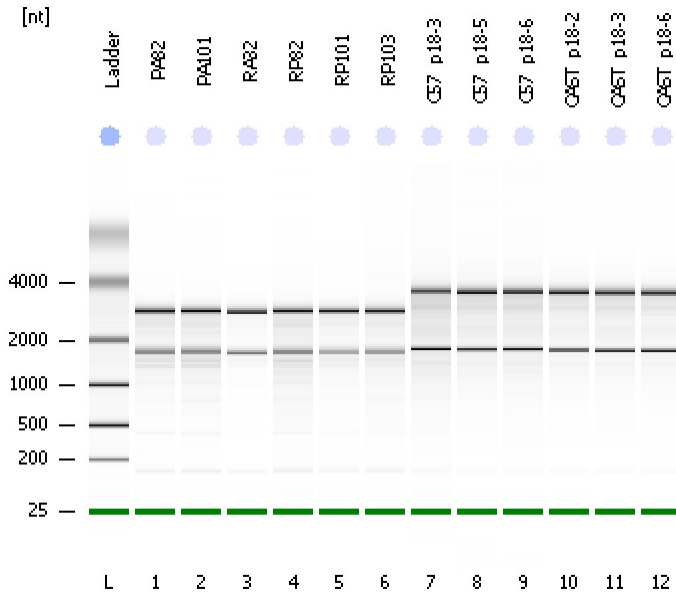


Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
Modified: 3/29/2016 12:06:52 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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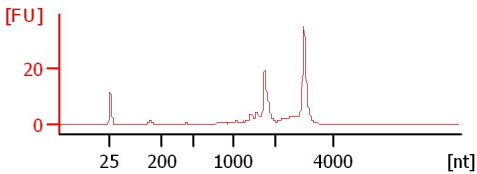
Chip Information:

Chip Lot #:

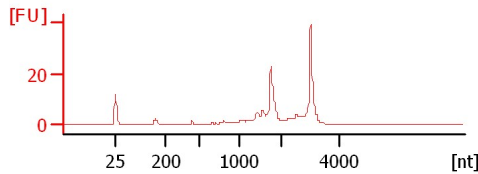
Reagent Kit Lot #:

Chip Comments:

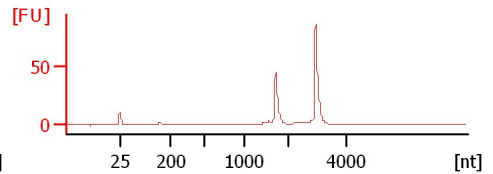
**PA82**  
RIN: 8.40



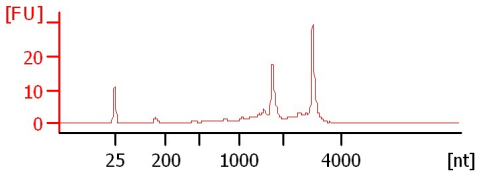
**PA101**  
RIN: 8.30



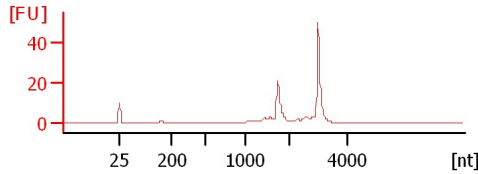
**RA32**  
RIN: 9.50



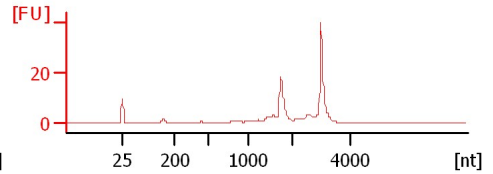
**RP82**  
RIN: 8



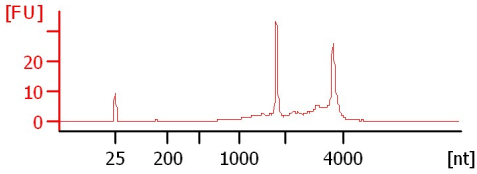
**RP101**  
RIN: 8.50



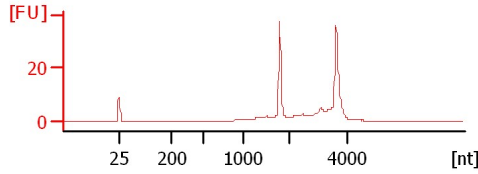
**RP103**  
RIN: 8.40



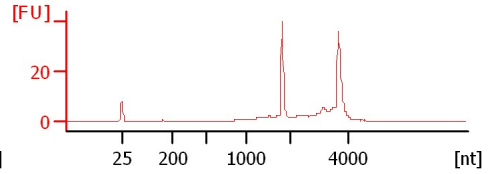
**C57\_p18-3**  
HiSeq\_443 Total RNA  
RIN: 8.20



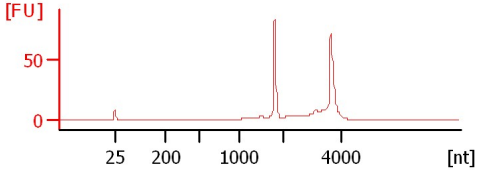
**C57\_p18-5**  
HiSeq\_443 Total RNA  
RIN: 8.70



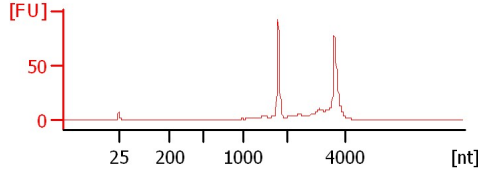
**C57\_p18-6**  
HiSeq\_443 Total RNA  
RIN: 8.50



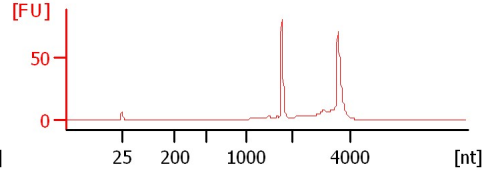
**CAST\_p18-2**  
HiSeq\_443 Total RNA  
RIN: 8.90



**CAST\_p18-3**  
HiSeq\_443 Total RNA  
RIN: 8.80



**CAST\_p18-6**  
HiSeq\_443 Total RNA  
RIN: 9.10



Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
 Modified: 3/29/2016 12:06:52 PM

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

Sample Name	Sample Comment	Status	Result Label	Result Color
PA82		✓	RIN: 8.40	
PA101		✓	RIN: 8.30	
RA32		✓	RIN: 9.50	
RP82		✓	RIN:8	
RP101		✓	RIN: 8.50	
RP103		✓	RIN: 8.40	
C57_p18-3	HiSeq_443 Total RNA	✓	RIN: 8.20	
C57_p18-5	HiSeq_443 Total RNA	✓	RIN: 8.70	
C57_p18-6	HiSeq_443 Total RNA	✓	RIN: 8.50	
CAST_p18-2	HiSeq_443 Total RNA	✓	RIN: 8.90	
CAST_p18-3	HiSeq_443 Total RNA	✓	RIN: 8.80	
CAST_p18-6	HiSeq_443 Total RNA	✓	RIN: 9.10	
Ladder		✓	All Other Samples	

