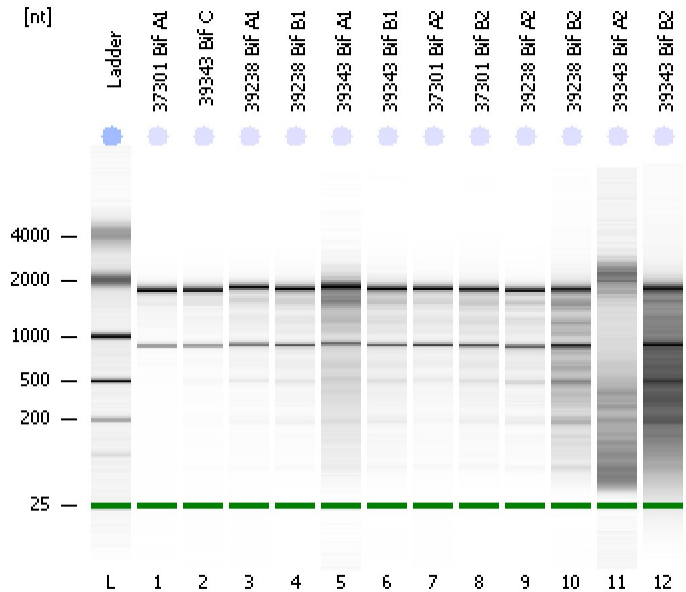


Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
Modified: 8/5/2013 4:48:48 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

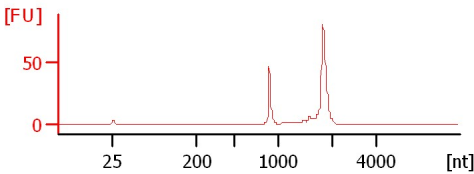
Assay Class: Eukaryote Total RNA Nano  
Version: 2.6  
Assay Comments: Total RNA Analysis ng sensitivity (Eukaryote)

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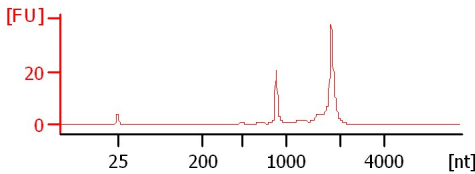
Chip Information:

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

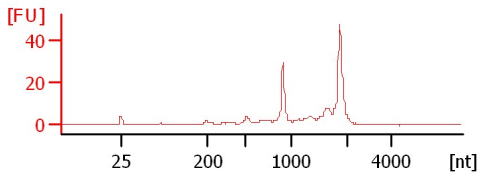
37301 Bif A1  
RIN: 10



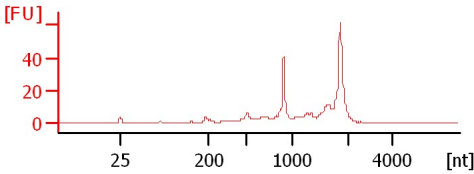
39343 Bif C  
RIN: 9.40



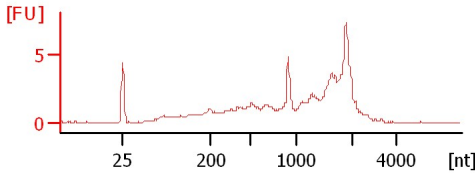
39238 Bif A1  
RIN: 8.60



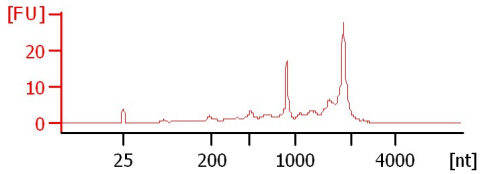
39238 Bif B1  
RIN: 8.10



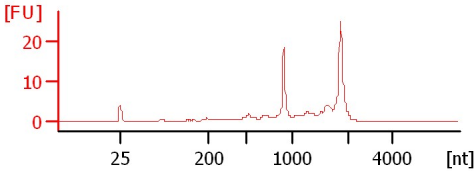
39343 Bif A1  
RIN: 5.60



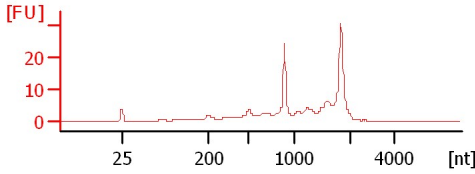
39343 Bif B1  
RIN: 7.50



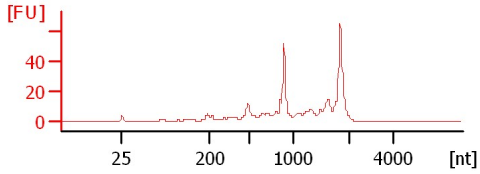
37301 Bif A2  
RIN: 8.20



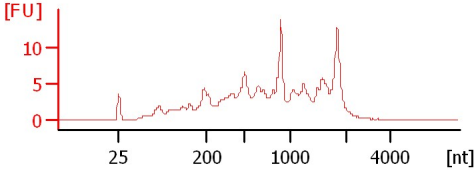
37301 Bif B2  
RIN: 7.40



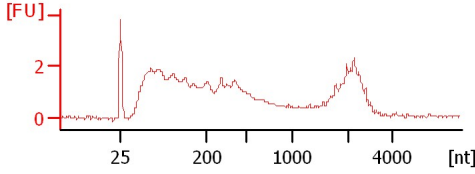
39238 Bif A2  
RIN: 7.50



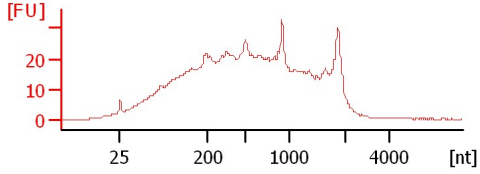
39238 Bif B2  
RIN: 5.50



39343 Bif A2  
RIN: 2.40



39343 Bif B2  
RIN: 3.30



Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
 Modified: 8/5/2013 4:48:48 PM

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

Sample Name	Sample Comment	Status	Result Label	Result Color
37301 Bif A1		✓	RIN:10	
39343 Bif C		✓	RIN: 9.40	
39238 Bif A1		✓	RIN: 8.60	
39238 Bif B1		✓	RIN: 8.10	
39343 Bif A1		✓	RIN: 5.60	
39343 Bif B1		✓	RIN: 7.50	
37301 Bif A2		✓	RIN: 8.20	
37301 Bif B2		✓	RIN: 7.40	
39238 Bif A2		✓	RIN: 7.50	
39238 Bif B2		✓	RIN: 5.50	
39343 Bif A2		✓	RIN: 2.40	
39343 Bif B2		✓	RIN: 3.30	
Ladder		✓	All Other Samples	

