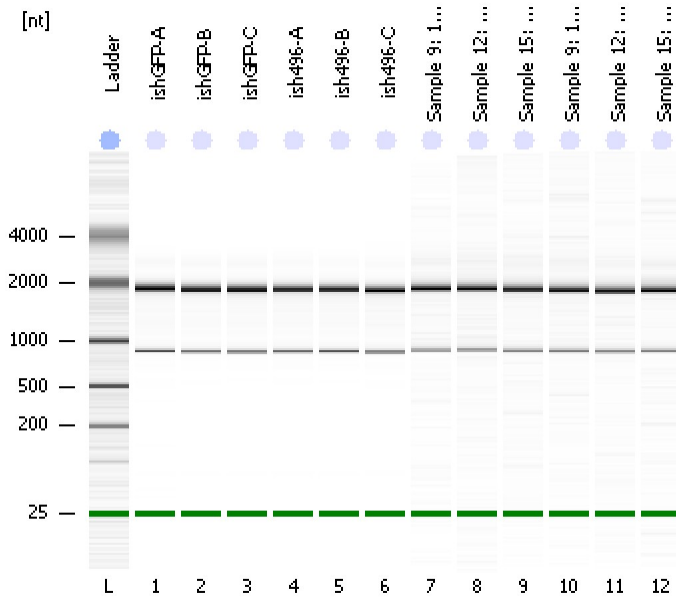


Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

### 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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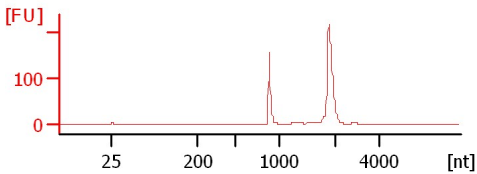
#### Chip Information:

Chip Lot #:

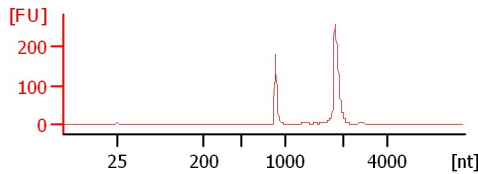
Reagent Kit Lot #:

Chip Comments:

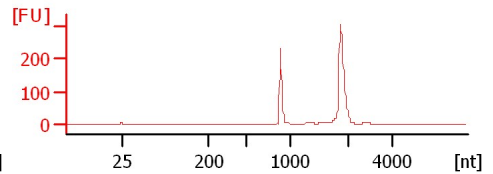
**ishGFP-A**  
RIN:10



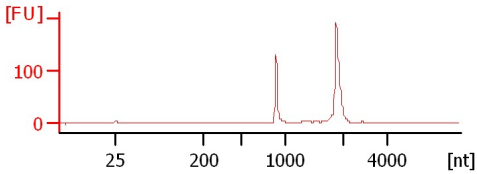
**ishGFP-B**  
RIN:10



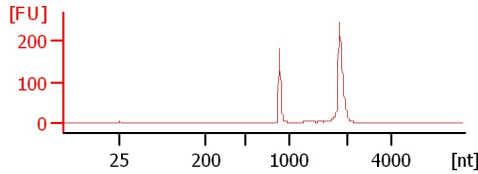
**ishGFP-C**  
RIN:10



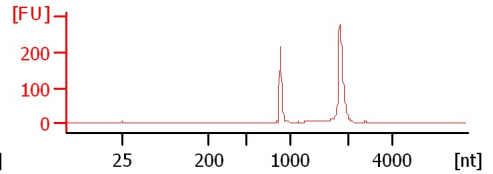
**ish496-A**  
RIN:10



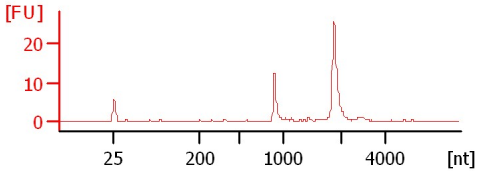
**ish496-B**  
RIN:10



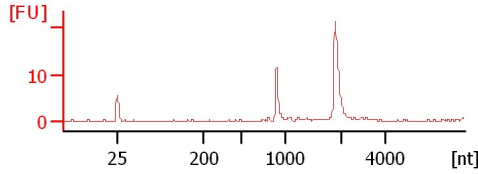
**ish496-C**  
RIN:10



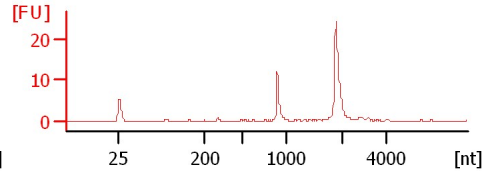
**Sample 9: 1H-3**  
RIN: 9.80



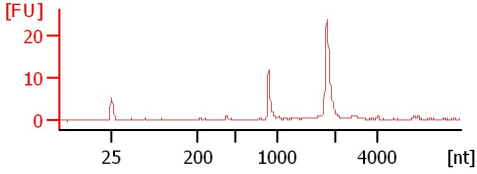
**Sample 12: 2A-3**  
RIN: 9.90



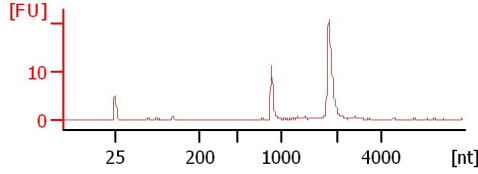
**Sample 15: 2E-3**  
RIN: 9.50



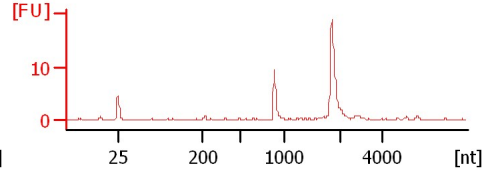
**Sample 9: 1H-3**  
RIN: 9.80



**Sample 12: 2A-3**  
RIN:10



**Sample 15: 2E-3**  
RIN: 9.70



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

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

Sample Name	Sample Comment	Status	Result Label	Result Color
ishGFP-A		✓	RIN:10	
ishGFP-B		✓	RIN:10	
ishGFP-C		✓	RIN:10	
ish496-A		✓	RIN:10	
ish496-B		✓	RIN:10	
ish496-C		✓	RIN:10	
Sample 9: 1H-3		✓	RIN: 9.80	
Sample 12: 2A-3		✓	RIN: 9.90	
Sample 15: 2E-3		✓	RIN: 9.50	
Sample 9: 1H-3		✓	RIN: 9.80	
Sample 12: 2A-3		✓	RIN:10	
Sample 15: 2E-3		✓	RIN: 9.70	
Ladder		✓	All Other Samples	

