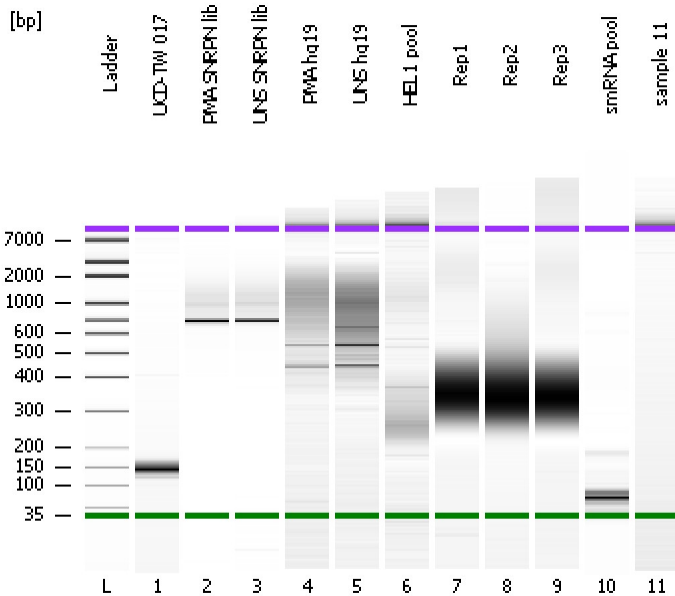


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
Modified: 6/22/2012 2:25:04 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

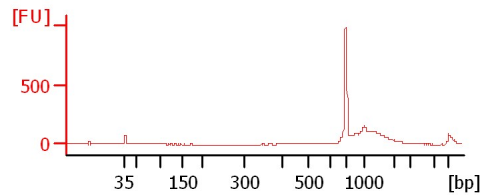
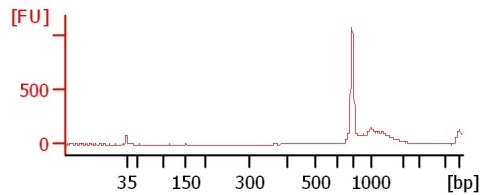
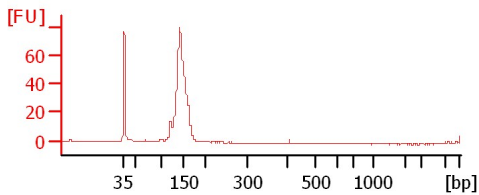
Chip Information:

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

**UCD-TW 017**

**PMA SNRPN lib**

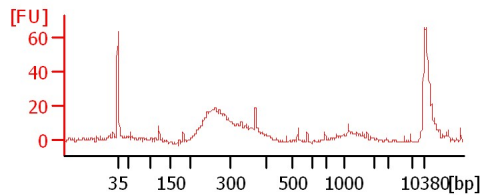
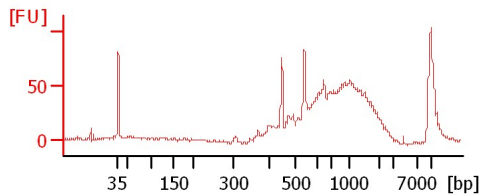
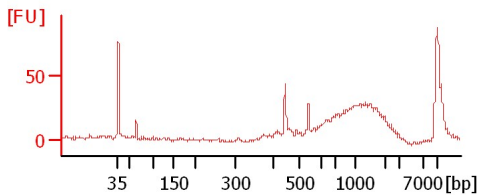
**UNS SNRPN lib**



**PMA hg19**

**UNS hg19**

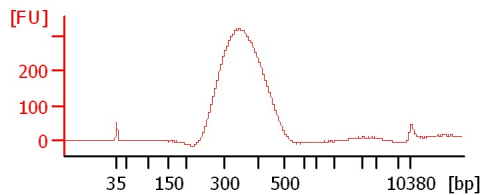
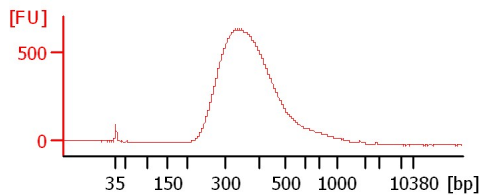
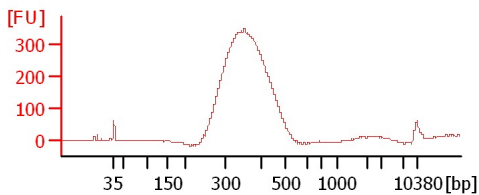
**HEL1 pool**



**Rep1**

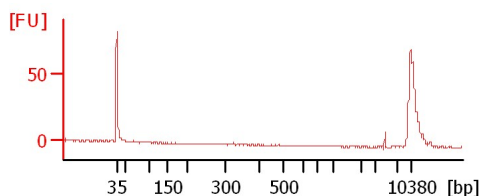
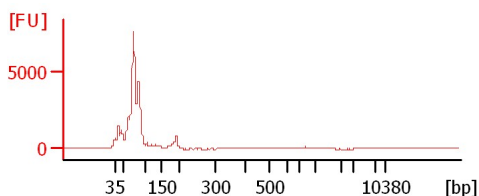
**Rep2**

**Rep3**



**smRNA pool**

**sample 11**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
Modified: 6/22/2012 2:25:04 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
UCD-TW 017		<input type="checkbox"/>	✓			
PMA SNRPN lib		<input type="checkbox"/>	✓			
UNS SNRPN lib		<input type="checkbox"/>	✓			
PMA hg19		<input type="checkbox"/>	✓			
UNS hg19		<input type="checkbox"/>	✓			
HEL1 pool		<input type="checkbox"/>	✓			
Rep1		<input type="checkbox"/>	✓			
Rep2		<input type="checkbox"/>	✓			
Rep3		<input type="checkbox"/>	✓			
smRNA pool		<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\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
Modified: 6/22/2012 2:25:04 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

