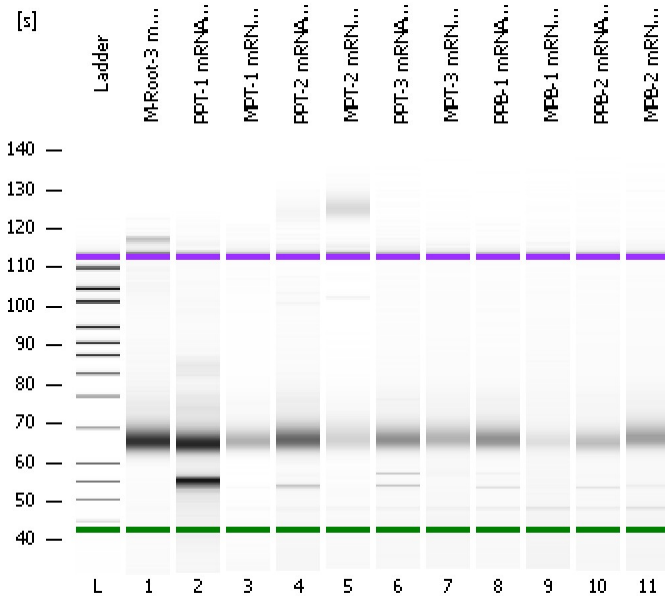


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
Modified: 6/10/2013 12:49:22 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

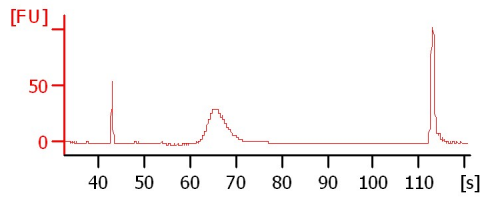
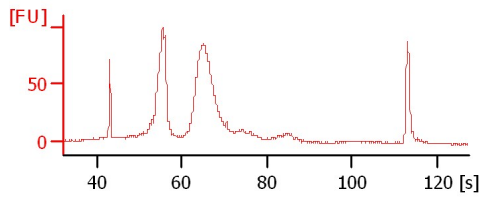
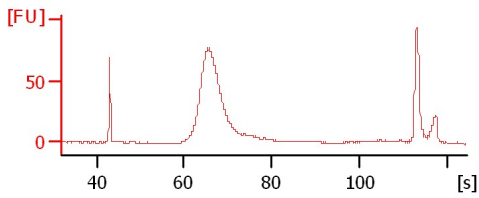
Chip Information:

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

**M-Root-3 mRNA Lib 1:2**

**PPT-1 mRNA Lib**

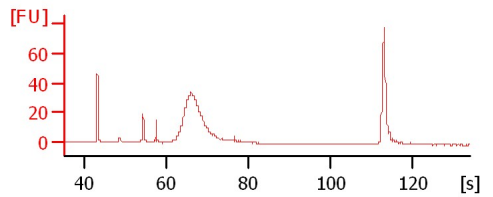
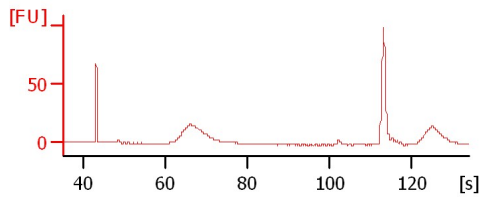
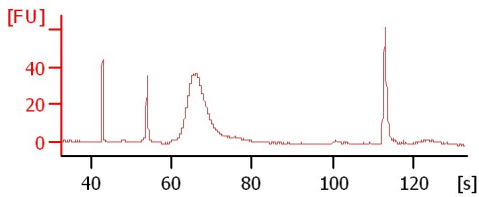
**MPT-1 mRNA Lib**



**PPT-2 mRNA Lib**

**MPT-2 mRNA Lib**

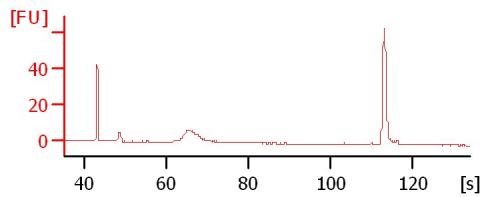
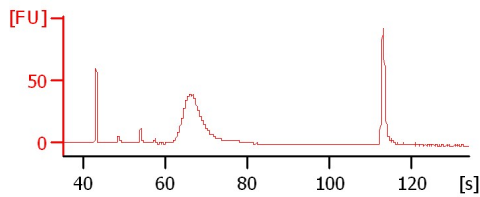
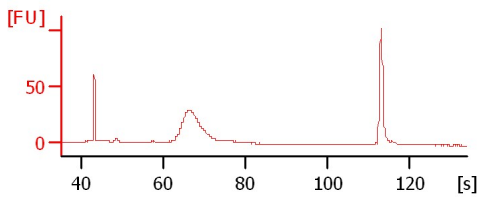
**PPT-3 mRNA Lib**



**MPT-3 mRNA Lib**

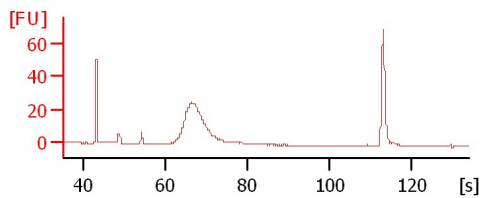
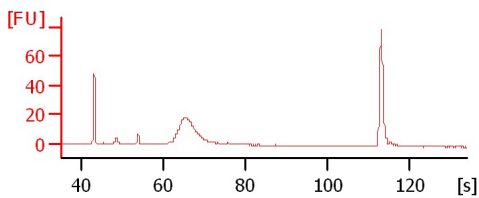
**PPB-1 mRNA Lib**