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

**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

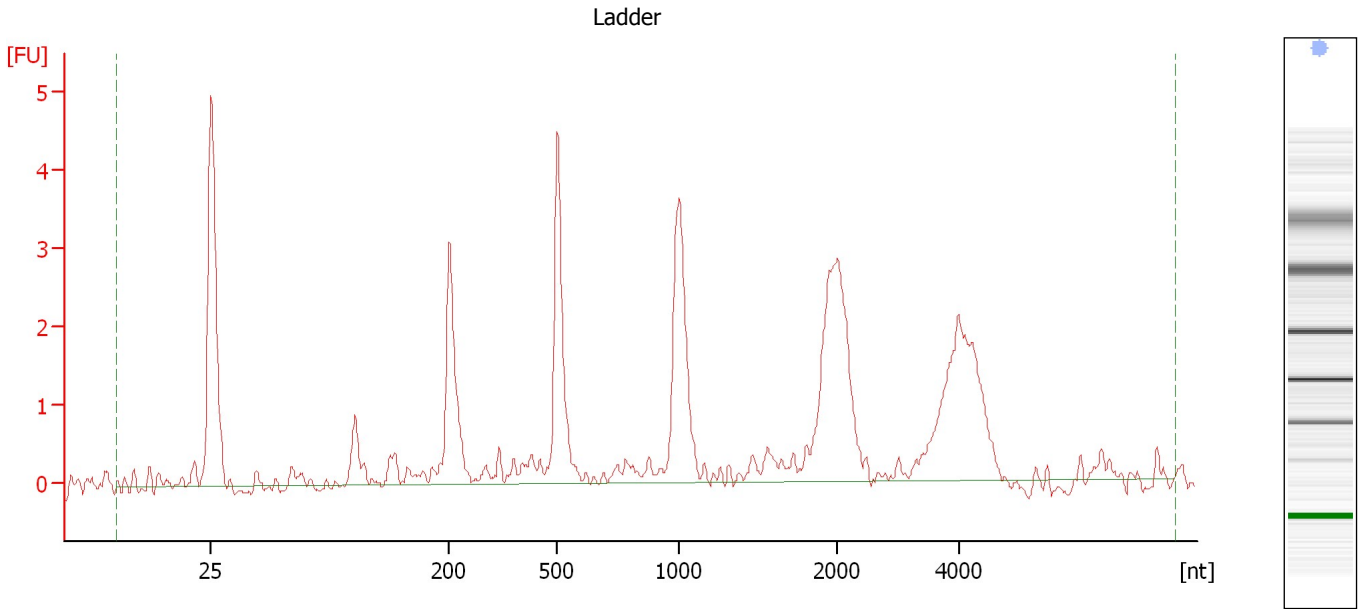
**Ladder**

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\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

**Electropherogram Summary**



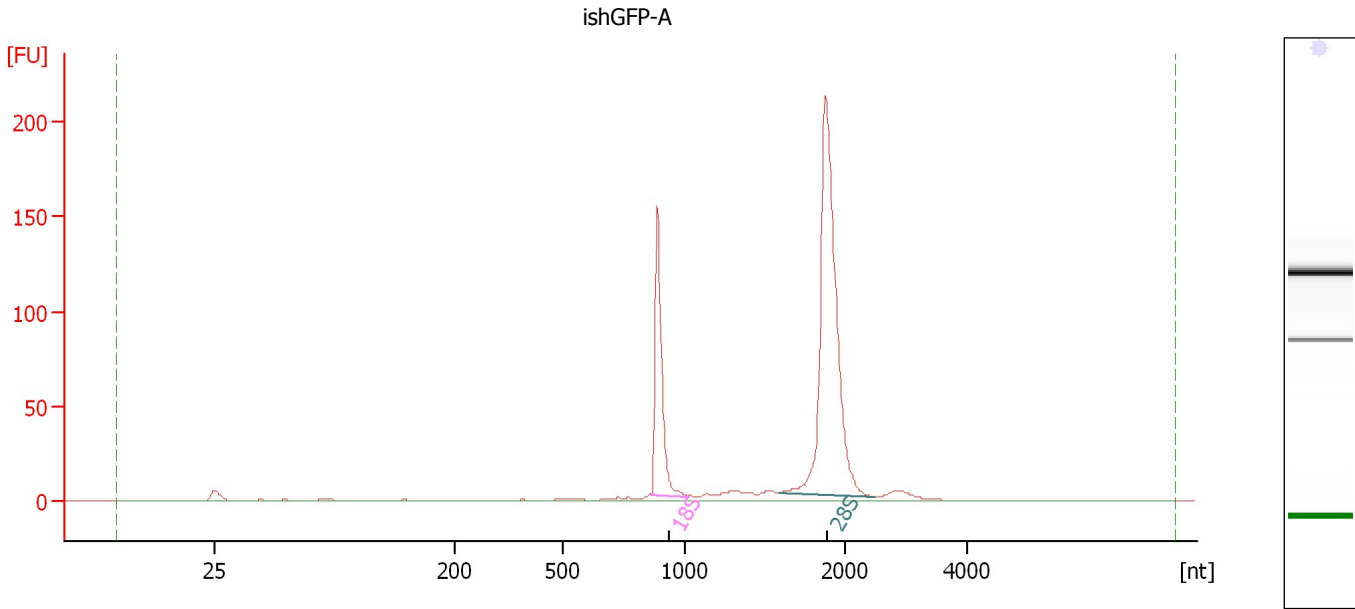
**Overall Results for Ladder**

RNA Area:	39.4	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\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : ishGFP-A**

RNA Area: 567.2                      RNA Integrity Number (RIN): 10 (B.02.08)  
RNA Concentration: 2,159 ng/μl                      Result Flagging Color:   
rRNA Ratio [28s / 18s]: 2.8                      Result Flagging Label: RIN:10