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
Modified: 8/5/2013 4:48:48 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

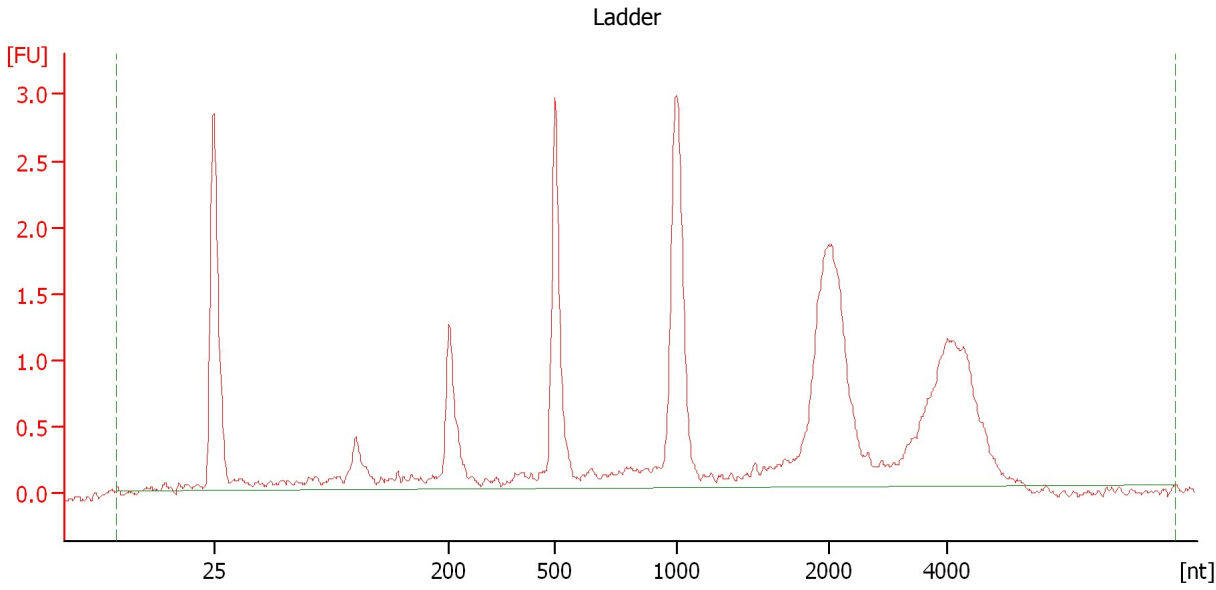
**Ladder**

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\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
Modified: 8/5/2013 4:48:48 PM

**Electropherogram Summary**



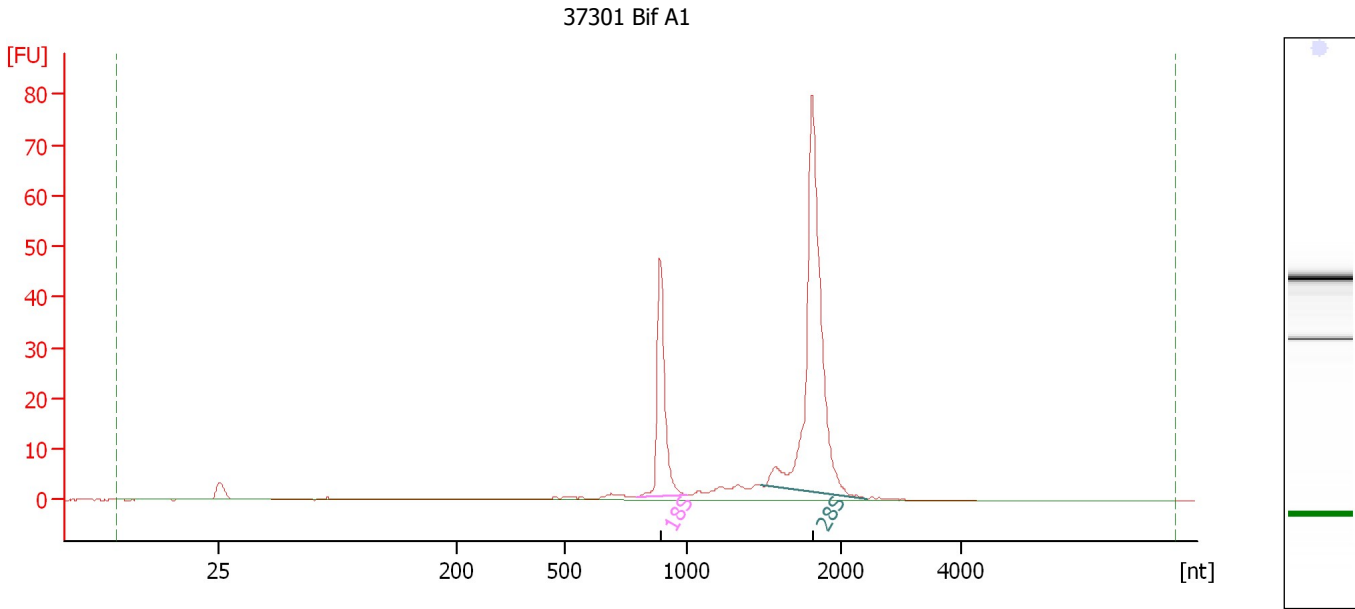
**Overall Results for Ladder**

RNA Area:	27.3	Result Flagging Color:	<span style="background-color: #add8e6; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
RNA Concentration:	150 ng/ $\mu$ l	Result Flagging Label:	All Other Samples

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
Modified: 8/5/2013 4:48:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 37301 Bif A1**

RNA Area: 212.3                      RNA Integrity Number (RIN): 10 (B.02.08)  
RNA Concentration: 1,168 ng/μl                      Result Flagging Color:   
rRNA Ratio [28s / 18s]: 2.9                      Result Flagging Label: RIN:10

