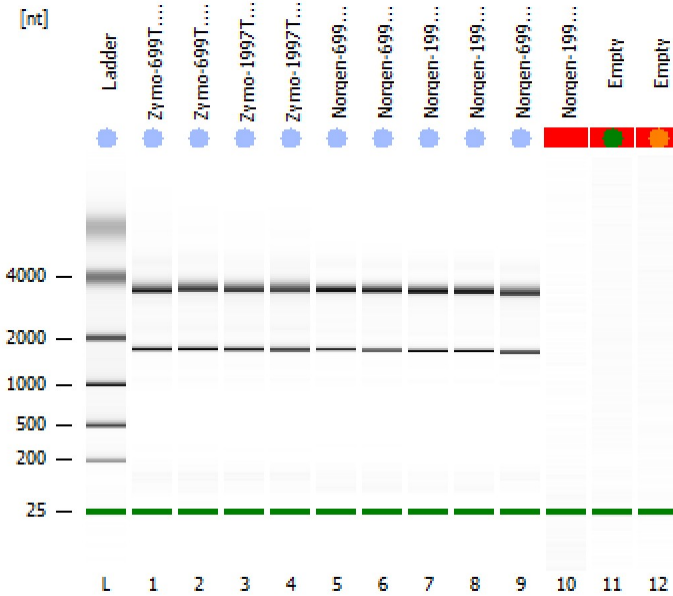


Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
 Modified: 3/9/2020 12:50:01 PM

**Electrophoresis File Run Summary**



Instrument Information:

Instrument Name: DE34903152      Firmware: C.01.069  
 Serial#: DE34903152      Type: G2938C

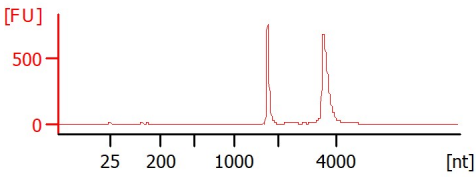
Assay Information:

Assay Origin Path: C:\Program Files (x86)\Agilent\2100 bioanalyzer\2100 expert\assays\RNA\DV200 RNA Nano.xsy  
 Assay Class: Eukaryote Total RNA Nano  
 Version: 2.6  
 Assay Comments: Total RNA Analysis ng sensitivity (Eukaryote)  
 Modified for DV200 Analysis

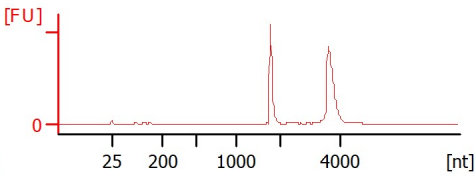
Chip Information:

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

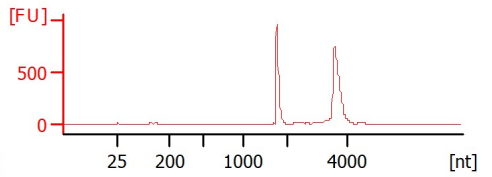
**Zymo-699T.S1-3M**  
 RIN: 9.90



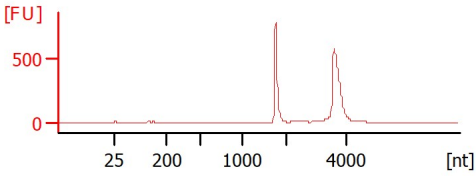
**Zymo-699T.S2-3M**  
 RIN: 9.90



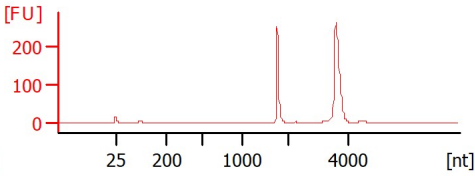
**Zymo-1997T.S1-3M**  
 RIN: 9.90



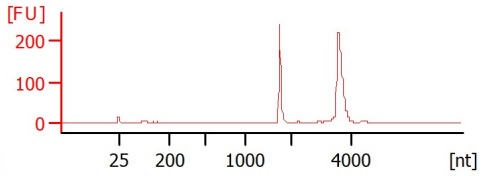
**Zymo-1997T.S2-3M**  
 RIN: 9.90



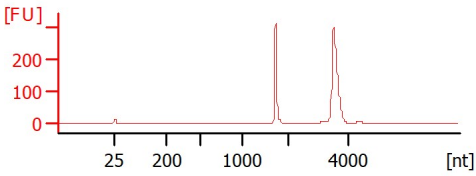
**Norgen-699T.S1-500k**  
 RIN:10



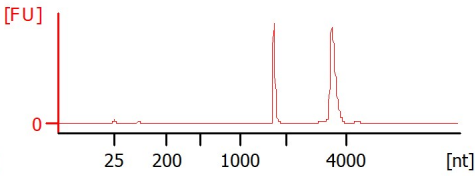
**Norgen-699T.S2-500k**  
 RIN:10



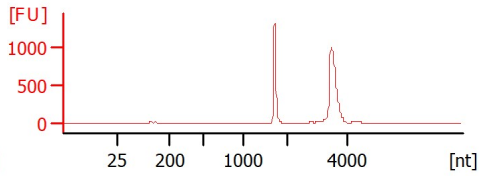
**Norgen-1997T.S1-500K**  
 RIN:10



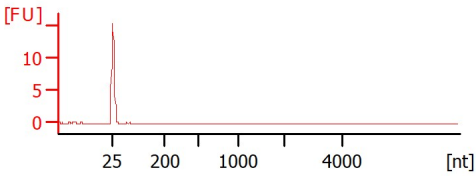
**Norgen-1997T.S2-500K**  
 RIN:10



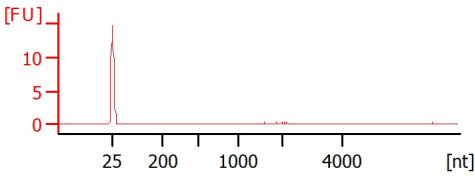
**Norgen-699T.S1-3M**  
 RIN:10



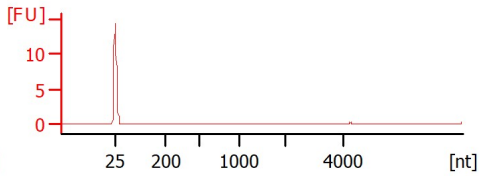
**Norgen-1997T.S1-3M**  
 RIN: N/A ; DV200 < 30%



**Empty**  
 RIN N/A ; DV200 > 70%



**Empty**  
 RIN: N/A ; DV200 30-50%



Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
 Modified: 3/9/2020 12:50:01 PM

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

Sample Name	Sample Comment	Status	Result Label	Result Color
Zymo-699T.S1-3M		✓	RIN: 9.90	Blue
Zymo-699T.S2-3M		✓	RIN: 9.90	Blue
Zymo-1997T.S1-3M		✓	RIN: 9.90	Blue
Zymo-1997T.S2-3M		✓	RIN: 9.90	Blue
Norgen-699T.S1-500k		✓	RIN:10	Blue
Norgen-699T.S2-500k		✓	RIN:10	Blue
Norgen-1997T.S1-500K		✓	RIN:10	Blue
Norgen-1997T.S2-500K		✓	RIN:10	Blue
Norgen-699T.S1-3M		✓	RIN:10	Blue
Norgen-1997T.S1-3M		✓	RIN: N/A ; DV200 <	Red
Empty		✓	RIN N/A ; DV200 > 70%	Green
Empty		✓	RIN: N/A ; DV200 30-50%	Orange
Ladder		✓	All Other Samples	Blue

