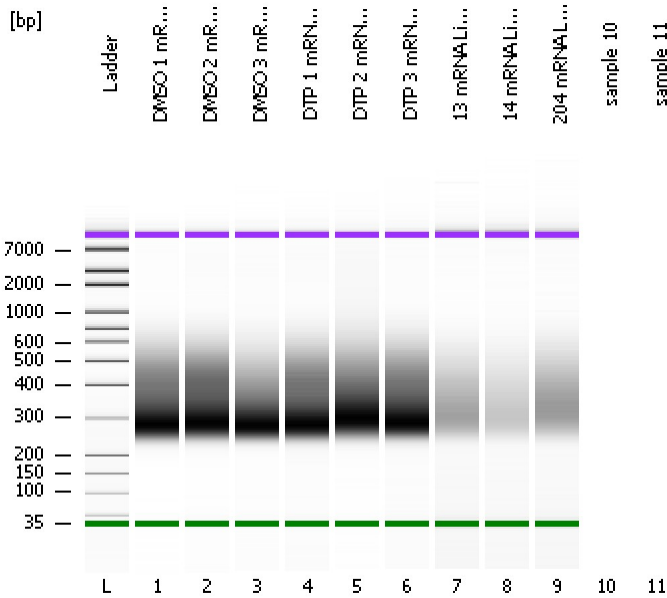


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-08\2013-01-08_003.xad

Created: 1/8/2013 3:53:33 PM
Modified: 1/8/2013 4:30:01 PM

Electrophoresis File Run Summary



Instrument Information:

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

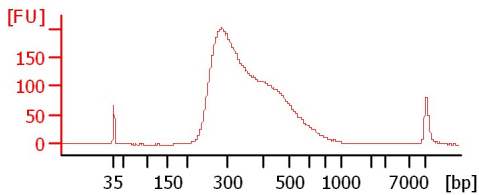
Assay Information:

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

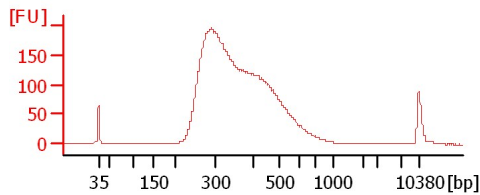
Chip Information:

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

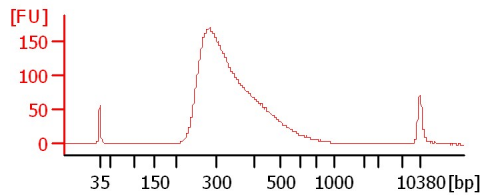
DMSO 1 mRNA Lib 1:2



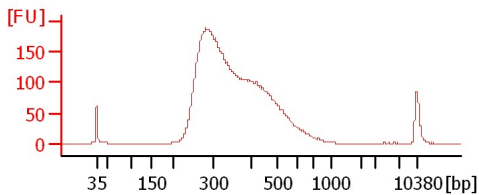
DMSO 2 mRNA Lib 1:2



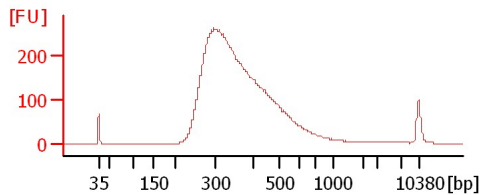
DMSO 3 mRNA Lib 1:3



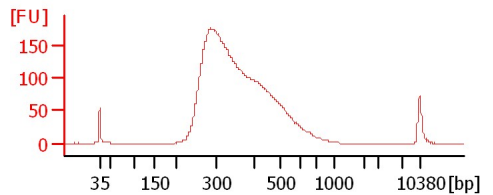
DTP 1 mRNA Lib 1:2



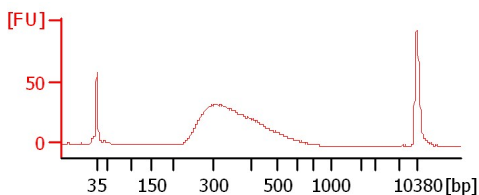
DTP 2 mRNA Lib 1:3



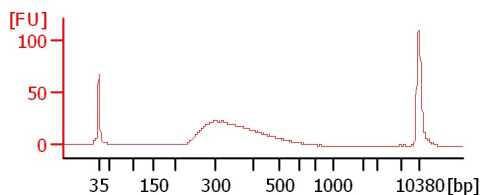
DTP 3 mRNA Lib 1:2



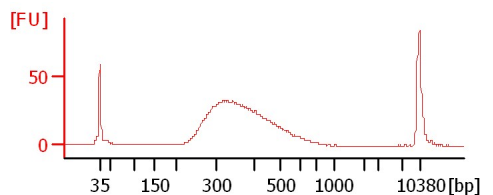
13 mRNA Lib (O'Neil)



14 mRNA Lib (O'Neil)



204 mRNA Lib (O'Neil)



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-08\2013-01-08_003.xad

Created: 1/8/2013 3:53:33 PM
Modified: 1/8/2013 4:30:01 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
DMSO 1 mRNA Lib 1:2		<input type="checkbox"/>	✓			
DMSO 2 mRNA Lib 1:2		<input type="checkbox"/>	✓			
DMSO 3 mRNA Lib 1:3		<input type="checkbox"/>	✓			
DTP 1 mRNA Lib 1:2		<input type="checkbox"/>	✓			
DTP 2 mRNA Lib 1:3		<input type="checkbox"/>	✓			
DTP 3 mRNA Lib 1:2		<input type="checkbox"/>	✓			
13 mRNA Lib (O'Neil)		<input type="checkbox"/>	✓			
14 mRNA Lib (O'Neil)		<input type="checkbox"/>	✓			
204 mRNA Lib (O'Neil)		<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\2013-01-08\2013-01-08_003.xad