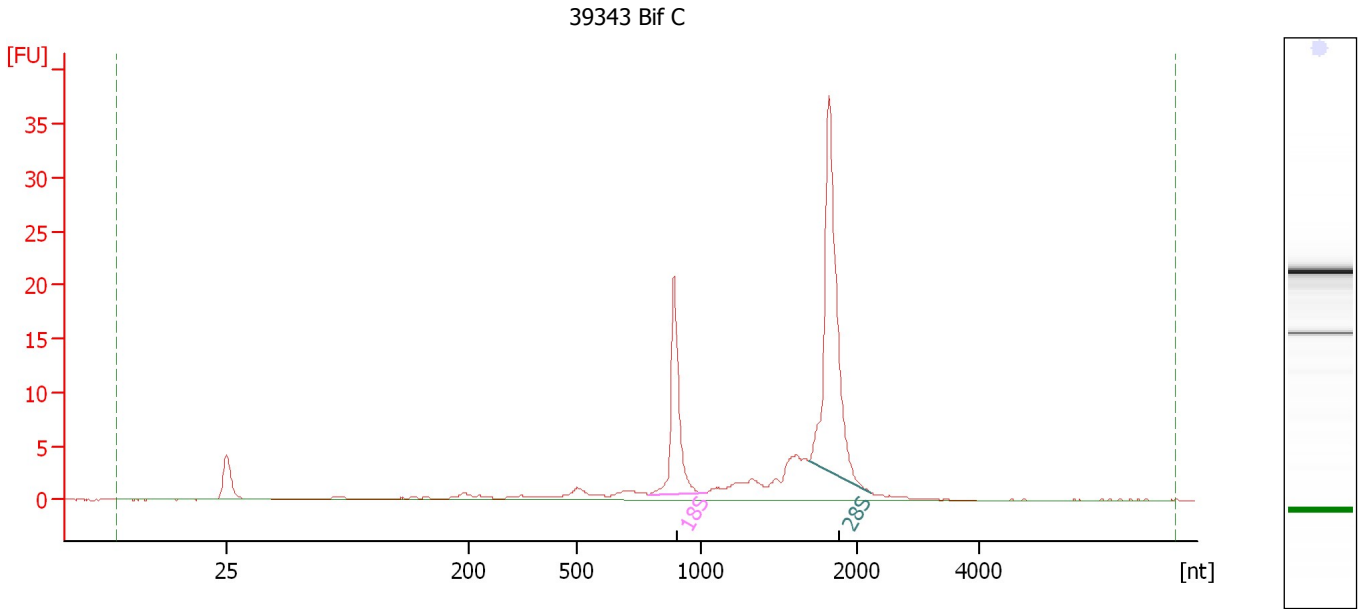
**Fragment table for sample 1 : 37301 Bif A1**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	793	1,003	40.6	19.1
28S	1,476	2,446	117.0	55.1

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
Modified: 8/5/2013 4:48:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 39343 Bif C**

RNA Area:	109.6	RNA Integrity Number (RIN):	9.4 (B.02.08)
RNA Concentration:	603 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]:	2.4	Result Flagging Label:	RIN: 9.40

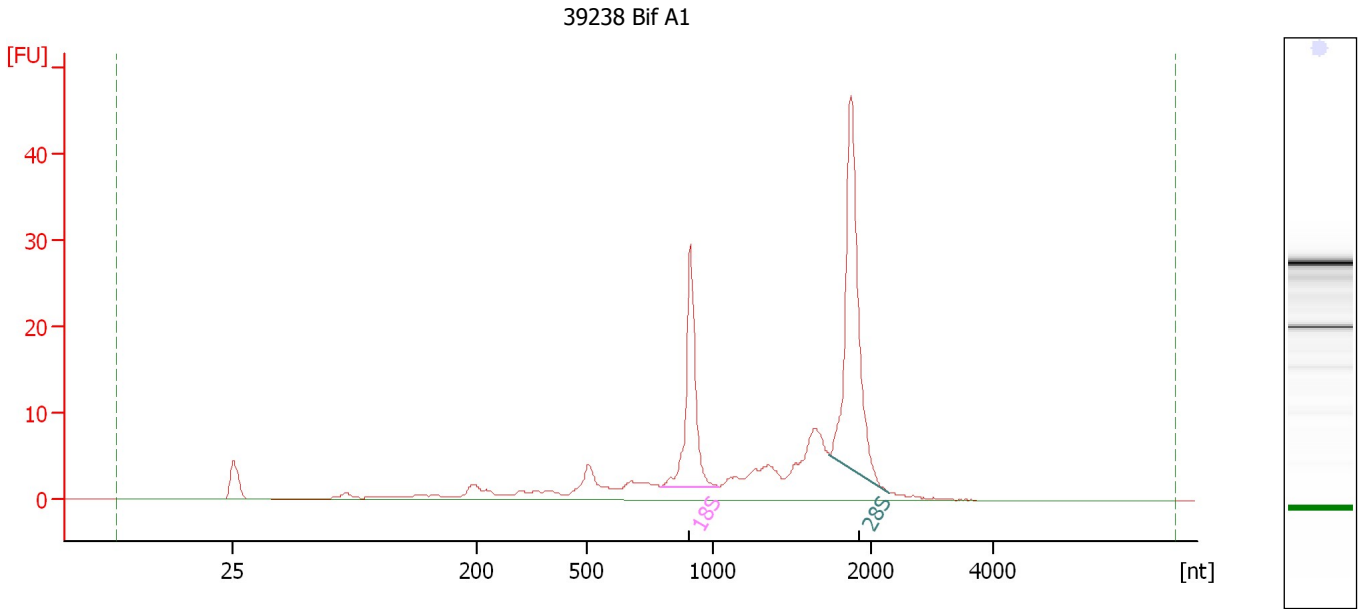
**Fragment table for sample 2 : 39343 Bif C**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	791	1,035	18.4	16.8
28S	1,695	2,240	43.3	39.5

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
Modified: 8/5/2013 4:48:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 39238 Bif A1**

RNA Area: 192.8 RNA Integrity Number (RIN): 8.6 (B.02.08)  
RNA Concentration: 1,061 ng/μl Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.8 Result Flagging Label: RIN: 8.60

