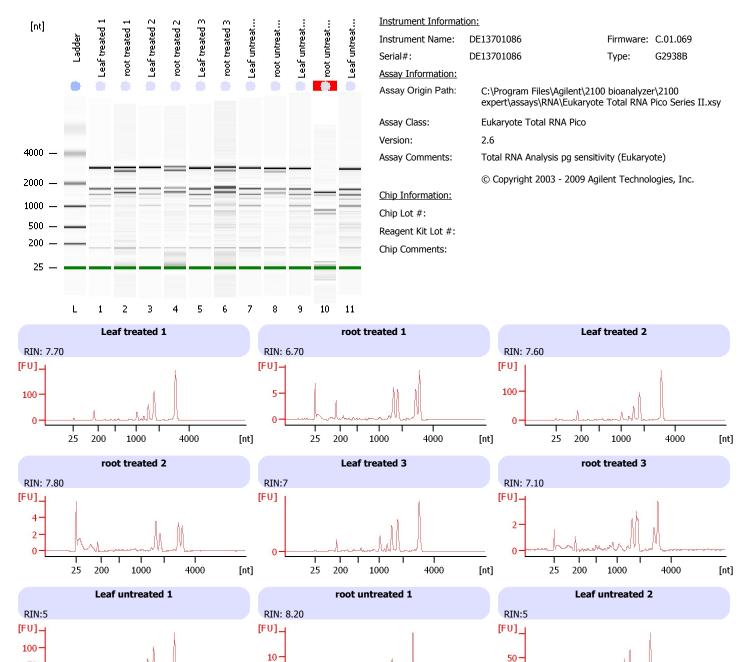
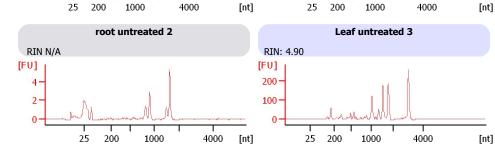
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Assay Class: Eukaryote Total RNA Pico Created: 10/7/2013 2:33:08 PM Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-07\2013-10-07_004.xad Modified: 10/7/2013 3:41:41 PM

Electrophoresis File Run Summary





50

200

25

1000

4000

[nt]

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Assay Class: Eukaryote Total RNA Pico C:\...ents and Settings\Bioanalyzer\2013-10-07\2013-10-07_004.xad Created: 10/7/2013 2:33:08 PM Modified: 10/7/2013 3:41:41 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Status	Result Label	Result Color
Leaf treated 1		~	RIN: 7.70	
root treated 1		~	RIN: 6.70	
Leaf treated 2		~	RIN: 7.60	
root treated 2		✓	RIN: 7.80	
Leaf treated 3		✓	RIN:7	
root treated 3		~	RIN: 7.10	
Leaf untreated 1		✓	RIN:5	
root untreated 1		✓	RIN: 8.20	
Leaf untreated 2		~	RIN:5	
root untreated 2		✓	RIN N/A	
Leaf untreated 3		~	RIN: 4.90	
Ladder		~	All Other Samples	

Chip Lot # Reagent Kit Lot #

Chip Comments:

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Assay Class: Eukaryote Total RNA Pico Created: 10/7/2013 2:33:08 PM Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-07\2013-10-07_004.xad Modified: 10/7/2013 3:41:41 PM

Electrophoresis Assay Details

General Analysis Settings

Number of Available Sample and Ladder Wells (Max.): 12

Minimum Visible Range [s]: 17

Maximum Visible Range [s]: 70

Start Analysis Time Range [s]: 18

End Analysis Time Range [s]: 69

Ladder Concentration [pg/µl]: 1000

Lower Marker Concentration [pg/µl]: 0

Upper Marker Concentration [pg/µl]: 0

Used Lower Marker for Quantitation

Standard Curve Fit is Logarithmic

Show Data Aligned to Lower Marker

Integrator Settings

Integration Start Time [s]: 18 Integration End Time [s]: 69 Slope Threshold: 0.6 Height Threshold [FU]: 0.5 Area Threshold: 0.2 Width Threshold [s]: 0.3 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

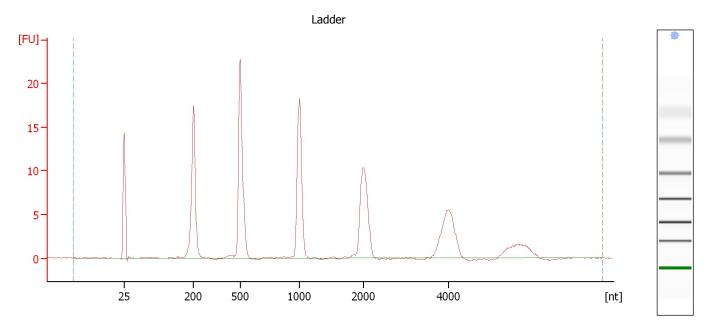
Printed:

10/7/2013 3:42:04 PM

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Assay Class: Eukaryote Total RNA Pico C:\...ents and Settings\Bioanalyzer\2013-10-07\2013-10-07_004.xad Created: 10/7/2013 2:33:08 PM Modified: 10/7/2013 3:41:41 PM

Electropherogram Summary



Overall Results for Ladder

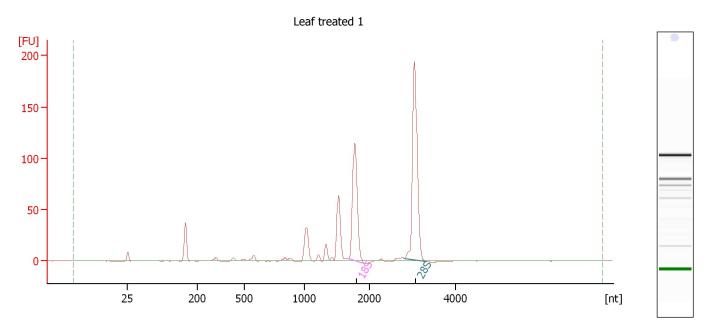
RNA Area: 116.4 RNA Concentration: 1,000 pg/µl Result Flagging Color: Result Flagging Label:

All Other Samples

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Assay Class: Eukaryote Total RNA Pico Created: 10/7/2013 2:33:08 PM C:\...ents and Settings\Bioanalyzer\2013-10-07\2013-10-07_004.xad Data Path: Modified: 10/7/2013 3:41:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 1: **Leaf treated 1**

RNA Area: 512.4

RNA Concentration: 4,404 pg/µl

rRNA Ratio [28s / 18s]: 1.5 RNA Integrity Number (RIN):

Anomaly Threshold(s) manually adapted)

7.7 (B.02.08,

Printed:

10/7/2013 3:42:04 PM

Result Flagging Color:

Result Flagging Label: RIN: 7.70

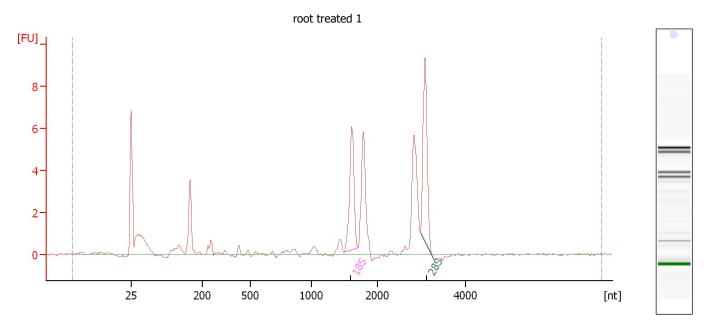
Fragment table for sample 1: Leaf treated 1

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,680	1,929	129.0	25.2
285	2.813	3.335	196.5	38.4

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Assay Class: Eukaryote Total RNA Pico C:\...ents and Settings\Bioanalyzer\2013-10-07\2013-10-07_004.xad Created: 10/7/2013 2:33:08 PM Modified: 10/7/2013 3:41:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 2: <u>root treated 1</u>

RNA Area: 40.4

RNA Concentration: 347 pg/µl

rRNA Ratio [28s / 18s]: 1.2

RNA Integrity Number (RIN):

Anomaly Threshold(s) manually adapted)

6.7 (B.02.08,

Result Flagging Color:

Result Flagging Label: RIN: 6.70

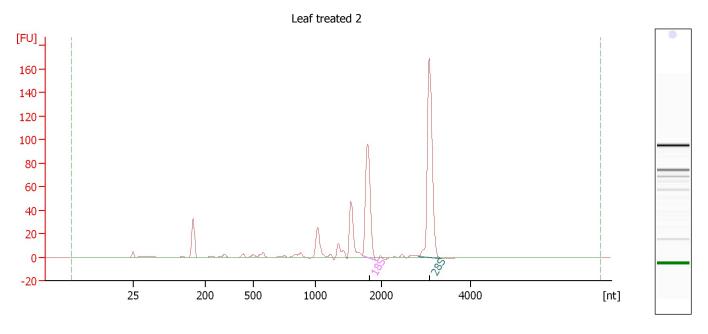
Fragment table for sample 2: root treated 1

