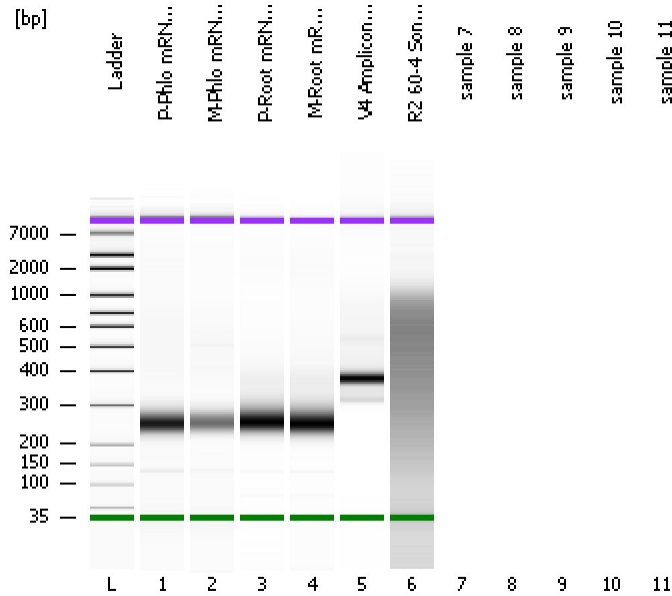


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-02\2013-05-02\_005.xad

Created: 5/2/2013 2:28:25 PM  
Modified: 5/2/2013 3:00:03 PM

**Electrophoresis File Run Summary**



Instrument Information:

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

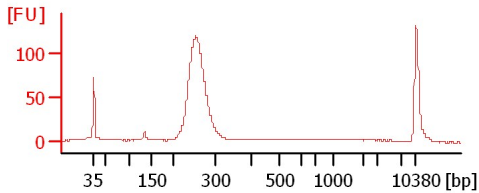
Assay Information:

Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\dsDNA\High Sensitivity DNA.xsy  
Assay Class: High Sensitivity DNA Assay  
Version: 1.03  
Assay Comments: Copyright © 2003-2010 Agilent Technologies

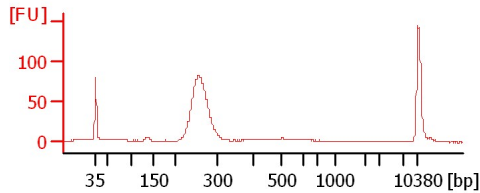
Chip Information:

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

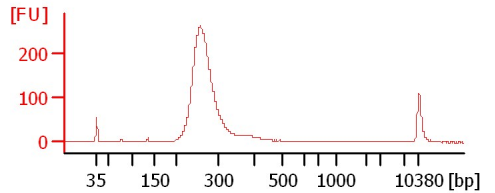
**P-Phlo mRNA Lib 1:2**



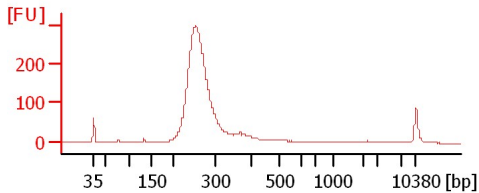
**M-Phlo mRNA Lib 1:2**



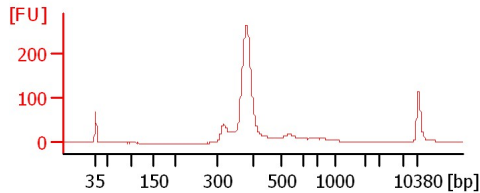
**P-Root mRNA Lib**



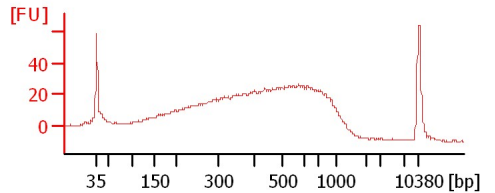
**M-Root mRNA Lib**



**V4 Amplicon 1:50**



**R2 60-4 Soni 1:7**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-02\2013-05-02\_005.xad

Created: 5/2/2013 2:28:25 PM  
Modified: 5/2/2013 3:00:03 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
P-Phlo mRNA Lib 1:2		<input type="checkbox"/>	✓			
M-Phlo mRNA Lib 1:2		<input type="checkbox"/>	✓			
P-Root mRNA Lib		<input type="checkbox"/>	✓			
M-Root mRNA Lib		<input type="checkbox"/>	✓			
V4 Amplicon 1:50		<input type="checkbox"/>	✓			
R2 60-4 Soni 1:7		<input type="checkbox"/>	✓			
sample 7		<input type="checkbox"/>				
sample 8		<input type="checkbox"/>				
sample 9		<input type="checkbox"/>				
sample 10		<input type="checkbox"/>				
sample 11		<input type="checkbox"/>				
Ladder		<input type="checkbox"/>	✓			

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-02\2013-05-02\_005.xad

Created: 5/2/2013 2:28:25 PM  
 Modified: 5/2/2013 3:00:03 PM

**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

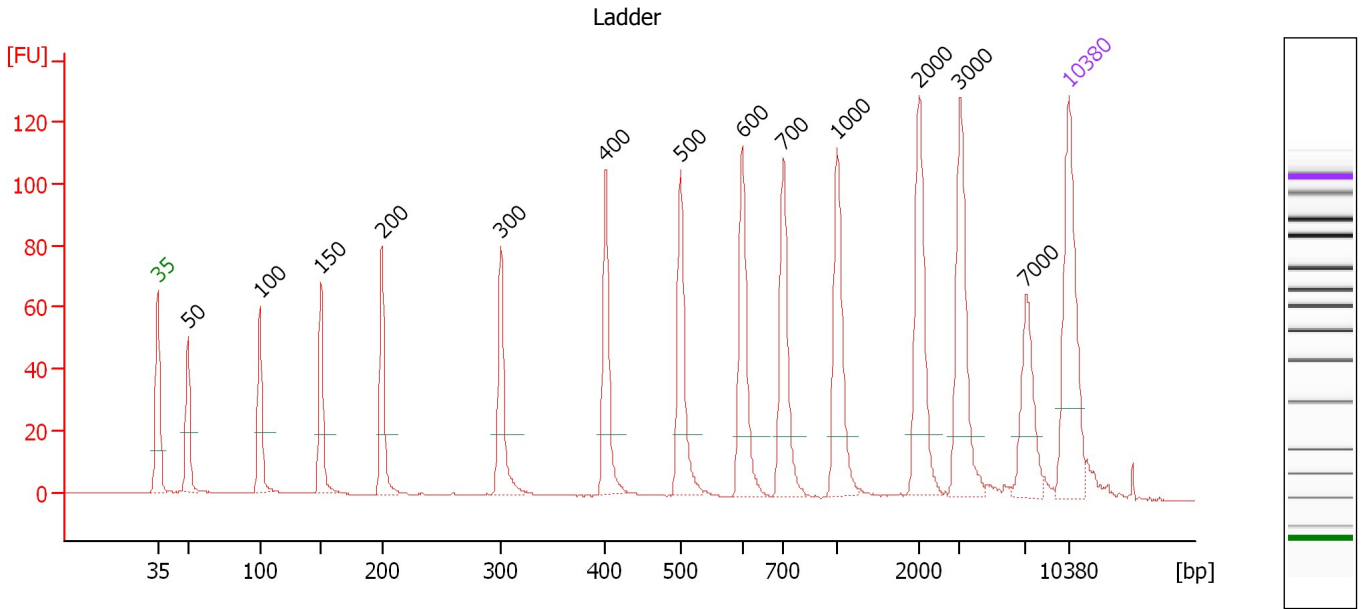
**Ladder**

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

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-02\2013-05-02\_005.xad

Created: 5/2/2013 2:28:25 PM  
 Modified: 5/2/2013 3:00:03 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