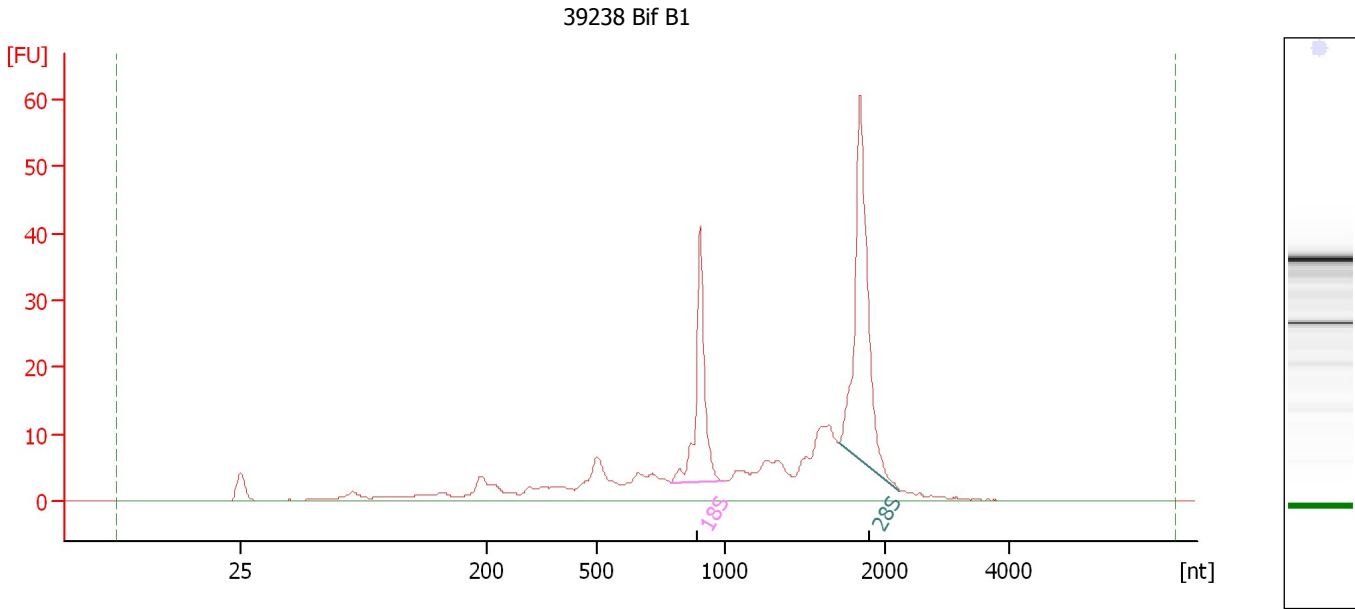
**Fragment table for sample 3 : 39238 Bif A1**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	791	1,032	29.0	15.1
28S	1,738	2,286	53.2	27.6

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
Modified: 8/5/2013 4:48:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 39238 Bif B1**

RNA Area: 291.7 RNA Integrity Number (RIN): 8.1 (B.02.08)  
RNA Concentration: 1,605 ng/μl Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.8 Result Flagging Label: RIN: 8.10

**Fragment table for sample 4 : 39238 Bif B1**

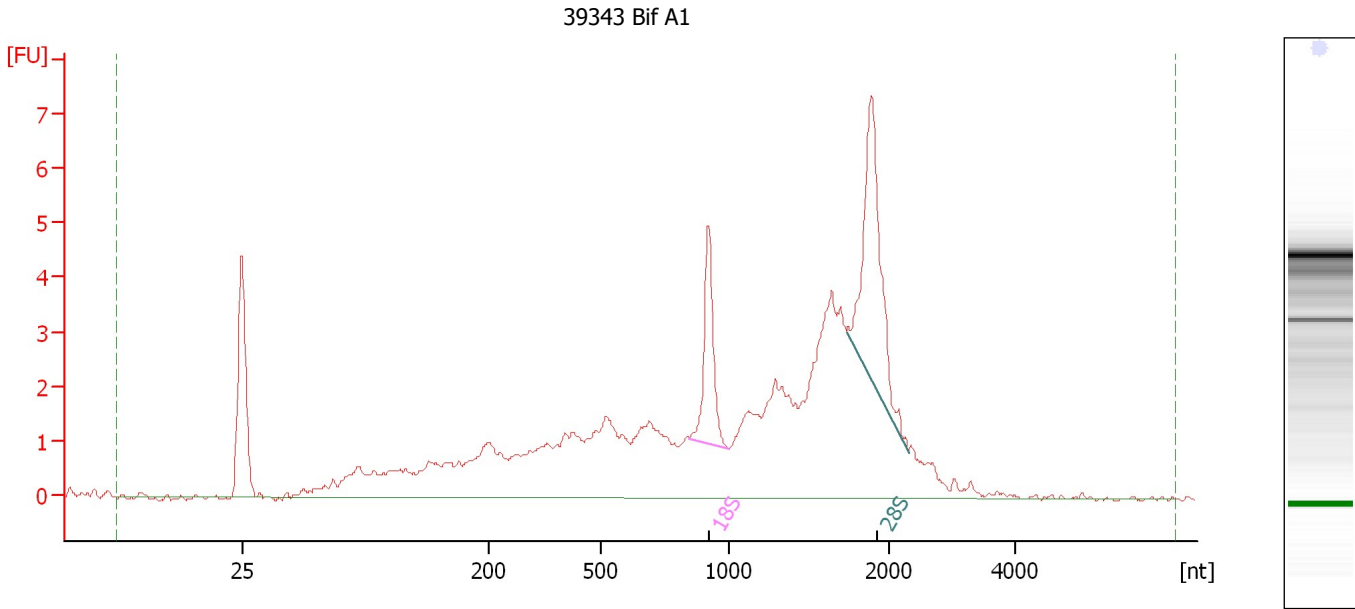
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	784	997	37.9	13.0
28S	1,706	2,228	68.7	23.6



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
Modified: 8/5/2013 4:48:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 39343 Bif A1**

RNA Area: 88.0                      RNA Integrity Number (RIN): 5.6 (B.02.08)  
RNA Concentration: 484 ng/μl                      Result Flagging Color:   
rRNA Ratio [28s / 18s]: 2.2                      Result Flagging Label: RIN: 5.60