Created: 1/8/2013 3:53:33 PM
Modified: 1/8/2013 4:30:01 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

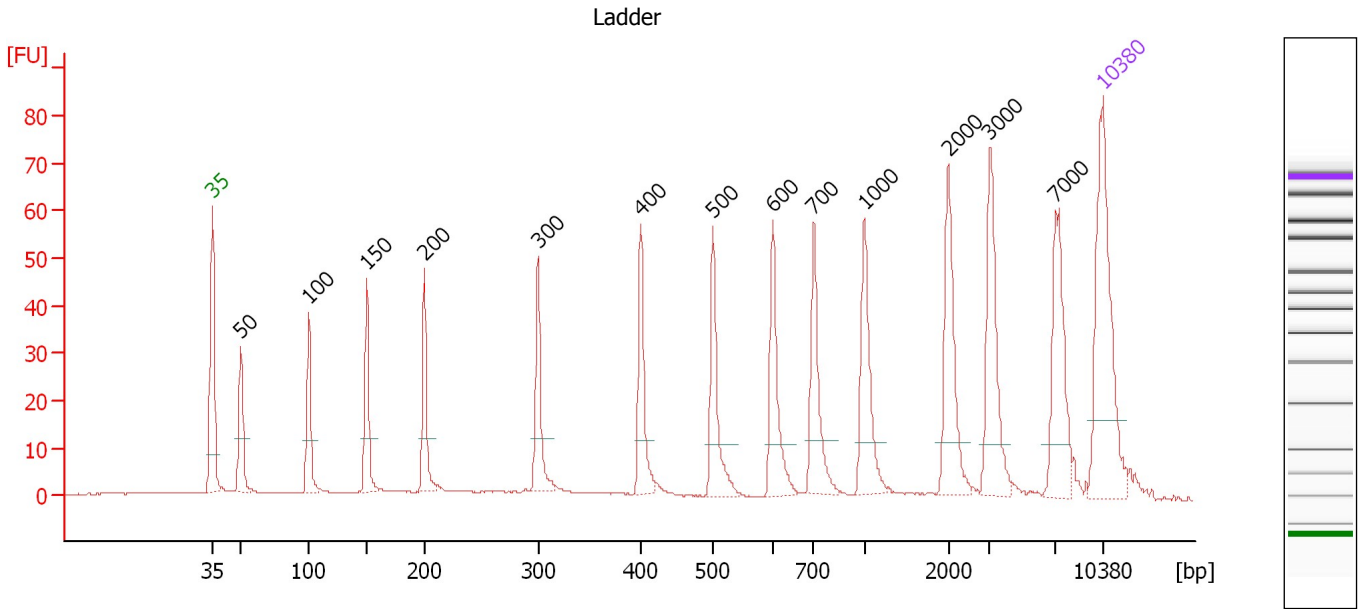
Ladder

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\2013-01-08\2013-01-08_003.xad

Created: 1/8/2013 3:53:33 PM
 Modified: 1/8/2013 4:30:01 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

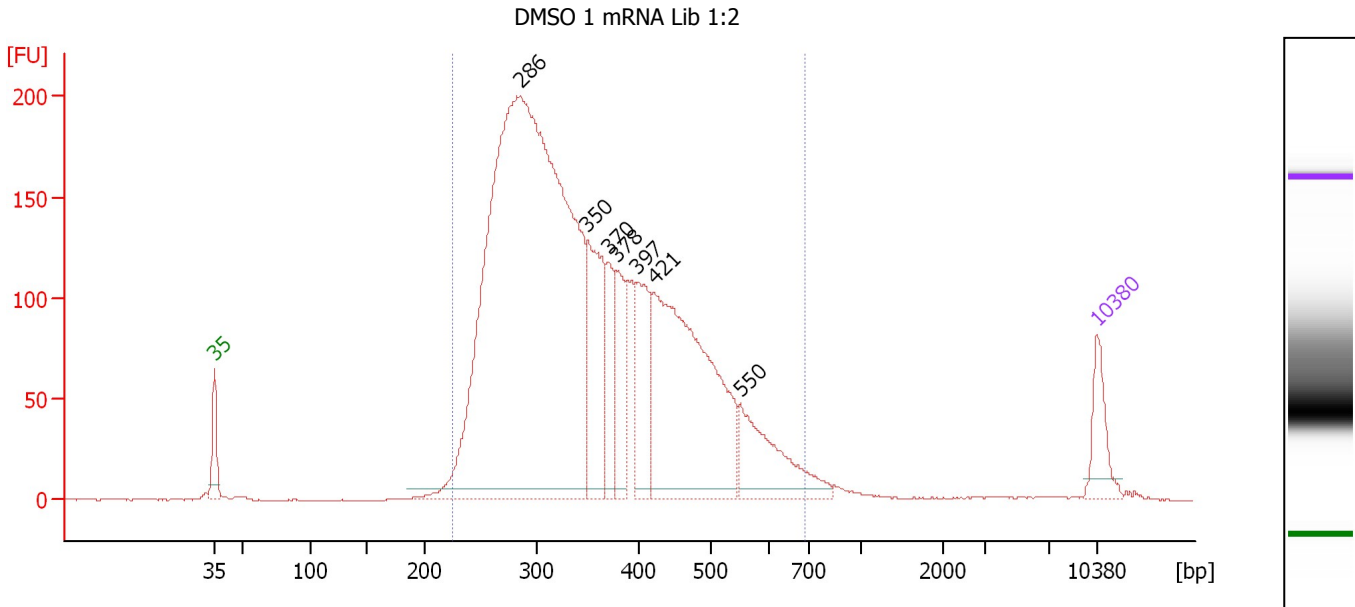
Peak table for Ladder

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\2013-01-08\2013-01-08_003.xad

