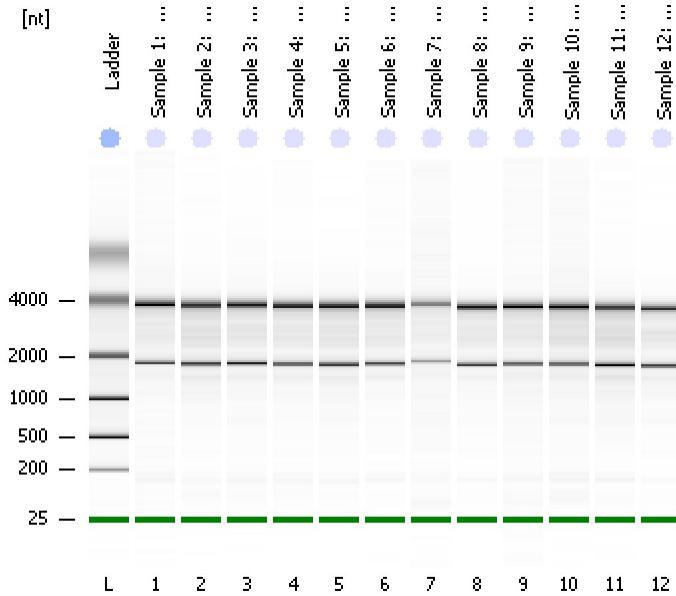


Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

Electrophoresis File Run Summary



Instrument Information:

Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

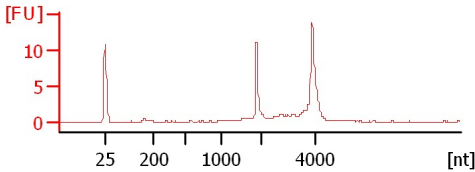
Assay Information:

Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\RNA\Eukaryote Total RNA Nano Series II.xsy  
Assay Class: Eukaryote Total RNA Nano  
Version: 2.6  
Assay Comments: Total RNA Analysis ng sensitivity (Eukaryote)  
© Copyright 2003 - 2009 Agilent Technologies, Inc.

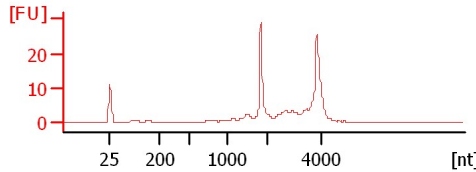
Chip Information:

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

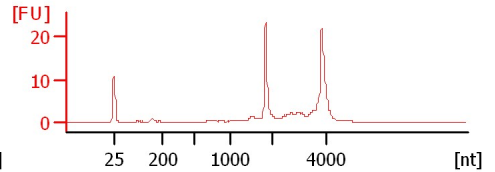
**Sample 1: 1161.1**  
HiSeq\_272 Total RNA QC  
RIN: 9.30



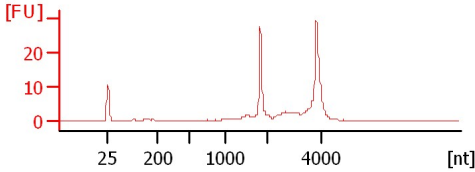
**Sample 2: 1179.1**  
HiSeq\_272 Total RNA QC  
RIN: 9



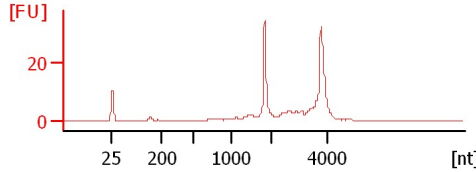
**Sample 3: 1281.1**  
HiSeq\_272 Total RNA QC  
RIN: 9.10



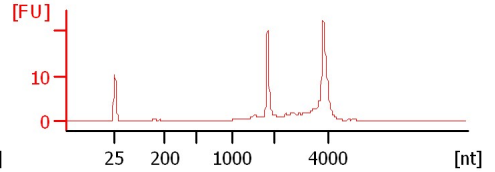
**Sample 4: 1335.1**  
HiSeq\_272 Total RNA QC  
RIN: 9.20



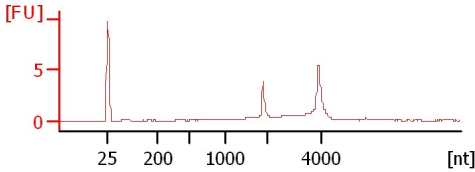
**Sample 5: 1443.1**  
HiSeq\_272 Total RNA QC  
RIN: 8.90



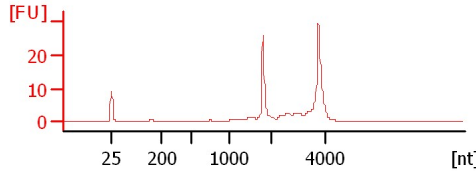
**Sample 6: 1014.2**  
HiSeq\_272 Total RNA QC  
RIN: 9.40



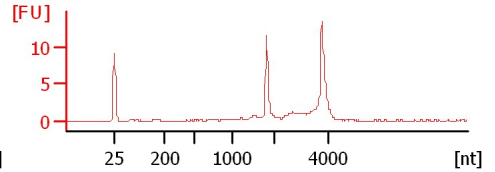
**Sample 7: 1064.2**  
HiSeq\_272 Total RNA QC  
RIN: 8.20



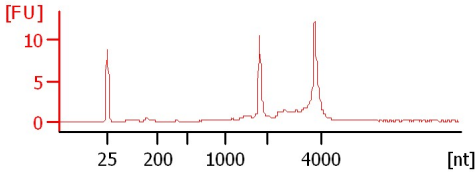
**Sample 8: 1054.2**  
HiSeq\_272 Total RNA QC  
RIN: 9.30



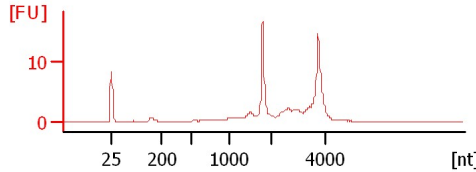
**Sample 9: 1002.2**  
HiSeq\_272 Total RNA QC  
RIN: 9.20



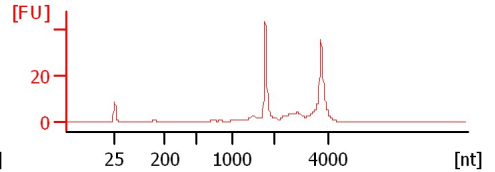
**Sample 10: 1069.2**  
HiSeq\_272 Total RNA QC  
RIN: 9.10



