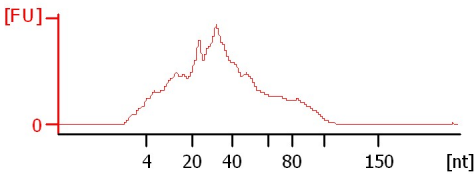
Reagent Kit Lot #:

Chip Comments:

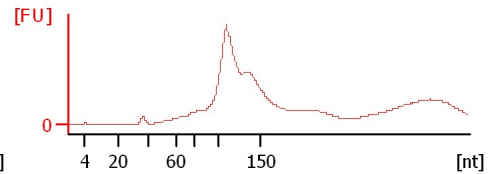
**Sample old 11**  
32 % miRNA; Concentration: 11312.30 p...



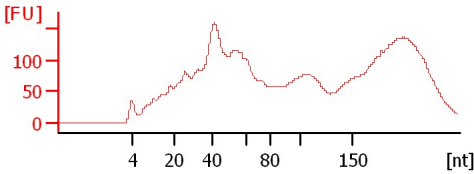
**Sample old 12**  
58 % miRNA; Concentration: 5632.70 pg/μl



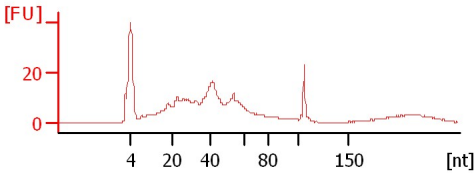
**Sample old 13**  
2 % miRNA; Concentration: 3816.40 pg/μl



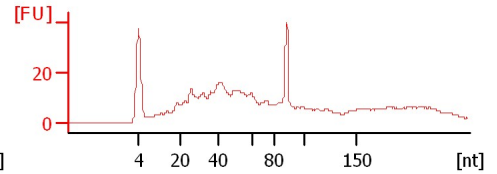
**Sample old 14**  
27 % miRNA; Concentration: 6787.10 pg/μl



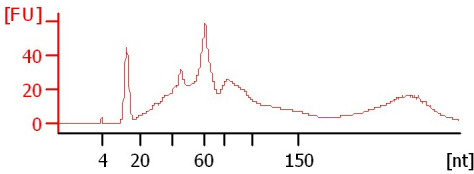
**Sample old 15**  
44 % miRNA; Concentration: 968.10 pg/μl



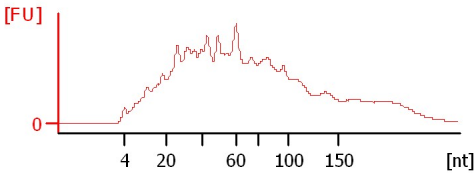
**Sample old 16**  
31 % miRNA; Concentration: 1071.70 pg/μl



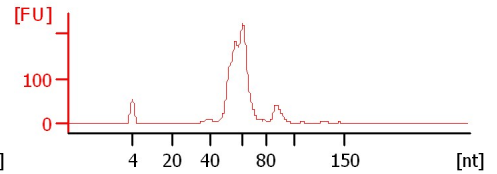
**Sample old 17**  
20 % miRNA; Concentration: 39446.10 p...



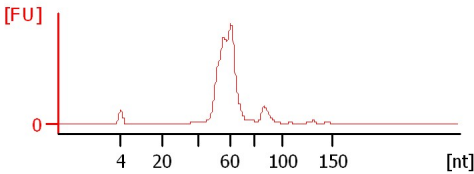
**Sample old 18**  
32 % miRNA; Concentration: 14298.50 p...



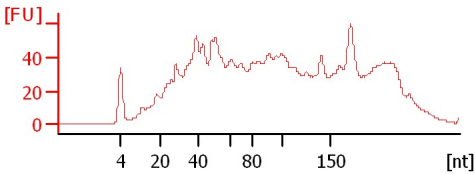
**miHIEC 3**  
1 % miRNA; Concentration: 207.80 pg/μl



**miHIEC 4**  
1 % miRNA; Concentration: 321.20 pg/μl











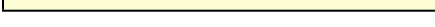
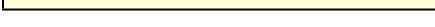


**Fresh human milk-1 w/I**  
22 % miRNA; Concentration: 2971.40 pg/μl



Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
 Modified: 9/16/2014 1:56:54 PM

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

Sample Name	Sample Comment	Status	Result Label	Result Color
Sample old 11		✓	32 % miRNA; Concentration: 11312.30 pg/μl	
Sample old 12		✓	58 % miRNA; Concentration: 5632.70 pg/μl	
Sample old 13		✓	2 % miRNA; Concentration: 3816.40 pg/μl	
Sample old 14		✓	27 % miRNA; Concentration: 6787.10 pg/μl	
Sample old 15		✓	44 % miRNA; Concentration: 968.10 pg/μl	
Sample old 16		✓	31 % miRNA; Concentration: 1071.70 pg/μl	
Sample old 17		✓	20 % miRNA; Concentration: 39446.10 pg/μl	
Sample old 18		✓	32 % miRNA; Concentration: 14298.50 pg/μl	
miHIEC 3		✓	1 % miRNA; Concentration: 207.80 pg/μl	
miHIEC 4		✓	1 % miRNA; Concentration: 321.20 pg/μl	
Fresh human milk-1 w/I		✓	22 % miRNA; Concentration: 2971.40 pg/μl	
Ladder		✓	Number of Peaks: 6	

**Chip Lot #**  
sf18BK40

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: Small RNA  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
Modified: 9/16/2014 1:56:54 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