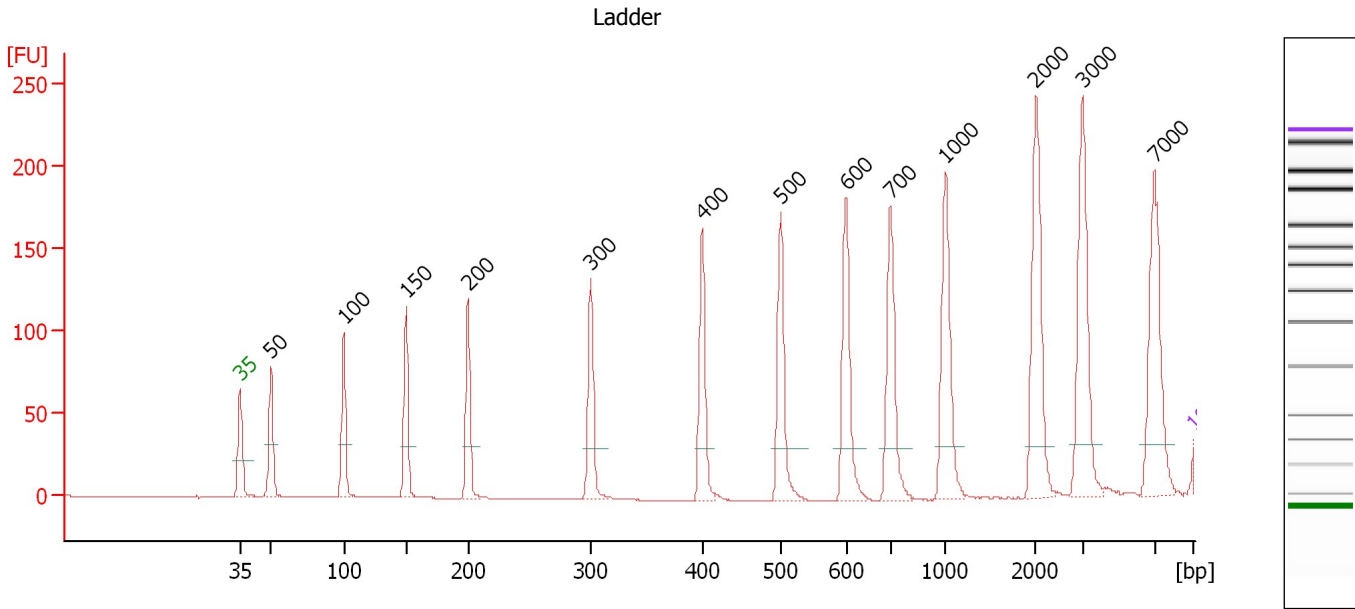
**Ladder**

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\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
 Modified: 6/22/2012 2:25:04 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

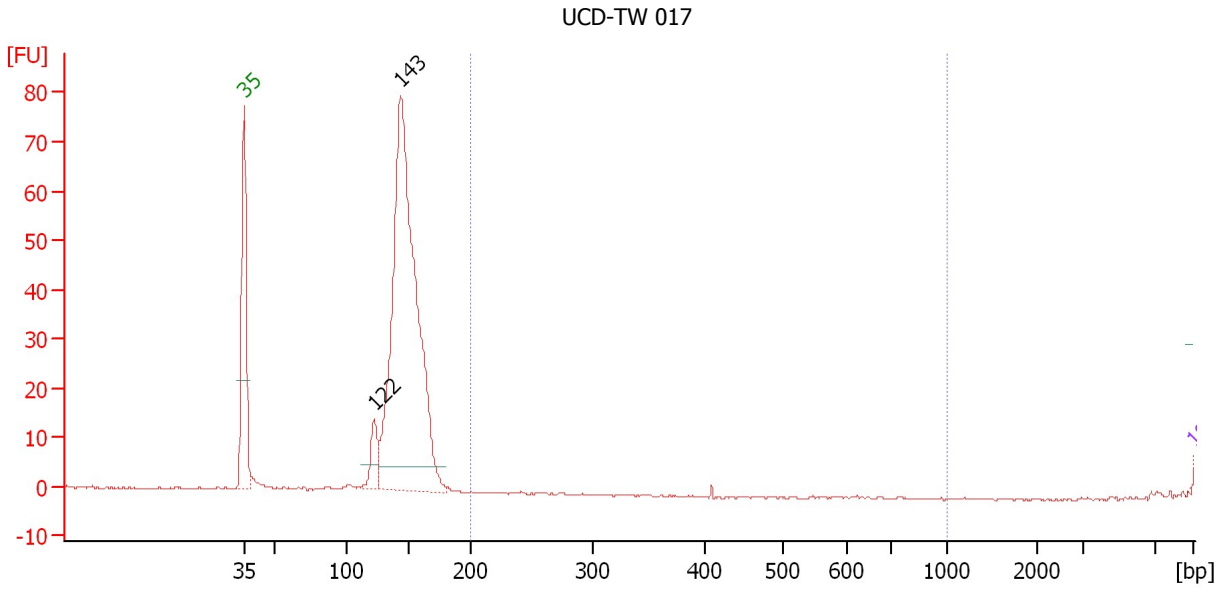
**Peak table for Ladder**

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\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
 Modified: 6/22/2012 2:25:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : UCD-TW 017**

Number of peaks found: 2                      Corr. Area 1: 0.1  
 Noise: 0.2

**Peak table for sample 1 : UCD-TW 017**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	122	7,737.70	96,272.4	
3	143	130,818.08	1,383,864.9	
4	10,380	75.00	10.9	Upper Marker

