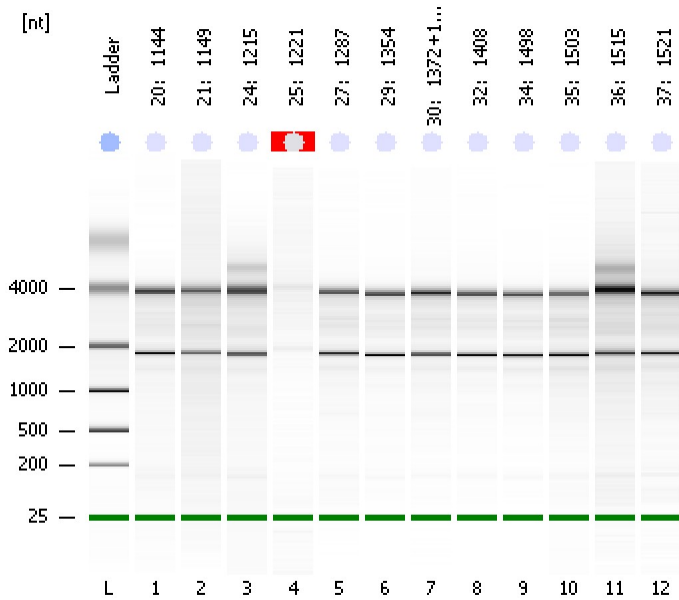


Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
Modified: 11/18/2016 1:11:31 PM

Electrophoresis File Run Summary



Instrument Information:

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

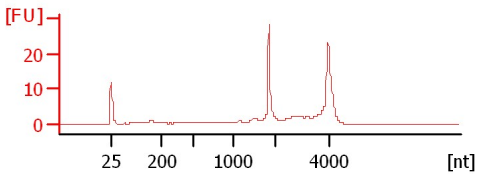
Assay Information:

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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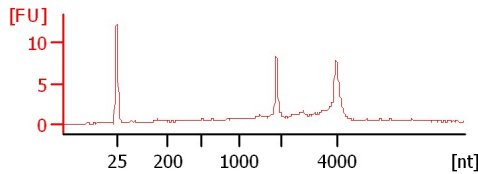
Chip Information:

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

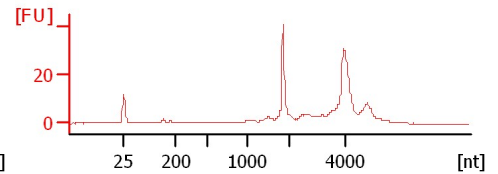
20: 1144
HiSeq753_Total RNA QC
RIN: 8.80



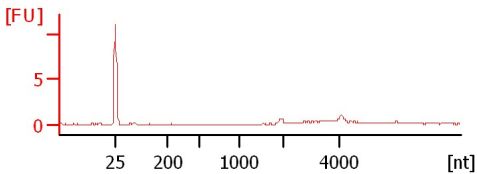
21: 1149
HiSeq753_Total RNA QC
RIN: 7.60



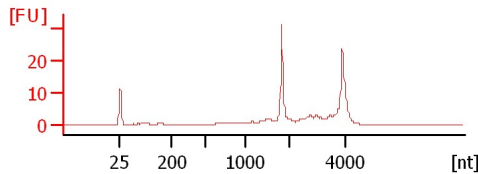
24: 1215
HiSeq753_Total RNA QC
RIN: 8.80



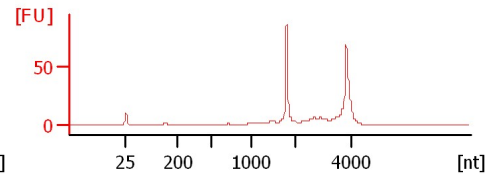
25: 1221
HiSeq753_Total RNA QC
RIN N/A



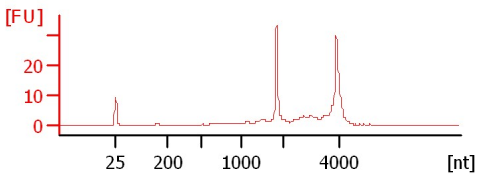
27: 1287
HiSeq753_Total RNA QC
RIN: 8.60



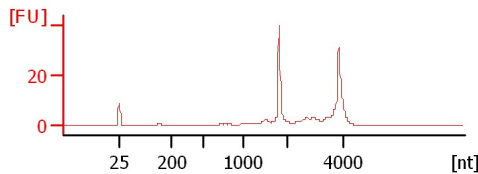
29: 1354
HiSeq753_Total RNA QC
RIN: 9



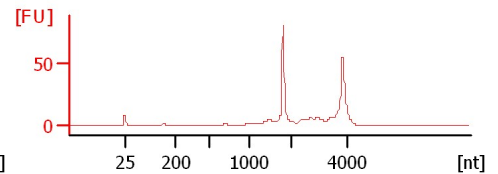
30: 1372+1377
HiSeq753_Total RNA QC
RIN: 8.80



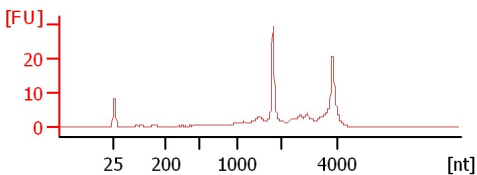
32: 1408
HiSeq753_Total RNA QC
RIN: 8.90



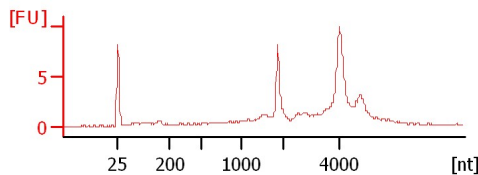
34: 1498
HiSeq753_Total RNA QC
RIN: 8.70



