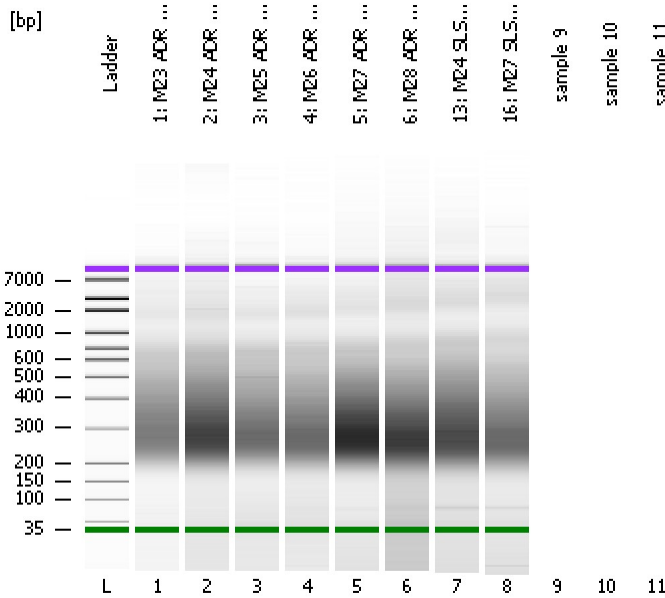


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-19\2016-08-19\_001.xad

Created: 8/19/2016 10:50:56 AM  
Modified: 8/19/2016 11:41:37 AM

**Electrophoresis File Run Summary**



Instrument Information:

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

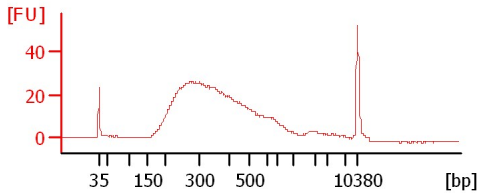
Assay Information:

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

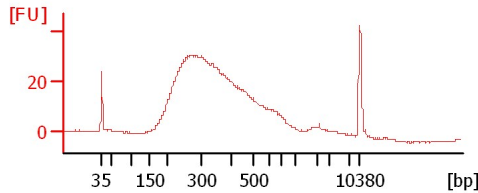
Chip Information:

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

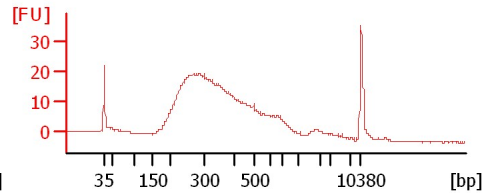
**1: M23 ADR Bisulfite Library**



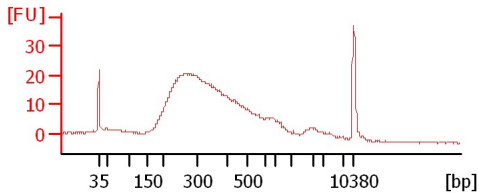
**2: M24 ADR Bisulfite Library**



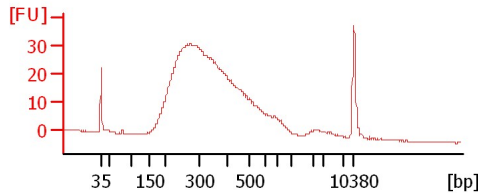
**3: M25 ADR Bisulfite Library**



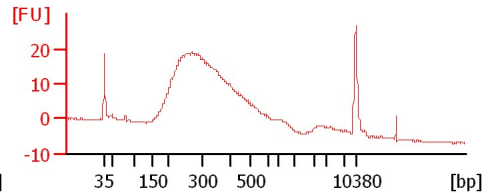
**4: M26 ADR Bisulfite Library**



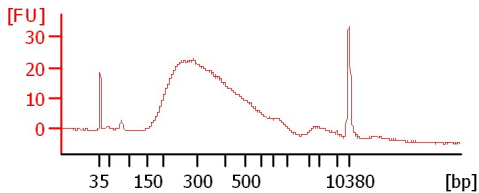
**5: M27 ADR Bisulfite Library**



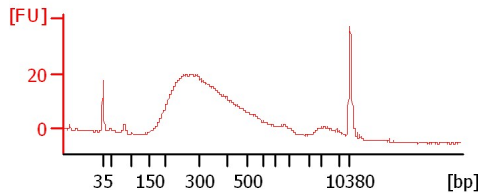
**6: M28 ADR Bisulfite Library**



**13: M24 SLS Bisulfite Library**



**16: M27 SLS Bisulfite Library**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-19\2016-08-19\_001.xad

Created: 8/19/2016 10:50:56 AM  
Modified: 8/19/2016 11:41:37 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
1: M23 ADR Bisulfite Library		<input type="checkbox"/>		✓		
2: M24 ADR Bisulfite Library		<input type="checkbox"/>		✓		
3: M25 ADR Bisulfite Library		<input type="checkbox"/>		✓		
4: M26 ADR Bisulfite Library		<input type="checkbox"/>		✓		
5: M27 ADR Bisulfite Library		<input type="checkbox"/>		✓		
6: M28 ADR Bisulfite Library		<input type="checkbox"/>		✓		
13: M24 SLS Bisulfite Library		<input type="checkbox"/>		✓		
16: M27 SLS Bisulfite Library		<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:\... bioanalyzer\2100 expert\data\2016-08-19\2016-08-19\_001.xad