Created: 1/8/2013 3:53:33 PM
 Modified: 1/8/2013 4:30:01 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : DMSO 1 mRNA Lib 1:2

Number of peaks found: 7 Corr. Area 1: 4,067.2
 Noise: 0.1

Peak table for sample 1 : DMSO 1 mRNA Lib 1:2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	286	3,266.18	17,321.1	
3	350	344.61	1,493.5	
4	370	154.92	634.4	
5	378	154.44	619.2	
6	397	214.33	817.5	
7	421	871.44	3,132.8	
8	550	236.49	650.9	
9	10,380	75.00	10.9	Upper Marker

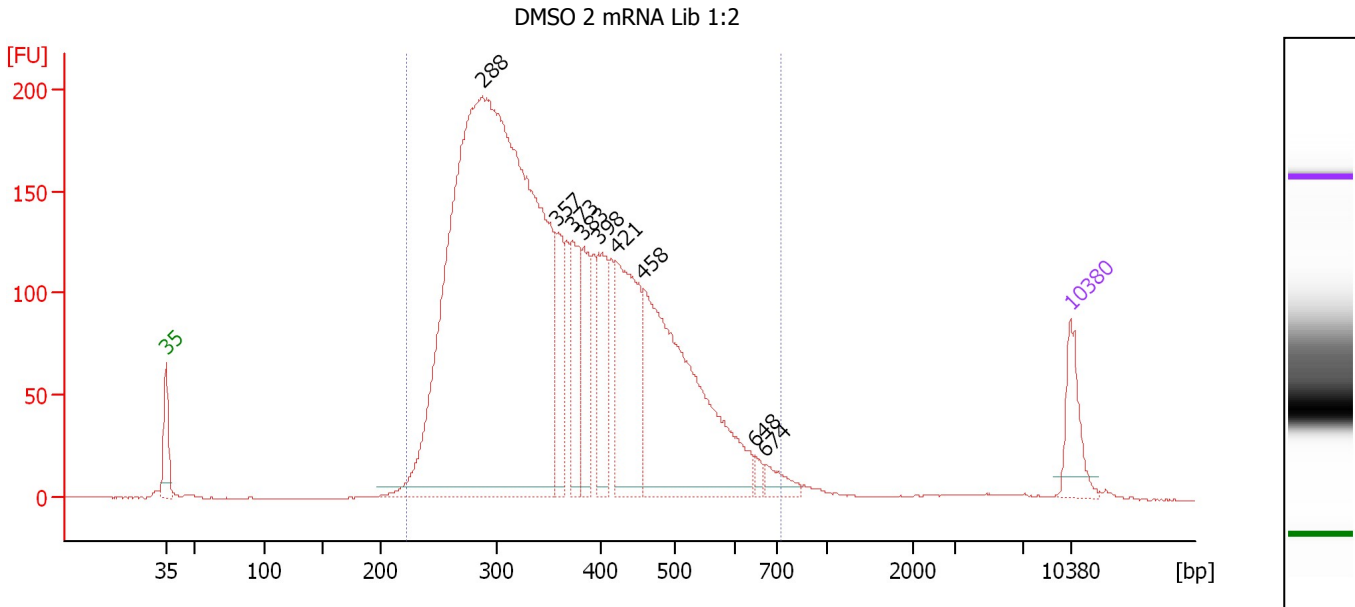
Region table for sample 1 : DMSO 1 mRNA Lib 1:2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
226	686	363	23,920.8	5,254.60	4,067.2	97	26.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-08\2013-01-08_003.xad

Created: 1/8/2013 3:53:33 PM
 Modified: 1/8/2013 4:30:01 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : DMSO 2 mRNA Lib 1:2

Number of peaks found: 9 Corr. Area 1: 4,173.8
 Noise: 0.2

Peak table for sample 2 : DMSO 2 mRNA Lib 1:2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	288	3,110.04	16,374.0	
3	357	159.63	677.6	
4	373	166.21	676.1	
5	383	149.70	591.8	
6	398	173.79	662.0	
7	421	341.60	1,230.5	
8	458	718.00	2,373.8	
9	648	16.26	38.0	
10	674	36.55	82.2	
11	10,380	75.00	10.9	Upper Marker