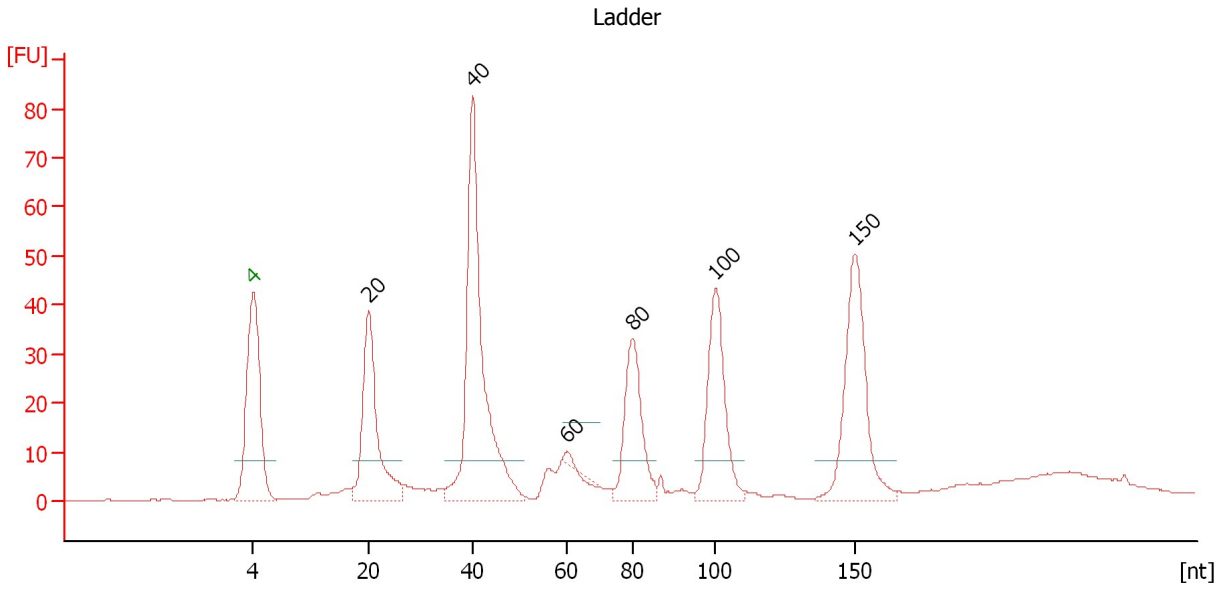
### Ladder

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

Assay Class: Small RNA  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
Modified: 9/16/2014 1:56:54 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Result Flagging Color:

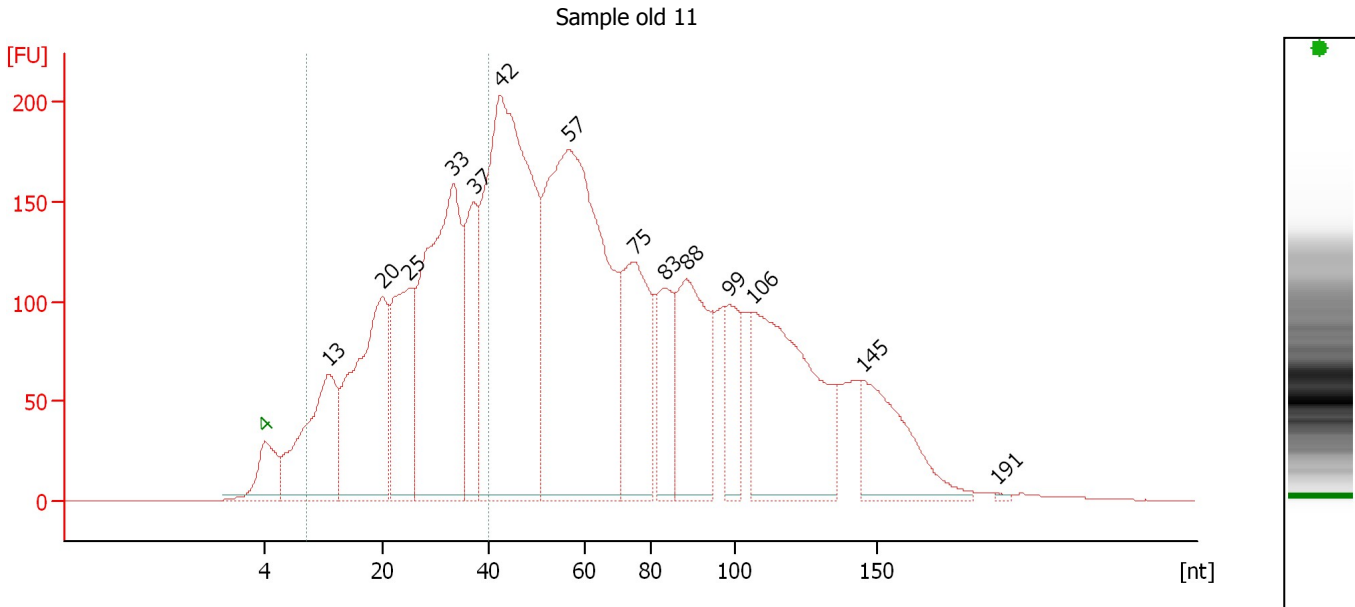
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
 Modified: 9/16/2014 1:56:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : Sample old 11**

Small RNA Concentration [pg/μl]:	35,572.8	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	11,312.3	Result Flagging Label:	32 % miRNA; Concentration: 11312.30 pg/μl
miRNA / Small RNA Ratio [%]:	32		

