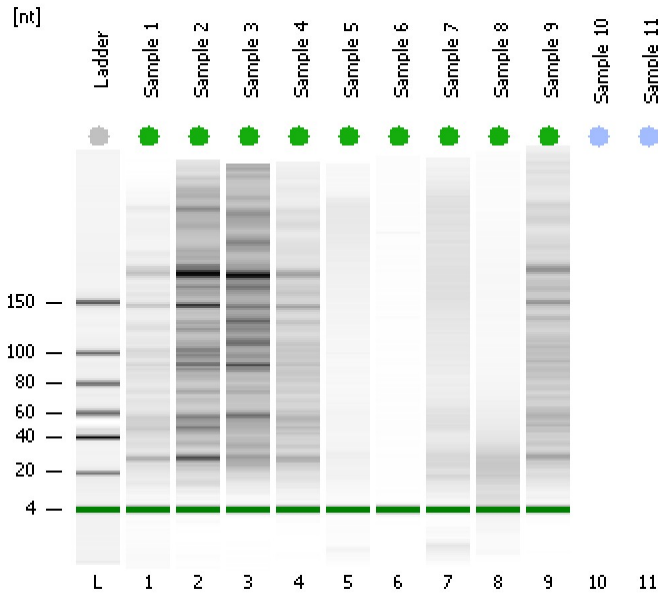


Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
Modified: 11/30/2012 2:41:03 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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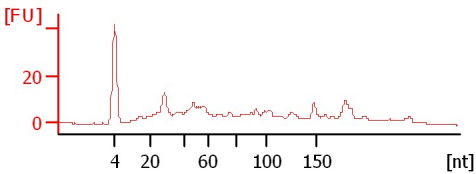
Chip Information:

Chip Lot #:

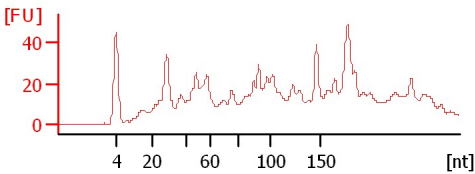
Reagent Kit Lot #:

Chip Comments:

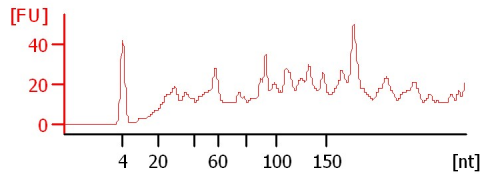
Sample 1
69 % miRNA; Concentration: 651.60 pg/µl



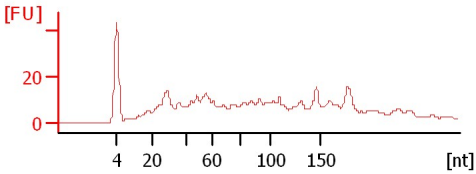
Sample 2
26 % miRNA; Concentration: 1541.40 pg/µl



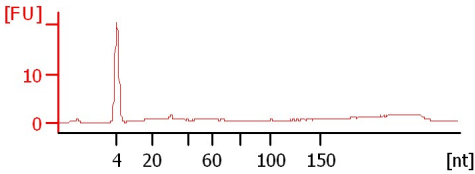
Sample 3
24 % miRNA; Concentration: 1646.80 pg/µl



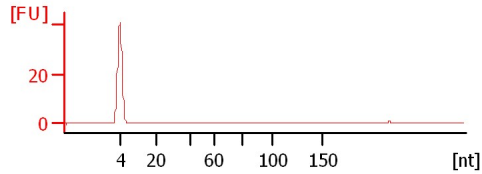
Sample 4
33 % miRNA; Concentration: 1038.60 pg/µl



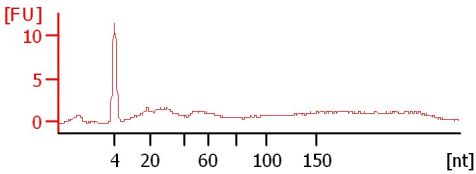
Sample 5
35 % miRNA; Concentration: 205.40 pg/µl



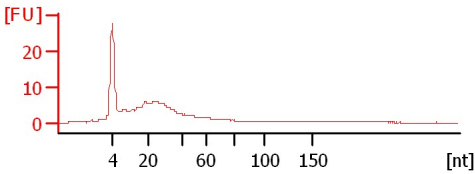
Sample 6
22 % miRNA; Concentration: 20.50 pg/µl



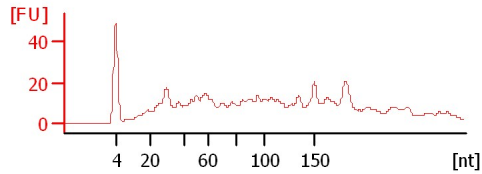
Sample 7
44 % miRNA; Concentration: 629.10 pg/µl