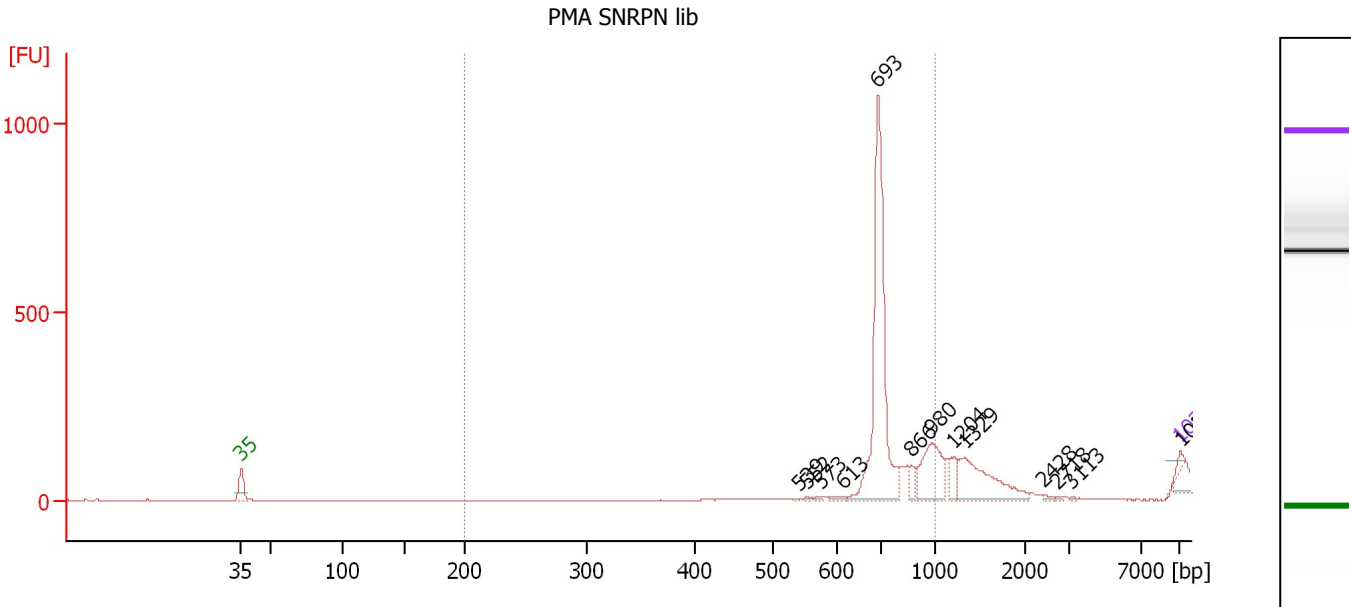
**Region table for sample 1 : UCD-TW 017**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	410	149.0	40.28	0.1	0	0.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
 Modified: 6/22/2012 2:25:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : PMA SNRPN lib**

Number of peaks found: 13                      Corr. Area 1: 886.0  
 Noise: 0.2

**Peak table for sample 2 : PMA SNRPN lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	539	11.79	33.1	
3	552	13.85	38.0	
4	573	16.04	42.4	
5	613	40.14	99.1	
6	693	3,528.74	7,719.3	
7	866	150.96	264.1	
8	980	802.03	1,240.3	
9	1,204	219.04	275.7	
10	1,329	944.01	1,076.0	
11	2,428	26.21	16.4	
12	2,718	10.99	6.1	
13	3,113	8.31	4.0	
14	10,380	75.00	10.9	Upper Marker
15	10,517	0.00	0.0	

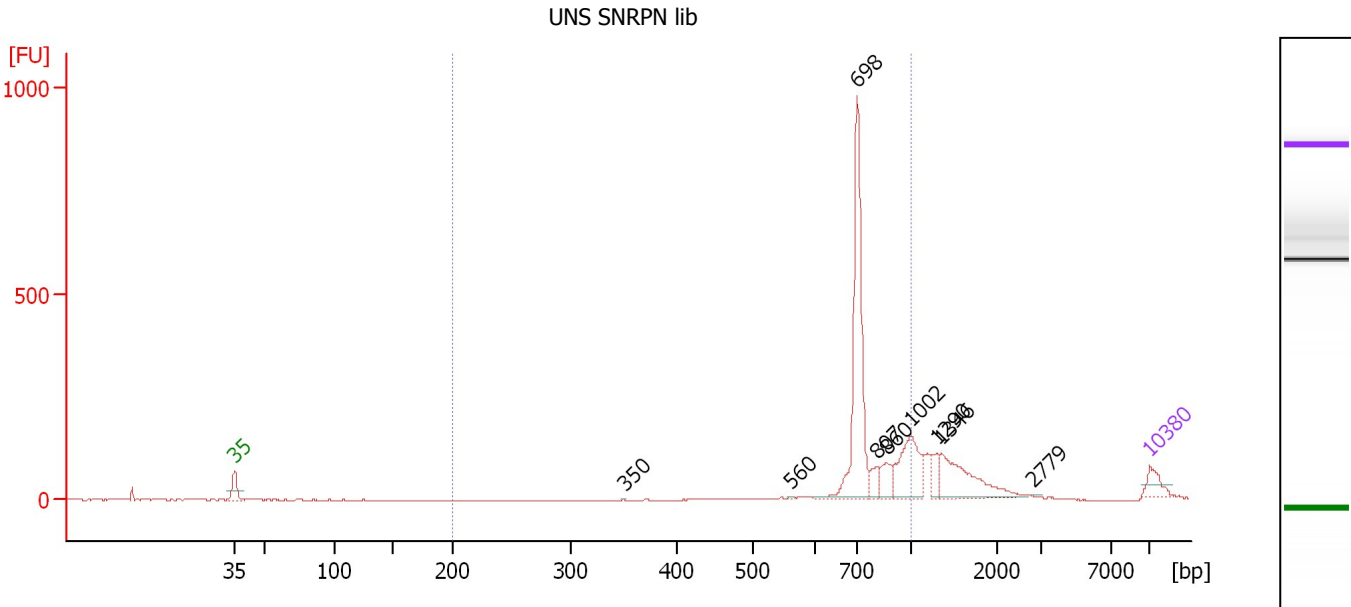
**Region table for sample 2 : PMA SNRPN lib**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	715	5,862.0	2,756.73	886.0	93	9.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
 Modified: 6/22/2012 2:25:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : UNS SNRPN lib**

Number of peaks found: 9                      Corr. Area 1: 1,140.6  
 Noise: 0.5

**Peak table for sample 3 : UNS SNRPN lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	350	3.17	13.7	
3	560	4.57	12.4	
4	698	1,034.59	2,244.9	
5	807	74.07	139.1	
6	860	106.26	187.1	
7	1,002	342.42	517.8	
8	1,290	80.31	94.3	
9	1,346	357.28	402.3	
10	2,779	2.76	1.5	
11	10,380	75.00	10.9	Upper Marker