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
 Modified: 3/9/2020 12:50:01 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

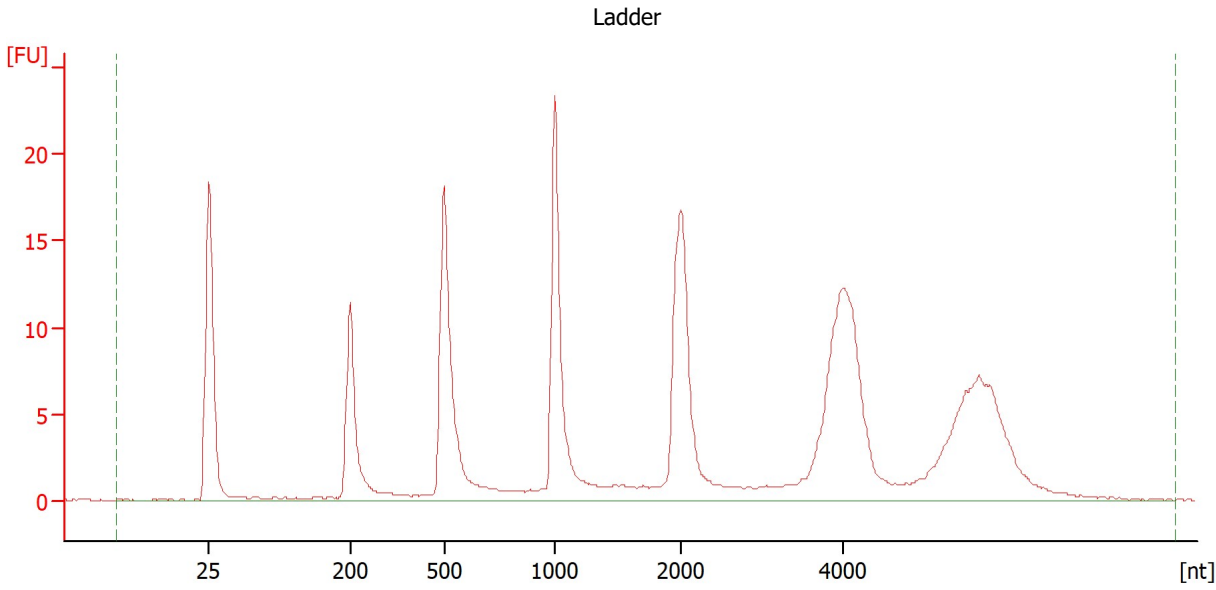
**Ladder**

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

Assay Class: Eukaryote Total RNA Nano  
Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
Modified: 3/9/2020 12:50:01 PM

**Electropherogram Summary**



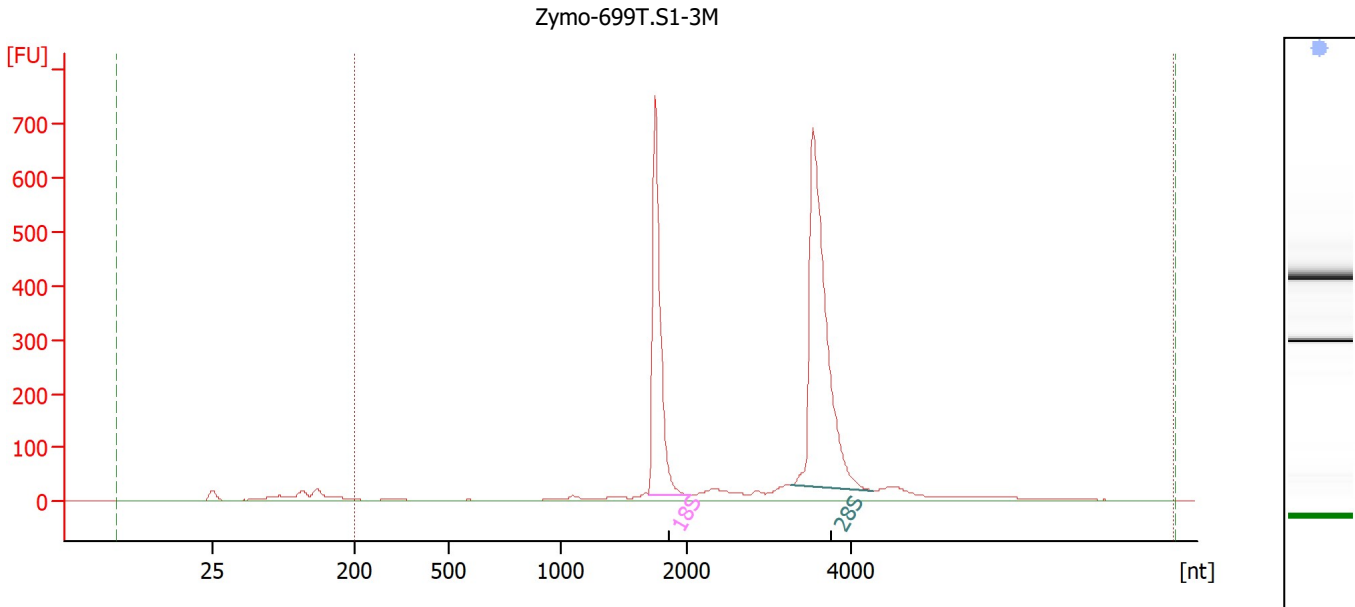
**Overall Results for Ladder**

RNA Area:	219.7	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: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
 Modified: 3/9/2020 12:50:01 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : Zymo-699T.S1-3M**

RNA Area:	2,600.3	Result Flagging Color:	<span style="background-color: #ADD8E6; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
RNA Concentration:	1,776 ng/μl	Result Flagging Label:	RIN: 9.90
rRNA Ratio [28s / 18s]:	1.6	Corr. Area 1:	2,440.3
RNA Integrity Number (RIN):	9.9 (B.02.10)		

**Fragment table for sample 1 : Zymo-699T.S1-3M**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,696	2,067	689.0	26.5
28S	3,275	4,276	1,132.7	43.6

