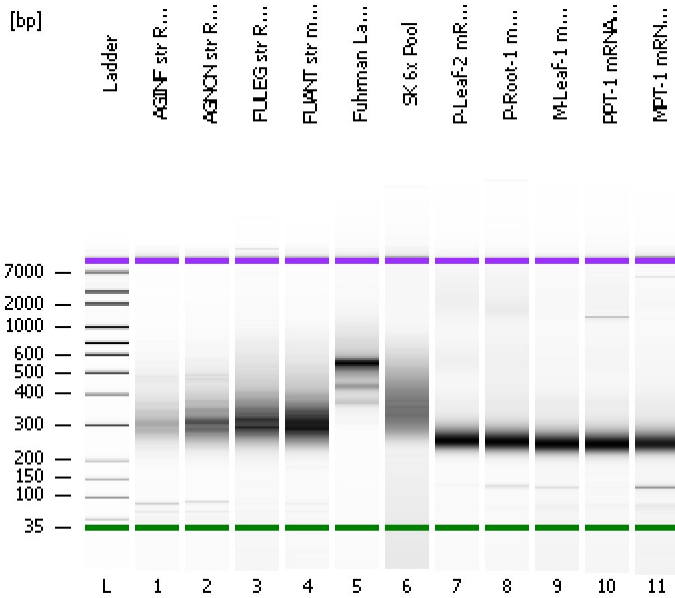


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
Modified: 7/19/2013 1:47:44 PM

Electrophoresis File Run Summary



Instrument Information:

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

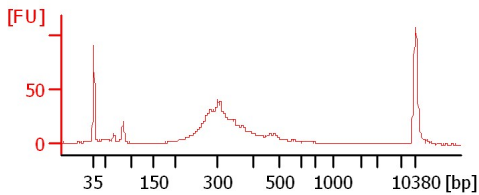
Assay Information:

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

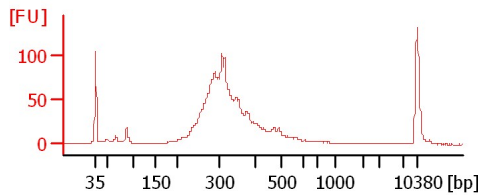
Chip Information:

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

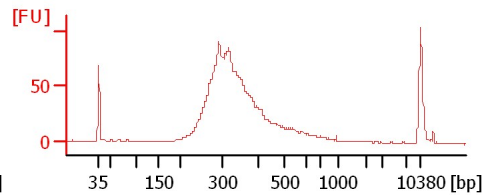
AGINF str RNA Lib



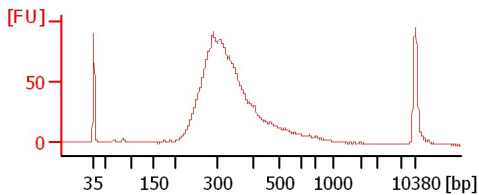
AGNON str RNA Lib



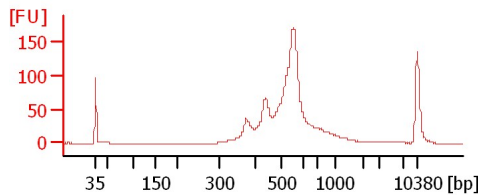
FULEG str RNA Lib 1:2



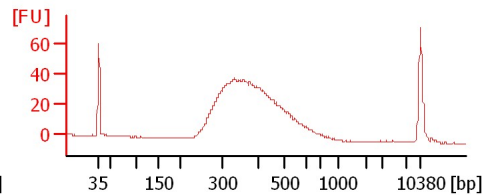
FUANT str mRNA Lib 1:2



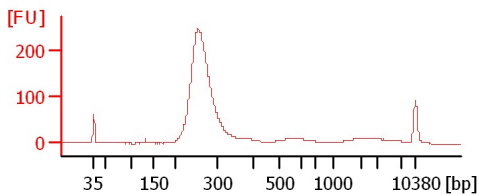
Fuhrman Lab Pool



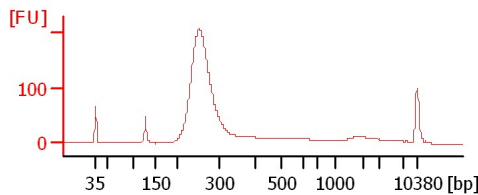
SK 6x Pool



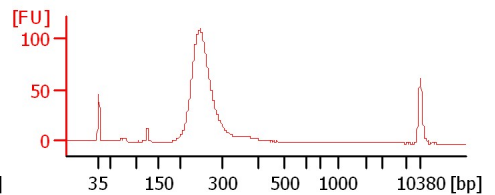
P-Leaf-2 mRNA Lib



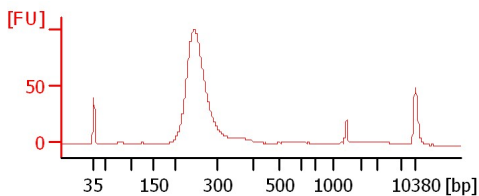
P-Root-1 mRNA Lib



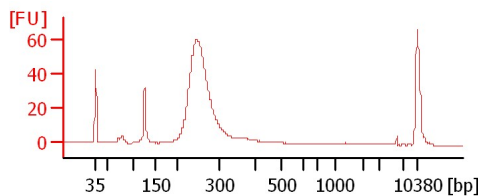
M-Leaf-1 mRNA Lib



PPT-1 mRNA Lib



MPT-1 mRNA Lib



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
Modified: 7/19/2013 1:47:44 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
AGINF str RNA Lib		<input type="checkbox"/>	✓			
AGNON str RNA Lib		<input type="checkbox"/>	✓			
FULEG str RNA Lib 1:2		<input type="checkbox"/>	✓			
FUANT str mRNA Lib 1:2		<input type="checkbox"/>	✓			
Fuhrman Lab Pool		<input type="checkbox"/>	✓			
SK 6x Pool		<input type="checkbox"/>	✓			
P-Leaf-2 mRNA Lib		<input type="checkbox"/>	✓			
P-Root-1 mRNA Lib		<input type="checkbox"/>	✓			
M-Leaf-1 mRNA Lib		<input type="checkbox"/>	✓			
PPT-1 mRNA Lib		<input type="checkbox"/>	✓			
MPT-1 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\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
Modified: 7/19/2013 1:47:44 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