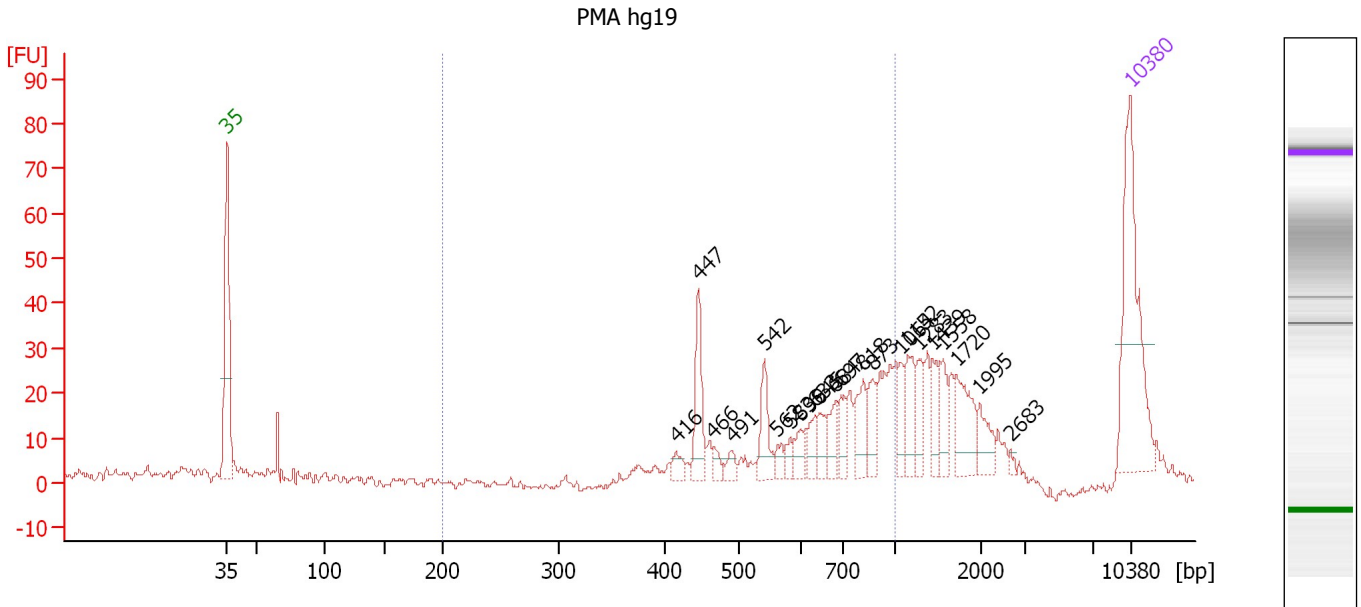
**Region table for sample 3 : UNS SNRPN lib**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	759	2,790.1	1,385.26	1,140.6	65	12.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
 Modified: 6/22/2012 2:25:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : PMA hg19**

Number of peaks found: 22      Corr. Area 1: 264.7  
 Noise: 0.8

**Peak table for sample 4 : PMA hg19**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	416	8.37	30.5	
3	447	33.88	114.9	
4	466	5.97	19.4	
5	491	6.93	21.4	
6	542	22.75	63.6	
7	562	6.26	16.9	
8	583	6.14	16.0	
9	599	9.01	22.8	
10	633	10.81	25.9	
11	645	10.53	24.7	
12	684	13.87	30.7	
13	697	12.48	27.1	
14	818	19.22	35.6	
15	873	16.80	29.2	
16	1,064	12.62	18.0	
17	1,152	20.65	27.2	
18	1,283	14.24	16.8	
19	1,439	14.49	15.3	
20	1,558	14.39	14.0	
21	1,720	27.13	23.9	
22	1,995	13.12	10.0	
23	2,683	1.84	1.0	
24	10,380	75.00	10.9	Upper Marker



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
Modified: 6/22/2012 2:25:04 PM

**Electropherogram Summary Continued ...**

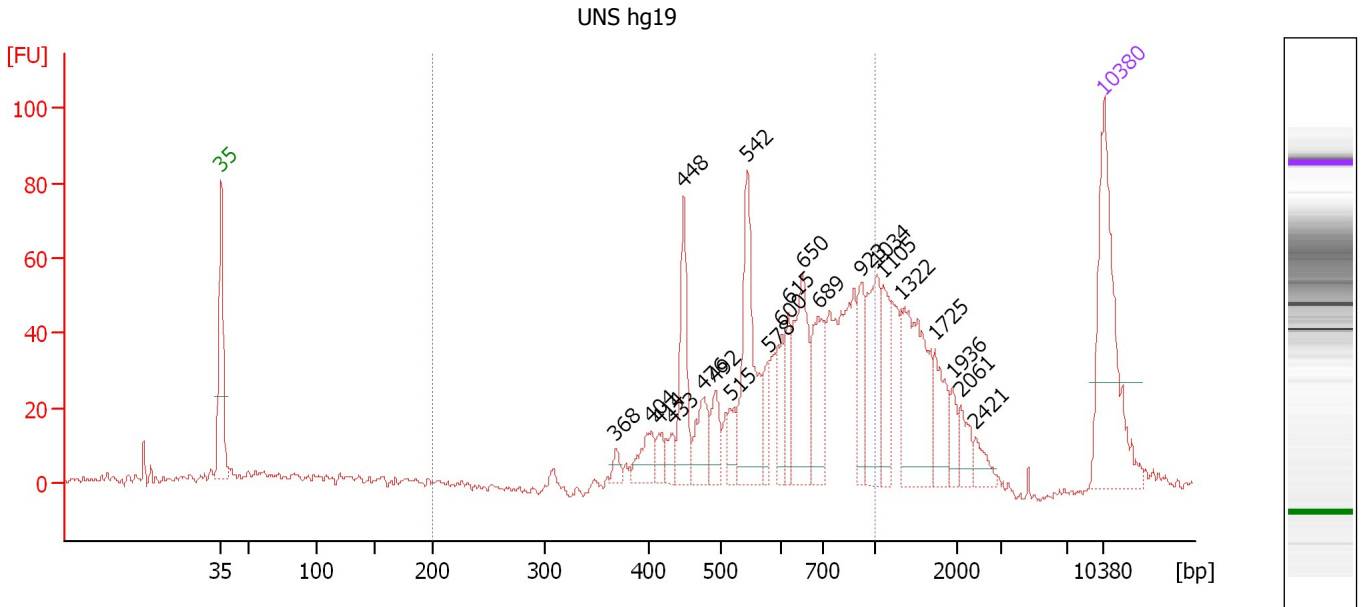
... Region table for sample 4 : PMA hg19

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	668	639.2	255.20	264.7	53	26.5	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
 Modified: 6/22/2012 2:25:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : UNS hg19**