**MPB-1 mRNA Lib**



**PPB-2 mRNA Lib**

**MPB-2 mRNA Lib**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
Modified: 6/10/2013 12:49:22 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
M-Root-3 mRNA Lib 1:2		<input type="checkbox"/>	✓			
PPT-1 mRNA Lib		<input type="checkbox"/>	✓			
MPT-1 mRNA Lib		<input type="checkbox"/>	✓			
PPT-2 mRNA Lib		<input type="checkbox"/>	✓			
MPT-2 mRNA Lib		<input type="checkbox"/>	✓			
PPT-3 mRNA Lib		<input type="checkbox"/>	✓			
MPT-3 mRNA Lib		<input type="checkbox"/>	✓			
PPB-1 mRNA Lib		<input type="checkbox"/>	✓			
MPB-1 mRNA Lib		<input type="checkbox"/>	✓			
PPB-2 mRNA Lib		<input type="checkbox"/>	✓			
MPB-2 mRNA Lib		<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\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
Modified: 6/10/2013 12:49:22 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

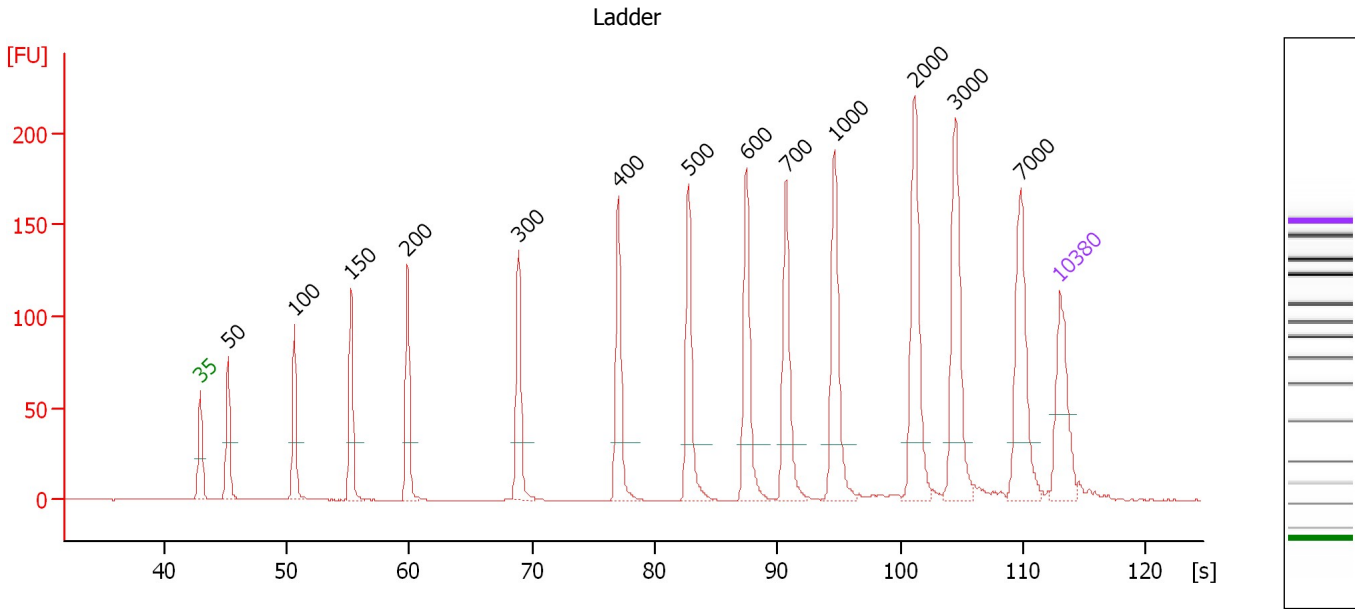
**Ladder**

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\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
 Modified: 6/10/2013 12:49:22 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

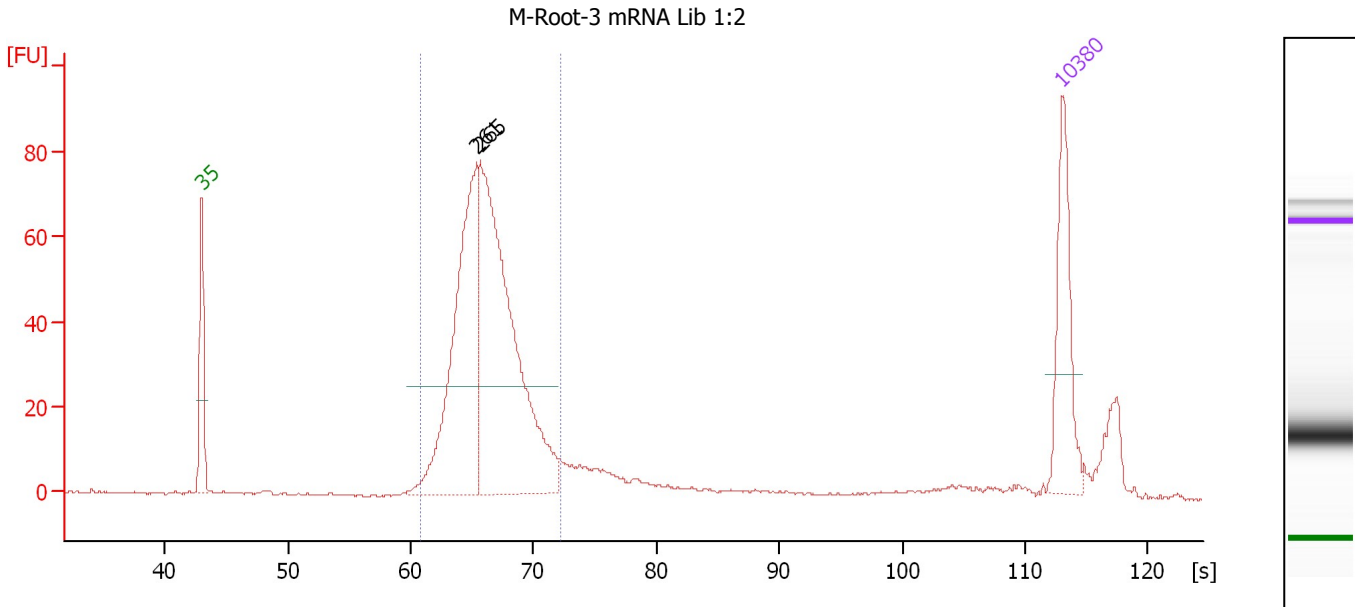
**Peak table for Ladder**

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\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
 Modified: 6/10/2013 12:49:22 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 1 : M-Root-3 mRNA Lib 1:2**