**Sample 11: 1083.2**  
HiSeq\_272 Total RNA QC  
RIN: 8.60



**Sample 12: 1029.1**  
HiSeq\_272 Total RNA QC  
RIN: 8.90



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

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

Sample Name	Sample Comment	Status	Result Label	Result Color
Sample 1: 1161.1	HiSeq_272 Total RNA QC	✓	RIN: 9.30	
Sample 2: 1179.1	HiSeq_272 Total RNA QC	✓	RIN:9	
Sample 3: 1281.1	HiSeq_272 Total RNA QC	✓	RIN: 9.10	
Sample 4: 1335.1	HiSeq_272 Total RNA QC	✓	RIN: 9.20	
Sample 5: 1443.1	HiSeq_272 Total RNA QC	✓	RIN: 8.90	
Sample 6: 1014.2	HiSeq_272 Total RNA QC	✓	RIN: 9.40	
Sample 7: 1064.2	HiSeq_272 Total RNA QC	✓	RIN: 8.20	
Sample 8: 1054.2	HiSeq_272 Total RNA QC	✓	RIN: 9.30	
Sample 9: 1002.2	HiSeq_272 Total RNA QC	✓	RIN: 9.20	
Sample 10: 1069.2	HiSeq_272 Total RNA QC	✓	RIN: 9.10	
Sample 11: 1083.2	HiSeq_272 Total RNA QC	✓	RIN: 8.60	
Sample 12: 1029.1	HiSeq_272 Total RNA QC	✓	RIN: 8.90	
Ladder		✓	All Other Samples	

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

## Electrophoresis Assay Details

### General Analysis Settings

Number of Available Sample and Ladder Wells (Max.) : 13  
Minimum Visible Range [s] : 17  
Maximum Visible Range [s] : 70  
Start Analysis Time Range [s] : 19  
End Analysis Time Range [s] : 69  
Ladder Concentration [ng/μl] : 150  
Lower Marker Concentration [ng/μl] : 0  
Upper Marker Concentration [ng/μl] : 0  
Used Lower Marker for Quantitation  
Standard Curve Fit is Logarithmic  
Show Data Aligned to Lower Marker

### Integrator Settings

Integration Start Time [s] : 19  
Integration End Time [s] : 69  
Slope Threshold : 0.6  
Height Threshold [FU] : 0.5  
Area Threshold : 0.2  
Width Threshold [s] : 0.5  
Baseline Plateau [s] : 6

### Filter Settings

Filter Width [s] : 0.5  
Polynomial Order : 4

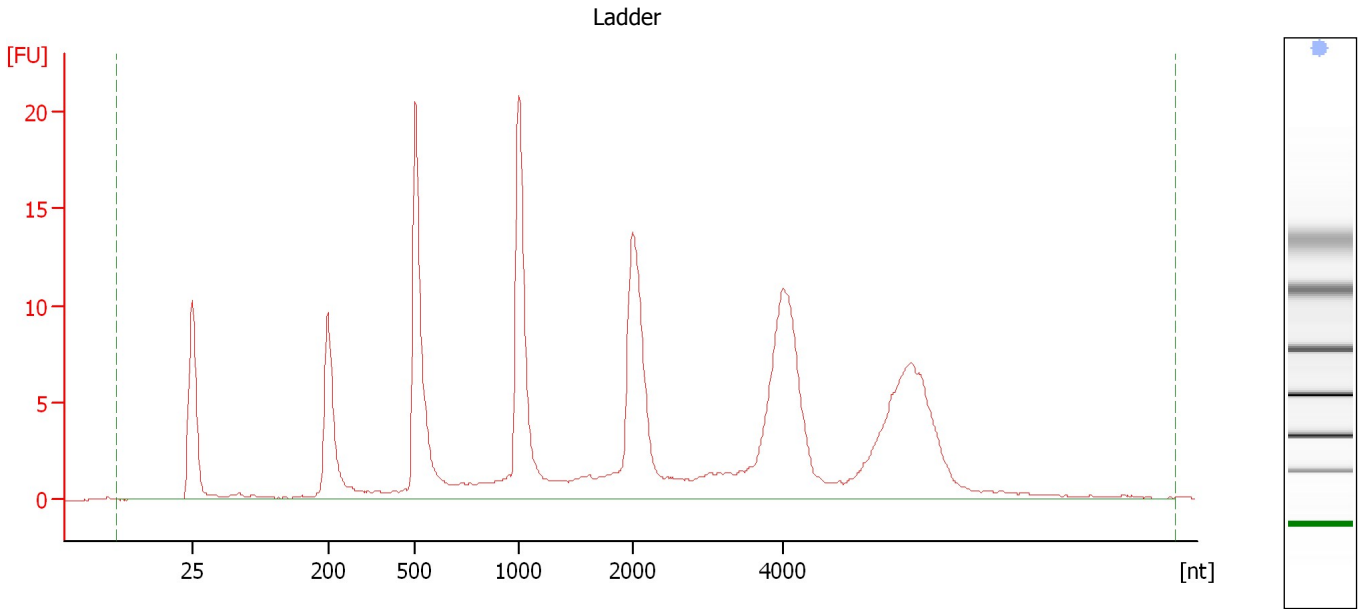
### Ladder

Ladder Peak	Size
1	25
2	200
3	500
4	1000
5	2000
6	4000

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

**Electropherogram Summary**



**Overall Results for Ladder**

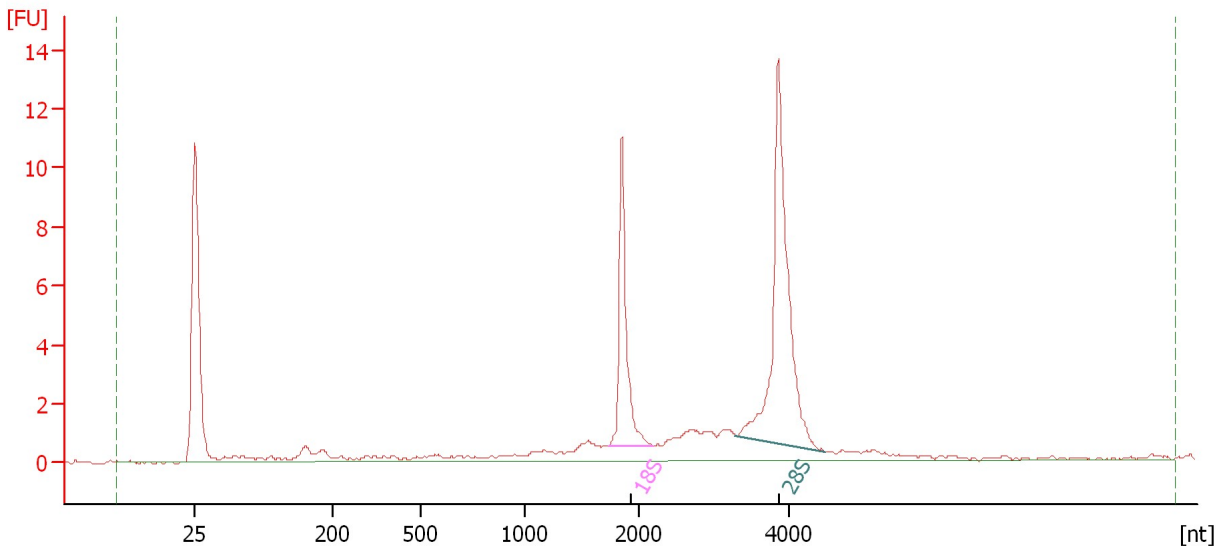
RNA Area:	210.2	Result Flagging Color:	<span style="background-color: #add8e6; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
RNA Concentration:	150 ng/μl	Result Flagging Label:	All Other Samples