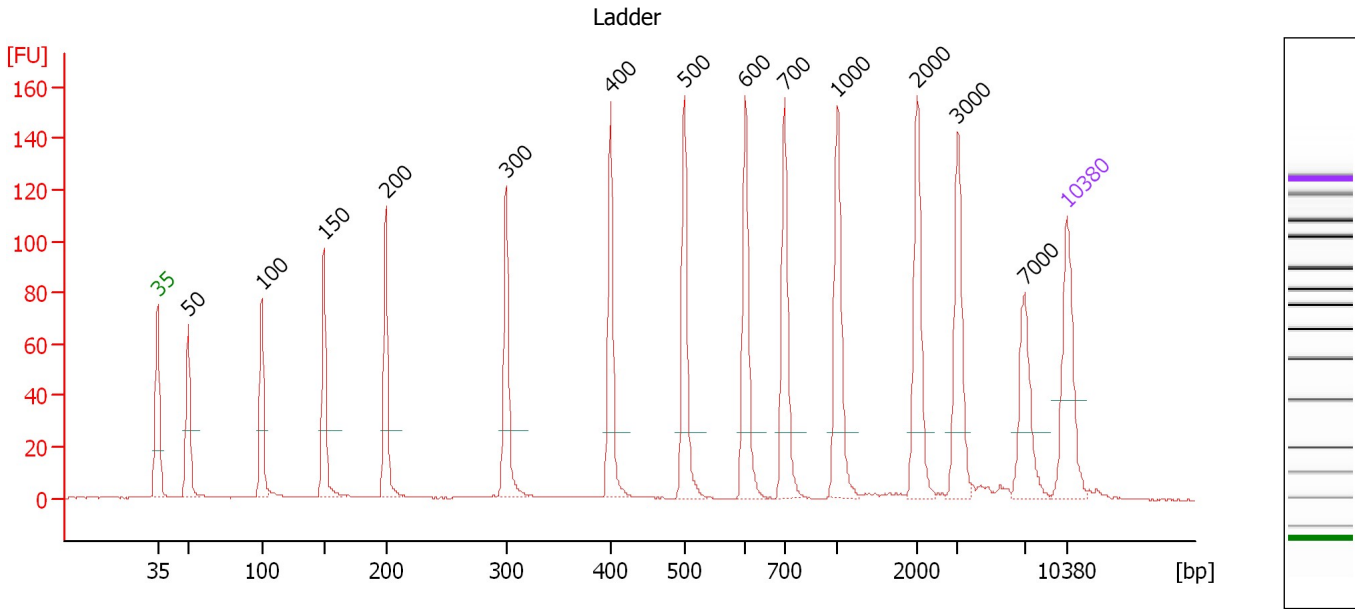
Ladder

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\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
 Modified: 7/19/2013 1:47:44 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

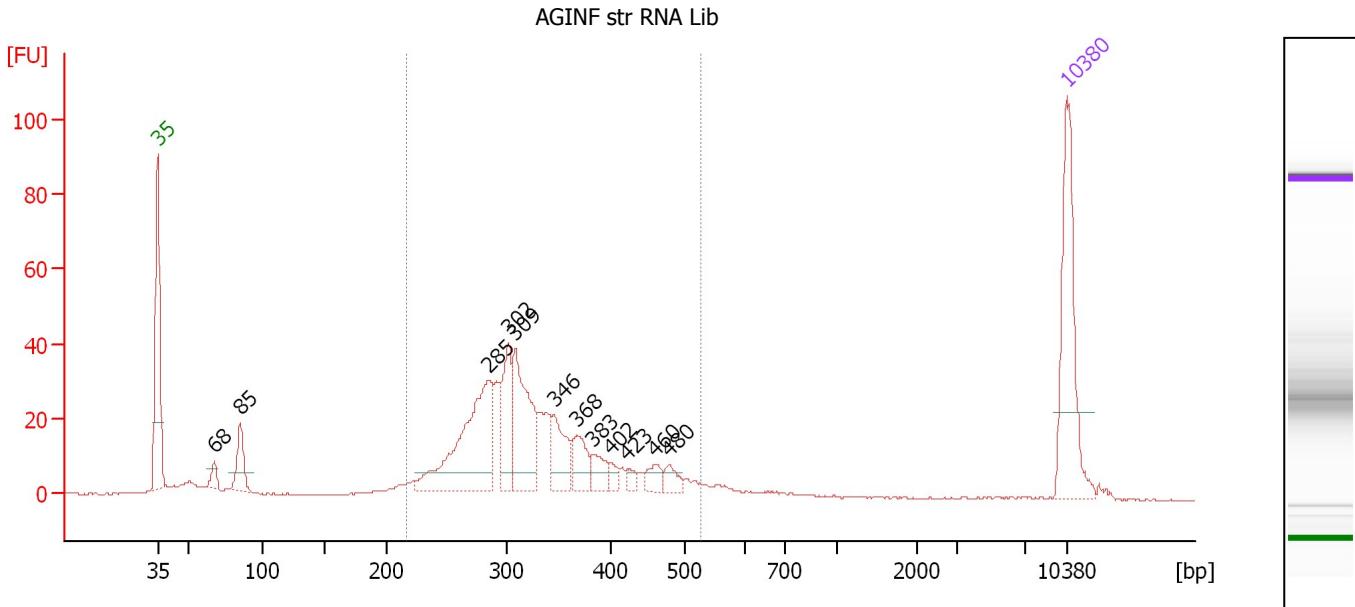
Peak table for Ladder

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\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
 Modified: 7/19/2013 1:47:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : AGINF str RNA Lib

Number of peaks found: 12 Corr. Area 1: 483.2
 Noise: 0.2

Peak table for sample 1 : AGINF str RNA Lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	68	10.20	228.4	
3	85	32.56	578.7	
4	285	145.95	775.8	
5	302	52.72	264.2	
6	309	90.36	443.5	
7	346	37.91	166.2	
8	368	26.63	109.6	
9	383	17.71	70.1	
10	402	6.91	26.1	
11	423	6.11	21.9	
12	460	11.86	39.1	
13	480	10.66	33.6	
14	10,380	75.00	10.9	Upper Marker

