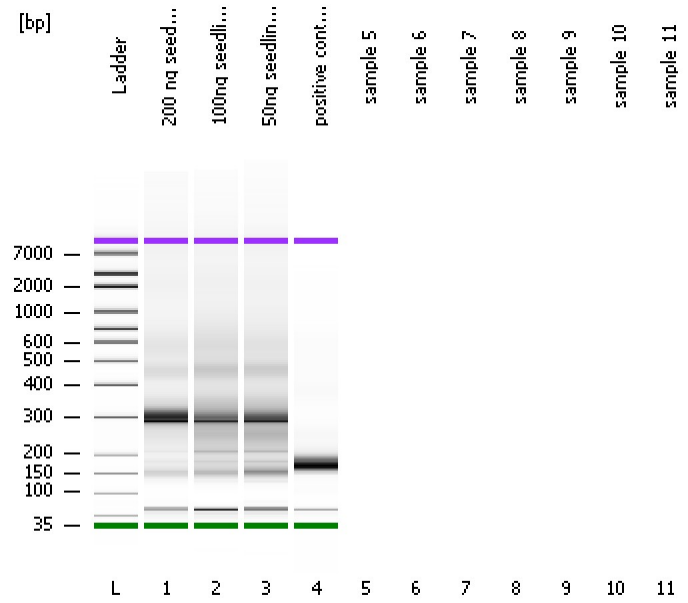
Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-08\2016-12-08_001.xad

Created: 12/8/2016 9:53:33 AM
Modified: 12/8/2016 10:14:54 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\dsDNA\High Sensitivity DNA.xsy

Assay Class: High Sensitivity DNA Assay

Version: 1.03

Assay Comments: Copyright © 2003-2010 Agilent Technologies

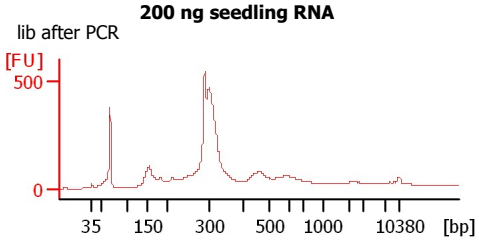
Chip Information:

Chip Lot #:

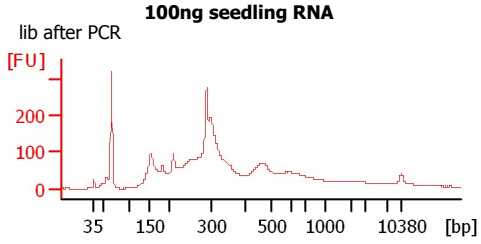
Reagent Kit Lot #:

Chip Comments:

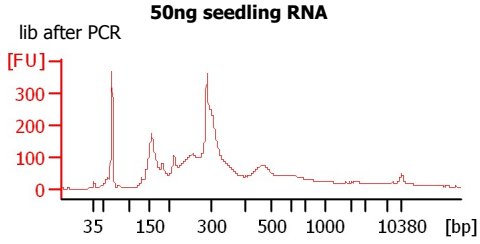
200 ng seedling RNA



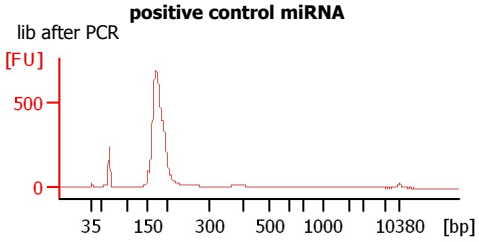
100ng seedling RNA



50ng seedling RNA



positive control miRNA



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Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-08\2016-12-08_001.xad

Created: 12/8/2016 9:53:33 AM
Modified: 12/8/2016 10:14:54 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
200 ng seedling RNA	lib after PCR	☐	✔			
100ng seedling RNA	lib after PCR	☐	✔			
50ng seedling RNA	lib after PCR	☐	✔			
positive control miRNA	lib after PCR	☐	✔			
sample 5		☐				
sample 6		☐				
sample 7		☐				
sample 8		☐				
sample 9		☐				
sample 10		☐				
sample 11		☐				
Ladder		☐	✔			

