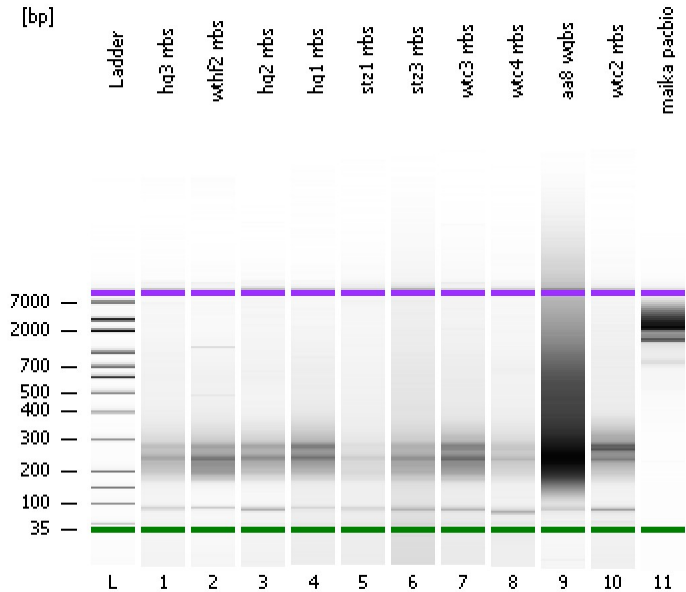


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
Modified: 1/26/2017 2:53:20 PM

**Electrophoresis File Run Summary**



Instrument Information:

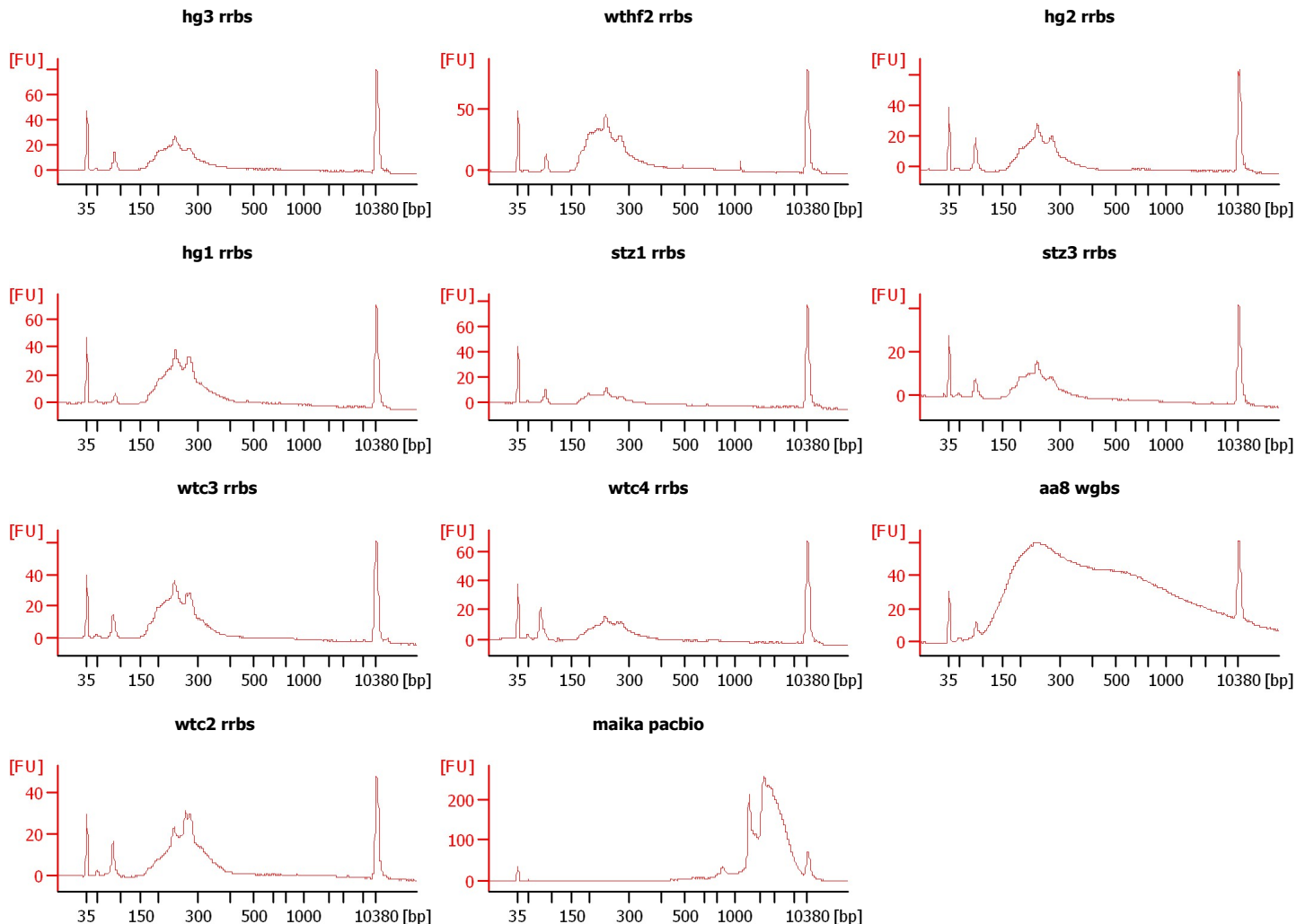
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
 Modified: 1/26/2017 2:53:20 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
hg3 rrbs		<input type="checkbox"/>	✓			
wthf2 rrbs		<input type="checkbox"/>	✓			
hg2 rrbs		<input type="checkbox"/>	✓			
hg1 rrbs		<input type="checkbox"/>	✓			
stz1 rrbs		<input type="checkbox"/>	✓			
stz3 rrbs		<input type="checkbox"/>	✓			
wtc3 rrbs		<input type="checkbox"/>	✓			
wtc4 rrbs		<input type="checkbox"/>	✓			
aa8 wgbs		<input type="checkbox"/>	✓			
wtc2 rrbs		<input type="checkbox"/>	✓			
maika pacbio		<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\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
Modified: 1/26/2017 2:53:20 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