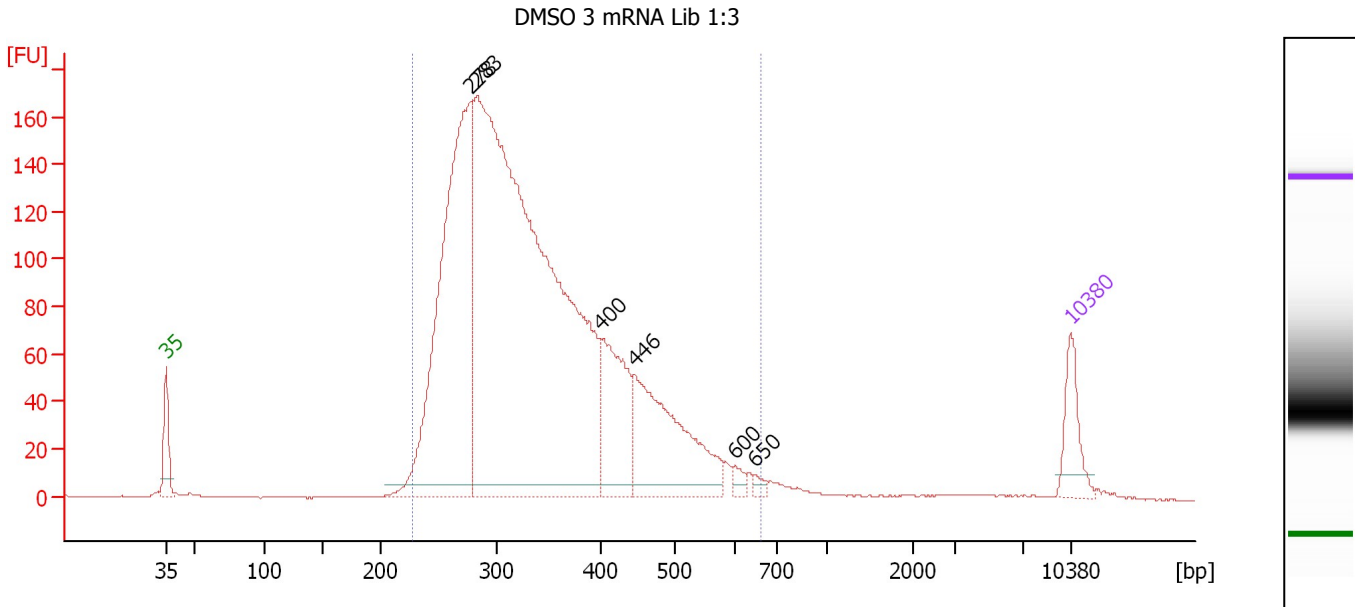
Region table for sample 2 : DMSO 2 mRNA Lib 1:2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
222	732	370	22,451.0	5,020.15	4,173.8	98	26.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-08\2013-01-08_003.xad

Created: 1/8/2013 3:53:33 PM
 Modified: 1/8/2013 4:30:01 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : DMSO 3 mRNA Lib 1:3

Number of peaks found: 6 Corr. Area 1: 2,937.8
 Noise: 0.3

Peak table for sample 3 : DMSO 3 mRNA Lib 1:3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	278	1,155.34	6,301.8	
3	283	2,756.04	14,768.3	
4	400	277.24	1,051.3	
5	446	402.70	1,369.0	
6	600	17.64	44.5	
7	650	11.81	27.5	
8	10,380	75.00	10.9	Upper Marker

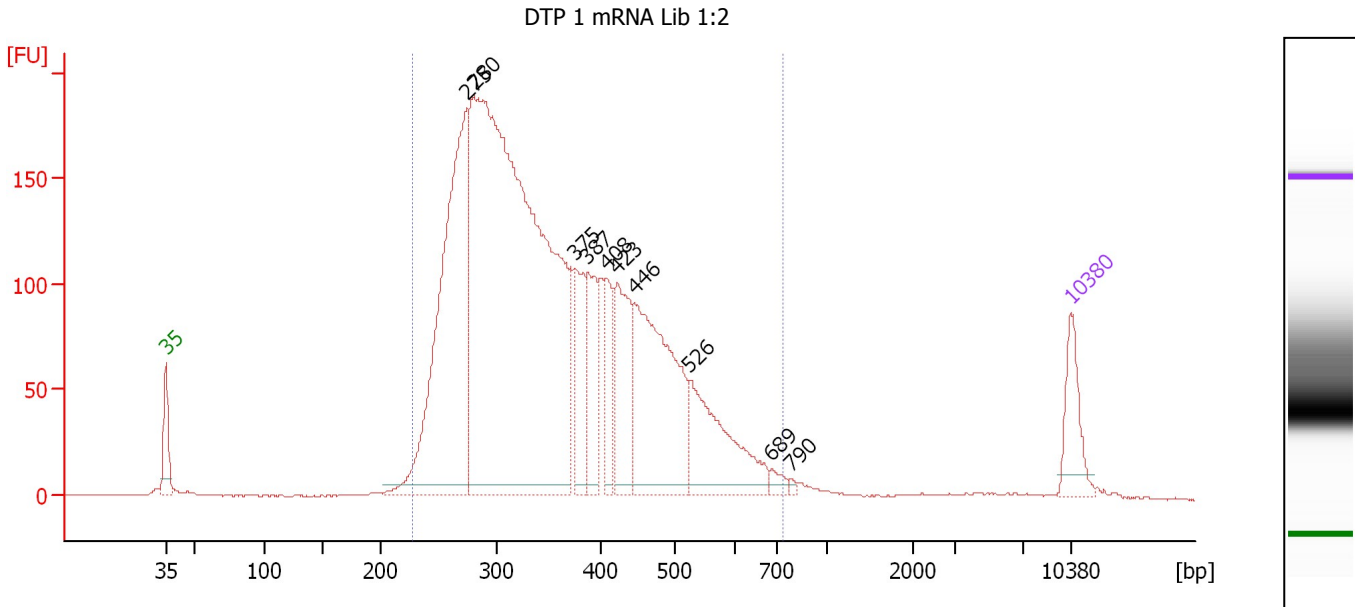
Region table for sample 3 : DMSO 3 mRNA Lib 1:3

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
227	661	344	20,851.1	4,414.34	2,937.8	97	24.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-08\2013-01-08_003.xad

Created: 1/8/2013 3:53:33 PM
 Modified: 1/8/2013 4:30:01 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : DTP 1 mRNA Lib 1:2