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
Modified: 3/29/2016 12:06:52 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/ $\mu$ l] : 150  
Lower Marker Concentration [ng/ $\mu$ l] : 0  
Upper Marker Concentration [ng/ $\mu$ l] : 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

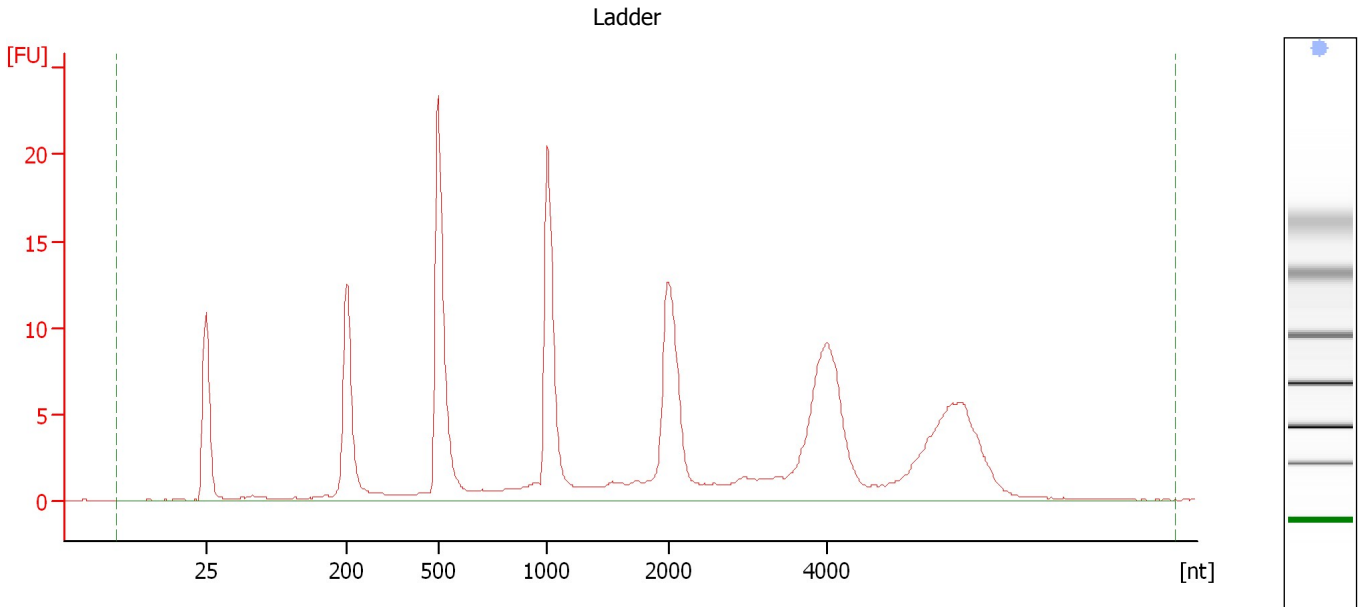
### Ladder

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

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
Modified: 3/29/2016 12:06:52 PM

**Electropherogram Summary**



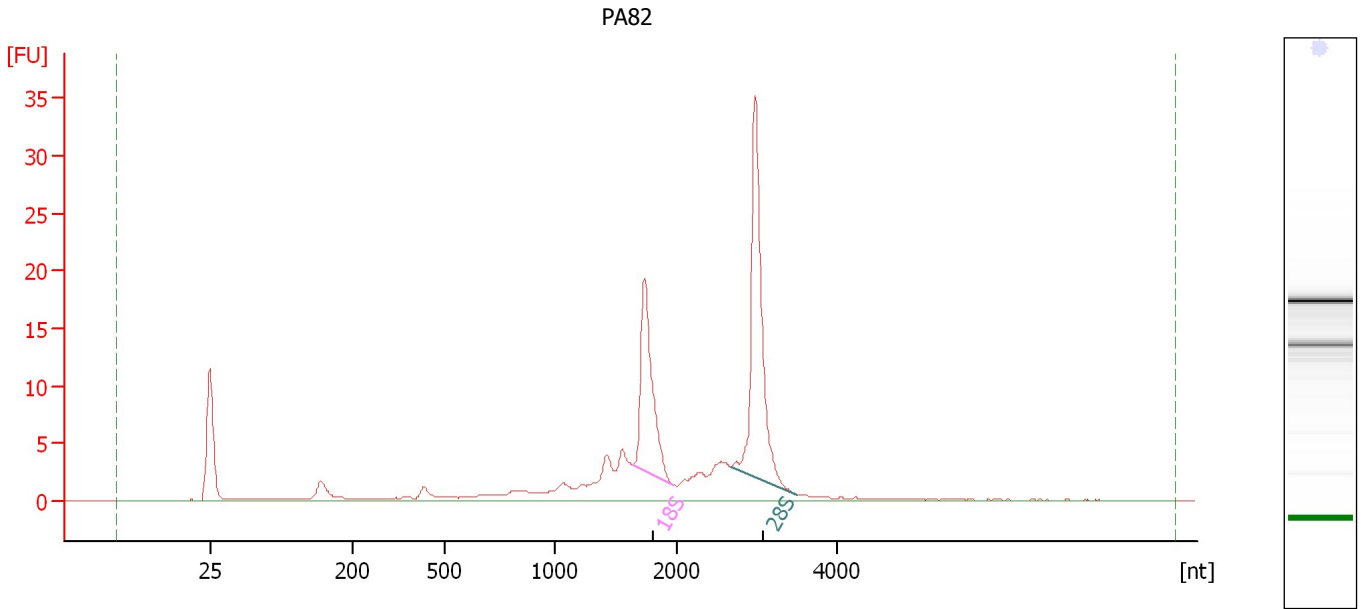
**Overall Results for Ladder**

RNA Area:	197.2	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:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
Modified: 3/29/2016 12:06:52 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : PA82**

RNA Area:	134.4	RNA Integrity Number (RIN):	8.4 (B.02.08)
RNA Concentration:	102 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: 8.40

