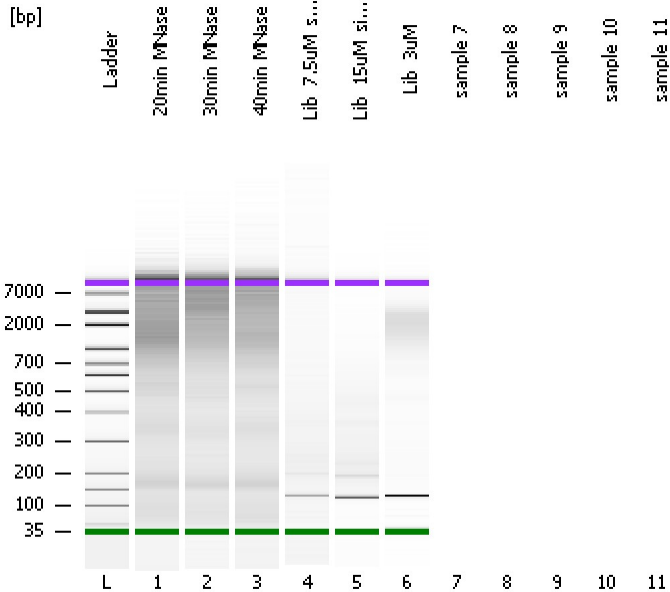


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
Modified: 3/5/2015 1:28:07 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

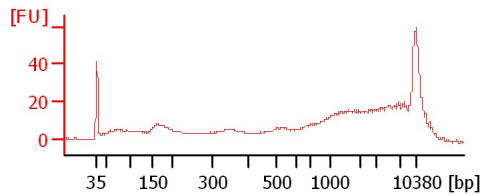
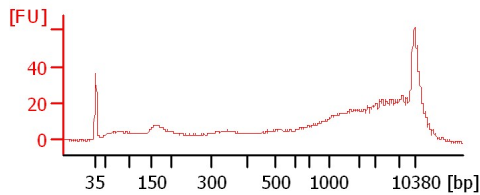
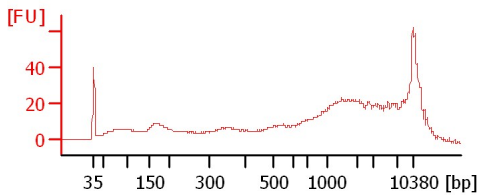
Chip Information:

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

**20min MNase**

**30min MNase**

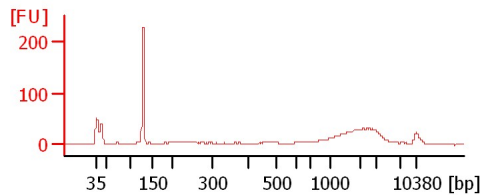
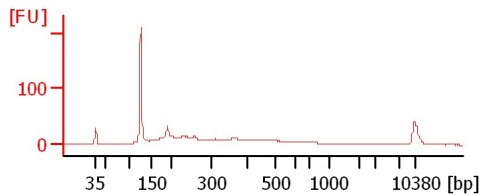
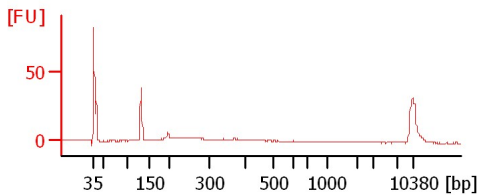
**40min MNase**



**Lib\_7.5uM\_size\_selected**

**Lib\_15uM\_size\_selected**

**Lib\_3uM**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
 Modified: 3/5/2015 1:28:07 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
20min MNase		<input type="checkbox"/>				
30min MNase		<input type="checkbox"/>				
40min MNase		<input type="checkbox"/>				
Lib_7.5uM_size_selected		<input type="checkbox"/>				
Lib_15uM_size_selected		<input type="checkbox"/>				
Lib_3uM		<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\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
Modified: 3/5/2015 1:28:07 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/ $\mu$ l] : 1950  
Uses Standard Area for Ladder Fragments  
Lower Marker Concentration [pg/ $\mu$ l] : 125  
Upper Marker Concentration [pg/ $\mu$ l] : 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