Height Threshold [FU] : 25

**Overall Results for sample 1 : M-Root-3 mRNA Lib 1:2**

Number of peaks found: 2                      Corr. Area 1: 664.8  
 Noise: 0.2

**Peak table for sample 1 : M-Root-3 mRNA Lib 1:2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	261	337.38	1,960.7	
3	265	464.91	2,662.4	
4	10,380	75.00	10.9	Upper Marker

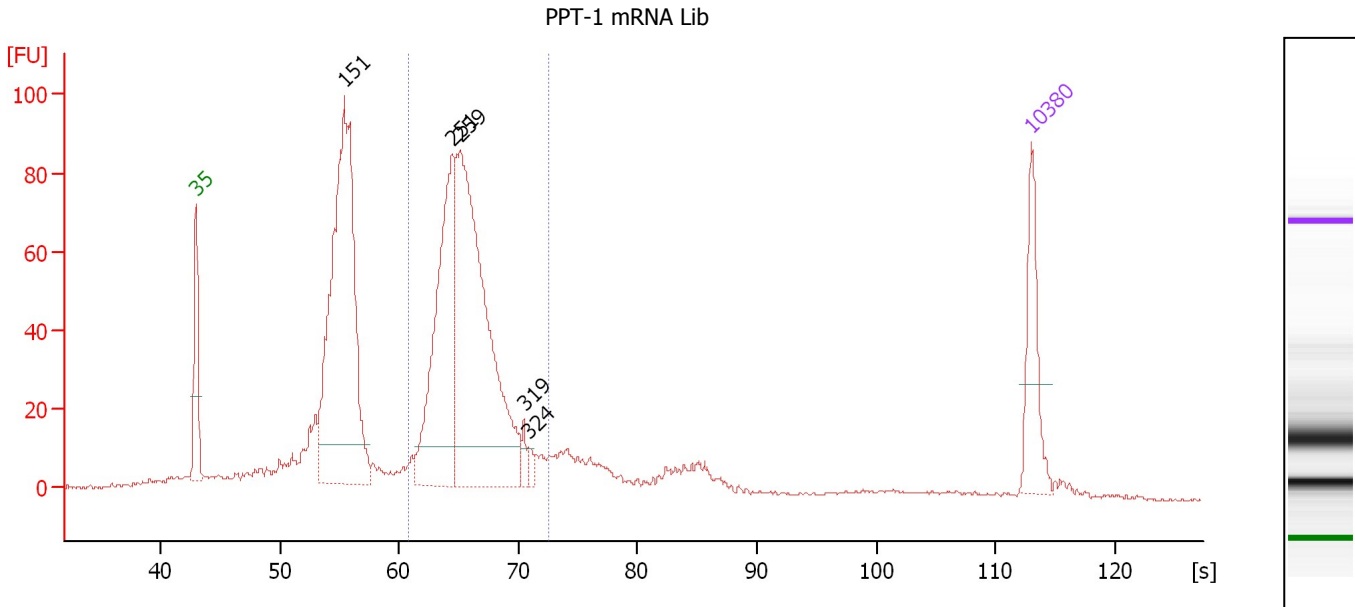
**Region table for sample 1 : M-Root-3 mRNA Lib 1:2**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
60.77	72.19	270	4,472.0	793.37	664.8	81	9.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
 Modified: 6/10/2013 12:49:22 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 2 : PPT-1 mRNA Lib**

Height Threshold [FU] : 10

**Overall Results for sample 2 : PPT-1 mRNA Lib**

Number of peaks found: 5                      Corr. Area 1: 712.7  
 Noise: 0.4

**Peak table for sample 2 : PPT-1 mRNA Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	151	736.35	7,368.1	
3	251	372.04	2,249.1	
4	259	625.11	3,662.8	
5	319	16.03	76.1	
6	324	11.35	53.2	
7	10,380	75.00	10.9	Upper Marker

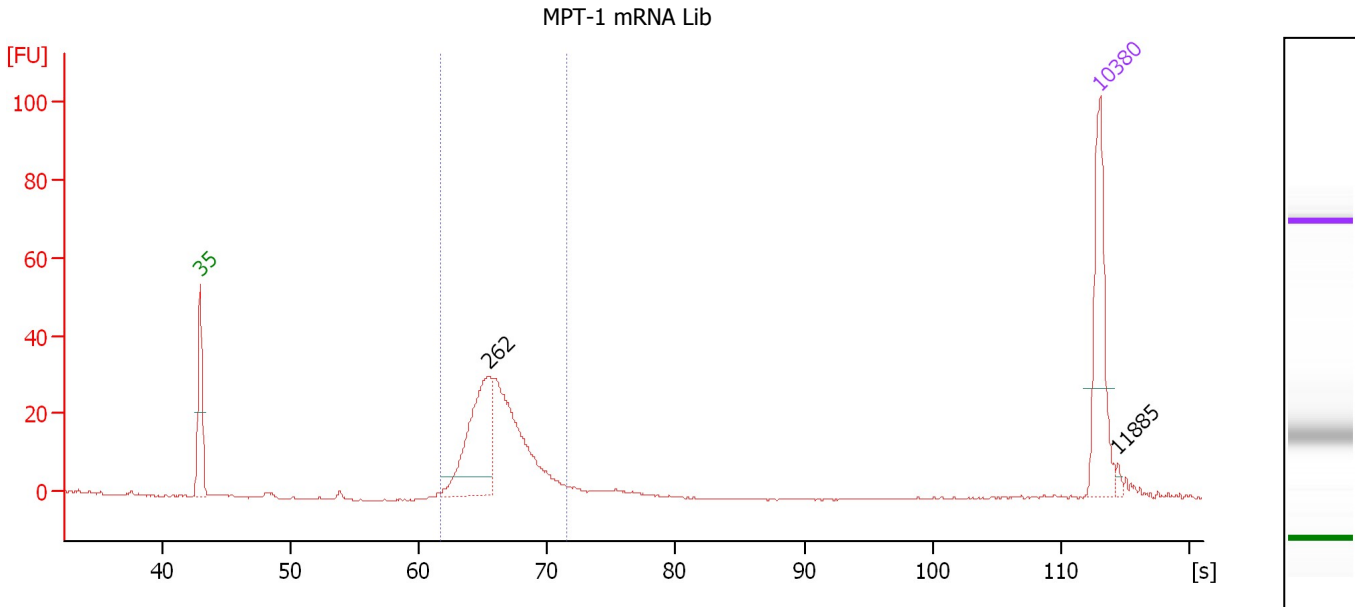
**Region table for sample 2 : PPT-1 mRNA Lib**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
60.83	72.58	265	6,206.1	1,079.95	712.7	49	9.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
 Modified: 6/10/2013 12:49:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : MPT-1 mRNA Lib**