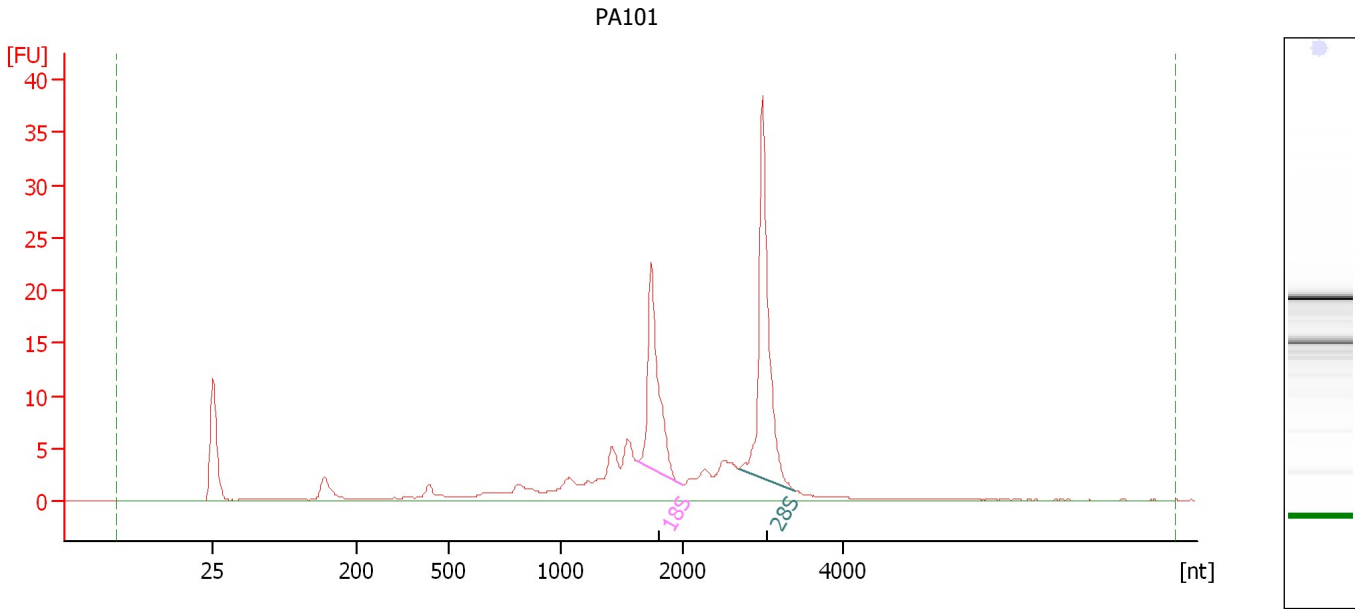
**Fragment table for sample 1 : PA82**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,634	1,967	22.8	17.0
28S	2,687	3,505	36.0	26.8

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
Modified: 3/29/2016 12:06:52 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : PA101**

RNA Area:	147.3	RNA Integrity Number (RIN):	8.3 (B.02.08)
RNA Concentration:	112 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: 8.30

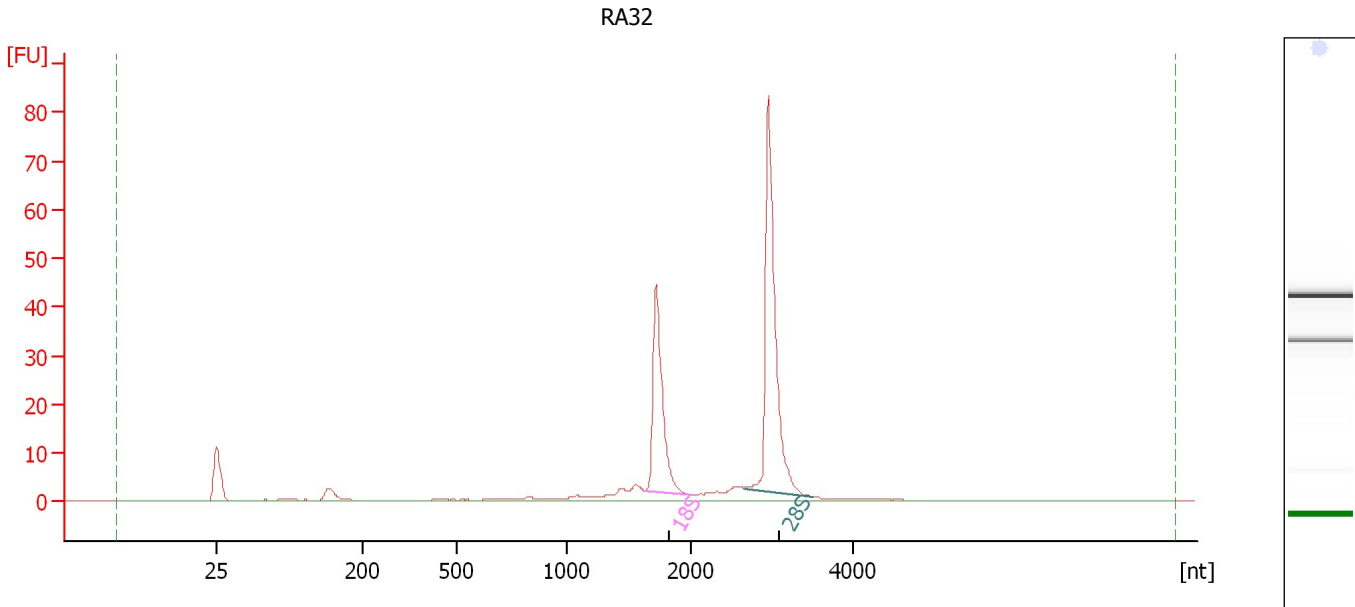
**Fragment table for sample 2 : PA101**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,621	1,996	24.9	16.9
28S	2,700	3,392	37.5	25.5

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
 Modified: 3/29/2016 12:06:52 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : RA32**

RNA Area:	195.7	RNA Integrity Number (RIN):	9.5 (B.02.08)
RNA Concentration:	149 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]:	1.7	Result Flagging Label:	RIN: 9.50