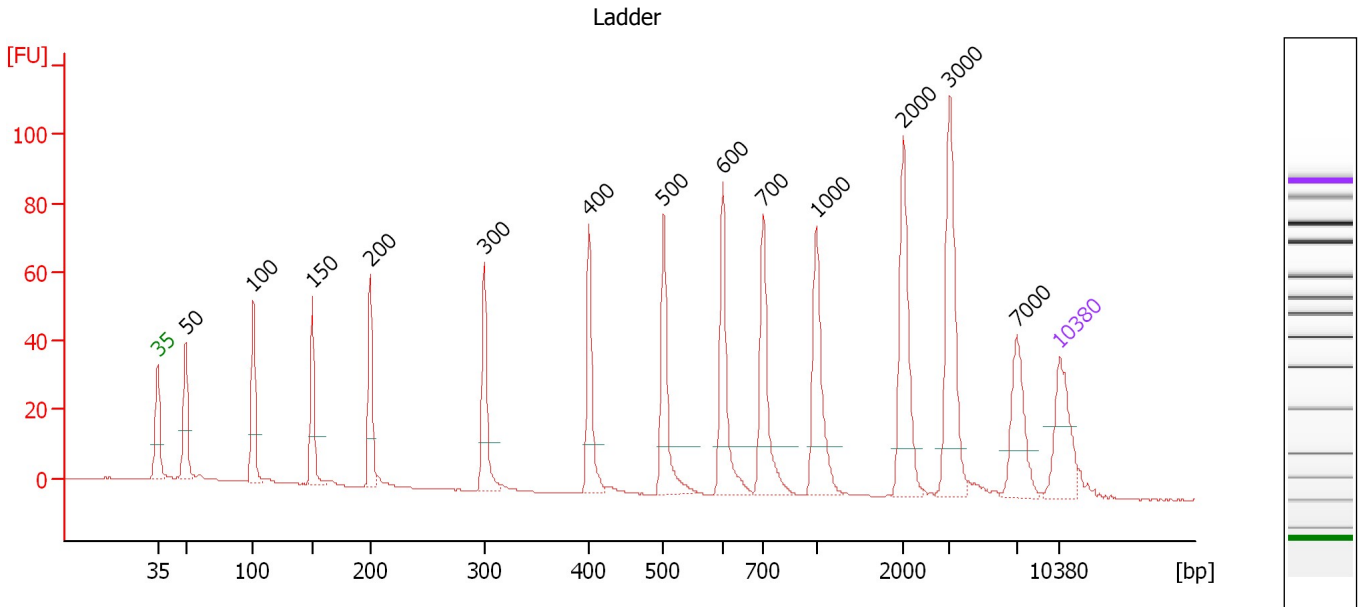
**Ladder**

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\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
 Modified: 3/5/2015 1:28:07 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

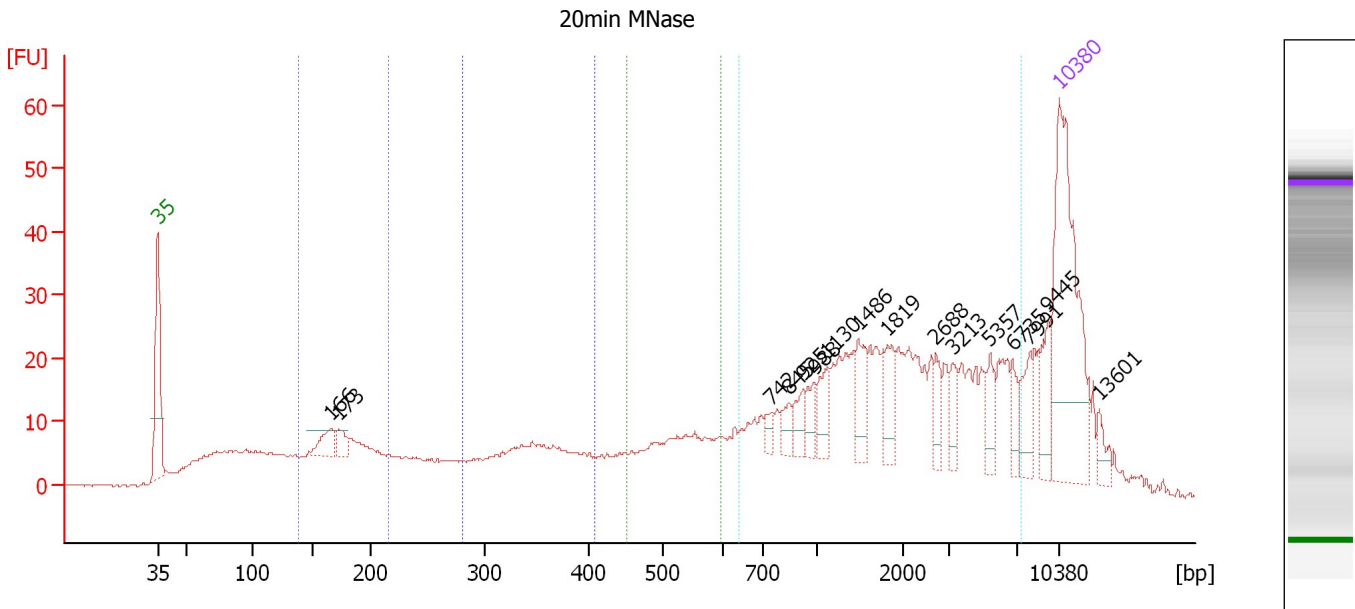
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	150.00	4,545.5	Ladder Peak	45.17
3	100	150.00	2,272.7	Ladder Peak	50.41
4	150	150.00	1,515.2	Ladder Peak	55.00
5	200	150.00	1,136.4	Ladder Peak	59.50
6	300	150.00	757.6	Ladder Peak	68.34
7	400	150.00	568.2	Ladder Peak	76.49
8	500	150.00	454.5	Ladder Peak	82.27
9	600	150.00	378.8	Ladder Peak	86.87
10	700	150.00	324.7	Ladder Peak	90.03
11	1,000	150.00	227.3	Ladder Peak	94.13
12	2,000	150.00	113.6	Ladder Peak	100.90
13	3,000	150.00	75.8	Ladder Peak	104.50
14	7,000	150.00	32.5	Ladder Peak	109.74
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
 Modified: 3/5/2015 1:28:07 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 1 : 20min MNase**