Chip Lot # **Reagent Kit Lot #**

Chip Comments :

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Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-08\2016-12-08_001.xad

Created: 12/8/2016 9:53:33 AM
Modified: 12/8/2016 10:14:54 AM

Electrophoresis Assay Details

General Analysis Settings

Number of Available Sample and Ladder Wells (Max.) : 12
Minimum Visible Range [s] : 32
Maximum Visible Range [s] : 138
Start Analysis Time Range [s] : 33
End Analysis Time Range [s] : 137.5
Ladder Concentration [pg/µl] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/µl] : 125
Upper Marker Concentration [pg/µl] : 75
Used Upper Marker for Quantitation
Standard Curve Fit is Point to Point
Show Data Aligned to Lower and Upper Marker

Integrator Settings

Integration Start Time [s] : 33.05
Integration End Time [s] : 137
Slope Threshold : 0.8
Height Threshold [FU] : 5
Area Threshold : 0.1
Width Threshold [s] : 0.6
Baseline Plateau [s] : 0.5

Filter Settings

Filter Width [s] : 0.5
Polynomial Order : 4

Ladder

Ladder Peak	Size	Area
1	35	160
2	50	210
3	100	208
4	150	221
5	200	242
6	300	270
7	400	305
8	500	306
9	600	336
10	700	321
11	1000	366
12	2000	413
13	3000	411
14	7000	400
15	10380	214

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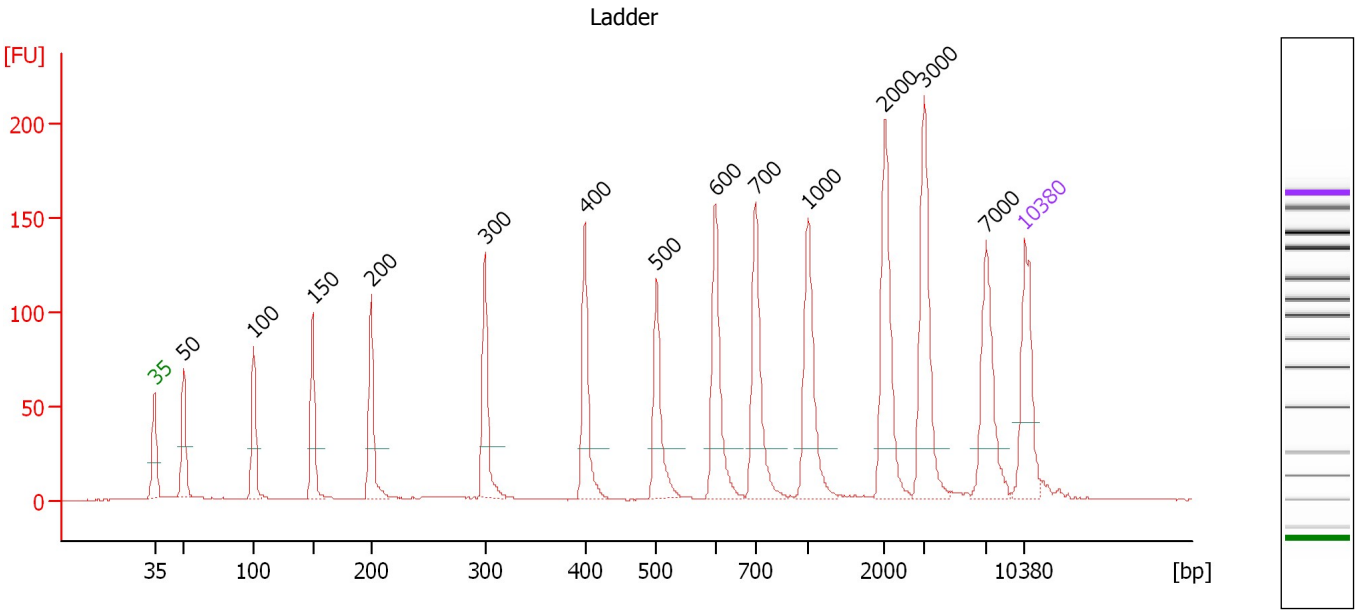
Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-08\2016-12-08_001.xad