Number of peaks found: 22      Corr. Area 1: 759.8  
 Noise: 1.0

**Peak table for sample 5 : UNS hg19**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	368	6.35	26.1	
3	404	18.91	70.9	
4	414	9.03	33.0	
5	433	9.81	34.3	
6	448	47.45	160.5	
7	476	24.47	77.9	
8	492	18.81	57.9	
9	515	12.87	37.8	
10	542	75.64	211.3	
11	578	14.34	37.6	
12	600	16.73	42.3	
13	615	18.73	46.2	
14	650	55.40	129.1	
15	689	41.06	90.3	
16	923	24.86	40.8	
17	1,034	43.55	63.8	
18	1,105	25.92	35.6	
19	1,322	67.57	77.4	
20	1,725	22.35	19.6	
21	1,936	9.46	7.4	
22	2,061	10.89	8.0	
23	2,421	8.35	5.2	
24	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
Modified: 6/22/2012 2:25:04 PM

**Electropherogram Summary Continued ...**

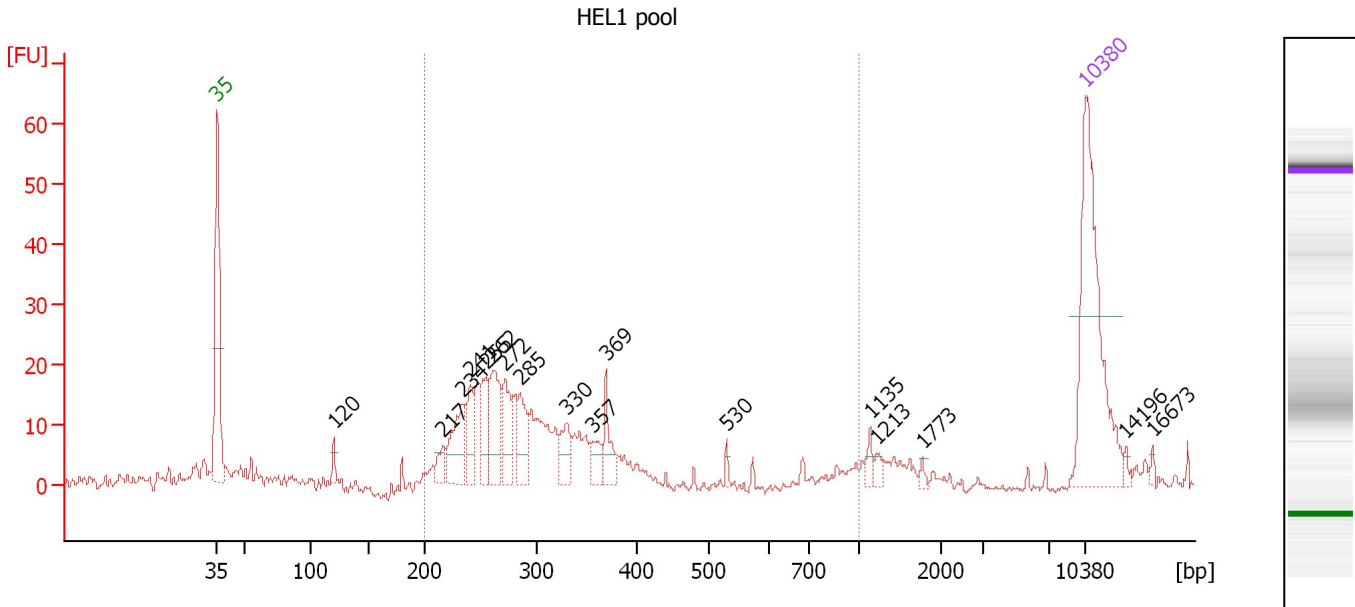
... Region table for sample 5 : UNS hg19

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	642	1,360.3	527.97	759.8	67	25.8	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
 Modified: 6/22/2012 2:25:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : HEL1 pool**

Number of peaks found: 17      Corr. Area 1: 188.7  
 Noise: 0.7

**Peak table for sample 6 : HEL1 pool**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	120	5.38	68.2	
3	217	9.90	69.3	
4	234	32.22	208.8	
5	241	17.70	111.1	
6	255	25.37	150.6	
7	262	34.82	201.4	
8	272	25.04	139.5	
9	285	21.93	116.4	
10	330	15.10	69.3	
11	357	11.02	46.8	
12	369	15.25	62.6	
13	530	2.50	7.1	
14	1,135	3.94	5.3	
15	1,213	3.61	4.5	
16	1,773	1.91	1.6	
17	10,380	75.00	10.9	Upper Marker
18	14,196	0.00	0.0	
19	16,673	0.00	0.0	

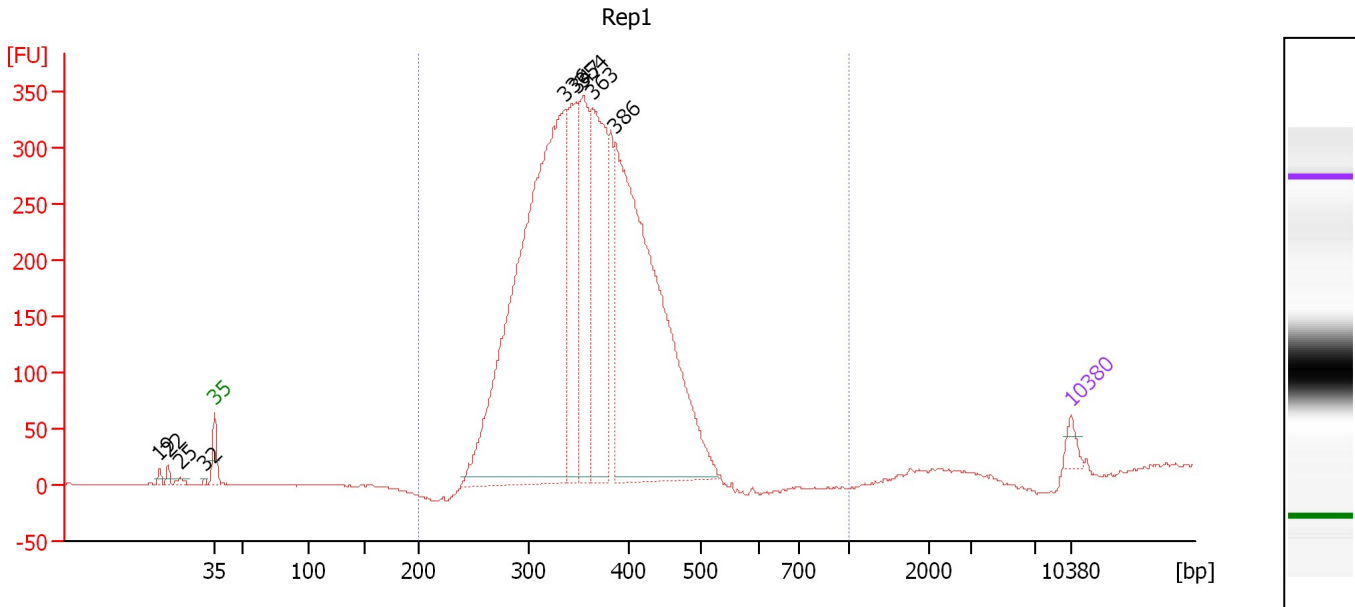
**Region table for sample 6 : HEL1 pool**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	282	1,257.7	228.69	188.7	87	15.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
 Modified: 6/22/2012 2:25:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : Rep1**