Height Threshold [FU] : 4

**Overall Results for sample 1 : 20min MNase**

Number of peaks found:	16	Corr. Area 2:	87.7
Noise:	0.2	Corr. Area 3:	72.1
Corr. Area 1:	88.1	Corr. Area 4:	421.8





**Peak table for sample 1 : 20min MNase**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	166	12.89	117.4		56.48
3	173	7.87	69.1		57.03
4	742	4.25	8.7		90.60
5	845	6.43	11.5		92.01
6	925	8.35	13.7		93.11
7	988	8.61	13.2		93.96
8	1,130	11.05	14.8		95.01
9	1,486	14.23	14.5		97.42
10	1,819	13.41	11.2		99.67
11	2,688	8.02	4.5		103.38
12	3,213	8.27	3.9		104.78
13	5,357	8.55	2.4		107.59
14	6,735	7.79	1.8		109.39
15	7,991	12.07	2.3		110.70
16	9,445	13.32	2.1		112.10
17	10,380	75.00	10.9	Upper Marker	113.00
18	13,601	0.00	0.0		116.11

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
Modified: 3/5/2015 1:28:07 PM

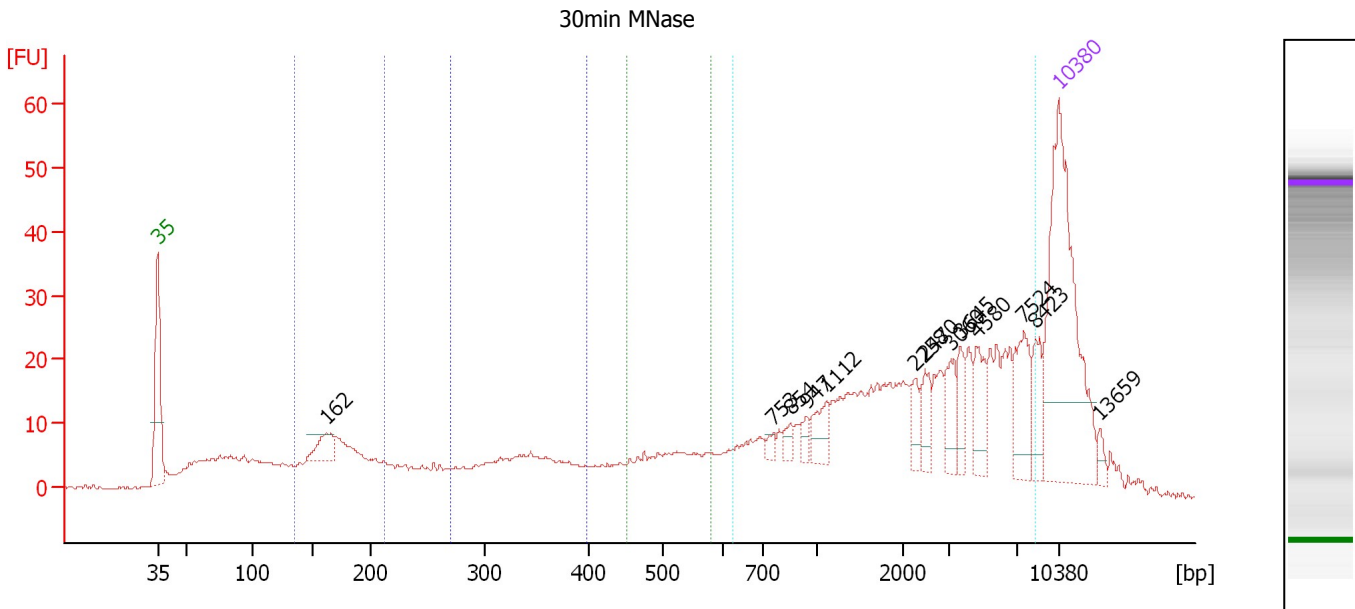
**Electropherogram Summary Continued ...****... Region table for sample 1 :      20min MNase**