Created: 8/19/2016 10:50:56 AM  
Modified: 8/19/2016 11:41:37 AM

**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

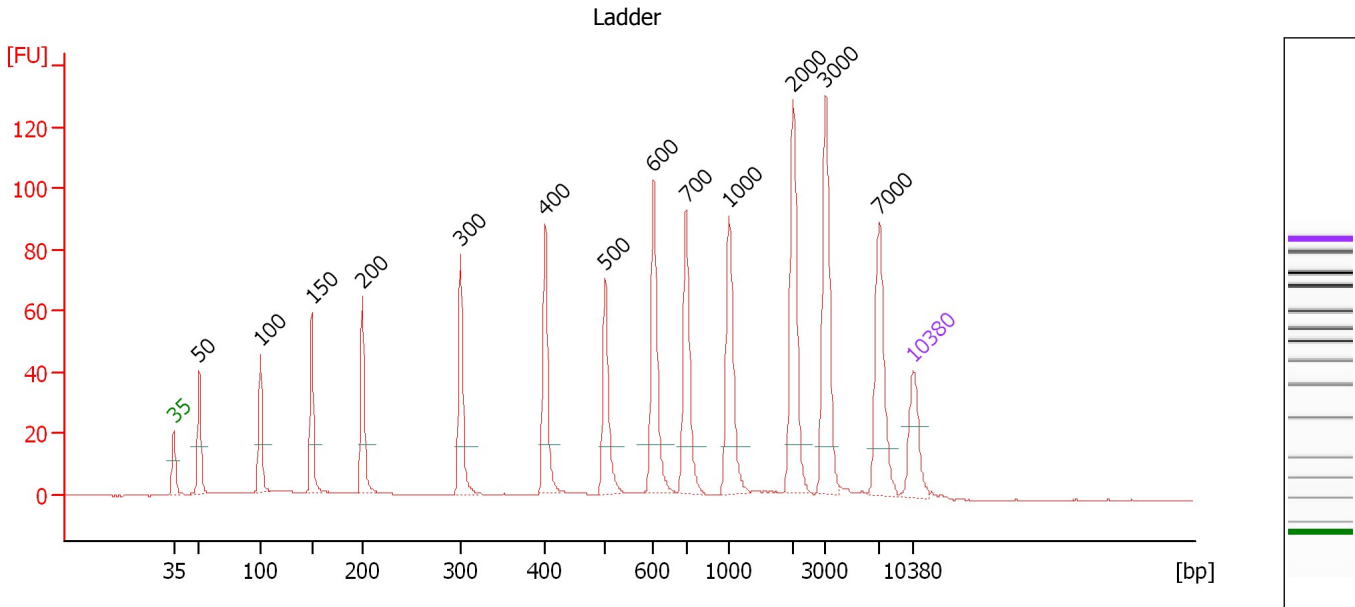
**Ladder**

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:\... bioanalyzer\2100 expert\data\2016-08-19\2016-08-19\_001.xad

Created: 8/19/2016 10:50:56 AM  
 Modified: 8/19/2016 11:41:37 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