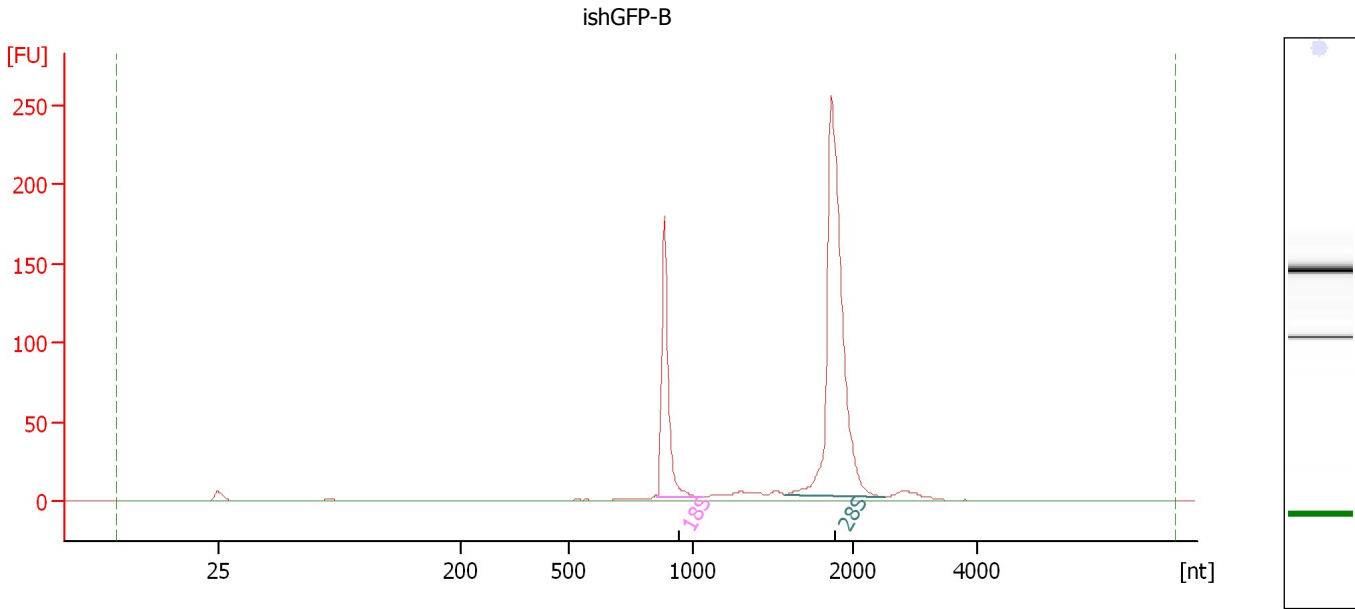
**Fragment table for sample 1 : ishGFP-A**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	861	1,015	118.9	21.0
28S	1,592	2,493	338.6	59.7

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : ishGFP-B**

RNA Area:	628.7	RNA Integrity Number (RIN):	10 (B.02.08)
RNA Concentration:	2,394 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]:	2.7	Result Flagging Label:	RIN:10

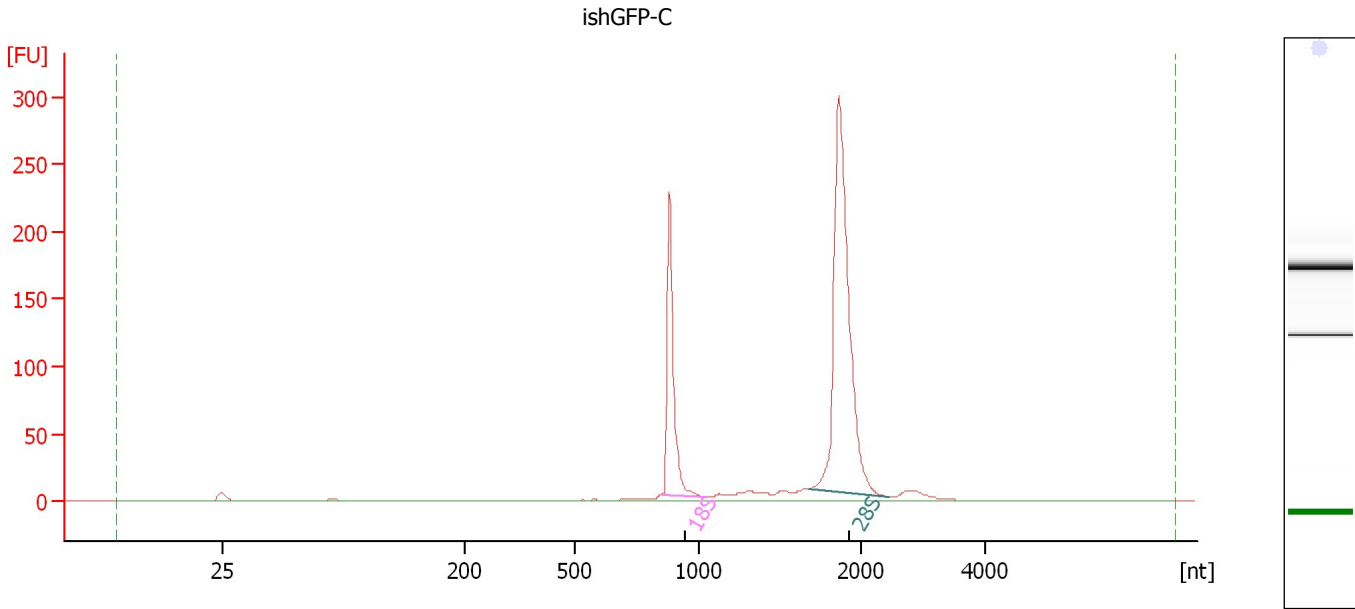
**Fragment table for sample 2 : ishGFP-B**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	855	1,057	137.5	21.9
28S	1,576	2,491	377.6	60.1

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : ishGFP-C**

RNA Area:	786.1	RNA Integrity Number (RIN):	10 (B.02.08)
RNA Concentration:	2,993 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]:	2.5	Result Flagging Label:	RIN:10