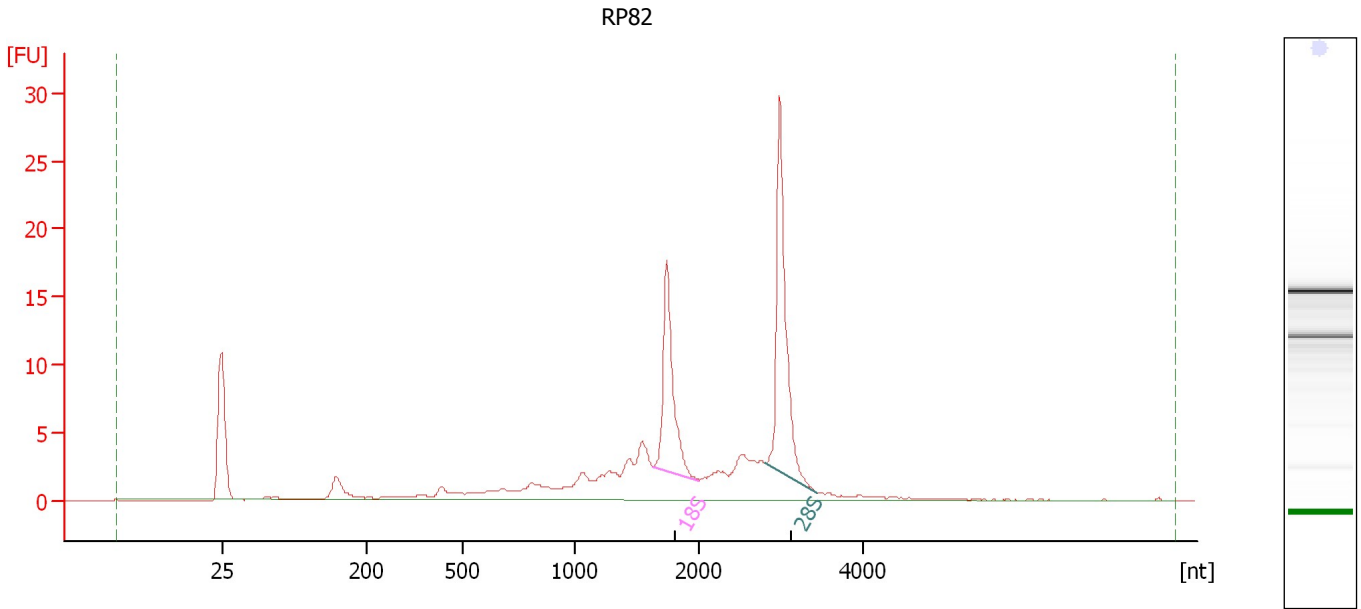
**Fragment table for sample 3 : RA32**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,627	2,025	48.1	24.6
28S	2,659	3,504	81.1	41.4

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
Modified: 3/29/2016 12:06:52 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : RP82**

RNA Area:	120.9	RNA Integrity Number (RIN):	8 (B.02.08)
RNA Concentration:	92 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:8

**Fragment table for sample 4 : RP82**

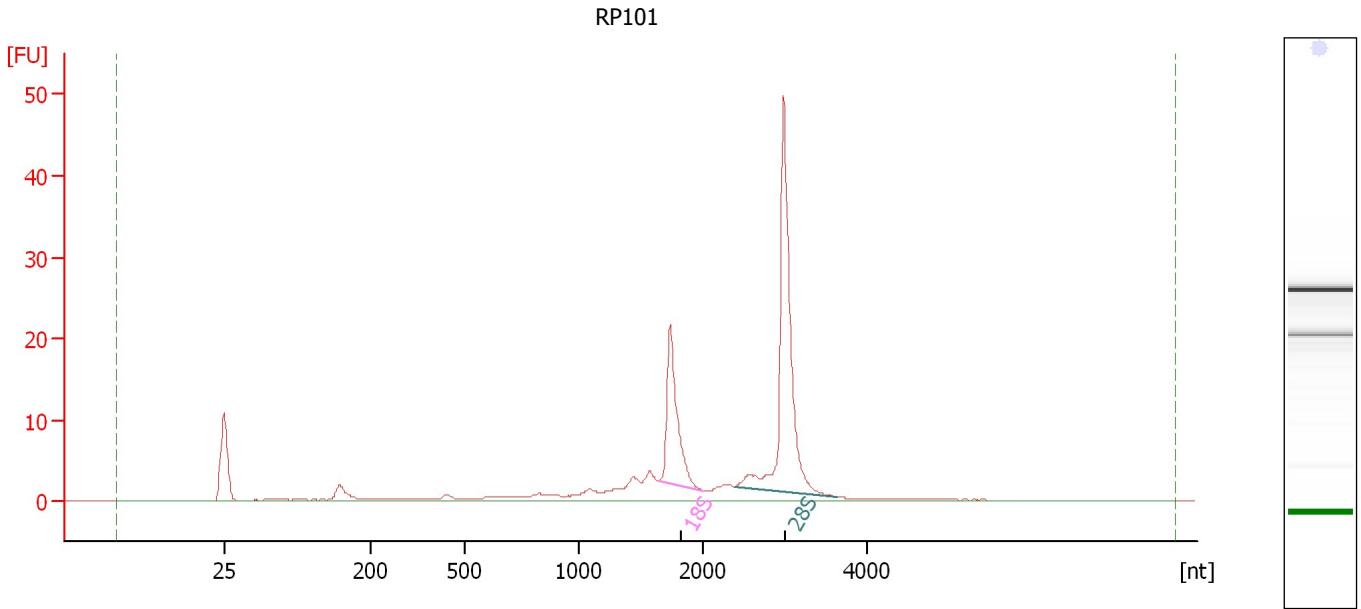
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,633	2,003	18.0	14.9
28S	2,802	3,444	26.7	22.1



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
Modified: 3/29/2016 12:06:52 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : RP101**

RNA Area:	137.2	RNA Integrity Number (RIN):	8.5 (B.02.08)
RNA Concentration:	104 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: 8.50

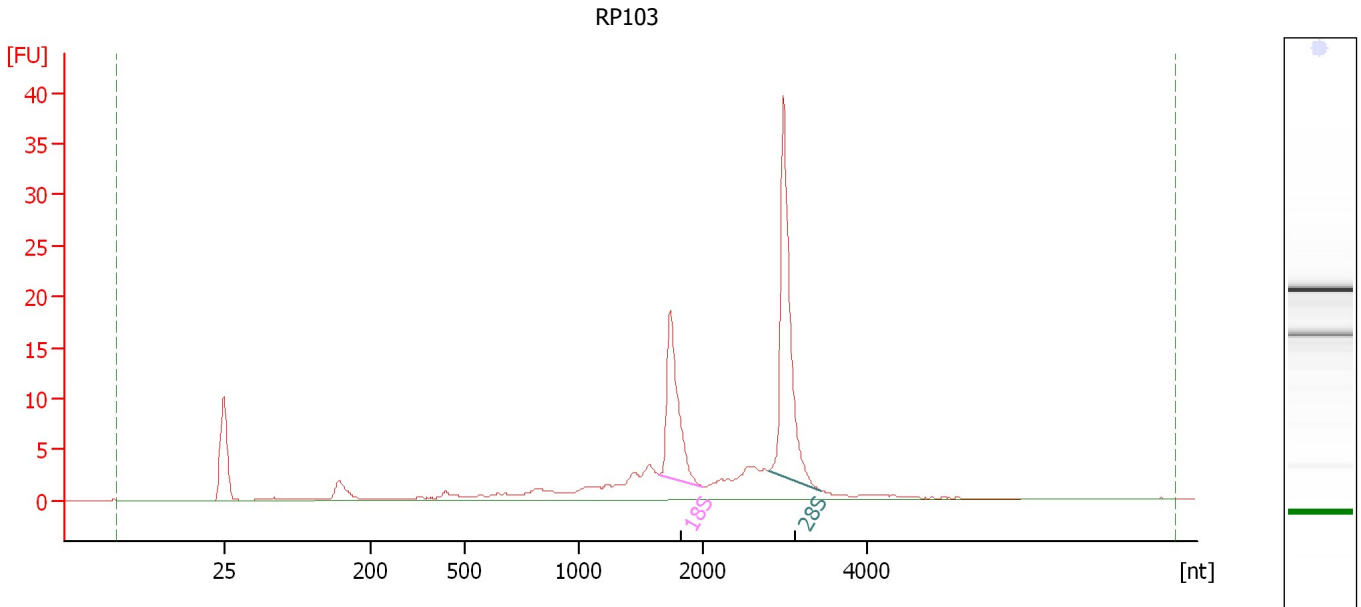
**Fragment table for sample 5 : RP101**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,644	1,995	23.4	17.1
28S	2,384	3,636	52.8	38.5