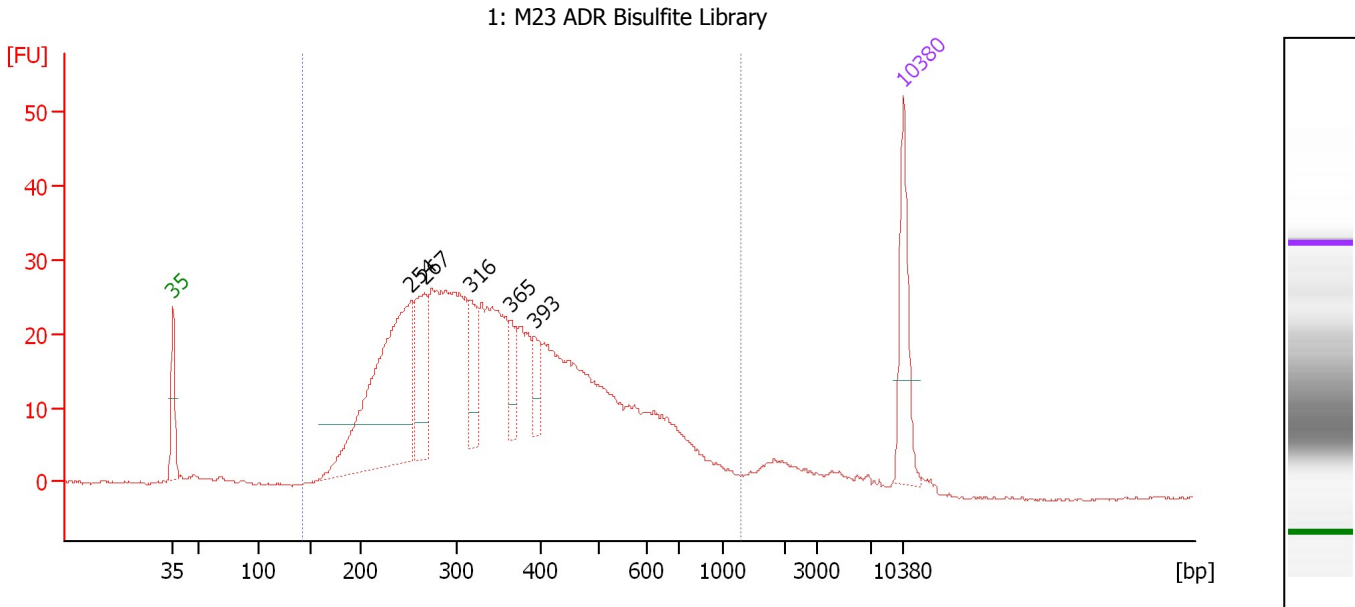
**Peak table for Ladder**

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	45.42
3	100	150.00	2,272.7	Ladder Peak	51.23
4	150	150.00	1,515.2	Ladder Peak	56.08
5	200	150.00	1,136.4	Ladder Peak	60.88
6	300	150.00	757.6	Ladder Peak	70.17
7	400	150.00	568.2	Ladder Peak	78.20
8	500	150.00	454.5	Ladder Peak	83.86
9	600	150.00	378.8	Ladder Peak	88.45
10	700	150.00	324.7	Ladder Peak	91.54
11	1,000	150.00	227.3	Ladder Peak	95.63
12	2,000	150.00	113.6	Ladder Peak	101.69
13	3,000	150.00	75.8	Ladder Peak	104.77
14	7,000	150.00	32.5	Ladder Peak	109.87
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-19\2016-08-19\_001.xad

Created: 8/19/2016 10:50:56 AM  
 Modified: 8/19/2016 11:41:37 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 1: M23 ADR Bisulfite Library**

Number of peaks found: 5                      Corr. Area 1: 835.5  
 Noise: 0.2

**Peak table for sample 1 : 1: M23 ADR Bisulfite Library**

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	254	414.95	2,479.5		65.86
3	267	123.64	700.8		67.13
4	316	67.36	322.7		71.48
5	365	35.09	145.8		75.37
6	393	35.31	136.2		77.62
7	10,380	75.00	10.9	Upper Marker	113.00

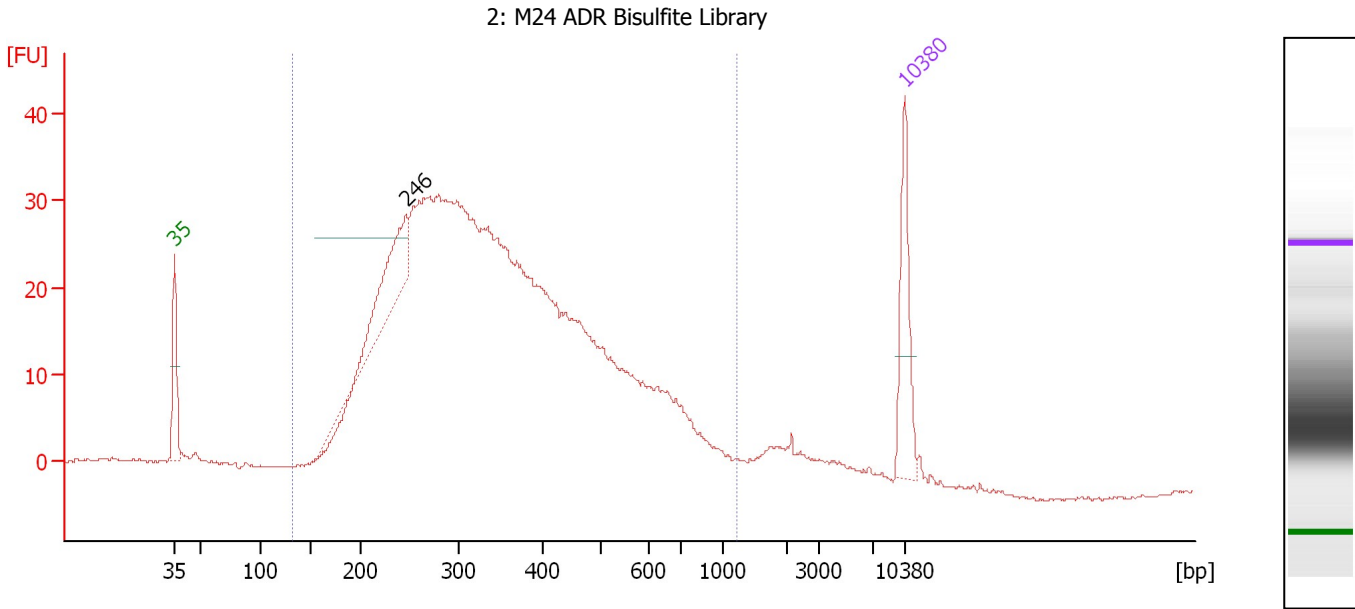
**Region table for sample 1 : 1: M23 ADR Bisulfite Library**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
142	1,287	382	835.5	10,552.0	2,204.64	94	41.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-19\2016-08-19\_001.xad

Created: 8/19/2016 10:50:56 AM  
 Modified: 8/19/2016 11:41:37 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 2: M24 ADR Bisulfite Library**