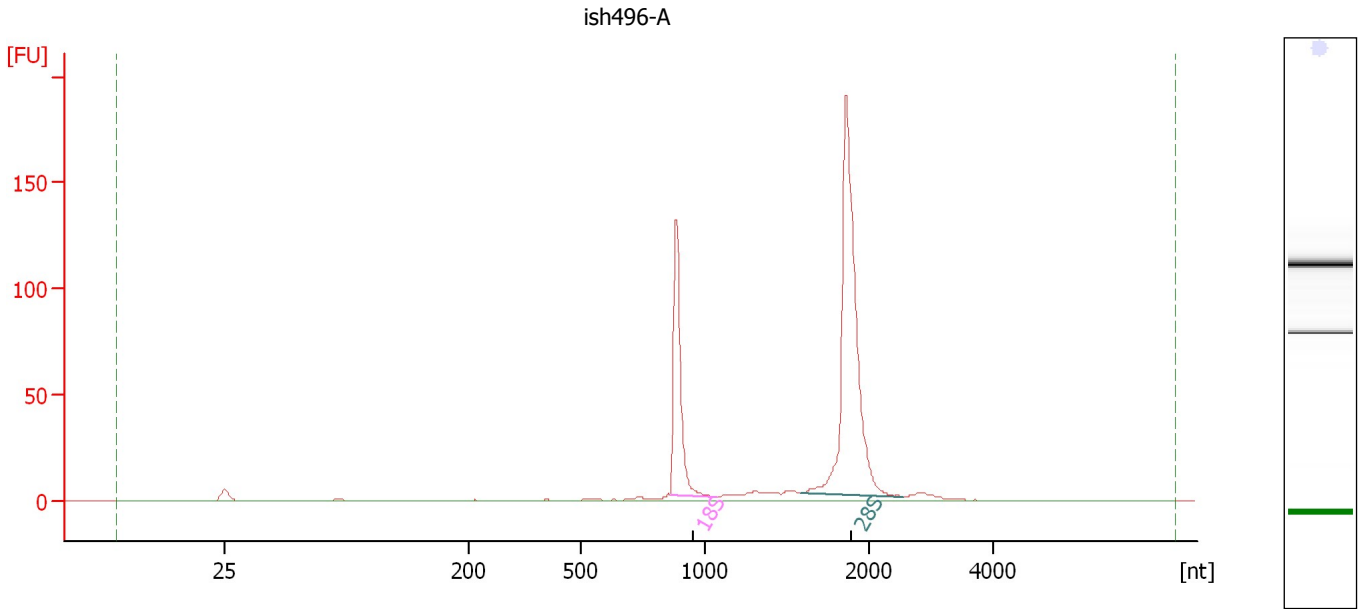
**Fragment table for sample 3 : ishGFP-C**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	853	1,051	174.8	22.2
28S	1,680	2,442	437.3	55.6

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : ish496-A**

RNA Area:	465.8	RNA Integrity Number (RIN):	10 (B.02.08)
RNA Concentration:	1,773 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]:	2.5	Result Flagging Label:	RIN:10

**Fragment table for sample 4 : ish496-A**

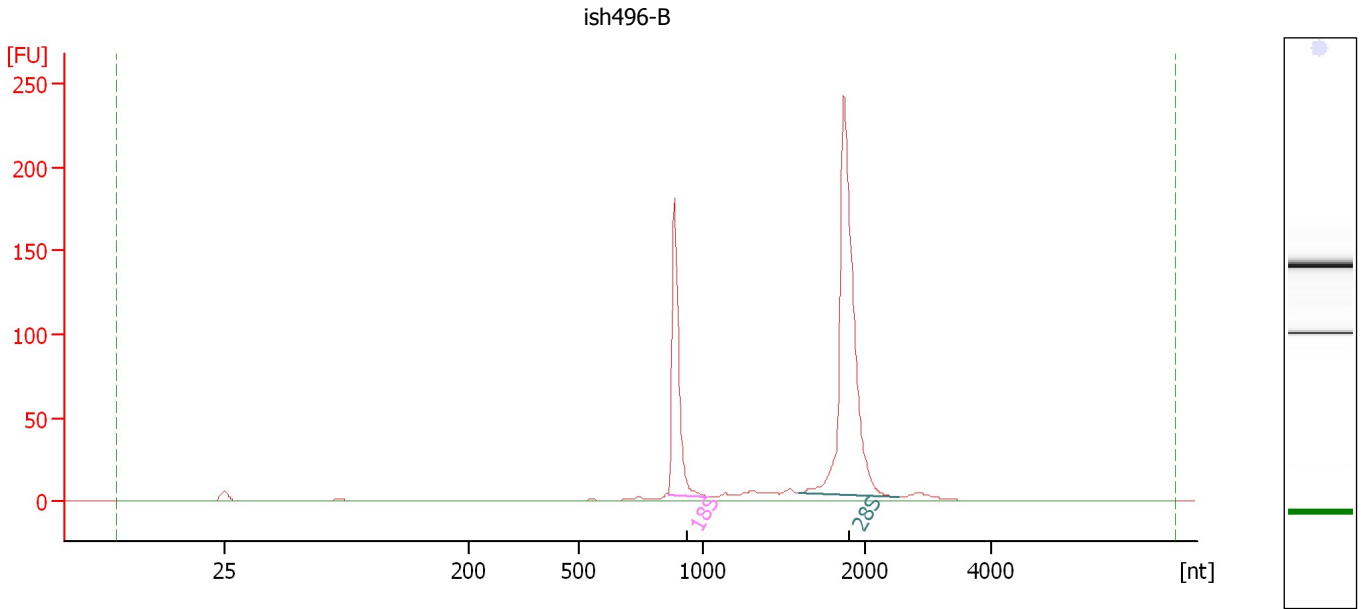
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	859	1,066	103.2	22.2
28S	1,586	2,564	261.4	56.1



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : ish496-B**

RNA Area:	590.5	RNA Integrity Number (RIN):	10 (B.02.08)
RNA Concentration:	2,248 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]:	2.5	Result Flagging Label:	RIN:10