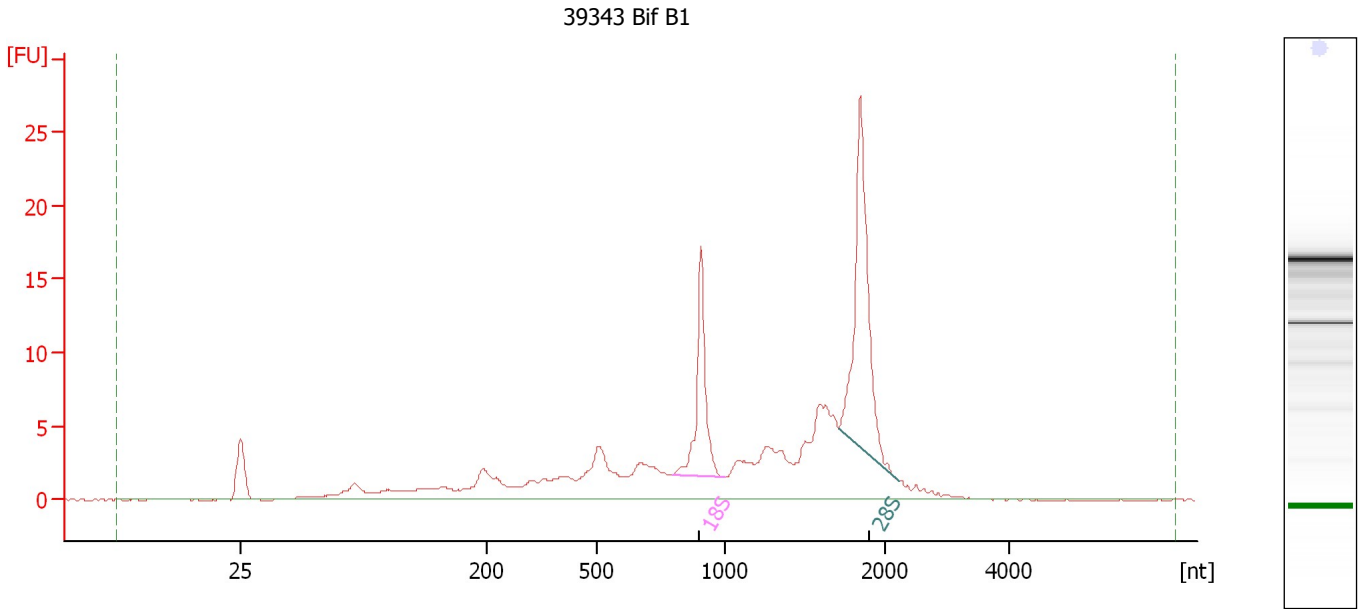
**Fragment table for sample 5 : 39343 Bif A1**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	844	994	4.0	4.5
28S	1,732	2,306	8.7	9.8

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
Modified: 8/5/2013 4:48:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 39343 Bif B1**

RNA Area: 162.7      Result Flagging Color:   
RNA Concentration: 895 ng/μl      Result Flagging Label: RIN: 7.50  
rRNA Ratio [28s / 18s]: 1.9

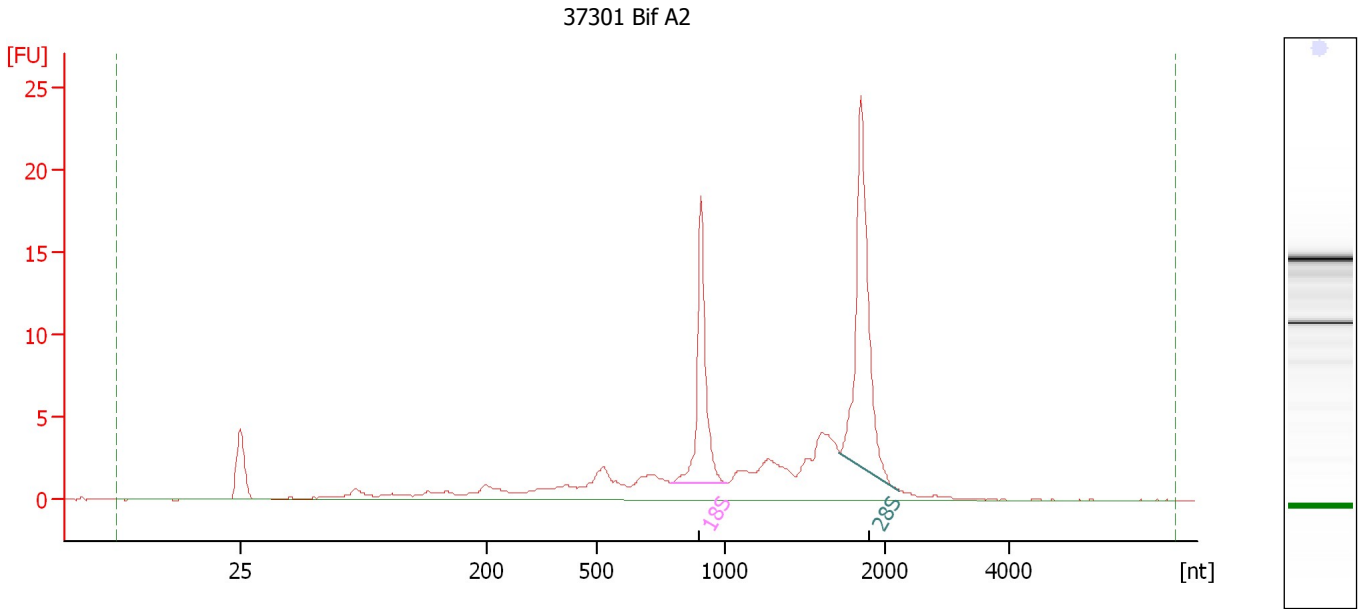
**Fragment table for sample 6 : 39343 Bif B1**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	792	997	15.6	9.6
28S	1,706	2,211	30.4	18.7

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
Modified: 8/5/2013 4:48:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 37301 Bif A2**

RNA Area: 107.1 RNA Integrity Number (RIN): 8.2 (B.02.08)  
RNA Concentration: 589 ng/μl Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.6 Result Flagging Label: RIN: 8.20