Number of peaks found: 1                      Corr. Area 1: 943.9  
 Noise: 0.2

**Peak table for sample 2 : 2: M24 ADR Bisulfite Library**

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	246	133.13	818.6		65.19
3	10,380	75.00	10.9	Upper Marker	113.00

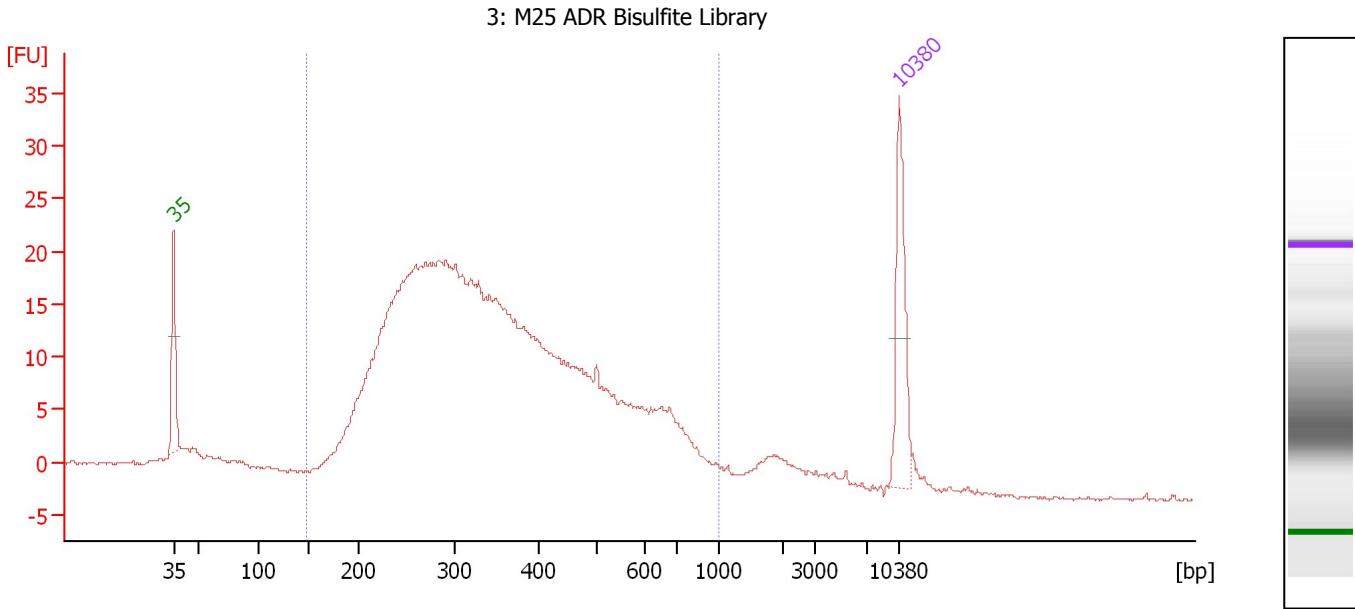
**Region table for sample 2 : 2: M24 ADR Bisulfite Library**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
132	1,226	369	943.9	14,463.0	2,944.98	95	40.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-19\2016-08-19\_001.xad

Created: 8/19/2016 10:50:56 AM  
 Modified: 8/19/2016 11:41:37 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 3: M25 ADR Bisulfite Library**

Number of peaks found: 0                      Corr. Area 1: 582.5  
 Noise: 0.1

**Peak table for sample 3 : 3: M25 ADR Bisulfite Library**

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	10,380	75.00	10.9	Upper Marker	113.00

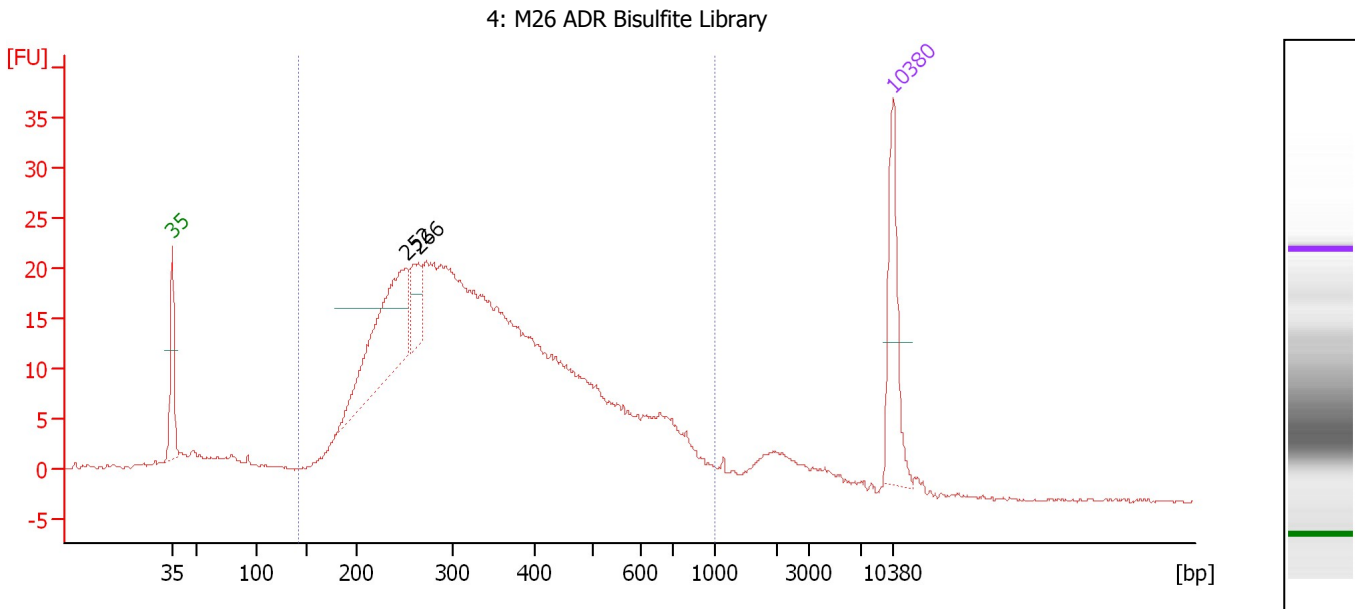
**Region table for sample 3 : 3: M25 ADR Bisulfite Library**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
147	1,000	370	582.5	10,342.8	2,133.34	93	38.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-19\2016-08-19\_001.xad