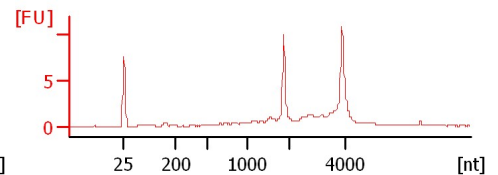
35: 1503
HiSeq753_Total RNA QC
RIN: 8



36: 1515
HiSeq753_Total RNA QC
RIN: 8.20



37: 1521
HiSeq753_Total RNA QC
RIN: 8.50



Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
Modified: 11/18/2016 1:11:31 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
20: 1144	HiSeq753_Total RNA QC	✓	RIN: 8.80	
21: 1149	HiSeq753_Total RNA QC	✓	RIN: 7.60	
24: 1215	HiSeq753_Total RNA QC	✓	RIN: 8.80	
25: 1221	HiSeq753_Total RNA QC	✓	RIN N/A	
27: 1287	HiSeq753_Total RNA QC	✓	RIN: 8.60	
29: 1354	HiSeq753_Total RNA QC	✓	RIN:9	
30: 1372+1377	HiSeq753_Total RNA QC	✓	RIN: 8.80	
32: 1408	HiSeq753_Total RNA QC	✓	RIN: 8.90	
34: 1498	HiSeq753_Total RNA QC	✓	RIN: 8.70	
35: 1503	HiSeq753_Total RNA QC	✓	RIN:8	
36: 1515	HiSeq753_Total RNA QC	✓	RIN: 8.20	
37: 1521	HiSeq753_Total RNA QC	✓	RIN: 8.50	
Ladder		✓	All Other Samples	

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
Modified: 11/18/2016 1:11:31 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/ μ l] : 150
Lower Marker Concentration [ng/ μ l] : 0
Upper Marker Concentration [ng/ μ 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

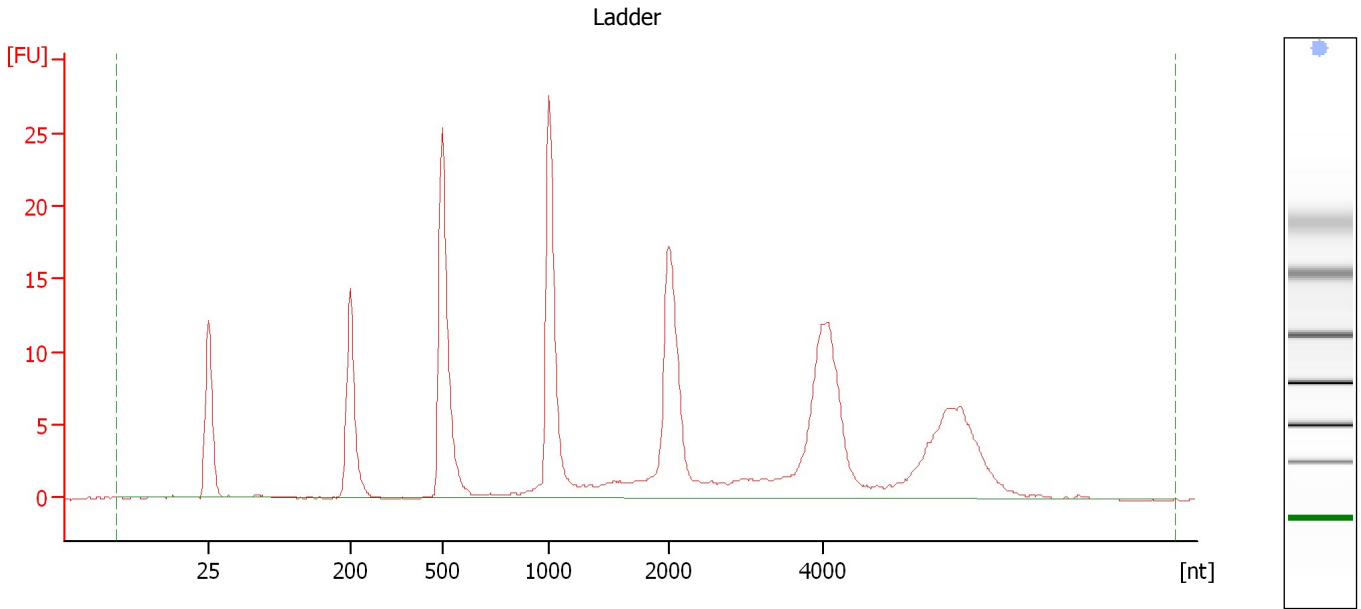
Ladder

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\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
Modified: 11/18/2016 1:11:31 PM

Electropherogram Summary



Overall Results for Ladder

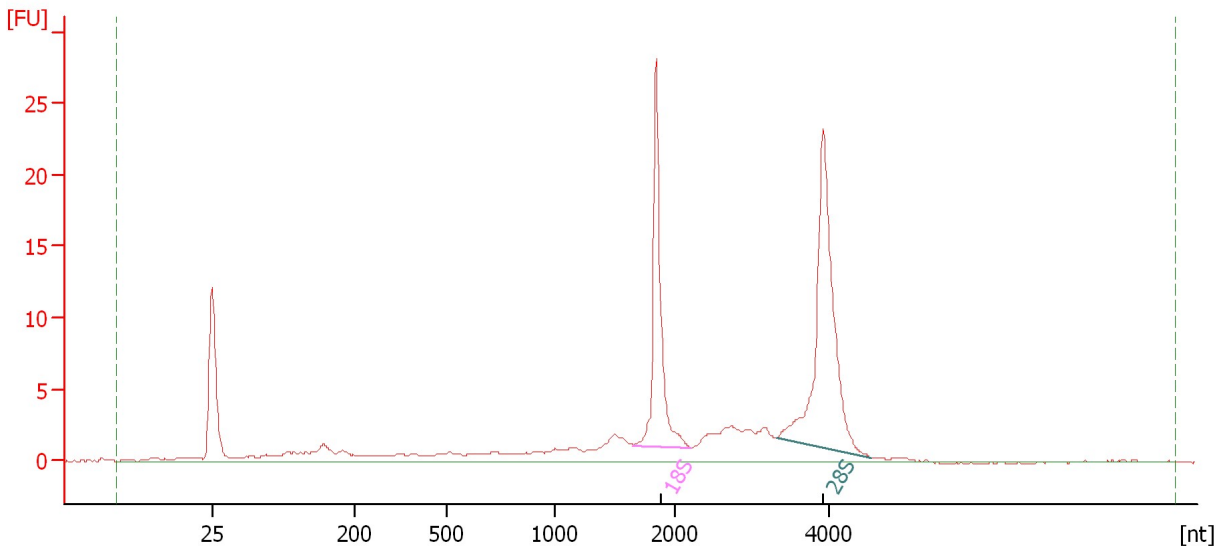
RNA Area:	214.1	Result Flagging Color:	
RNA Concentration:	150 ng/μl	Result Flagging Label:	All Other Samples

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
Modified: 11/18/2016 1:11:31 PM

Electropherogram Summary Continued ...