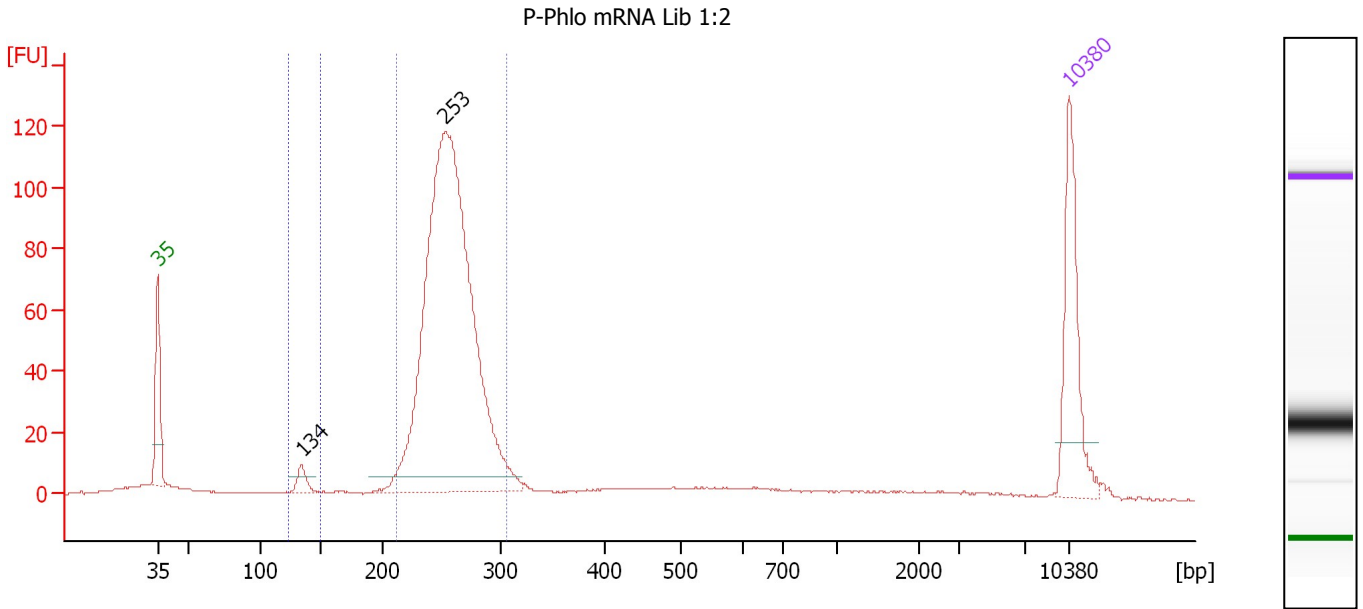
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-02\2013-05-02\_005.xad

Created: 5/2/2013 2:28:25 PM  
 Modified: 5/2/2013 3:00:03 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : P-Phlo mRNA Lib 1:2**

Number of peaks found: 2                      Corr. Area 1: 797.4  
 Noise: 0.2                                      Corr. Area 2: 18.7

**Peak table for sample 1 : P-Phlo mRNA Lib 1:2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	134	15.11	170.7	
3	253	738.63	4,419.0	
4	10,380	75.00	10.9	Upper Marker