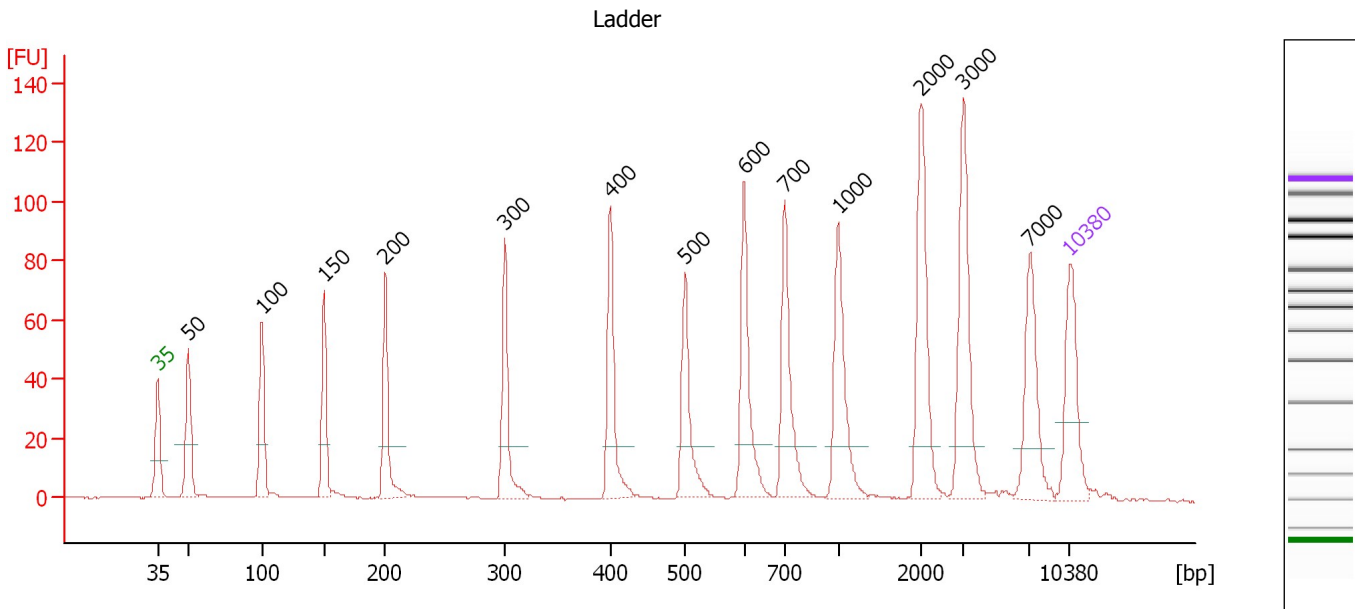
**Ladder**

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:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

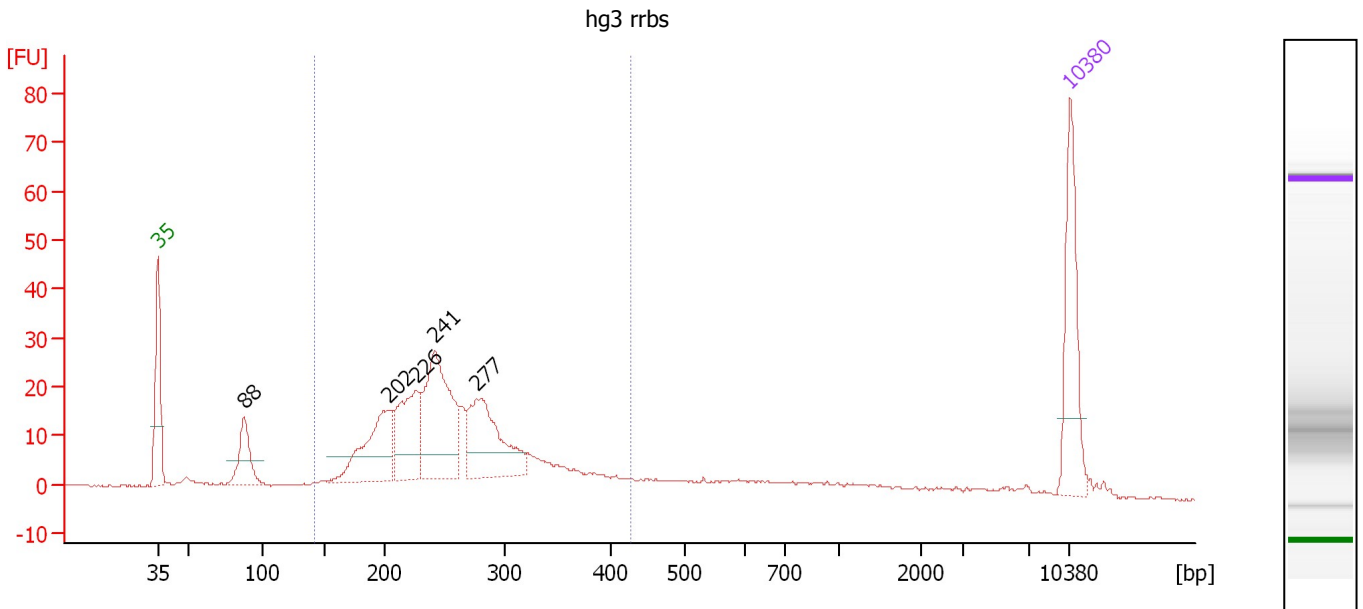
**Peak table for Ladder**

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	45.39
3	100	150.00	2,272.7	Ladder Peak	51.03
4	150	150.00	1,515.2	Ladder Peak	55.76
5	200	150.00	1,136.4	Ladder Peak	60.49
6	300	150.00	757.6	Ladder Peak	69.63
7	400	150.00	568.2	Ladder Peak	77.76
8	500	150.00	454.5	Ladder Peak	83.50
9	600	150.00	378.8	Ladder Peak	88.02
10	700	150.00	324.7	Ladder Peak	91.15
11	1,000	150.00	227.3	Ladder Peak	95.25
12	2,000	150.00	113.6	Ladder Peak	101.63
13	3,000	150.00	75.8	Ladder Peak	104.87
14	7,000	150.00	32.5	Ladder Peak	109.97
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
 Modified: 1/26/2017 2:53:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : hg3 rrbs**

Number of peaks found: 5                      Corr. Area 1: 367.7  
 Noise: 0.2

**Peak table for sample 1 : hg3 rrbs**

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	88	56.04	968.5		49.64
3	202	106.42	796.3		60.71
4	226	96.67	648.4		62.85
5	241	163.80	1,029.3		64.25
6	277	117.40	642.5		67.51
7	10,380	75.00	10.9	Upper Marker	113.00