<b>From [bp]</b>	<b>Average Size [bp]</b>	<b>To [bp]</b>	<b>Corr. Area</b>	<b>% of Total</b>	<b>Size distribution in CV [%]</b>	<b>Conc. [pg/μl]</b>	<b>Molarity [pmol/l]</b>	<b>Color</b>
138	176	216	88.1	10	11.8	116.59	1,018.3	
282	345	408	87.7	9	10.0	94.34	418.2	
449	523	598	72.1	8	8.2	70.16	204.7	
638	2,503	7,276	421.8	46	70.6	336.08	332.6	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
 Modified: 3/5/2015 1:28:07 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 2 : 30min MNase**

Height Threshold [FU] : 4

**Overall Results for sample 2 : 30min MNase**

Number of peaks found: 13      Corr. Area 2: 70.9  
 Noise: 0.3      Corr. Area 3: 48.1  
 Corr. Area 1: 75.8      Corr. Area 4: 383.6

**Peak table for sample 2 : 30min MNase**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	162	13.92	129.9		56.11
3	753	2.57	5.2		90.76
4	854	3.68	6.5		92.13
5	947	3.60	5.8		93.41
6	1,112	9.91	13.5		94.89
7	2,258	6.74	4.5		101.83
8	2,470	8.04	4.9		102.59
9	3,060	9.77	4.8		104.58
10	3,645	7.76	3.2		105.35
11	4,580	12.01	4.0		106.57
12	7,524	17.59	3.5		110.24
13	8,423	10.17	1.8		111.11
14	10,380	75.00	10.9	Upper Marker	113.00
15	13,659	0.00	0.0		116.16



**Region table for sample 2 : 30min MNase**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
135	173	213	75.8	10	11.7	88.78	789.6	Blue
271	335	398	70.9	9	10.5	67.85	310.0	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
Modified: 3/5/2015 1:28:07 PM

**Electropherogram Summary Continued ...****... Region table for sample 2 :      30min MNase**

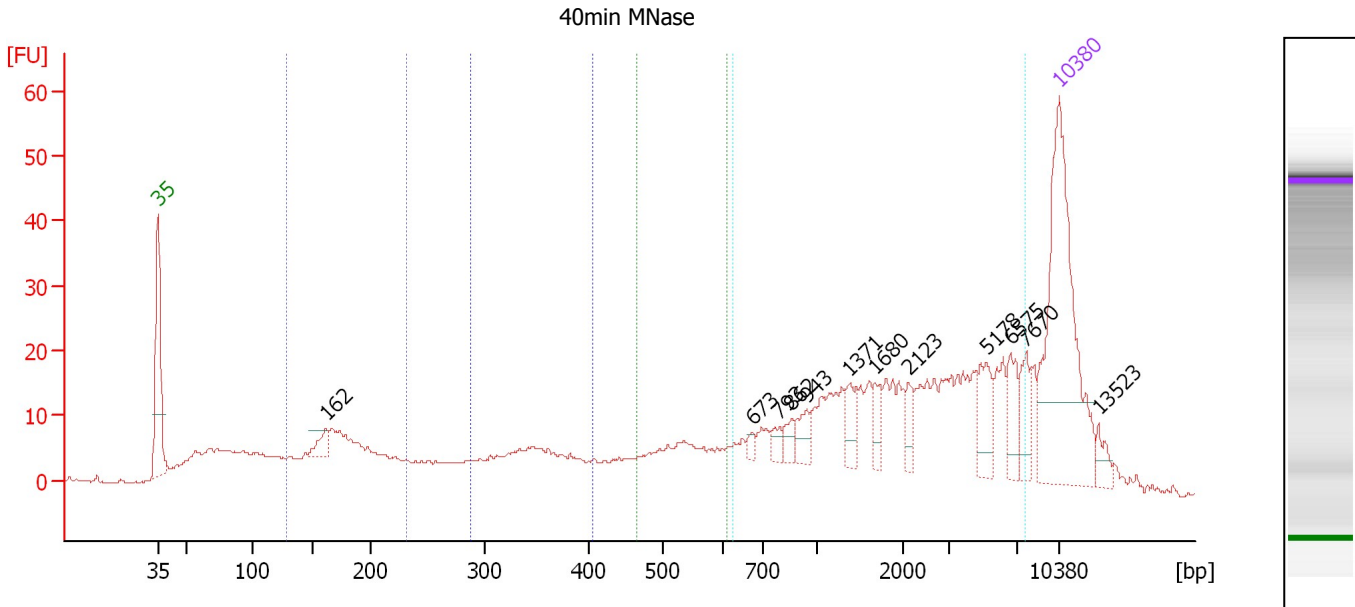
<b>From [bp]</b>	<b>Average Size [bp]</b>	<b>To [bp]</b>	<b>Corr. Area</b>	<b>% of Total</b>	<b>Size distribution in CV [%]</b>	<b>Conc. [pg/μl]</b>	<b>Molarity [pmol/l]</b>	<b>Color</b>
450	514	581	48.1	6	7.4	41.49	123.2	
626	3,158	8,467	383.6	51	70.9	266.78	234.2	