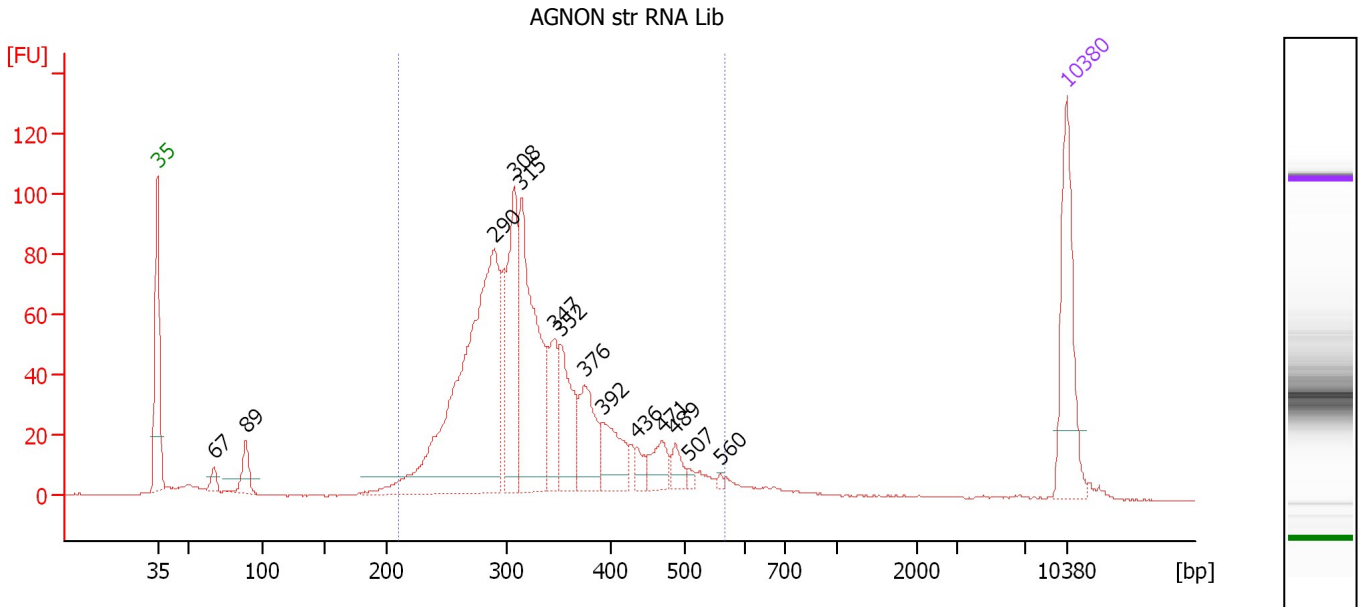
Region table for sample 1 : AGINF str RNA Lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
218	527	330	2,552.4	532.08	483.2	82	19.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
 Modified: 7/19/2013 1:47:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : AGNON str RNA Lib

Number of peaks found: 14 Corr. Area 1: 1,222.2
 Noise: 0.1

Peak table for sample 2 : AGNON str RNA Lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	67	10.11	227.1	
3	89	29.19	495.5	
4	290	406.49	2,123.7	
5	308	121.63	597.9	
6	315	196.67	947.2	
7	347	54.51	238.3	
8	352	69.34	298.2	
9	376	59.81	241.3	
10	392	46.33	178.9	
11	436	11.23	39.0	
12	471	24.79	79.8	
13	489	14.19	44.0	
14	507	4.51	13.5	
15	560	2.50	6.8	
16	10,380	75.00	10.9	Upper Marker

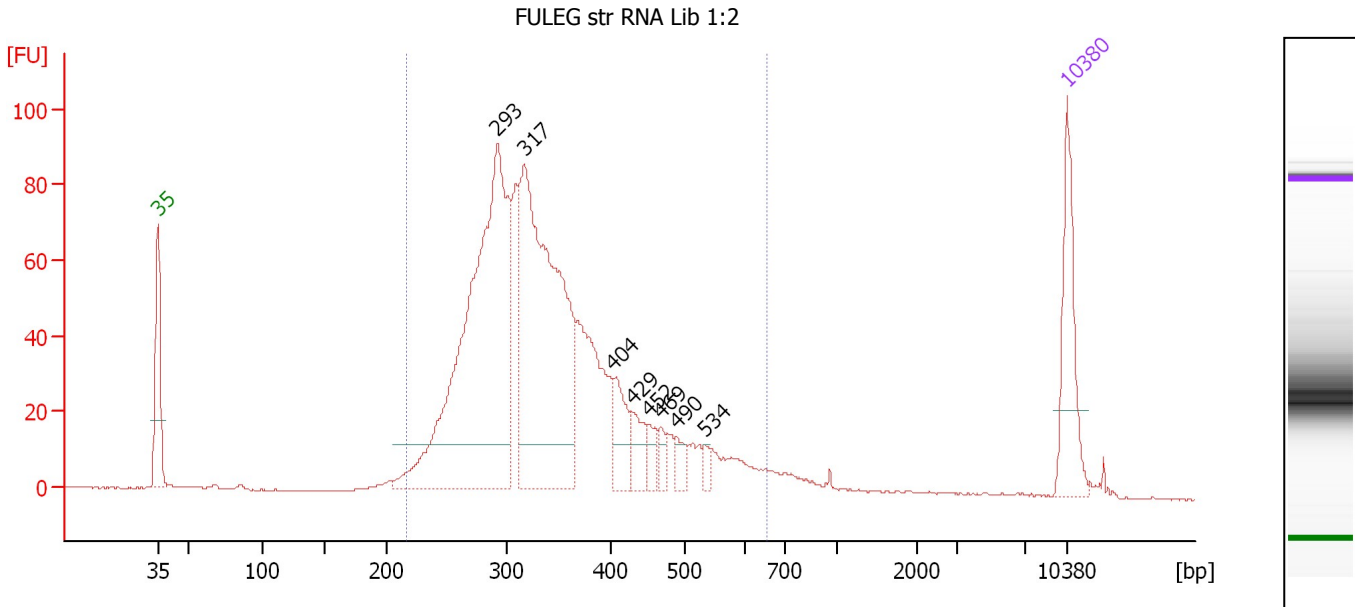
Region table for sample 2 : AGNON str RNA Lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
211	568	331	5,428.5	1,130.32	1,222.2	90	20.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
 Modified: 7/19/2013 1:47:44 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 3 : FULEG str RNA Lib 1:2