20: 1144 [HiSeq753_Total RNA QC]



Overall Results for sample 1 : 20: 1144

RNA Area:	134.7	RNA Integrity Number (RIN):	8.8 (B.02.08)
RNA Concentration:	94 ng/μl	Result Flagging Color:	
rRNA Ratio [28s / 18s]:	1.6	Result Flagging Label:	RIN: 8.80

Fragment table for sample 1 : 20: 1144

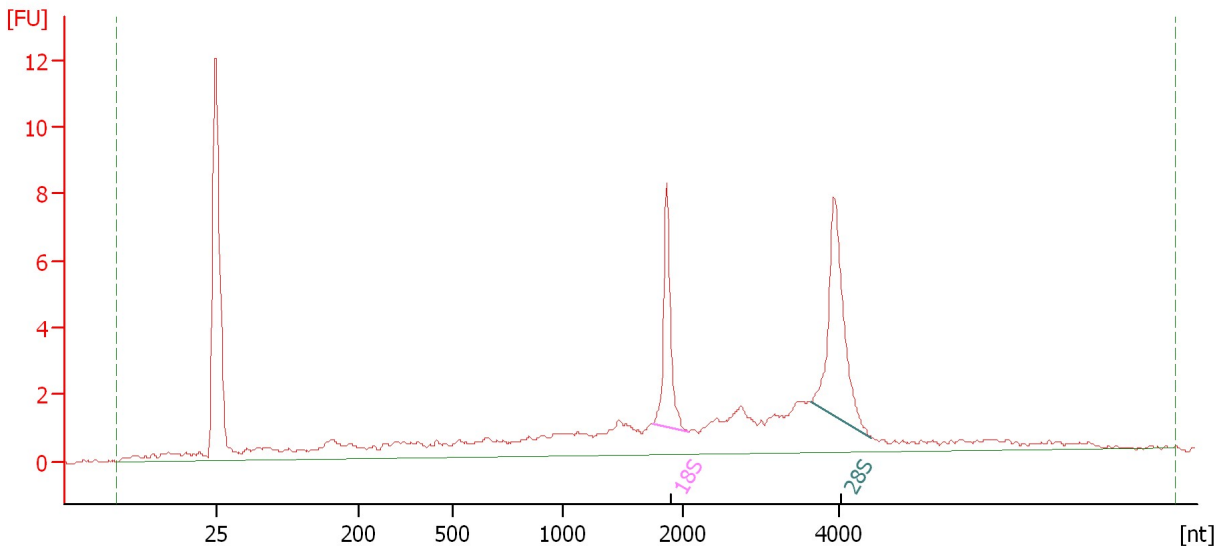
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,653	2,211	24.2	17.9
28S	3,328	4,543	38.6	28.7

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
Modified: 11/18/2016 1:11:31 PM

Electropherogram Summary Continued ...

21: 1149 [HiSeq753_Total RNA QC]



Overall Results for sample 2 : 21: 1149

RNA Area: 69.1 RNA Integrity Number (RIN): 7.6 (B.02.08)
RNA Concentration: 48 ng/μl Result Flagging Color:
rRNA Ratio [28s / 18s]: 1.6 Result Flagging Label: RIN: 7.60

Fragment table for sample 2 : 21: 1149

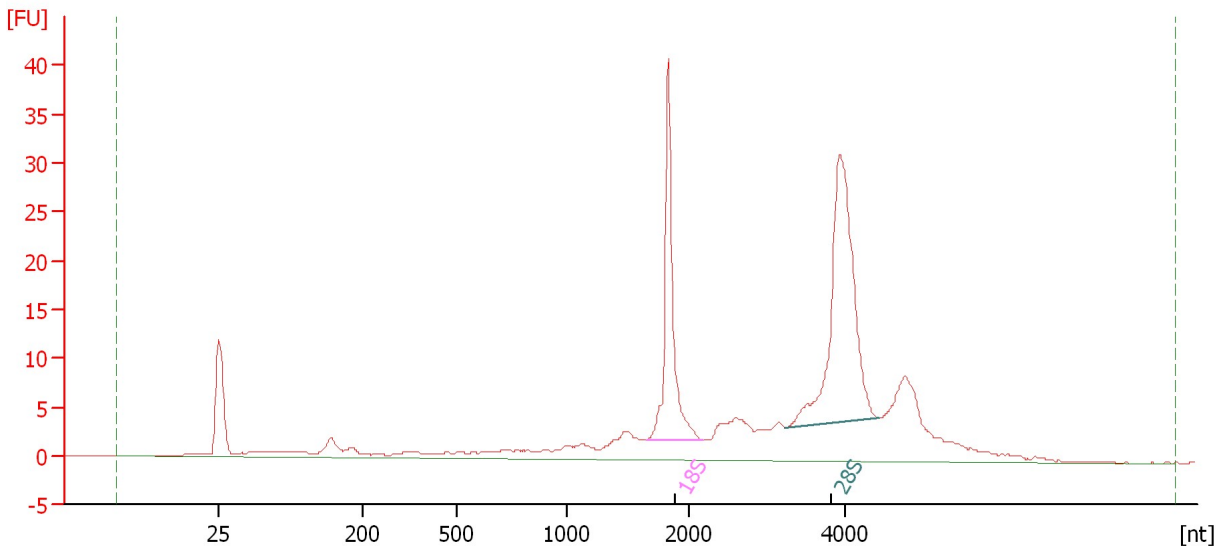
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,748	2,091	6.2	9.0
28S	3,651	4,418	9.9	14.3

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
Modified: 11/18/2016 1:11:31 PM

Electropherogram Summary Continued ...