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
 Modified: 3/5/2015 1:28:07 PM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 3 : 40min MNase**

Height Threshold [FU] : 4

**Overall Results for sample 3 : 40min MNase**

Number of peaks found:	12	Corr. Area 2:	66.0
Noise:	0.2	Corr. Area 3:	51.8
Corr. Area 1:	92.1	Corr. Area 4:	339.8

**Peak table for sample 3 : 40min MNase**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	162	8.28	77.5		56.07
3	673	2.42	5.5		89.16
4	793	3.80	7.3		91.30
5	862	4.69	8.2		92.25
6	943	7.13	11.5		93.34
7	1,371	8.16	9.0		96.64
8	1,680	6.19	5.6		98.73
9	2,123	5.85	4.2		101.34
10	5,178	13.32	3.9		107.35
11	6,575	10.49	2.4		109.18
12	7,670	9.33	1.8		110.39
13	10,380	75.00	10.9	Upper Marker	113.00
14	13,523	0.00	0.0		116.03


**Region table for sample 3 : 40min MNase**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
128	178	232	92.1	13	15.1	109.65	960.1	Blue
289	346	406	66.0	9	9.2	63.80	280.7	Dark Blue
463	533	608	51.8	7	7.6	45.21	129.5	Green

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
Modified: 3/5/2015 1:28:07 PM

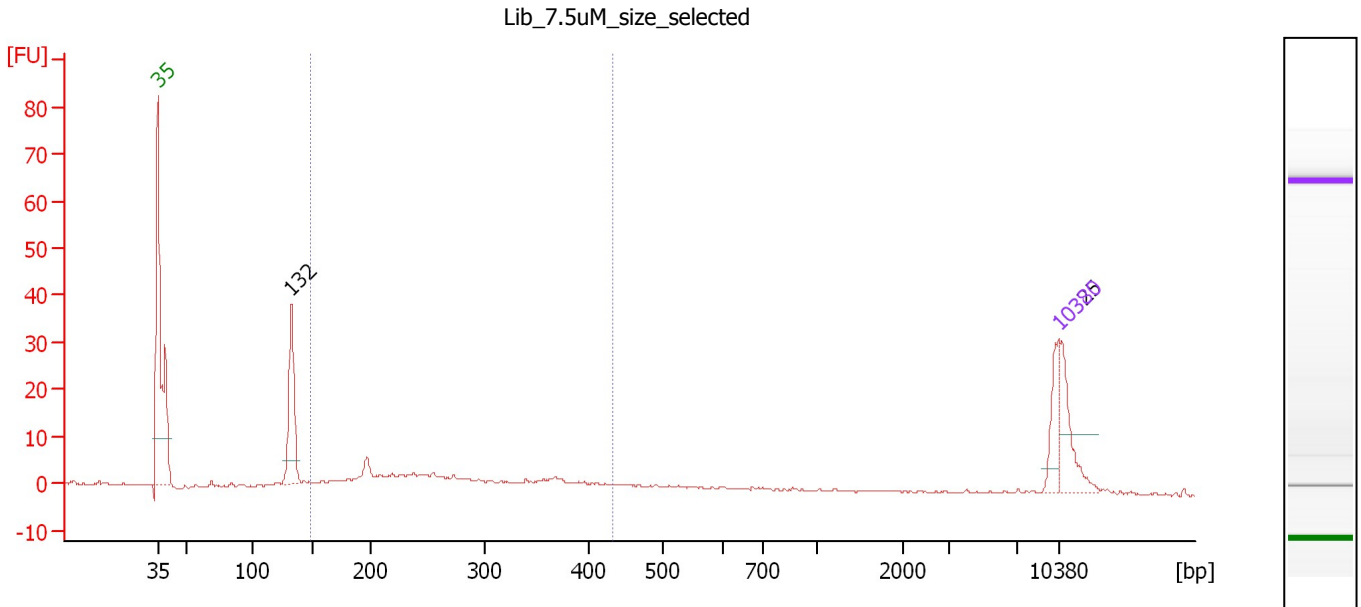
**Electropherogram Summary Continued ...****... Region table for sample 3 :      40min MNase**