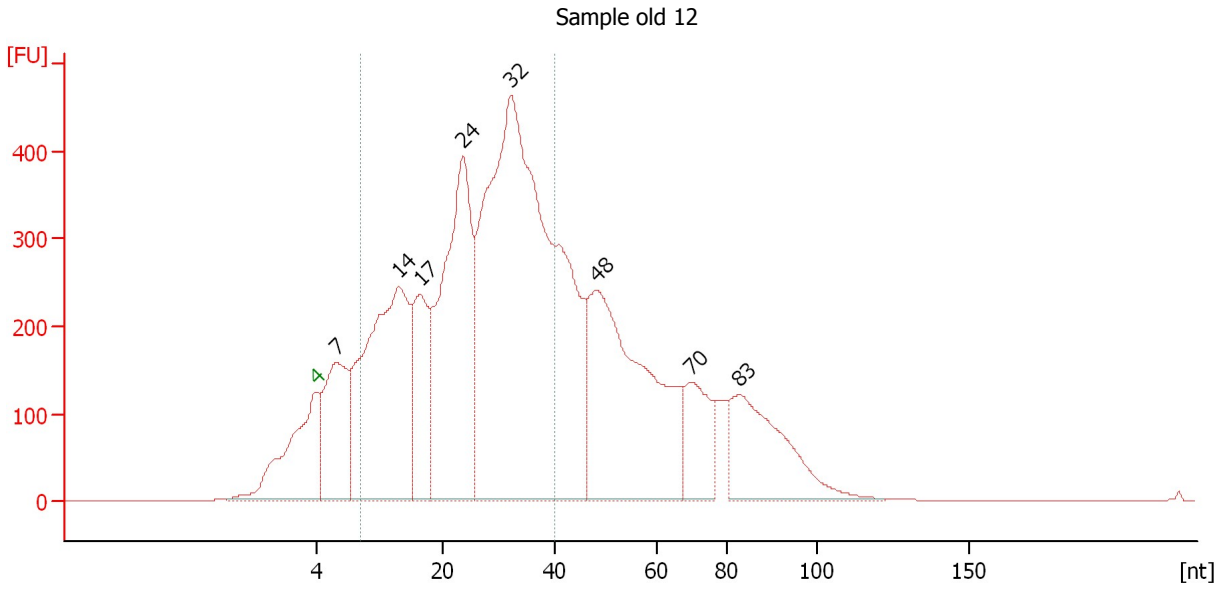
**Region table for sample 1 : Sample old 11**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	255	66	61.5	35,572.8	100	<span style="background-color: #800040; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	27	32.1	11,312.3	32	<span style="background-color: #008080; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
 Modified: 9/16/2014 1:56:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : Sample old 12**

Small RNA Concentration [pg/μl]:	9,739.4	Result Flagging Color:	<span style="background-color: green; color: black;"> </span>
miRNA Concentration [pg/μl]:	5,632.7	Result Flagging Label:	58 % miRNA; Concentration: 5632.70 pg/μl
miRNA / Small RNA Ratio [%]:	58		

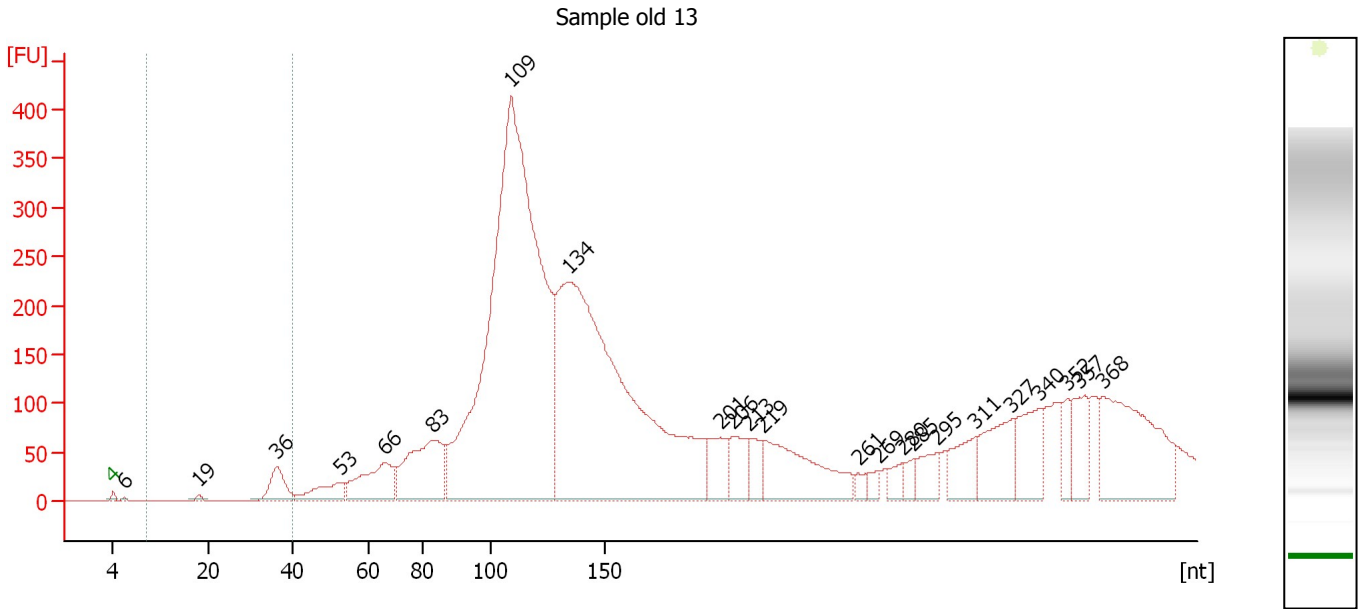
**Region table for sample 2 : Sample old 12**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	218	37	64.8	9,739.4	100	<span style="background-color: purple; color: black;"> </span>
miRNA	10	40	25	33.5	5,632.7	58	<span style="background-color: green; color: black;"> </span>

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
 Modified: 9/16/2014 1:56:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : Sample old 13**

Small RNA Concentration [pg/μl]:	242,180.0	Result Flagging Color:	<span style="background-color: #d4edda; border: 1px solid #c3e6cb; display: inline-block; width: 20px; height: 10px;"></span>
miRNA Concentration [pg/μl]:	3,816.4	Result Flagging Label:	2 % miRNA; Concentration: 3816.40 pg/μl
miRNA / Small RNA Ratio [%]:	2		