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,487	1,707	6.1	15.0
285	2 978	3 271	7 4	19.7

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Assay Class: Eukaryote Total RNA Pico Created: 10/7/2013 2:33:08 PM Data Path: C:\...ents and Settings\Bioanalyzer\2013-10-07\2013-10-07_004.xad Modified: 10/7/2013 3:41:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 3: <u>Leaf treated 2</u>

RNA Area: 423.9

RNA Concentration: 3,643 pg/µl

rRNA Ratio [28s / 18s]: 1.6

RNA Integrity Number (RIN):

Anomaly Threshold(s) manually adapted)

7.6 (B.02.08,

Result Flagging Color:

Result Flagging Label: RIN: 7.60

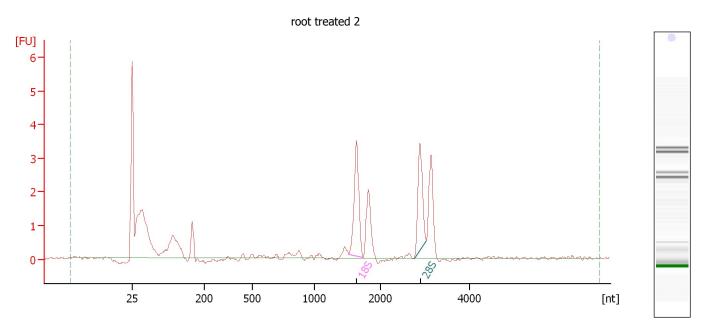
Fragment table for sample 3: <u>Leaf treated 2</u>

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,705	1,923	103.9	24.5
28S	2.840	3.347	166.1	39.2

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Eukaryote Total RNA Pico C:\...ents and Settings\Bioanalyzer\2013-10-07\2013-10-07_004.xad Assay Class: Created: 10/7/2013 2:33:08 PM Data Path: Modified: 10/7/2013 3:41:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 4: root treated 2

RNA Area: 24.5 RNA Integrity Number (RIN): 7.8 (B.02.08) **RNA Concentration:** 211 pg/µl Result Flagging Color: Result Flagging Label: rRNA Ratio [28s / 18s]: 8.0 RIN: 7.80

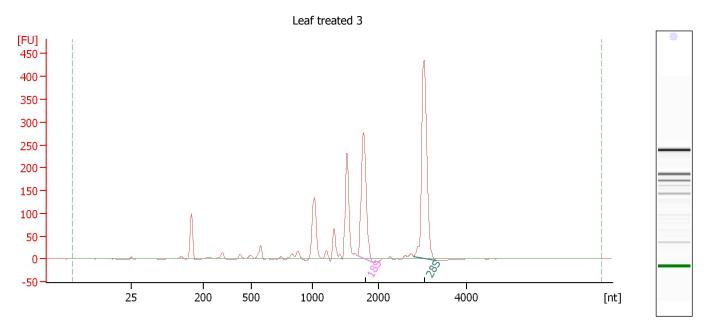
Fragment table for sample 4: root treated 2

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,528	1,738	3.7	15.3
285	2.755	3.033	2.9	12.0

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Assay Class: Eukaryote Total RNA Pico Created: 10/7/2013 2:33:08 PM C:\...ents and Settings\Bioanalyzer\2013-10-07\2013-10-07_004.xad Data Path: Modified: 10/7/2013 3:41:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 5: **Leaf treated 3**

RNA Area: 1,465.8

RNA Concentration: 12,597 pg/µl

rRNA Ratio [28s / 18s]: 1.4 RNA Integrity Number (RIN):

Result Flagging Color:

Result Flagging Label:

7 (B.02.08, Anomaly Threshold(s) manually adapted)

RIN:7

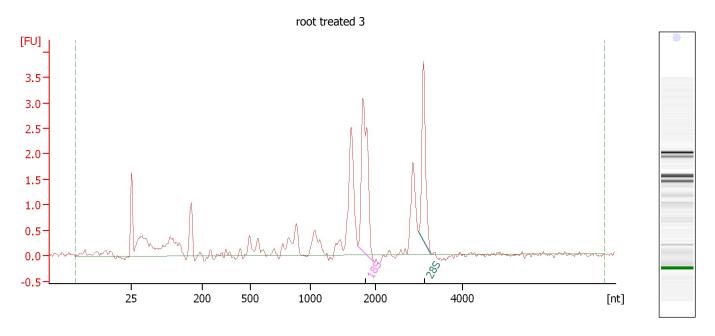
Fragment table for sample 5: **Leaf treated 3**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,684	1,920	326.2	22.3
28S	2.806	3.318	461.6	31.5