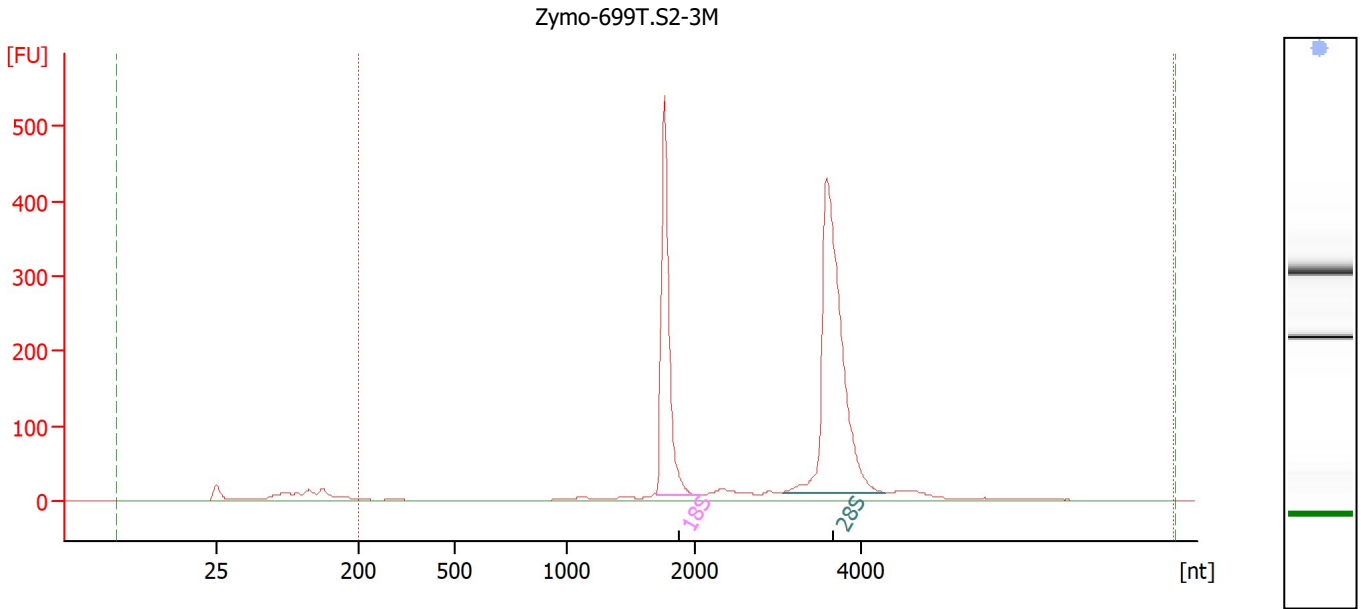
**Region table for sample 1 : Zymo-699T.S1-3M**

Name	From [nt]	To [nt]	Corr. Area	% of Total	Color
DV200	200	7,926	2,440.3	94	<span style="background-color: #8B0000; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
 Modified: 3/9/2020 12:50:01 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : Zymo-699T.S2-3M**

RNA Area:	1,859.0	Result Flagging Color:	<span style="background-color: #ADD8E6; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
RNA Concentration:	1,269 ng/μl	Result Flagging Label:	RIN: 9.90
rRNA Ratio [28s / 18s]:	1.7	Corr. Area 1:	1,700.2
RNA Integrity Number (RIN):	9.9 (B.02.10)		

**Fragment table for sample 2 : Zymo-699T.S2-3M**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,701	2,071	483.6	26.0
28S	3,062	4,299	836.0	45.0

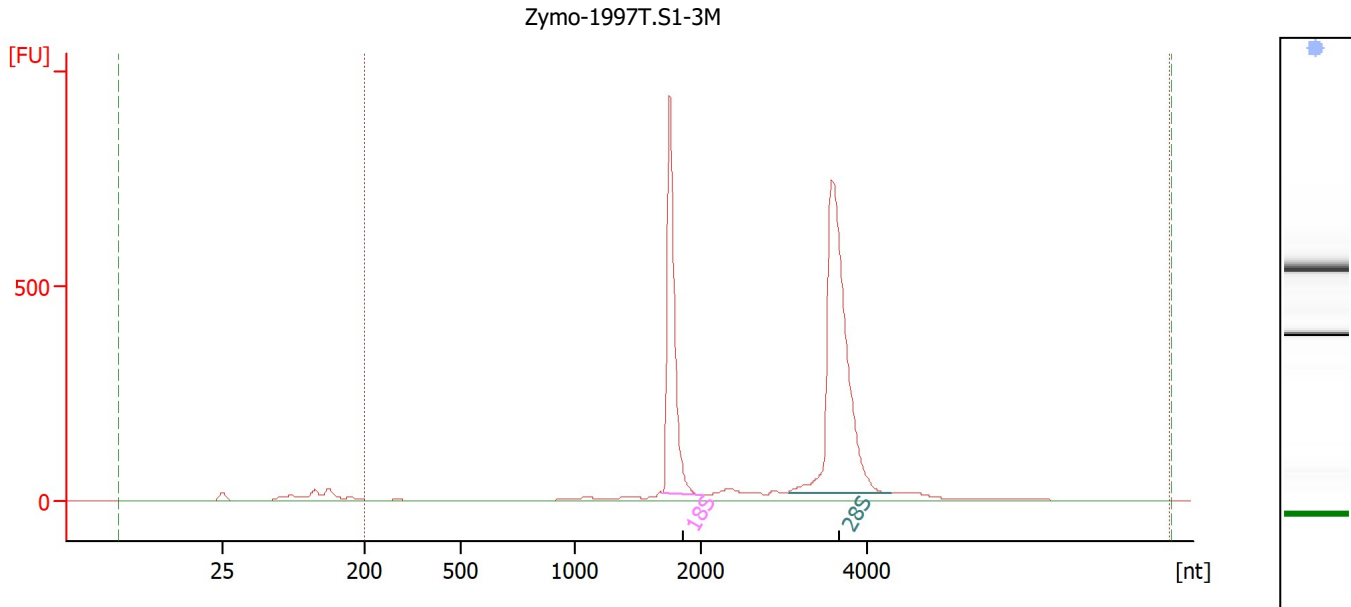
**Region table for sample 2 : Zymo-699T.S2-3M**

Name	From [nt]	To [nt]	Corr. Area	% of Total	Color
DV200	200	7,778	1,700.2	91	<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
 Modified: 3/9/2020 12:50:01 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : Zymo-1997T.S1-3M**

RNA Area:	3,078.0	Result Flagging Color:	<span style="background-color: #ADD8E6; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
RNA Concentration:	2,102 ng/μl	Result Flagging Label:	RIN: 9.90
rRNA Ratio [28s / 18s]:	1.6	Corr. Area 1:	2,877.7
RNA Integrity Number (RIN):	9.9 (B.02.10)		

**Fragment table for sample 3 : Zymo-1997T.S1-3M**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,697	2,010	855.3	27.8
28S	3,045	4,284	1,395.9	45.3