Created: 12/8/2016 9:53:33 AM
Modified: 12/8/2016 10:14:54 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

Peak table for Ladder

Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1		35	125.00	5,411.3	Lower Marker	43.00
2		50	150.00	4,545.5	Ladder Peak	45.33
3		100	150.00	2,272.7	Ladder Peak	50.96
4		150	150.00	1,515.2	Ladder Peak	55.71
5		200	150.00	1,136.4	Ladder Peak	60.42
6		300	150.00	757.6	Ladder Peak	69.55
7		400	150.00	568.2	Ladder Peak	77.60
8		500	150.00	454.5	Ladder Peak	83.38
9		600	150.00	378.8	Ladder Peak	88.08
10		700	150.00	324.7	Ladder Peak	91.30
11		1,000	150.00	227.3	Ladder Peak	95.53
12		2,000	150.00	113.6	Ladder Peak	101.73
13		3,000	150.00	75.8	Ladder Peak	104.90
14		7,000	150.00	32.5	Ladder Peak	109.88
15		10,380	75.00	10.9	Upper Marker	113.00

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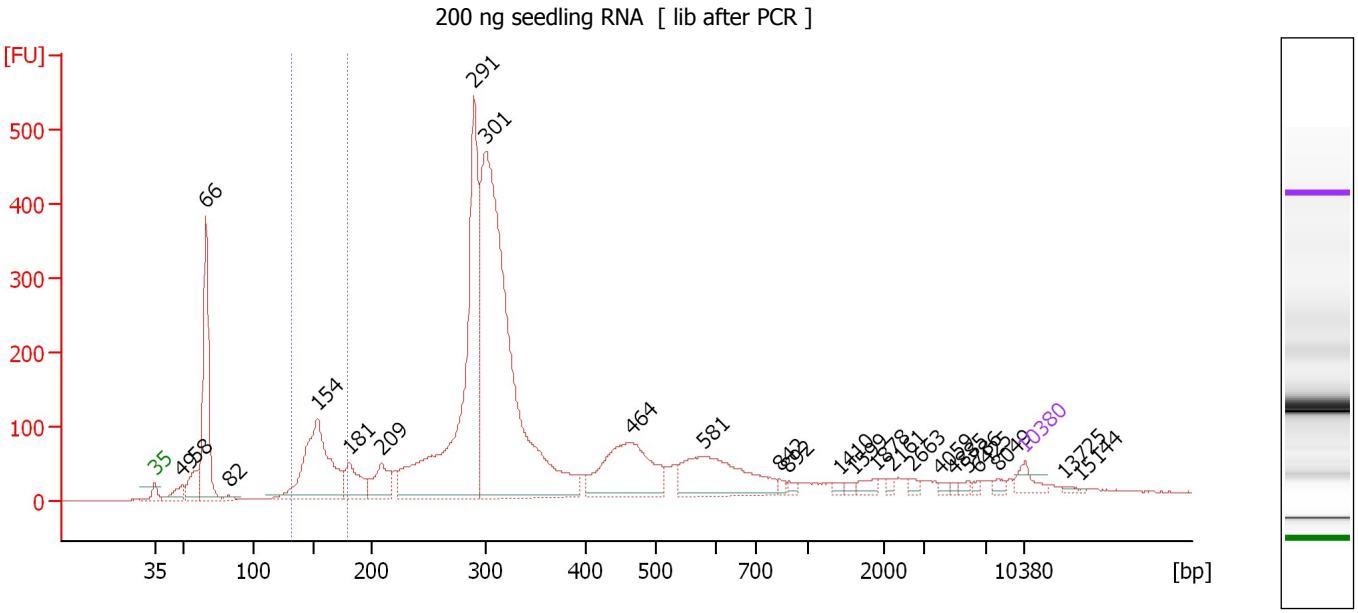
Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-08\2016-12-08_001.xad