Number of peaks found: 2                      Corr. Area 1: 231.9  
 Noise: 0.2

**Peak table for sample 3 : MPT-1 mRNA Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	262	148.97	861.7	
3	10,380	75.00	10.9	Upper Marker
4	11,885	0.00	0.0	

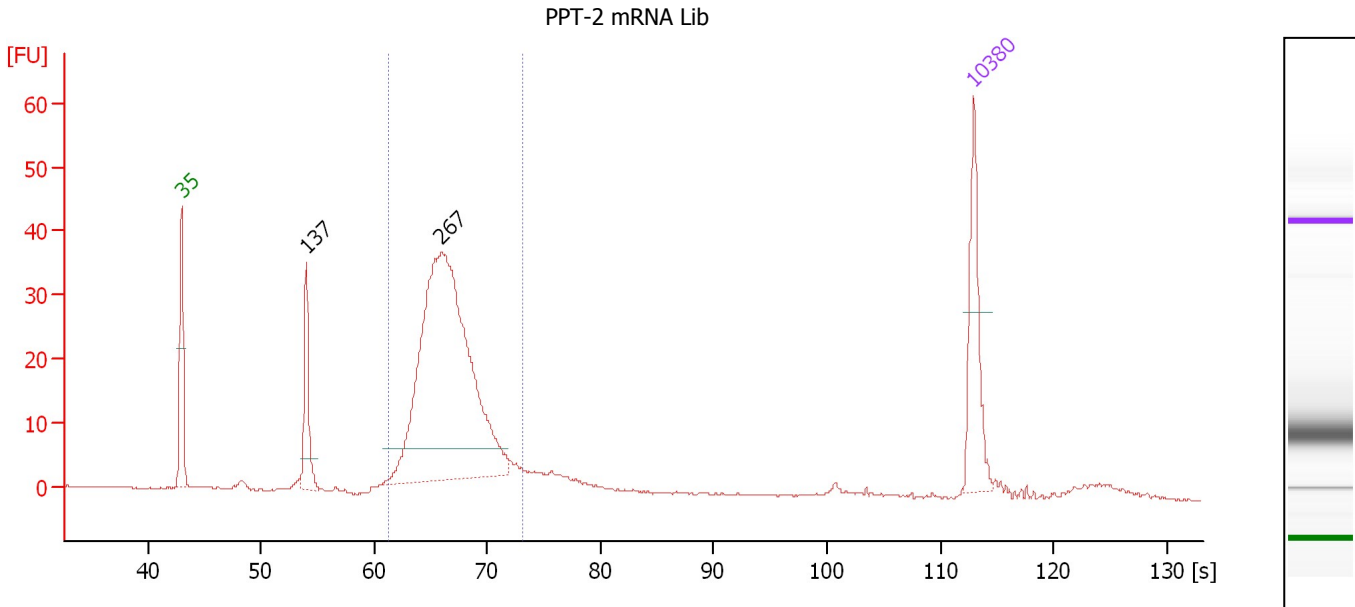
**Region table for sample 3 : MPT-1 mRNA Lib**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
61.78	71.60	270	1,792.5	318.12	231.9	90	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
 Modified: 6/10/2013 12:49:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : PPT-2 mRNA Lib**

Number of peaks found: 2                      Corr. Area 1: 320.6  
 Noise: 0.2

**Peak table for sample 4 : PPT-2 mRNA Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	137	86.58	959.9	
3	267	687.71	3,900.5	
4	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : PPT-2 mRNA Lib**

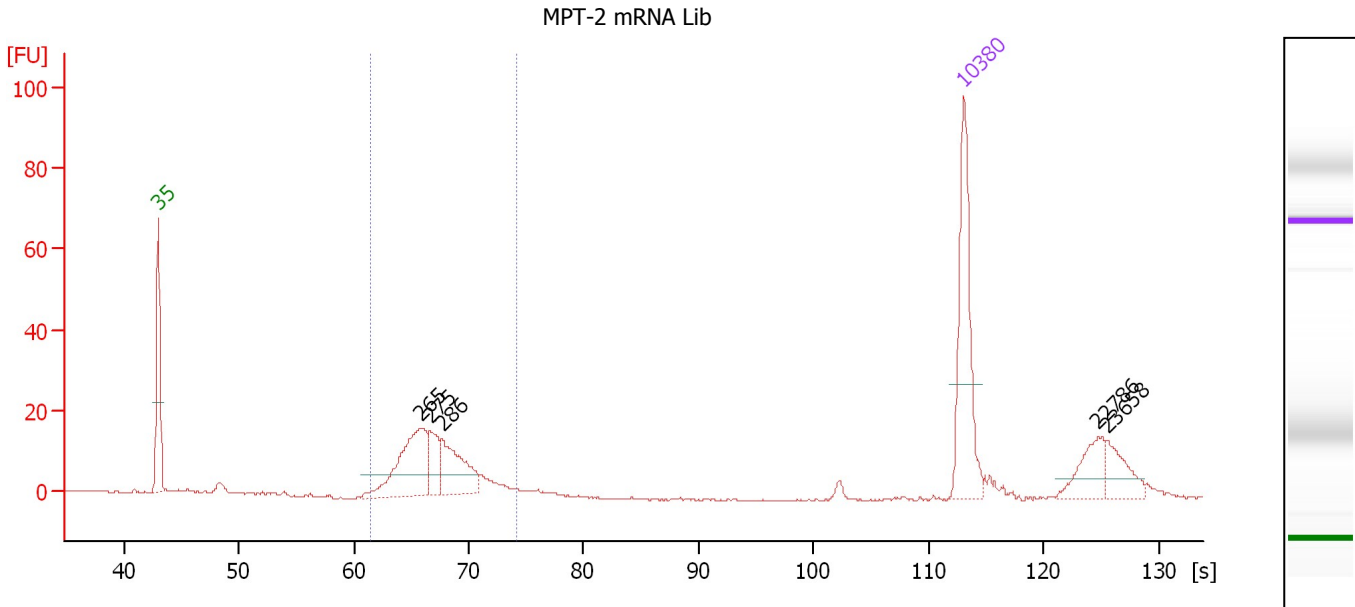
From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
61.31	73.16	276	4,213.2	760.56	320.6 78	9.6	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
 Modified: 6/10/2013 12:49:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : MPT-2 mRNA Lib**