24: 1215 [HiSeq753_Total RNA QC]



Overall Results for sample 3 : 24: 1215

RNA Area: 245.6 RNA Integrity Number (RIN): 8.8 (B.02.08)
RNA Concentration: 172 ng/μl Result Flagging Color:
rRNA Ratio [28s / 18s]: 1.7 Result Flagging Label: RIN: 8.80

Fragment table for sample 3 : 24: 1215

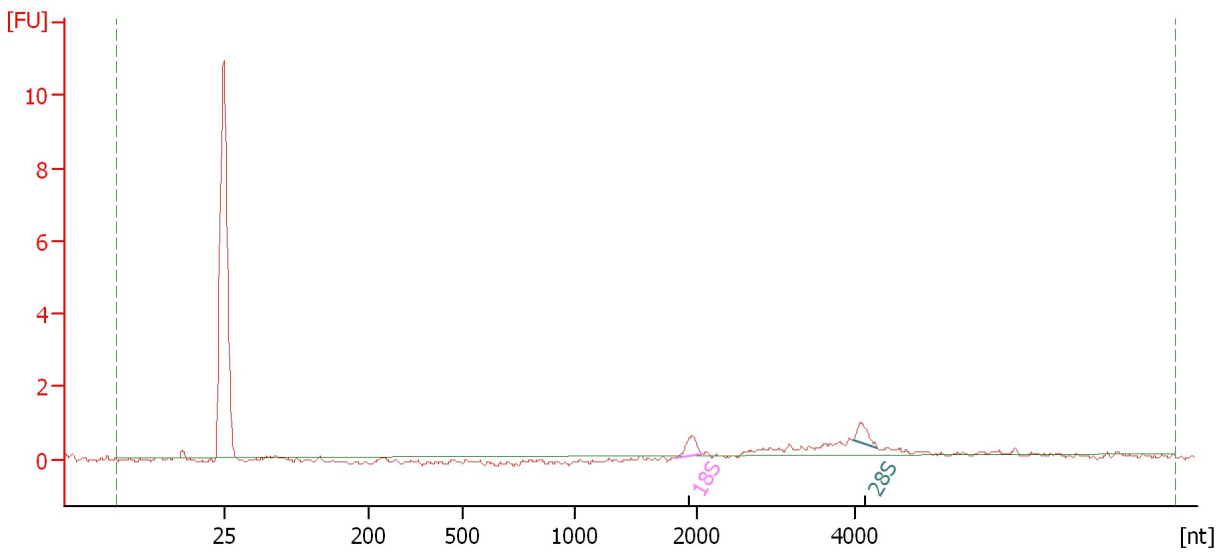
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,646	2,176	37.3	15.2
28S	3,237	4,420	62.3	25.4

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
 Modified: 11/18/2016 1:11:31 PM

Electropherogram Summary Continued ...

25: 1221 [HiSeq753_Total RNA QC]



Overall Results for sample 4 : 25: 1221

RNA Area:	5.4	RNA Integrity Number (RIN):	N/A (B.02.08)
RNA Concentration:	4 ng/μl	Result Flagging Color:	
rRNA Ratio [28s / 18s]:	0.9	Result Flagging Label:	RIN N/A

Fragment table for sample 4 : 25: 1221

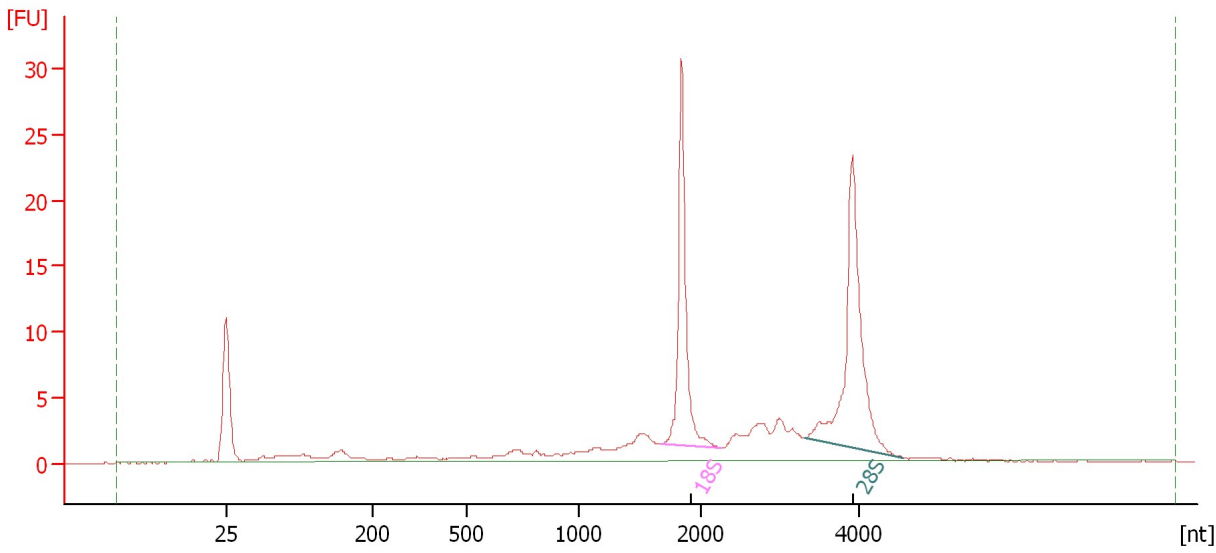
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,819	2,085	0.7	12.8
28S	3,961	4,284	0.6	11.1

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
 Modified: 11/18/2016 1:11:31 PM

Electropherogram Summary Continued ...