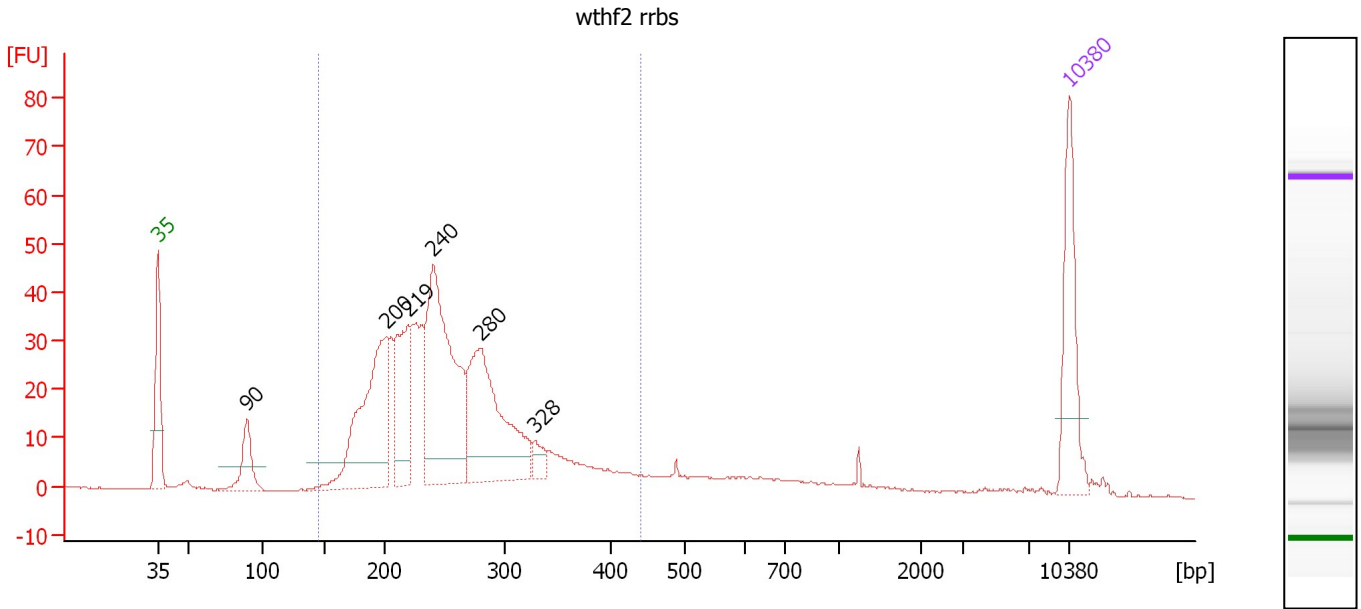
**Region table for sample 1 : hg3 rrbs**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
143	428	258	367.7	4,107.2	662.07	80	21.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
 Modified: 1/26/2017 2:53:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : wthf2 rrbs**

Number of peaks found: 6                      Corr. Area 1: 608.4  
 Noise: 0.2

**Peak table for sample 2 : wthf2 rrbs**

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	90	53.32	901.5		49.86
3	200	214.77	1,624.7		60.51
4	219	118.28	818.2		62.23
5	240	282.65	1,783.4		64.16
6	280	209.96	1,136.3		67.80
7	328	17.42	80.4		71.92
8	10,380	75.00	10.9	Upper Marker	113.00

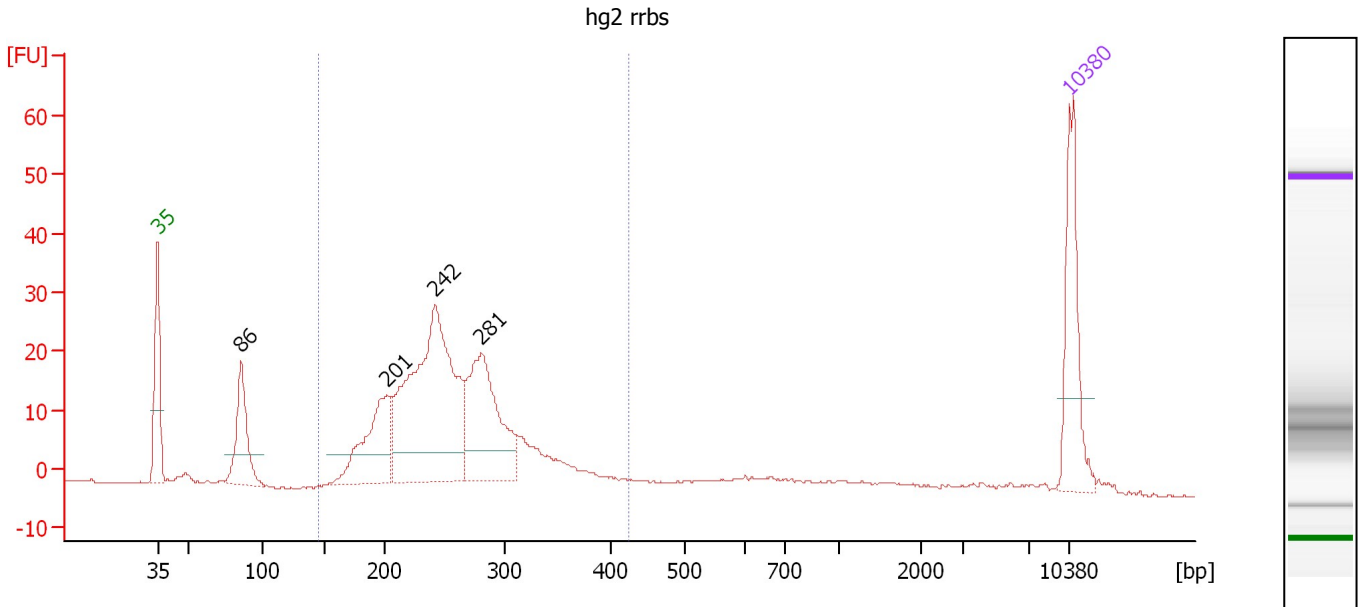
**Region table for sample 2 : wthf2 rrbs**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
147	442	254	608.4	6,862.8	1,089.29	89	21.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
 Modified: 1/26/2017 2:53:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : hg2 rrbs**