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
Modified: 3/29/2016 12:06:52 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : RP103**

RNA Area:	126.3	RNA Integrity Number (RIN):	8.4 (B.02.08)
RNA Concentration:	96 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]:	1.7	Result Flagging Label:	RIN: 8.40

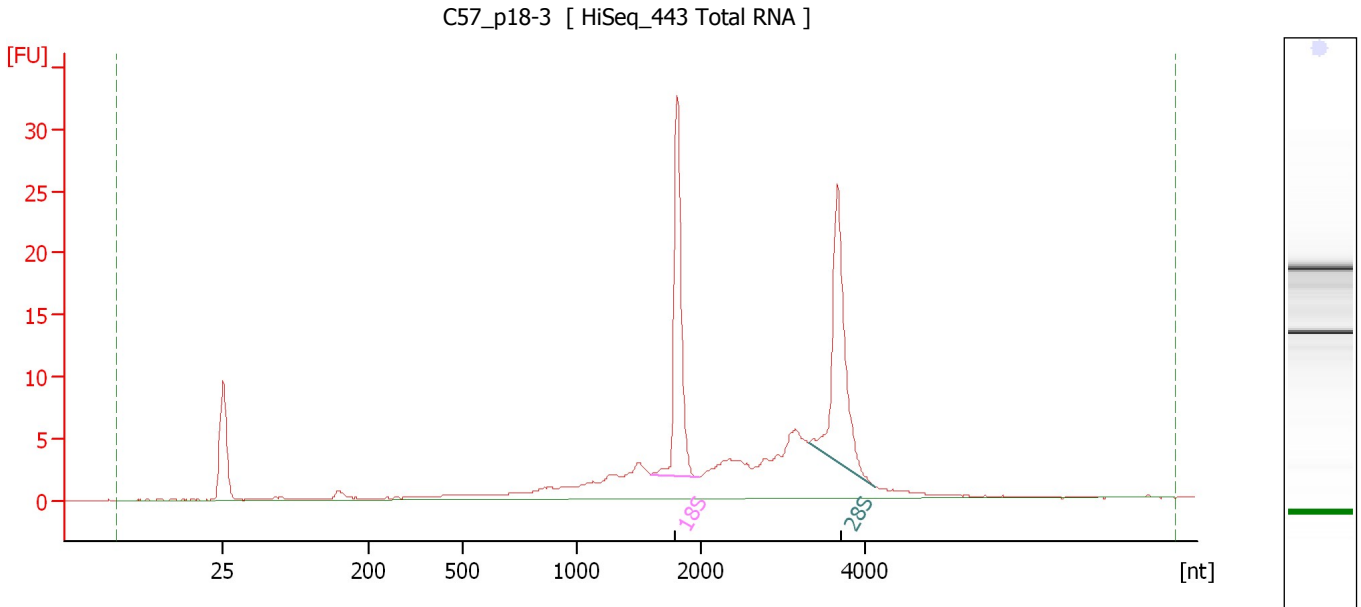
**Fragment table for sample 6 : RP103**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,653	2,005	21.6	17.1
28S	2,801	3,440	36.6	29.0

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
Modified: 3/29/2016 12:06:52 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : C57\_p18-3**

RNA Area: 148.1 RNA Integrity Number (RIN): 8.2 (B.02.08)  
RNA Concentration: 113 ng/μl Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.1 Result Flagging Label: RIN: 8.20

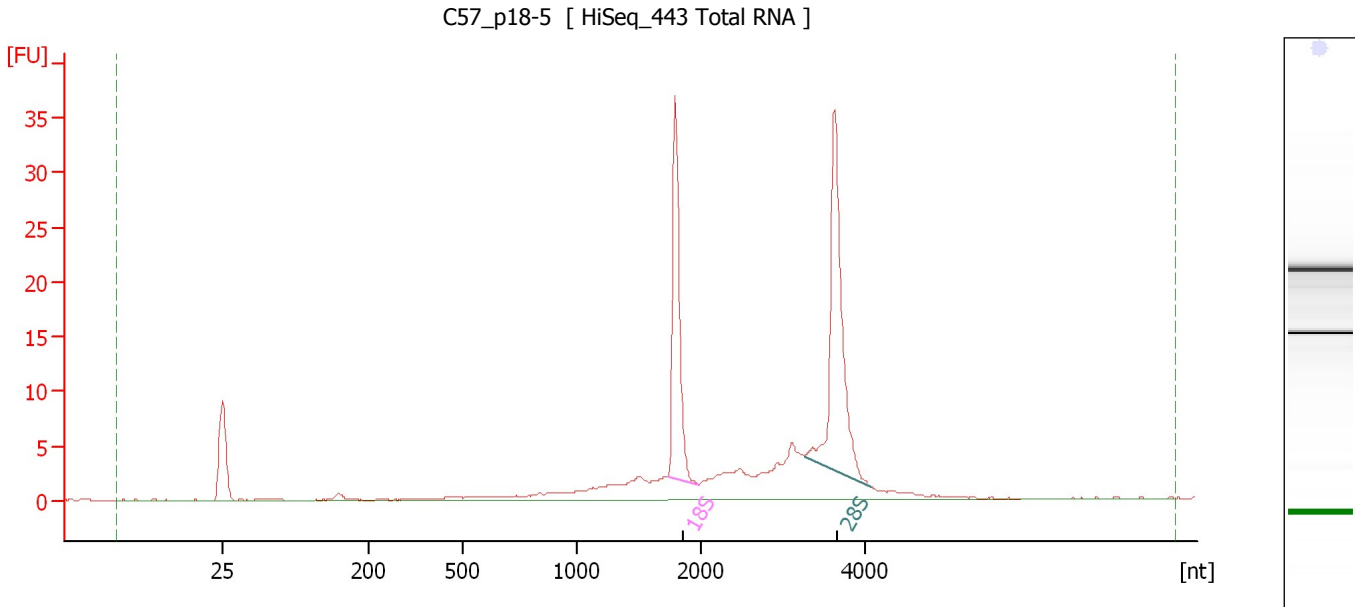
**Fragment table for sample 7 : C57\_p18-3**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,592	1,977	24.8	16.8
28S	3,324	4,122	27.2	18.3

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
Modified: 3/29/2016 12:06:52 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : C57\_p18-5**