Number of peaks found: 5                      Corr. Area 1: 148.5  
 Noise: 0.1

**Peak table for sample 5 : MPT-2 mRNA Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	265	92.39	527.3	
3	275	29.34	161.6	
4	286	57.11	302.2	
5	10,380	75.00	10.9	Upper Marker
6	22,786	0.00	0.0	
7	23,658	0.00	0.0	

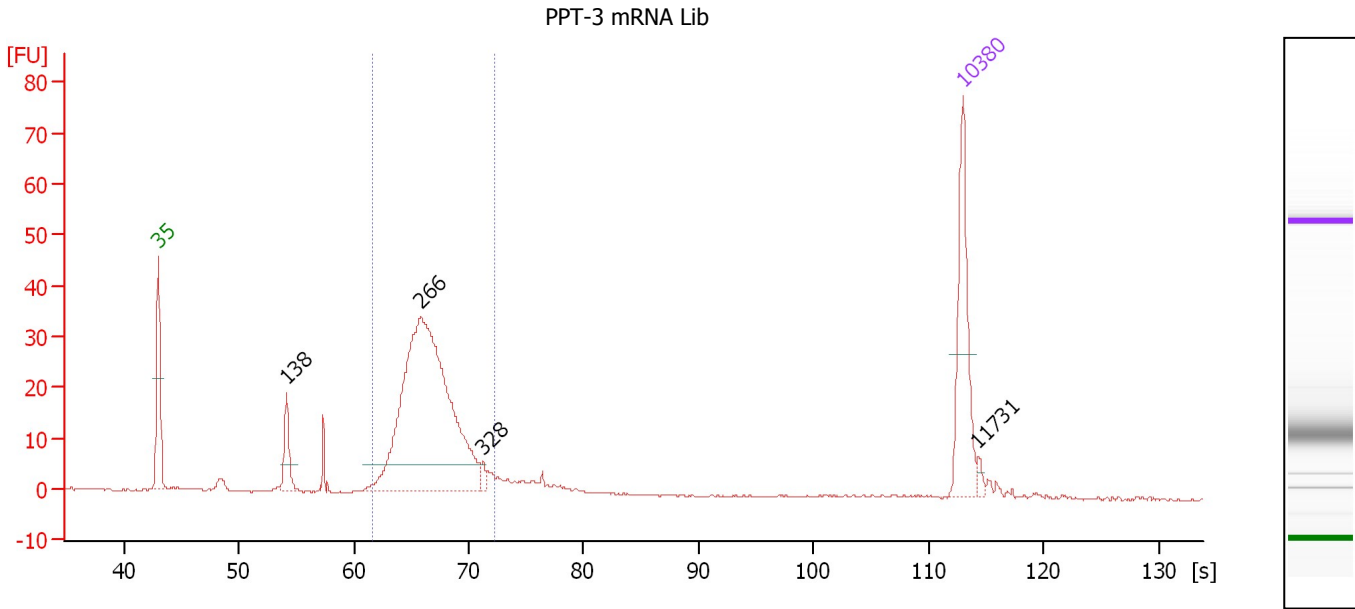
**Region table for sample 5 : MPT-2 mRNA Lib**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
61.49	74.14	281	1,011.7	185.72	148.5    66	10.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
 Modified: 6/10/2013 12:49:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : PPT-3 mRNA Lib**

Number of peaks found: 4                      Corr. Area 1: 266.1  
 Noise: 0.2

**Peak table for sample 6 : PPT-3 mRNA Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	138	36.39	399.2	
3	266	457.79	2,606.7	
4	328	7.17	33.1	
5	10,380	75.00	10.9	Upper Marker
6	11,731	0.00	0.0	

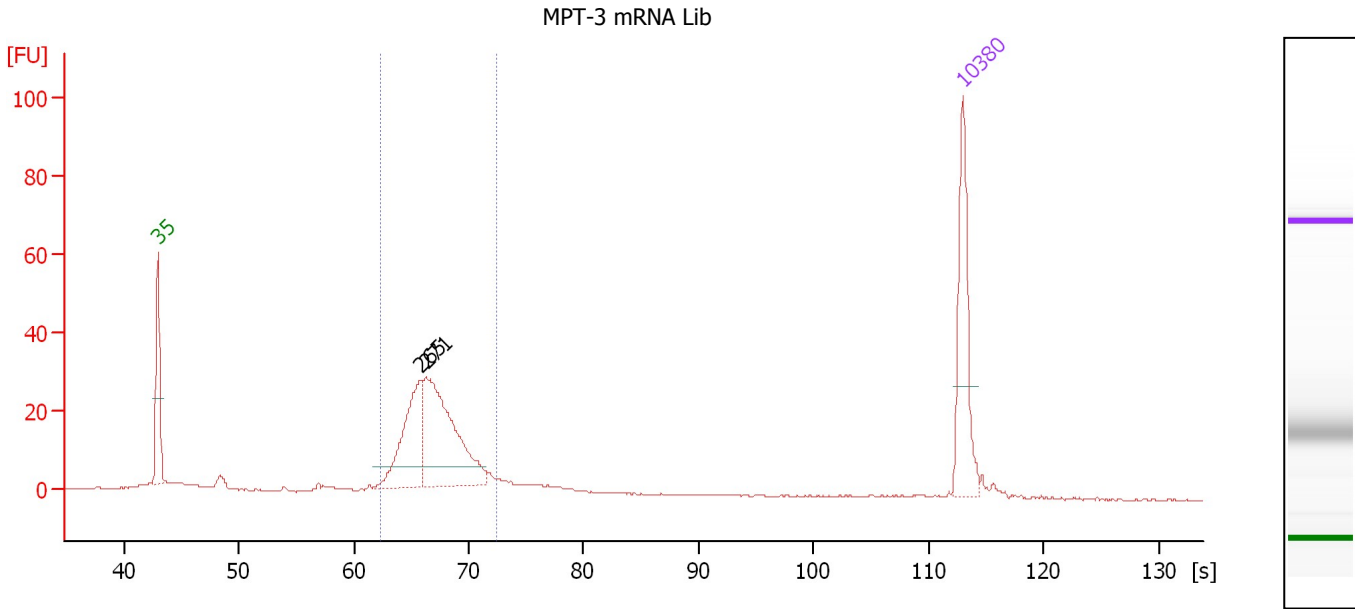
**Region table for sample 6 : PPT-3 mRNA Lib**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
61.70	72.29	275	2,649.6	477.70	266.1 77	8.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
 Modified: 6/10/2013 12:49:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : MPT-3 mRNA Lib**