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Assay Class: Eukaryote Total RNA Pico C:\...ents and Settings\Bioanalyzer\2013-10-07\2013-10-07_004.xad Created: 10/7/2013 2:33:08 PM Modified: 10/7/2013 3:41:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 6: <u>root treated 3</u>

RNA Area: 22.8

RNA Concentration: 196 pg/µl

rRNA Ratio [28s / 18s]: 0.6

RNA Integrity Number (RIN):

Result Flagging Color:

Result Flagging Label:

7.1 (B.02.08, Anomaly Threshold(s) manually adapted)

RIN: 7.10

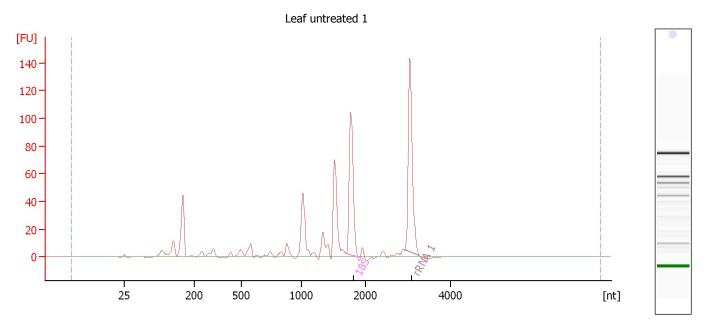
Fragment table for sample 6: <u>root treated 3</u>

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,726	1,973	4.3	19.0
28S	2,995	3,279	2.8	12.2

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Assay Class: Eukaryote Total RNA Pico Created: 10/7/2013 2:33:08 PM C:\...ents and Settings\Bioanalyzer\2013-10-07\2013-10-07_004.xad Data Path: Modified: 10/7/2013 3:41:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 7: **Leaf untreated 1**

RNA Area: 510.9 RNA Integrity Number (RIN): 5 (B.02.08) **RNA Concentration:** 4,390 pg/µl Result Flagging Color: Result Flagging Label: rRNA Ratio [28s / 18s]: 0.0 RIN:5

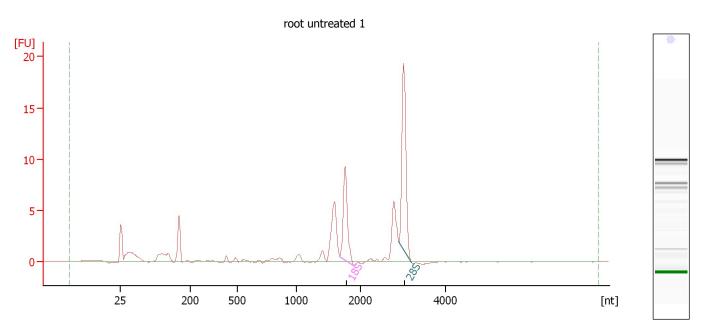
Fragment table for sample 7: Leaf untreated 1

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,705	1,920	96.9	19.0
rRNA 1	2.917	3.275	123.9	24.2

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Assay Class: Eukaryote Total RNA Pico C:\...ents and Settings\Bioanalyzer\2013-10-07\2013-10-07_004.xad Created: 10/7/2013 2:33:08 PM Modified: 10/7/2013 3:41:41 PM

Electropherogram Summary Continued ...



Overall Results for sample 8: root untreated 1

RNA Area: 58.9

506 pg/µl

rRNA Ratio [28s / 18s]: 1.6

RNA Concentration:

RNA Integrity Number (RIN):

Result Flagging Color:

Result Flagging Label:

8.2 (B.02.08, Anomaly Threshold(s) manually adapted)

RIN: 8.20

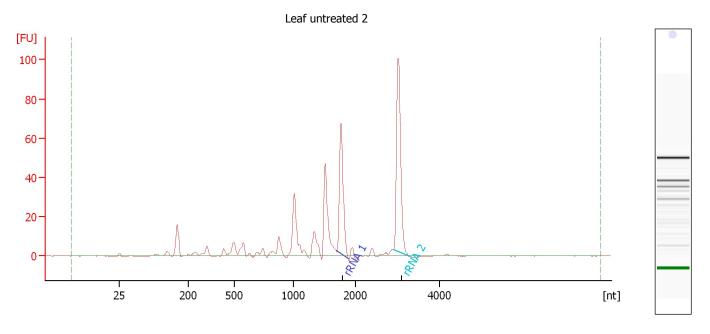
Fragment table for sample 8 : root untreated 1

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,681	1,900	9.4	15.9
28S	2,904	3,206	15.2	25.9

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10/7/2013 2:33:08 PM 10/7/2013 3:41:41 PM Assay Class: Eukaryote Total RNA Pico Created: C:\...ents and Settings\Bioanalyzer\2013-10-07\2013-10-07_004.xad Data Path: Modified:

Electropherogram Summary Continued ...



Overall Results for sample 9: **Leaf untreated 2**

RNA Area: 334.7 RNA Integrity Number (RIN): 5 (B.02.08) **RNA Concentration:** 2,877 pg/µl Result Flagging Color: Result Flagging Label: rRNA Ratio [28s / 18s]: 0.0 RIN:5

Fragment table for sample 9: **Leaf untreated 2**

Start Size [nt]

Name

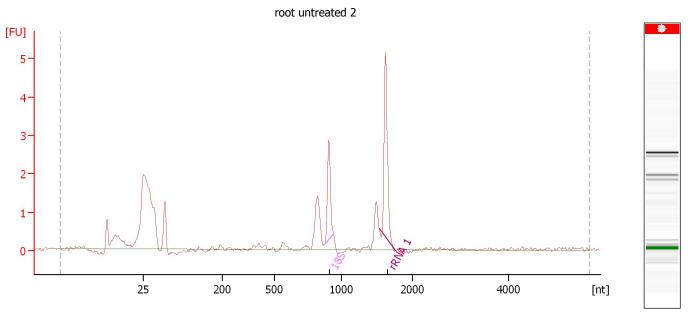
Name	Start Size [nt]	End Size [nt]	Area	% of total Area
rRNA 1	1,682	1,874	61.8	18.5
rRNA 2	2 886	3.292	85.2	25 5

End Size [nt]

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Assay Class: Eukaryote Total RNA Pico C:\...ents and Settings\Bioanalyzer\2013-10-07\2013-10-07_004.xad Created: 10/7/2013 2:33:08 PM Modified: 10/7/2013 3:41:41 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 10 : root untreated 2

Height Threshold [FU]: 0.1

Overall Results for sample 10 : root untreated 2

RNA Area: 13.4 RNA Integrity Number (RIN): N/A (B.02.08)

RNA Concentration: 115 pg/µl Result Flagging Color: rRNA Ratio [28s / 18s]: 0.0 Result Flagging Label: RIN N/A

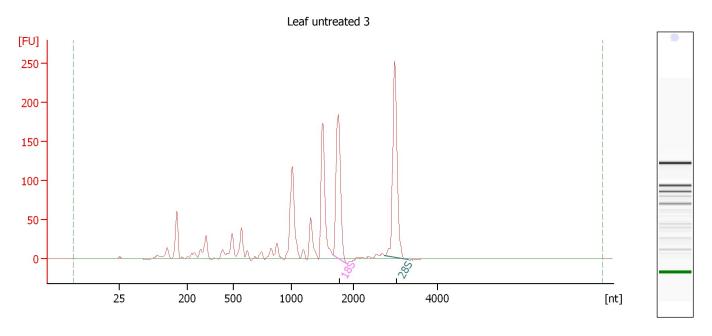
Fragment table for sample 10 : root untreated 2

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	879	939	1.9	14.3
rRNA 1	1,532	1,756	3.5	25.8

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Assay Class: 10/7/2013 2:33:08 PM 10/7/2013 3:41:41 PM Eukaryote Total RNA Pico Created: C:\...ents and Settings\Bioanalyzer\2013-10-07\2013-10-07_004.xad Data Path: Modified:

Electropherogram Summary Continued ...



Overall Results for sample 11: **Leaf untreated 3**

RNA Area: 1,097.2 RNA Integrity Number (RIN): 4.9 (B.02.08) **RNA Concentration:** 9,429 pg/µl Result Flagging Color: Result Flagging Label: rRNA Ratio [28s / 18s]: 1.2 RIN: 4.90

Fragment table for sample 11: **Leaf untreated 3**

Name	Start Size [nt]	End Size [nt]	Area	% of total Area
18S	1,660	1,882	201.7	18.4
285	2.747	3.311	244.6	22.3

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