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

**Electropherogram Summary Continued ...**

Sample 1: 1161.1 [ HiSeq\_272 Total RNA QC ]



**Overall Results for sample 1 : Sample 1: 1161.1**

RNA Area: 55.5 RNA Integrity Number (RIN): 9.3 (B.02.08)  
RNA Concentration: 40 ng/μl Result Flagging Color:   
rRNA Ratio [28s / 18s]: 2.1 Result Flagging Label: RIN: 9.30

**Fragment table for sample 1 : Sample 1: 1161.1**

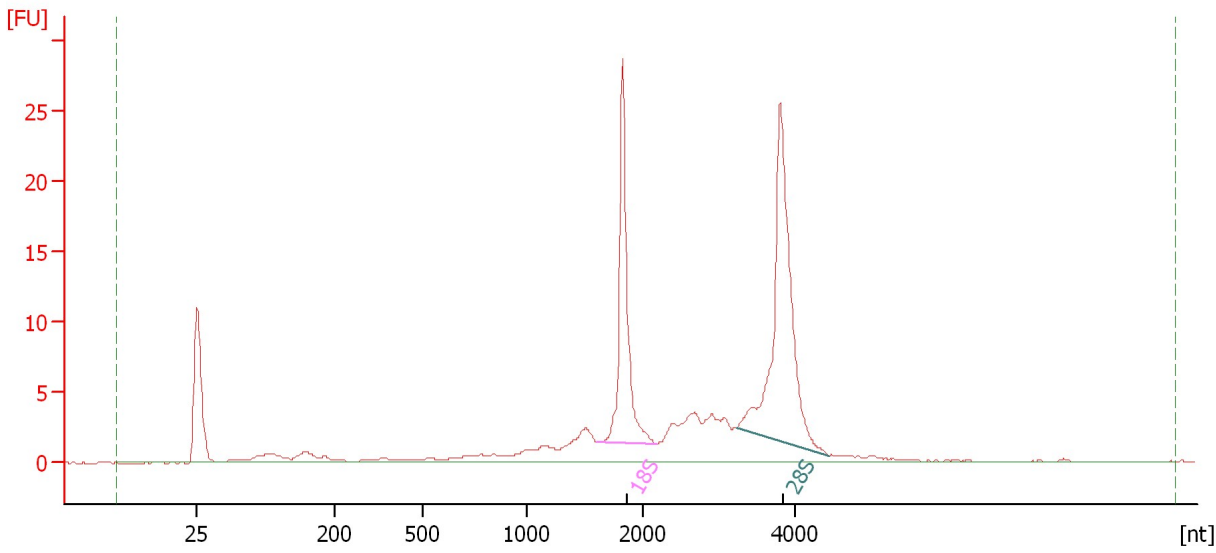
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,749	2,201	9.6	17.3
28S	3,286	4,470	20.4	36.8

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

**Electropherogram Summary Continued ...**

Sample 2: 1179.1 [ HiSeq\_272 Total RNA QC ]



**Overall Results for sample 2 : Sample 2: 1179.1**

RNA Area:	141.5	RNA Integrity Number (RIN):	9 (B.02.08)
RNA Concentration:	101 ng/μl	Result Flagging Color:	<span style="background-color: #ccccff; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
rRNA Ratio [28s / 18s]:	1.6	Result Flagging Label:	RIN:9

**Fragment table for sample 2 : Sample 2: 1179.1**

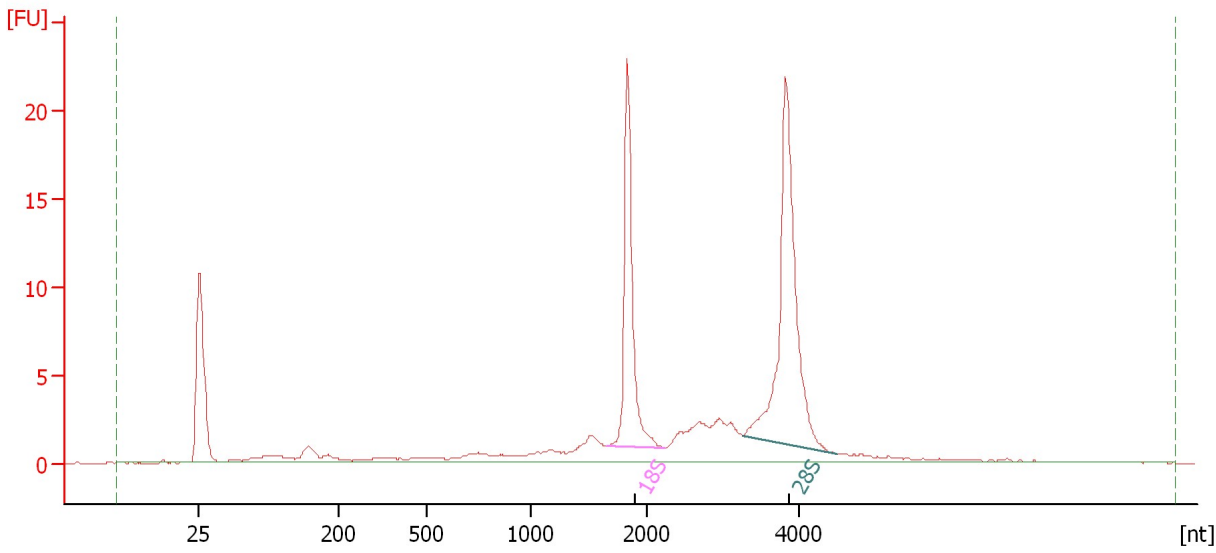
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,612	2,203	26.8	18.9
28S	3,256	4,448	43.2	30.5