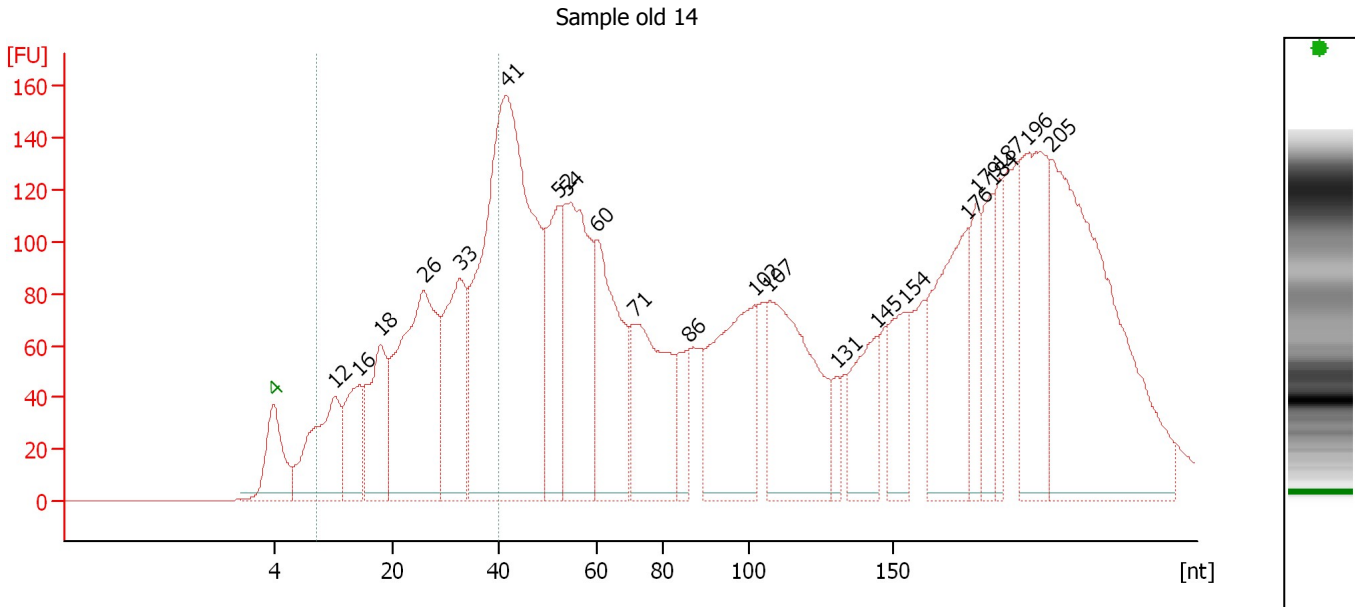
**Region table for sample 3 : Sample old 13**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	2	399	196	52.7	242,180.0	100	<span style="background-color: #d4edda; border: 1px solid #c3e6cb; display: inline-block; width: 15px; height: 15px;"></span>
miRNA	10	40	35	15.1	3,816.4	2	<span style="background-color: #d4edda; border: 1px solid #c3e6cb; display: inline-block; width: 15px; height: 15px;"></span>

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
 Modified: 9/16/2014 1:56:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : Sample old 14**

Small RNA Concentration [pg/μl]:	25,527.2	Result Flagging Color:	<span style="background-color: green; color: black;"> </span>
miRNA Concentration [pg/μl]:	6,787.1	Result Flagging Label:	27 % miRNA; Concentration: 6787.10 pg/μl
miRNA / Small RNA Ratio [%]:	27		

**Region table for sample 4 : Sample old 14**

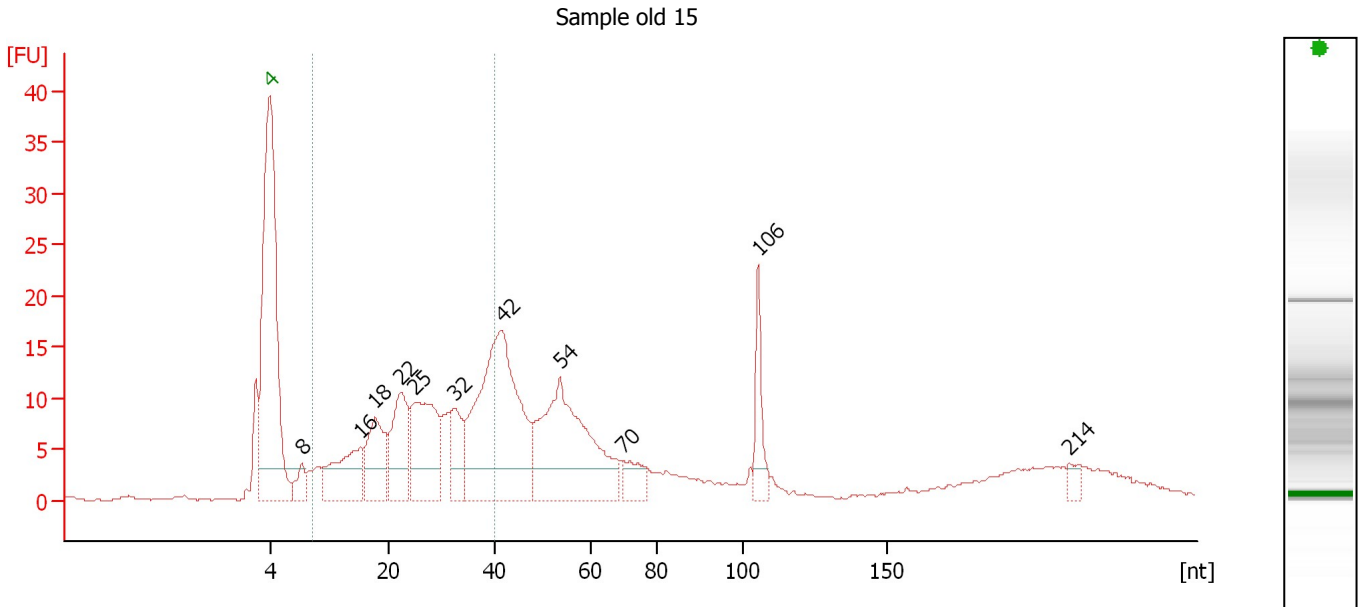
Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	248	113	63.4	25,527.2	100	<span style="background-color: purple; color: black;"> </span>
miRNA	10	40	27	32.9	6,787.1	27	<span style="background-color: green; color: black;"> </span>



Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
 Modified: 9/16/2014 1:56:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : Sample old 15**

Small RNA Concentration [pg/μl]:	2,211.8	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	968.1	Result Flagging Label:	44 % miRNA; Concentration: 968.10 pg/μl
miRNA / Small RNA Ratio [%]:	44		

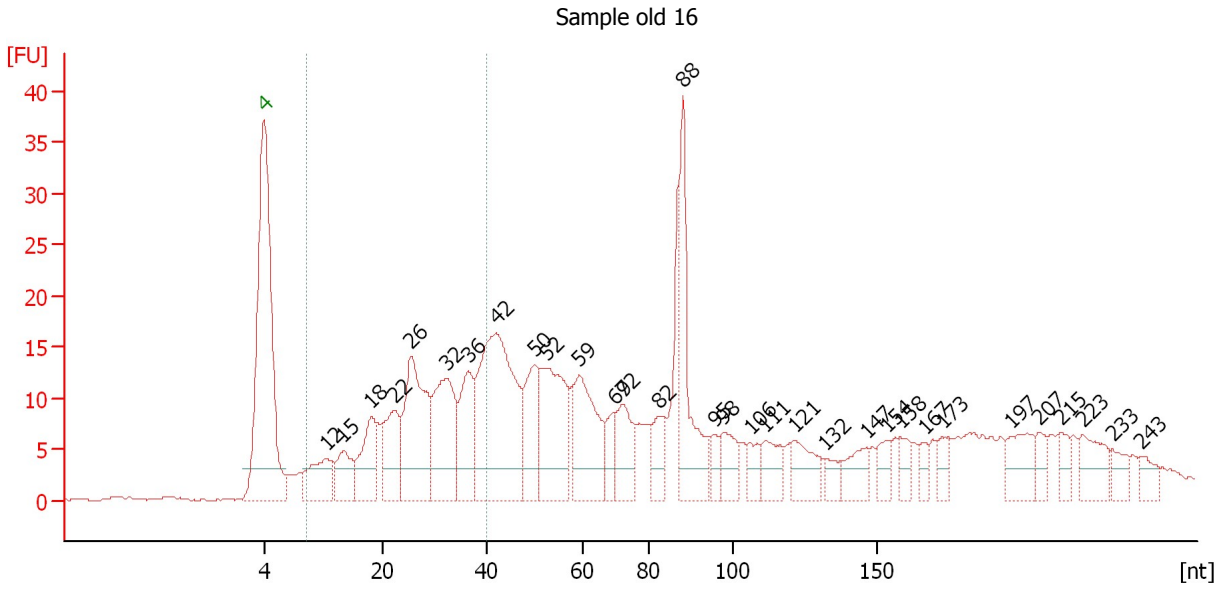
**Region table for sample 5 : Sample old 15**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	251	62	100.0	2,211.8	100	<span style="background-color: maroon; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	26	32.1	968.1	44	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
 Modified: 9/16/2014 1:56:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : Sample old 16**

Small RNA Concentration [pg/μl]:	3,513.3	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	1,071.7	Result Flagging Label:	31 % miRNA; Concentration: 1071.70 pg/μl
miRNA / Small RNA Ratio [%]:	31		

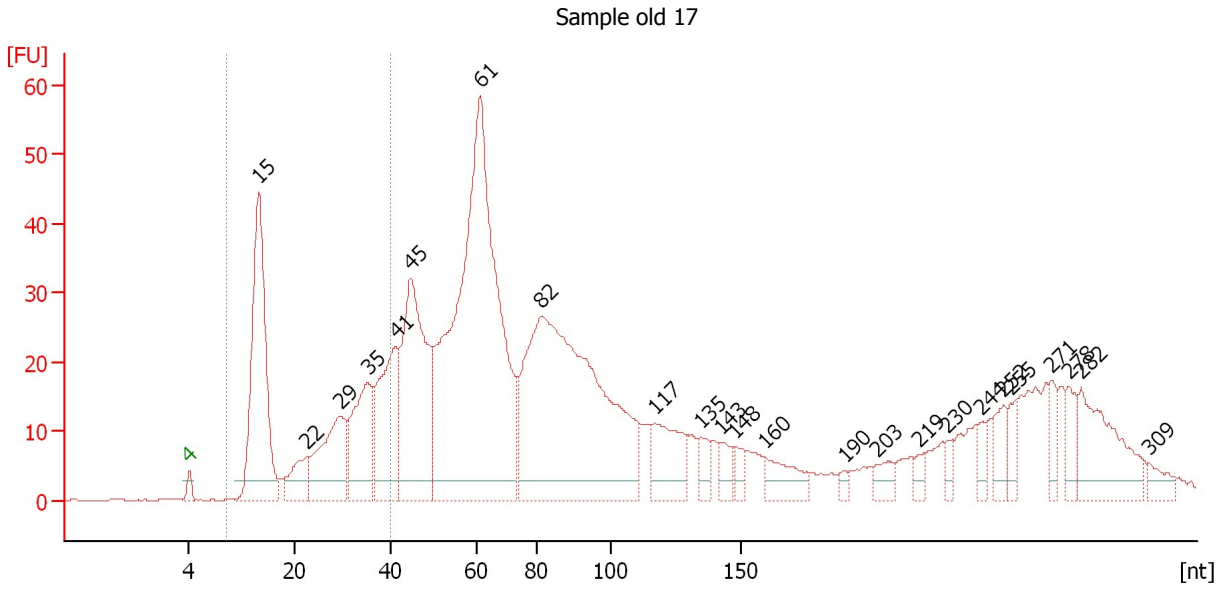
**Region table for sample 6 : Sample old 16**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	255	89	79.0	3,513.3	100	<span style="background-color: purple; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	27	30.7	1,071.7	31	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
 Modified: 9/16/2014 1:56:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : Sample old 17**