Height Threshold [FU] : 12

Overall Results for sample 3 : FULEG str RNA Lib 1:2

Number of peaks found: 8 Corr. Area 1: 1,335.4
 Noise: 0.1

Peak table for sample 3 : FULEG str RNA Lib 1:2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	293	643.32	3,330.1	
3	317	505.89	2,414.8	
4	404	52.30	196.3	
5	429	31.18	110.0	
6	452	20.33	68.2	
7	469	15.64	50.6	
8	490	16.12	49.8	
9	534	9.33	26.5	
10	10,380	75.00	10.9	Upper Marker

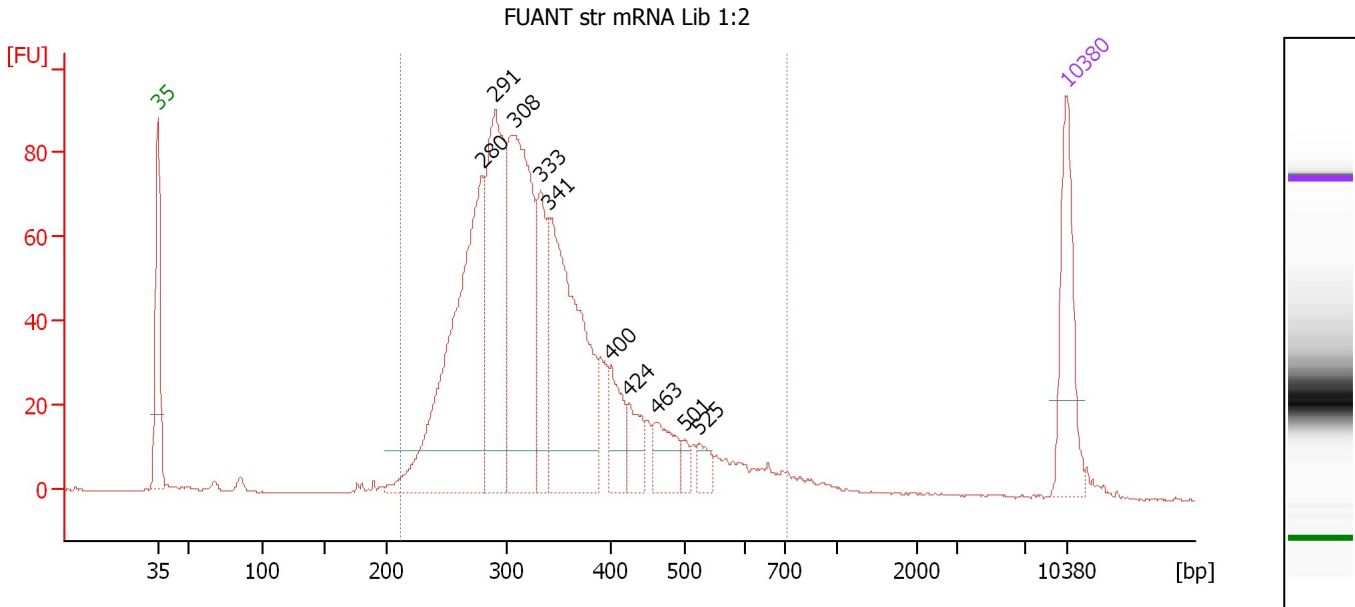
Region table for sample 3 : FULEG str RNA Lib 1:2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
217	654	347	7,655.3	1,645.29	1,335.4	95	23.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
 Modified: 7/19/2013 1:47:44 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 4 : FUANT str mRNA Lib 1:2

Height Threshold [FU] : 10

Overall Results for sample 4 : FUANT str mRNA Lib 1:2

Number of peaks found: 10 Corr. Area 1: 1,401.6
 Noise: 0.2

Peak table for sample 4 : FUANT str mRNA Lib 1:2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	280	410.75	2,222.2	
3	291	260.69	1,357.9	
4	308	317.75	1,563.5	
5	333	98.36	447.6	
6	341	298.45	1,325.0	
7	400	48.66	184.5	
8	424	38.10	136.2	
9	463	45.07	147.6	
10	501	10.71	32.4	
11	525	17.93	51.7	
12	10,380	75.00	10.9	Upper Marker

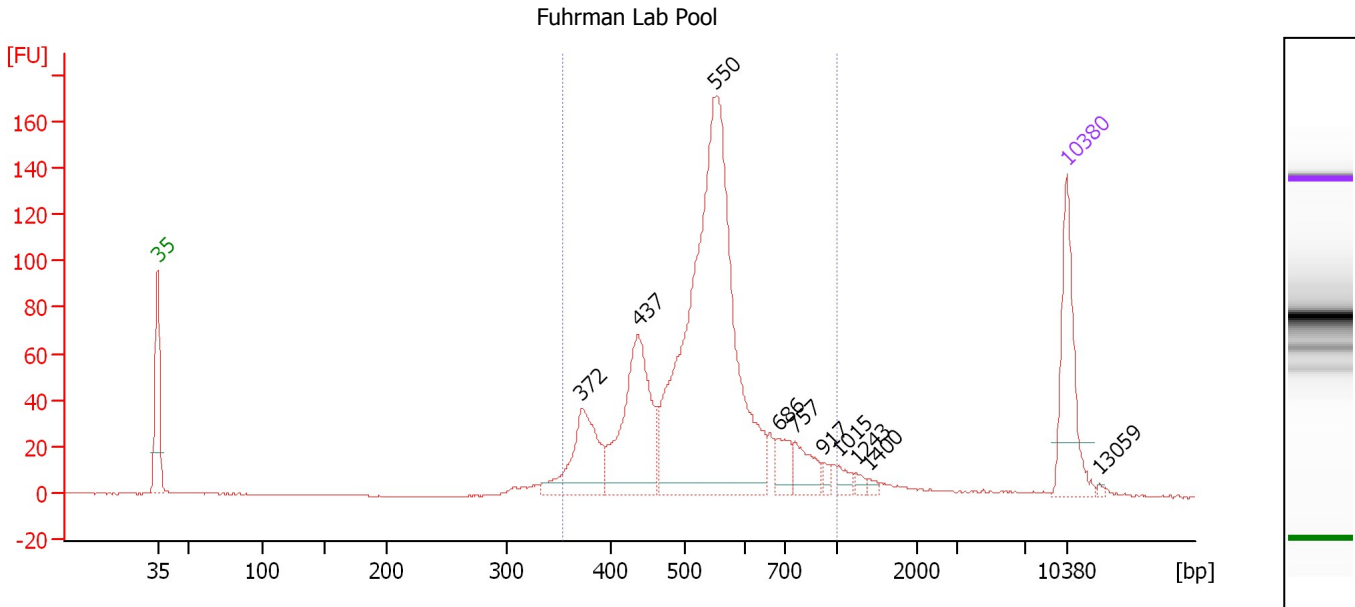
Region table for sample 4 : FUANT str mRNA Lib 1:2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
212	710	343	7,888.1	1,668.92	1,401.6	96	24.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
 Modified: 7/19/2013 1:47:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Fuhrman Lab Pool