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

**Electropherogram Summary Continued ...**

Sample 3: 1281.1 [ HiSeq\_272 Total RNA QC ]



**Overall Results for sample 3 : Sample 3: 1281.1**

RNA Area: 109.7                      RNA Integrity Number (RIN): 9.1 (B.02.08)  
RNA Concentration: 78 ng/μl                      Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.6                      Result Flagging Label: RIN: 9.10

**Fragment table for sample 3 : Sample 3: 1281.1**

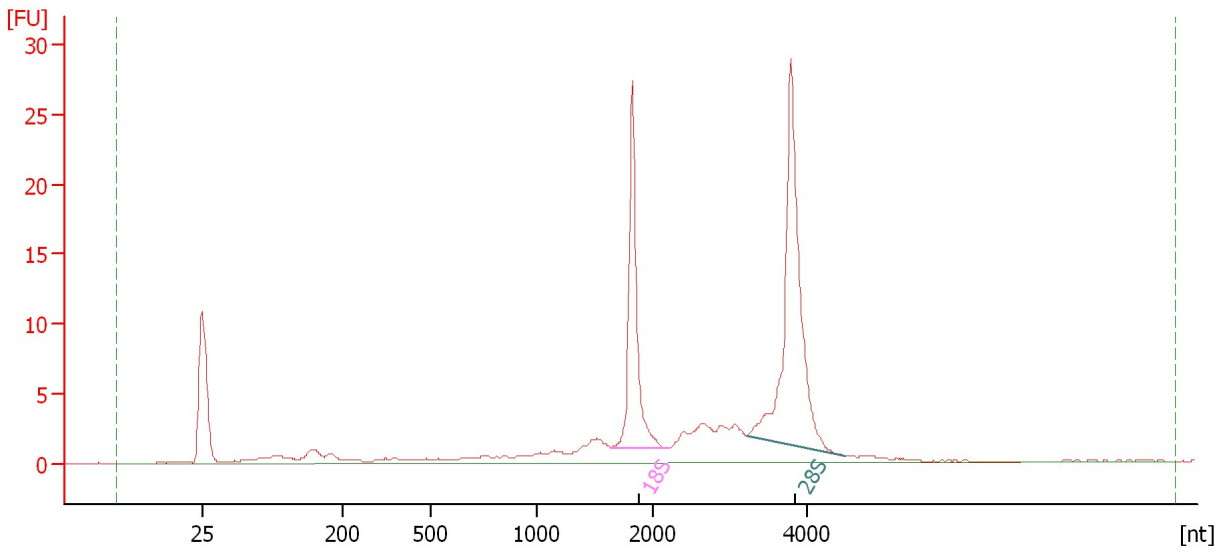
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,662	2,247	20.9	19.1
28S	3,267	4,497	34.2	31.2

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

**Electropherogram Summary Continued ...**

Sample 4: 1335.1 [ HiSeq\_272 Total RNA QC ]



**Overall Results for sample 4 : Sample 4: 1335.1**

RNA Area: 132.1 RNA Integrity Number (RIN): 9.2 (B.02.08)  
RNA Concentration: 94 ng/μl Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.7 Result Flagging Label: RIN: 9.20

**Fragment table for sample 4 : Sample 4: 1335.1**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,649	2,208	24.8	18.7
28S	3,222	4,513	43.1	32.6

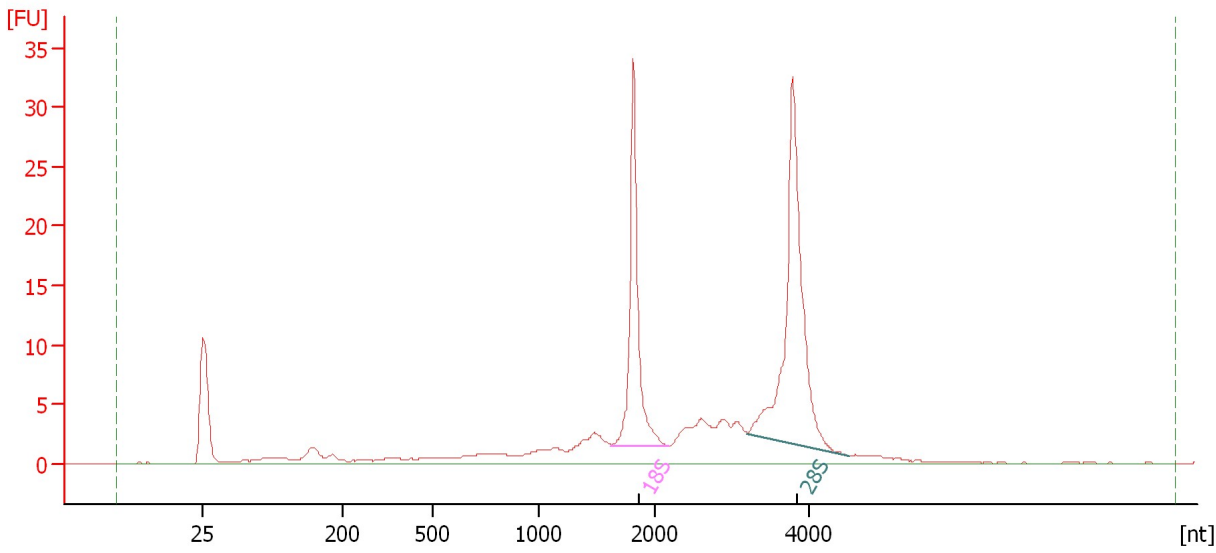


Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

**Electropherogram Summary Continued ...**

Sample 5: 1443.1 [ HiSeq\_272 Total RNA QC ]



**Overall Results for sample 5 : Sample 5: 1443.1**

RNA Area:	175.5	RNA Integrity Number (RIN):	8.9 (B.02.08)
RNA Concentration:	125 ng/μl	Result Flagging Color:	<span style="background-color: #ccccff; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
rRNA Ratio [28s / 18s]:	1.6	Result Flagging Label:	RIN: 8.90