Created: 12/8/2016 9:53:33 AM
Modified: 12/8/2016 10:14:54 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 200 ng seedling RNA

Number of peaks found:	25	Corr. Area 1:	455.8
Noise:	0.3		

Peak table for sample 1 : 200 ng seedling RNA

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	49	128.99	3,975.1		45.20
3	58	219.01	5,722.8		46.23
4	66	1,179.96	27,140.4		47.12
5	82	27.28	503.6		48.94
6	154	1,168.51	11,488.1		56.10
7	181	288.80	2,411.3		58.68
8	209	271.41	1,966.7		61.25
9	291	2,492.38	12,995.1		68.69
10	301	3,908.66	19,677.6		69.62
11	464	776.40	2,533.2		81.32
12	581	633.94	1,654.3		87.17
13	842	27.69	49.8		93.30
14	892	26.59	45.2		94.00
15	1,410	24.77	26.6		98.07
16	1,599	24.27	23.0		99.24
17	1,878	46.27	37.3		100.97
18	2,161	21.17	14.8		102.24
19	2,663	22.88	13.0		103.83
20	4,059	18.71	7.0		106.22
21	4,885	12.19	3.8		107.24
22	5,786	21.47	5.6		108.37
23	6,425	15.43	3.6		109.16
24	8,049	24.77	4.7		110.85
25	10,380	75.00	10.9	Upper Marker	113.00

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Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-08\2016-12-08_001.xad

Created: 12/8/2016 9:53:33 AM
Modified: 12/8/2016 10:14:54 AM

Electropherogram Summary Continued ...

... Peak table for sample 1 : 200 ng seedling RNA

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	13,725	0.00	0.0		116.09
27	15,144	0.00	0.0		117.40

Region table for sample 1 : 200 ng seedling RNA

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color Conc. [pg/µl]	% of Total	Size distribution in CV [%]
132	179	156	455.8	11,305.1	1,156.66	8	7.1

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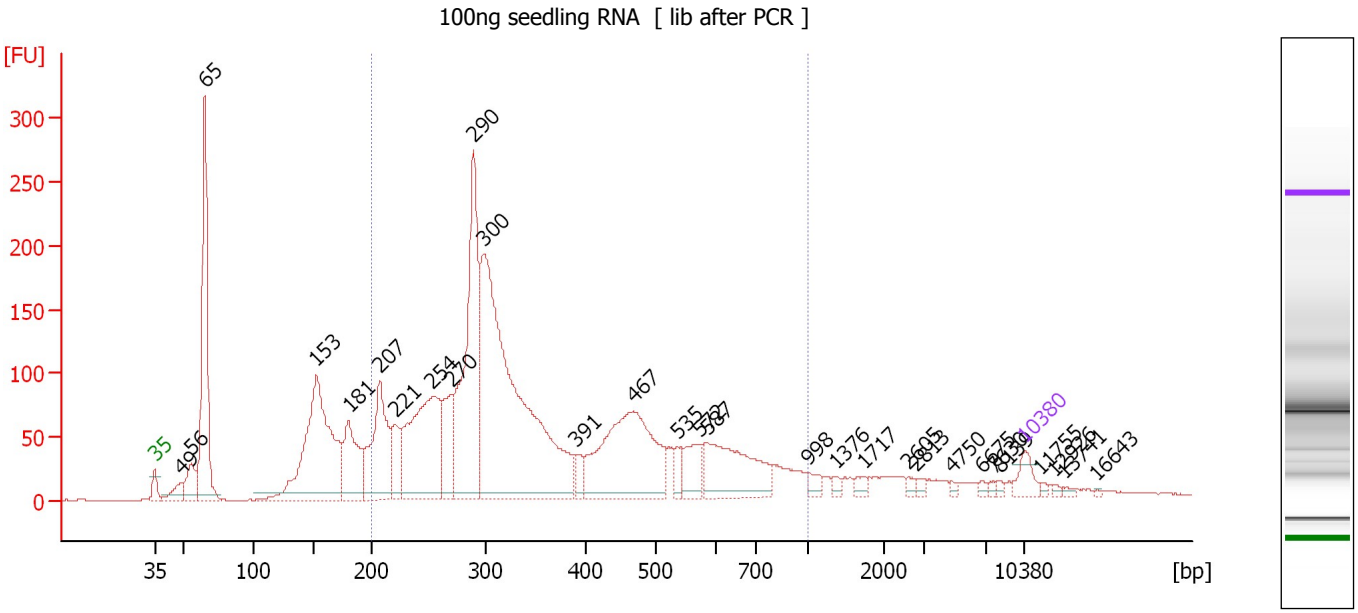
Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-08\2016-12-08_001.xad