Number of peaks found: 10 Corr. Area 1: 3,792.5
 Noise: 0.2

Peak table for sample 4 : DTP 1 mRNA Lib 1:2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	275	876.29	4,834.7	
3	280	2,365.45	12,788.7	
4	375	154.11	623.0	
5	387	154.44	604.3	
6	408	110.59	411.1	
7	423	206.93	741.4	
8	446	458.48	1,559.3	
9	526	255.47	736.2	
10	689	18.05	39.7	
11	790	4.93	9.5	
12	10,380	75.00	10.9	Upper Marker

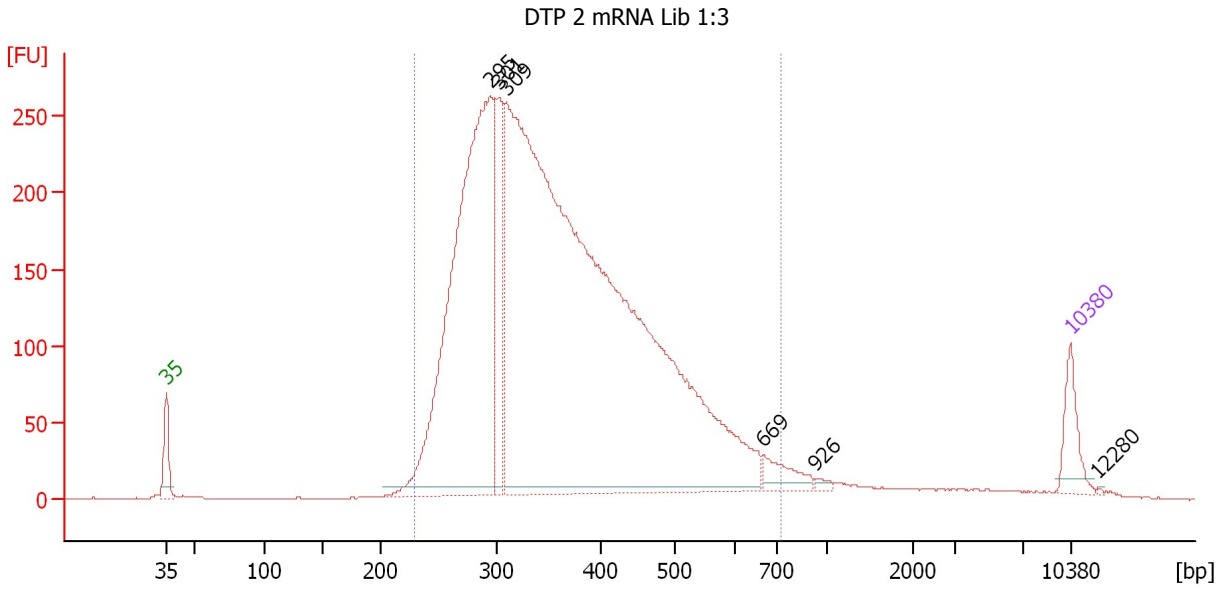
Region table for sample 4 : DTP 1 mRNA Lib 1:2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
228	737	365	20,678.7	4,565.70	3,792.5	97	26.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-08\2013-01-08_003.xad

Created: 1/8/2013 3:53:33 PM
 Modified: 1/8/2013 4:30:01 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : DTP 2 mRNA Lib 1:3

Number of peaks found: 6 Corr. Area 1: 5,314.8
 Noise: 0.3

Peak table for sample 5 : DTP 2 mRNA Lib 1:3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	295	1,728.94	8,880.9	
3	301	282.76	1,421.6	
4	309	4,409.32	21,631.0	
5	669	70.44	159.6	
6	926	9.61	15.7	
7	10,380	75.00	10.9	Upper Marker
8	12,280	0.00	0.0	

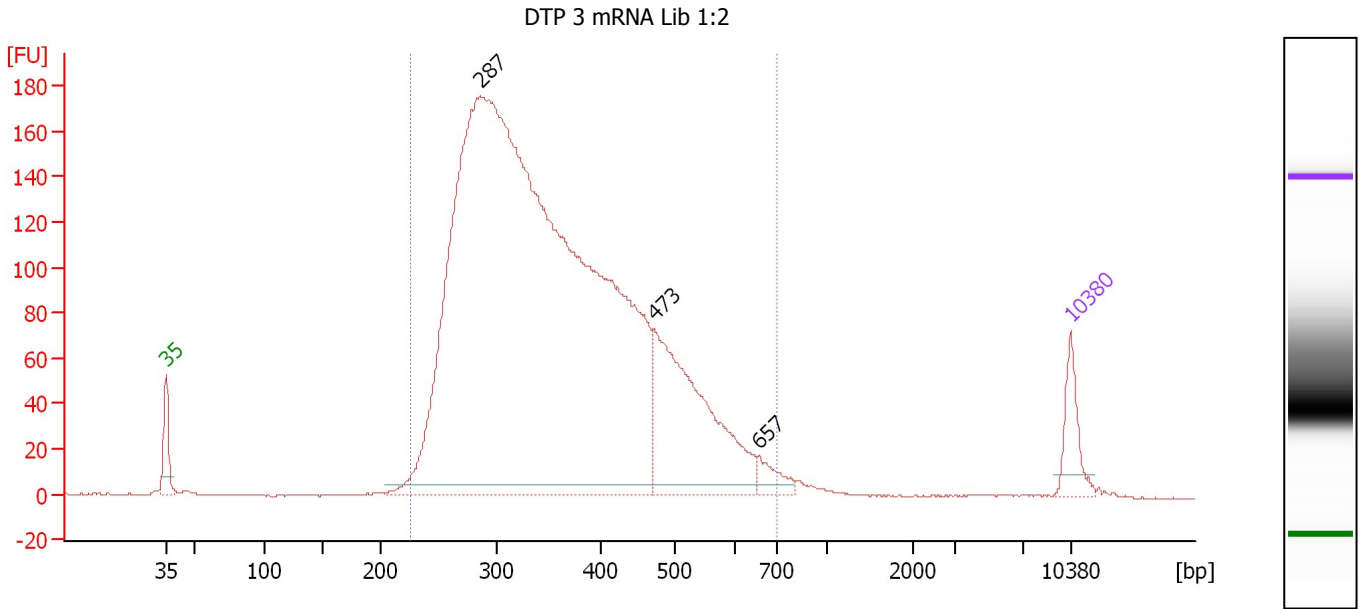
Region table for sample 5 : DTP 2 mRNA Lib 1:3