Created: 8/19/2016 10:50:56 AM  
 Modified: 8/19/2016 11:41:37 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 4: M26 ADR Bisulfite Library**

Number of peaks found: 2                      Corr. Area 1: 628.1  
 Noise: 0.2

**Peak table for sample 4 : 4: M26 ADR Bisulfite Library**

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	252	214.63	1,289.5		65.73
3	266	48.02	273.9		66.97
4	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : 4: M26 ADR Bisulfite Library**

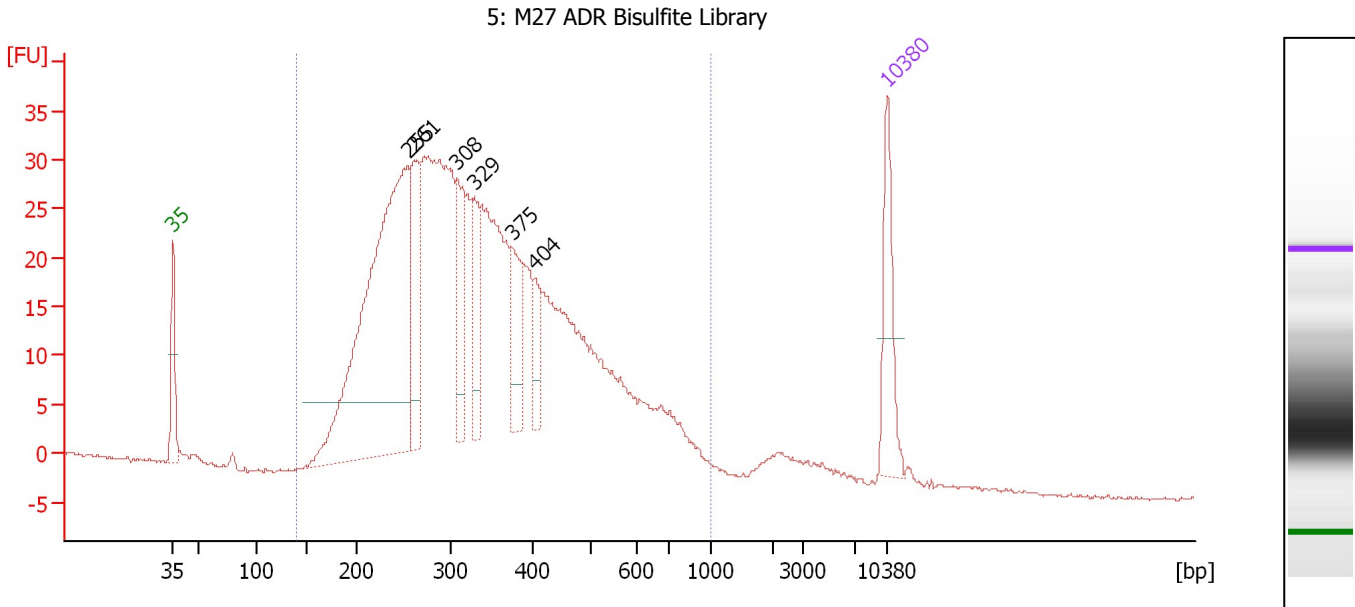
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
143	1,000	366	628.1	10,081.5	2,036.90	92	39.5



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-19\2016-08-19\_001.xad

Created: 8/19/2016 10:50:56 AM  
 Modified: 8/19/2016 11:41:37 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 5: M27 ADR Bisulfite Library**

Number of peaks found: 6                      Corr. Area 1: 887.8  
 Noise: 0.1

**Peak table for sample 5 : 5: M27 ADR Bisulfite Library**

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	255	754.79	4,485.7		65.99
3	261	135.44	785.9		66.56
4	308	114.08	561.7		70.79
5	329	84.17	388.2		72.46
6	375	82.71	334.4		76.17
7	404	43.54	163.4		78.42
8	10,380	75.00	10.9	Upper Marker	113.00