Sample 8
86 % miRNA; Concentration: 1059.60 pg/µl














Sample 9
30 % miRNA; Concentration: 1090.80 pg/µl



Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
 Modified: 11/30/2012 2:41:03 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
Sample 1		✓	69 % miRNA; Concentration: 651.60 pg/μl	
Sample 2		✓	26 % miRNA; Concentration: 1541.40 pg/μl	
Sample 3		✓	24 % miRNA; Concentration: 1646.80 pg/μl	
Sample 4		✓	33 % miRNA; Concentration: 1038.60 pg/μl	
Sample 5		✓	35 % miRNA; Concentration: 205.40 pg/μl	
Sample 6		✓	22 % miRNA; Concentration: 20.50 pg/μl	
Sample 7		✓	44 % miRNA; Concentration: 629.10 pg/μl	
Sample 8		✓	86 % miRNA; Concentration: 1059.60 pg/μl	
Sample 9		✓	30 % miRNA; Concentration: 1090.80 pg/μl	
Sample 10				
Sample 11				
Ladder		✓	Number of Peaks: 6	

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
Modified: 11/30/2012 2:41:03 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/ 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

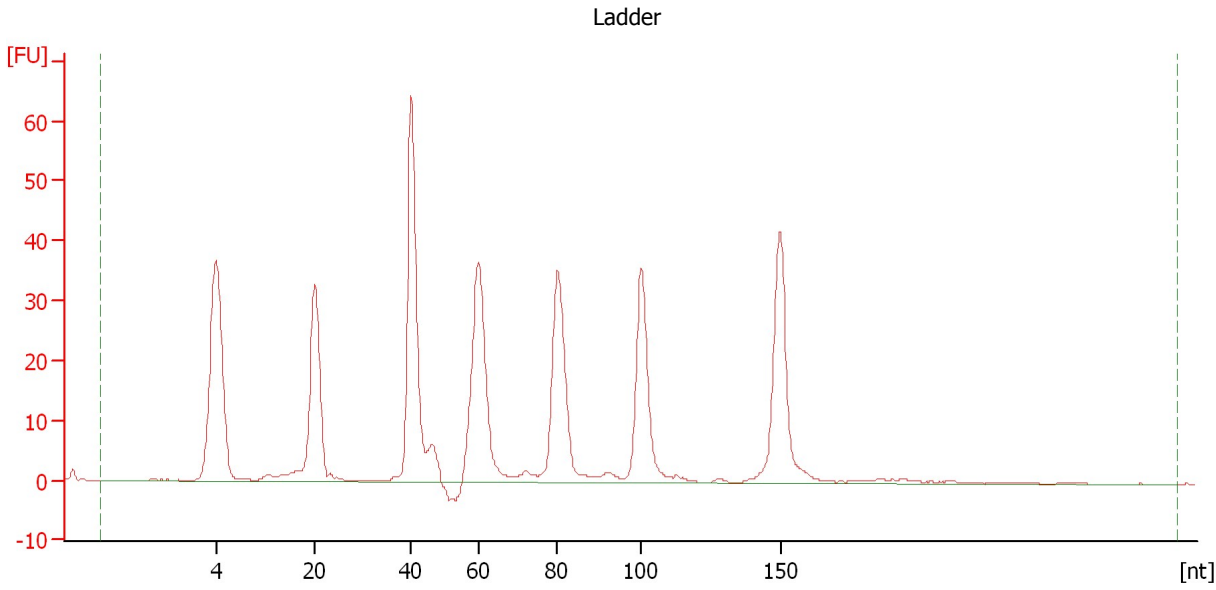
Ladder

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\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
Modified: 11/30/2012 2:41:03 PM

Electropherogram Summary



Overall Results for Ladder

Result Flagging Color:

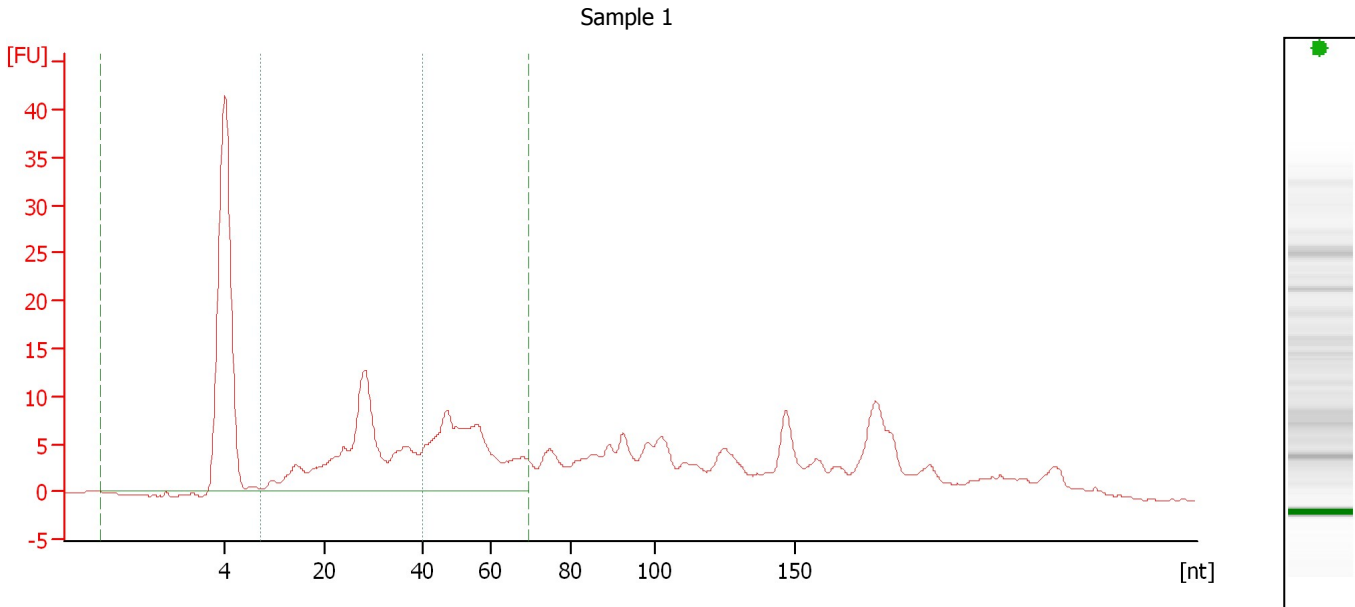
Result Flagging Label:

Number of Peaks: 6

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
 Modified: 11/30/2012 2:41:03 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Sample 1

Small RNA Concentration [pg/μl]:	940.6	Result Flagging Color:	
miRNA Concentration [pg/μl]:	651.6	Result Flagging Label:	69 % miRNA; Concentration: 651.60 pg/μl
miRNA / Small RNA Ratio [%]:	69		

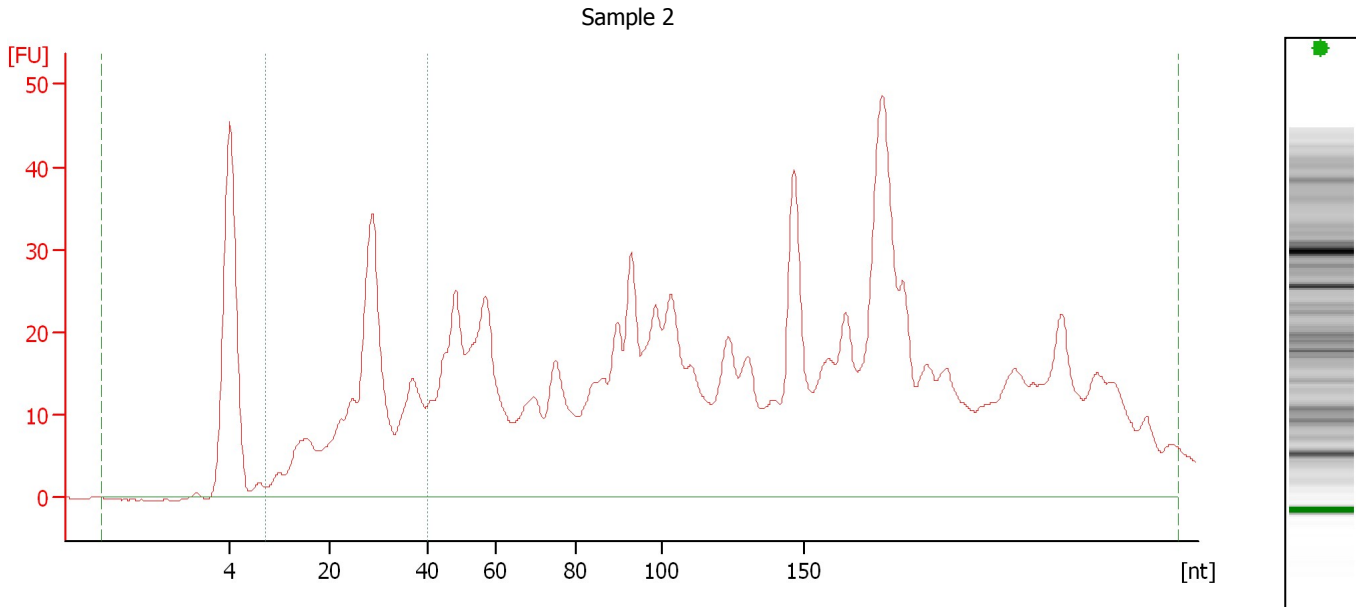
Region table for sample 1 : Sample 1

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	70	27	75.9	940.6	100	
miRNA	10	40	27	25.9	651.6	69	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
 Modified: 11/30/2012 2:41:03 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Sample 2

Small RNA Concentration [pg/μl]:	5,892.2	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,541.4	Result Flagging Label:	26 % miRNA; Concentration: 1541.40 pg/μl
miRNA / Small RNA Ratio [%]:	26		