Number of peaks found: 10 Corr. Area 1: 1,259.9
 Noise: 0.1

Peak table for sample 5 : Fuhrman Lab Pool

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	372	98.33	400.2	
3	437	168.01	582.1	
4	550	580.90	1,601.3	
5	686	25.30	55.9	
6	757	31.73	63.5	
7	917	6.70	11.1	
8	1,015	9.02	13.5	
9	1,243	5.20	6.3	
10	1,400	3.93	4.3	
11	10,380	75.00	10.9	Upper Marker
12	13,059	0.00	0.0	

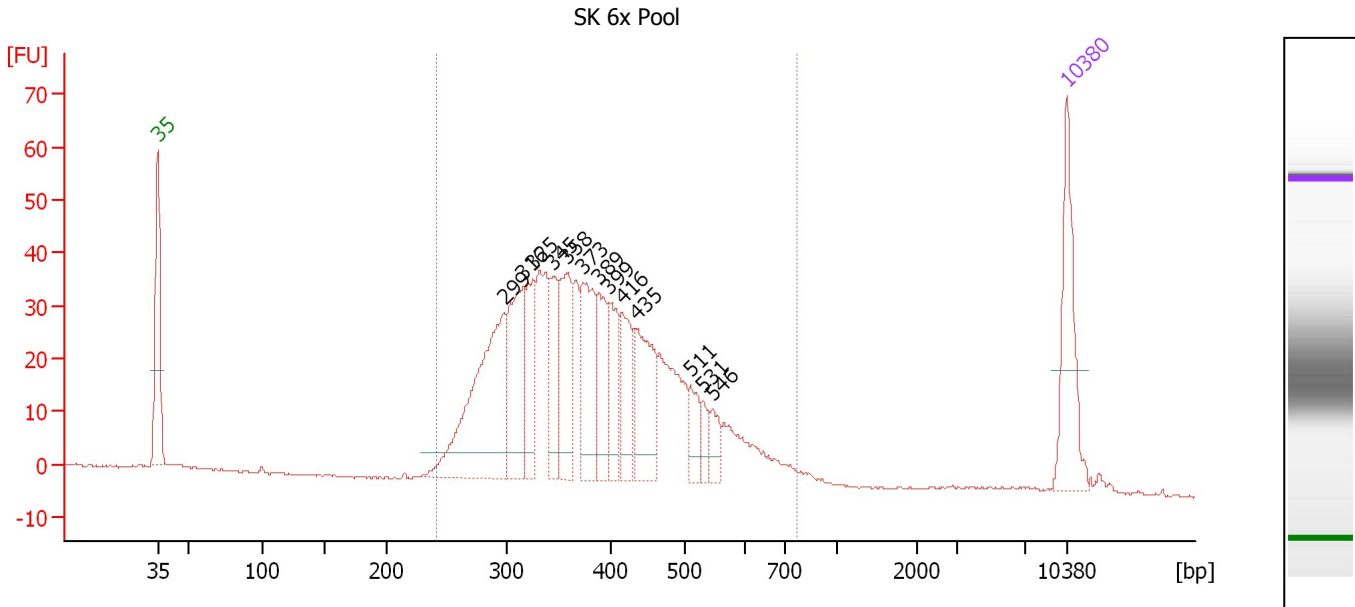
Region table for sample 5 : Fuhrman Lab Pool

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
354	1,000	537	2,790.8	941.52	1,259.9	90	20.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
 Modified: 7/19/2013 1:47:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : SK 6x Pool

Number of peaks found: 13 Corr. Area 1: 813.1
 Noise: 0.2

Peak table for sample 6 : SK 6x Pool

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	299	231.33	1,173.3	
3	316	116.75	559.5	
4	325	70.34	327.6	
5	345	56.53	248.4	
6	358	88.81	375.7	
7	373	97.24	394.5	
8	389	67.65	263.3	
9	399	56.04	212.8	
10	416	60.86	221.8	
11	435	96.52	336.4	
12	511	29.48	87.5	
13	531	16.73	47.7	
14	546	20.93	58.1	
15	10,380	75.00	10.9	Upper Marker