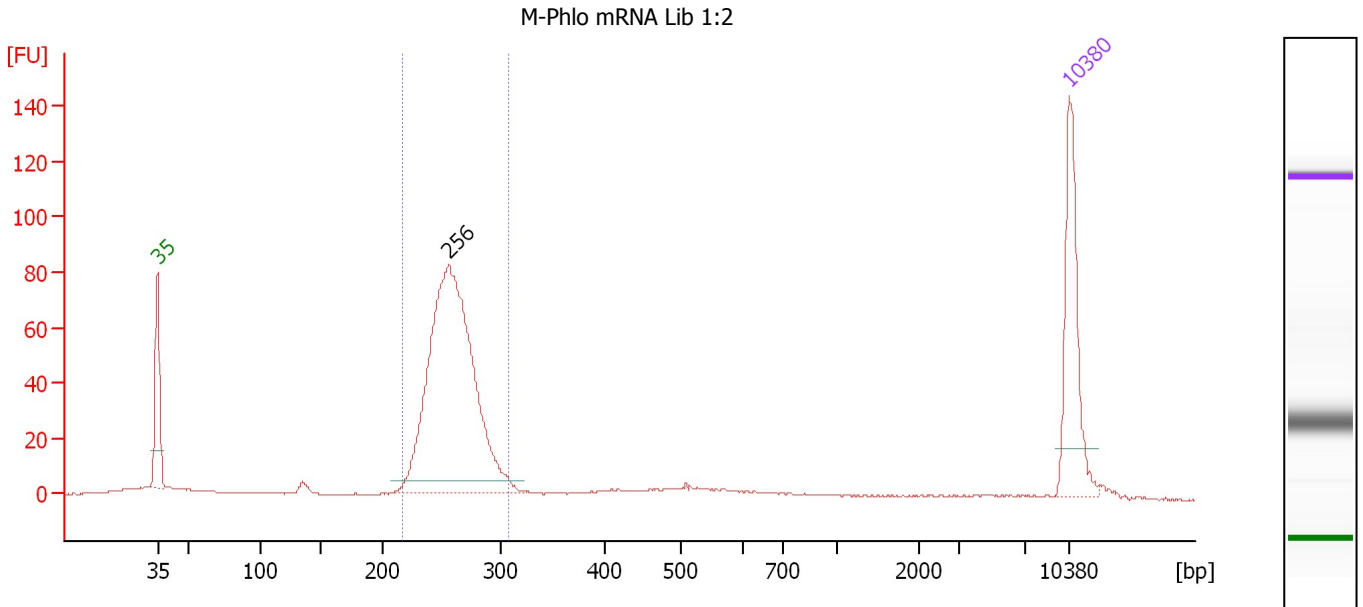
**Region table for sample 1 : P-Phlo mRNA Lib 1:2**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
124	149	135	229.2	20.42	18.7	2	3.7	Blue
212	307	257	4,327.5	734.34	797.4	78	7.2	Dark Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-02\2013-05-02\_005.xad

Created: 5/2/2013 2:28:25 PM  
 Modified: 5/2/2013 3:00:03 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : M-Phlo mRNA Lib 1:2**

Number of peaks found: 1                      Corr. Area 1: 532.9  
 Noise: 0.2

**Peak table for sample 2 : M-Phlo mRNA Lib 1:2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	256	465.07	2,750.1	
3	10,380	75.00	10.9	Upper Marker

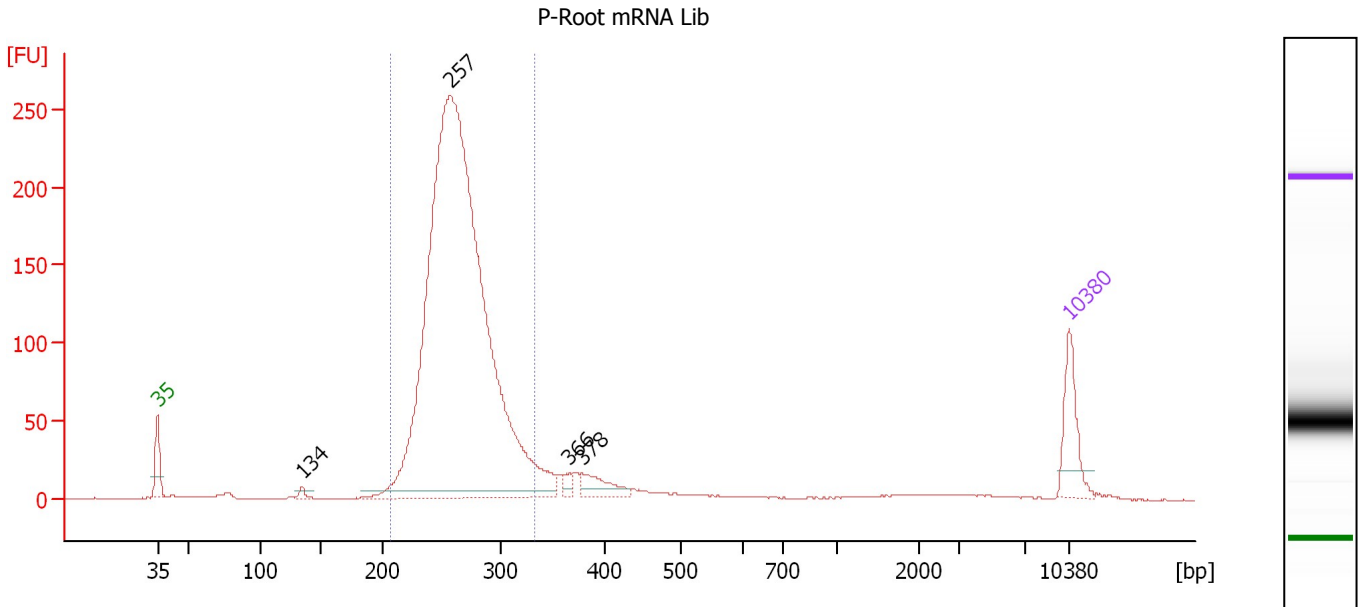
**Region table for sample 2 : M-Phlo mRNA Lib 1:2**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
217	307	259	2,726.9	466.51	532.9	77	6.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-02\2013-05-02\_005.xad