Number of peaks found: 4                      Corr. Area 1: 394.6  
 Noise: 0.2

**Peak table for sample 3 : hg2 rrbs**

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	86	92.84	1,640.0		49.42
3	201	115.57	871.0		60.58
4	242	348.56	2,181.2		64.34
5	281	167.75	905.1		67.88
6	10,380	75.00	10.9	Upper Marker	113.00

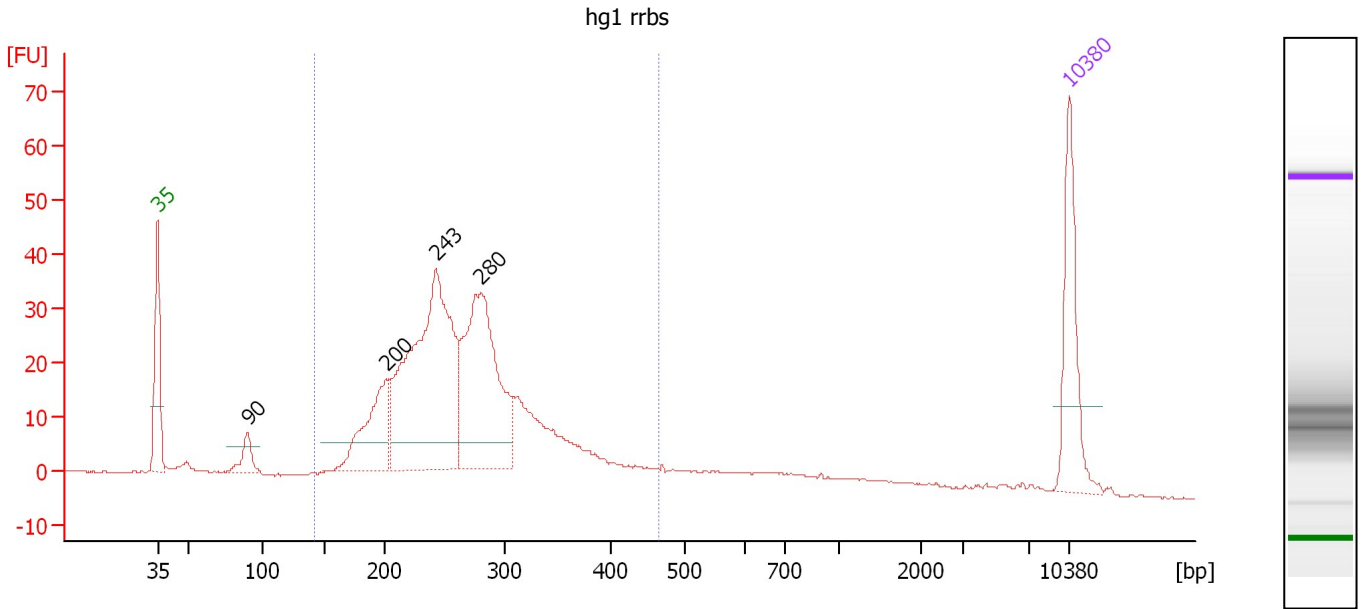
**Region table for sample 3 : hg2 rrbs**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
146	425	259	394.6	4,905.5	799.47	74	20.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
 Modified: 1/26/2017 2:53:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : hg1 rrbs**

Number of peaks found: 4                      Corr. Area 1: 533.3  
 Noise: 0.2

**Peak table for sample 4 : hg1 rrbs**

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	90	28.28	475.8		49.91
3	200	109.13	825.5		60.51
4	243	383.71	2,396.5		64.38
5	280	256.68	1,388.6		67.81
6	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : hg1 rrbs**

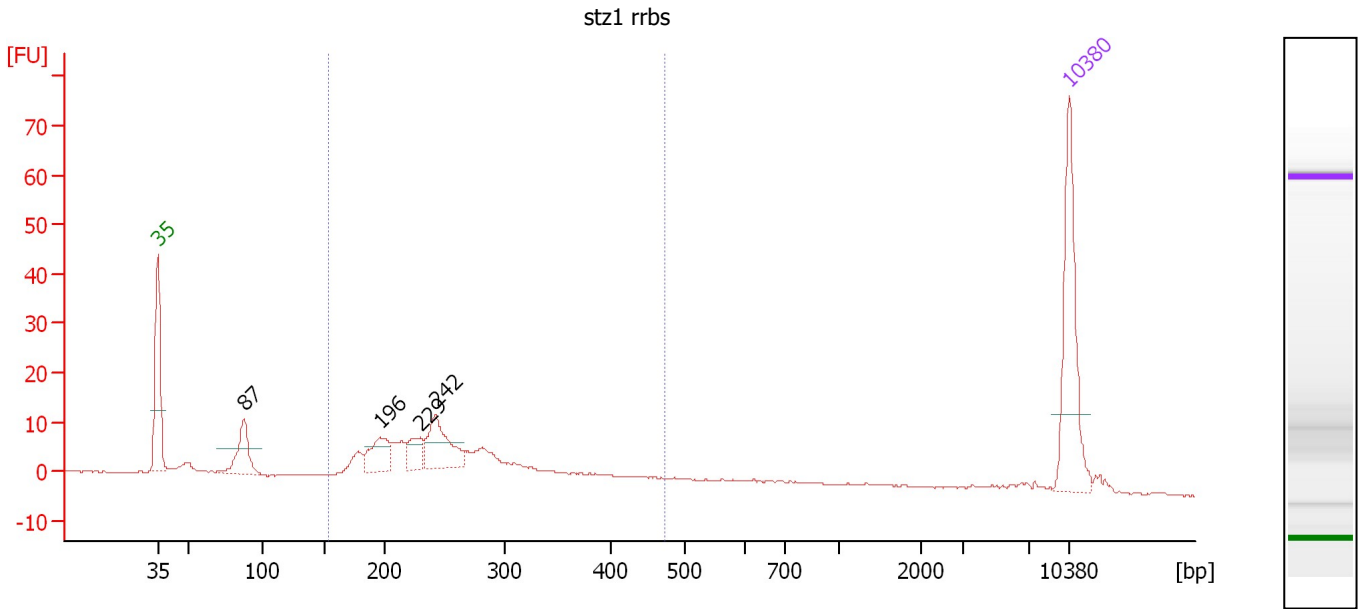
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
142	464	268	533.3	5,961.4	999.62	88	21.3



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
 Modified: 1/26/2017 2:53:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : stz1 rrbs**