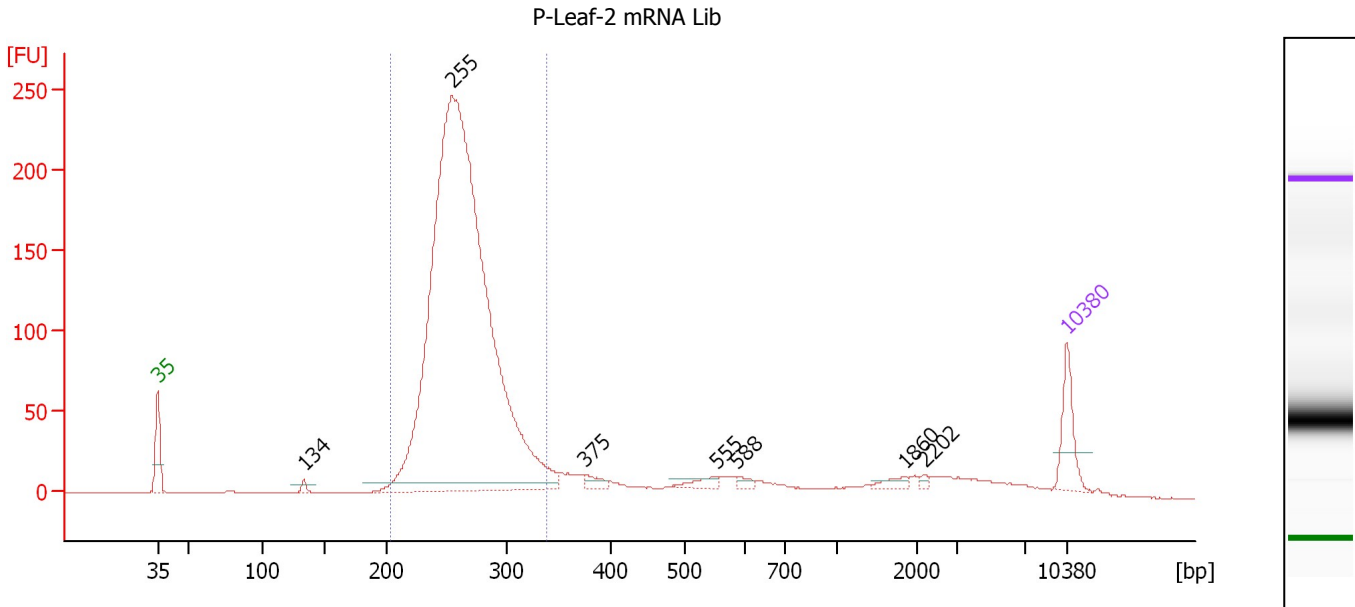
Region table for sample 6 : SK 6x Pool

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
242	764	393	5,572.2	1,347.07	813.1	98	23.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
 Modified: 7/19/2013 1:47:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : P-Leaf-2 mRNA Lib

Number of peaks found: 7 Corr. Area 1: 1,871.8
 Noise: 0.2

Peak table for sample 7 : P-Leaf-2 mRNA Lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	134	14.47	164.1	
3	255	3,051.67	18,117.3	
4	375	23.19	93.6	
5	555	23.94	65.3	
6	588	12.22	31.5	
7	1,860	15.16	12.4	
8	2,202	5.45	3.8	
9	10,380	75.00	10.9	Upper Marker

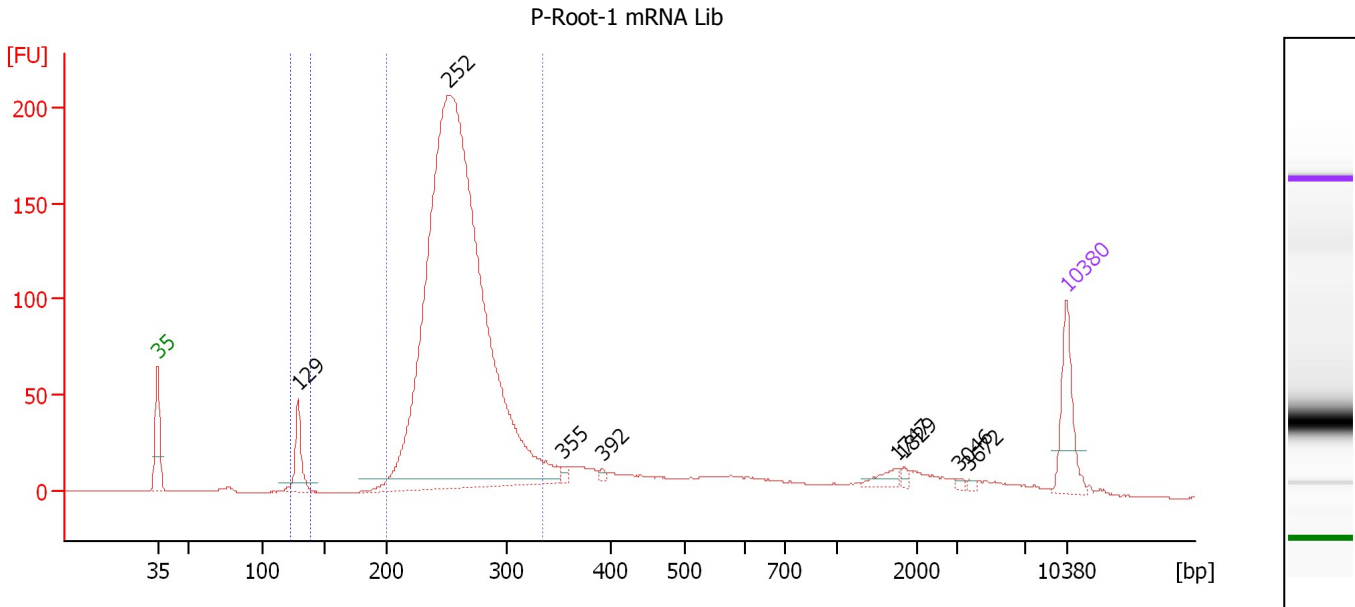
Region table for sample 7 : P-Leaf-2 mRNA Lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
205	338	264	17,378.1	3,018.48	1,871.8	80	9.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
 Modified: 7/19/2013 1:47:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : P-Root-1 mRNA Lib

Number of peaks found: 8 Corr. Area 1: 1,611.4
 Noise: 0.1 Corr. Area 2: 46.6

Peak table for sample 8 : P-Root-1 mRNA Lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	129	82.35	967.0	
3	252	2,196.66	13,187.5	
4	355	9.19	39.2	
5	392	6.03	23.3	
6	1,747	15.53	13.5	
7	1,829	6.32	5.2	
8	3,046	3.36	1.7	
9	3,672	2.89	1.2	
10	10,380	75.00	10.9	Upper Marker