RNA Area: 138.0                      RNA Integrity Number (RIN): 8.7 (B.02.08)  
RNA Concentration: 105 ng/μl                      Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.4                      Result Flagging Label: RIN: 8.70

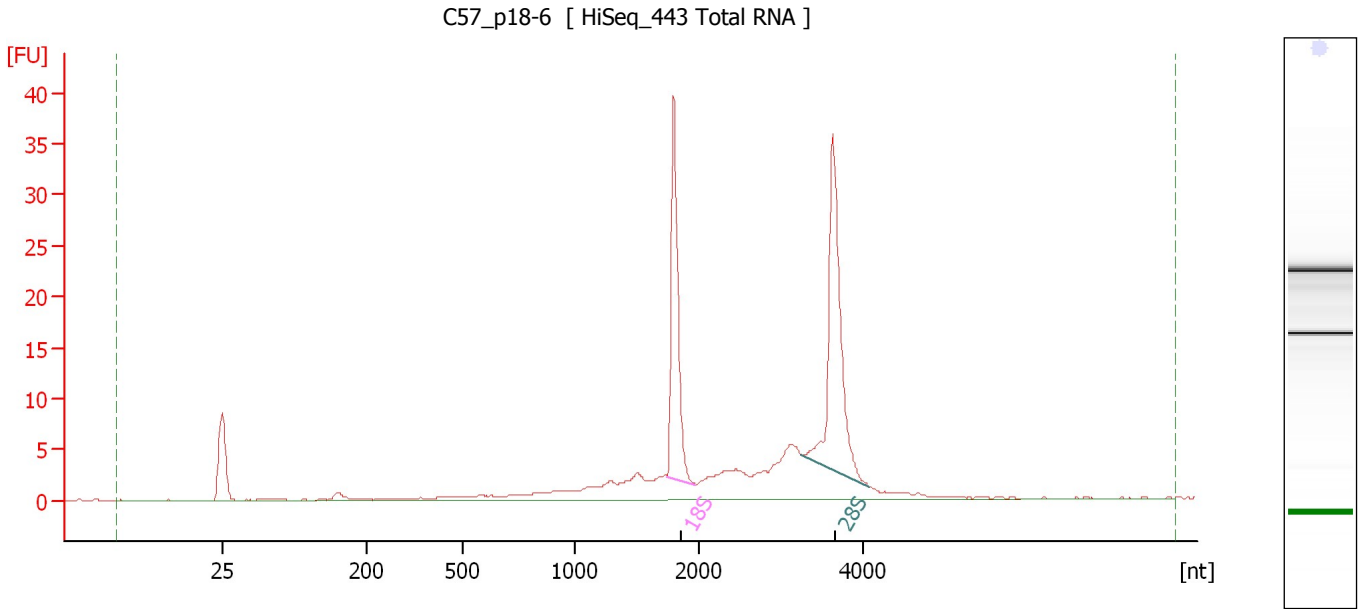
**Fragment table for sample 8 : C57\_p18-5**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,737	1,977	26.5	19.2
28S	3,259	4,069	37.5	27.2

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
Modified: 3/29/2016 12:06:52 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : C57\_p18-6**

RNA Area: 152.3                      RNA Integrity Number (RIN): 8.5 (B.02.08)  
RNA Concentration: 116 ng/μl              Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.3              Result Flagging Label: RIN: 8.50

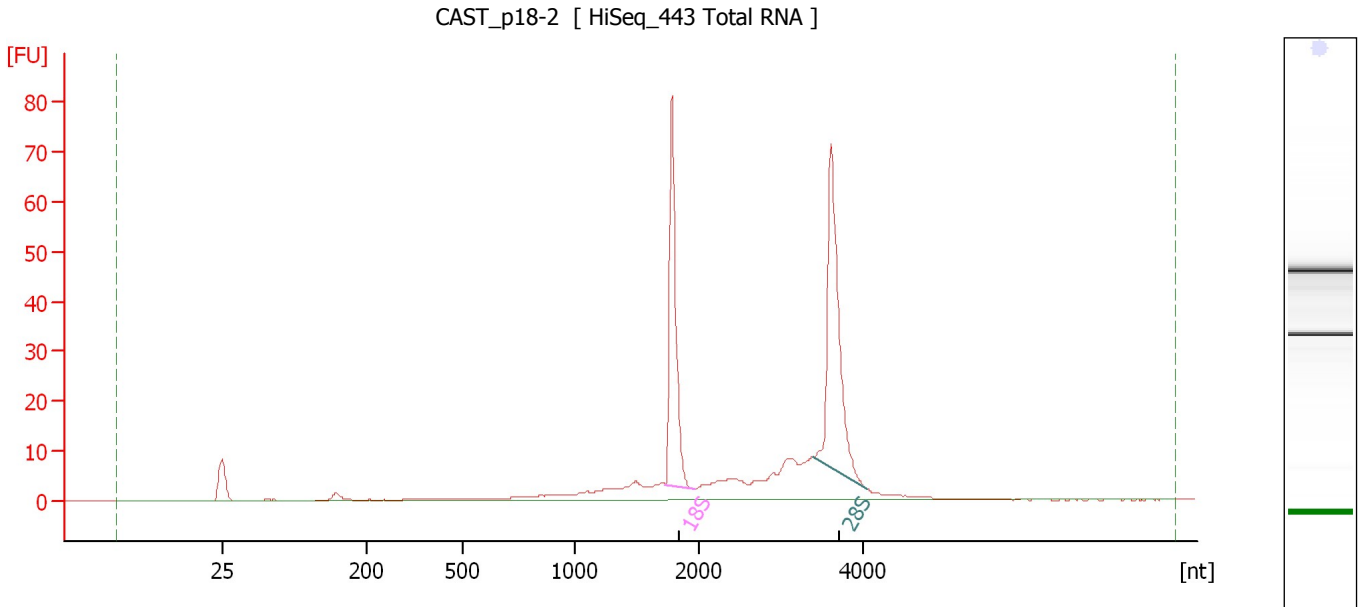
**Fragment table for sample 9 : C57\_p18-6**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,744	1,967	28.8	18.9
28S	3,260	4,086	38.3	25.2

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
 Modified: 3/29/2016 12:06:52 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : CAST\_p18-2**

RNA Area:	267.0	RNA Integrity Number (RIN):	8.9 (B.02.08)
RNA Concentration:	203 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]:	1.2	Result Flagging Label:	RIN: 8.90