Created: 5/2/2013 2:28:25 PM  
 Modified: 5/2/2013 3:00:03 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : P-Root mRNA Lib**

Number of peaks found: 4                      Corr. Area 1: 2,001.8  
 Noise: 0.2

**Peak table for sample 3 : P-Root mRNA Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	134	9.89	111.5	
3	257	2,409.72	14,195.9	
4	366	16.15	66.9	
5	378	51.82	207.9	
6	10,380	75.00	10.9	Upper Marker

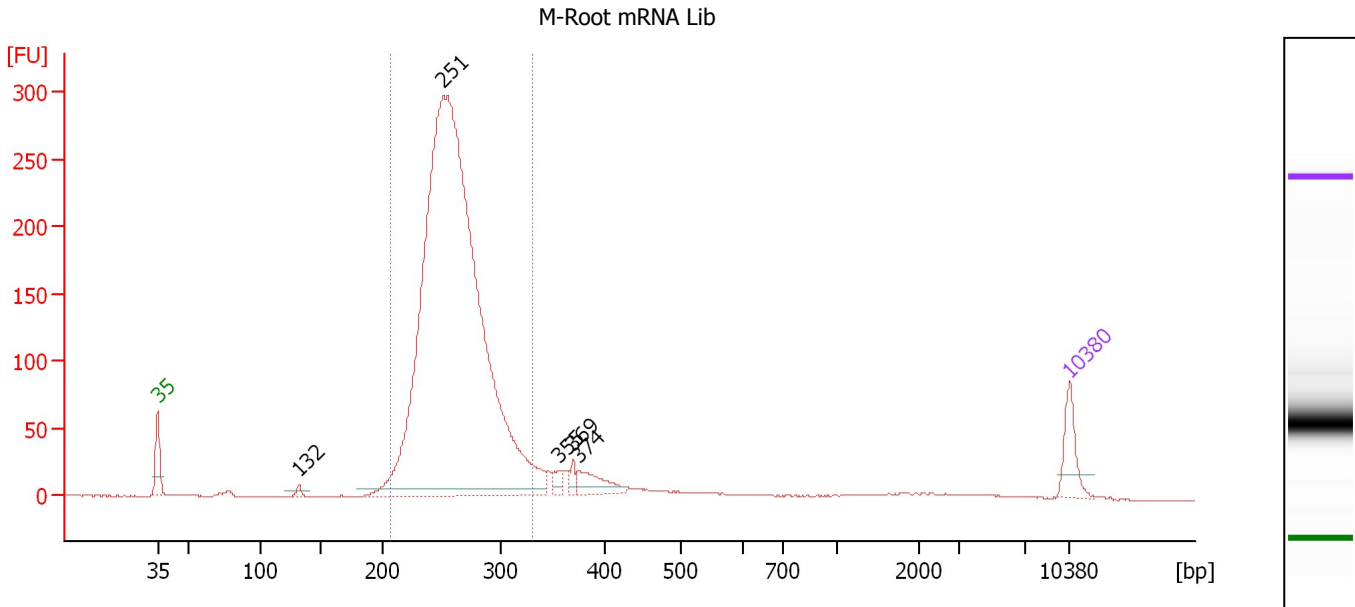
**Region table for sample 3 : P-Root mRNA Lib**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
208	332	265	13,339.0	2,322.48	2,001.8	87	8.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-02\2013-05-02\_005.xad

Created: 5/2/2013 2:28:25 PM  
 Modified: 5/2/2013 3:00:03 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : M-Root mRNA Lib**

Number of peaks found: 5                      Corr. Area 1: 2,317.8  
 Noise: 0.2