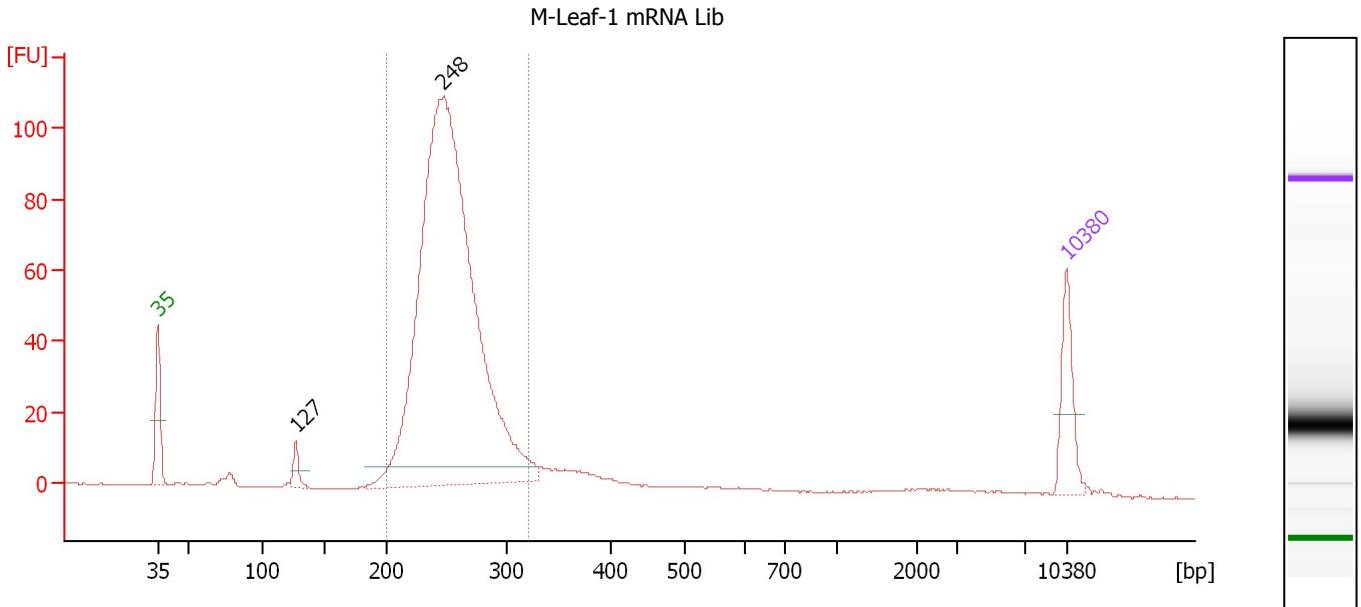
Region table for sample 8 : P-Root-1 mRNA Lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
122	138	130	888.1	75.94	46.6	2	2.2	Blue
200	334	260	12,812.4	2,192.93	1,611.4	77	9.4	Dark Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
 Modified: 7/19/2013 1:47:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : M-Leaf-1 mRNA Lib

Number of peaks found: 2 Corr. Area 1: 802.9
 Noise: 0.1

Peak table for sample 9 : M-Leaf-1 mRNA Lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	127	31.99	380.8	
3	248	1,813.13	11,084.6	
4	10,380	75.00	10.9	Upper Marker

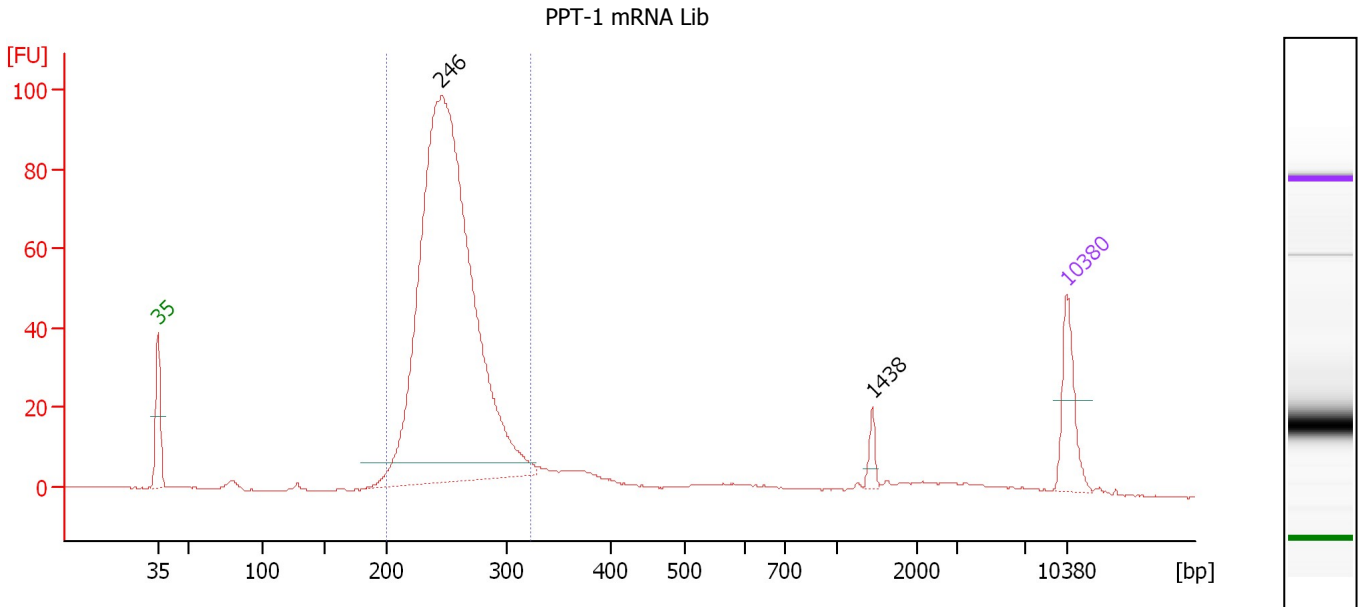
Region table for sample 9 : M-Leaf-1 mRNA Lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	322	254	10,835.6	1,809.55	802.9	88	8.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
 Modified: 7/19/2013 1:47:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : PPT-1 mRNA Lib

Number of peaks found: 2 Corr. Area 1: 725.1
 Noise: 0.1

Peak table for sample 10 : PPT-1 mRNA Lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	246	1,941.12	11,938.7	
3	1,438	19.81	20.9	
4	10,380	75.00	10.9	Upper Marker