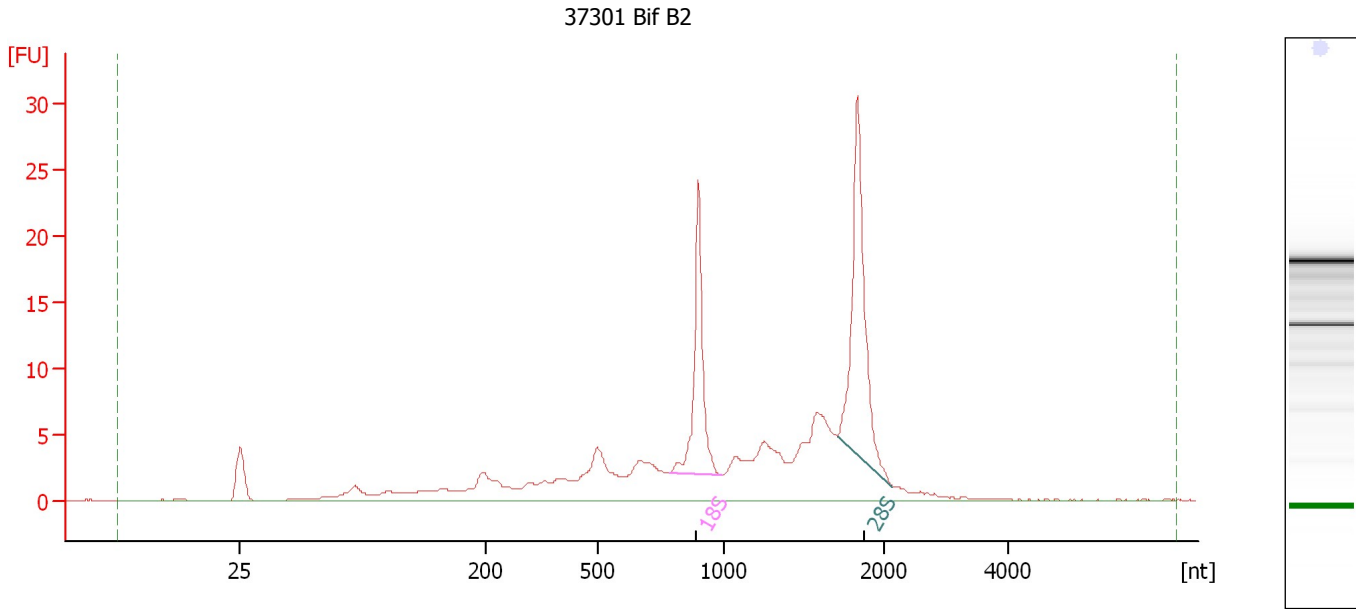
**Fragment table for sample 7 : 37301 Bif A2**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	788	1,009	16.9	15.7
28S	1,713	2,228	26.7	24.9

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
Modified: 8/5/2013 4:48:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 37301 Bif B2**

RNA Area:	177.5	RNA Integrity Number (RIN):	7.4 (B.02.08)
RNA Concentration:	977 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]:	1.5	Result Flagging Label:	RIN: 7.40

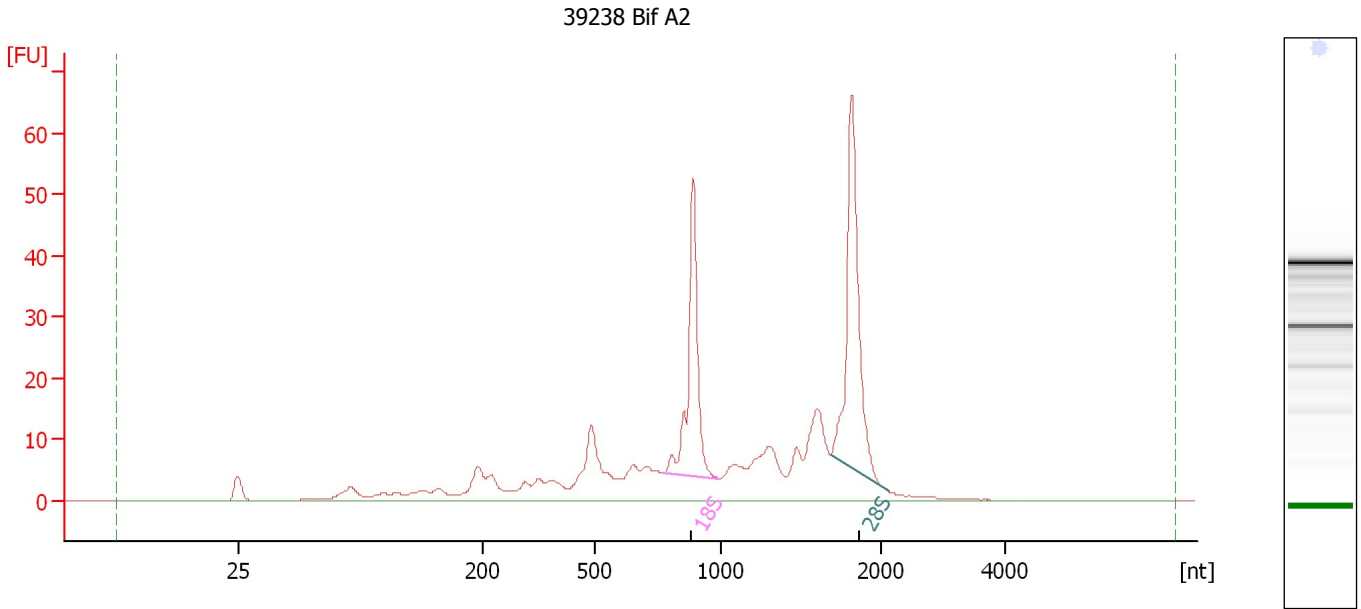
**Fragment table for sample 8 : 37301 Bif B2**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	787	988	21.3	12.0
28S	1,707	2,146	32.7	18.4

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
Modified: 8/5/2013 4:48:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 39238 Bif A2**

RNA Area: 363.5 RNA Integrity Number (RIN): 7.5 (B.02.08)  
RNA Concentration: 2,000 ng/μl Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.4 Result Flagging Label: RIN: 7.50