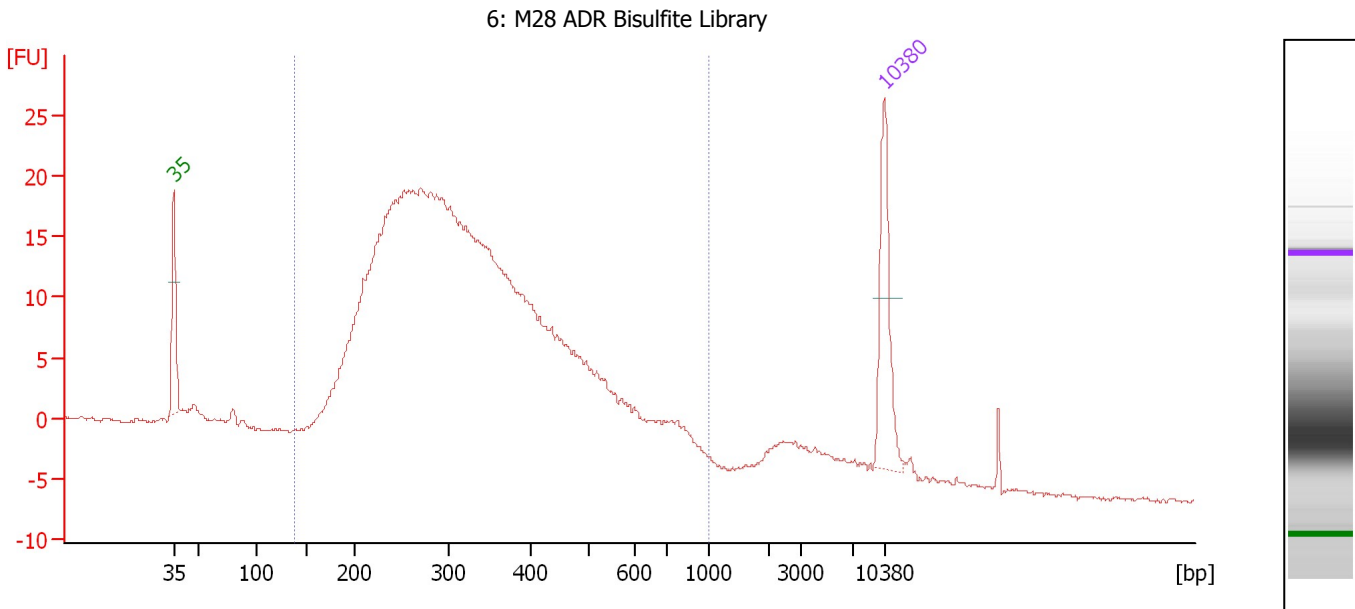
**Region table for sample 5 : 5: M27 ADR Bisulfite Library**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
140	1,000	357	887.8	14,496.4	2,917.68	97	37.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-19\2016-08-19\_001.xad

Created: 8/19/2016 10:50:56 AM  
 Modified: 8/19/2016 11:41:37 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 6: M28 ADR Bisulfite Library**

Number of peaks found: 0                      Corr. Area 1: 578.1  
 Noise: 0.2

**Peak table for sample 6 : 6: M28 ADR Bisulfite Library**

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	10,380	75.00	10.9	Upper Marker	113.00

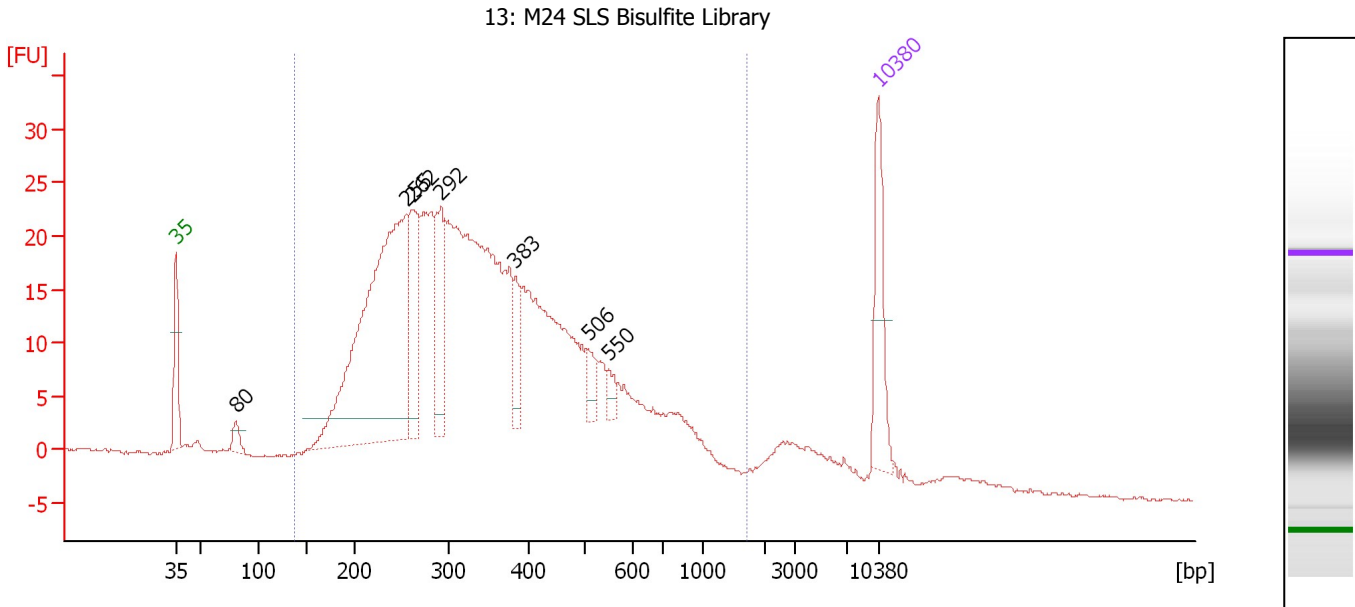
**Region table for sample 6 : 6: M28 ADR Bisulfite Library**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
138	1,000	345	578.1	12,097.0	2,347.45	93	37.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-19\2016-08-19\_001.xad