**Fragment table for sample 5 : Sample 5: 1443.1**

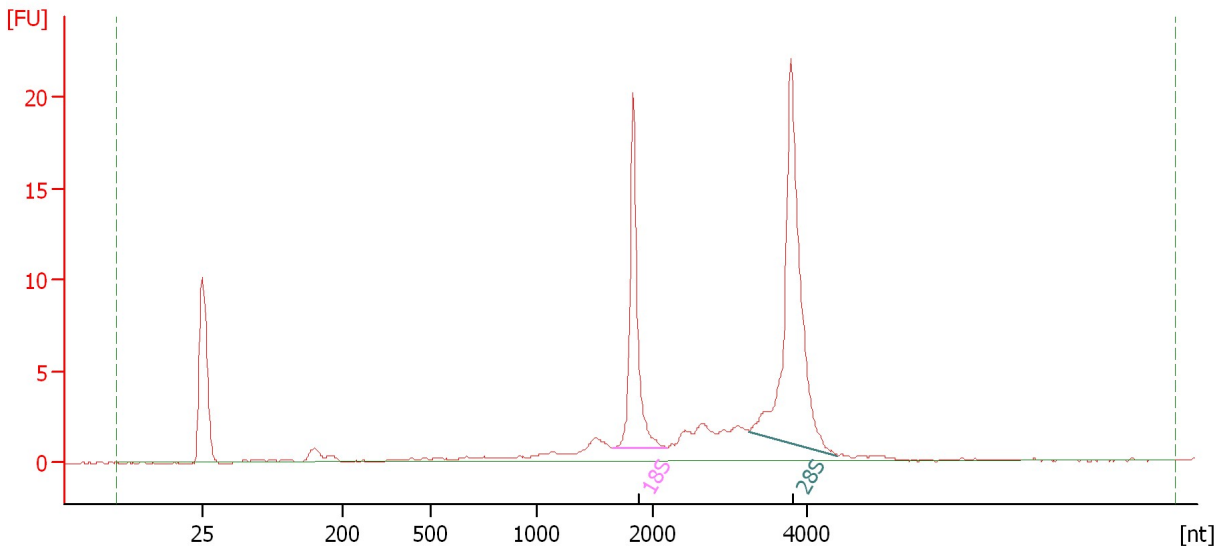
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,632	2,182	31.7	18.0
28S	3,207	4,537	52.0	29.6

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

**Electropherogram Summary Continued ...**

Sample 6: 1014.2 [ HiSeq\_272 Total RNA QC ]



**Overall Results for sample 6 : Sample 6: 1014.2**

RNA Area: 91.3                      RNA Integrity Number (RIN): 9.4 (B.02.08)  
RNA Concentration: 65 ng/μl              Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.9              Result Flagging Label: RIN: 9.40

**Fragment table for sample 6 : Sample 6: 1014.2**

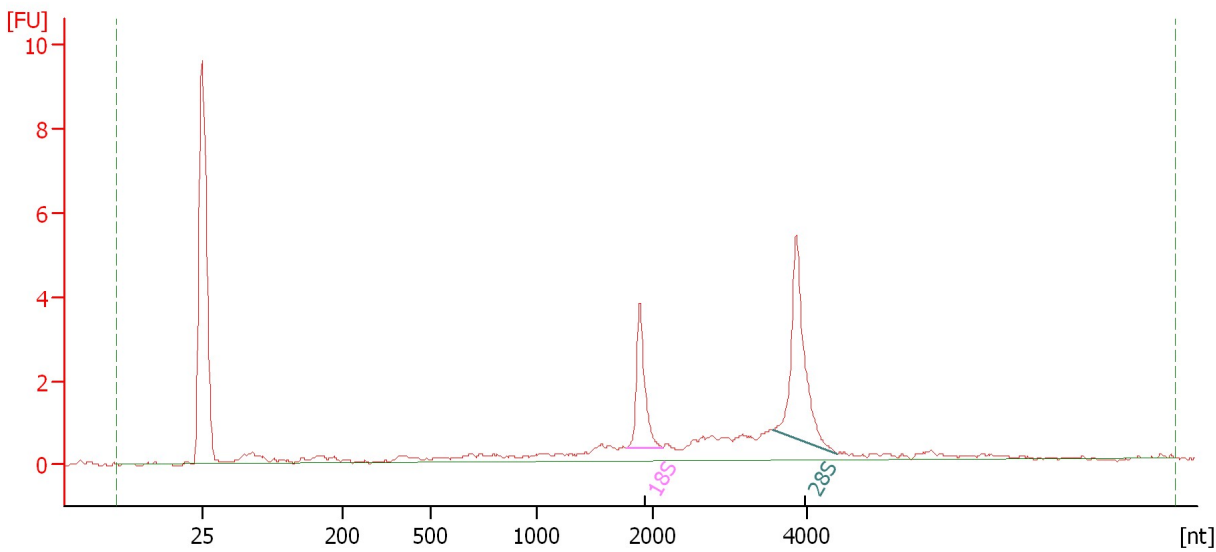
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,658	2,194	17.9	19.6
28S	3,263	4,402	33.5	36.7

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

**Electropherogram Summary Continued ...**

Sample 7: 1064.2 [ HiSeq\_272 Total RNA QC ]



**Overall Results for sample 7 : Sample 7: 1064.2**

RNA Area: 27.3 RNA Integrity Number (RIN): 8.2 (B.02.08)  
RNA Concentration: 19 ng/μl Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.9 Result Flagging Label: RIN: 8.20

**Fragment table for sample 7 : Sample 7: 1064.2**

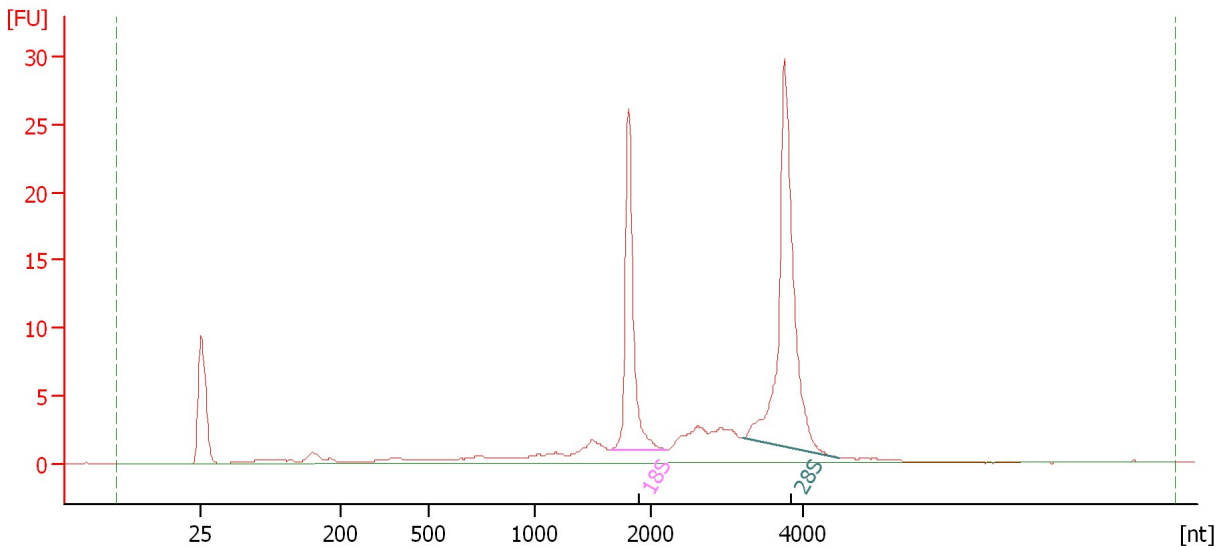
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,788	2,139	3.5	12.8
28S	3,569	4,402	6.6	24.3