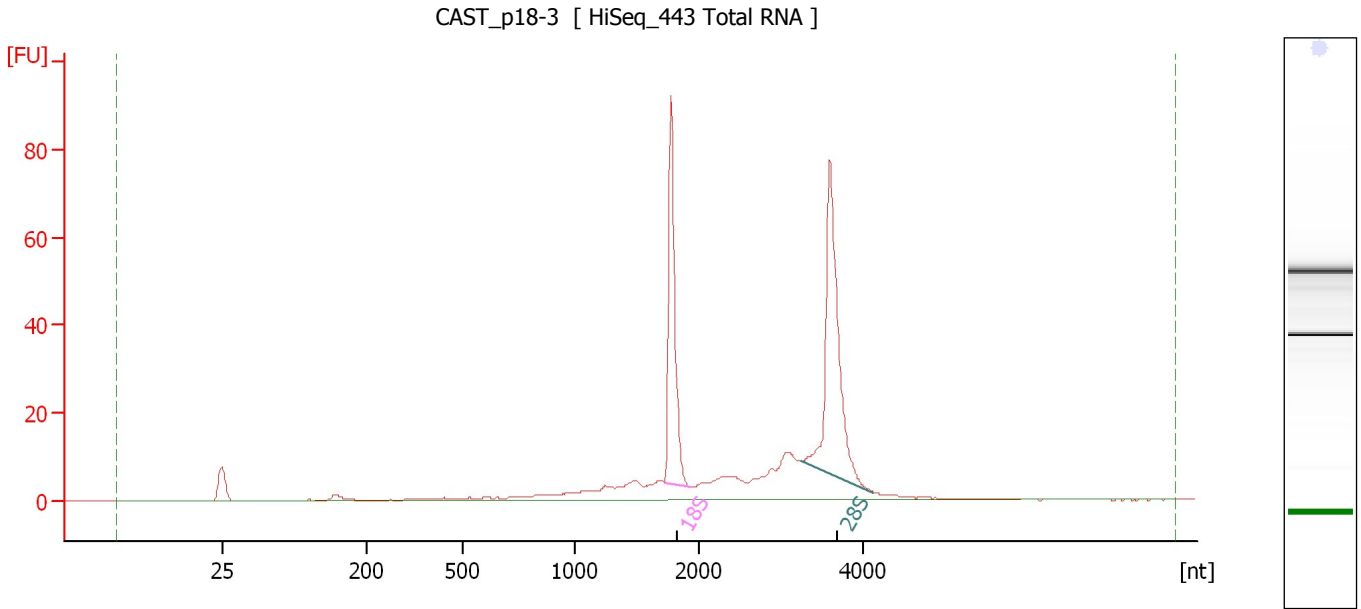
**Fragment table for sample 10 : CAST\_p18-2**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,727	1,959	59.1	22.1
28S	3,391	4,046	73.4	27.5

Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
Modified: 3/29/2016 12:06:52 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : CAST\_p18-3**

RNA Area: 312.6                      RNA Integrity Number (RIN): 8.8 (B.02.08)  
RNA Concentration: 238 ng/μl              Result Flagging Color:   
rRNA Ratio [28s / 18s]: 1.3              Result Flagging Label: RIN: 8.80

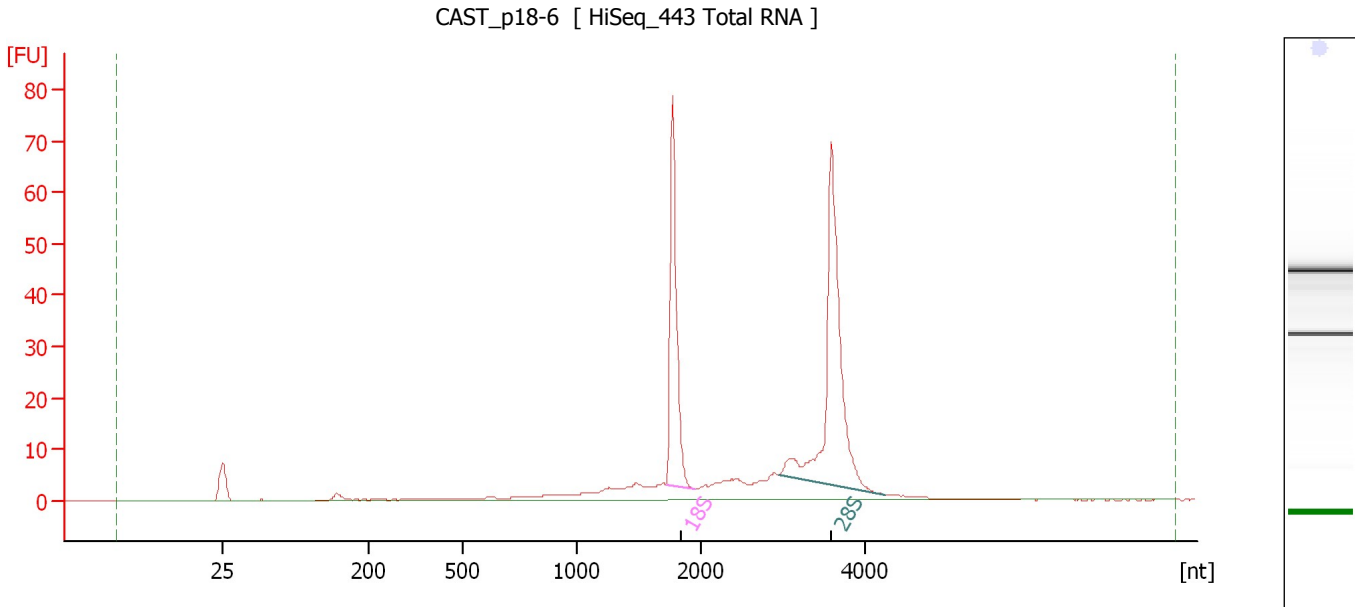
**Fragment table for sample 11 : CAST\_p18-3**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,719	1,942	66.9	21.4
28S	3,260	4,138	89.6	28.7

Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
 Modified: 3/29/2016 12:06:52 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 12 : CAST\_p18-6**

RNA Area:	254.7	RNA Integrity Number (RIN):	9.1 (B.02.08)
RNA Concentration:	194 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: 9.10