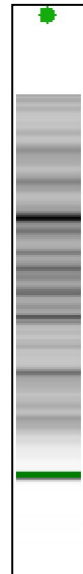
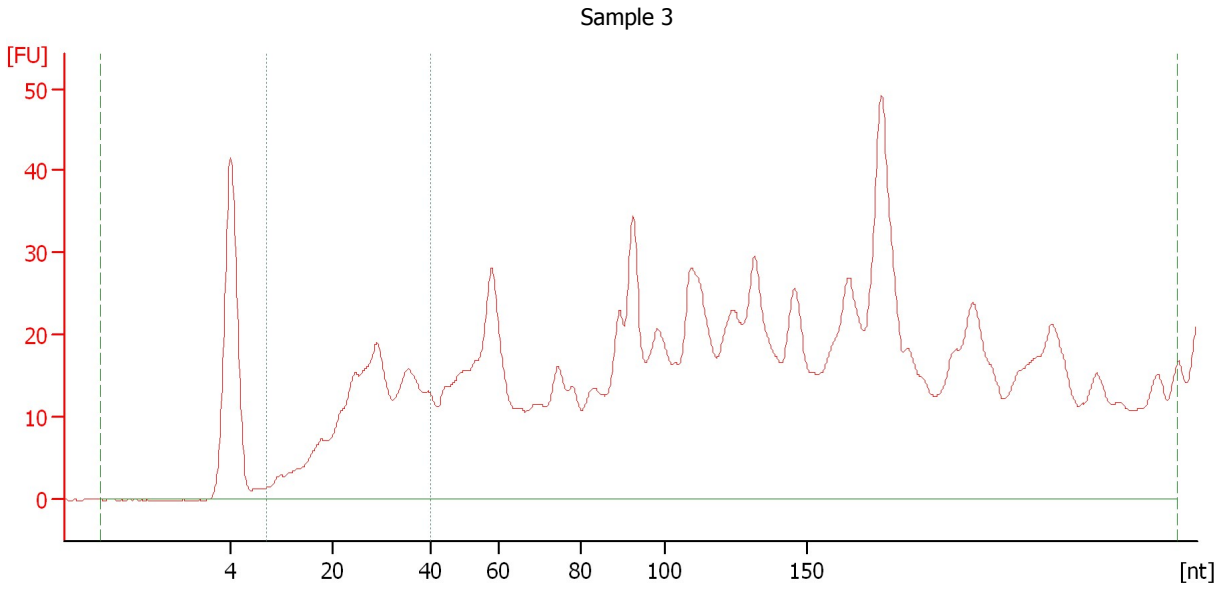
Region table for sample 2 : Sample 2

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	283	128	60.3	5,892.2	100	
miRNA	10	40	27	26.2	1,541.4	26	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
 Modified: 11/30/2012 2:41:03 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Sample 3

Small RNA Concentration [pg/μl]:	6,889.2	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,646.8	Result Flagging Label:	24 % miRNA; Concentration: 1646.80 pg/μl
miRNA / Small RNA Ratio [%]:	24		

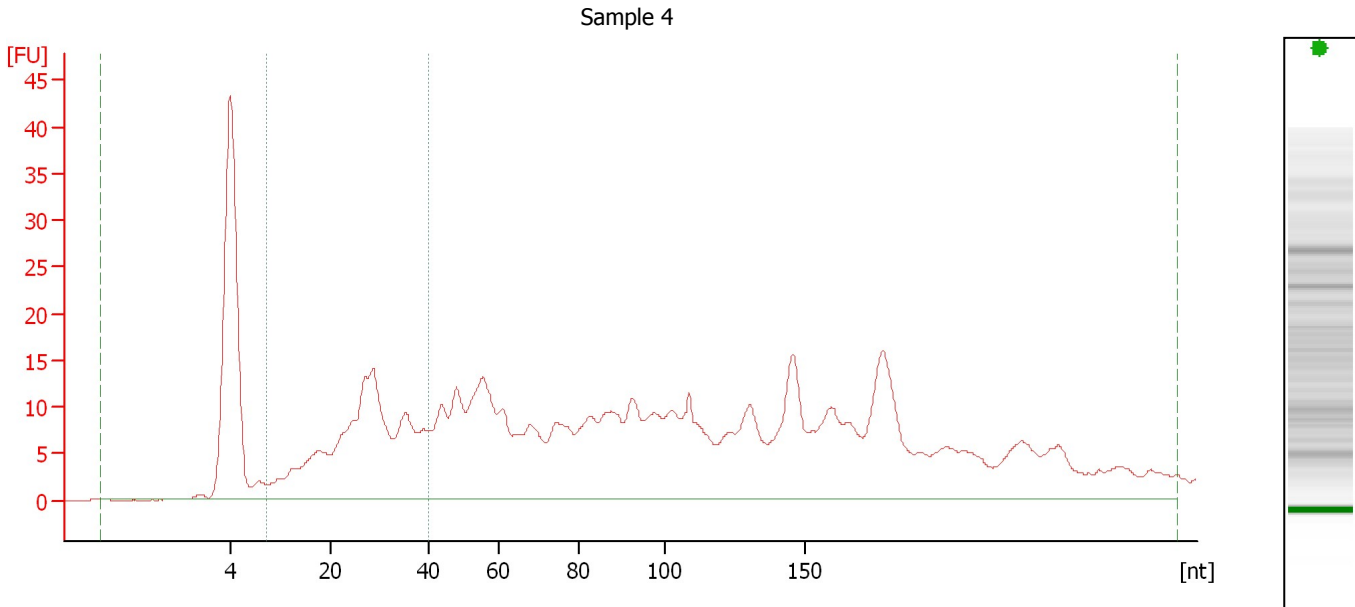
Region table for sample 3 : Sample 3

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	280	131	57.6	6,889.2	100	
miRNA	10	40	28	26.5	1,646.8	24	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
 Modified: 11/30/2012 2:41:03 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Sample 4