<b>From [bp]</b>	<b>Average Size [bp]</b>	<b>To [bp]</b>	<b>Corr. Area</b>	<b>% of Total</b>	<b>Size distribution in CV [%]</b>	<b>Conc. [pg/<math>\mu</math>l]</b>	<b>Molarity [pmol/l]</b>	<b>Co lor</b>
627	2,781	7,682	339.8	47	71.0	243.44	231.3	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
 Modified: 3/5/2015 1:28:07 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : Lib 7.5uM size selected**

Number of peaks found: 2                      Corr. Area 1: 67.7  
 Noise: 0.2

**Peak table for sample 4 : Lib 7.5uM size selected**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	132	174.53	1,996.1		53.39
3	10,325	48.42	7.1		112.95
4	10,380	75.00	10.9	Upper Marker	113.00

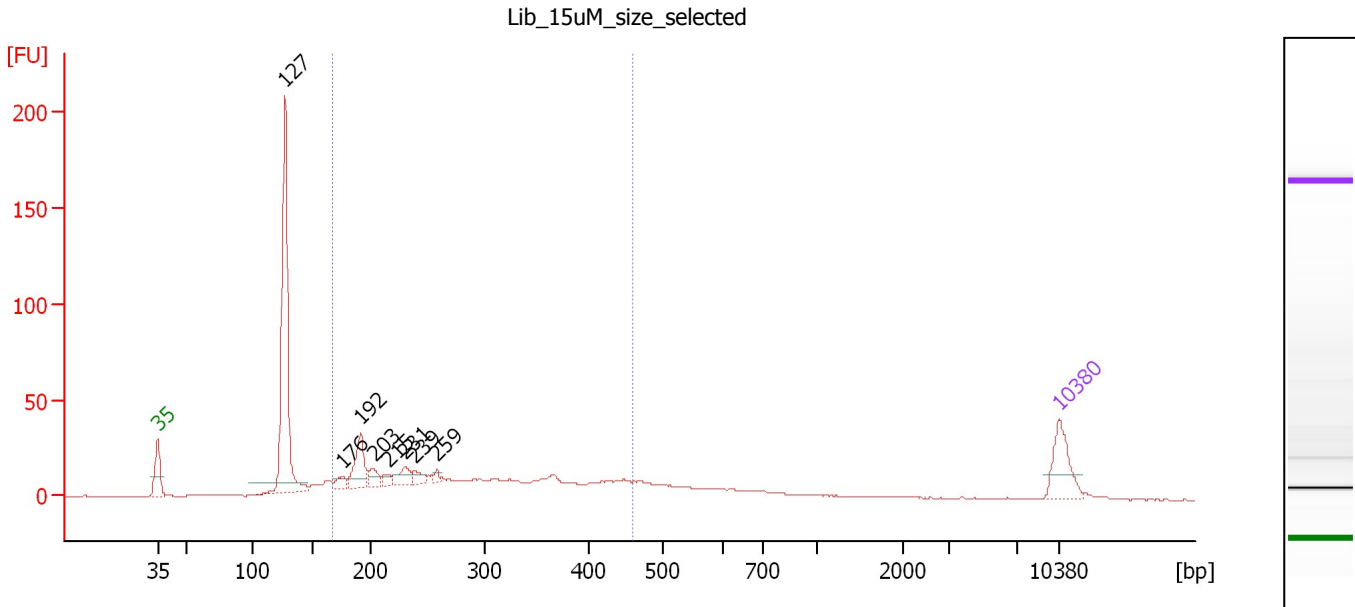
**Region table for sample 4 : Lib 7.5uM size selected**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
148	273	433	67.7	46	26.6	294.33	1,806.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
 Modified: 3/5/2015 1:28:07 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : Lib 15uM size selected**