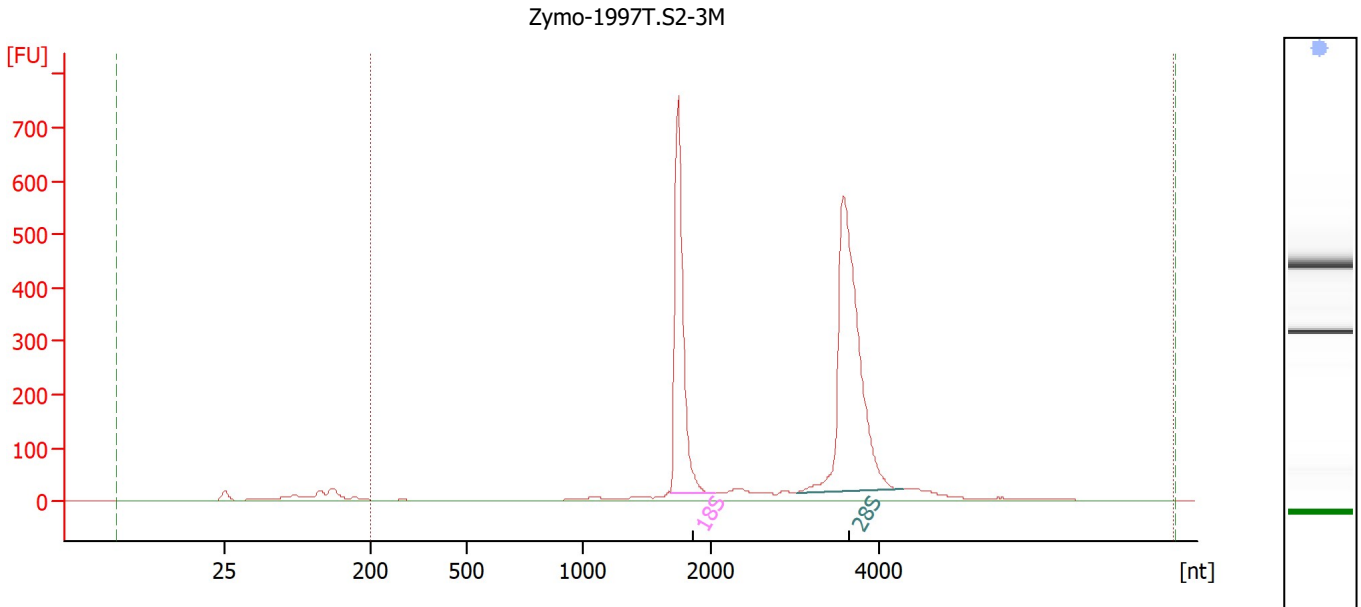
**Region table for sample 3 : Zymo-1997T.S1-3M**

Name	From [nt]	To [nt]	Corr. Area	% of Total	Color
DV200	200	7,632	2,877.7	93	<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
 Modified: 3/9/2020 12:50:01 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : Zymo-1997T.S2-3M**

RNA Area:	2,558.1	Result Flagging Color:	<span style="background-color: #ADD8E6; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
RNA Concentration:	1,747 ng/μl	Result Flagging Label:	RIN: 9.90
rRNA Ratio [28s / 18s]:	1.7	Corr. Area 1:	2,395.0
RNA Integrity Number (RIN):	9.9 (B.02.10, Anomaly Threshold(s) manually adapted)		

**Fragment table for sample 4 : Zymo-1997T.S2-3M**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,685	2,051	693.8	27.1
28S	3,015	4,282	1,149.3	44.9

**Region table for sample 4 : Zymo-1997T.S2-3M**

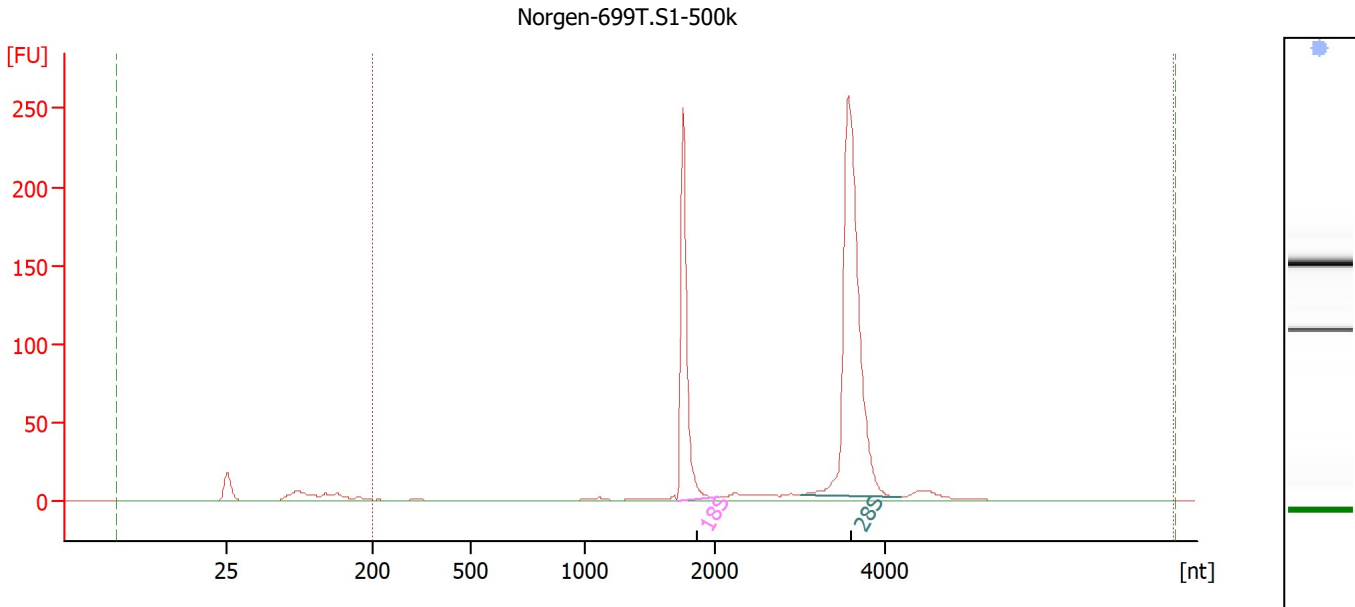
Name	From [nt]	To [nt]	Corr. Area	% of Total	Color
DV200	200	7,489	2,395.0	94	<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>



Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
 Modified: 3/9/2020 12:50:01 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : Norgen-699T.S1-500k**

RNA Area:	708.4	Result Flagging Color:	<span style="background-color: #ADD8E6; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
RNA Concentration:	484 ng/μl	Result Flagging Label:	RIN:10
rRNA Ratio [28s / 18s]:	2.0	Corr. Area 1:	662.3
RNA Integrity Number (RIN):	10 (B.02.10)		

**Fragment table for sample 5 : Norgen-699T.S1-500k**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,704	2,053	189.6	26.8
28S	3,012	4,186	387.1	54.6