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

**Electropherogram Summary Continued ...**

Sample 8: 1054.2 [ HiSeq\_272 Total RNA QC ]



**Overall Results for sample 8 : Sample 8: 1054.2**

RNA Area:	121.9	RNA Integrity Number (RIN):	9.3 (B.02.08)
RNA Concentration:	87 ng/μl	Result Flagging Color:	<span style="background-color: #ccccff; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
rRNA Ratio [28s / 18s]:	1.8	Result Flagging Label:	RIN: 9.30

**Fragment table for sample 8 : Sample 8: 1054.2**

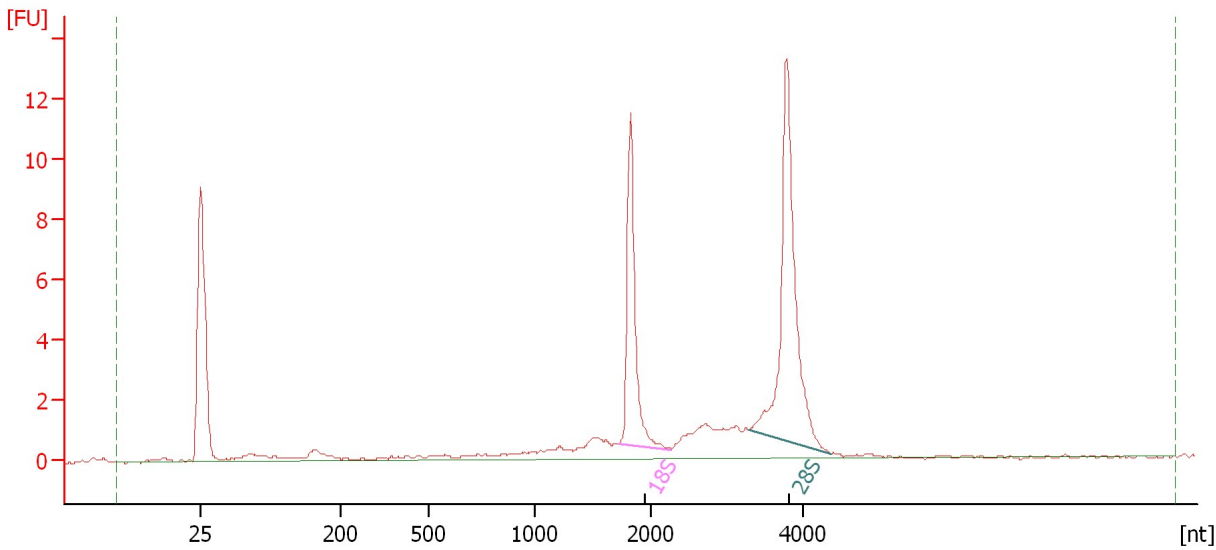
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,666	2,221	23.8	19.5
28S	3,209	4,447	43.3	35.6

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

**Electropherogram Summary Continued ...**

Sample 9: 1002.2 [ HiSeq\_272 Total RNA QC ]



**Overall Results for sample 9 : Sample 9: 1002.2**

RNA Area: 54.0 RNA Integrity Number (RIN): 9.2 (B.02.08)  
RNA Concentration: 39 ng/μl Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.8 Result Flagging Label: RIN: 9.20

**Fragment table for sample 9 : Sample 9: 1002.2**

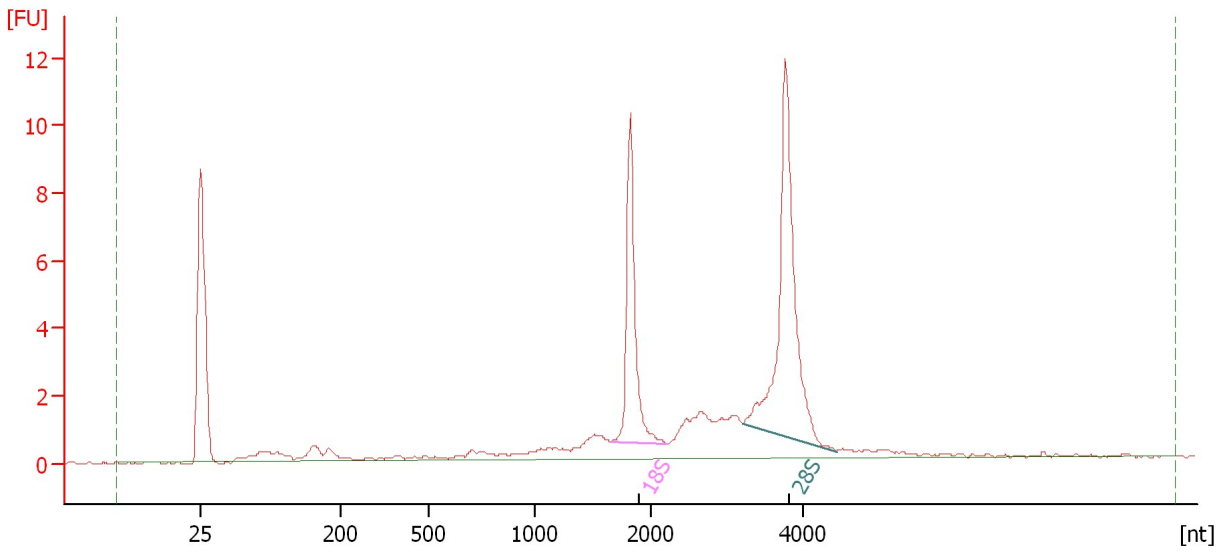
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,721	2,277	10.2	19.0
28S	3,279	4,350	18.2	33.6

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

**Electropherogram Summary Continued ...**

Sample 10: 1069.2 [ HiSeq\_272 Total RNA QC ]



**Overall Results for sample 10 : Sample 10: 1069.2**

RNA Area: 55.5                      RNA Integrity Number (RIN): 9.1 (B.02.08)  
RNA Concentration: 40 ng/μl              Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.8              Result Flagging Label: RIN: 9.10