Number of peaks found: 8                      Corr. Area 1: 359.9  
 Noise: 0.1

**Peak table for sample 5 : Lib 15uM size selected**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	127	593.01	7,074.9		52.89
3	176	26.18	225.0		57.37
4	192	100.29	793.4		58.74
5	203	32.73	244.2		59.78
6	215	16.15	113.5		60.87
7	231	39.57	259.6		62.23
8	239	21.47	136.2		62.95
9	259	11.04	64.6		64.69
10	10,380	75.00	10.9	Upper Marker	113.00

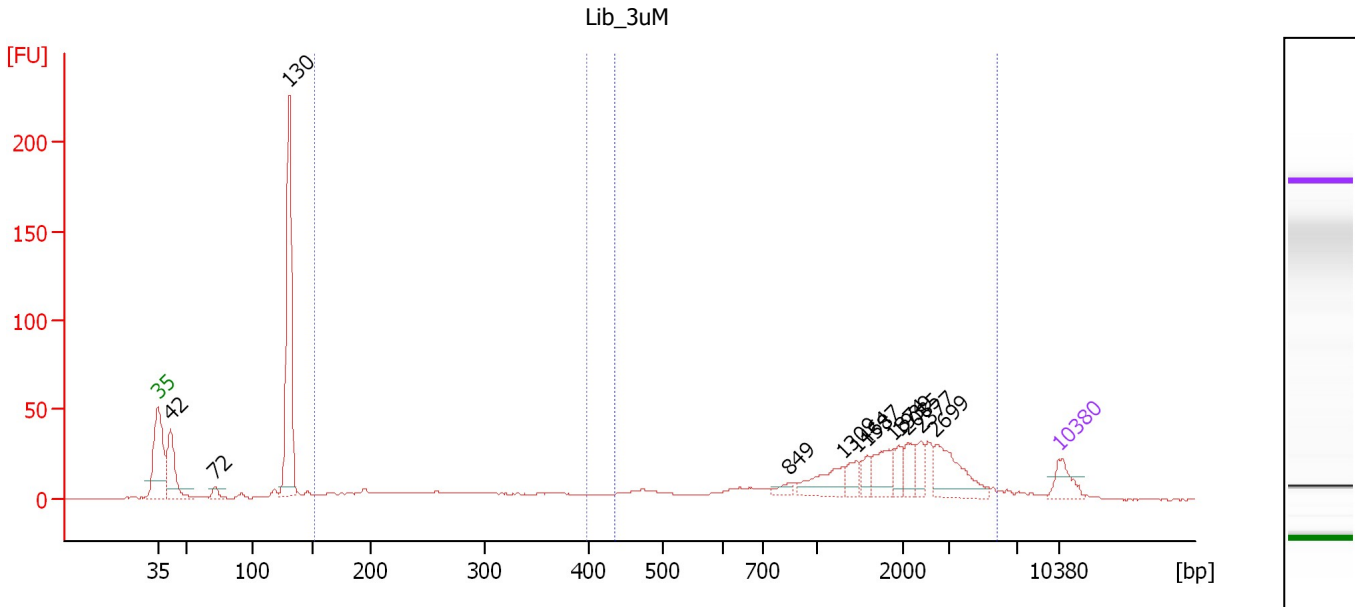
**Region table for sample 5 : Lib 15uM size selected**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
168	287	459	359.9	51	28.5	866.41	5,137.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
 Modified: 3/5/2015 1:28:07 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : Lib 3uM**

Number of peaks found: 12                      Corr. Area 1: 102.6  
 Noise: 0.1    Corr. Area 2: 392.9

**Peak table for sample 6 : Lib 3uM**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	42	325.44	11,774.3		44.00
3	72	36.85	780.3		47.43
4	130	957.63	11,139.5		53.19
5	849	33.02	58.9		92.07
6	1,309	129.86	150.3		96.22
7	1,464	62.44	64.6		97.27
8	1,587	49.95	47.7		98.10
9	1,874	114.59	92.7		100.04
10	1,939	53.35	41.7		100.48
11	2,085	72.20	52.5		101.20
12	2,377	60.90	38.8		102.26
13	2,699	191.16	107.3		103.42
14	10,380	75.00	10.9	Upper Marker	113.00