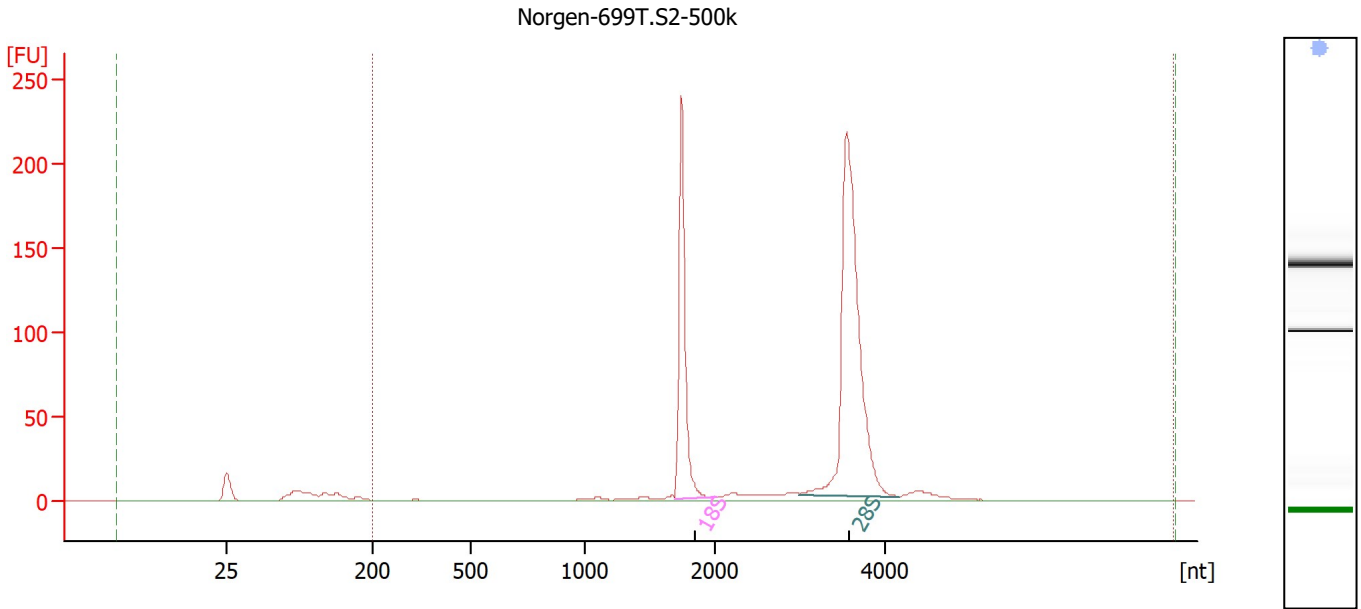
**Region table for sample 5 : Norgen-699T.S1-500k**

Name	From [nt]	To [nt]	Corr. Area	% of Total	Color
DV200	200	7,418	662.3	93	<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
 Modified: 3/9/2020 12:50:01 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : Norgen-699T.S2-500k**

RNA Area:	686.9	Result Flagging Color:	<span style="background-color: #ADD8E6; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
RNA Concentration:	469 ng/μl	Result Flagging Label:	RIN:10
rRNA Ratio [28s / 18s]:	2.1	Corr. Area 1:	636.6
RNA Integrity Number (RIN):	10 (B.02.10)		

**Fragment table for sample 6 : Norgen-699T.S2-500k**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,688	2,028	174.3	25.4
28S	3,000	4,161	359.1	52.3

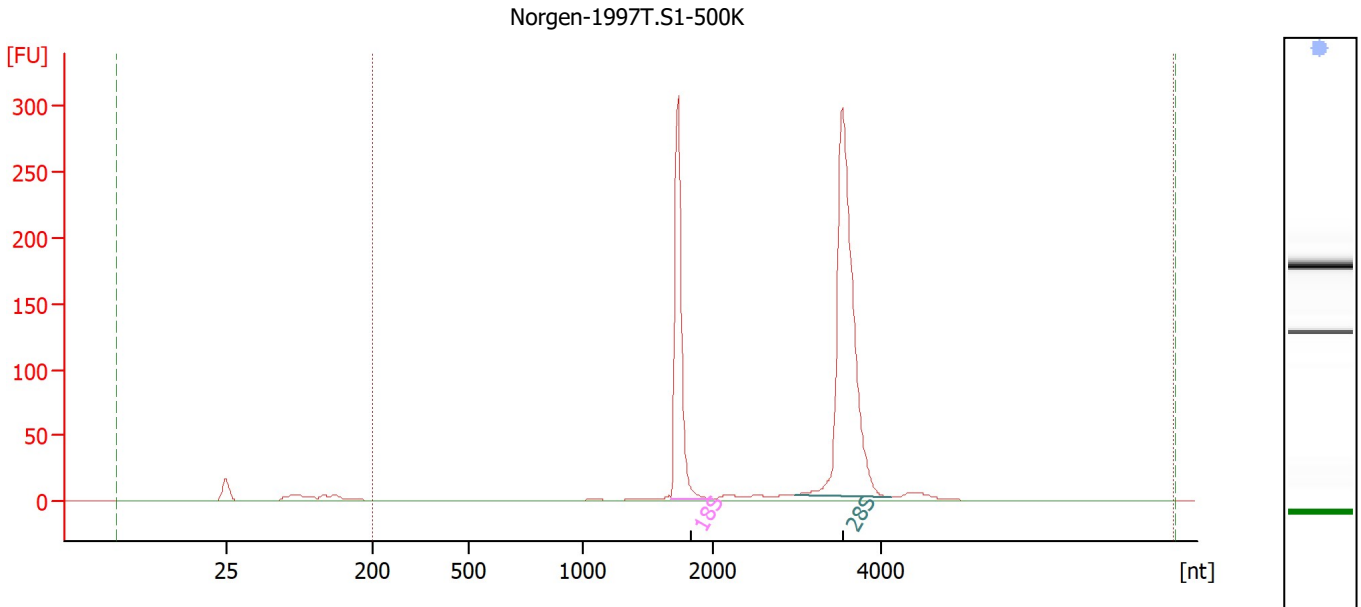
**Region table for sample 6 : Norgen-699T.S2-500k**

Name	From [nt]	To [nt]	Corr. Area	% of Total	Color
DV200	200	7,418	636.6	93	<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
 Modified: 3/9/2020 12:50:01 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : Norgen-1997T.S1-500K**

RNA Area:	857.1	Result Flagging Color:	<span style="background-color: #ADD8E6; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
RNA Concentration:	585 ng/μl	Result Flagging Label:	RIN:10
rRNA Ratio [28s / 18s]:	2.1	Corr. Area 1:	812.1
RNA Integrity Number (RIN):	10 (B.02.10, Anomaly Threshold(s) manually adapted)		

**Fragment table for sample 7 : Norgen-1997T.S1-500K**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,678	2,002	227.4	26.5
28S	2,963	4,114	474.7	55.4