27: 1287 [HiSeq753_Total RNA QC]



Overall Results for sample 5 : 27: 1287

RNA Area:	123.9	RNA Integrity Number (RIN):	8.6 (B.02.08)
RNA Concentration:	87 ng/μl	Result Flagging Color:	
rRNA Ratio [28s / 18s]:	1.3	Result Flagging Label:	RIN: 8.60

Fragment table for sample 5 : 27: 1287

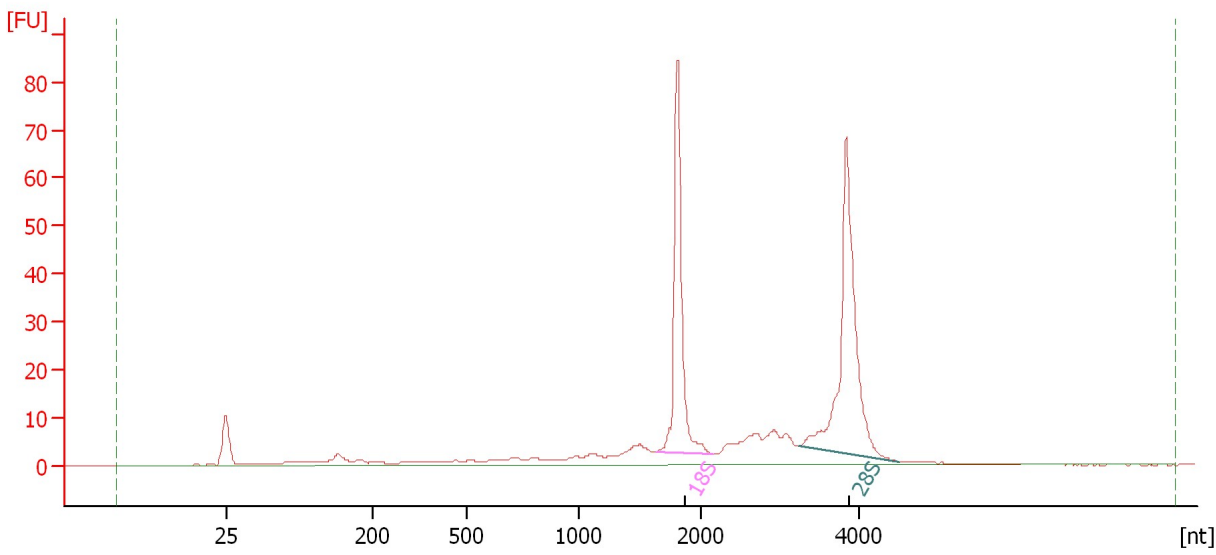
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,673	2,262	25.7	20.7
28S	3,297	4,546	32.7	26.4

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
Modified: 11/18/2016 1:11:31 PM

Electropherogram Summary Continued ...

29: 1354 [HiSeq753_Total RNA QC]



Overall Results for sample 6 : 29: 1354

RNA Area: 310.0 RNA Integrity Number (RIN): 9 (B.02.08)
RNA Concentration: 217 ng/μl Result Flagging Color:
rRNA Ratio [28s / 18s]: 1.4 Result Flagging Label: RIN:9

Fragment table for sample 6 : 29: 1354

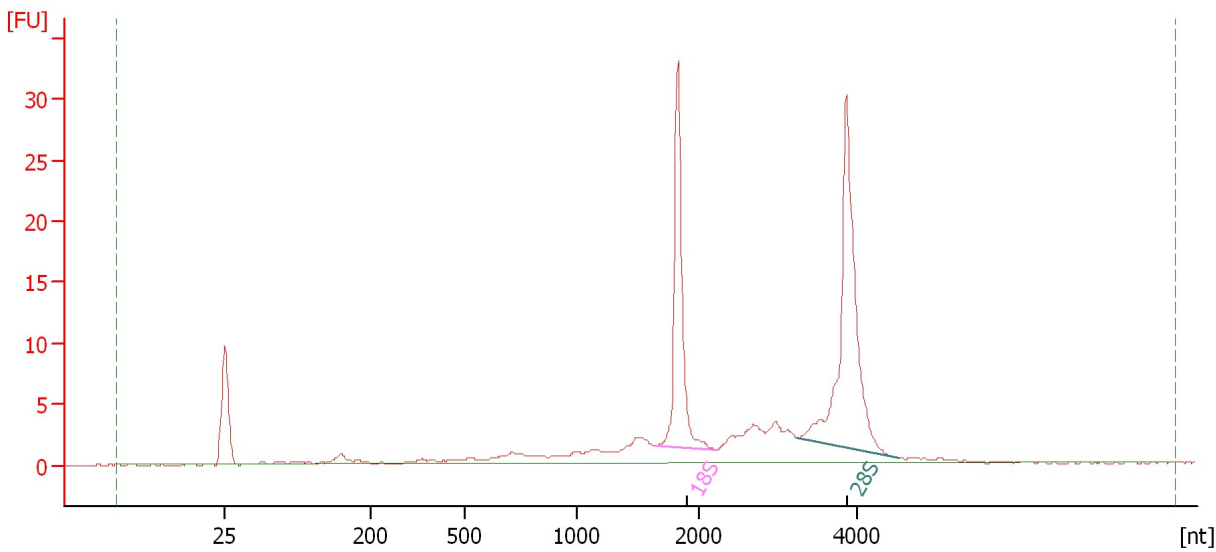
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,638	2,141	69.3	22.3
28S	3,243	4,479	94.1	30.4

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
 Modified: 11/18/2016 1:11:31 PM

Electropherogram Summary Continued ...