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
229	731	370	26,903.0	6,052.54	5,314.8	95	25.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-08\2013-01-08_003.xad

Created: 1/8/2013 3:53:33 PM
 Modified: 1/8/2013 4:30:01 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : DTP 3 mRNA Lib 1:2

Number of peaks found: 3 Corr. Area 1: 3,504.2
 Noise: 0.3

Peak table for sample 6 : DTP 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	287	5,331.66	28,186.5	
3	473	631.94	2,024.5	
4	657	51.44	118.6	
5	10,380	75.00	10.9	Upper Marker

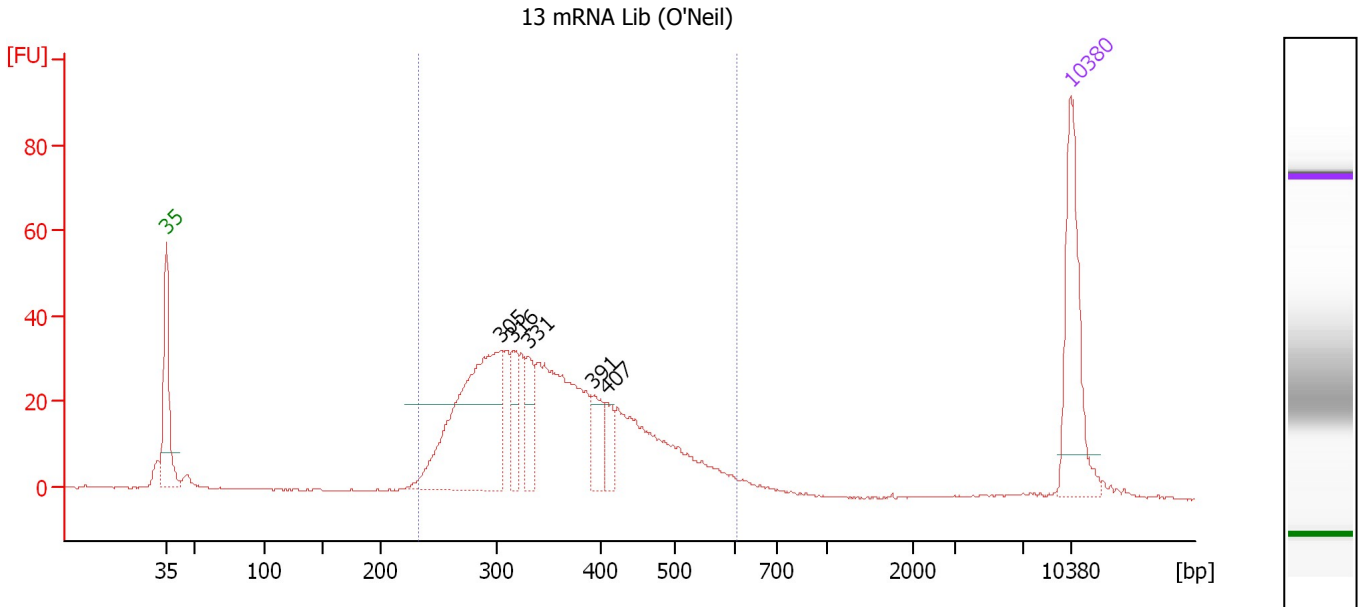
Region table for sample 6 : DTP 3 mRNA Lib 1:2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
225	708	367	24,589.9	5,475.91	3,504.2	97	25.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-08\2013-01-08_003.xad

Created: 1/8/2013 3:53:33 PM
 Modified: 1/8/2013 4:30:01 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 7 : 13 mRNA Lib (O'Neil)

Height Threshold [FU] : 20

Overall Results for sample 7 : 13 mRNA Lib (O'Neil)

Number of peaks found: 5 Corr. Area 1: 662.8
 Noise: 0.2

Peak table for sample 7 : 13 mRNA Lib (O'Neil)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	305	229.44	1,140.8	
3	316	32.73	157.0	
4	331	34.50	157.8	
5	391	29.67	114.9	
6	407	20.41	76.0	
7	10,380	75.00	10.9	Upper Marker