Small RNA Concentration [pg/μl]:	199,436.3	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	39,446.1	Result Flagging Label:	20 % miRNA; Concentration: 39446.10 pg/μl
miRNA / Small RNA Ratio [%]:	20		

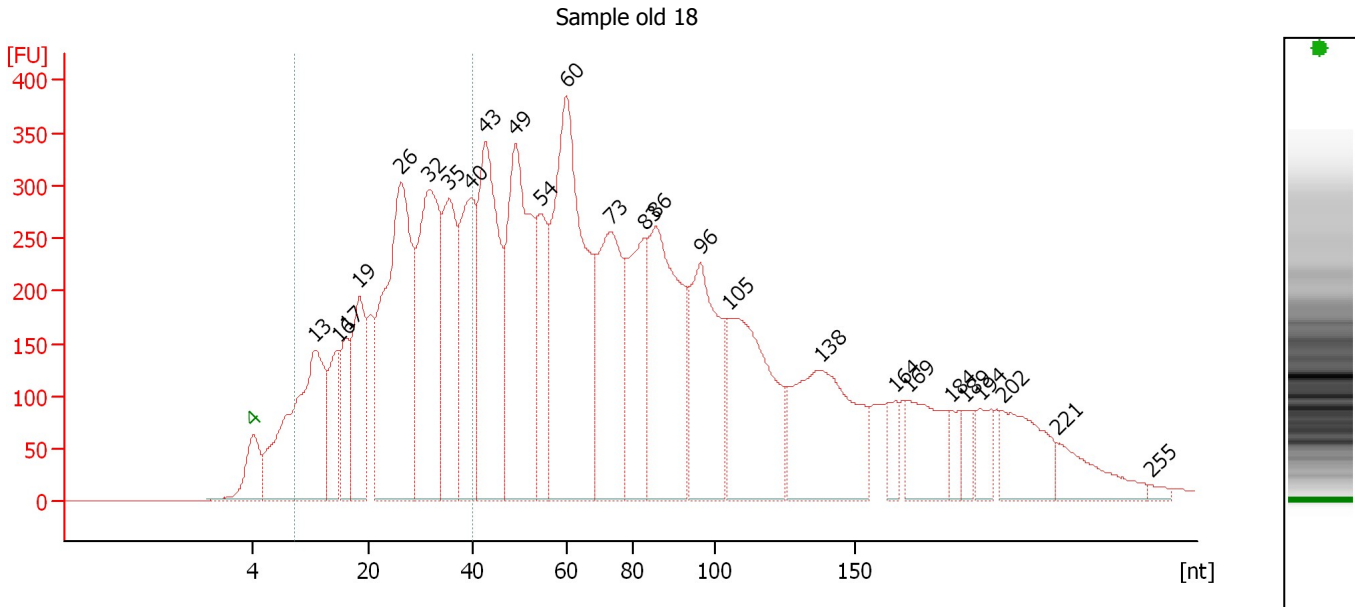
**Region table for sample 7 : Sample old 17**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	320	119	75.5	199,436.3	100	<span style="background-color: #800000; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	25	37.6	39,446.1	20	<span style="background-color: #008000; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
 Modified: 9/16/2014 1:56:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : Sample old 18**

Small RNA Concentration [pg/μl]:	44,489.7	Result Flagging Color:	<span style="background-color: green; color: black;"> </span>
miRNA Concentration [pg/μl]:	14,298.5	Result Flagging Label:	32 % miRNA; Concentration: 14298.50 pg/μl
miRNA / Small RNA Ratio [%]:	32		

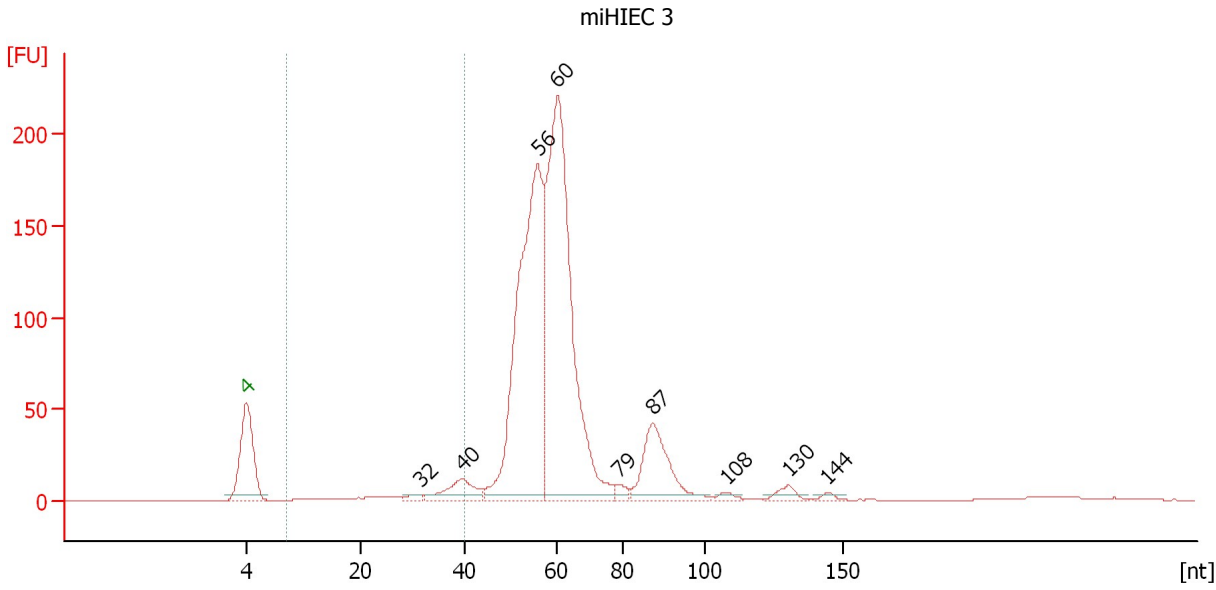
**Region table for sample 8 : Sample old 18**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	264	80	71.6	44,489.7	100	<span style="background-color: purple; color: black;"> </span>
miRNA	10	40	26	32.5	14,298.5	32	<span style="background-color: green; color: black;"> </span>