Small RNA Concentration [pg/μl]:	3,178.9	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,038.6	Result Flagging Label:	33 % miRNA; Concentration: 1038.60 pg/μl
miRNA / Small RNA Ratio [%]:	33		

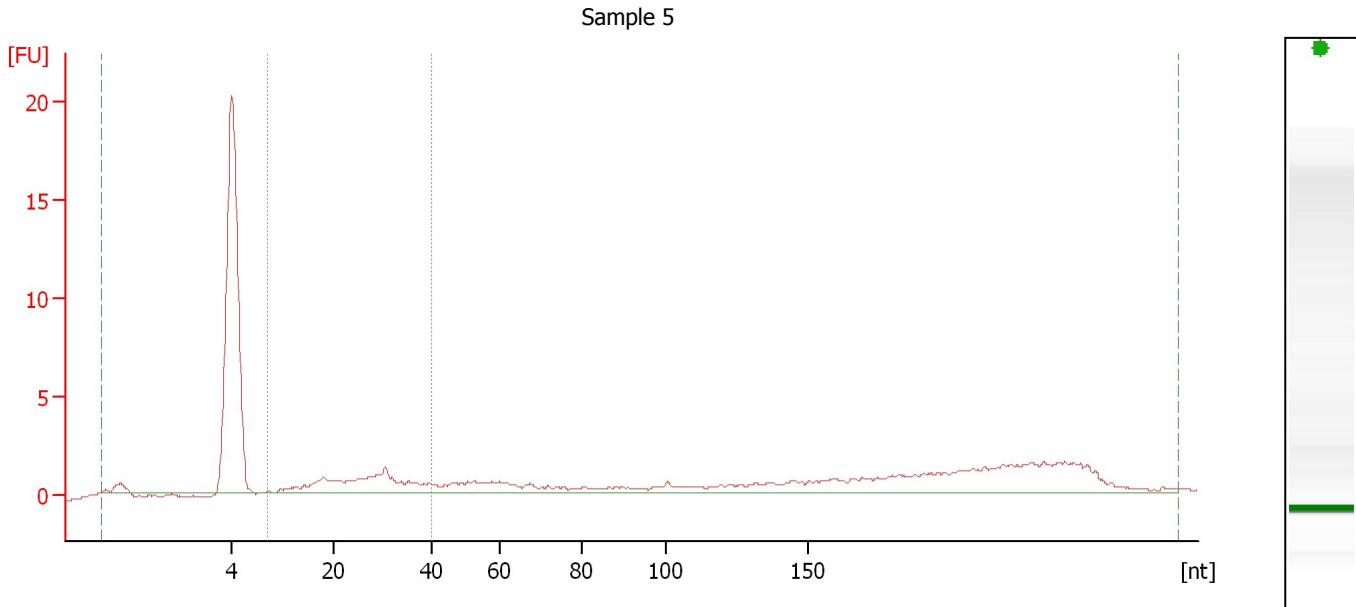
Region table for sample 4 : Sample 4

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	281	105	70.9	3,178.9	100	
miRNA	10	40	27	28.1	1,038.6	33	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
 Modified: 11/30/2012 2:41:03 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Sample 5

Small RNA Concentration [pg/μl]:	582.2	Result Flagging Color:	
miRNA Concentration [pg/μl]:	205.4	Result Flagging Label:	35 % miRNA; Concentration: 205.40 pg/μl
miRNA / Small RNA Ratio [%]:	35		

Region table for sample 5 : Sample 5

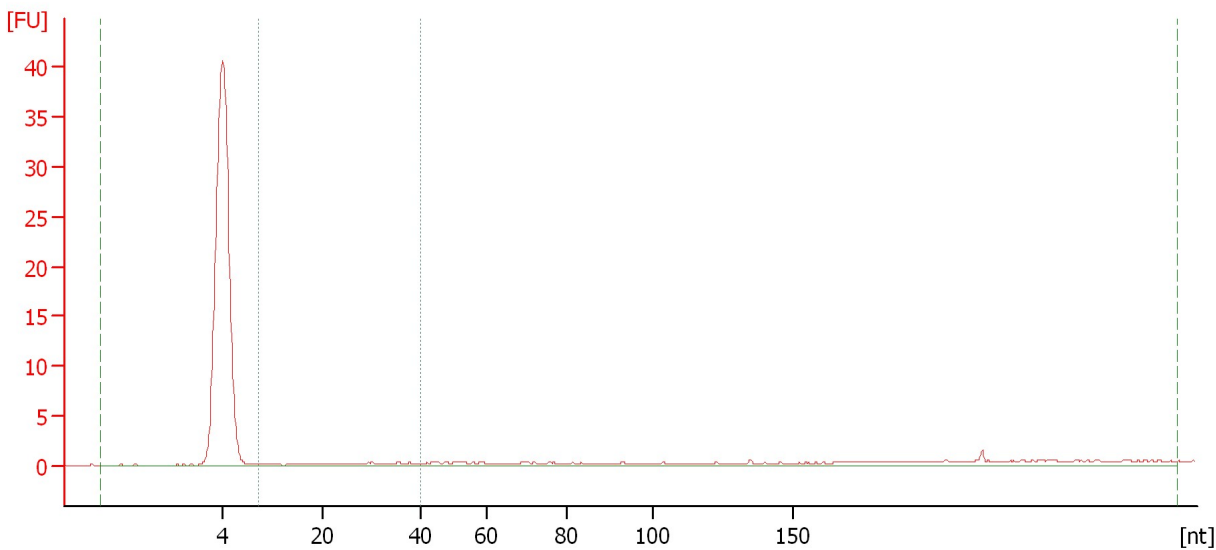
Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	280	103	93.8	582.2	100	
miRNA	10	40	26	27.5	205.4	35	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
 Modified: 11/30/2012 2:41:03 PM

