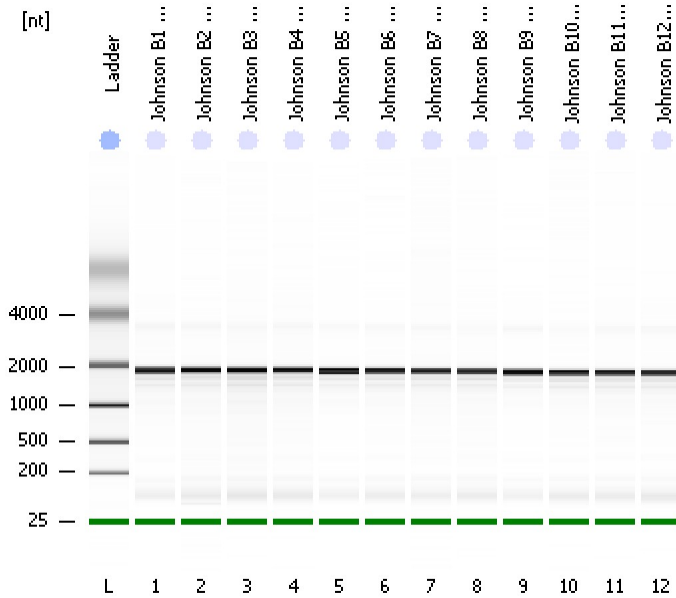


Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
Modified: 4/26/2013 5:01:41 PM

**Electrophoresis File Run Summary**



Instrument Information:

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

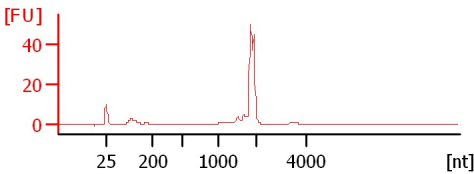
Assay Information:

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.

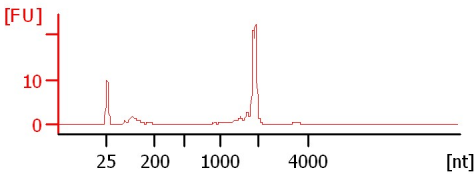
Chip Information:

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

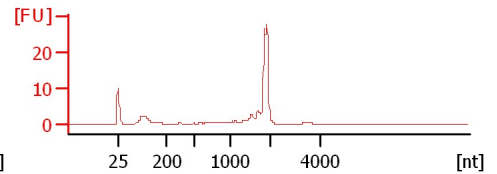
**Johnson B1 TotalRNA 1:4**  
RIN: 8.40



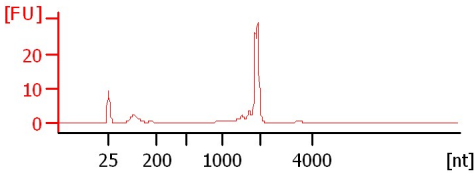
**Johnson B2 TotalRNA 1:4**  
RIN: 4.20



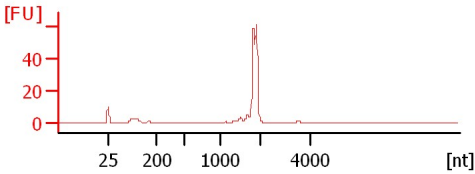
**Johnson B3 TotalRNA 1:4**  
RIN: 3.70



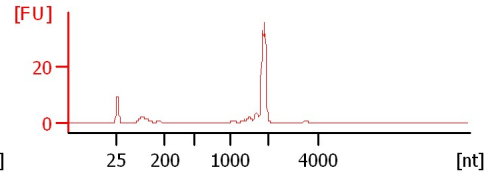
**Johnson B4 TotalRNA 1:4**  
RIN: 4.20



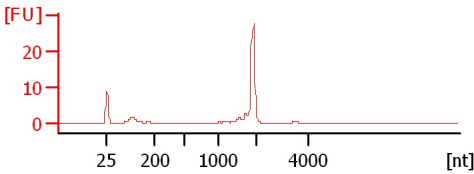
**Johnson B5 TotalRNA 1:4**  
RIN: 4.90



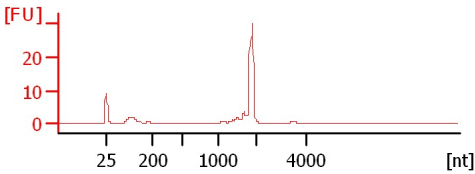
**Johnson B6 TotalRNA 1:4**  
RIN: 4.30



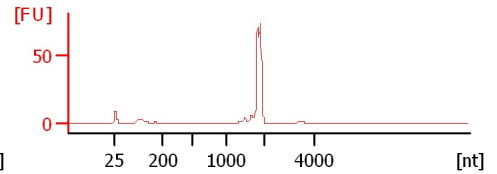
**Johnson B7 TotalRNA 1:4**  
RIN: 4.80



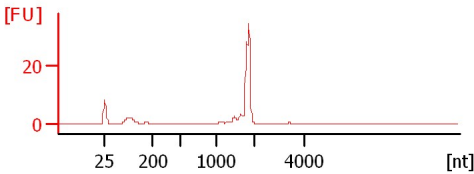
**Johnson B8 TotalRNA 1:4**  
RIN: 4.70



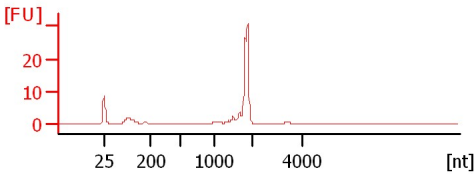
**Johnson B9 TotalRNA 1:4**  
RIN: 4.90



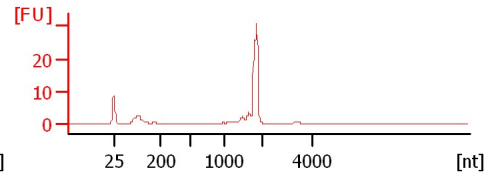
**Johnson B10 TotalRNA 1:4**  
RIN: 4.90



**Johnson B11 TotalRNA 1:4**  
RIN: 4.90



**Johnson B12 TotalRNA 1:4**  
RIN: 4.70



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
Modified: 4/26/2013 5:01:41 PM