**Fragment table for sample 10 : Sample 10: 1069.2**

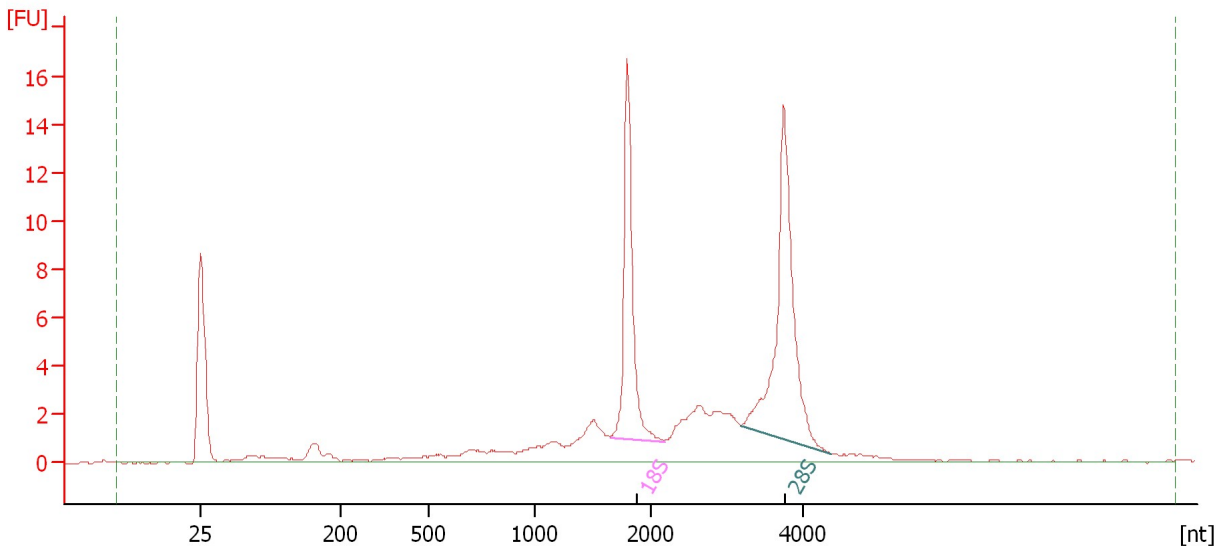
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,666	2,207	9.5	17.2
28S	3,195	4,419	17.4	31.4

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

**Electropherogram Summary Continued ...**

Sample 11: 1083.2 [ HiSeq\_272 Total RNA QC ]



**Overall Results for sample 11 : Sample 11: 1083.2**

RNA Area: 85.2                      RNA Integrity Number (RIN): 8.6 (B.02.08)  
RNA Concentration: 61 ng/μl              Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.5              Result Flagging Label: RIN: 8.60

**Fragment table for sample 11 : Sample 11: 1083.2**

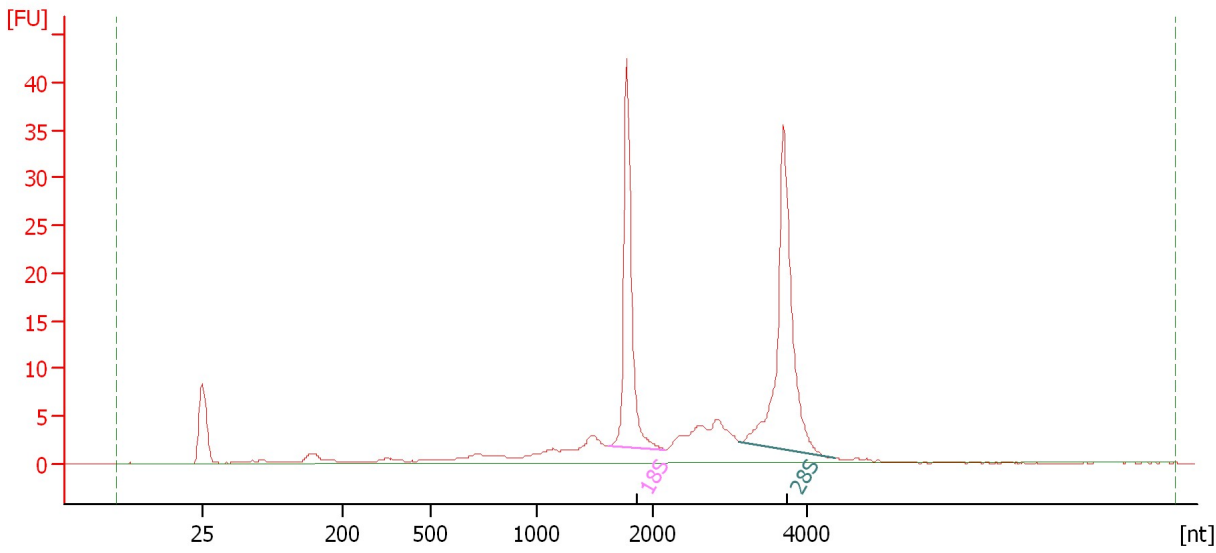
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,657	2,180	15.6	18.3
28S	3,181	4,364	23.4	27.5

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

**Electropherogram Summary Continued ...**

Sample 12: 1029.1 [ HiSeq\_272 Total RNA QC ]



**Overall Results for sample 12 : Sample 12: 1029.1**

RNA Area: 170.3 RNA Integrity Number (RIN): 8.9 (B.02.08)  
RNA Concentration: 122 ng/μl Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.4 Result Flagging Label: RIN: 8.90