Created: 12/8/2016 9:53:33 AM
Modified: 12/8/2016 10:14:54 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 100ng seedling RNA

Number of peaks found:	29	Corr. Area 1:	2,995.8
Noise:	0.3		

Peak table for sample 2 : 100ng seedling RNA

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	49	112.99	3,520.7		45.12
3	56	210.07	5,722.8		45.96
4	65	1,279.36	29,725.8		47.04
5	153	1,454.09	14,374.5		56.02
6	181	451.19	3,782.1		58.61
7	207	685.58	5,007.0		61.10
8	221	229.92	1,577.4		62.32
9	254	1,080.79	6,451.9		65.33
10	270	299.26	1,677.6		66.83
11	290	1,379.58	7,198.6		68.67
12	300	2,699.89	13,652.0		69.51
13	391	74.80	289.7		76.90
14	467	1,051.48	3,413.7		81.46
15	535	69.68	197.3		85.03
16	572	173.32	459.1		86.77
17	587	509.94	1,316.2		87.47
18	998	50.25	76.3		95.51
19	1,376	25.85	28.5		97.86
20	1,717	32.65	28.8		99.98
21	2,605	19.18	11.2		103.64
22	2,813	20.50	11.0		104.30
23	4,750	14.56	4.6		107.08
24	6,675	15.39	3.5		109.47
25	7,630	13.18	2.6		110.46

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Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-08\2016-12-08_001.xad

Created: 12/8/2016 9:53:33 AM
Modified: 12/8/2016 10:14:54 AM

Electropherogram Summary Continued ...

... Peak table for sample 2 : 100ng seedling RNA

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	8,139	13.26	2.5		110.93
27	10,380	75.00	10.9	Upper Marker	113.00
28	11,755	0.00	0.0		114.27
29	12,926	0.00	0.0		115.35
30	13,741	0.00	0.0		116.10
31	16,643	0.00	0.0		118.78

Region table for sample 2 : 100ng seedling RNA

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color	Conc. [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	381	2,995.8	38,647.0		8,207.76	70	40.5