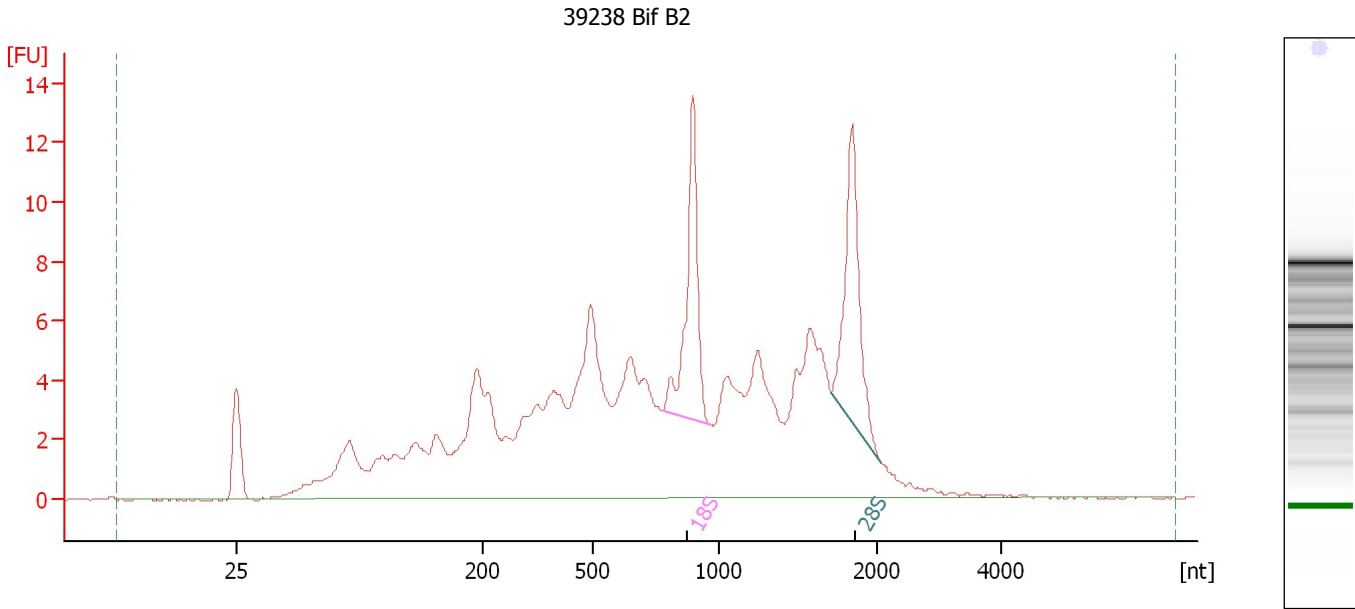
**Fragment table for sample 9 : 39238 Bif A2**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	770	992	50.4	13.9
28S	1,688	2,132	69.6	19.1

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
Modified: 8/5/2013 4:48:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 39238 Bif B2**

RNA Area: 208.2 RNA Integrity Number (RIN): 5.5 (B.02.08)  
RNA Concentration: 1,145 ng/μl Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.0 Result Flagging Label: RIN: 5.50

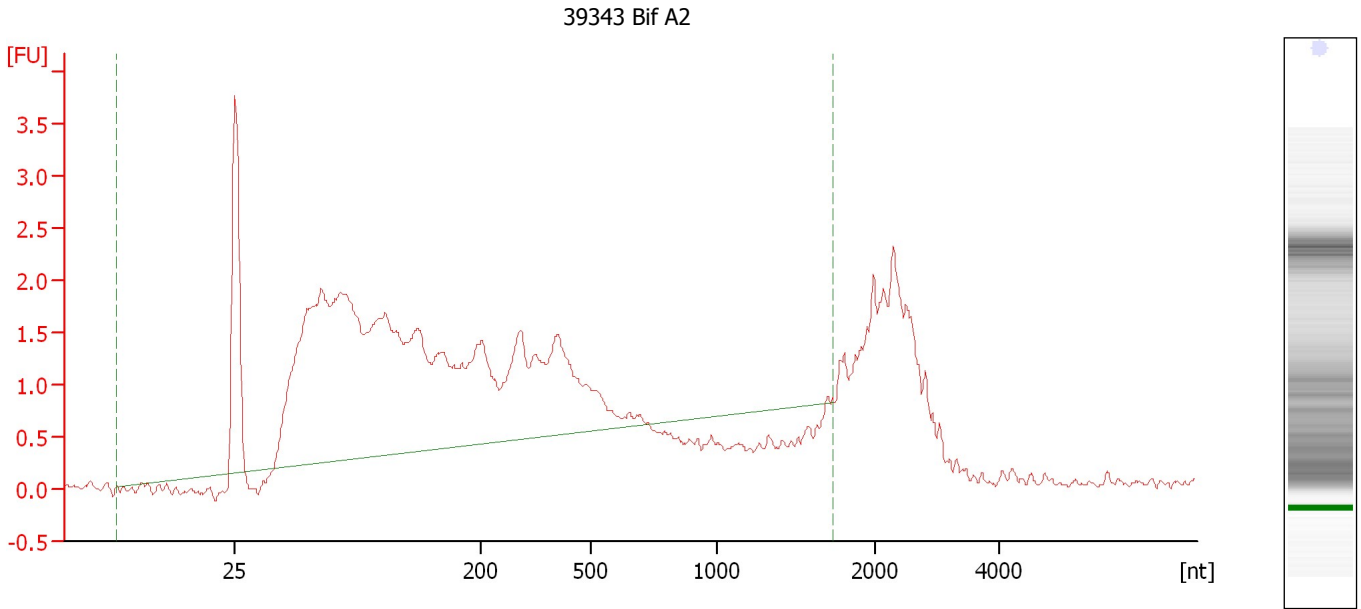
**Fragment table for sample 10 : 39238 Bif B2**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	773	962	13.4	6.5
28S	1,709	2,049	13.7	6.6

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
Modified: 8/5/2013 4:48:48 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 11 : 39343 Bif A2**

End Analysis Time Range [s] : 53

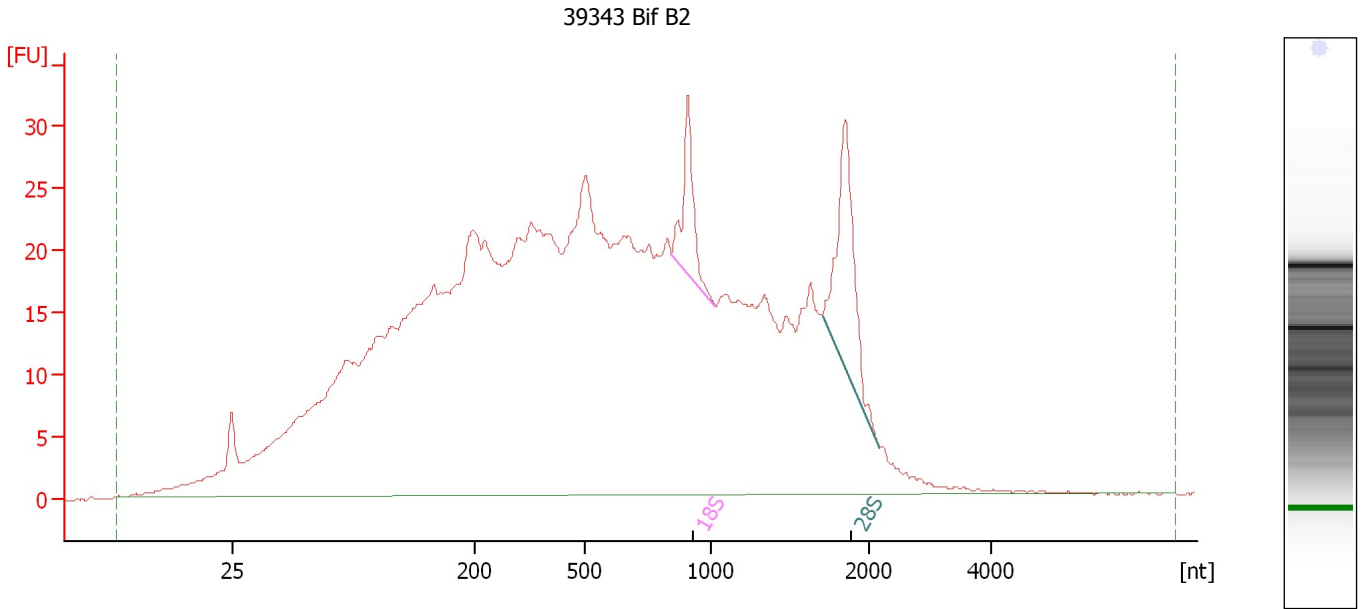
**Overall Results for sample 11 : 39343 Bif A2**