Electropherogram Summary Continued ...

Sample 6



Overall Results for sample 6 : Sample 6

Small RNA Concentration [pg/μl]:	93.3	Result Flagging Color:	
miRNA Concentration [pg/μl]:	20.5	Result Flagging Label:	22 % miRNA; Concentration: 20.50 pg/μl
miRNA / Small RNA Ratio [%]:	22		

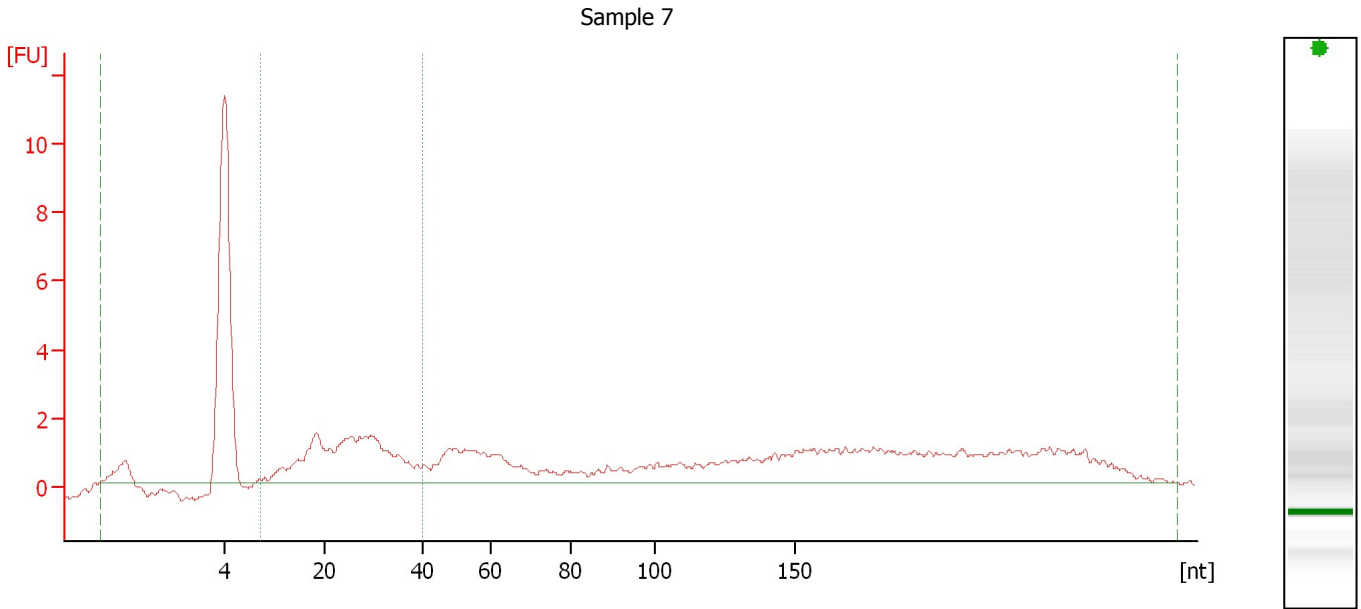
Region table for sample 6 : Sample 6

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Col or
Small RNA	0	287	46	100.0	93.3	100	
miRNA	10	40	26	34.8	20.5	22	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
 Modified: 11/30/2012 2:41:03 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Sample 7

Small RNA Concentration [pg/μl]:	1,443.4	Result Flagging Color:	
miRNA Concentration [pg/μl]:	629.1	Result Flagging Label:	44 % miRNA; Concentration: 629.10 pg/μl
miRNA / Small RNA Ratio [%]:	44		