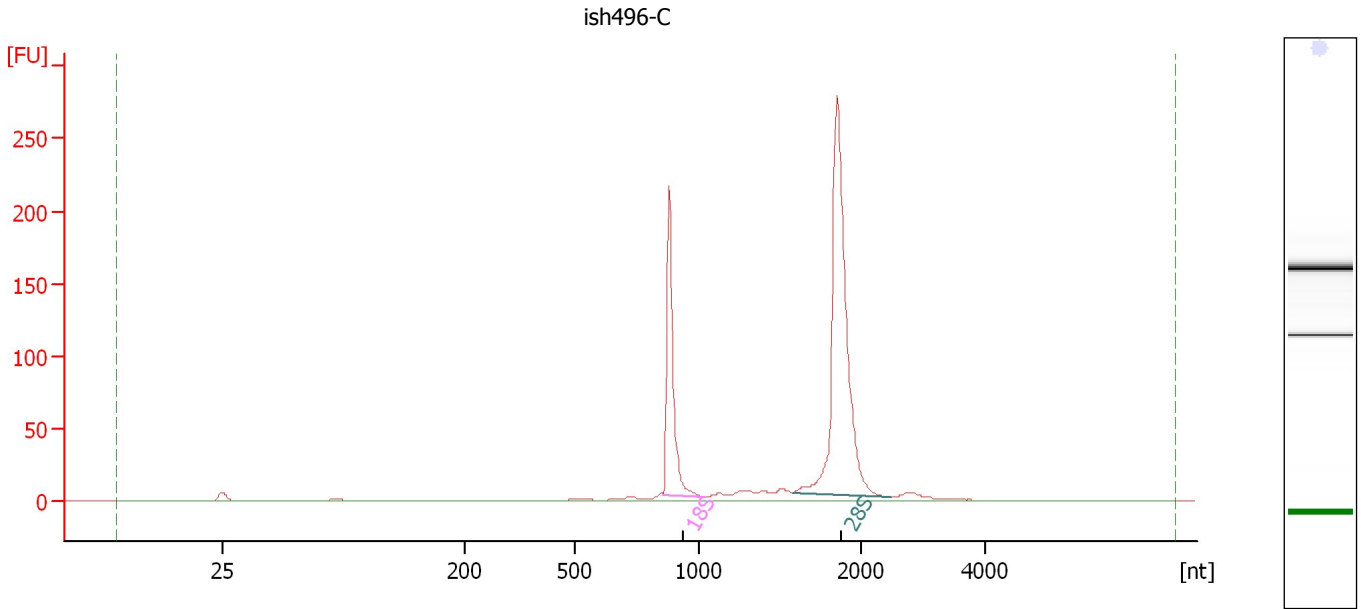
**Fragment table for sample 5 : ish496-B**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	858	1,026	135.8	23.0
28S	1,586	2,535	333.6	56.5

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : ish496-C**

RNA Area:	688.7	RNA Integrity Number (RIN):	10 (B.02.08)
RNA Concentration:	2,622 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]:	2.3	Result Flagging Label:	RIN:10

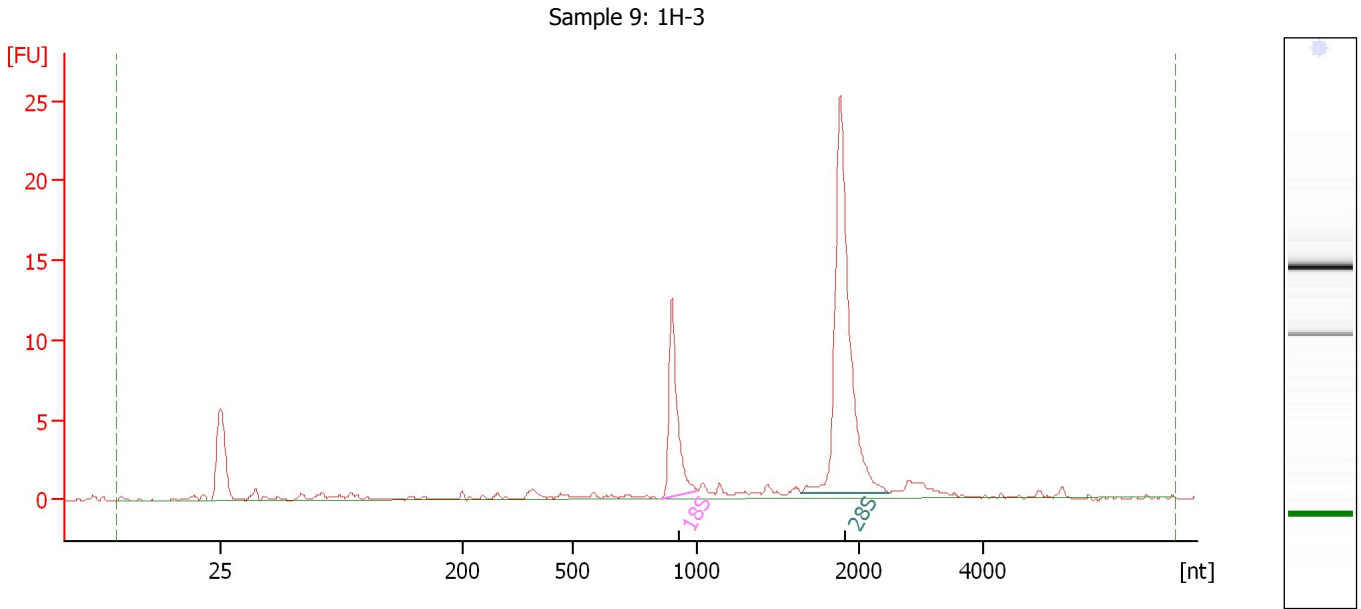
**Fragment table for sample 6 : ish496-C**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	853	1,032	163.7	23.8
28S	1,574	2,476	381.3	55.4

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : Sample 9: 1H-3**

RNA Area:	70.4	RNA Integrity Number (RIN):	9.8 (B.02.08)
RNA Concentration:	268 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]:	2.9	Result Flagging Label:	RIN: 9.80