Number of peaks found: 9                      Corr. Area 1: 5,562.9  
 Noise: 0.5

**Peak table for sample 7 : Rep1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	19	0.00	0.0	
2	22	0.00	0.0	
3	25	0.00	0.0	
4	32	0.00	0.0	
5	35	125.00	5,411.3	Lower Marker
6	336	6,113.12	27,599.0	
7	347	1,079.15	4,714.9	
8	354	1,345.82	5,756.2	
9	363	1,733.66	7,240.9	
10	386	4,458.90	17,493.0	
11	10,380	75.00	10.9	Upper Marker

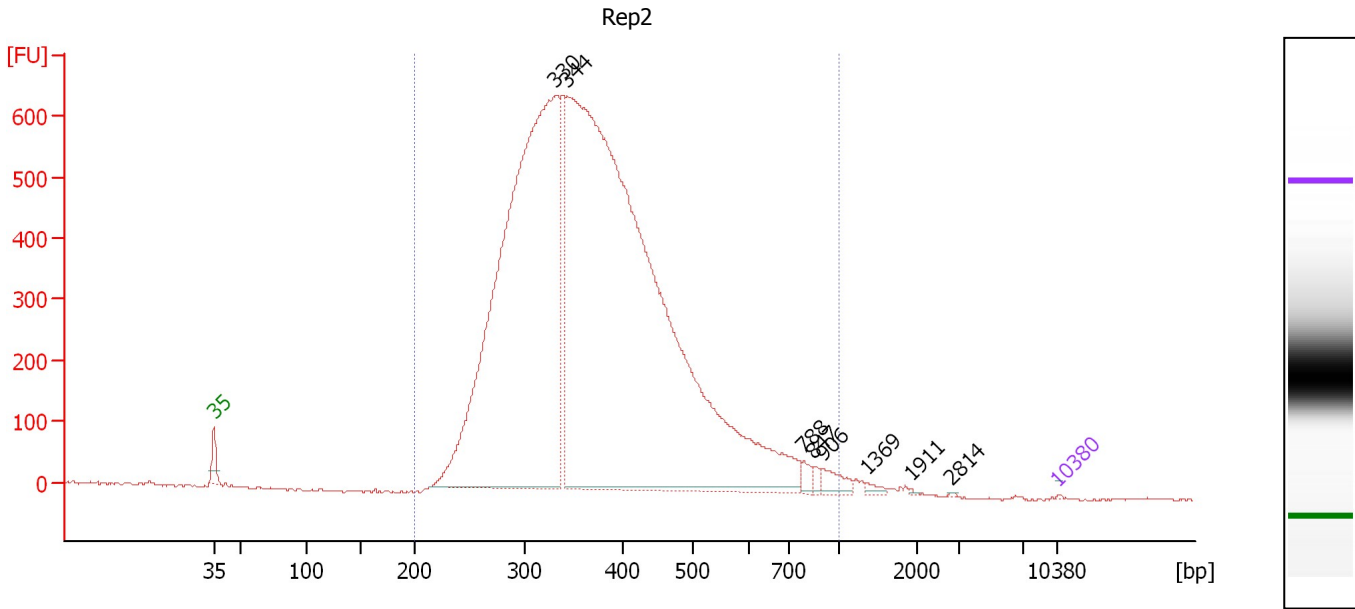
**Region table for sample 7 : Rep1**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	360	65,088.9	15,010.29	5,562.9	99	15.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
 Modified: 6/22/2012 2:25:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : Rep2**

Number of peaks found: 8                      Corr. Area 1: 13,464.4  
 Noise: 2.1

**Peak table for sample 8 : Rep2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	330	231,789.72	1,063,229.6	
3	344	355,775.22	1,567,753.6	
4	788	1,909.00	3,669.5	
5	847	1,182.31	2,115.1	
6	906	3,442.64	5,759.4	
7	1,369	928.40	1,027.8	
8	1,911	194.69	154.4	
9	2,814	99.07	53.3	
10	10,380	75.00	10.9	Upper Marker

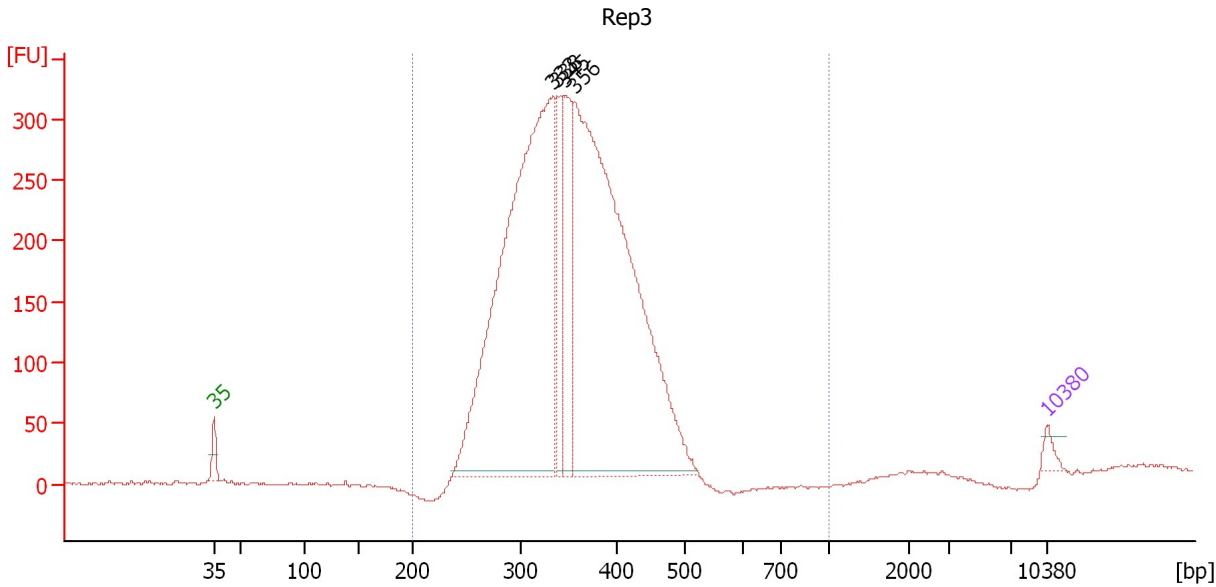
**Region table for sample 8 : Rep2**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	384	2,508,053.3	585,522.81	13,464.4	99	27.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
 Modified: 6/22/2012 2:25:04 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 9 : Rep3**