**Peak table for sample 4 : M-Root mRNA Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	132	16.33	187.5	
3	251	3,939.76	23,751.3	
4	355	26.56	113.3	
5	369	23.08	94.9	
6	374	80.79	327.6	
7	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : M-Root mRNA Lib**

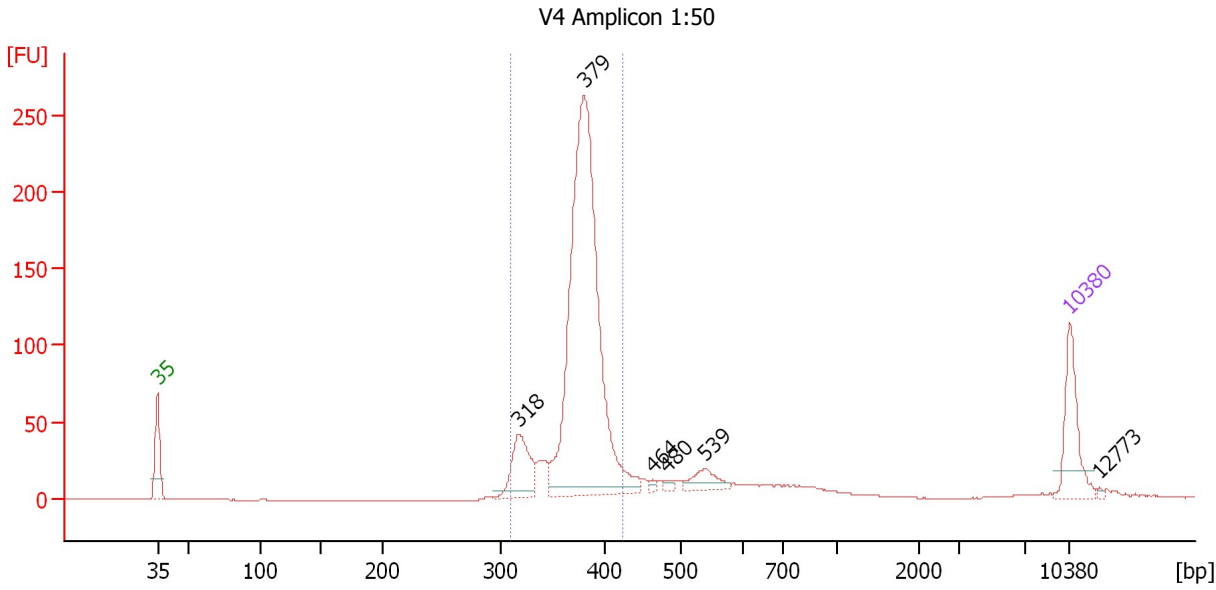
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
207	330	261	22,176.0	3,805.23	2,317.8	87	9.0	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-02\2013-05-02\_005.xad

Created: 5/2/2013 2:28:25 PM  
 Modified: 5/2/2013 3:00:03 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : V4 Amplicon 1:50**

Number of peaks found: 6                      Corr. Area 1: 996.8  
 Noise: 0.2

**Peak table for sample 5 : V4 Amplicon 1:50**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	318	104.85	499.7	
3	379	848.17	3,387.5	
4	464	5.85	19.1	
5	480	6.64	21.0	
6	539	33.32	93.7	
7	10,380	75.00	10.9	Upper Marker
8	12,773	0.00	0.0	