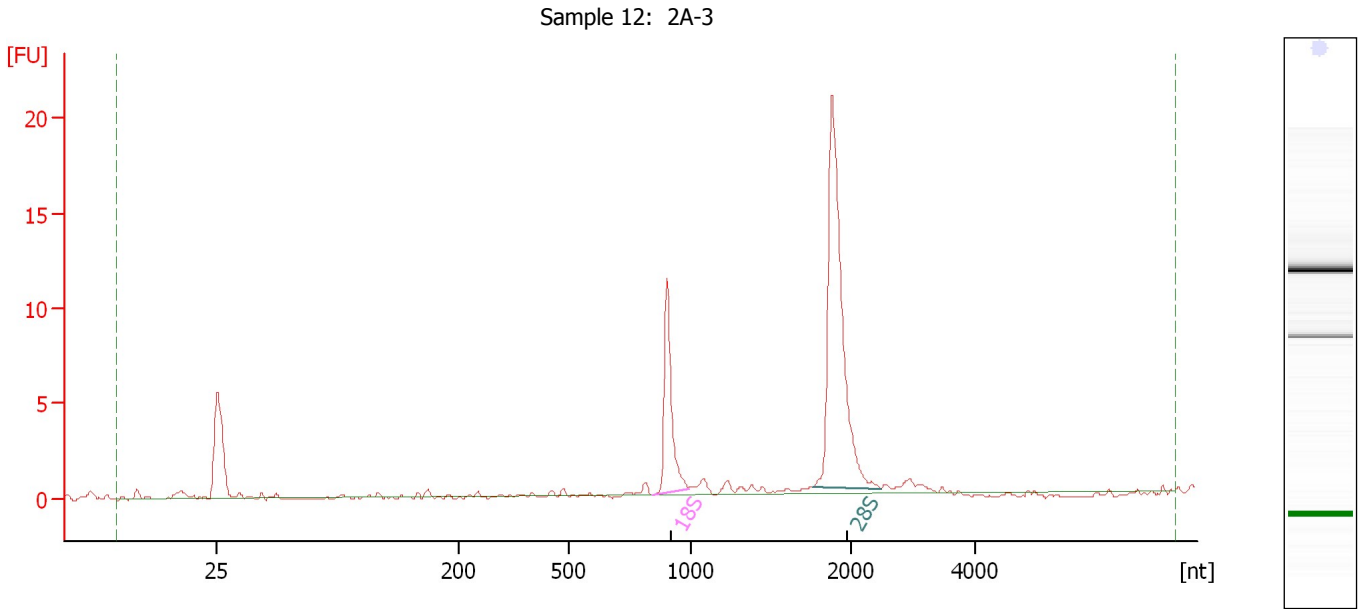
**Fragment table for sample 7 : Sample 9: 1H-3**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	852	998	12.2	17.3
28S	1,648	2,498	35.7	50.7

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : Sample 12: 2A-3**

RNA Area: 51.3                      RNA Integrity Number (RIN): 9.9 (B.02.08)  
RNA Concentration: 195 ng/μl                      Result Flagging Color:   
rRNA Ratio [28s / 18s]: 2.8                      Result Flagging Label: RIN: 9.90

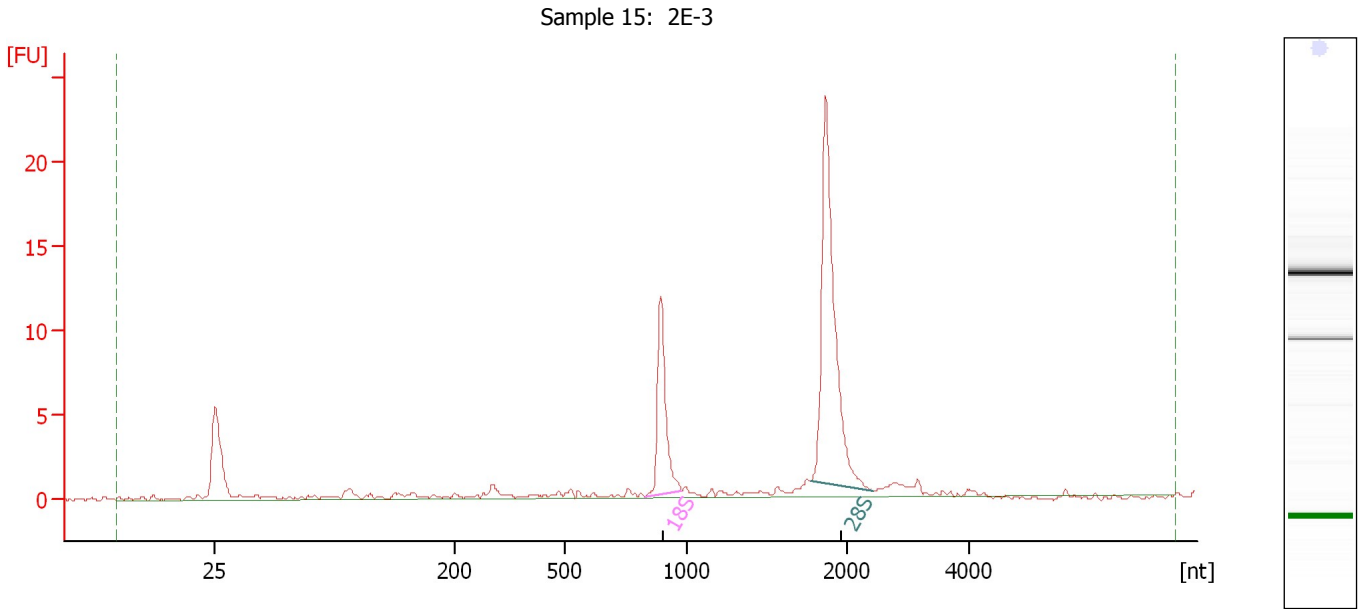
**Fragment table for sample 8 : Sample 12: 2A-3**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	846	989	10.1	19.6
28S	1,764	2,478	28.3	55.1

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : Sample 15: 2E-3**

RNA Area:	64.8	RNA Integrity Number (RIN):	9.5 (B.02.08)
RNA Concentration:	247 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]:	2.7	Result Flagging Label:	RIN: 9.50