RNA Area:	45.1	RNA Integrity Number (RIN):	2.4 (B.02.08, Anomaly Threshold(s) manually adapted)
RNA Concentration:	248 ng/μl	Result Flagging Color:	<span style="border: 1px solid black; background-color: #ccccff; display: inline-block; width: 20px; height: 10px;"></span>
rRNA Ratio [28s / 18s]:	0.0	Result Flagging Label:	RIN: 2.40

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
 Modified: 8/5/2013 4:48:48 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 12 : 39343 Bif B2**

RNA Area:	1,188.4	RNA Integrity Number (RIN):	3.3 (B.02.08)
RNA Concentration:	6,539 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]:	2.1	Result Flagging Label:	RIN: 3.30

**Fragment table for sample 12 : 39343 Bif B2**

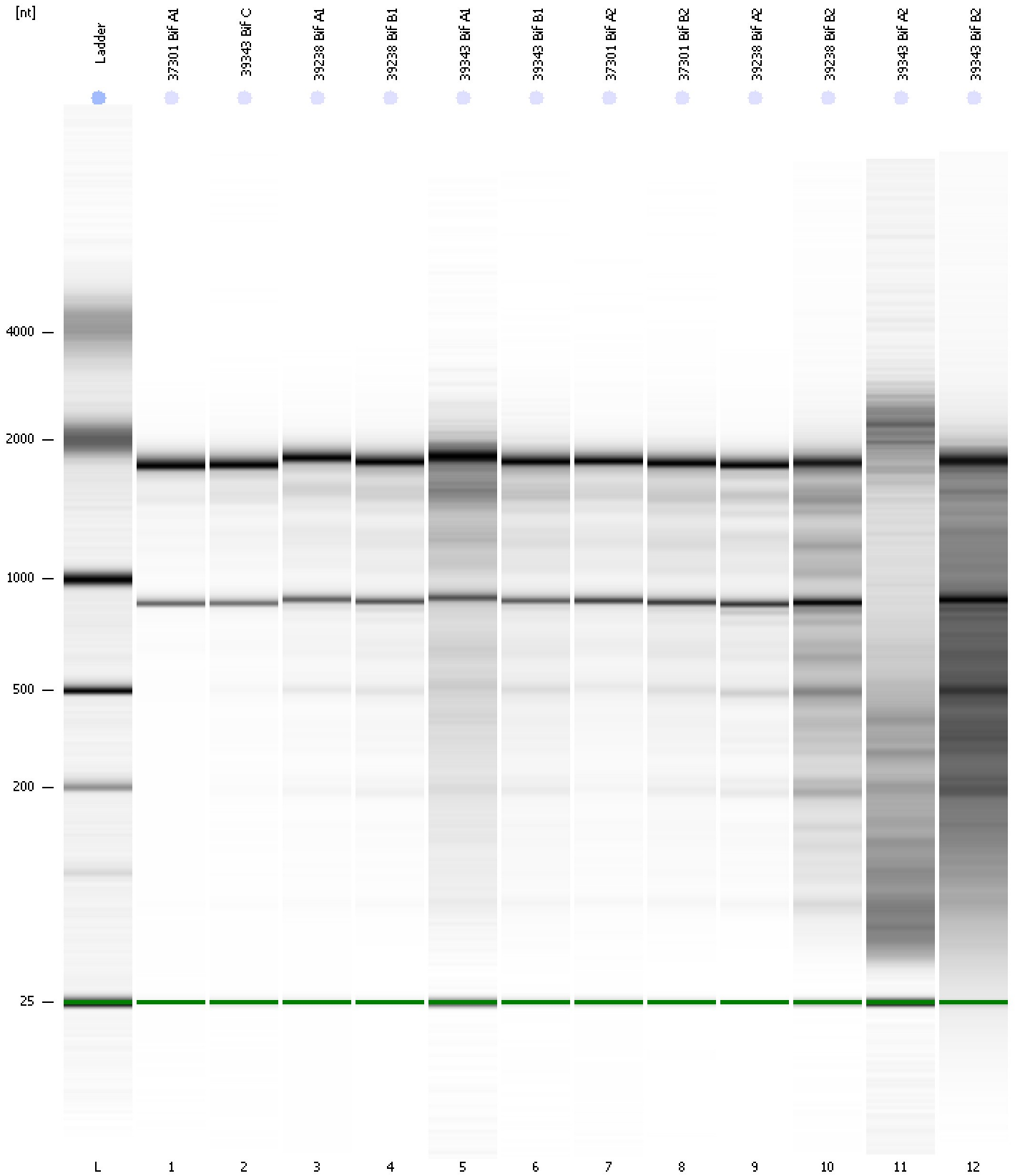
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	841	1,025	16.5	1.4
28S	1,705	2,168	33.9	2.9



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad

Created: 8/5/2013 4:20:23 PM  
Modified: 8/5/2013 4:48:48 PM

**Gel Image**



Assay Class: Eukaryote Total RNA Nano Created: 8/5/2013 4:20:23 PM  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-05\2013-08-05\_004.xad Modified: 8/5/2013 4:48:48 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		8/5/2013 4:44:13 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-08-05\2013-08-05_004.xad)		Instrument	Run		8/5/2013 4:20:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		8/5/2013 4:20:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/5/2013 4:20:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/5/2013 4:20:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		8/5/2013 4:20:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/5/2013 4:20:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/5/2013 4:20:29 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1