**Fragment table for sample 12 : Sample 12: 1029.1**

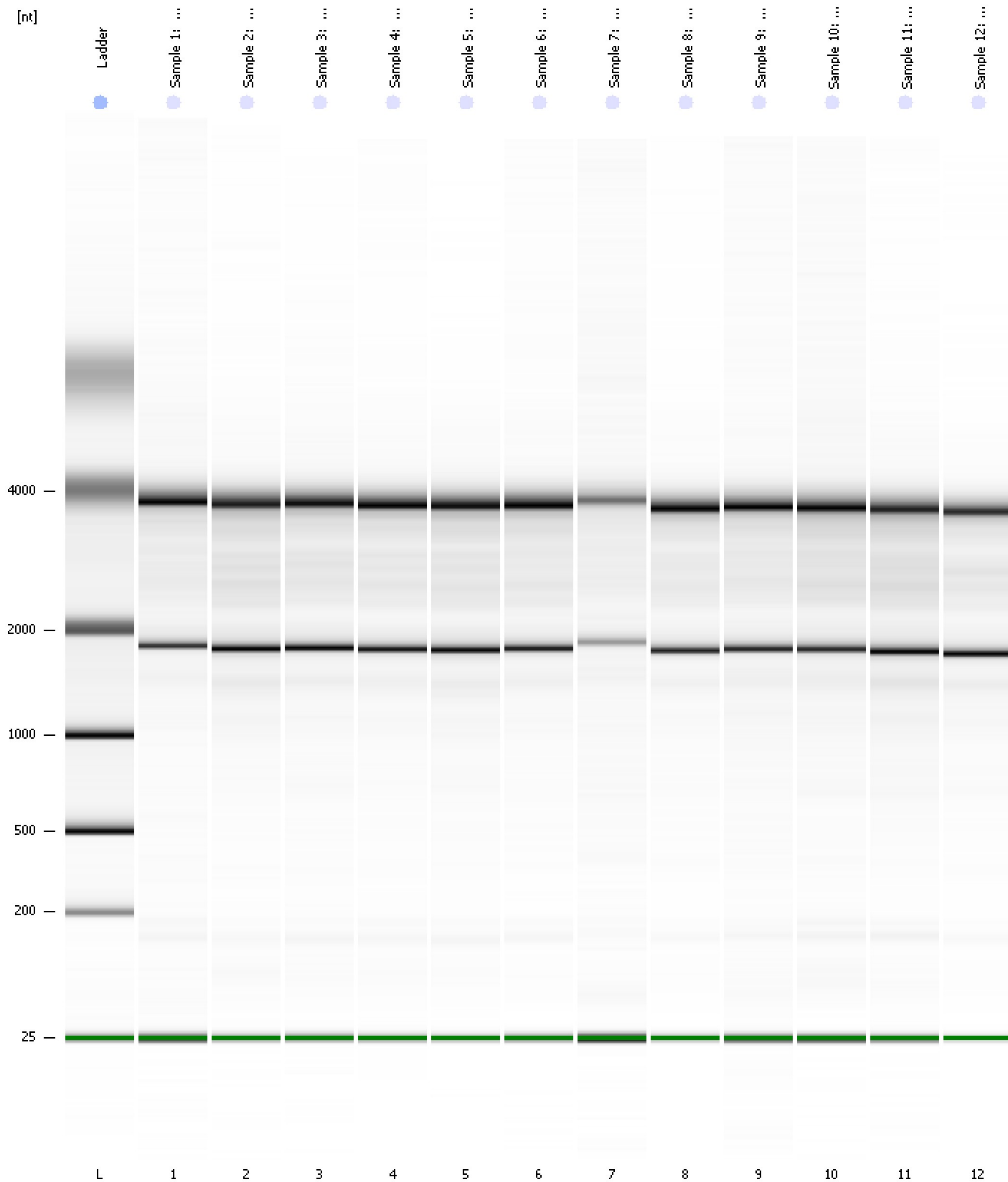
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,621	2,153	37.7	22.1
28S	3,138	4,374	51.2	30.1



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

**Gel Image**

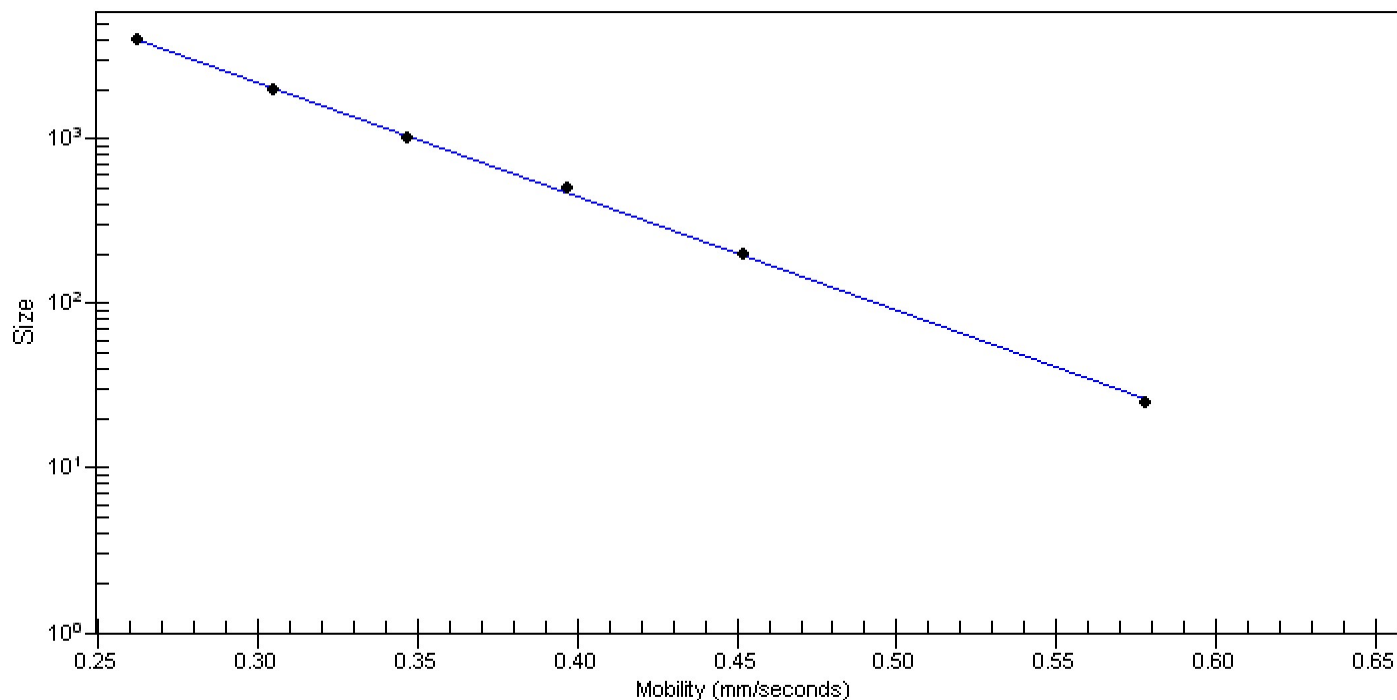


Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
Modified: 11/2/2015 4:37:20 PM

**Curves**

**Standard Curve**



Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-02\2015-11-02\_002.xad

Created: 11/2/2015 4:13:32 PM  
 Modified: 11/2/2015 4:37:20 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 13)		Instrument	Run		11/2/2015 2:37:19 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-11-02\2015-11-02_002.xad)		Instrument	Run		11/2/2015 2:13:37 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		11/2/2015 2:13:37 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/2/2015 2:13:37 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/2/2015 2:13:37 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		11/2/2015 2:13:37 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/2/2015 2:13:37 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/2/2015 2:13:37 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1