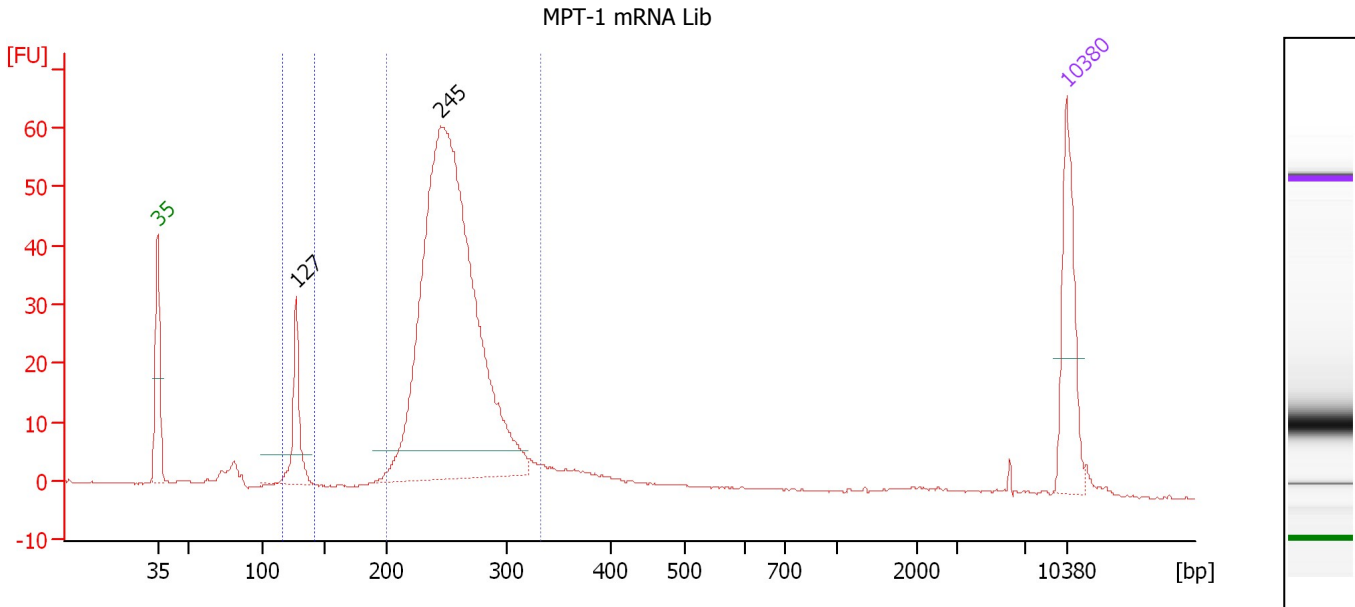
Region table for sample 10 : PPT-1 mRNA Lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	323	254	12,039.6	2,009.70	725.1	83	9.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
 Modified: 7/19/2013 1:47:44 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : MPT-1 mRNA Lib

Number of peaks found: 2 Corr. Area 1: 449.8
 Noise: 0.1 Corr. Area 2: 32.3

Peak table for sample 11 : MPT-1 mRNA Lib

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	127	79.27	944.6	
3	245	894.79	5,523.9	
4	10,380	75.00	10.9	Upper Marker

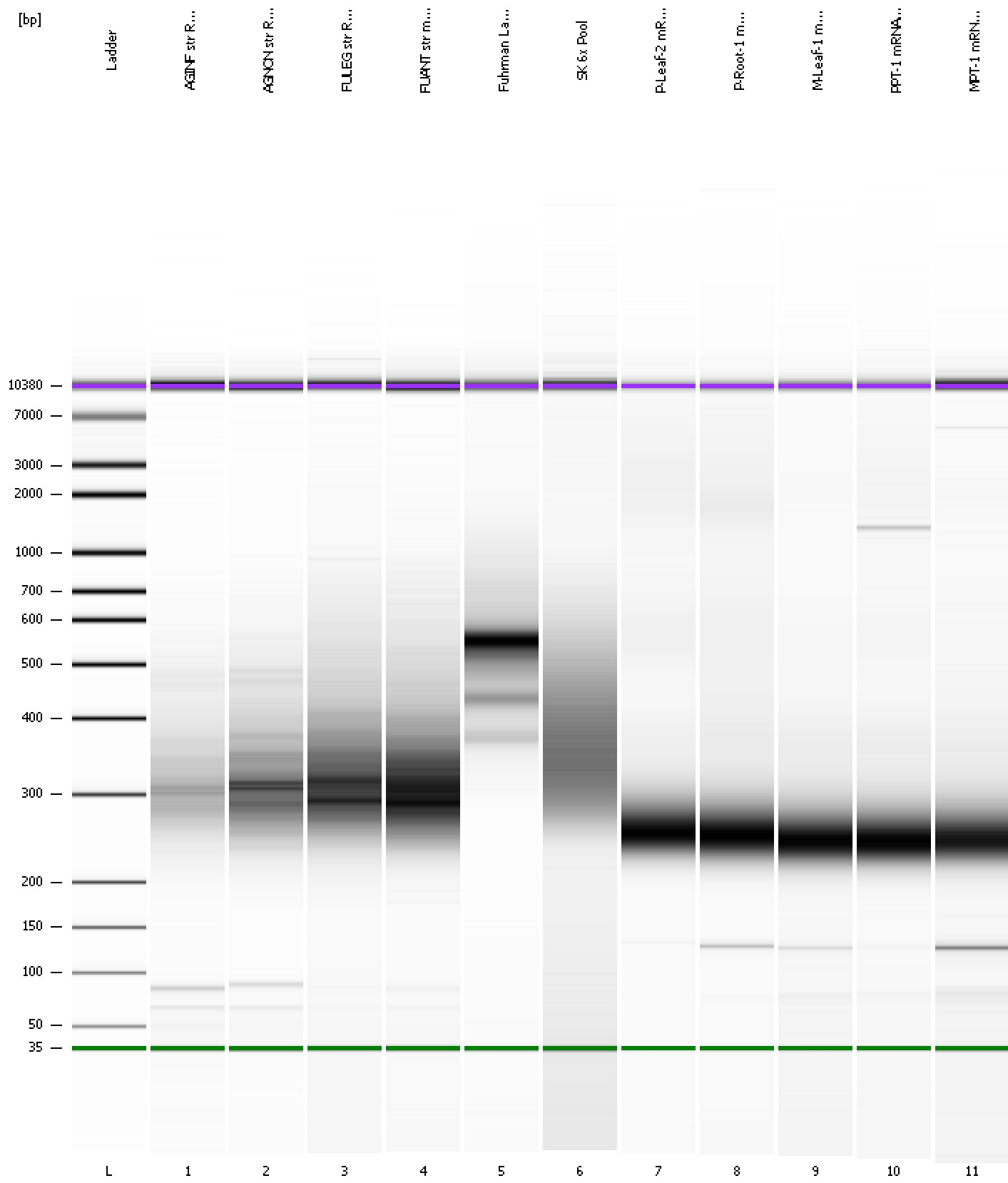
Region table for sample 11 : MPT-1 mRNA Lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
117	142	128	952.3	80.22	32.3	6	2.9	Blue
200	333	256	5,536.5	932.80	449.8	82	9.4	Dark Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
Modified: 7/19/2013 1:47:44 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-19\2013-07-19_002.xad

Created: 7/19/2013 1:03:06 PM
 Modified: 7/19/2013 1:47:44 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		7/19/2013 1:44:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-07-19\2013-07-19_002.xad)		Instrument	Run		7/19/2013 1:03:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		7/19/2013 1:03:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/19/2013 1:03:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/19/2013 1:03:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		7/19/2013 1:03:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/19/2013 1:03:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/19/2013 1:03:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1