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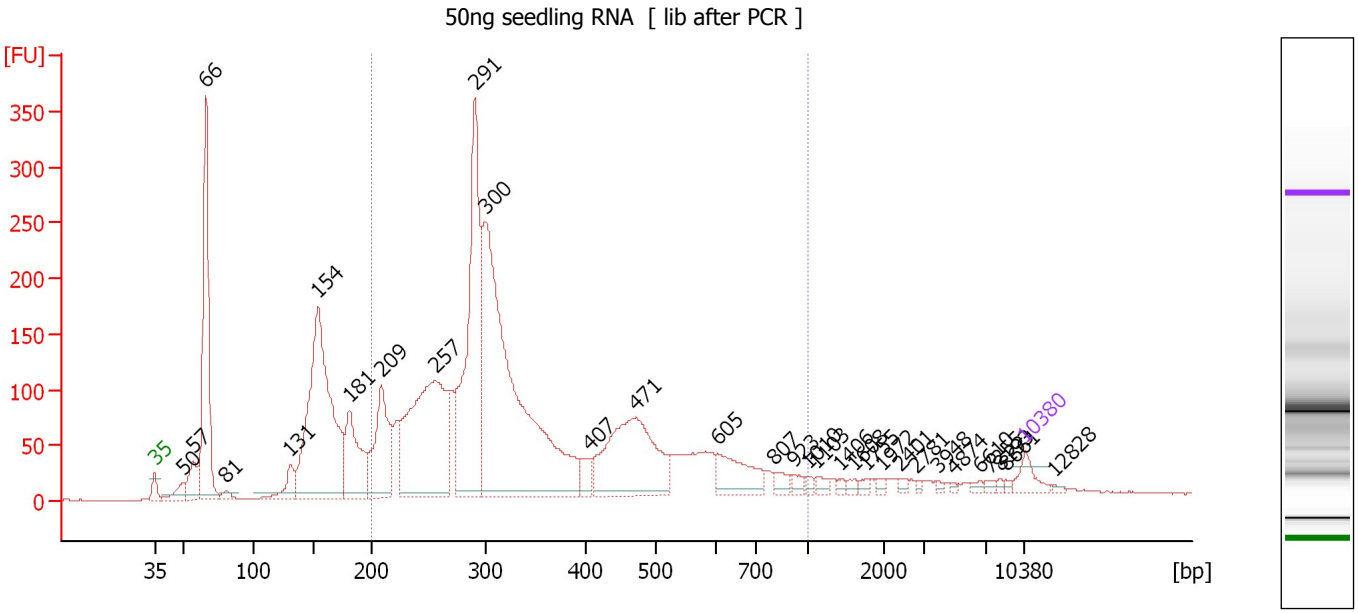
Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-08\2016-12-08_001.xad

Created: 12/8/2016 9:53:33 AM
Modified: 12/8/2016 10:14:54 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 50ng seedling RNA

Number of peaks found:	31	Corr. Area 1:	3,472.1
Noise:	0.3		

Peak table for sample 3 : 50ng seedling RNA

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	101.98	3,098.8		45.31
3	57	214.45	5,736.7		46.08
4	66	1,317.74	30,240.6		47.13
5	81	41.97	789.7		48.77
6	131	154.90	1,791.0		53.91
7	154	1,941.78	19,059.6		56.13
8	181	505.85	4,224.0		58.67
9	209	620.26	4,489.7		61.27
10	257	1,454.30	8,583.2		65.60
11	291	1,549.67	8,055.3		68.77
12	300	2,756.73	13,900.1		69.59
13	407	98.76	367.8		78.00
14	471	894.26	2,877.0		81.70
15	605	257.22	644.3		88.24
16	807	57.99	108.9		92.81
17	923	31.69	52.0		94.44
18	1,010	19.35	29.0		95.60
19	1,103	33.59	46.1		96.17
20	1,406	18.17	19.6		98.05
21	1,608	19.42	18.3		99.30
22	1,755	19.12	16.5		100.21
23	1,972	17.94	13.8		101.56
24	2,401	17.61	11.1		103.00
25	2,781	11.89	6.5		104.20

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Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-08\2016-12-08_001.xad

Created: 12/8/2016 9:53:33 AM
Modified: 12/8/2016 10:14:54 AM

Electropherogram Summary Continued ...

... Peak table for sample 3 : 50ng seedling RNA

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	3,948	11.04	4.2		106.08
27	4,874	9.07	2.8		107.23
28	6,610	16.73	3.8		109.39
29	7,255	14.52	3.0		110.12
30	8,193	11.04	2.0		110.98
31	8,661	11.34	2.0		111.41
32	10,380	75.00	10.9	Upper Marker	113.00
33	12,828	0.00	0.0		115.26

Region table for sample 3 : 50ng seedling RNA

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color	Conc. [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	368	3,472.1	41,102.1		8,557.42	67	39.9

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Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-08\2016-12-08_001.xad