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

Sample Name	Sample Comment	Status	Result Label	Result Color
Johnson B1 TotalRNA 1:4		✓	RIN: 8.40	
Johnson B2 TotalRNA 1:4		✓	RIN: 4.20	
Johnson B3 TotalRNA 1:4		✓	RIN: 3.70	
Johnson B4 TotalRNA 1:4		✓	RIN: 4.20	
Johnson B5 TotalRNA 1:4		✓	RIN: 4.90	
Johnson B6 TotalRNA 1:4		✓	RIN: 4.30	
Johnson B7 TotalRNA 1:4		✓	RIN: 4.80	
Johnson B8 TotalRNA 1:4		✓	RIN: 4.70	
Johnson B9 TotalRNA 1:4		✓	RIN: 4.90	
Johnson B10 TotalRNA 1:4		✓	RIN: 4.90	
Johnson B11 TotalRNA 1:4		✓	RIN: 4.90	
Johnson B12 TotalRNA 1:4		✓	RIN: 4.70	
Ladder		✓	All Other Samples	

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
Modified: 4/26/2013 5:01:41 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

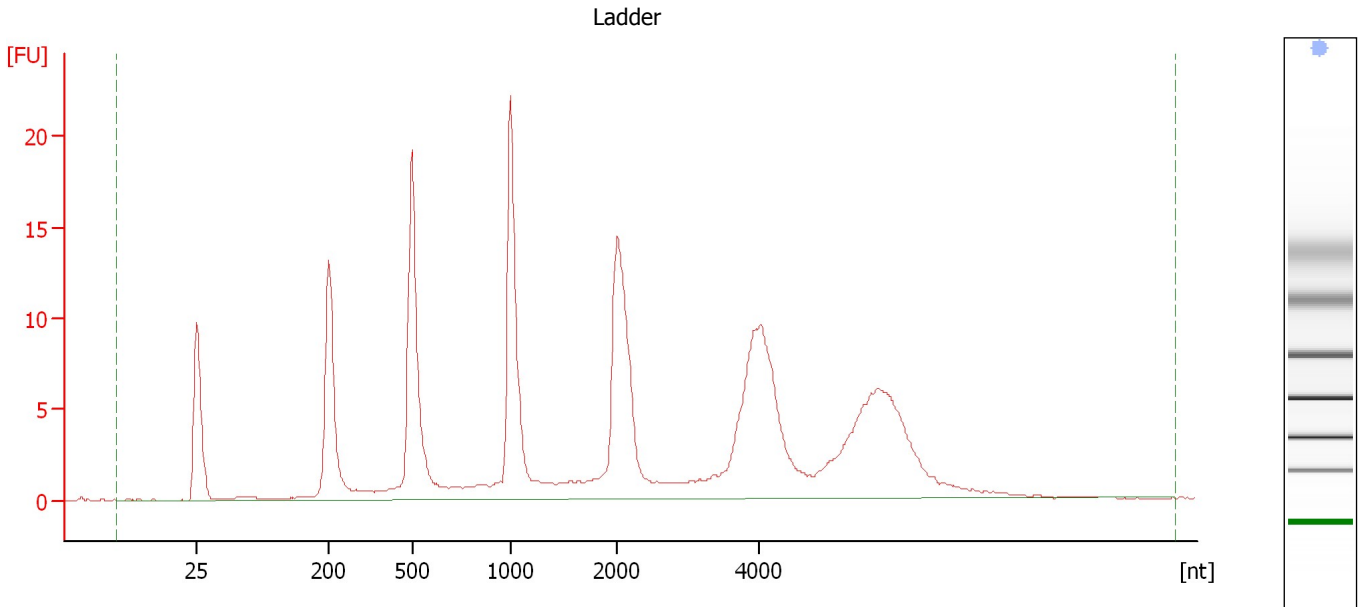
**Ladder**

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\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
Modified: 4/26/2013 5:01:41 PM

**Electropherogram Summary**



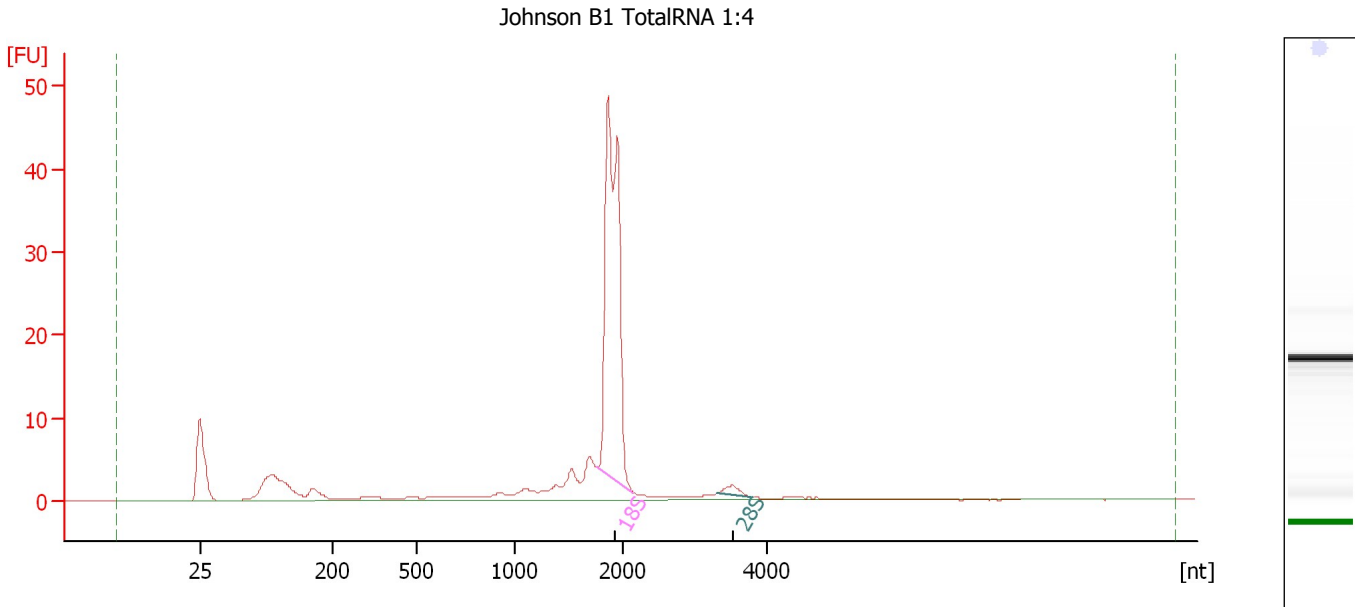
**Overall Results for Ladder**

RNA Area:	213.6	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\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
Modified: 4/26/2013 5:01:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : Johnson B1 TotalRNA 1:4**

RNA Area: 146.4                      RNA Integrity Number (RIN): 8.4 (B.02.08,  
RNA Concentration: 103 ng/μl                      Anomaly Threshold(s)  
rRNA Ratio [28s / 18s]: 0.0                      manually adapted)  
Result Flagging Color:   
Result Flagging Label: RIN: 8.40