**Fragment table for sample 12 : CAST\_p18-6**

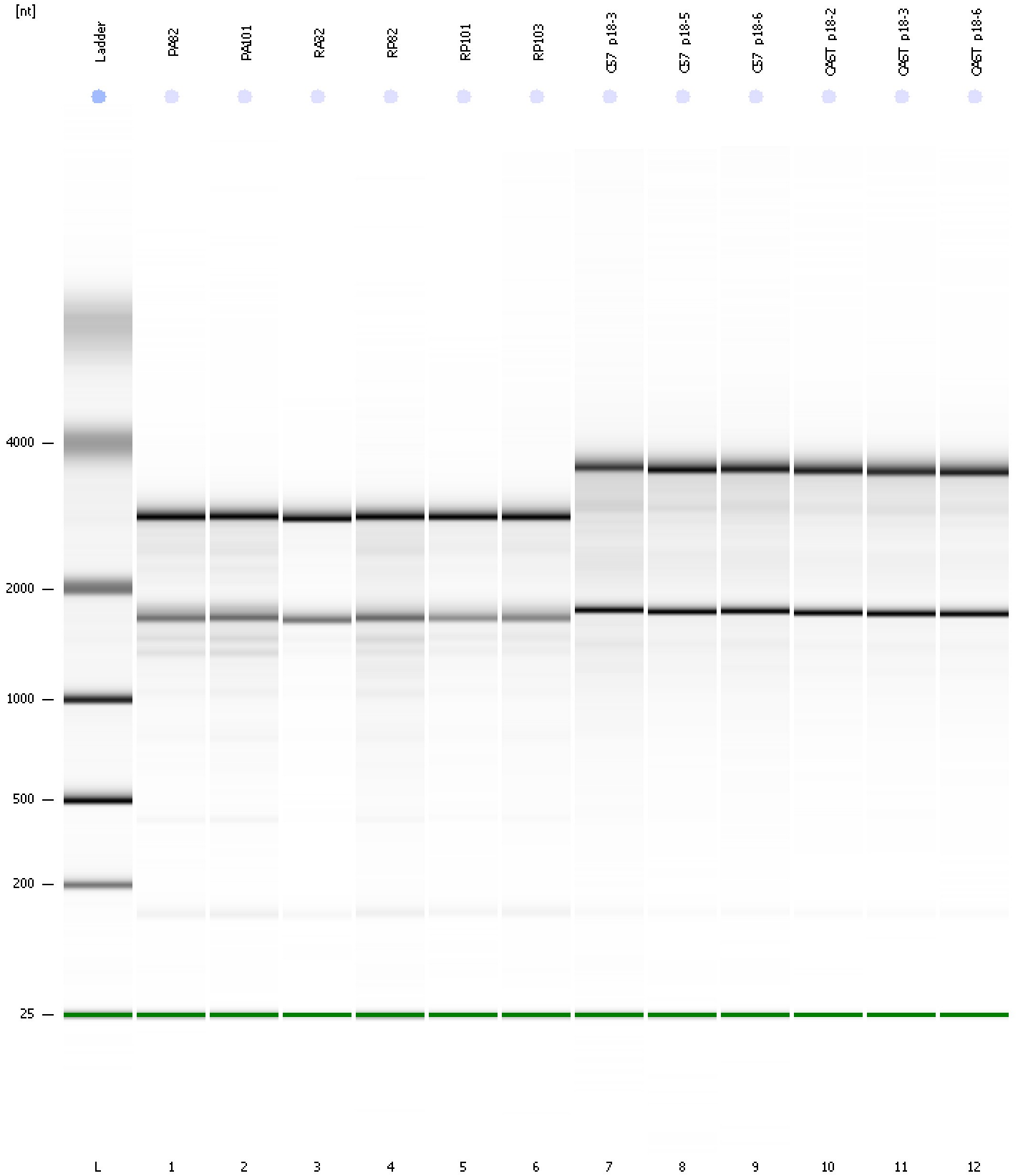
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,720	1,943	56.9	22.3
28S	2,945	4,252	92.2	36.2



Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
Modified: 3/29/2016 12:06:52 PM

**Gel Image**

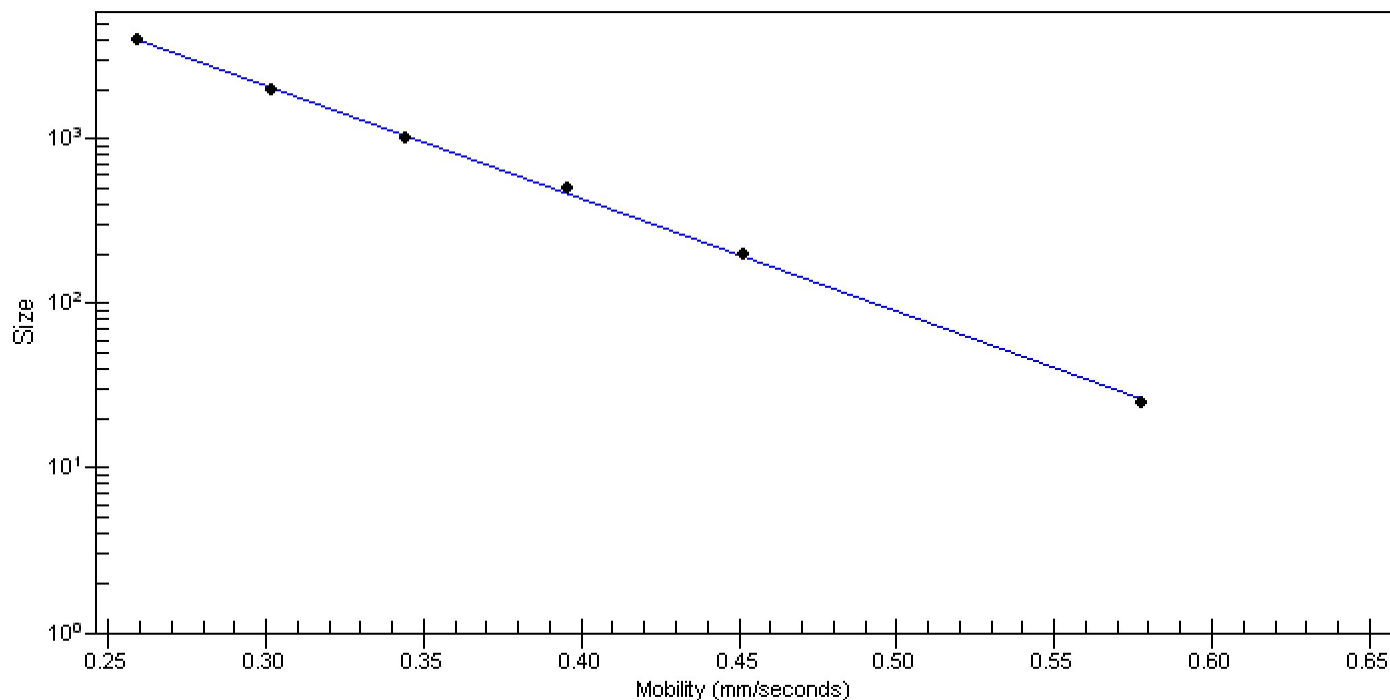


Assay Class: Eukaryote Total RNA Nano  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
Modified: 3/29/2016 12:06:52 PM

**Curves**

**Standard Curve**



Assay Class: Eukaryote Total RNA Nano  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-29\2016-03-29\_002.xad

Created: 3/29/2016 11:43:46 AM  
 Modified: 3/29/2016 12:06:52 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		3/29/2016 12:06:50 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-03-29\2016-03-29_002.xad)		Instrument	Run		3/29/2016 11:43:51 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/29/2016 11:43:51 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/29/2016 11:43:51 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/29/2016 11:43:51 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/29/2016 11:43:51 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/29/2016 11:43:51 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/29/2016 11:43:51 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1