Created: 12/8/2016 9:53:33 AM
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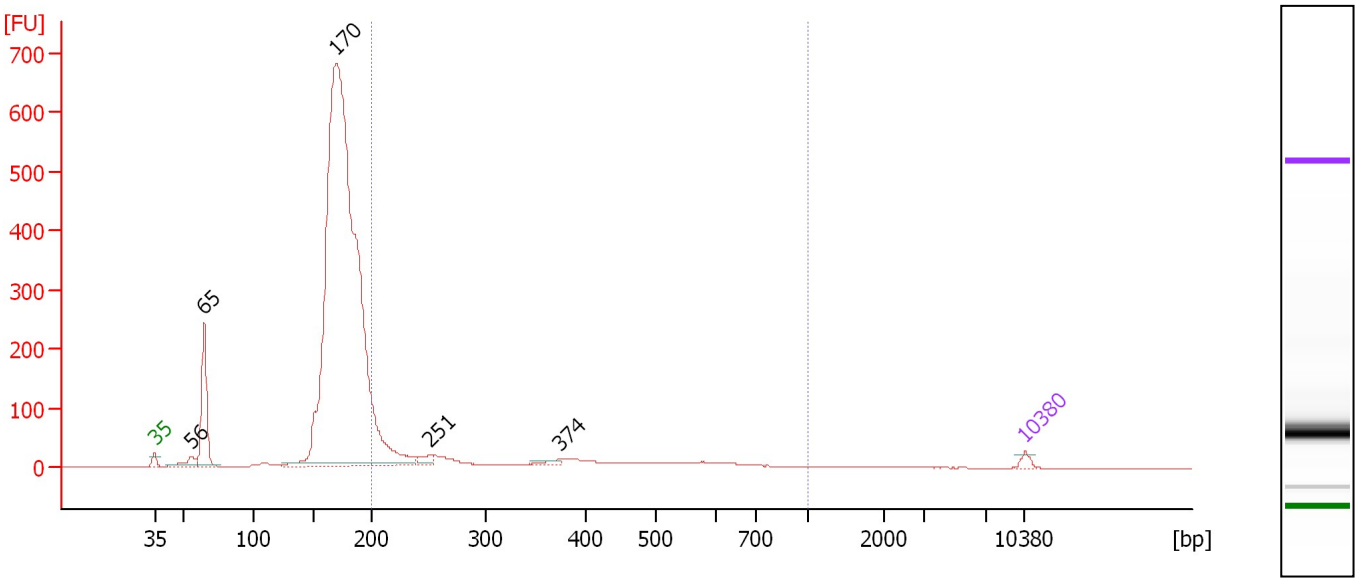
Electropherogram Summary Continued ...

positive control miRNA [lib after PCR]



Overall Results for sample 4 : positive control miRNA

Number of peaks found:	5	Corr. Area 1:	635.5
Noise:	0.2		

Peak table for sample 4 : positive control miRNA

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	56	324.08	8,788.9		45.99
3	65	1,870.16	43,885.2		46.97
4	170	22,749.91	202,613.6		57.61
5	251	185.39	1,119.9		65.06
6	374	74.89	303.0		75.55
7	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 4 : positive control miRNA

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	359	635.5	19,222.4	3,584.47	15	46.3