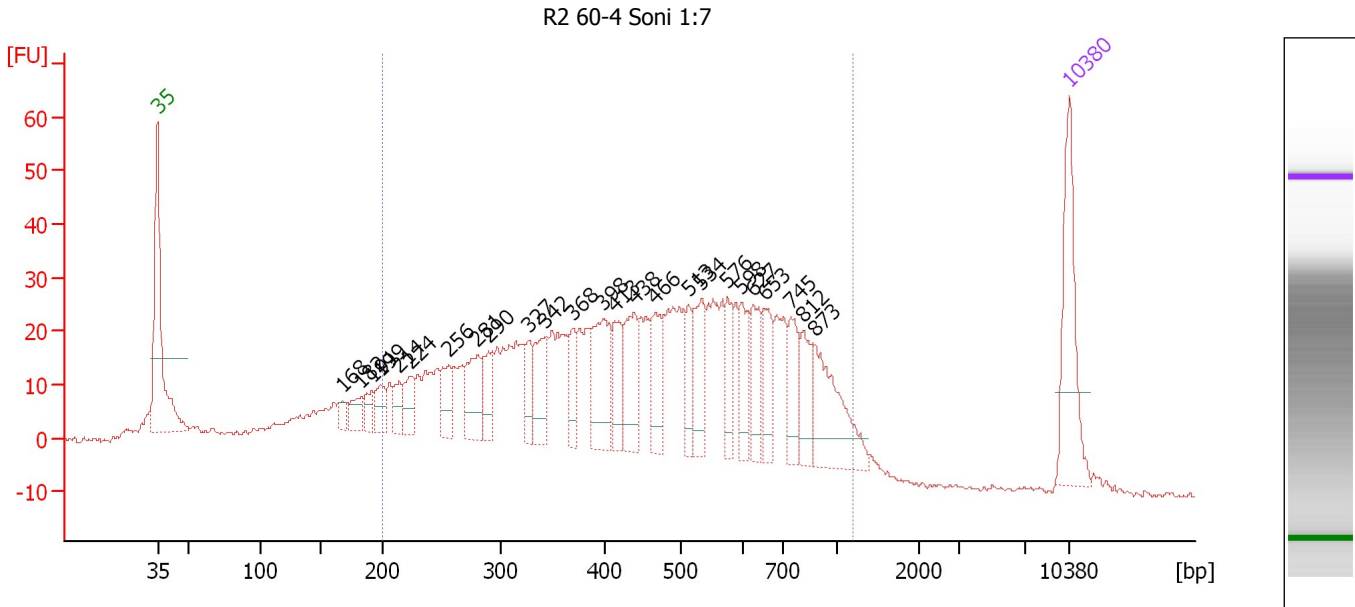
**Region table for sample 5 : V4 Amplicon 1:50**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
309	423	374	3,917.2	965.24	996.8	81	5.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-02\2013-05-02\_005.xad

Created: 5/2/2013 2:28:25 PM  
 Modified: 5/2/2013 3:00:03 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : R2 60-4 Soni 1:7**

Number of peaks found: 25                      Corr. Area 1: 1,117.2  
 Noise: 0.5

**Peak table for sample 6 : R2 60-4 Soni 1:7**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	168	13.33	120.2	
3	182	22.12	183.7	
4	191	16.91	133.9	
5	199	23.42	178.4	
6	214	19.48	137.8	
7	224	28.60	193.9	
8	256	31.62	186.9	
9	281	54.71	295.5	
10	290	35.92	187.8	
11	327	29.87	138.3	
12	342	49.09	217.6	
13	368	31.15	128.1	
14	398	76.60	291.6	
15	413	40.56	148.9	
16	438	57.72	199.4	
17	466	51.59	167.7	
18	513	31.16	92.0	
19	534	47.78	135.6	
20	576	30.09	79.1	
21	598	34.94	88.5	
22	627	39.21	94.8	
23	653	38.76	89.9	
24	745	39.09	79.5	
25	812	34.24	63.9	
26	873	83.19	144.4	

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-02\2013-05-02\_005.xad

Created: 5/2/2013 2:28:25 PM  
Modified: 5/2/2013 3:00:03 PM

**Electropherogram Summary Continued ...****... Peak table for sample 6 : R2 60-4 Soni 1:7**

Peak	Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations
27	10,380	75.00	10.9	Upper Marker