Created: 8/19/2016 10:50:56 AM  
 Modified: 8/19/2016 11:41:37 AM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 7 : 13: M24 SLS Bisulfite Library**

Height Threshold [FU] : 2

**Overall Results for sample 7 : 13: M24 SLS Bisulfite Library**

Number of peaks found: 7                      Corr. Area 1: 733.5  
 Noise: 0.2

**Peak table for sample 7 : 13: M24 SLS Bisulfite Library**

Pea k	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	80	21.63	407.7		48.95
3	255	633.42	3,768.2		65.96
4	262	125.92	729.4		66.60
5	292	109.20	566.9		69.42
6	383	42.37	167.5		76.86
7	506	25.52	76.4		84.14
8	550	14.63	40.3		86.16
9	10,380	75.00	10.9	Upper Marker	113.00

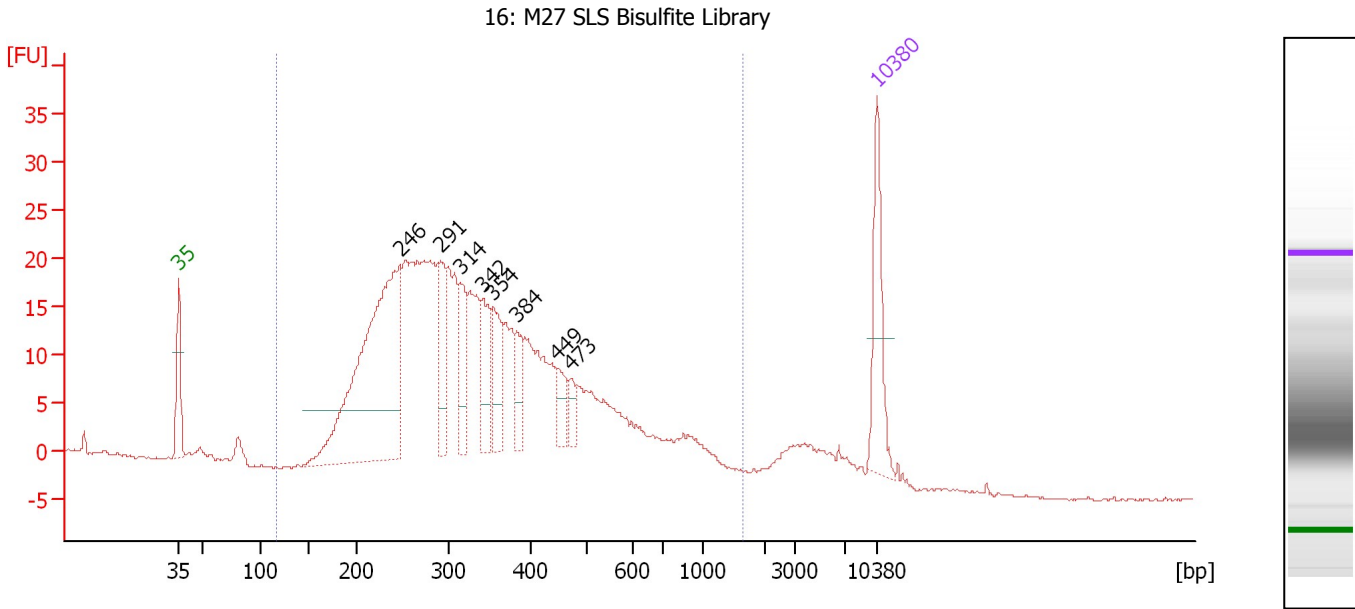
**Region table for sample 7 : 13: M24 SLS Bisulfite Library**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
137	1,703	377	733.5	13,700.0	2,761.80	93	46.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-19\2016-08-19\_001.xad

Created: 8/19/2016 10:50:56 AM  
 Modified: 8/19/2016 11:41:37 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 16: M27 SLS Bisulfite Library**

Number of peaks found: 8                      Corr. Area 1: 601.7  
 Noise: 0.2

**Peak table for sample 8 : 16: M27 SLS Bisulfite Library**

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	246	512.61	3,154.2		65.18
3	291	91.81	478.8		69.29
4	314	66.94	323.4		71.27
5	342	66.94	296.9		73.51
6	354	69.78	298.5		74.53
7	384	39.24	154.7		76.93
8	449	32.83	110.7		80.99
9	473	17.66	56.6		82.33
10	10,380	75.00	10.9	Upper Marker	113.00