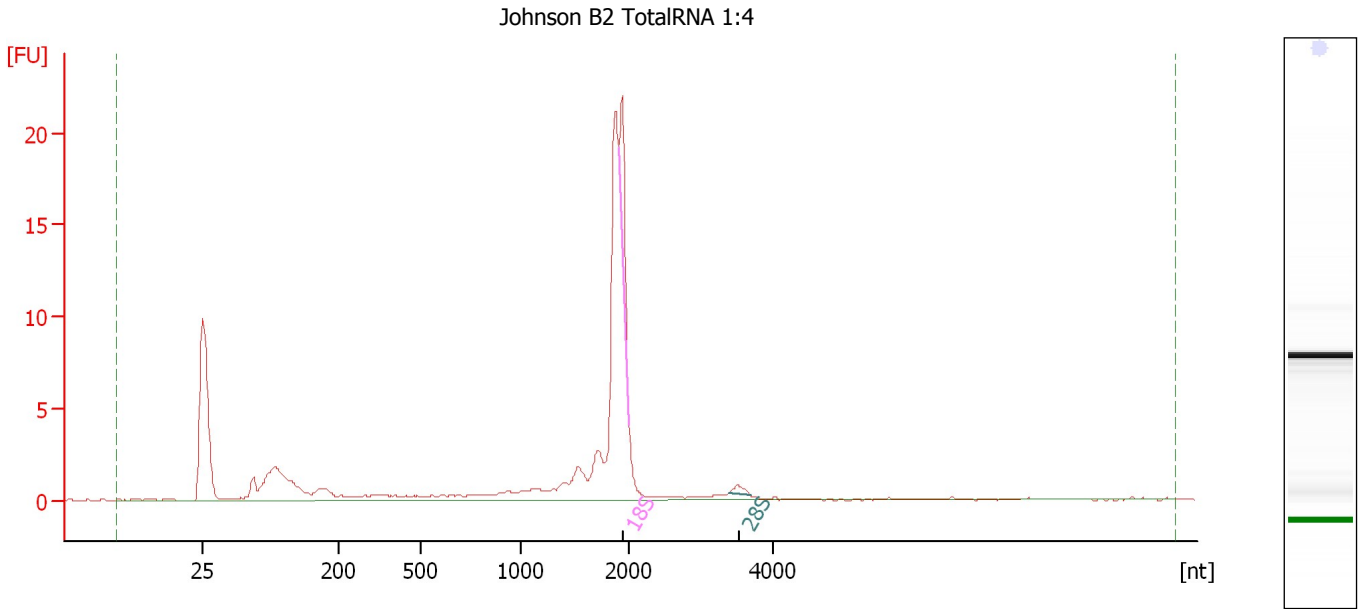
**Fragment table for sample 1 : Johnson B1 TotalRNA 1:4**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,756	2,141	77.3	52.8
28S	3,321	3,784	1.7	1.2

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
Modified: 4/26/2013 5:01:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : Johnson B2 TotalRNA 1:4**

RNA Area: 72.7 RNA Integrity Number (RIN): 4.2 (B.02.08, Anomaly Threshold(s) manually adapted)  
RNA Concentration: 51 ng/μl  
rRNA Ratio [28s / 18s]: 0.1  
Result Flagging Color:   
Result Flagging Label: RIN: 4.20

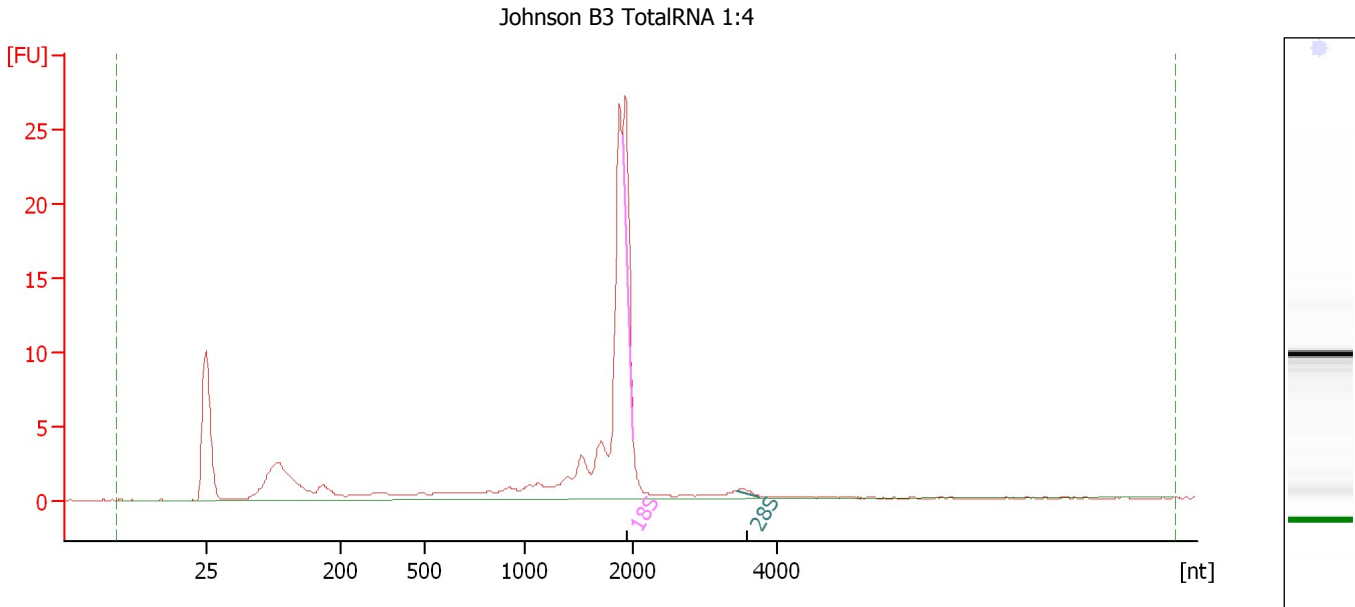
**Fragment table for sample 2 : Johnson B2 TotalRNA 1:4**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,900	1,999	5.4	7.4
28S	3,379	3,691	0.6	0.8

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
 Modified: 4/26/2013 5:01:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : Johnson B3 TotalRNA 1:4**

RNA Area:	97.1	RNA Integrity Number (RIN):	3.7 (B.02.08, Anomaly Threshold(s) manually adapted)
RNA Concentration:	68 ng/μl		
rRNA Ratio [28s / 18s]:	0.0	Result Flagging Color:	<span style="background-color: #ccccff; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
		Result Flagging Label:	RIN: 3.70