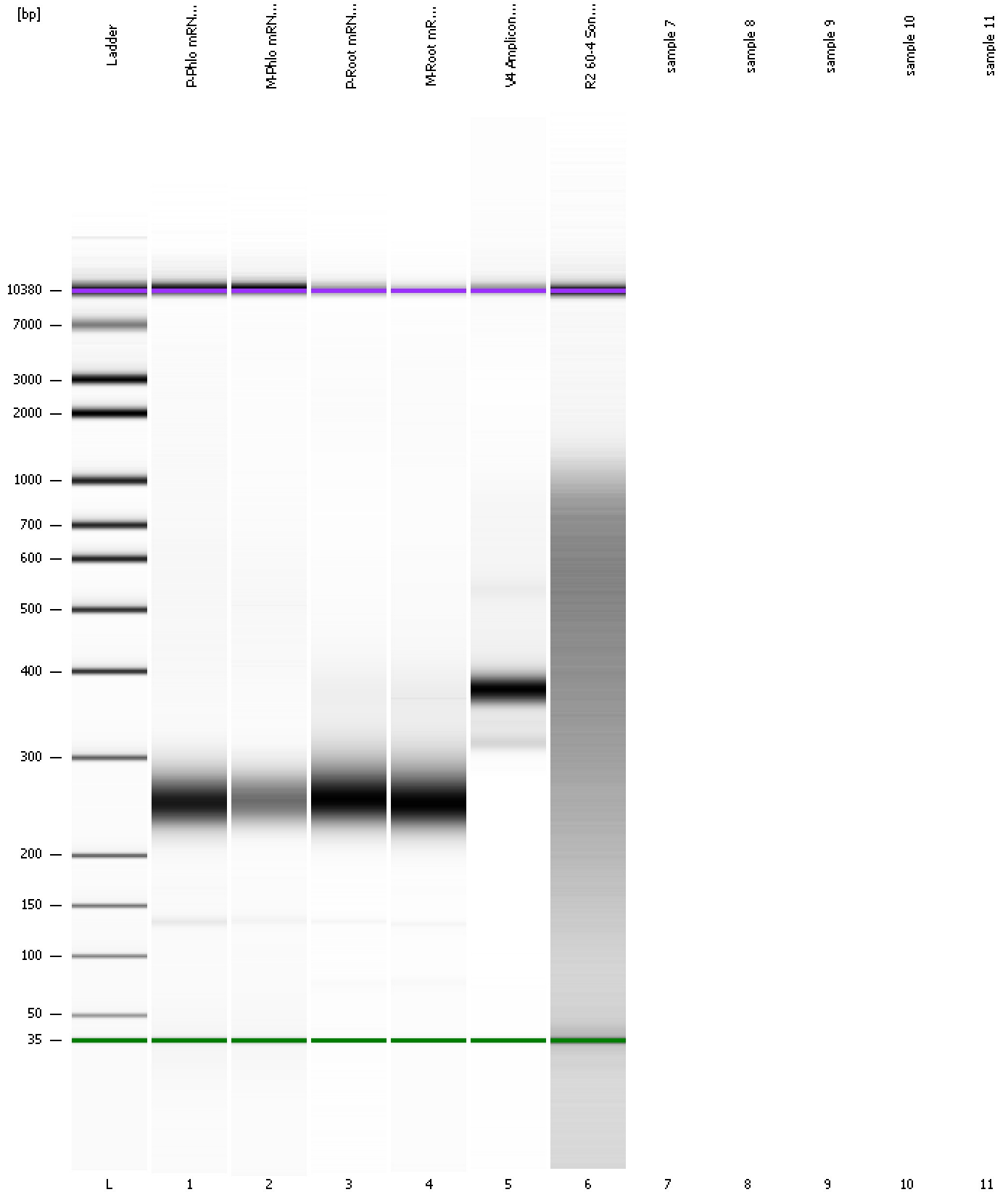
**Region table for sample 6 : R2 60-4 Soni 1:7**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ $\mu$ l]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,193	489	6,976.0	1,787.57	1,117.2	84	40.8	

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-02\2013-05-02\_005.xad

Created: 5/2/2013 2:28:25 PM  
Modified: 5/2/2013 3:00:03 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-02\2013-05-02\_005.xad

Created: 5/2/2013 2:28:25 PM  
Modified: 5/2/2013 3:00:03 PM

**Invalid Samples**

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.

Assay Class: High Sensitivity DNA Assay Created: 5/2/2013 2:28:25 PM  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-02\2013-05-02\_005.xad Modified: 5/2/2013 3:00:03 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 7)		Instrument	Run		5/2/2013 2:55:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-05-02\2013-05-02_005.xad)		Instrument	Run		5/2/2013 2:28:30 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		5/2/2013 2:28:30 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/2/2013 2:28:30 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/2/2013 2:28:30 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		5/2/2013 2:28:30 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/2/2013 2:28:30 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/2/2013 2:28:30 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1