Number of peaks found: 4                      Corr. Area 1: 152.7  
 Noise: 0.2

**Peak table for sample 5 : stz1 rrbs**

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	87	43.48	754.4		49.60
3	196	35.48	274.3		60.11
4	229	20.16	133.5		63.13
5	242	52.93	330.9		64.36
6	10,380	75.00	10.9	Upper Marker	113.00

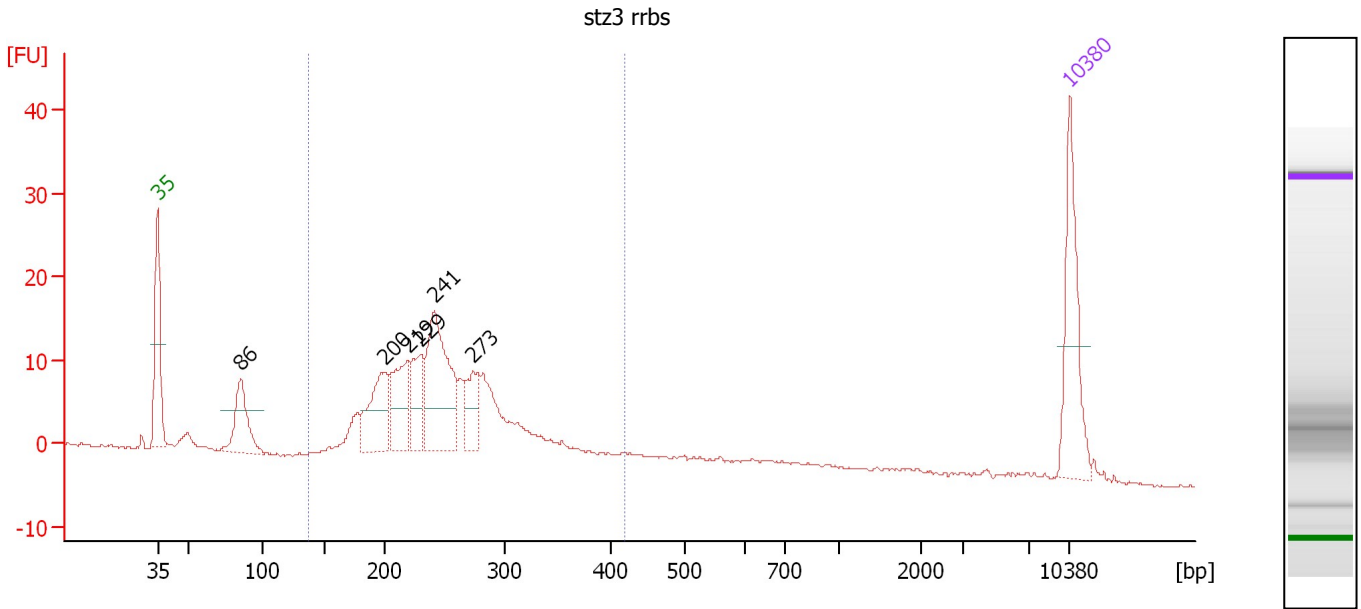
**Region table for sample 5 : stz1 rrbs**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
154	473	259	152.7	1,717.9	274.09	74	24.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
 Modified: 1/26/2017 2:53:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : stz3 rrbs**

Number of peaks found: 6                      Corr. Area 1: 209.7  
 Noise: 0.1

**Peak table for sample 6 : stz3 rrbs**

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	86	70.55	1,248.6		49.40
3	200	78.18	593.2		60.46
4	219	70.94	491.0		62.21
5	229	49.11	324.3		63.18
6	241	146.26	918.7		64.26
7	273	39.17	217.0		67.20
8	10,380	75.00	10.9	Upper Marker	113.00

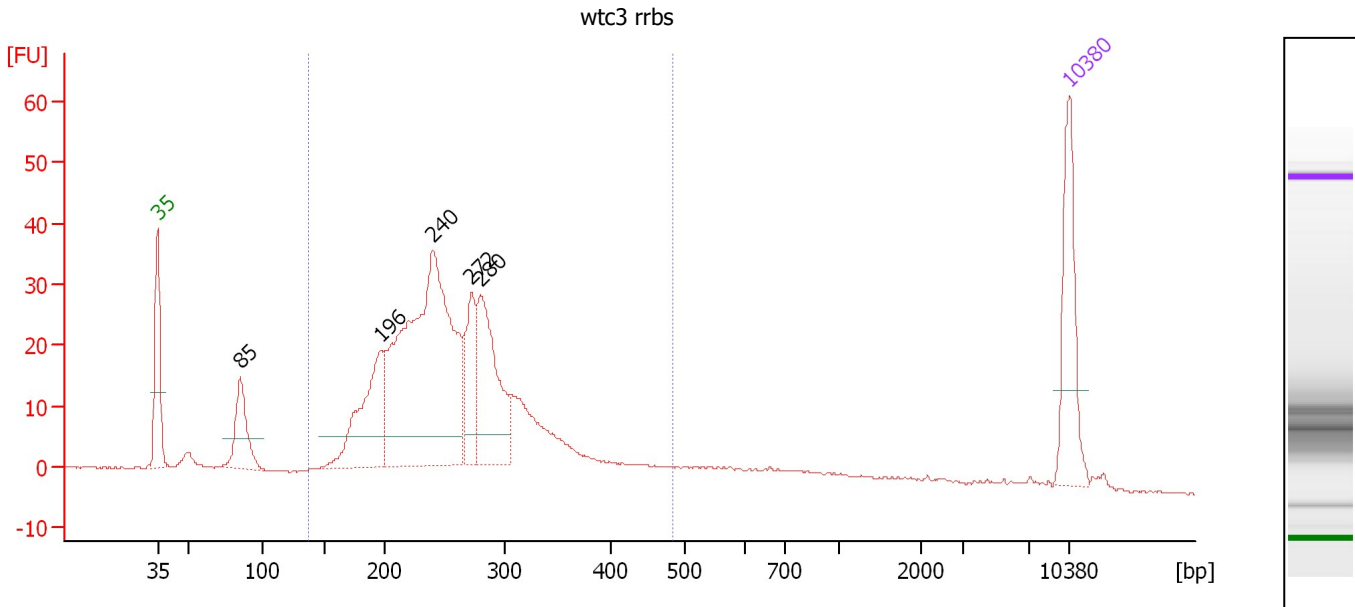
**Region table for sample 6 : stz3 rrbs**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
137	420	253	209.7	4,143.4	659.18	79	20.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
 Modified: 1/26/2017 2:53:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : wtc3 rrbs**