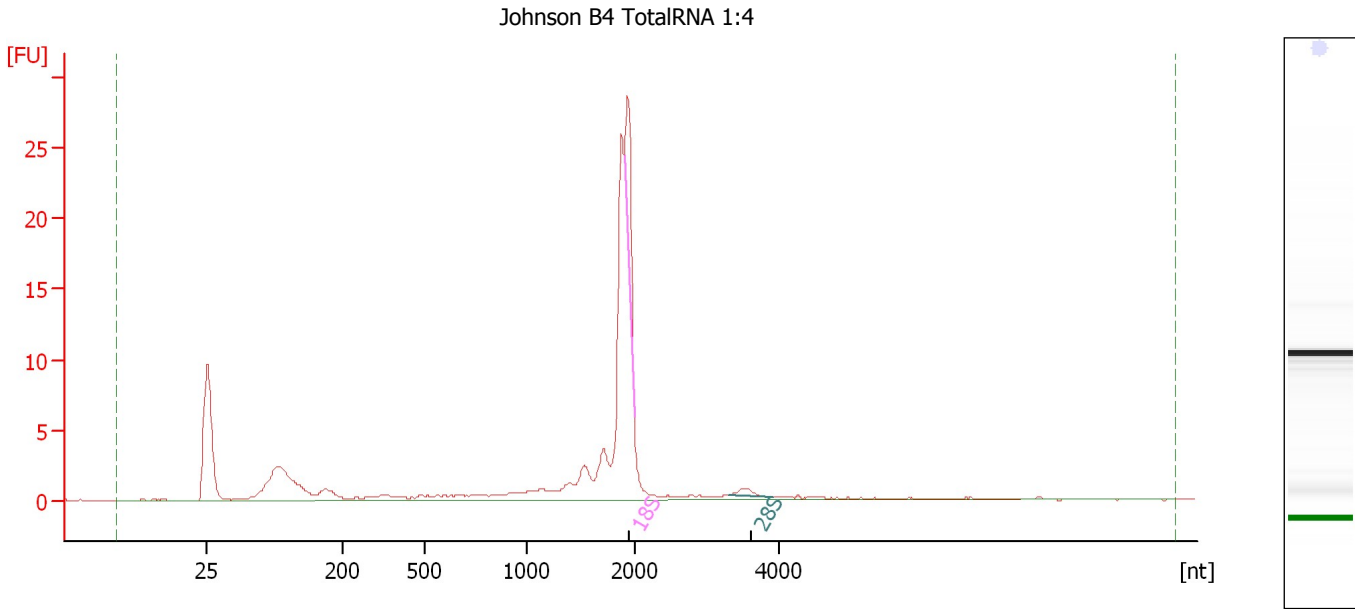
**Fragment table for sample 3 : Johnson B3 TotalRNA 1:4**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,904	2,003	5.9	6.1
28S	3,452	3,747	0.3	0.3

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
 Modified: 4/26/2013 5:01:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : Johnson B4 TotalRNA 1:4**

RNA Area:	84.5	RNA Integrity Number (RIN):	4.2 (B.02.08)
RNA Concentration:	59 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]:	0.1	Result Flagging Label:	RIN: 4.20

**Fragment table for sample 4 : Johnson B4 TotalRNA 1:4**

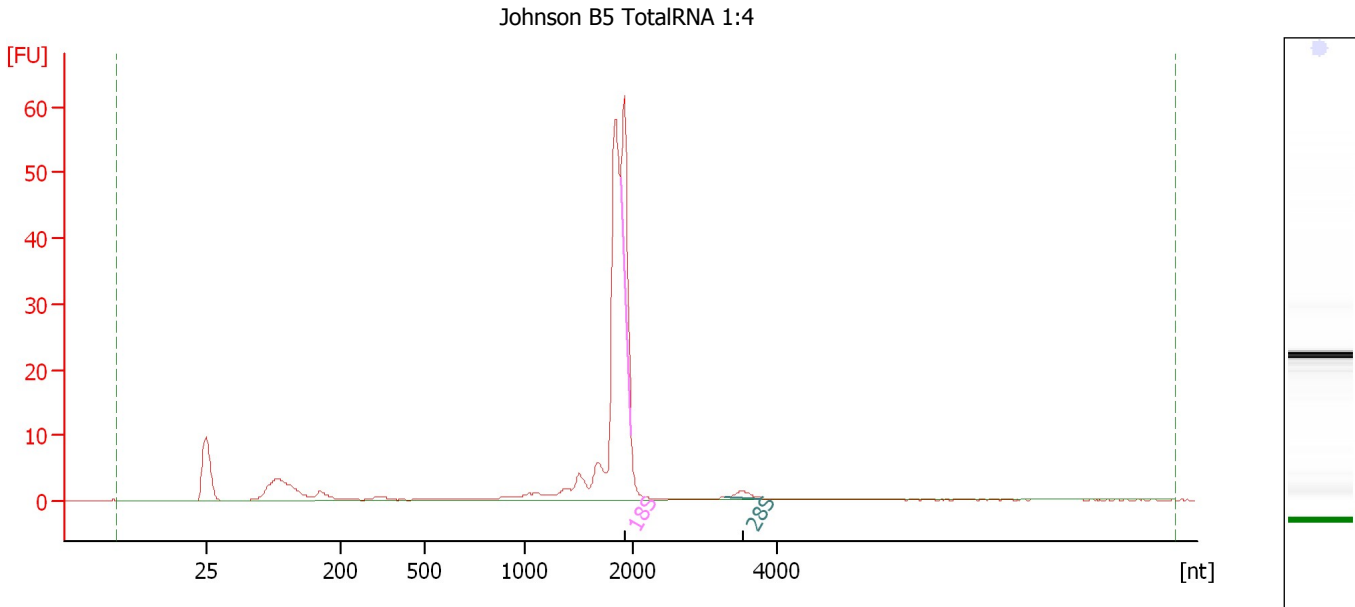
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,905	1,994	6.7	7.9
28S	3,303	3,908	0.9	1.1



Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
 Modified: 4/26/2013 5:01:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : Johnson B5 TotalRNA 1:4**

RNA Area:	163.1	RNA Integrity Number (RIN):	4.9 (B.02.08, Anomaly Threshold(s) manually adapted)
RNA Concentration:	115 ng/μl		
rRNA Ratio [28s / 18s]:	0.1	Result Flagging Color:	<span style="background-color: #ccccff; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
		Result Flagging Label:	RIN: 4.90