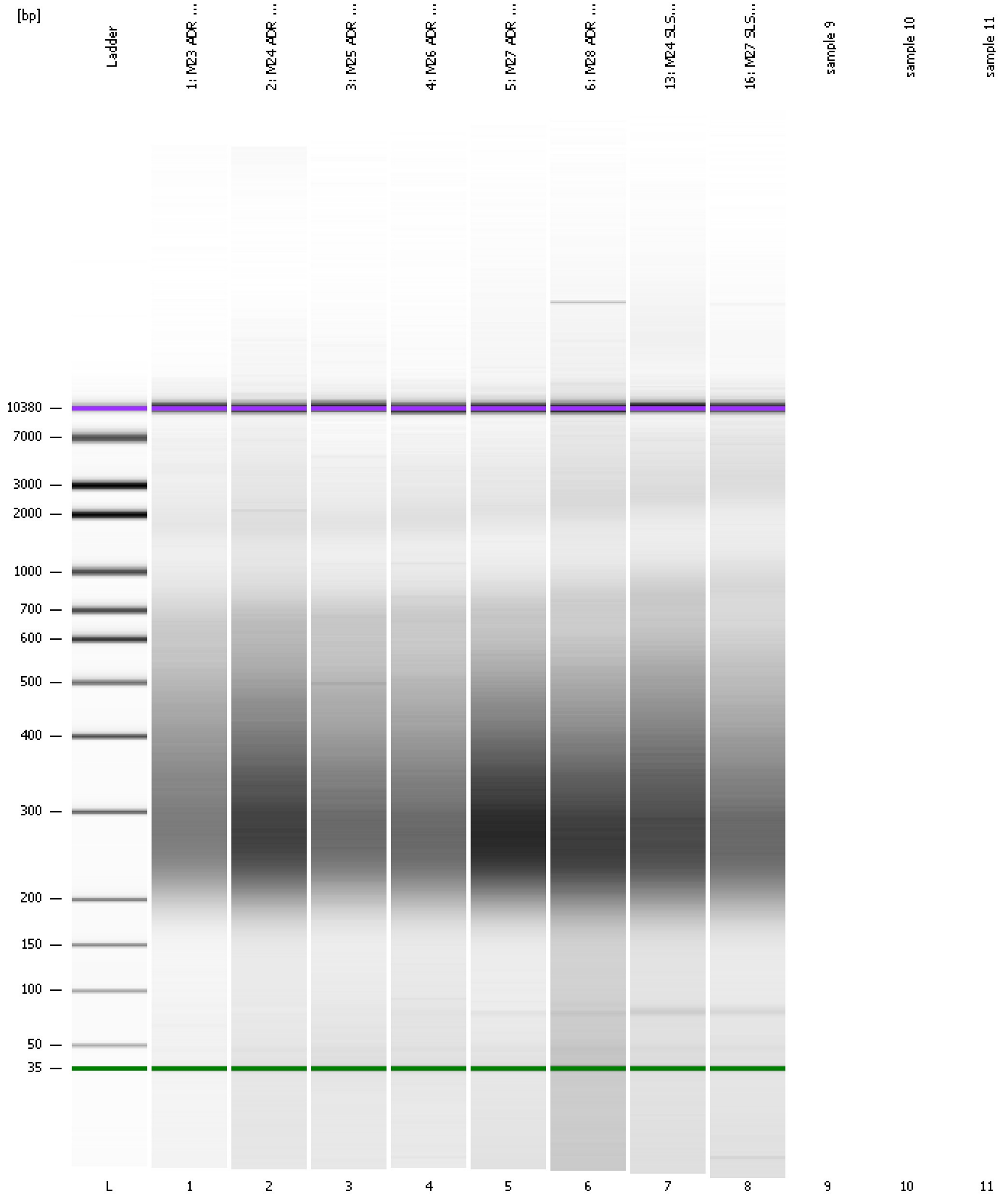
**Region table for sample 8 : 16: M27 SLS Bisulfite Library**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
116	1,641	371	601.7	10,583.5	2,118.36	95	48.5

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-19\2016-08-19\_001.xad

Created: 8/19/2016 10:50:56 AM  
Modified: 8/19/2016 11:41:37 AM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-19\2016-08-19\_001.xad

Created: 8/19/2016 10:50:56 AM  
Modified: 8/19/2016 11:41:37 AM

**Invalid Samples**

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:\... bioanalyzer\2100 expert\data\2016-08-19\2016-08-19\_001.xad

Created: 8/19/2016 10:50:56 AM  
 Modified: 8/19/2016 11:41:37 AM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 9)		Instrument	Run		8/19/2016 11:23:39 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-08-19\2016-08-19_001.xad)		Instrument	Run		8/19/2016 10:51:02 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		8/19/2016 10:51:02 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/19/2016 10:51:02 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/19/2016 10:51:02 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		8/19/2016 10:51:02 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/19/2016 10:51:02 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/19/2016 10:51:02 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1