Width Threshold [s] : 0.2

**Overall Results for sample 9 : Rep3**

Number of peaks found: 4                      Corr. Area 1: 5,204.5  
 Noise: 0.9

**Peak table for sample 9 : Rep3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	333	7,645.43	34,755.1	
3	338	833.23	3,732.5	
4	345	1,154.63	5,065.5	
5	356	8,038.92	34,182.0	
6	10,380	75.00	10.9	Upper Marker

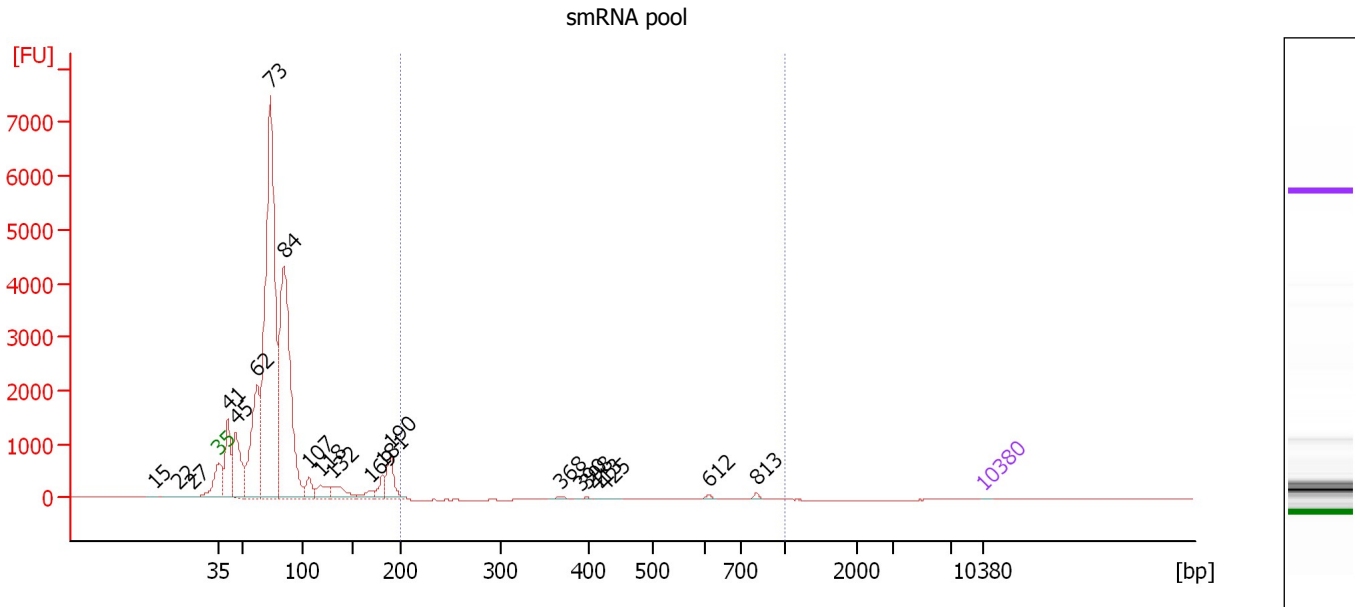
**Region table for sample 9 : Rep3**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	353	79,822.3	17,999.35	5,204.5	100	15.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
 Modified: 6/22/2012 2:25:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : smRNA pool**

Number of peaks found: 21                      Corr. Area 1: 230.3  
 Noise: 1.0

**Peak table for sample 10 : smRNA pool**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	15	0.00	0.0	
2	22	0.00	0.0	
3	27	0.00	0.0	
4	35	125.00	5,411.3	Lower Marker
5	41	38,060.55	1,422,124.5	
6	45	50,247.00	1,675,158.8	
7	62	85,946.41	2,107,223.3	
8	73	318,413.13	6,598,200.0	
9	84	205,845.45	3,693,714.0	
10	107	10,521.65	149,414.5	
11	118	10,690.67	136,853.7	
12	132	13,245.76	152,485.6	
13	169	4,425.03	39,698.2	
14	181	8,499.99	71,289.8	
15	190	18,302.19	146,146.8	
16	368	579.25	2,385.4	
17	390	125.30	486.9	
18	398	157.54	600.3	
19	413	108.83	398.8	
20	425	235.36	838.5	
21	612	642.17	1,588.6	
22	813	836.13	1,559.2	
23	10,380	75.00	10.9	Upper Marker



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
Modified: 6/22/2012 2:25:04 PM