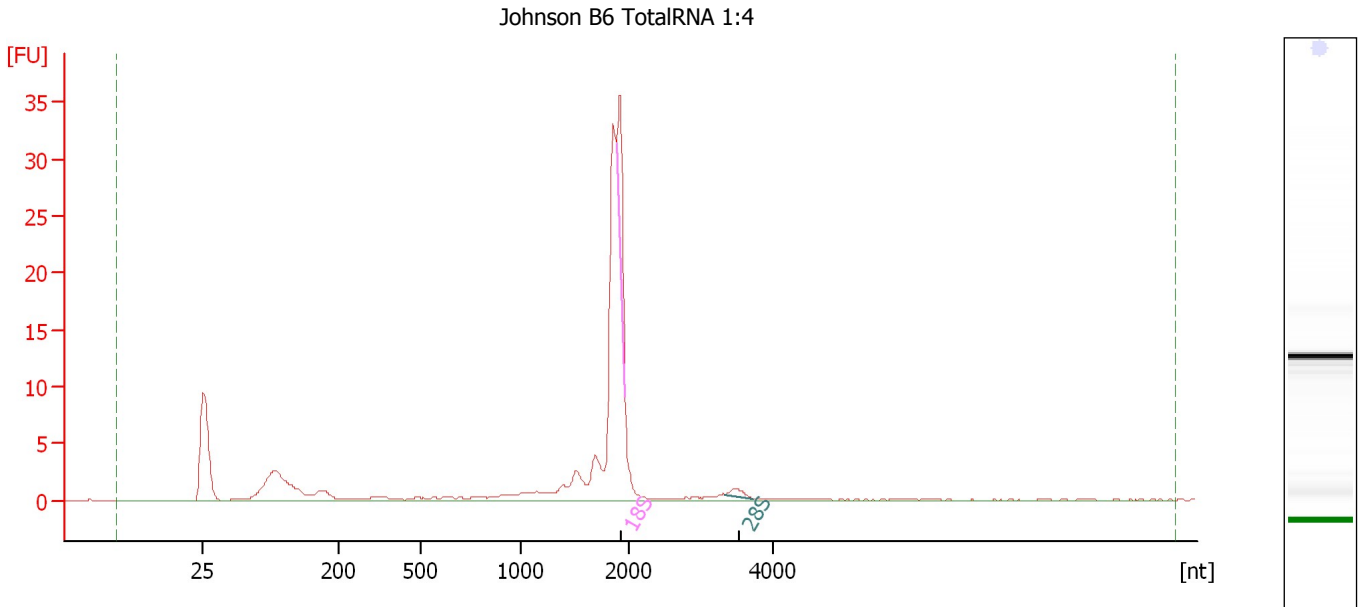
**Fragment table for sample 5 : Johnson B5 TotalRNA 1:4**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,884	1,982	17.8	10.9
28S	3,274	3,777	1.6	1.0

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
Modified: 4/26/2013 5:01:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : Johnson B6 TotalRNA 1:4**

RNA Area: 98.1 RNA Integrity Number (RIN): 4.3 (B.02.08)  
RNA Concentration: 69 ng/μl Result Flagging Color:   
rRNA Ratio [28s / 18s]: 0.1 Result Flagging Label: RIN: 4.30

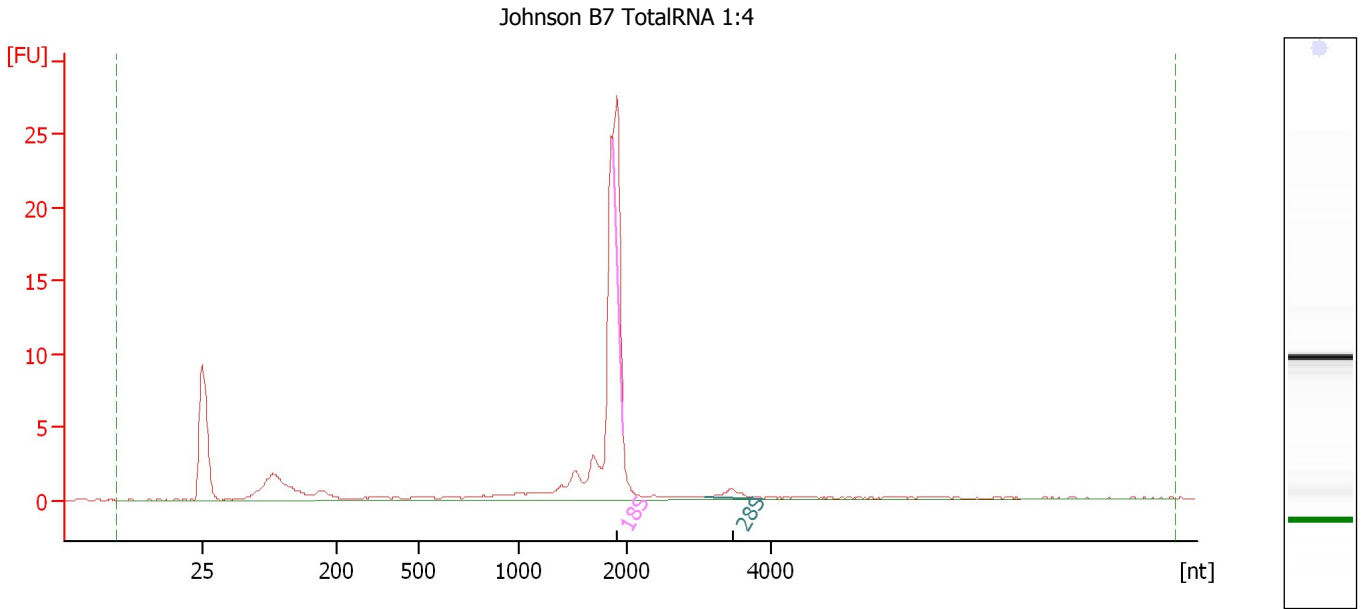
**Fragment table for sample 6 : Johnson B6 TotalRNA 1:4**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,880	1,969	8.3	8.4
28S	3,335	3,721	0.9	0.9

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
Modified: 4/26/2013 5:01:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : Johnson B7 TotalRNA 1:4**

RNA Area: 70.6 RNA Integrity Number (RIN): 4.8 (B.02.08)  
RNA Concentration: 50 ng/μl Result Flagging Color:   
rRNA Ratio [28s / 18s]: 0.2 Result Flagging Label: RIN: 4.80