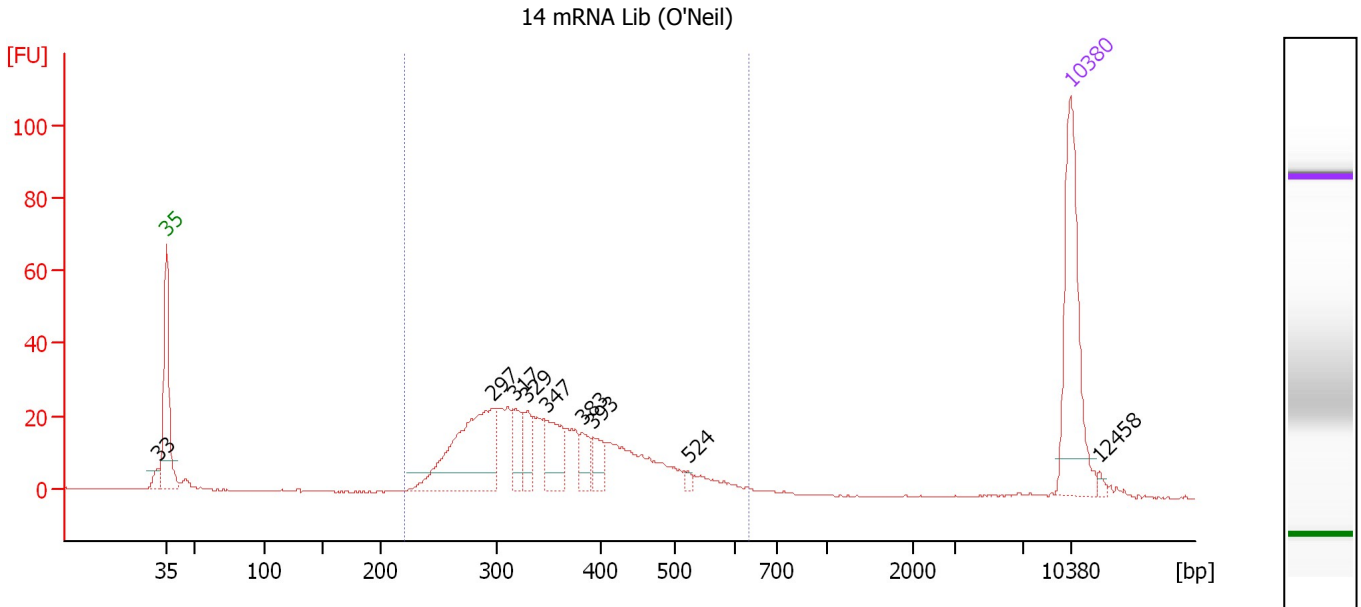
Region table for sample 7 : 13 mRNA Lib (O'Neil)

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
232	604	361	3,204.7	717.04	662.8	95	21.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-08\2013-01-08_003.xad

Created: 1/8/2013 3:53:33 PM
 Modified: 1/8/2013 4:30:01 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 14 mRNA Lib (O'Neil)

Number of peaks found: 9 Corr. Area 1: 470.5
 Noise: 0.2

Peak table for sample 8 : 14 mRNA Lib (O'Neil)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	33	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	297	124.05	632.3	
4	317	21.90	104.7	
5	329	21.88	100.6	
6	347	35.16	153.5	
7	383	15.76	62.4	
8	393	14.06	54.3	
9	524	3.13	9.1	
10	10,380	75.00	10.9	Upper Marker
11	12,458	0.00	0.0	

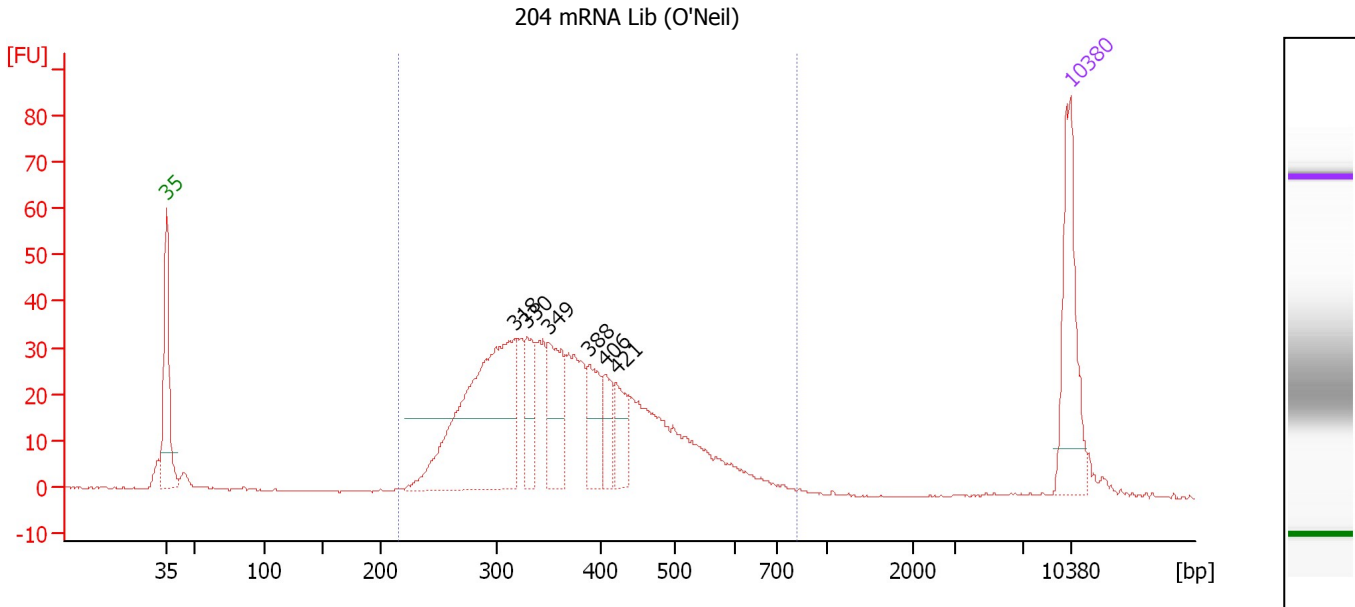
Region table for sample 8 : 14 mRNA Lib (O'Neil)