30: 1372+1377 [HiSeq753_Total RNA QC]



Overall Results for sample 7 : 30: 1372+1377

RNA Area:	134.1	RNA Integrity Number (RIN):	8.8 (B.02.08)
RNA Concentration:	94 ng/μl	Result Flagging Color:	
rRNA Ratio [28s / 18s]:	1.6	Result Flagging Label:	RIN: 8.80

Fragment table for sample 7 : 30: 1372+1377

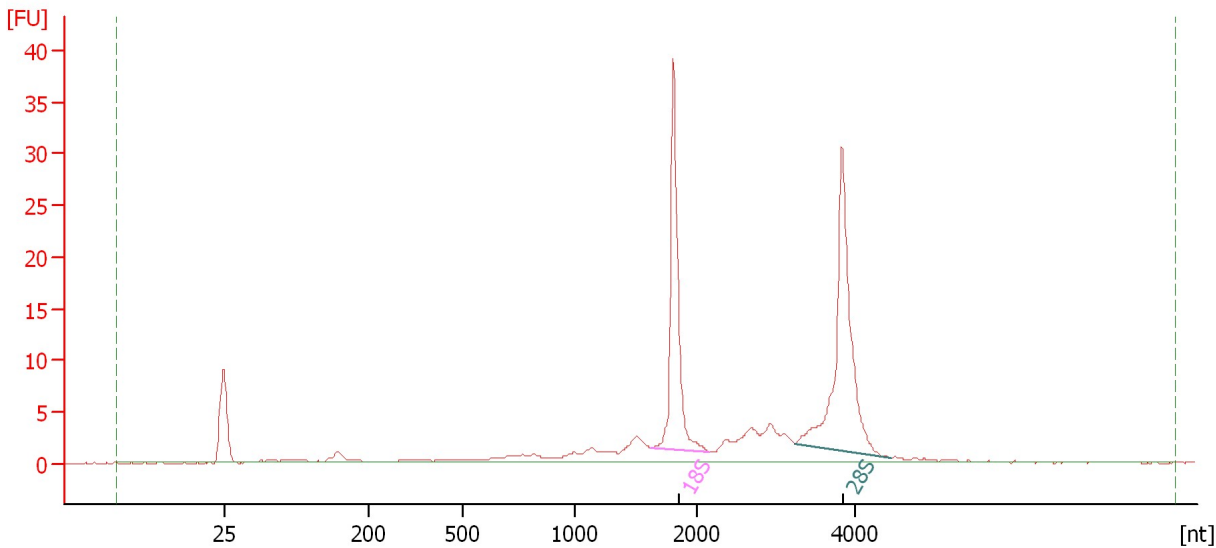
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,654	2,221	27.6	20.6
28S	3,244	4,510	42.9	32.0

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
Modified: 11/18/2016 1:11:31 PM

Electropherogram Summary Continued ...

32: 1408 [HiSeq753_Total RNA QC]



Overall Results for sample 8 : 32: 1408

RNA Area:	141.1	RNA Integrity Number (RIN):	8.9 (B.02.08)
RNA Concentration:	99 ng/μl	Result Flagging Color:	
rRNA Ratio [28s / 18s]:	1.3	Result Flagging Label:	RIN: 8.90

Fragment table for sample 8 : 32: 1408

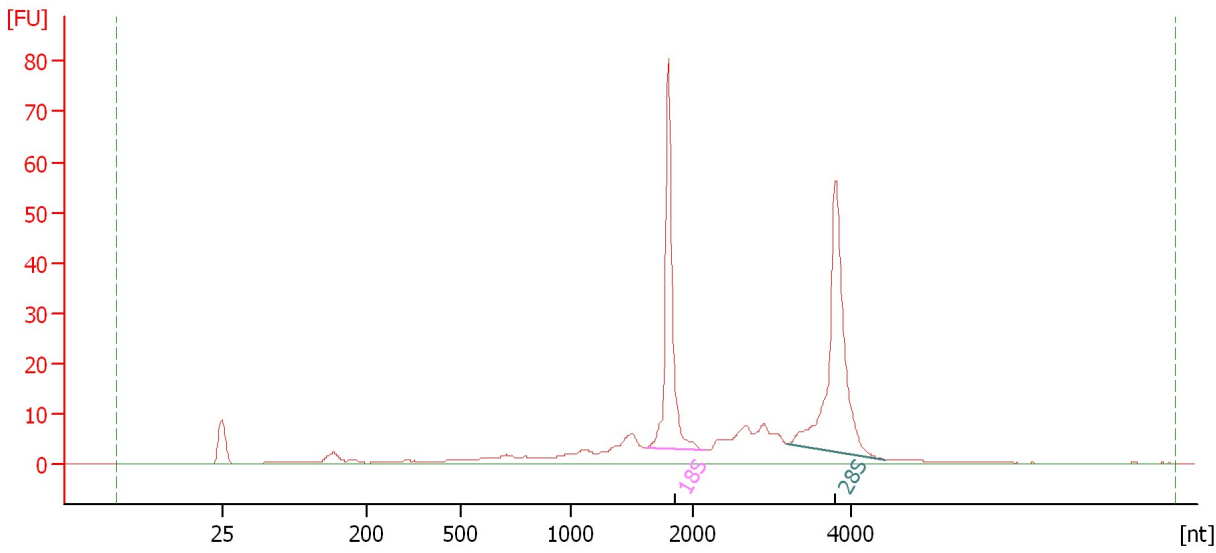
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,626	2,153	32.6	23.1
28S	3,246	4,446	43.4	30.8

Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
 Modified: 11/18/2016 1:11:31 PM

Electropherogram Summary Continued ...

34: 1498 [HiSeq753_Total RNA QC]



Overall Results for sample 9 : 34: 1498

RNA Area:	295.4	RNA Integrity Number (RIN):	8.7 (B.02.08)
RNA Concentration:	207 ng/μl	Result Flagging Color:	
rRNA Ratio [28s / 18s]:	1.2	Result Flagging Label:	RIN: 8.70