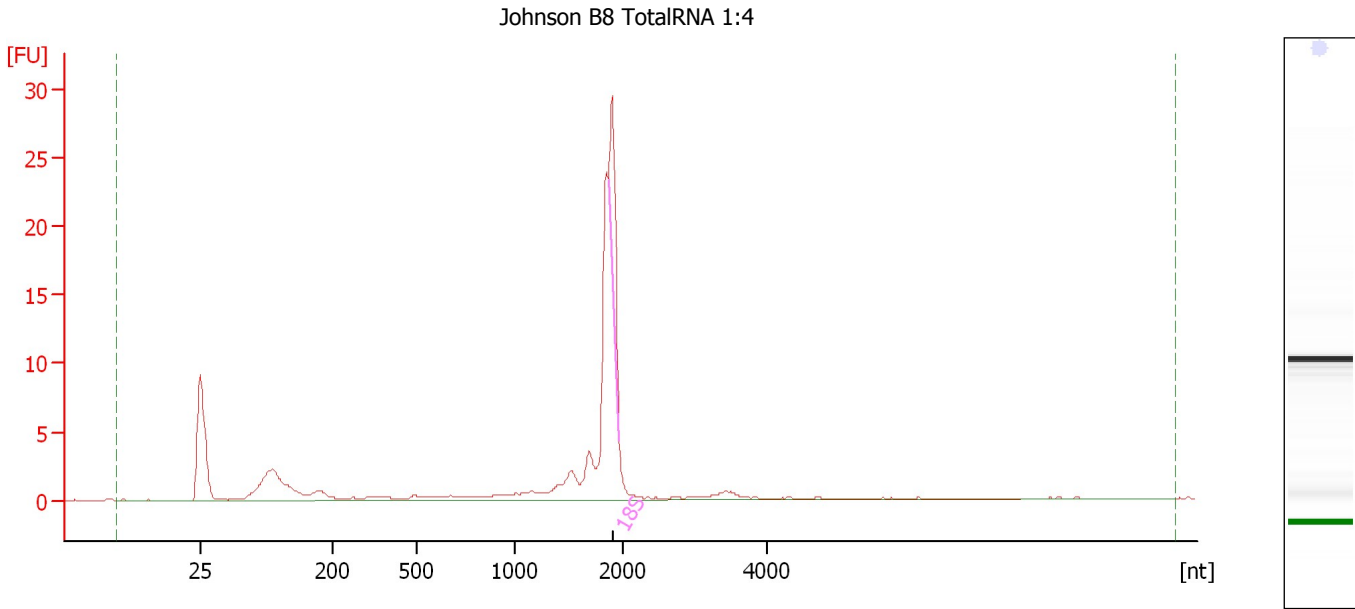
**Fragment table for sample 7 : Johnson B7 TotalRNA 1:4**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,869	1,968	6.8	9.6
28S	3,097	3,886	1.2	1.7

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
Modified: 4/26/2013 5:01:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : Johnson B8 TotalRNA 1:4**

RNA Area:	81.5	RNA Integrity Number (RIN):	4.7 (B.02.08)
RNA Concentration:	57 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]:	0.0	Result Flagging Label:	RIN: 4.70

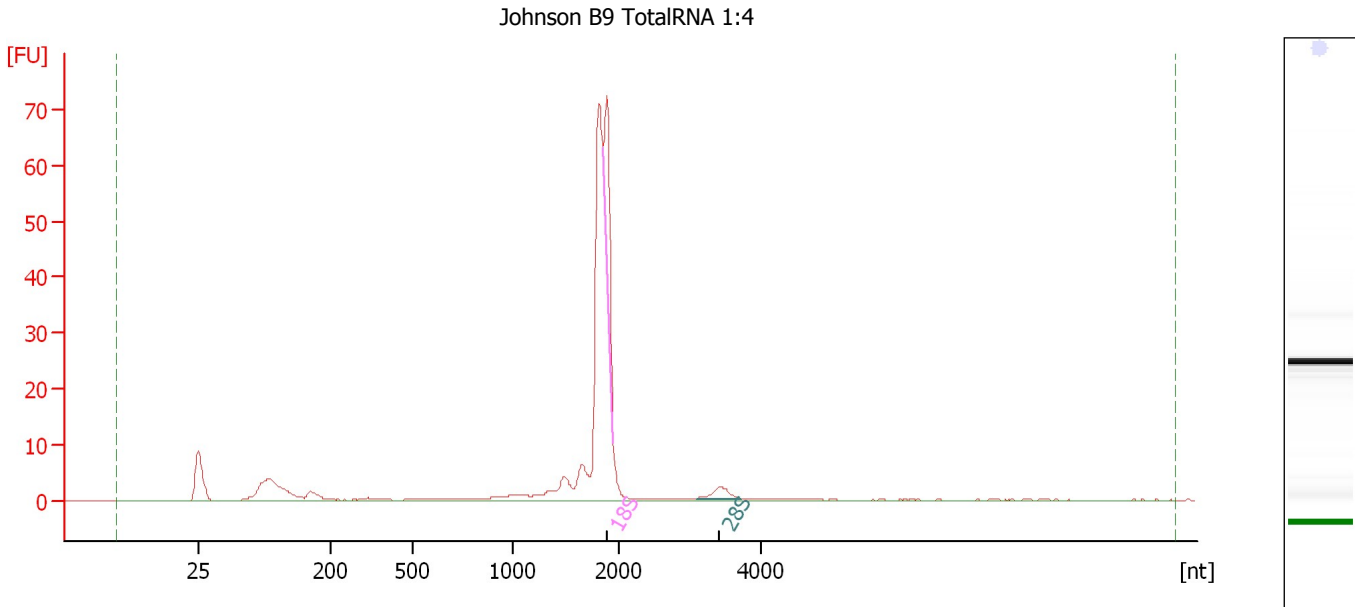
**Fragment table for sample 8 : Johnson B8 TotalRNA 1:4**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,865	1,964	8.4	10.3

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
 Modified: 4/26/2013 5:01:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : Johnson B9 TotalRNA 1:4**

RNA Area:	189.0	RNA Integrity Number (RIN):	4.9 (B.02.08, Anomaly Threshold(s) manually adapted)
RNA Concentration:	133 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]:	0.2	Result Flagging Label:	RIN: 4.90