Region table for sample 7 : Sample 7

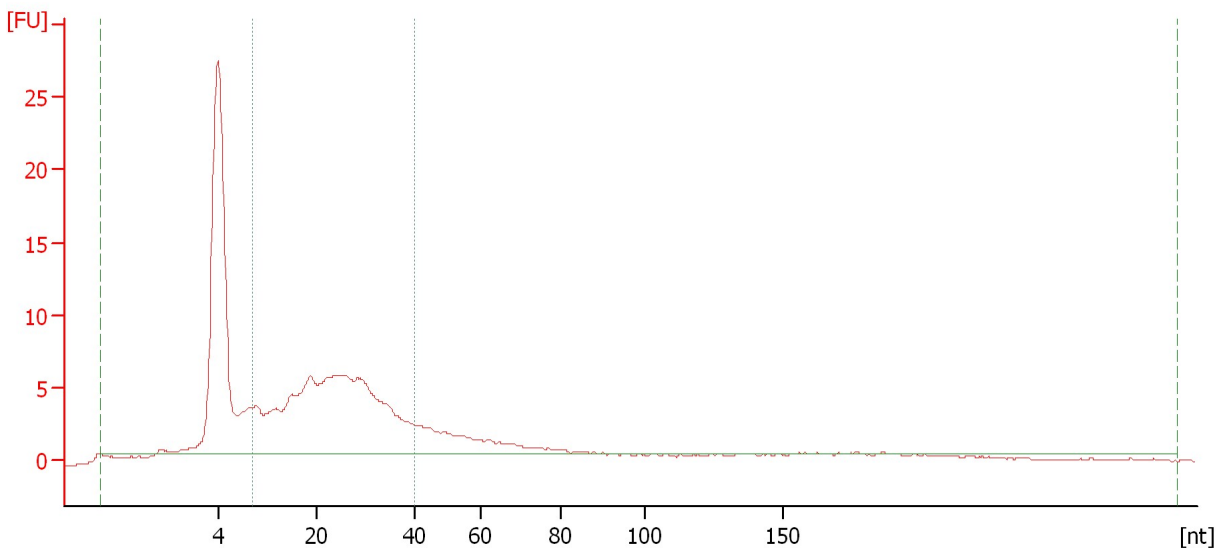
Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	286	105	84.2	1,443.4	100	
miRNA	10	40	25	28.0	629.1	44	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
 Modified: 11/30/2012 2:41:03 PM

Electropherogram Summary Continued ...

Sample 8



Overall Results for sample 8 : Sample 8

Small RNA Concentration [pg/μl]:	1,235.8	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,059.6	Result Flagging Label:	86 % miRNA; Concentration: 1059.60 pg/μl
miRNA / Small RNA Ratio [%]:	86		

Region table for sample 8 : Sample 8

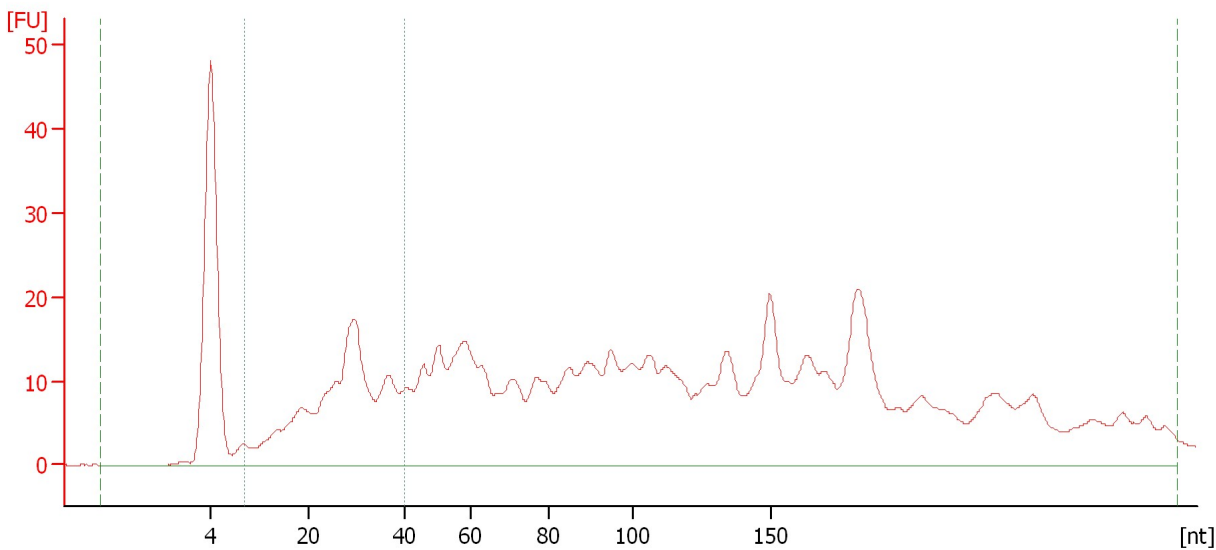
Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	291	20	88.7	1,235.8	100	
miRNA	10	40	24	33.5	1,059.6	86	

Assay Class: Small RNA
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
 Modified: 11/30/2012 2:41:03 PM

Electropherogram Summary Continued ...