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
 Modified: 9/16/2014 1:56:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : miHIEC 3**

Small RNA Concentration [pg/μl]:	14,674.3	Result Flagging Color:	<span style="background-color: yellow; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
miRNA Concentration [pg/μl]:	207.8	Result Flagging Label:	1 % miRNA; Concentration: 207.80 pg/μl
miRNA / Small RNA Ratio [%]:	1		

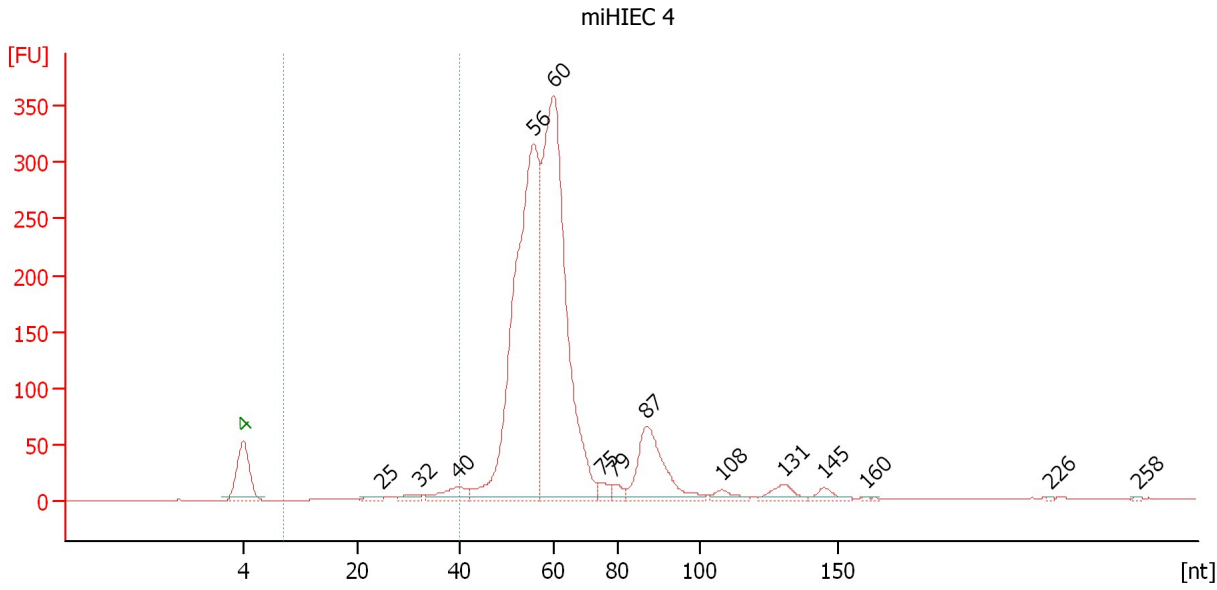
**Region table for sample 9 : miHIEC 3**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	269	62	49.8	14,674.3	100	<span style="background-color: maroon; border: 1px solid black; display: inline-block; width: 15px; height: 15px;"></span>
miRNA	10	40	31	27.3	207.8	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:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
 Modified: 9/16/2014 1:56:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : miHIEC 4**

Small RNA Concentration [pg/μl]:	24,794.1	Result Flagging Color:	<span style="background-color: yellow; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
miRNA Concentration [pg/μl]:	321.2	Result Flagging Label:	1 % miRNA; Concentration: 321.20 pg/μl
miRNA / Small RNA Ratio [%]:	1		

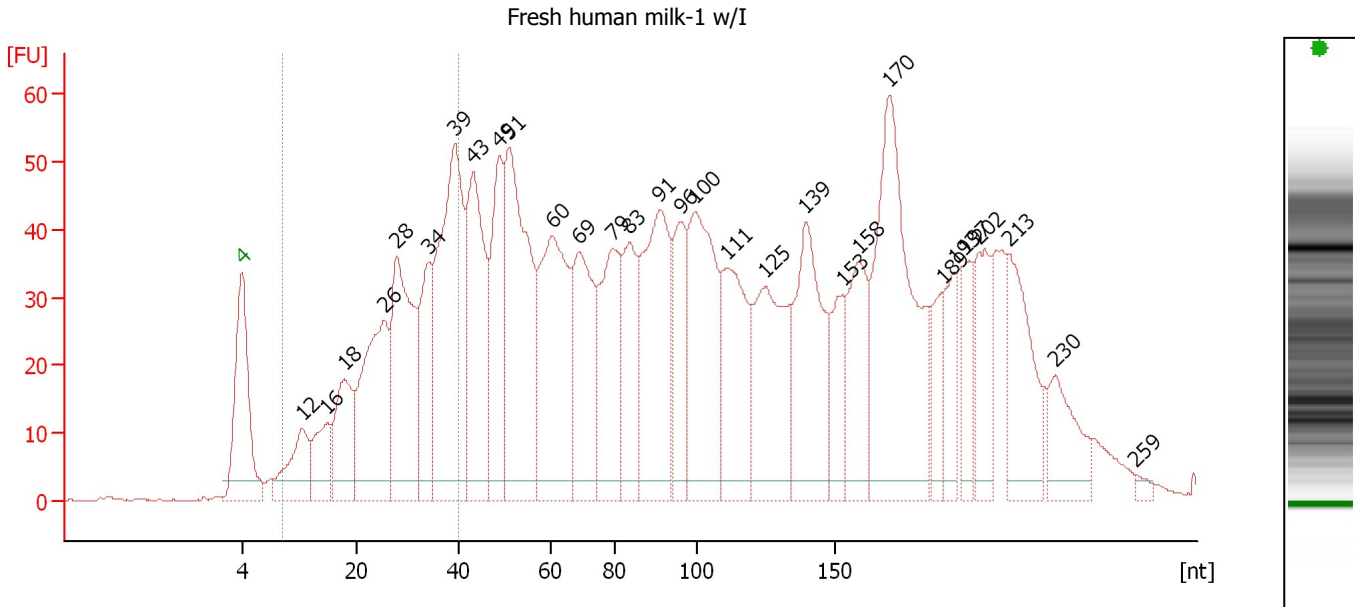
**Region table for sample 10 : miHIEC 4**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	272	66	52.0	24,794.0	100	<span style="background-color: maroon; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>
miRNA	10	40	30	27.5	321.2	1	<span style="background-color: green; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>

Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
 Modified: 9/16/2014 1:56:54 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : Fresh human milk-1 w/I**

Small RNA Concentration [pg/μl]:	13,595.3	Result Flagging Color:	<span style="background-color: green; width: 20px; height: 10px; display: inline-block;"></span>
miRNA Concentration [pg/μl]:	2,971.4	Result Flagging Label:	22 % miRNA; Concentration: 2971.40 pg/μl
miRNA / Small RNA Ratio [%]:	22		

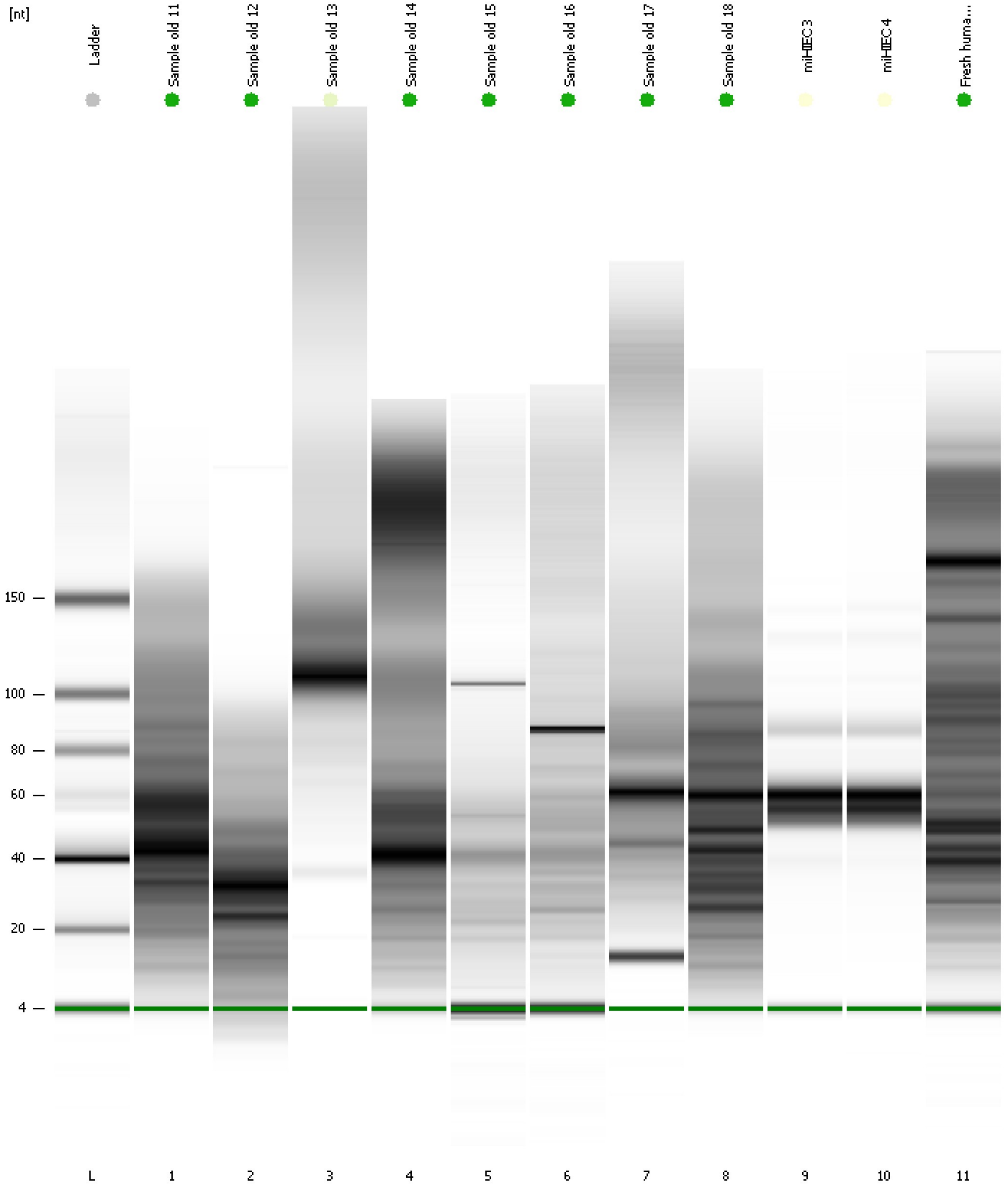
**Region table for sample 11 : Fresh human milk-1 w/I**

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	273	108	61.0	13,595.3	100	<span style="background-color: #800000; width: 15px; height: 10px; display: inline-block;"></span>
miRNA	10	40	28	28.8	2,971.4	22	<span style="background-color: #008000; width: 15px; height: 10px; display: inline-block;"></span>

Assay Class: Small RNA  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
Modified: 9/16/2014 1:56:54 PM

Gel Image





Assay Class: Small RNA  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-15\2014-09-15\_003.xad

Created: 9/15/2014 1:56:53 PM  
 Modified: 9/16/2014 1:56:54 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		9/15/2014 2:28:52 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-09-15\2014-09-15_003.xad)		Instrument	Run		9/15/2014 1:56:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/15/2014 1:56:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/15/2014 1:56:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/15/2014 1:56:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/15/2014 1:56:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/15/2014 1:56:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/15/2014 1:56:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1