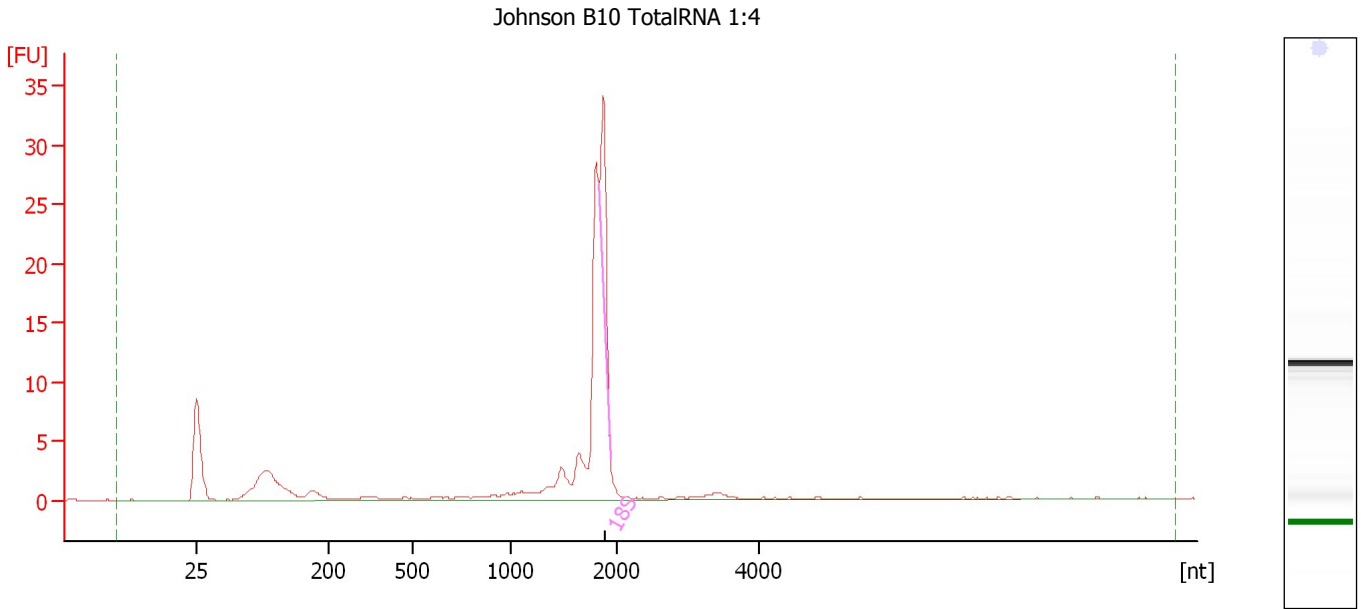
**Fragment table for sample 9 : Johnson B9 TotalRNA 1:4**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,851	1,951	19.2	10.1
28S	3,097	3,712	3.4	1.8

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
Modified: 4/26/2013 5:01:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : Johnson B10 TotalRNA 1:4**

RNA Area:	89.5	RNA Integrity Number (RIN):	4.9 (B.02.08)
RNA Concentration:	63 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]:	0.0	Result Flagging Label:	RIN: 4.90

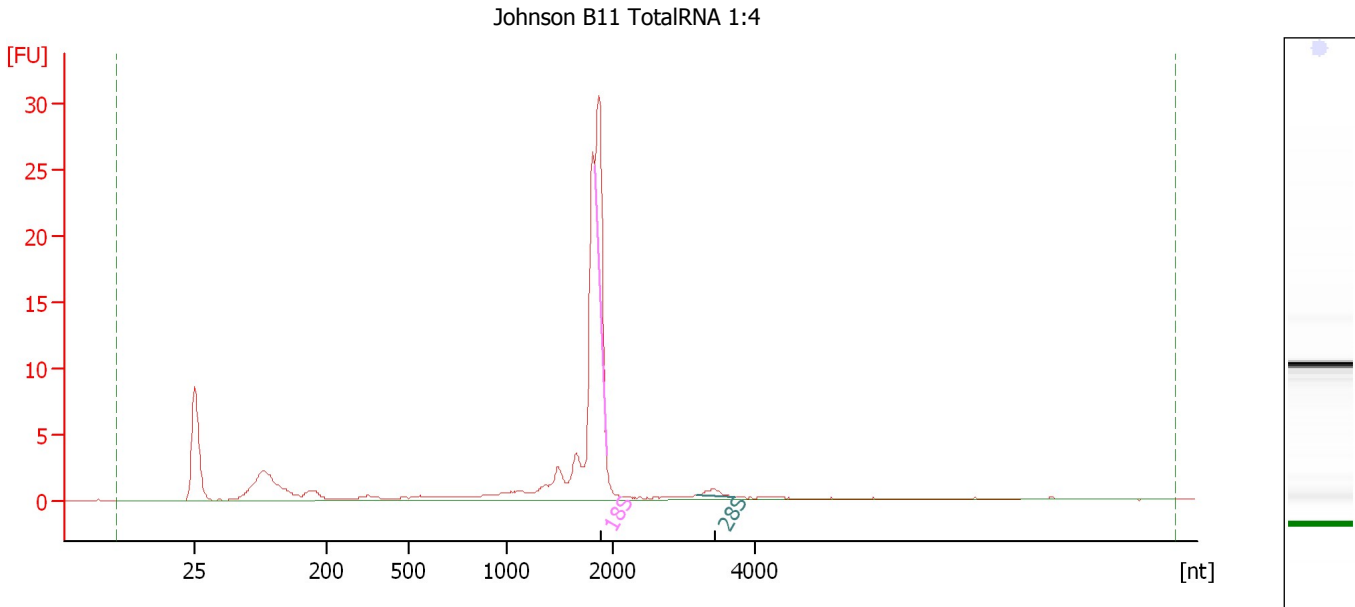
**Fragment table for sample 10 : Johnson B10 TotalRNA 1:4**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,829	1,940	10.4	11.7

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
Modified: 4/26/2013 5:01:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : Johnson B11 TotalRNA 1:4**

RNA Area: 79.9 RNA Integrity Number (RIN): 4.9 (B.02.08)  
RNA Concentration: 56 ng/μl Result Flagging Color:   
rRNA Ratio [28s / 18s]: 0.1 Result Flagging Label: RIN: 4.90