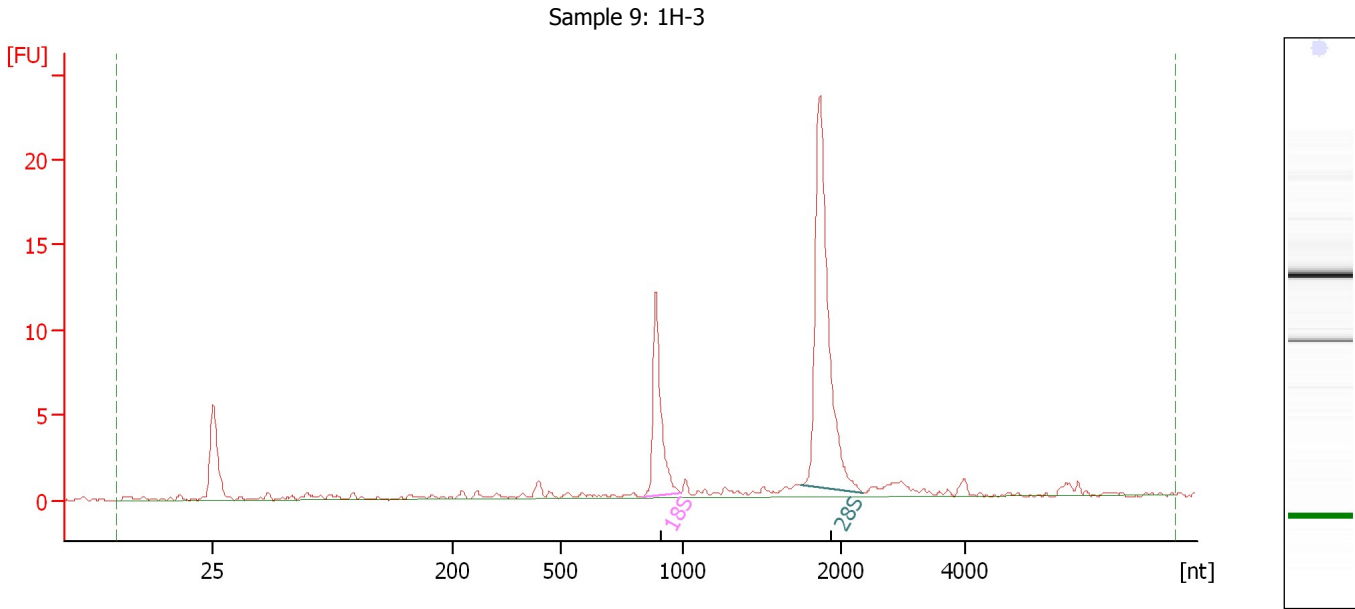
**Fragment table for sample 9 : Sample 15: 2E-3**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	827	975	10.9	16.9
28S	1,772	2,419	30.0	46.2

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : Sample 9: 1H-3**

RNA Area:	65.4	RNA Integrity Number (RIN):	9.8 (B.02.08)
RNA Concentration:	249 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]:	2.6	Result Flagging Label:	RIN: 9.80

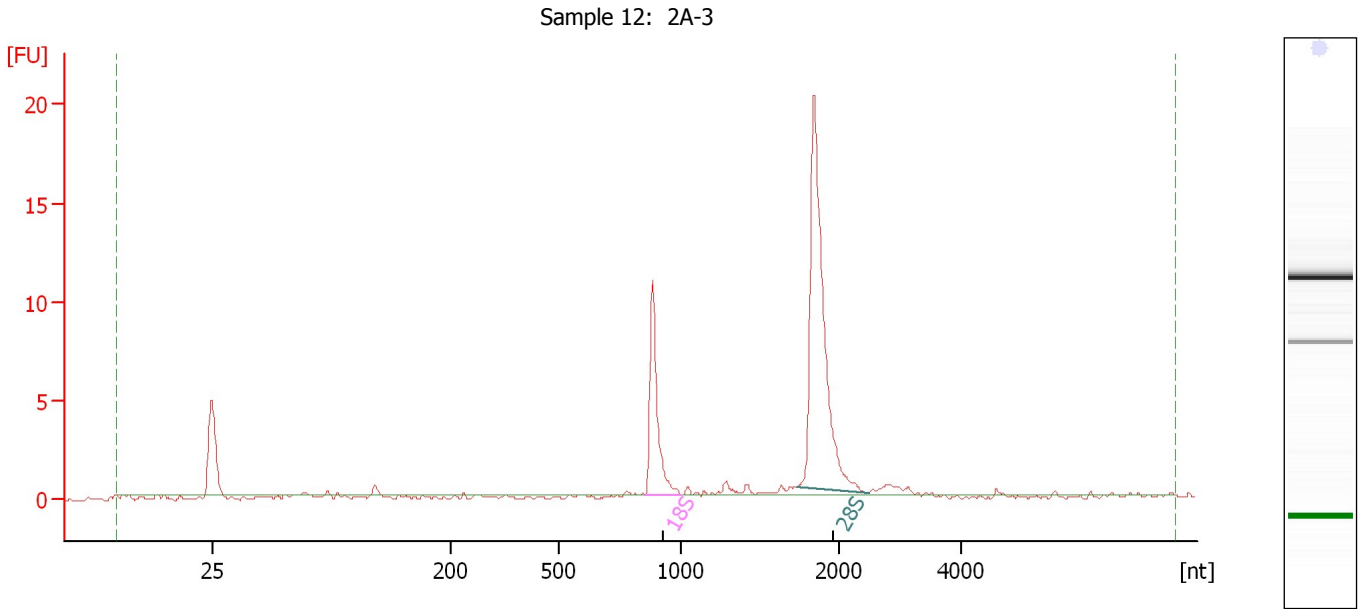
**Fragment table for sample 10 : Sample 9: 1H-3**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	839	991	11.7	17.8
28S	1,741	2,341	30.1	46.1

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : Sample 12: 2A-3**

RNA Area:	43.8	RNA Integrity Number (RIN):	10 (B.02.08)
RNA Concentration:	167 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]:	2.7	Result Flagging Label:	RIN:10