Fragment table for sample 9 : 34: 1498

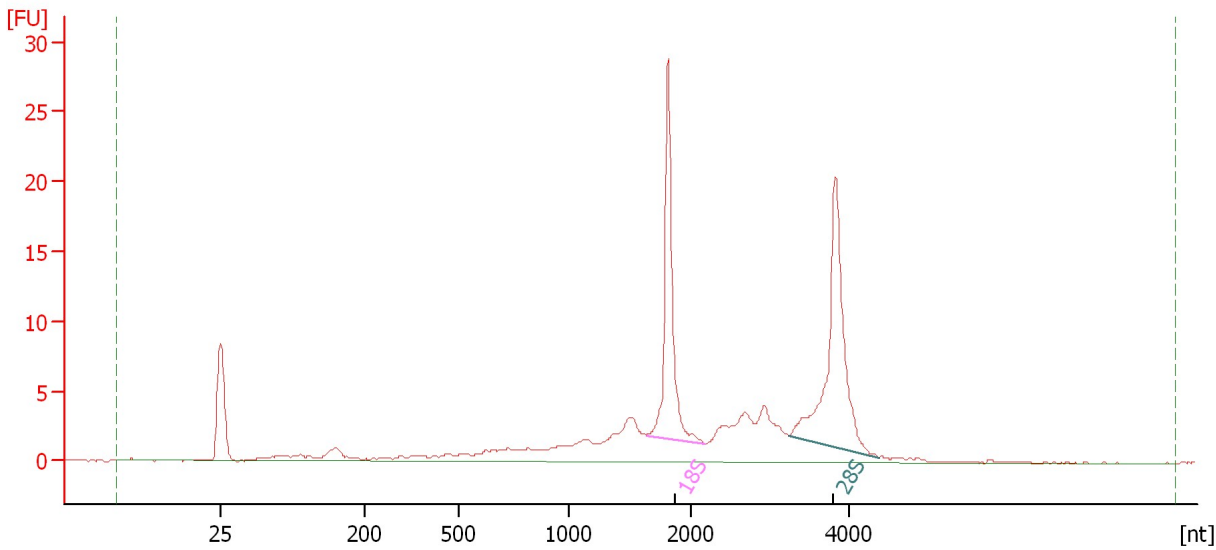
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,614	2,164	66.2	22.4
28S	3,194	4,427	81.7	27.6

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
Modified: 11/18/2016 1:11:31 PM

Electropherogram Summary Continued ...

35: 1503 [HiSeq753_Total RNA QC]



Overall Results for sample 10 : 35: 1503

RNA Area: 132.1 RNA Integrity Number (RIN): 8 (B.02.08)
RNA Concentration: 93 ng/μl Result Flagging Color:
rRNA Ratio [28s / 18s]: 1.2 Result Flagging Label: RIN:8

Fragment table for sample 10 : 35: 1503

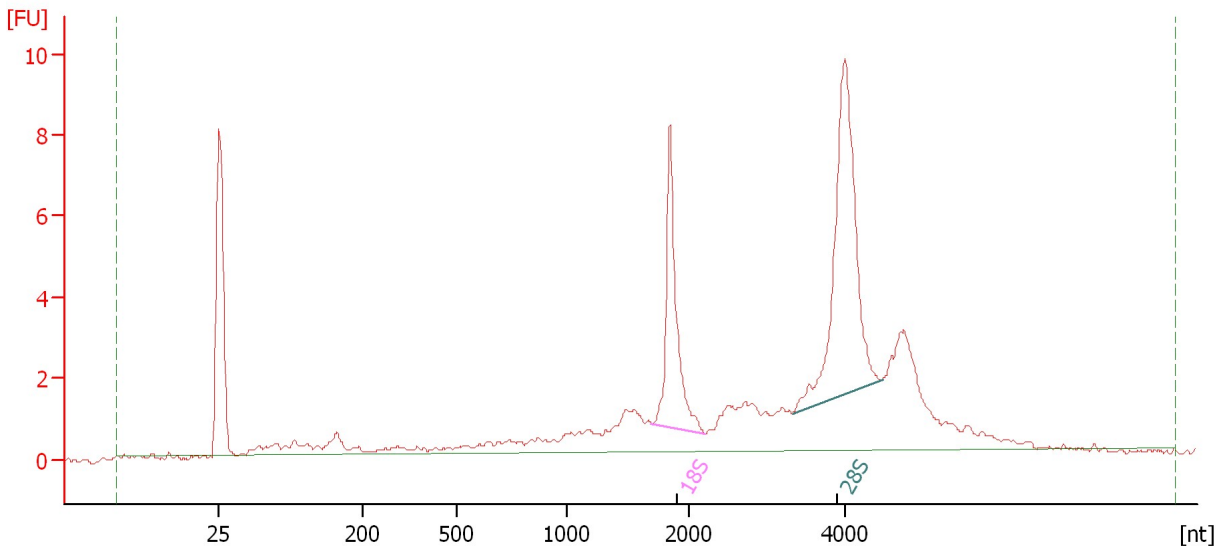
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,630	2,177	24.8	18.8
28S	3,249	4,403	30.1	22.8

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
Modified: 11/18/2016 1:11:31 PM

Electropherogram Summary Continued ...

36: 1515 [HiSeq753_Total RNA QC]



Overall Results for sample 11 : 36: 1515

RNA Area: 75.6 RNA Integrity Number (RIN): 8.2 (B.02.08)
RNA Concentration: 53 ng/μl Result Flagging Color:
rRNA Ratio [28s / 18s]: 2.0 Result Flagging Label: RIN: 8.20

Fragment table for sample 11 : 36: 1515

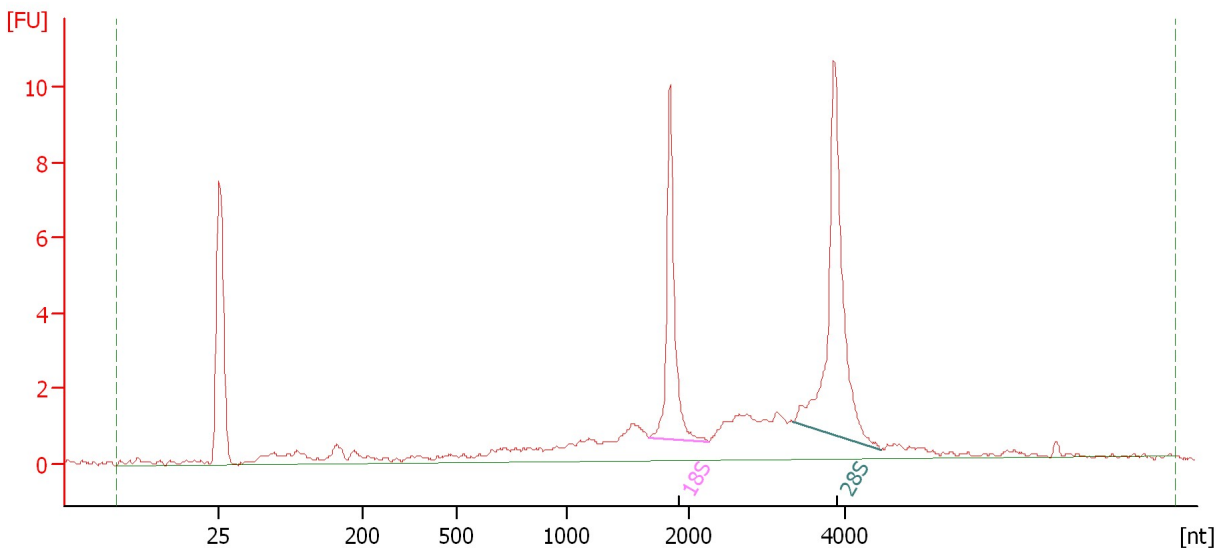
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,690	2,203	8.8	11.6
28S	3,319	4,461	17.2	22.8