Number of peaks found: 5                      Corr. Area 1: 500.9  
 Noise: 0.1

**Peak table for sample 7 : wtc3 rrbs**

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	85	75.04	1,333.0		49.37
3	196	143.05	1,106.4		60.10
4	240	478.11	3,022.3		64.11
5	272	70.20	390.6		67.10
6	280	145.10	785.6		67.79
7	10,380	75.00	10.9	Upper Marker	113.00

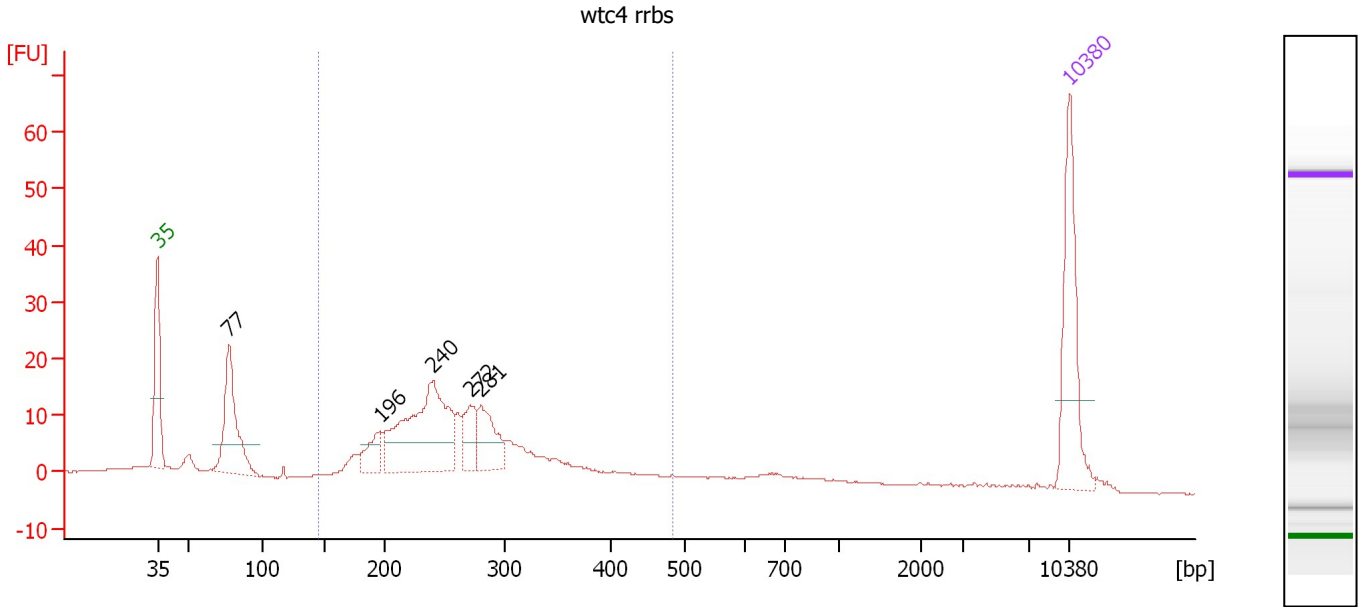
**Region table for sample 7 : wtc3 rrbs**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
138	484	261	500.9	6,656.3	1,083.00	86	22.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
 Modified: 1/26/2017 2:53:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : wtc4 rrbs**

Number of peaks found: 5                      Corr. Area 1: 226.5  
 Noise: 0.1

**Peak table for sample 8 : wtc4 rrbs**

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	77	106.95	2,094.0		48.48
3	196	29.24	225.8		60.13
4	240	168.32	1,064.5		64.10
5	272	32.25	179.8		67.04
6	281	46.84	253.0		67.85
7	10,380	75.00	10.9	Upper Marker	113.00

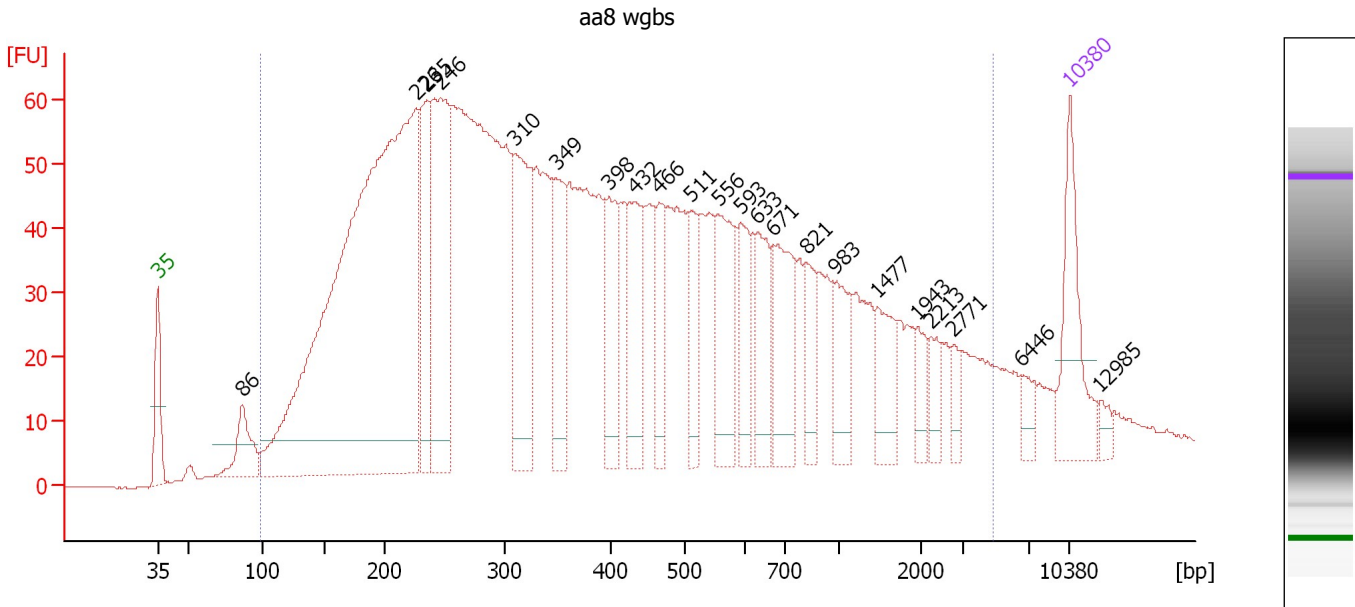
**Region table for sample 8 : wtc4 rrbs**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
146	483	267	226.5	2,666.8	442.46	72	22.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
 Modified: 1/26/2017 2:53:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : aa8 wgbs**