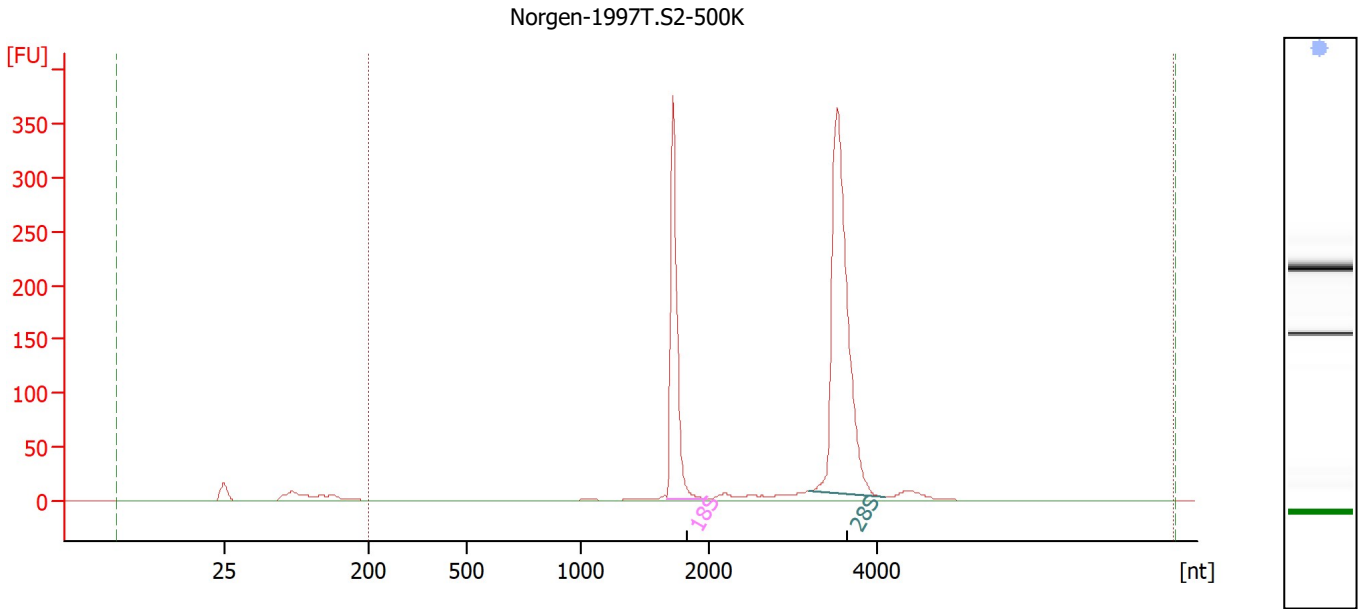
**Region table for sample 7 : Norgen-1997T.S1-500K**

Name	From [nt]	To [nt]	Corr. Area	% of Total	Color
DV200	200	7,453	812.1	95	<span style="background-color: #8B0000; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
 Modified: 3/9/2020 12:50:01 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : Norgen-1997T.S2-500K**

RNA Area:	1,043.8	Result Flagging Color:	<span style="background-color: #ADD8E6; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
RNA Concentration:	713 ng/μl	Result Flagging Label:	RIN:10
rRNA Ratio [28s / 18s]:	2.0	Corr. Area 1:	980.4
RNA Integrity Number (RIN):	10 (B.02.10, Anomaly Threshold(s) manually adapted)		

**Fragment table for sample 8 : Norgen-1997T.S2-500K**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,676	1,991	277.6	26.6
28S	3,194	4,082	554.9	53.2

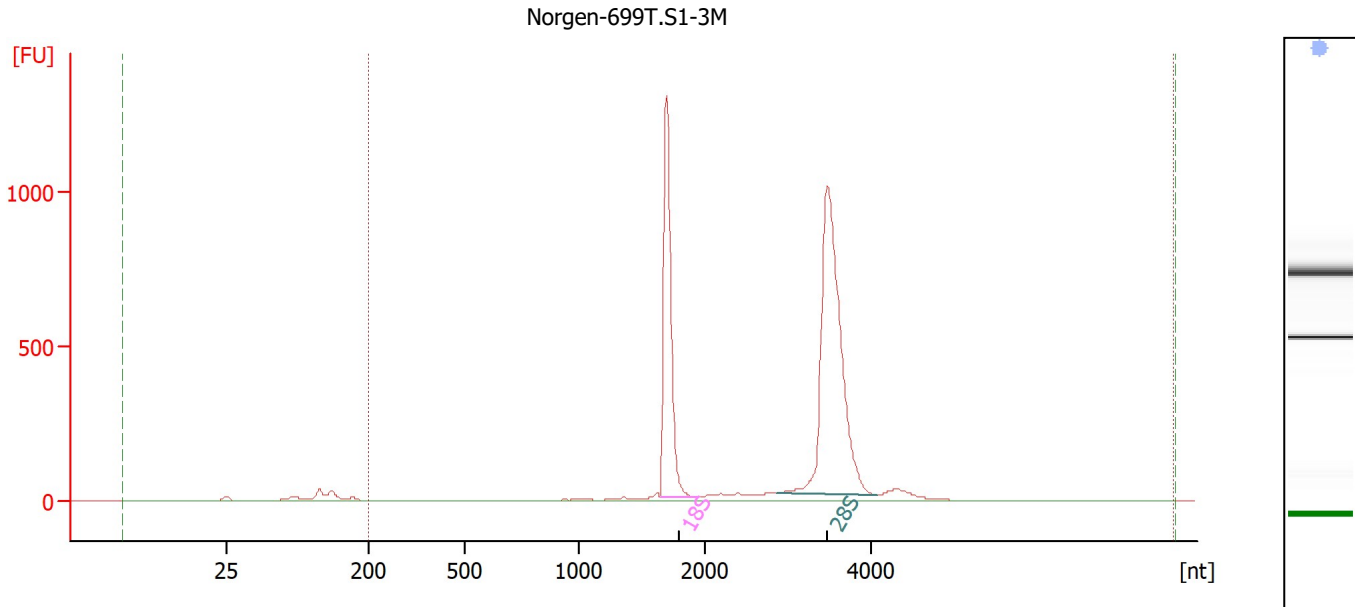
**Region table for sample 8 : Norgen-1997T.S2-500K**

Name	From [nt]	To [nt]	Corr. Area	% of Total	Color
DV200	200	7,524	980.4	94	<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
 Modified: 3/9/2020 12:50:01 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : Norgen-699T.S1-3M**

RNA Area:	3,851.0	Result Flagging Color:	<span style="background-color: #ADD8E6; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span>
RNA Concentration:	2,630 ng/μl	Result Flagging Label:	RIN:10
rRNA Ratio [28s / 18s]:	1.8	Corr. Area 1:	3,659.2
RNA Integrity Number (RIN):	10 (B.02.10)		

**Fragment table for sample 9 : Norgen-699T.S1-3M**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,647	1,939	1,082.1	28.1
28S	2,866	4,054	1,970.0	51.2