Number of peaks found: 2                      Corr. Area 1: 237.0  
 Noise: 0.1

**Peak table for sample 7 : MPT-3 mRNA Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	265	113.80	650.4	
3	271	190.58	1,067.1	
4	10,380	75.00	10.9	Upper Marker

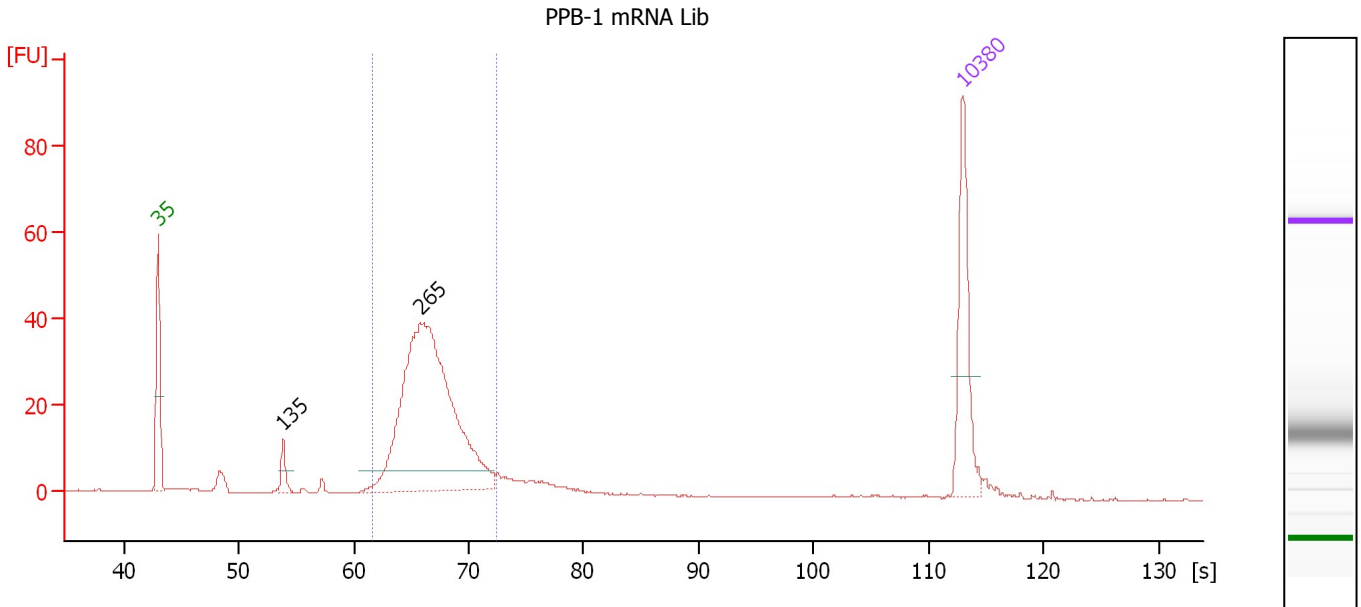
**Region table for sample 7 : MPT-3 mRNA Lib**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
62.34	72.49	279	1,838.3	336.15	237.0 76	8.7	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
 Modified: 6/10/2013 12:49:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : PPB-1 mRNA Lib**

Number of peaks found: 2                      Corr. Area 1: 317.1  
 Noise: 0.1

**Peak table for sample 8 : PPB-1 mRNA Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	135	18.68	210.3	
3	265	471.72	2,696.1	
4	10,380	75.00	10.9	Upper Marker

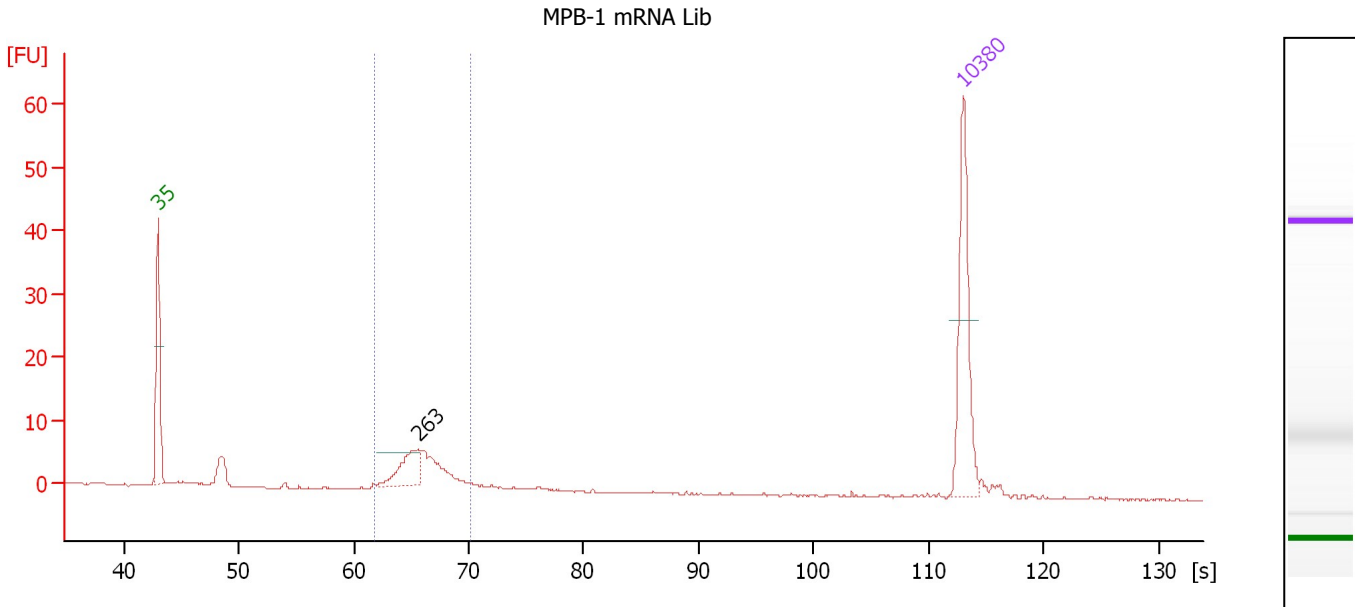
**Region table for sample 8 : PPB-1 mRNA Lib**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
61.67	72.42	276	2,622.6	474.41	317.1 81	8.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
 Modified: 6/10/2013 12:49:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : MPB-1 mRNA Lib**