Sample 9



Overall Results for sample 9 : Sample 9

Small RNA Concentration [pg/μl]:	3,676.6	Result Flagging Color:	
miRNA Concentration [pg/μl]:	1,090.8	Result Flagging Label:	30 % miRNA; Concentration: 1090.80 pg/μl
miRNA / Small RNA Ratio [%]:	30		

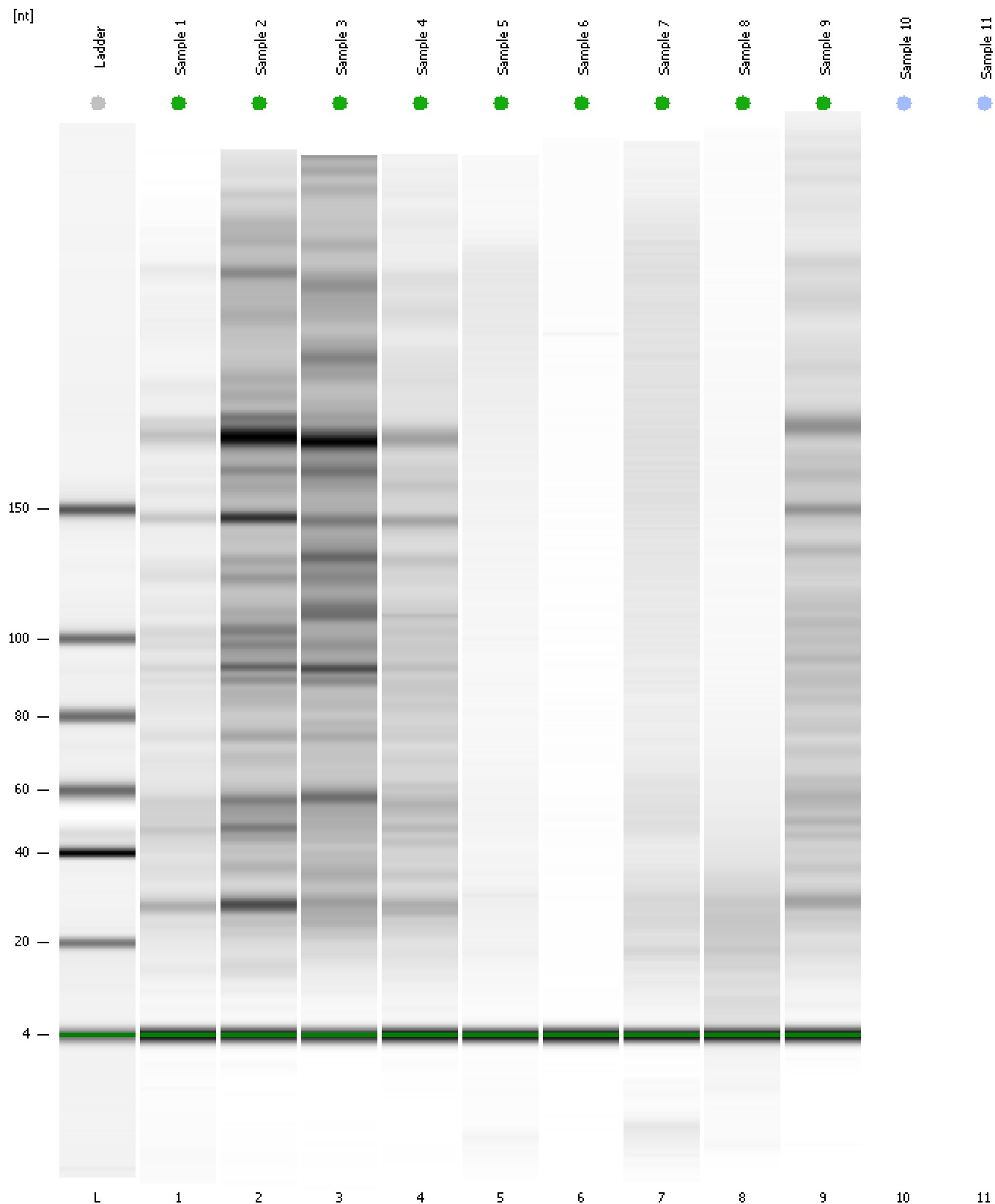
Region table for sample 9 : Sample 9

Name	From [nt]	To [nt]	Average Size [nt]	Size distribution in CV [%]	Conc. [pg/μl]	% of Total	Color
Small RNA	0	298	117	68.4	3,676.6	100	
miRNA	10	40	27	28.0	1,090.8	30	

Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
Modified: 11/30/2012 2:41:03 PM

Gel Image



Assay Class: Small RNA
Data Path: C:\...ents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
Modified: 11/30/2012 2:41:03 PM

Invalid Samples

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:\...ents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad

Created: 11/30/2012 2:12:53 PM
 Modified: 11/30/2012 2:41:03 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 10)		Instrument	Run		11/30/2012 2:41:01 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-11-30\2012-11-30_004.xad)		Instrument	Run		11/30/2012 2:12:58 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		11/30/2012 2:12:58 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/30/2012 2:12:58 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/30/2012 2:12:58 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		11/30/2012 2:12:58 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/30/2012 2:12:58 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/30/2012 2:12:58 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1