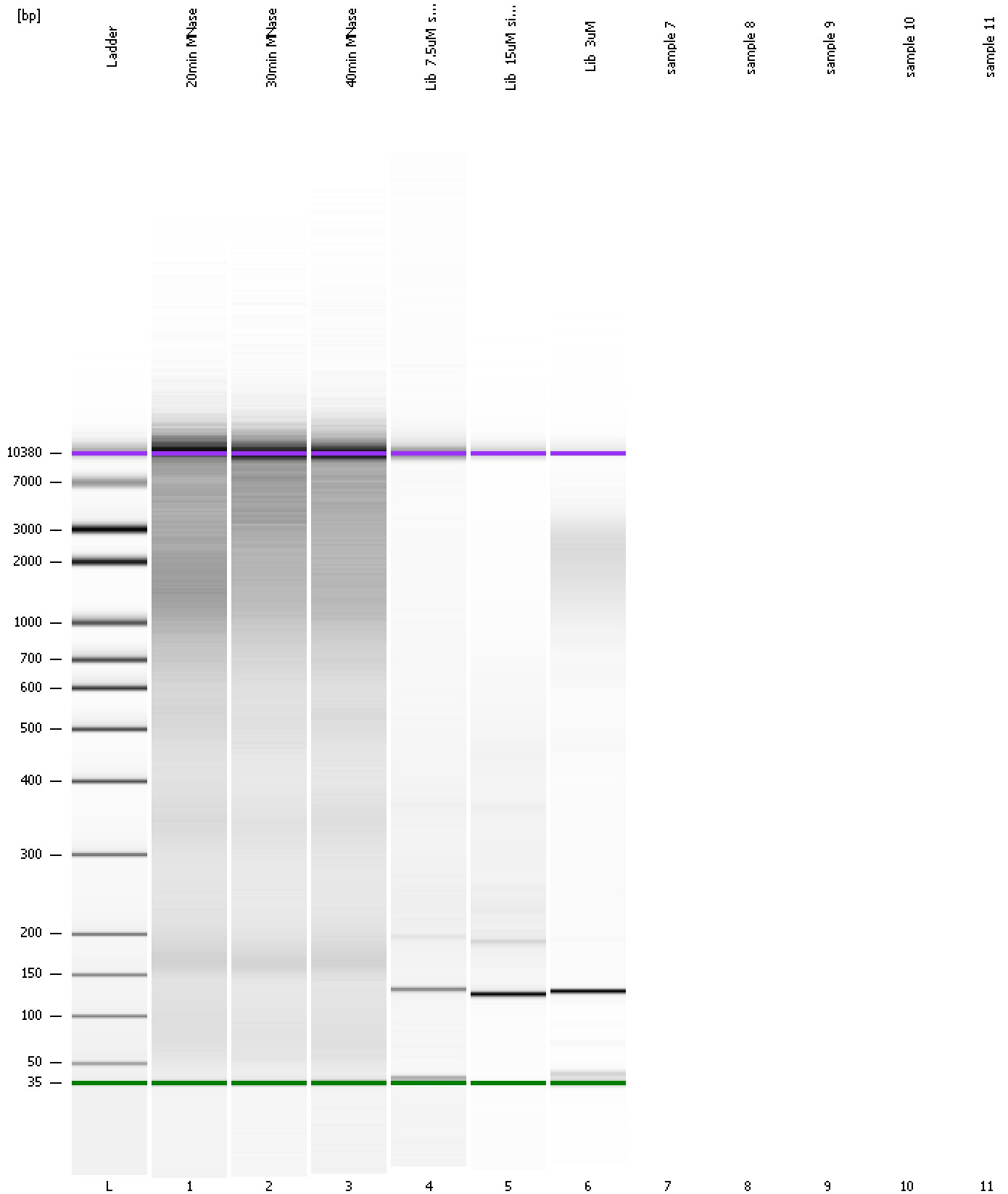
**Region table for sample 6 : Lib 3uM**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
152	270	398	102.6	13	25.4	439.92	2,718.4	Blue
433	1,935	5,823	392.9	49	55.1	1,145.31	1,391.2	Dark Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
Modified: 3/5/2015 1:28:07 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
Modified: 3/5/2015 1:28:07 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  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-05\2015-03-05\_001.xad

Created: 3/5/2015 12:38:20 PM  
 Modified: 3/5/2015 1:28:07 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		3/5/2015 1:05:21 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-03-05\2015-03-05_001.xad)		Instrument	Run		3/5/2015 12:38:26 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/5/2015 12:38:26 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/5/2015 12:38:26 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/5/2015 12:38:26 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/5/2015 12:38:26 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/5/2015 12:38:26 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/5/2015 12:38:26 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1