Number of peaks found: 1                      Corr. Area 1: 40.7  
 Noise: 0.1

**Peak table for sample 9 : MPB-1 mRNA Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	263	40.62	234.2	
3	10,380	75.00	10.9	Upper Marker

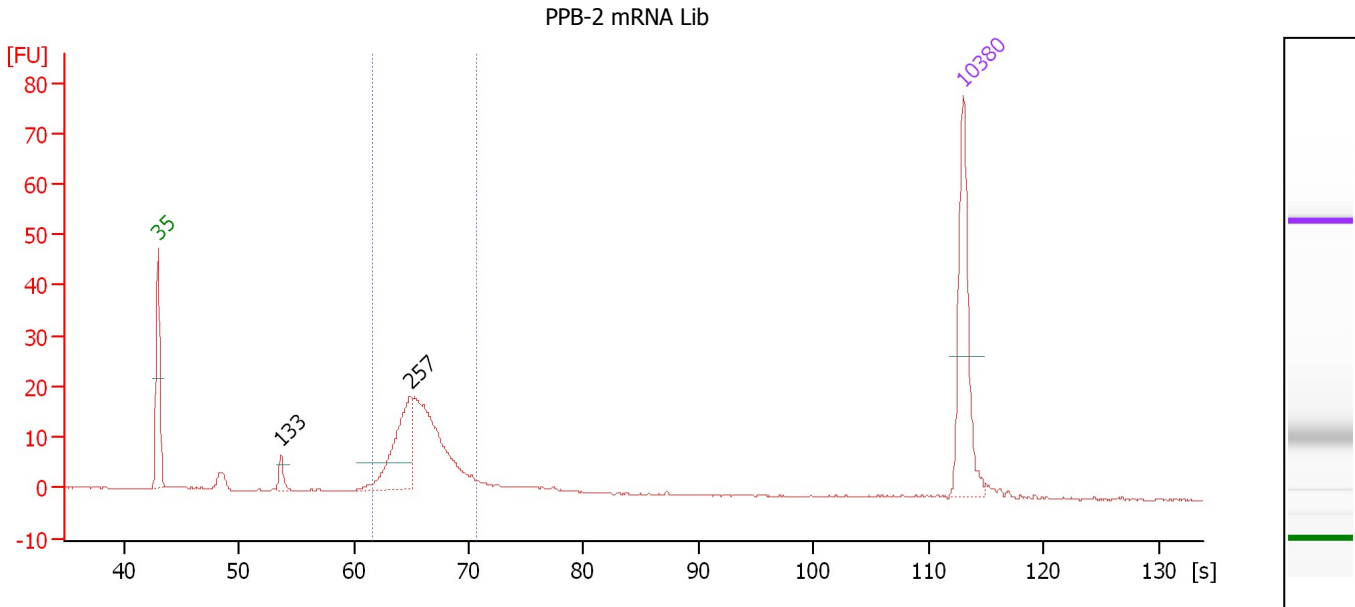
**Region table for sample 9 : MPB-1 mRNA Lib**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
61.88	70.23	268	531.8	93.70	40.7	65	7.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
 Modified: 6/10/2013 12:49:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : PPB-2 mRNA Lib**

Number of peaks found: 2                      Corr. Area 1: 133.8  
 Noise: 0.1

**Peak table for sample 10 : PPB-2 mRNA Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	133	13.64	155.8	
3	257	91.25	538.6	
4	10,380	75.00	10.9	Upper Marker

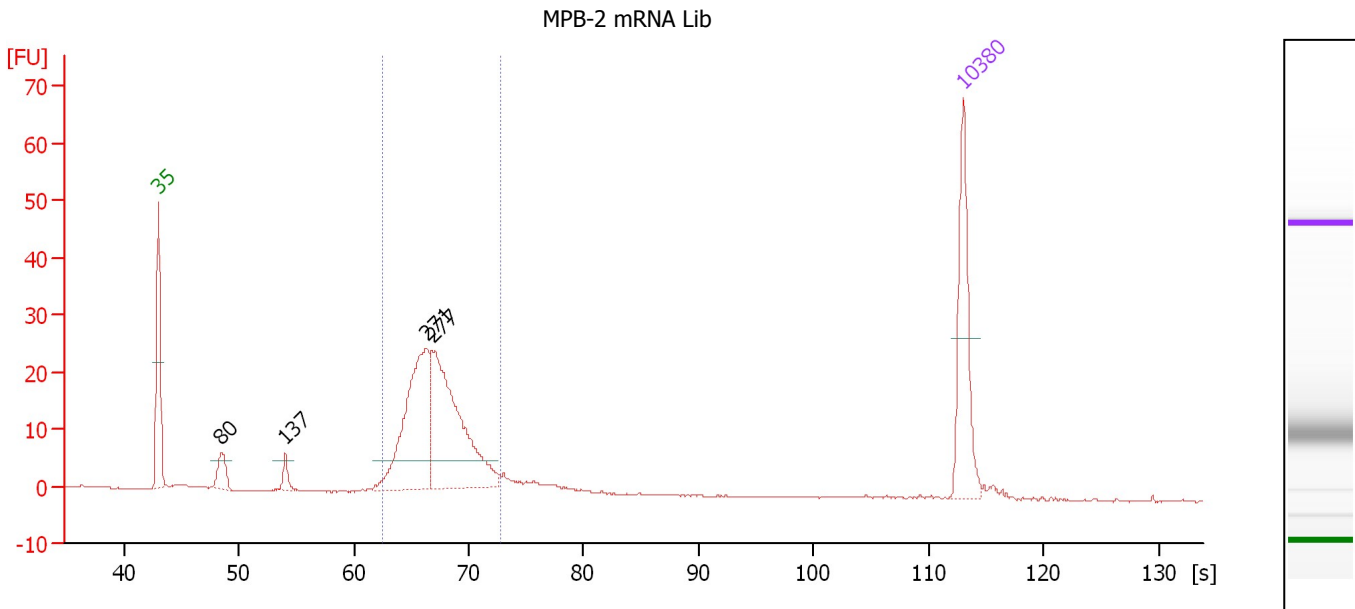
**Region table for sample 10 : PPB-2 mRNA Lib**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
61.72	70.68	266	1,381.4	242.09	133.8 78	7.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
 Modified: 6/10/2013 12:49:22 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : MPB-2 mRNA Lib**