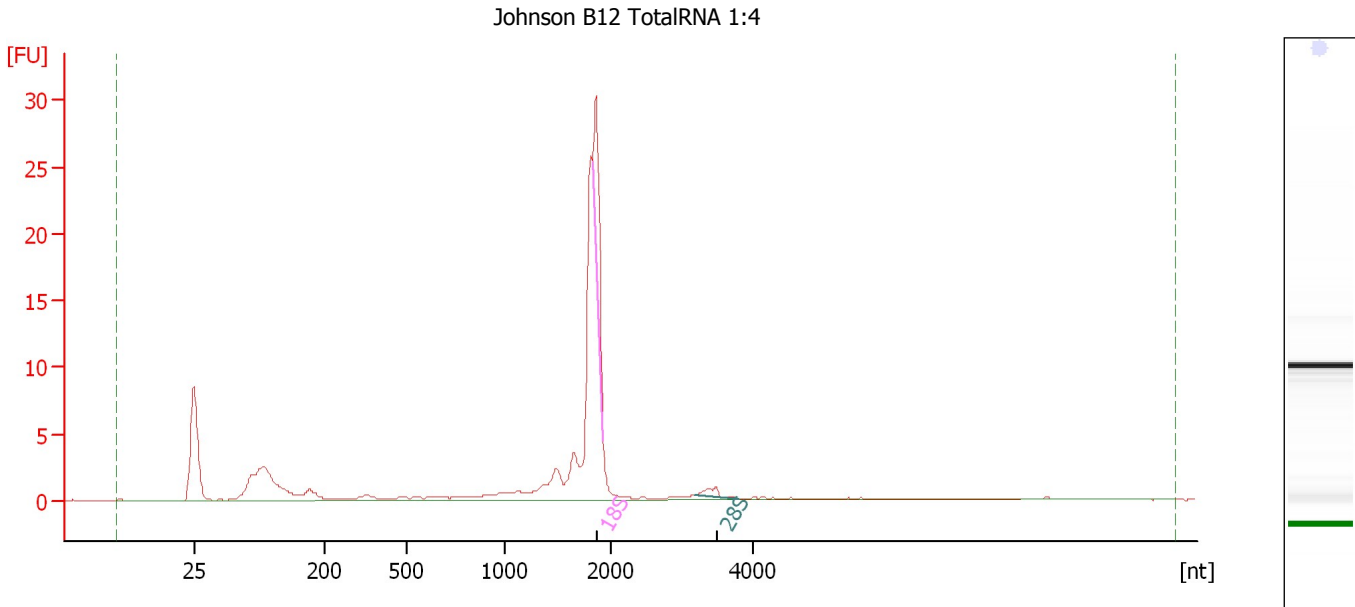
**Fragment table for sample 11 : Johnson B11 TotalRNA 1:4**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,826	1,936	8.7	10.9
28S	3,188	3,732	0.9	1.2

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
 Modified: 4/26/2013 5:01:41 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 12 : Johnson B12 TotalRNA 1:4**

RNA Area:	83.6	RNA Integrity Number (RIN):	4.7 (B.02.08)
RNA Concentration:	59 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]:	0.1	Result Flagging Label:	RIN: 4.70

**Fragment table for sample 12 : Johnson B12 TotalRNA 1:4**

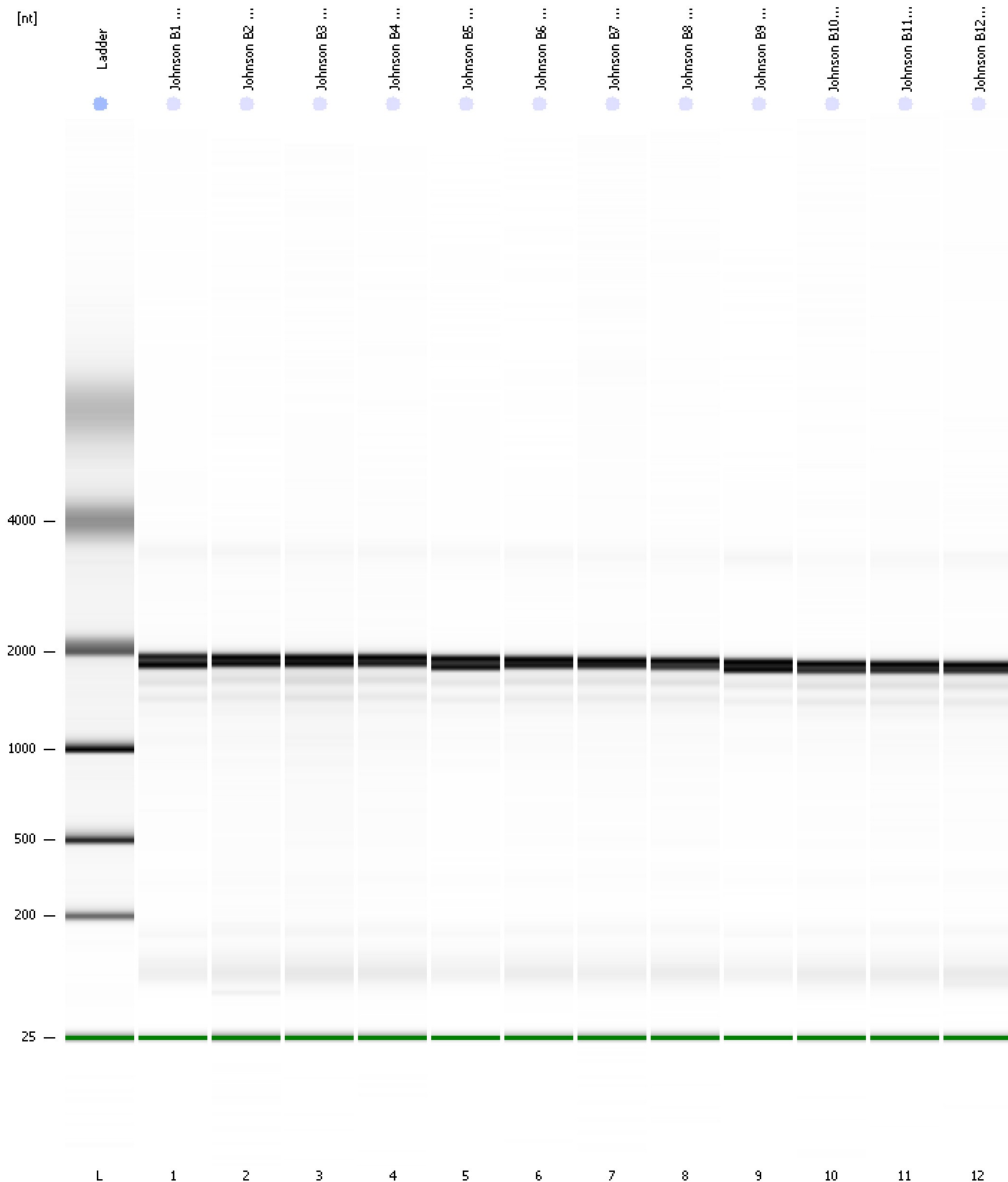
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,824	1,924	8.1	9.7
28S	3,173	3,809	1.0	1.2



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
Modified: 4/26/2013 5:01:41 PM

**Gel Image**



Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-26\2013-04-26\_002.xad

Created: 4/26/2013 4:27:43 PM  
 Modified: 4/26/2013 5:01:41 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		4/26/2013 4:51:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-04-26\2013-04-26_002.xad)		Instrument	Run		4/26/2013 4:27:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/26/2013 4:27:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/26/2013 4:27:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/26/2013 4:27:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/26/2013 4:27:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/26/2013 4:27:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/26/2013 4:27:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1