Number of peaks found: 22                      Corr. Area 1: 2,763.8  
 Noise: 0.2

**Peak table for sample 9 : aa8 wgbs**

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	86	61.52	1,080.3		49.48
3	226	1,121.62	7,524.6		62.85
4	235	124.35	802.4		63.67
5	246	234.38	1,441.9		64.72
6	310	168.35	822.9		70.44
7	349	103.64	450.3		73.59
8	398	91.14	347.4		77.56
9	432	96.61	338.7		79.61
10	466	58.04	188.8		81.53
11	511	54.00	160.2		83.98
12	556	101.74	277.3		86.03
13	593	62.11	158.6		87.72
14	633	72.27	172.9		89.06
15	671	96.59	218.3		90.23
16	821	40.22	74.3		92.80
17	983	48.02	74.0		95.02
18	1,477	45.24	46.4		98.29
19	1,943	22.95	17.9		101.27
20	2,213	21.26	14.6		102.32
21	2,771	14.94	8.2		104.13
22	6,446	16.99	4.0		109.26
23	10,380	75.00	10.9	Upper Marker	113.00
24	12,985	0.00	0.0		115.34

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
Modified: 1/26/2017 2:53:20 PM

**Electropherogram Summary Continued ...**

... Region table for sample 9 :

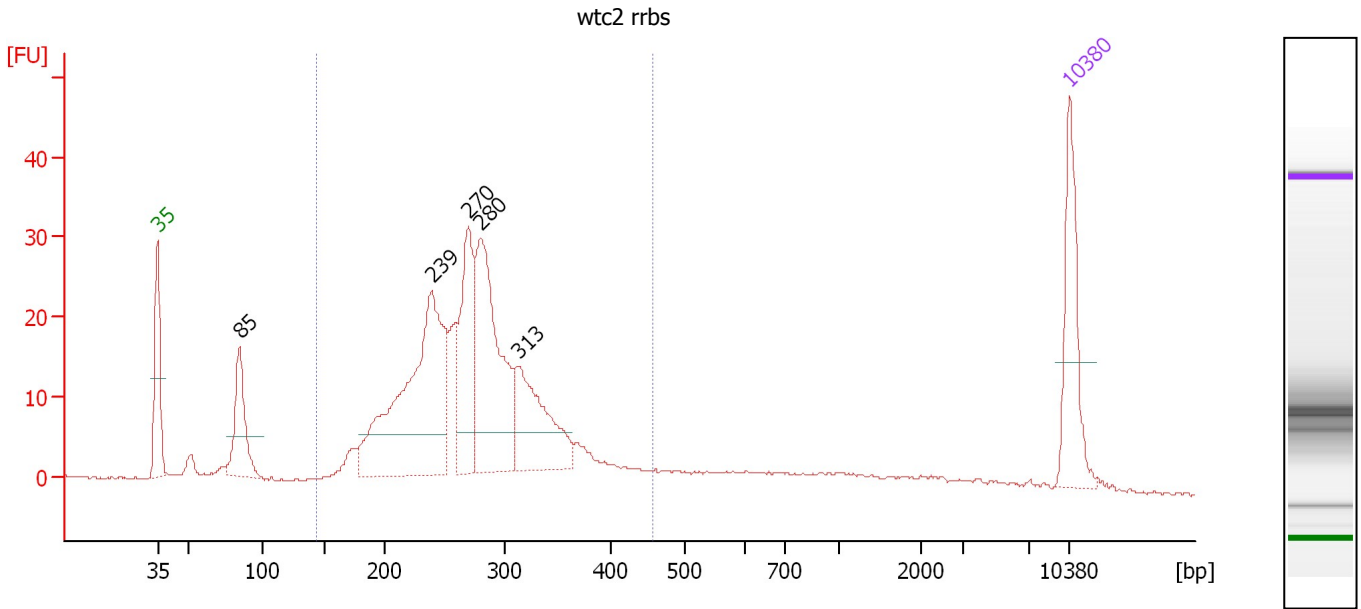
aa8 wgs

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
99	4,731	623	2,763.8	25,007.2	4,822.74	91	100.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
 Modified: 1/26/2017 2:53:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : wtc2 rrbs**

Number of peaks found: 5                      Corr. Area 1: 377.2  
 Noise: 0.2

**Peak table for sample 10 : wtc2 rrbs**

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	85	93.15	1,666.6		49.30
3	239	343.21	2,176.9		64.04
4	270	136.60	767.0		66.87
5	280	223.65	1,210.4		67.80
6	313	127.56	617.4		70.69
7	10,380	75.00	10.9	Upper Marker	113.00