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
220	632	361	1,945.3	433.23	470.5	92	22.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-08\2013-01-08_003.xad

Created: 1/8/2013 3:53:33 PM
 Modified: 1/8/2013 4:30:01 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 9 : 204 mRNA Lib (O'Neil)

Height Threshold [FU] : 15

Overall Results for sample 9 : 204 mRNA Lib (O'Neil)

Number of peaks found: 6 Corr. Area 1: 717.8
 Noise: 0.2

Peak table for sample 9 : 204 mRNA Lib (O'Neil)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	318	284.51	1,356.3	
3	330	48.07	220.9	
4	349	73.35	318.2	
5	388	48.74	190.1	
6	406	31.58	117.8	
7	421	35.60	128.2	
8	10,380	75.00	10.9	Upper Marker

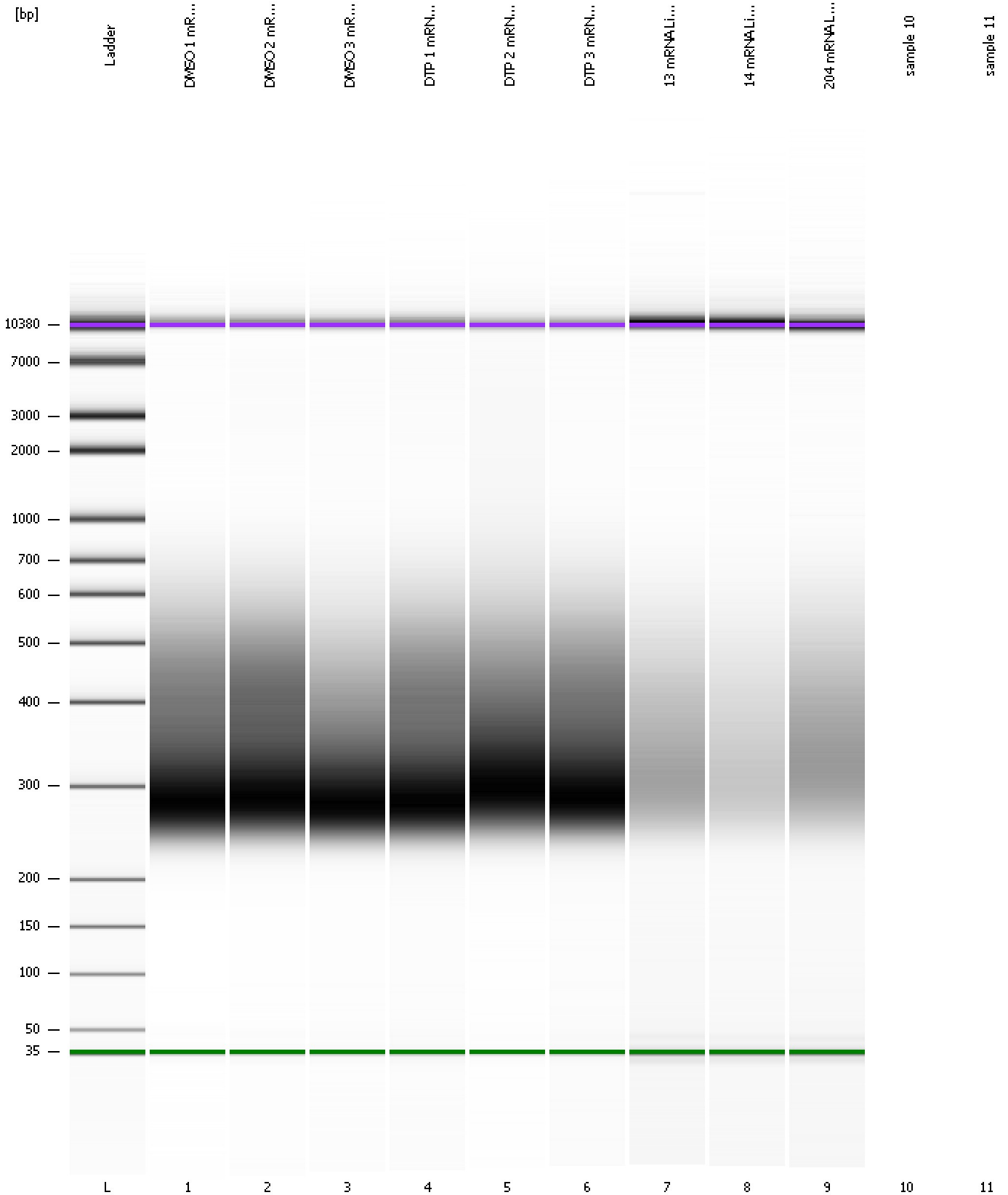
Region table for sample 9 : 204 mRNA Lib (O'Neil)

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
215	816	379	3,858.4	895.49	717.8	96	24.7	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-08\2013-01-08_003.xad

Created: 1/8/2013 3:53:33 PM
Modified: 1/8/2013 4:30:01 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-08\2013-01-08_003.xad

Created: 1/8/2013 3:53:33 PM
Modified: 1/8/2013 4:30:01 PM

Invalid Samples

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: 1/8/2013 3:53:33 PM
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-08\2013-01-08_003.xad Modified: 1/8/2013 4:30:01 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 10)		Instrument	Run		1/8/2013 4:29:08 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-01-08\2013-01-08_003.xad)		Instrument	Run		1/8/2013 3:53:38 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/8/2013 3:53:38 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/8/2013 3:53:38 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/8/2013 3:53:38 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/8/2013 3:53:38 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/8/2013 3:53:38 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/8/2013 3:53:38 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1