**Electropherogram Summary Continued ...**

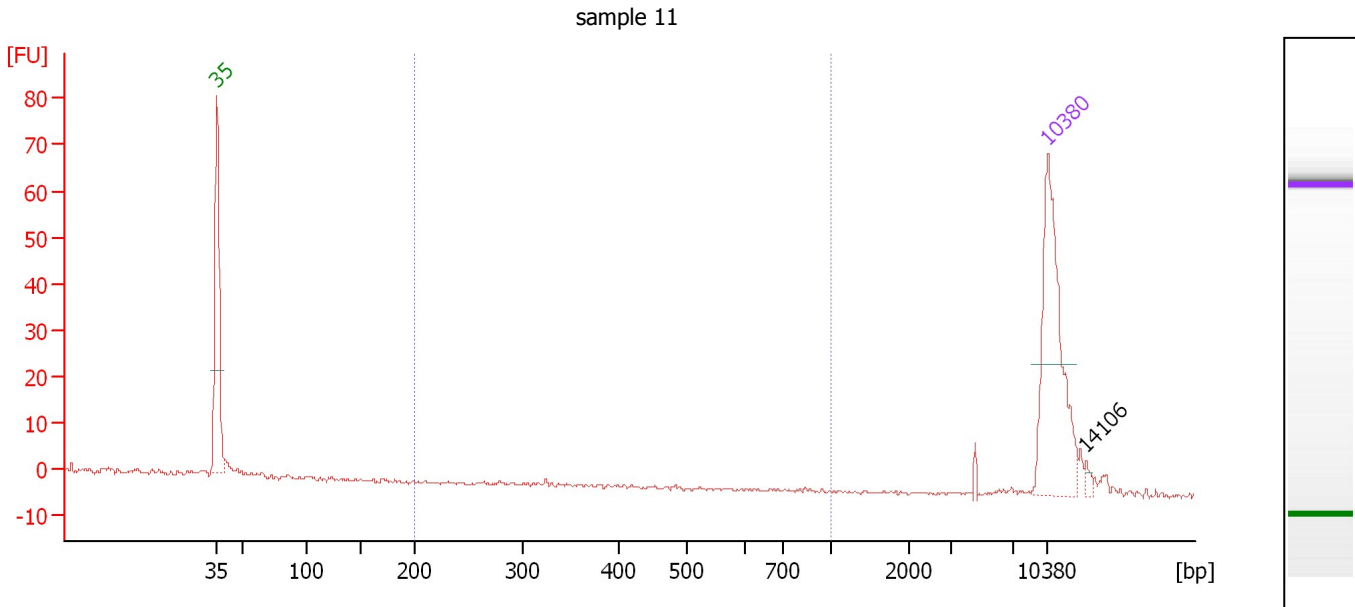
... Region table for sample 10 : smRNA pool

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	568	10,796.3	3,236.95	230.3	1	34.3	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
 Modified: 6/22/2012 2:25:04 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : sample 11**

Number of peaks found: 1                      Corr. Area 1: 0.5  
 Noise: 0.4

**Peak table for sample 11 : sample 11**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker
3	14,106	0.00	0.0	

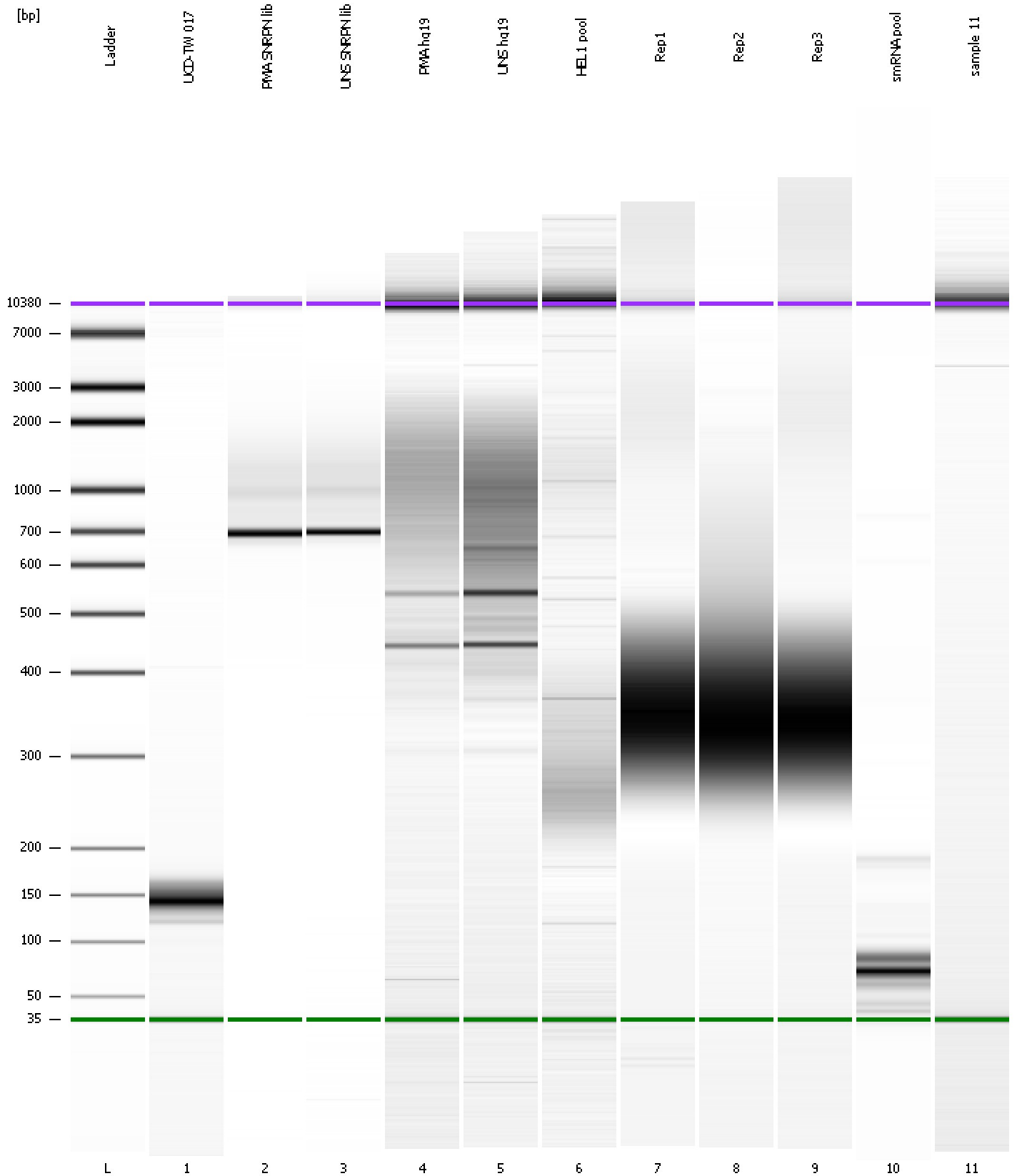
**Region table for sample 11 : sample 11**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	379	2.2	0.49	0.5	1	43.6	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
Modified: 6/22/2012 2:25:04 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-06-22\2012-06-22\_001.xad

Created: 6/22/2012 1:32:37 PM  
 Modified: 6/22/2012 2:25:04 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		6/22/2012 2:13:57 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-06-22\2012-06-22_001.xad)		Instrument	Run		6/22/2012 1:32:43 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		6/22/2012 1:32:43 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/22/2012 1:32:43 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/22/2012 1:32:43 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		6/22/2012 1:32:43 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/22/2012 1:32:43 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/22/2012 1:32:43 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1