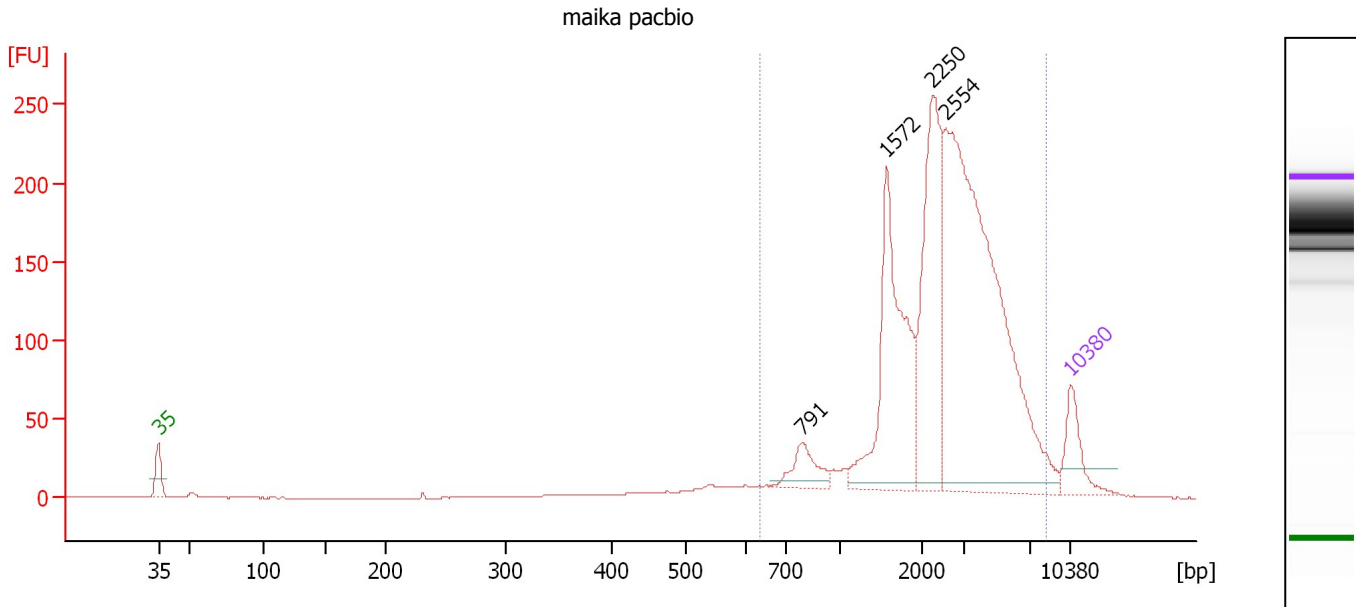
**Region table for sample 10 : wtc2 rrbs**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
144	456	275	377.2	6,039.4	1,044.86	81	19.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
 Modified: 1/26/2017 2:53:20 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : maika pacbio**

Number of peaks found: 4                      Corr. Area 1: 1,935.6  
 Noise: 0.1

**Peak table for sample 11 : maika pacbio**

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	791	77.26	148.0		92.39
3	1,572	411.76	396.9		98.90
4	2,250	375.24	252.7		102.44
5	2,554	993.92	589.6		103.42
6	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 11 : maika pacbio**

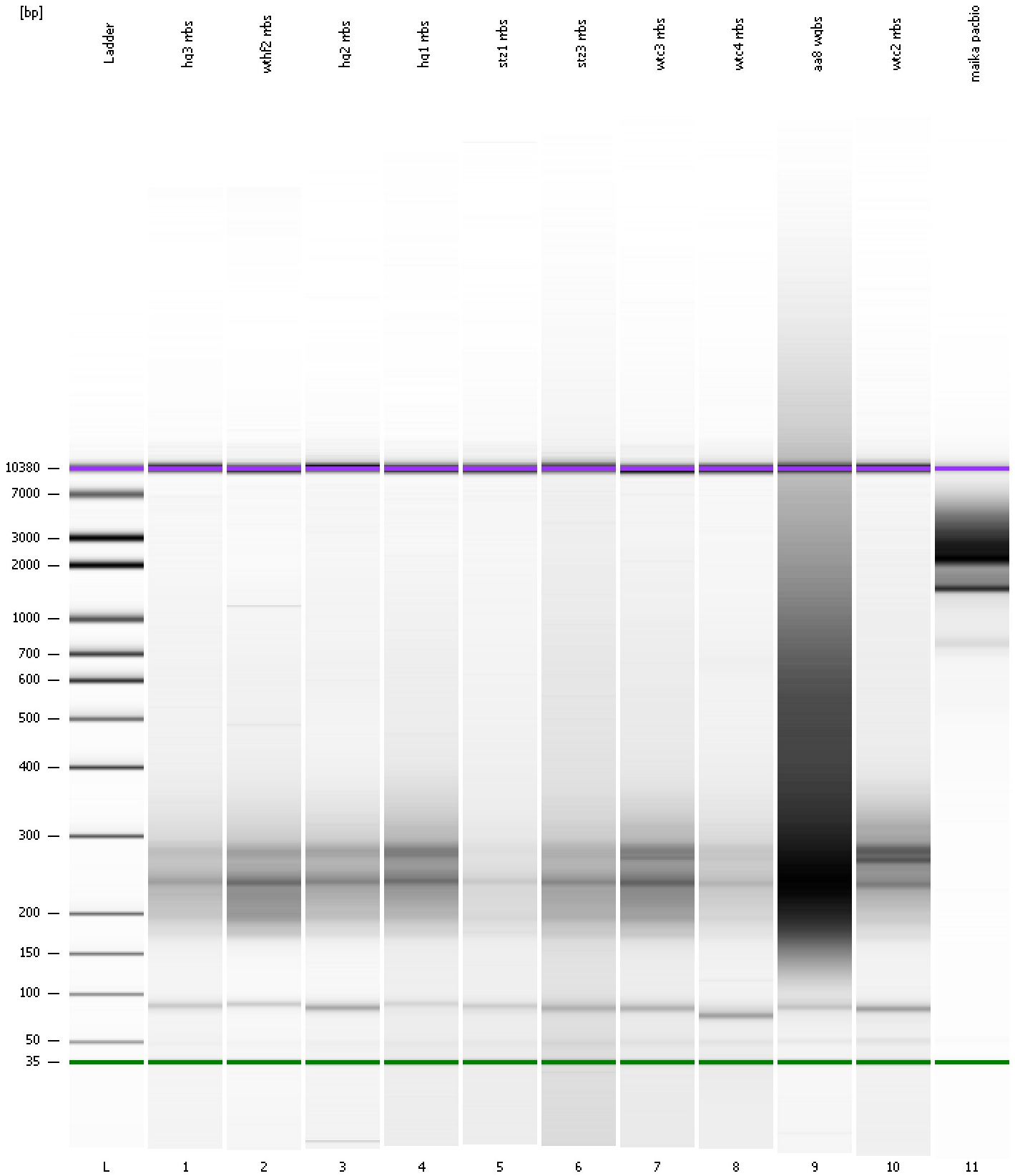
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
634	8,311	2,976	1,935.6	1,355.3	1,977.85	94	52.6



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
Modified: 1/26/2017 2:53:20 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-01-26\2017-01-26\_003.xad

Created: 1/26/2017 2:08:19 PM  
 Modified: 1/26/2017 2:53:20 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		1/26/2017 2:49:35 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2017-01-26\2017-01-26_003.xad)		Instrument	Run		1/26/2017 2:08:24 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/26/2017 2:08:24 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/26/2017 2:08:24 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/26/2017 2:08:24 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/26/2017 2:08:24 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/26/2017 2:08:24 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/26/2017 2:08:24 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1