Number of peaks found: 4                      Corr. Area 1: 203.7  
 Noise: 0.1

**Peak table for sample 11 : MPB-2 mRNA Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	80	28.28	536.8	
3	137	13.30	147.3	
4	271	184.59	1,032.2	
5	277	218.13	1,195.0	
6	10,380	75.00	10.9	Upper Marker

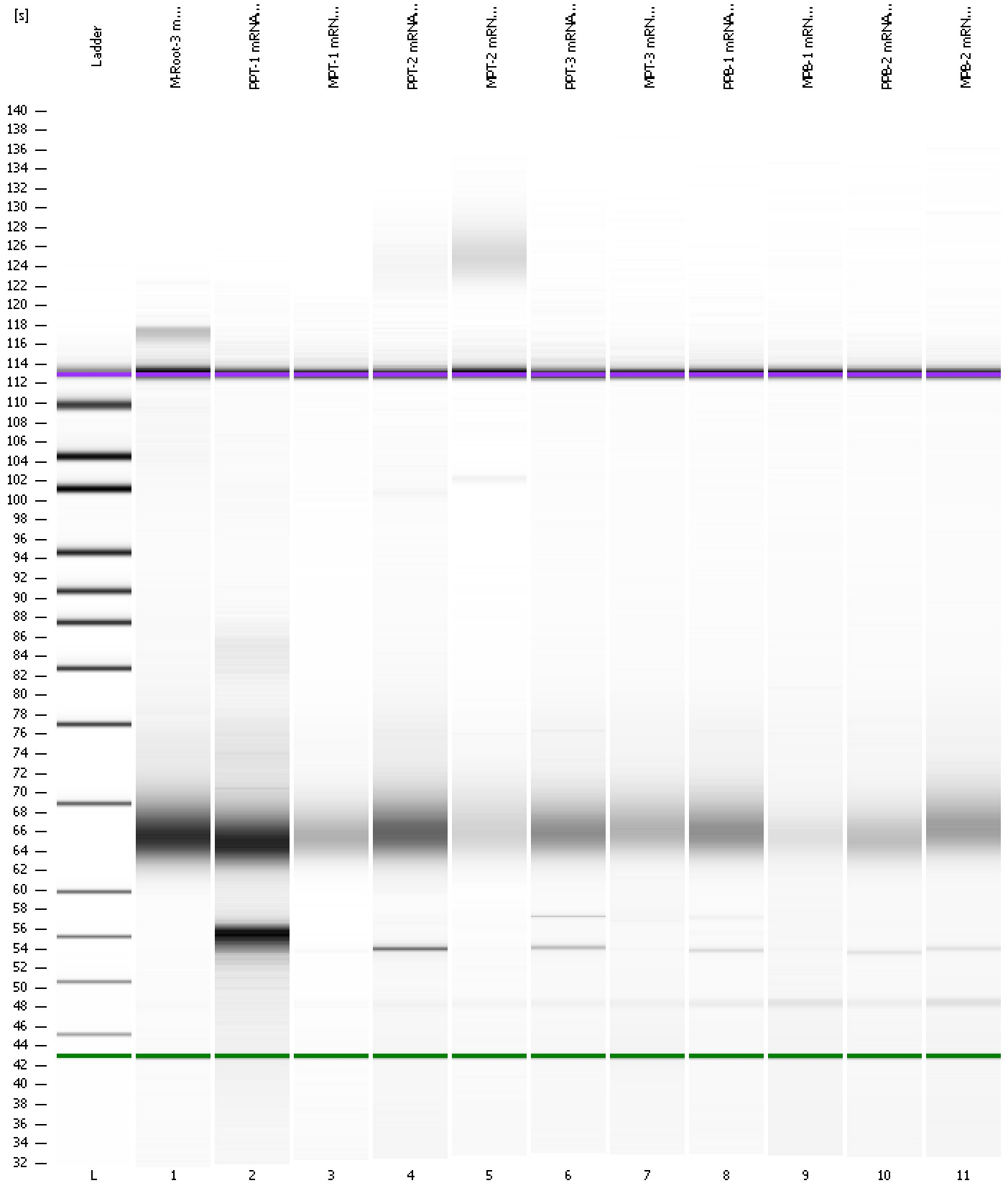
**Region table for sample 11 : MPB-2 mRNA Lib**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
62.44	72.83	281	2,283.7	420.68	203.7 81	8.8	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
Modified: 6/10/2013 12:49:22 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-06-10\2013-06-10\_004.xad

Created: 6/10/2013 12:07:34 PM  
 Modified: 6/10/2013 12:49:22 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 12)		Instrument	Run		6/10/2013 12:48:01 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-06-10\2013-06-10_004.xad)		Instrument	Run		6/10/2013 12:07:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		6/10/2013 12:07:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/10/2013 12:07:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/10/2013 12:07:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		6/10/2013 12:07:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/10/2013 12:07:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/10/2013 12:07:39 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1