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
Modified: 11/18/2016 1:11:31 PM

Electropherogram Summary Continued ...

37: 1521 [HiSeq753_Total RNA QC]



Overall Results for sample 12 : 37: 1521

RNA Area:	60.2	RNA Integrity Number (RIN):	8.5 (B.02.08)
RNA Concentration:	42 ng/μl	Result Flagging Color:	
rRNA Ratio [28s / 18s]:	1.6	Result Flagging Label:	RIN: 8.50

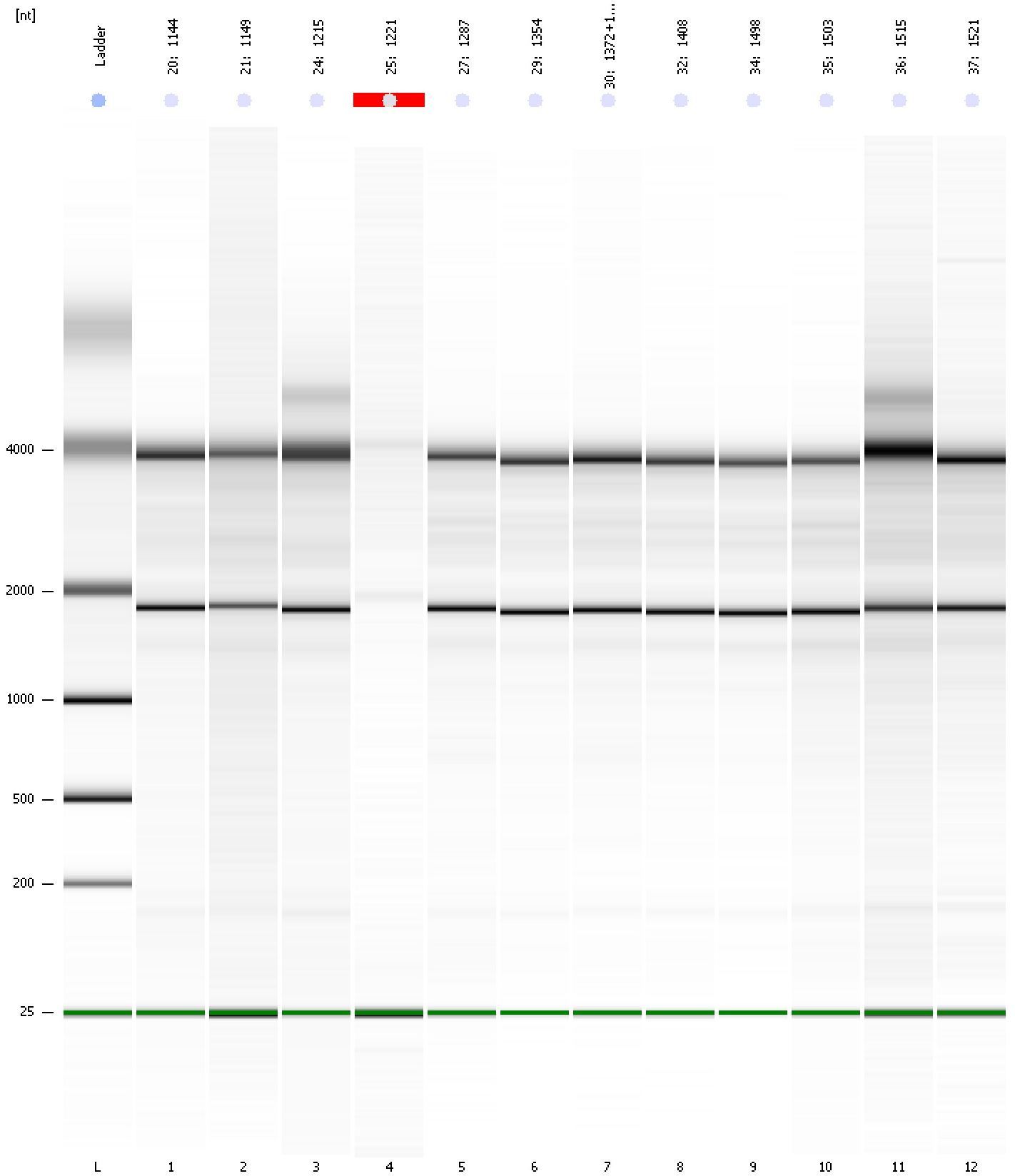
Fragment table for sample 12 : 37: 1521

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,673	2,258	8.6	14.3
28S	3,332	4,448	14.0	23.3

Assay Class: Eukaryote Total RNA Nano
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
Modified: 11/18/2016 1:11:31 PM

Gel Image



Assay Class: Eukaryote Total RNA Nano
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad

Created: 11/18/2016 12:26:29 PM
 Modified: 11/18/2016 1:11:31 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		11/18/2016 12:49:30 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-11-18\2016-11-18_003.xad)		Instrument	Run		11/18/2016 12:26:34 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		11/18/2016 12:26:34 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/18/2016 12:26:34 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/18/2016 12:26:34 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		11/18/2016 12:26:34 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/18/2016 12:26:34 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/18/2016 12:26:34 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1