**Region table for sample 9 : Norgen-699T.S1-3M**

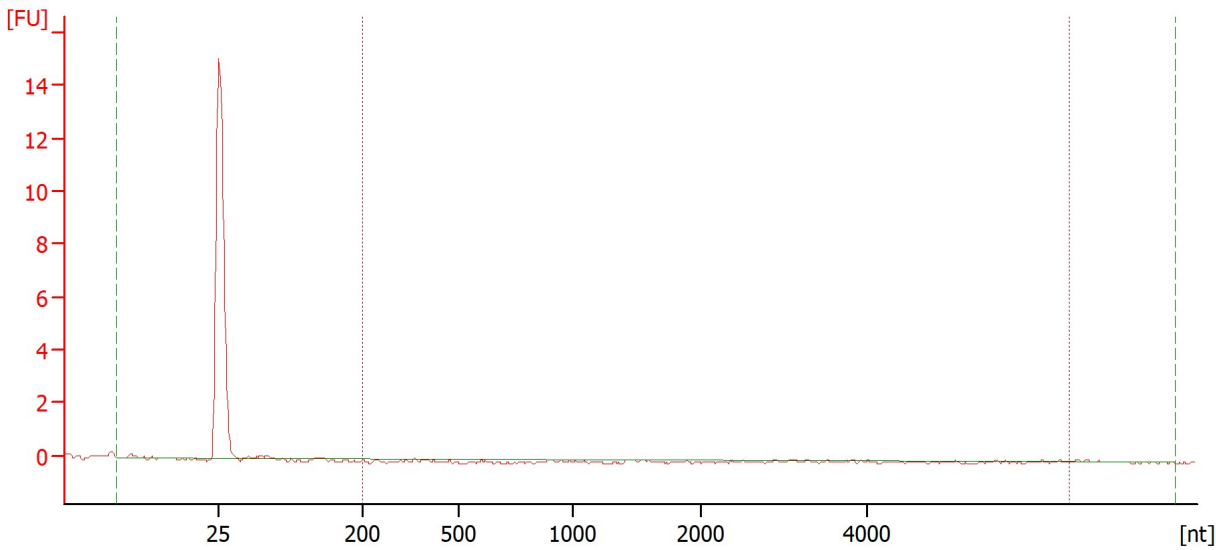
Name	From [nt]	To [nt]	Corr. Area	% of Total	Color
DV200	200	7,632	3,659.2	95	<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
 Modified: 3/9/2020 12:50:01 PM

**Electropherogram Summary Continued ...**

Norgen-1997T.S1-3M



**Overall Results for sample 10 : Norgen-1997T.S1-3M**

RNA Area:	0.8	Result Flagging Color:	<span style="background-color: red; color: black;">          </span>
RNA Concentration:	1 ng/μl	Result Flagging Label:	RIN: N/A ; DV200 < 30%
rRNA Ratio [28s / 18s]:	0.0		
RNA Integrity Number (RIN):	N/A (B.02.10)	Corr. Area 1:	0.1

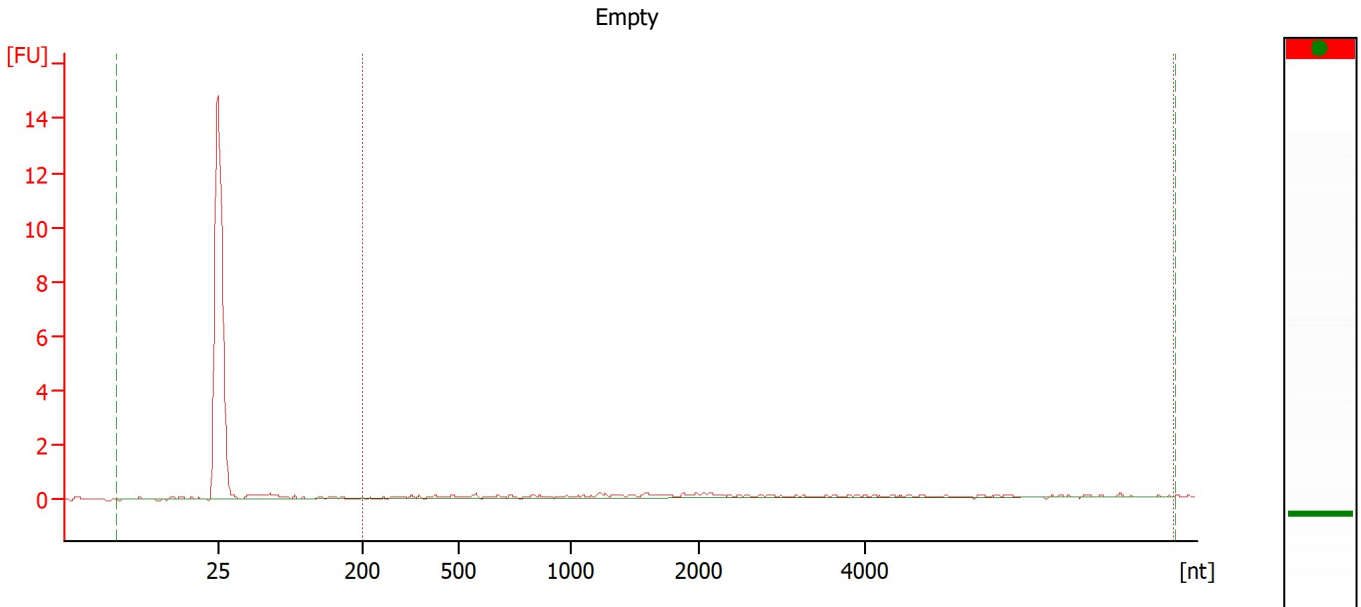
**Region table for sample 10 : Norgen-1997T.S1-3M**

Name	From [nt]	To [nt]	Corr. Area	% of Total	Color
DV200	200	6,417	0.1	15	<span style="background-color: darkred; color: black;">          </span>

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
 Modified: 3/9/2020 12:50:01 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : Empty**

RNA Area:	5.9	Result Flagging Color:	<span style="background-color: green; color: black;">██████████</span>
RNA Concentration:	4 ng/μl	Result Flagging Label:	RIN N/A ; DV200 > 70%
rRNA Ratio [28s / 18s]:	0.0		
RNA Integrity Number (RIN):	N/A (B.02.10)	Corr. Area 1:	4.3