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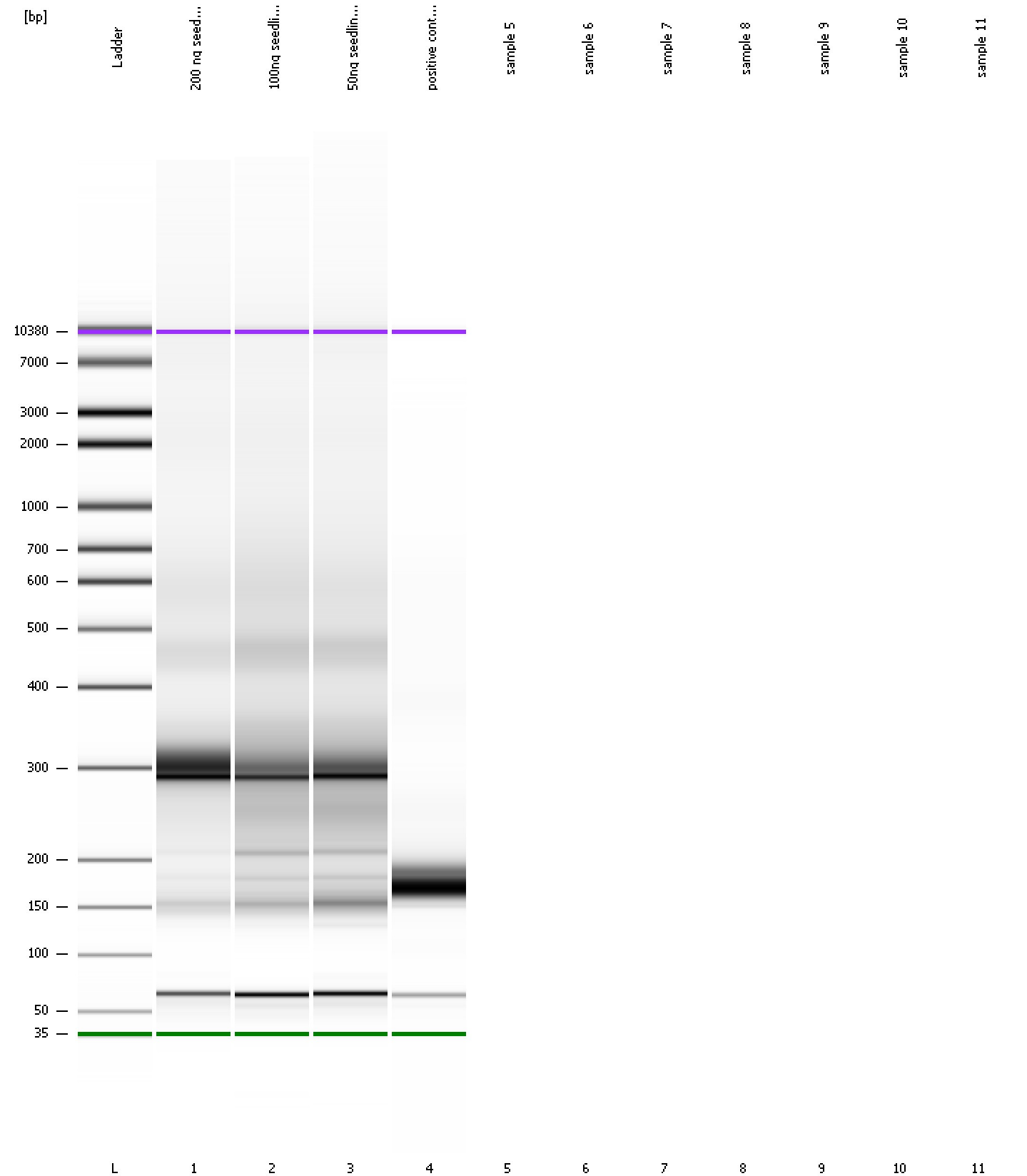
Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-08\2016-12-08_001.xad

Created: 12/8/2016 9:53:33 AM
Modified: 12/8/2016 10:14:54 AM

Gel Image



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Assay Class: High Sensitivity DNA Assay Created: 12/8/2016 9:53:33 AM
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-08\2016-12-08_001.xad Modified: 12/8/2016 10:14:54 AM

Invalid Samples

Sample 5 has not been run, no results available.

Sample 6 has not been run, no results available.

Sample 7 has not been run, no results available.

Sample 8 has not been run, no results available.

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

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Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-12-08\2016-12-08_001.xad

Created: 12/8/2016 9:53:33 AM
Modified: 12/8/2016 10:14:54 AM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 5)		Instrument	Run		12/8/2016 10:14:52 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-12-08\2016-12-08_001.xad)		Instrument	Run		12/8/2016 9:53:38 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		12/8/2016 9:53:38 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		12/8/2016 9:53:38 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		12/8/2016 9:53:38 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		12/8/2016 9:53:38 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		12/8/2016 9:53:38 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		12/8/2016 9:53:38 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1

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