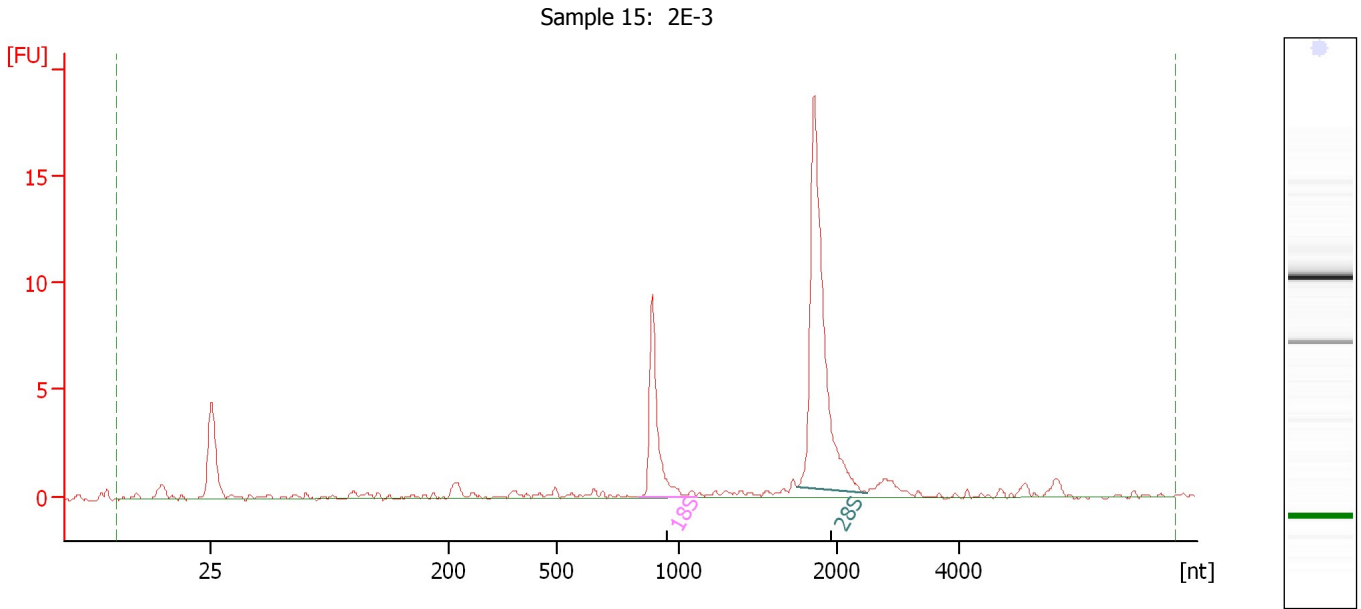
**Fragment table for sample 11 : Sample 12: 2A-3**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	851	1,000	9.9	22.7
28S	1,735	2,468	27.2	62.0

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 12 : Sample 15: 2E-3**

RNA Area:	49.6	RNA Integrity Number (RIN):	9.7 (B.02.08)
RNA Concentration:	189 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]:	2.7	Result Flagging Label:	RIN: 9.70

**Fragment table for sample 12 : Sample 15: 2E-3**

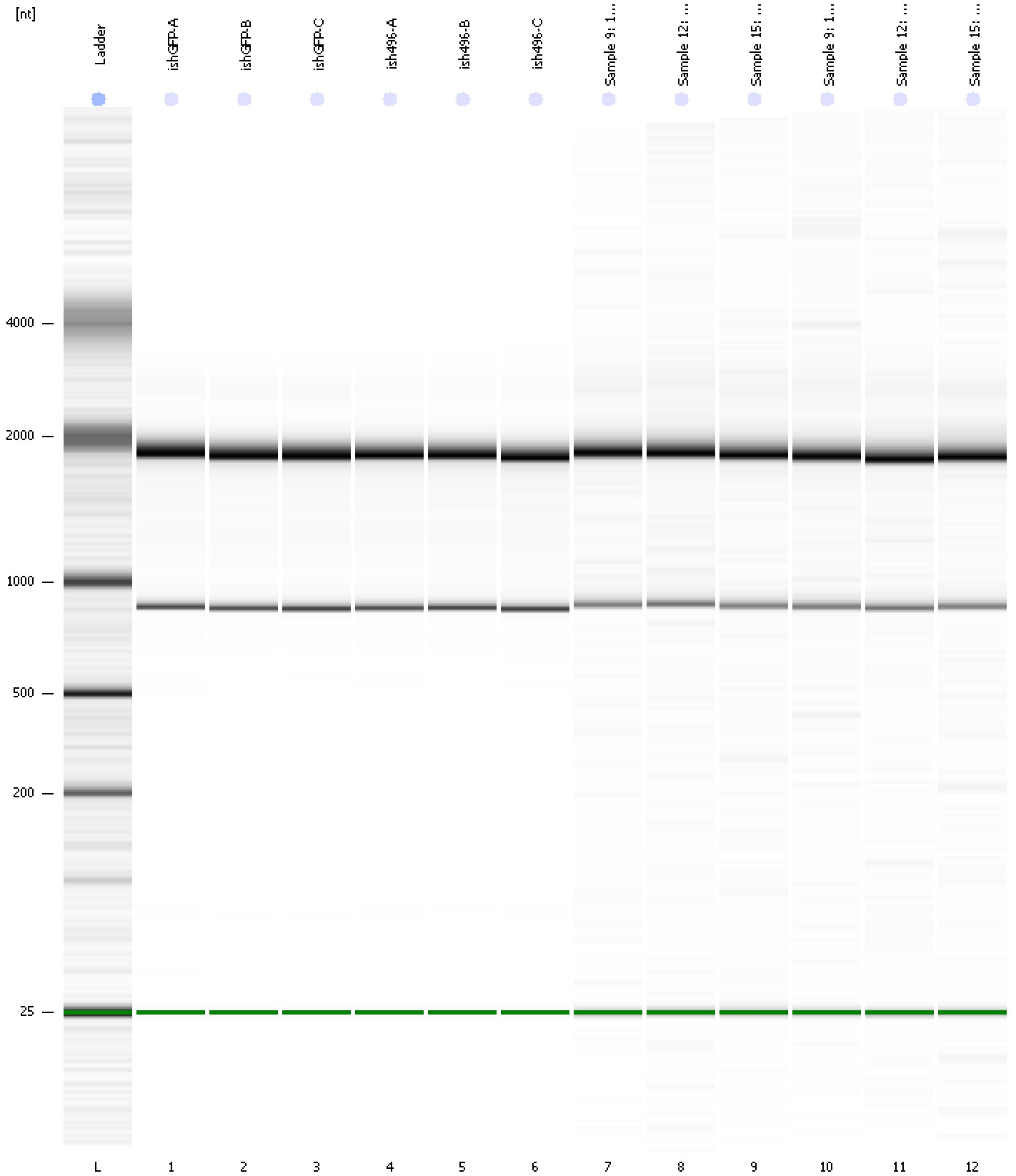
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	833	1,108	9.4	18.9
28S	1,743	2,491	25.3	51.0



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
Modified: 1/27/2016 10:10:00 AM

**Gel Image**



Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-01-27\2016-01-27\_001.xad

Created: 1/27/2016 9:46:09 AM  
 Modified: 1/27/2016 10:10:00 AM

**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		1/27/2016 10:09:59 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2016-01-27\2016-01-27_001.xad)		Instrument	Run		1/27/2016 9:46:14 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/27/2016 9:46:14 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/27/2016 9:46:14 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/27/2016 9:46:14 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/27/2016 9:46:14 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/27/2016 9:46:14 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/27/2016 9:46:14 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1