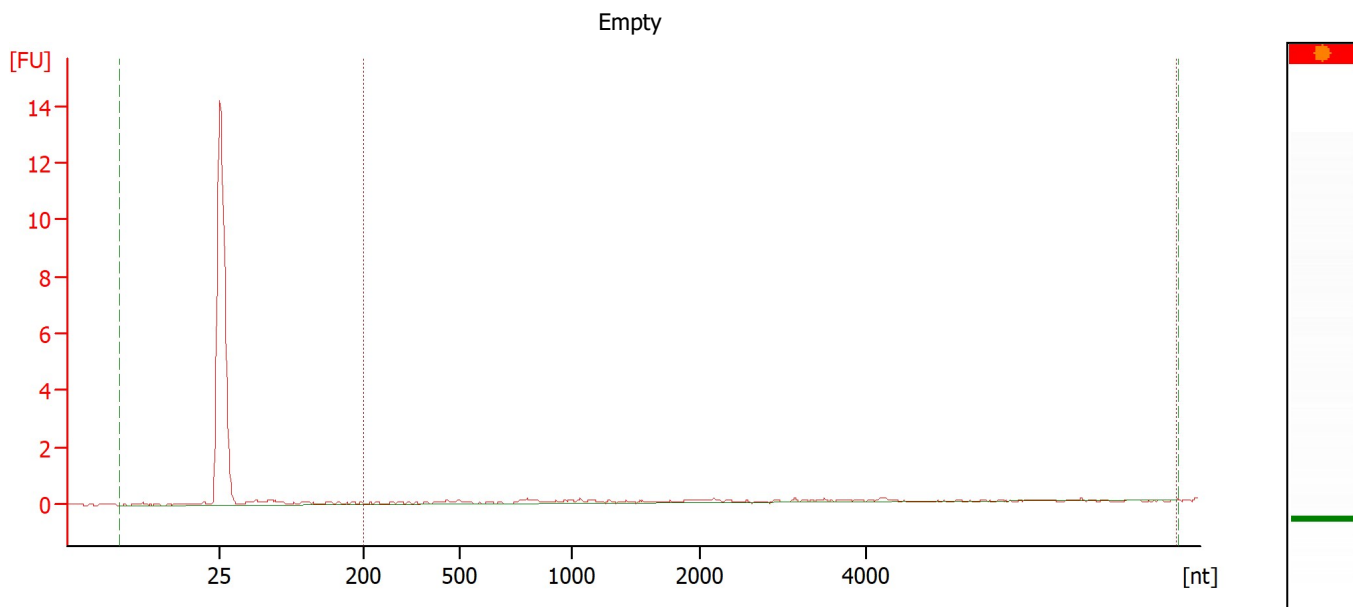
**Region table for sample 11 : Empty**

Name	From [nt]	To [nt]	Corr. Area	% of Total	Color
DV200	200	7,705	4.3	74	<span style="background-color: red; color: black;">██████████</span>

Assay Class: Eukaryote Total RNA Nano  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
 Modified: 3/9/2020 12:50:01 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 12 : Empty**

RNA Area:	6.3	Result Flagging Color:	<span style="background-color: orange; width: 20px; height: 10px; display: inline-block;"></span>
RNA Concentration:	4 ng/μl	Result Flagging Label:	RIN: N/A ; DV200 30-50%
rRNA Ratio [28s / 18s]:	0.0		
RNA Integrity Number (RIN):	N/A (B.02.10)	Corr. Area 1:	3.0

**Region table for sample 12 : Empty**

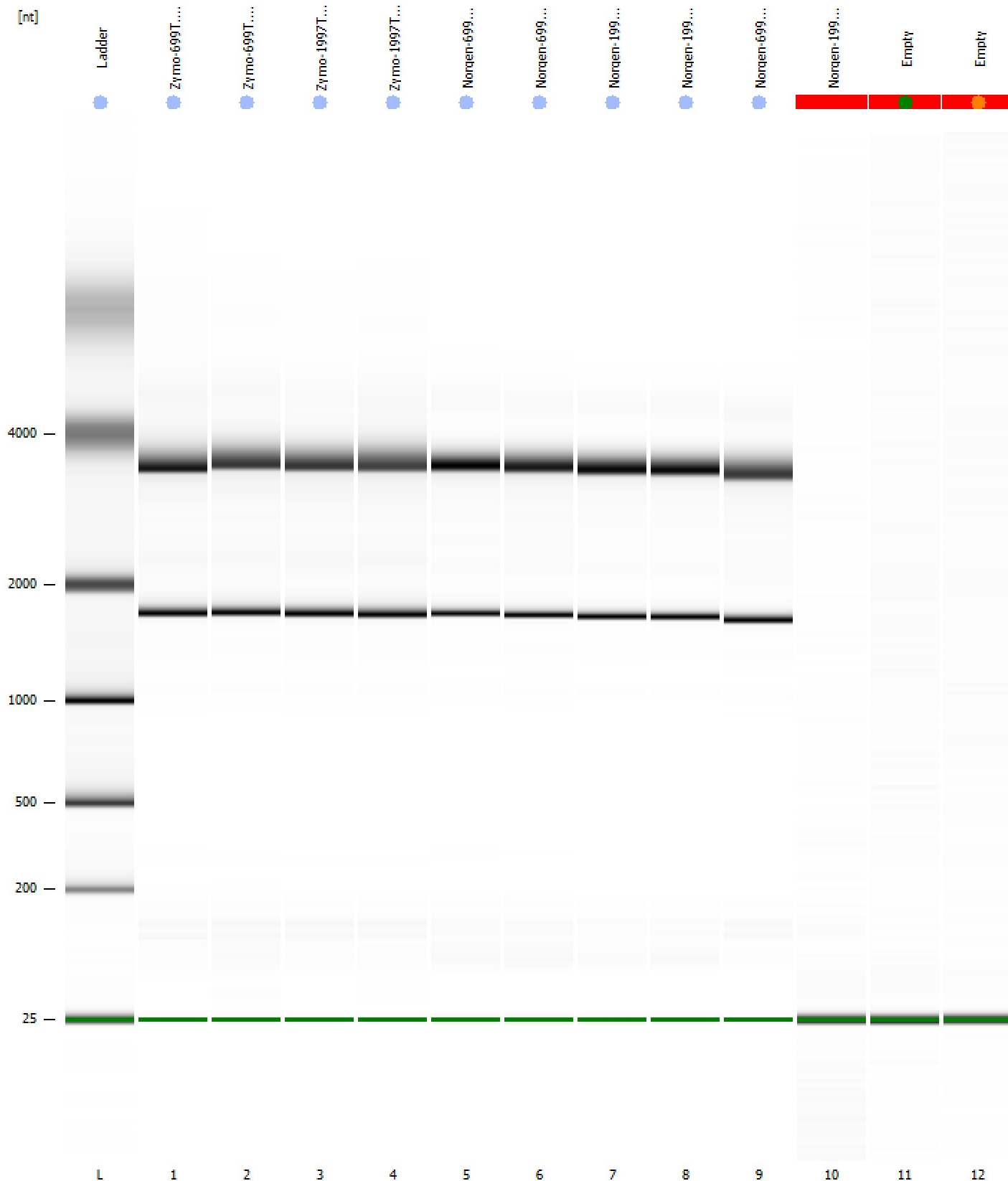
Name	From [nt]	To [nt]	Corr. Area	% of Total	Color
DV200	200	7,741	3.0	48	<span style="background-color: darkred; width: 15px; height: 10px; display: inline-block;"></span>



Assay Class: Eukaryote Total RNA Nano  
Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad

Created: 3/9/2020 12:26:11 PM  
Modified: 3/9/2020 12:50:01 PM

Gel Image



Assay Class: Eukaryote Total RNA Nano Created: 3/9/2020 12:26:11 PM  
 Data Path: Z:\...09\Bioanalyzer1\_Eukaryote Total RNA Nano\_2020-03-09\_001.xad Modified: 3/9/2020 12:50:01 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		3/9/2020 2:49:59 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Run started on port 1 (File: Z:\XADs\2020-03-09\Bioanalyze r1_Eukaryote Total RNA Nano_2020-03-09_001.xad)		Instrument	Run		3/9/2020 2:26:16 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Product Number : G2938C		Instrument	Run		3/9/2020 2:26:16 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Name :		Instrument	Run		3/9/2020 2:26:16 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Vendor : Agilent Technologies		Instrument	Run		3/9/2020 2:26:16 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Serial# : DE34903152		Instrument	Run		3/9/2020 2:26:16 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Firmware : C.01.069		Instrument	Run		3/9/2020 2:26:16 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Cartridge : Electrode		Instrument	Run		3/9/2020 2:26:16 PM	(GMT --07:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB