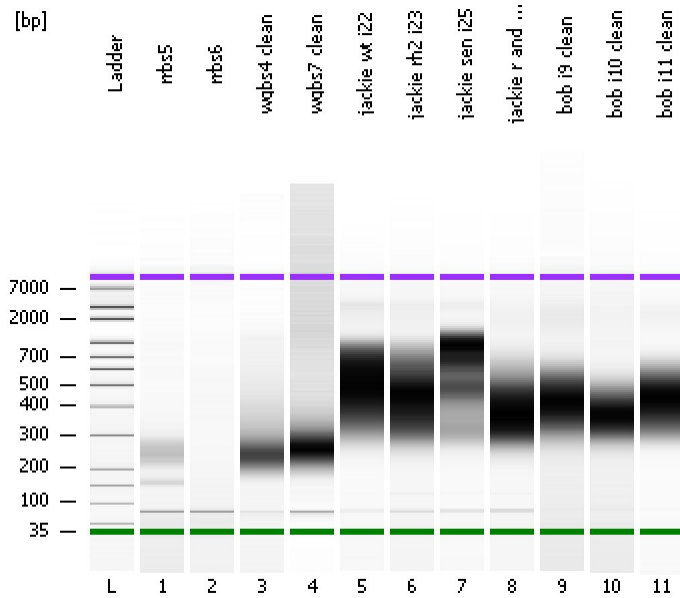


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

Created: 2/18/2016 2:14:12 PM
Modified: 2/18/2016 2:55:33 PM

Electrophoresis File Run Summary



Instrument Information:

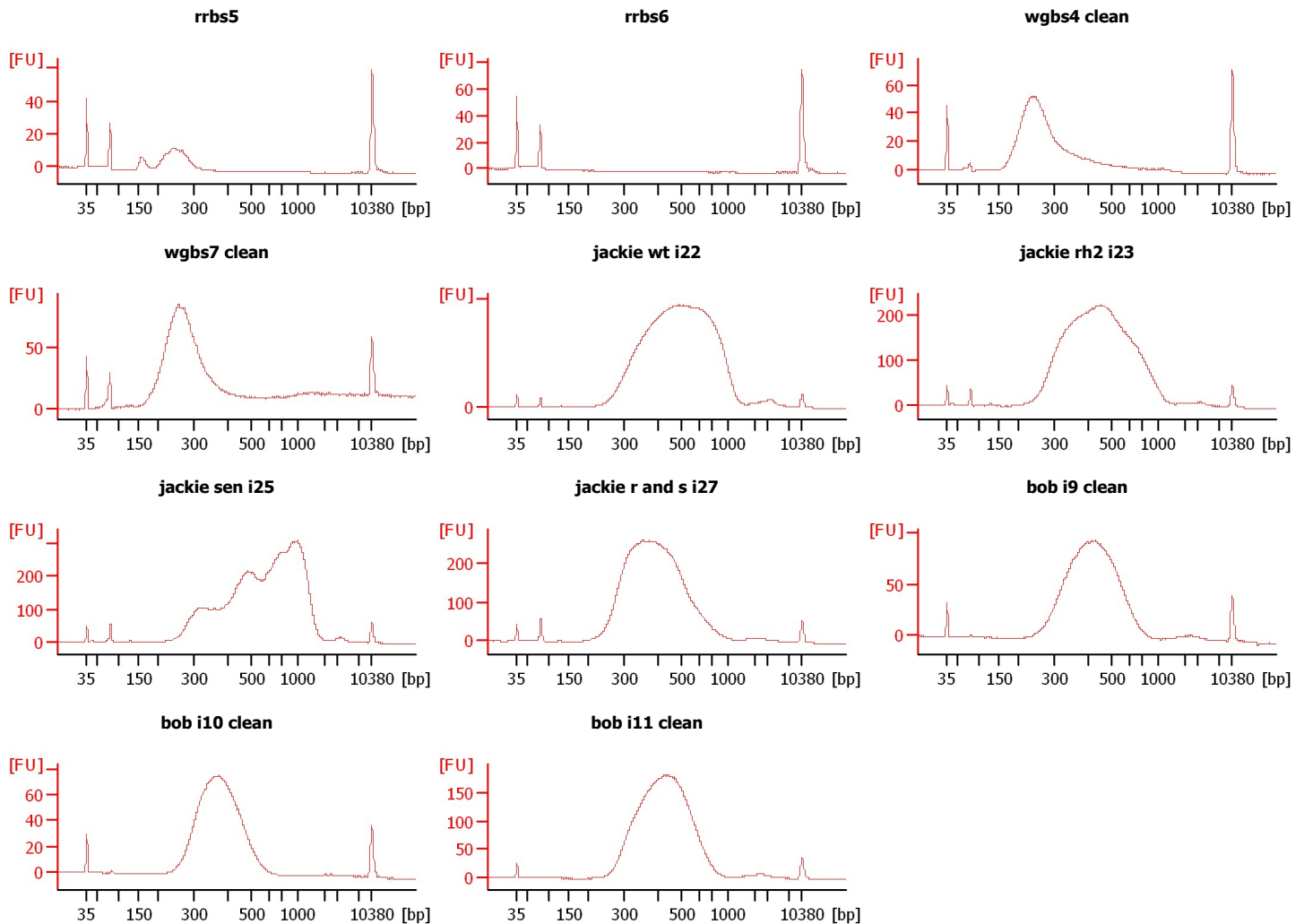
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

Created: 2/18/2016 2:14:12 PM
 Modified: 2/18/2016 2:55:33 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
rrbs5		<input type="checkbox"/>	✓			
rrbs6		<input type="checkbox"/>	✓			
wgbs4 clean		<input type="checkbox"/>	✓			
wgbs7 clean		<input type="checkbox"/>	✓			
jackie wt i22		<input type="checkbox"/>	✓			
jackie rh2 i23		<input type="checkbox"/>	✓			
jackie sen i25		<input type="checkbox"/>	✓			
jackie r and s i27		<input type="checkbox"/>	✓			
bob i9 clean		<input type="checkbox"/>	✓			
bob i10 clean		<input type="checkbox"/>	✓			
bob i11 clean		<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\2016-02-18\2016-02-18_001.xad

Created: 2/18/2016 2:14:12 PM
Modified: 2/18/2016 2:55:33 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

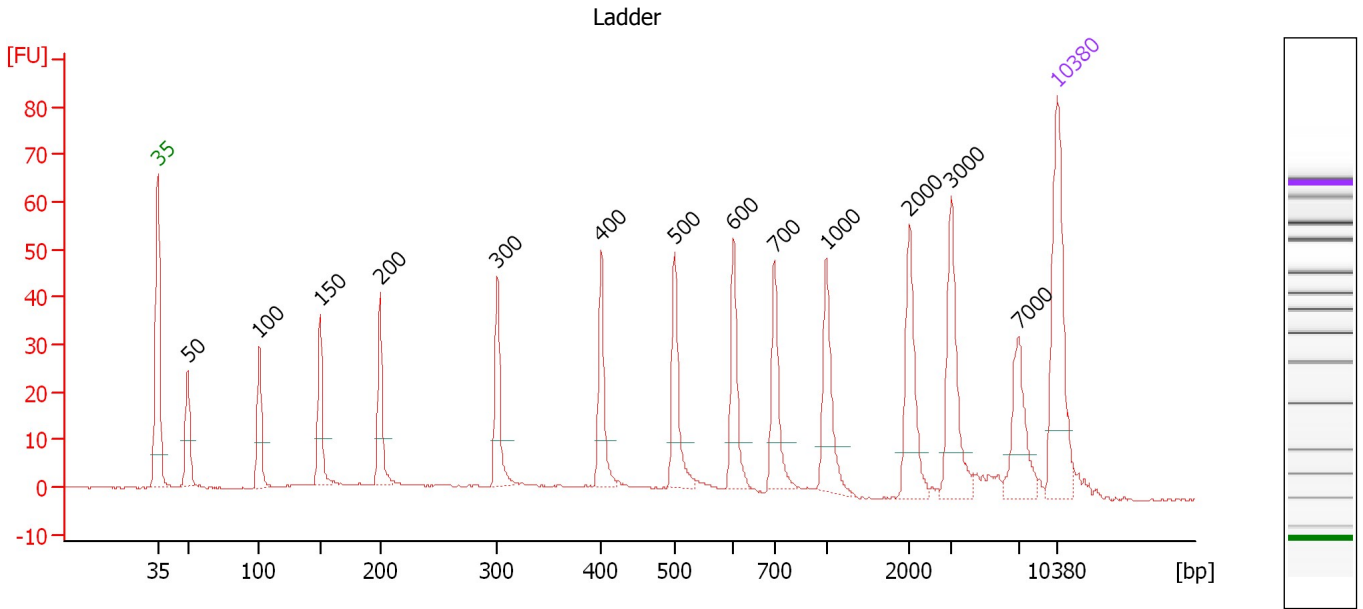
Ladder

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\2016-02-18\2016-02-18_001.xad

Created: 2/18/2016 2:14:12 PM
 Modified: 2/18/2016 2:55:33 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

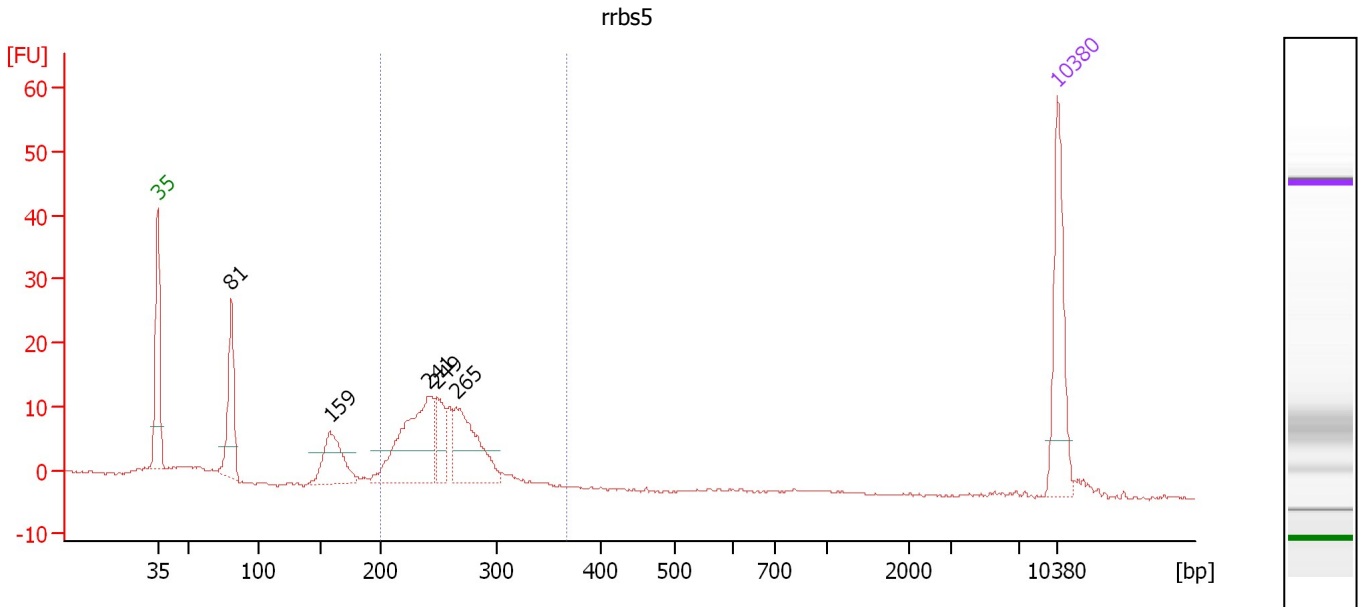
Peak table for Ladder

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	45.36
3	100	150.00	2,272.7	Ladder Peak	50.90
4	150	150.00	1,515.2	Ladder Peak	55.61
5	200	150.00	1,136.4	Ladder Peak	60.33
6	300	150.00	757.6	Ladder Peak	69.43
7	400	150.00	568.2	Ladder Peak	77.52
8	500	150.00	454.5	Ladder Peak	83.25
9	600	150.00	378.8	Ladder Peak	87.82
10	700	150.00	324.7	Ladder Peak	91.00
11	1,000	150.00	227.3	Ladder Peak	95.04
12	2,000	150.00	113.6	Ladder Peak	101.49
13	3,000	150.00	75.8	Ladder Peak	104.72
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:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 1 : rrbs5

Number of peaks found: 5 Corr. Area 1: 122.8
 Noise: 0.2

Peak table for sample 1 : rrbs5

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	81	99.22	1,865.6		48.74
3	159	75.47	721.2		56.42
4	241	153.76	965.2		64.10
5	249	39.49	240.5		64.77
6	265	102.77	588.2		66.22
7	10,380	75.00	10.9	Upper Marker	113.00

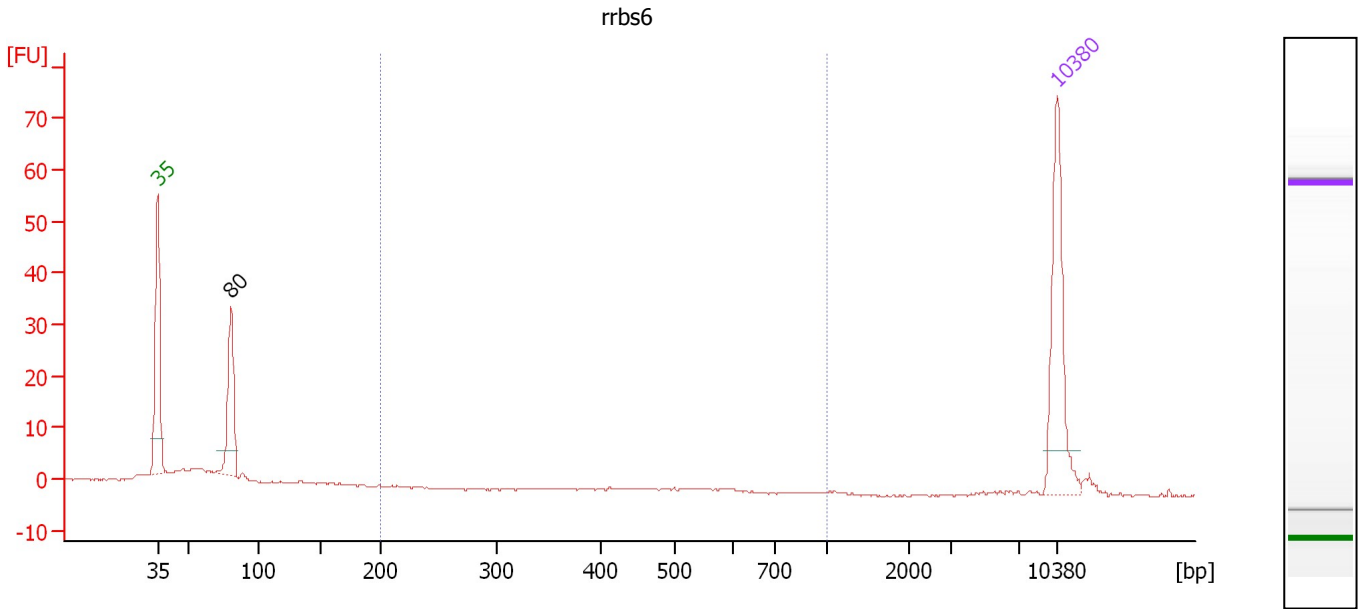
Region table for sample 1 : rrbs5

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	366	251	122.8	1,897.0	314.08	64	9.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

Created: 2/18/2016 2:14:12 PM
 Modified: 2/18/2016 2:55:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : rrbs6

Number of peaks found: 1 Corr. Area 1: 0.3
 Noise: 0.2

Peak table for sample 2 : rrbs6

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	80	79.50	1,498.1		48.73
3	10,380	75.00	10.9	Upper Marker	113.00

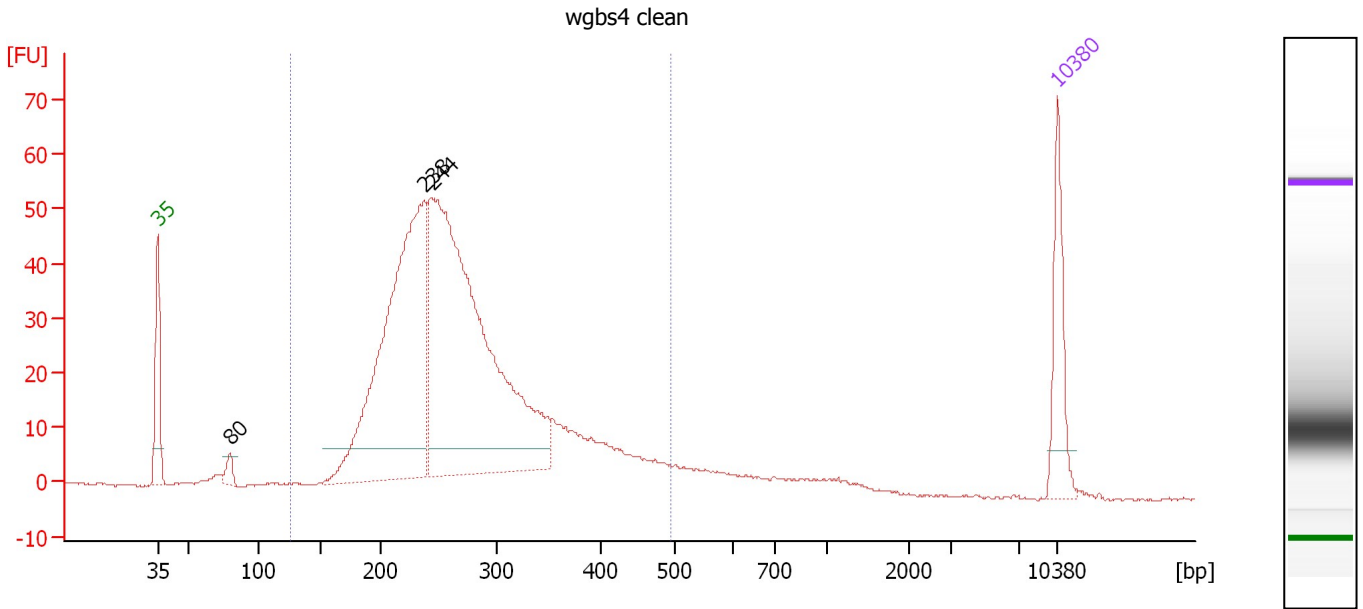
Region table for sample 2 : rrbs6

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	555	0.3	1.2	0.45	0	6.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

Created: 2/18/2016 2:14:12 PM
 Modified: 2/18/2016 2:55:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : wgbs4 clean

Number of peaks found: 3 Corr. Area 1: 838.4
 Noise: 0.2

Peak table for sample 3 : wgbs4 clean

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	80	20.26	385.0		48.65
3	238	697.79	4,451.5		63.74
4	244	943.79	5,860.8		64.33
5	10,380	75.00	10.9	Upper Marker	113.00

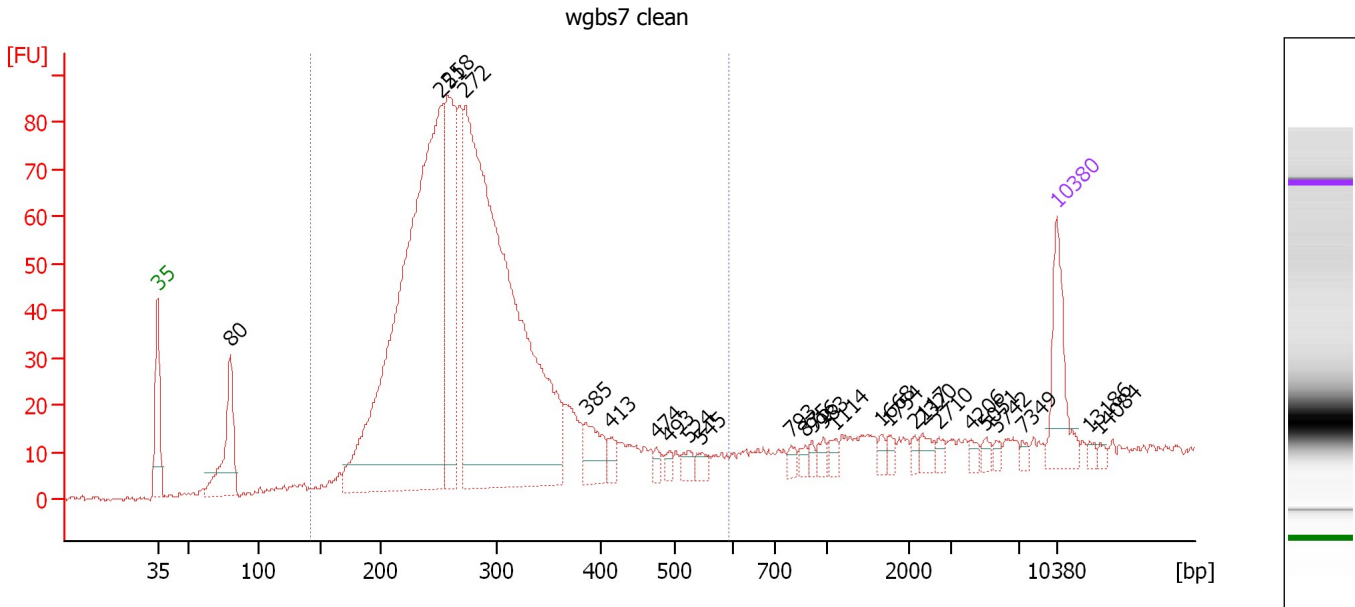
Region table for sample 3 : wgbs4 clean

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
126	495	273	838.4	11,504.3	1,942.07	94	24.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 4 : wgbs7 clean

Number of peaks found: 26 Corr. Area 1: 1,281.0
 Noise: 0.5

Peak table for sample 4 : wgbs7 clean

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	80	153.96	2,912.7		48.69
3	251	1,173.37	7,072.1		65.01
4	258	311.74	1,830.5		65.61
5	272	1,258.03	6,997.0		66.92
6	385	57.39	225.6		76.34
7	413	18.90	69.4		78.25
8	474	11.01	35.2		81.78
9	493	10.05	30.9		82.83
10	524	15.61	45.1		84.35
11	545	13.72	38.1		85.30
12	793	10.34	19.8		92.25
13	875	8.59	14.9		93.36
14	916	8.61	14.2		93.91
15	983	11.49	17.7		94.82
16	1,114	11.09	15.1		95.78
17	1,668	8.44	7.7		99.35
18	1,754	8.77	7.6		99.91
19	2,117	7.53	5.4		101.87
20	2,320	13.65	8.9		102.53
21	2,710	8.77	4.9		103.78
22	4,206	7.55	2.7		106.30
23	5,051	8.51	2.6		107.41
24	5,742	6.30	1.7		108.32
25	7,349	6.08	1.3		110.28

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

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Electropherogram Summary Continued ...

... Peak table for sample 4 : wgbs7 clean

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	10,380	75.00	10.9	Upper Marker	113.00
27	13,186	0.00	0.0		115.52
28	14,084	0.00	0.0		116.32

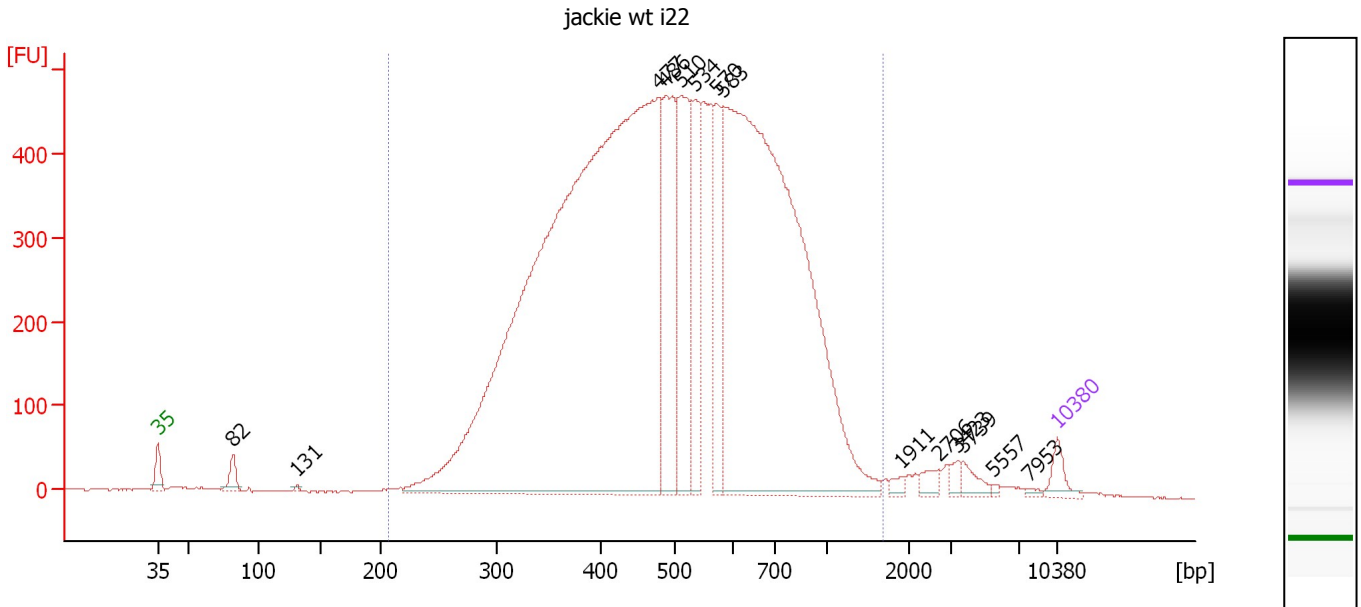
Region table for sample 4 : wgbs7 clean

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/ μ l]	% of Total	Size distribution in CV [%]
142	593	286	1,281.0	17,533.2	3,109.49	84	24.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

Created: 2/18/2016 2:14:12 PM
 Modified: 2/18/2016 2:55:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : jackie wt i22

Number of peaks found: 14 Corr. Area 1: 12,646.9
 Noise: 0.6

Peak table for sample 5 : jackie wt i22

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	82	113.45	2,106.3		48.86
3	131	11.72	135.4		53.84
4	477	8,913.59	28,302.0		81.94
5	486	1,009.13	3,144.5		82.46
6	510	940.84	2,795.3		83.70
7	534	532.43	1,511.3		84.79
8	570	499.98	1,328.9		86.45
9	583	5,129.16	13,340.8		87.02
10	1,911	29.27	23.2		100.92
11	2,706	52.64	29.5		103.77
12	3,423	39.64	17.5		105.27
13	3,739	62.08	25.2		105.69
14	5,557	9.94	2.7		108.07
15	7,953	13.64	2.6		110.82
16	10,380	75.00	10.9	Upper Marker	113.00

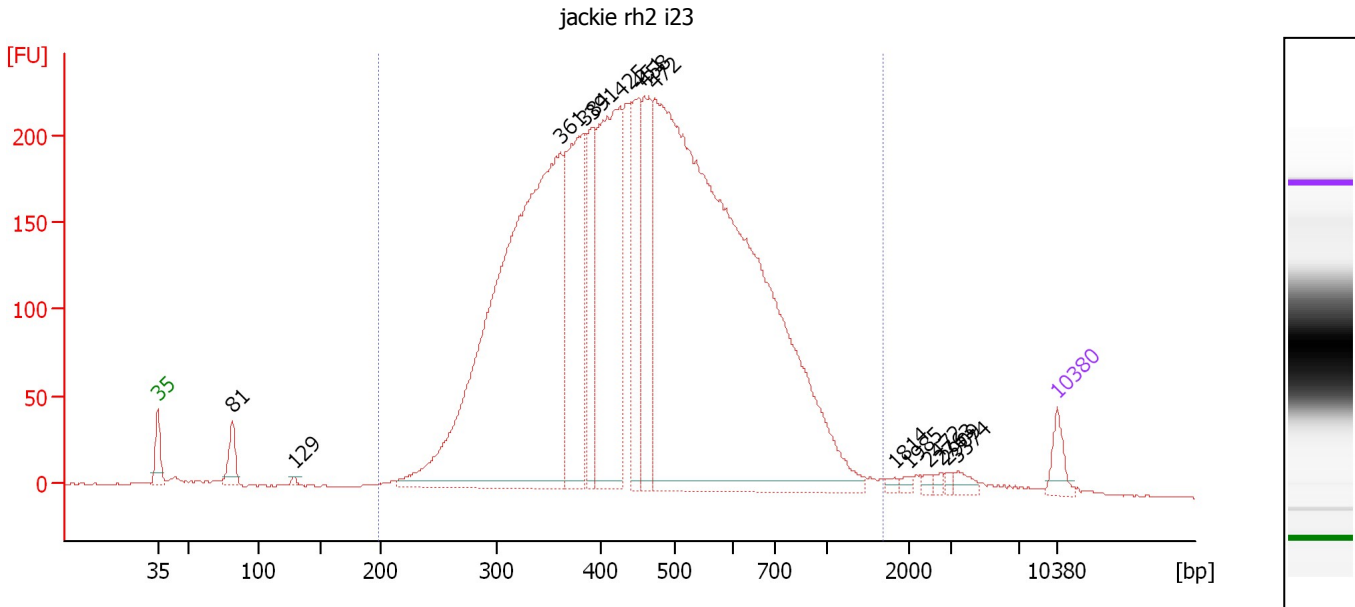
Region table for sample 5 : jackie wt i22

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
207	1,684	533	12,646.9	61,783.5	18,690.63	97	36.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

Created: 2/18/2016 2:14:12 PM
 Modified: 2/18/2016 2:55:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : jackie rh2 i23

Number of peaks found: 15 Corr. Area 1: 5,796.9
 Noise: 0.4

Peak table for sample 6 : jackie rh2 i23

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	81	144.86	2,706.3		48.80
3	129	13.89	163.4		53.61
4	361	3,818.00	16,023.2		74.37
5	384	1,029.35	4,065.2		76.20
6	391	426.25	1,650.0		76.82
7	425	1,275.65	4,544.7		78.97
8	451	502.95	1,690.3		80.43
9	458	602.71	1,993.3		80.85
10	472	5,625.69	18,065.6		81.63
11	1,814	14.34	12.0		100.30
12	1,985	16.65	12.7		101.39
13	2,472	16.10	9.9		103.01
14	2,763	14.92	8.2		103.96
15	2,909	13.82	7.2		104.43
16	3,374	36.28	16.3		105.21
17	10,380	75.00	10.9	Upper Marker	113.00

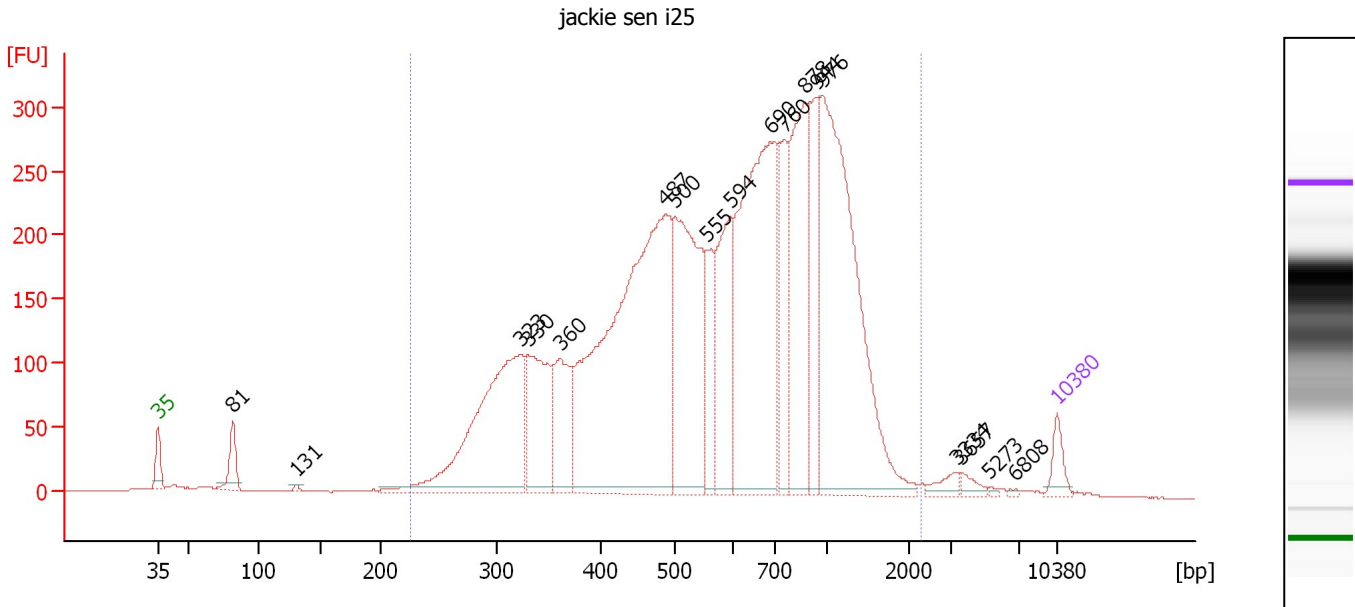
Region table for sample 6 : jackie rh2 i23

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
199	1,681	480	5,796.9	49,528.9	13,687.18	97	36.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

Created: 2/18/2016 2:14:12 PM
 Modified: 2/18/2016 2:55:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : jackie sen i25

Number of peaks found: 18 Corr. Area 1: 6,844.8
 Noise: 0.2

Peak table for sample 7 : jackie sen i25

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	81	178.97	3,333.9		48.83
3	131	13.90	160.9		53.81
4	323	1,397.25	6,552.8		71.30
5	330	612.08	2,807.9		71.88
6	360	470.16	1,976.5		74.32
7	487	2,821.22	8,768.6		82.53
8	500	1,201.99	3,646.0		83.22
9	555	302.88	826.9		85.76
10	594	571.71	1,457.3		87.56
11	690	1,787.49	3,923.3		90.69
12	760	372.58	743.0		91.80
13	878	826.23	1,426.3		93.39
14	944	432.44	693.7		94.29
15	976	1,802.39	2,798.2		94.72
16	3,334	46.49	21.1		105.16
17	3,657	34.56	14.3		105.58
18	5,273	6.97	2.0		107.70
19	6,808	7.03	1.6		109.71
20	10,380	75.00	10.9	Upper Marker	113.00

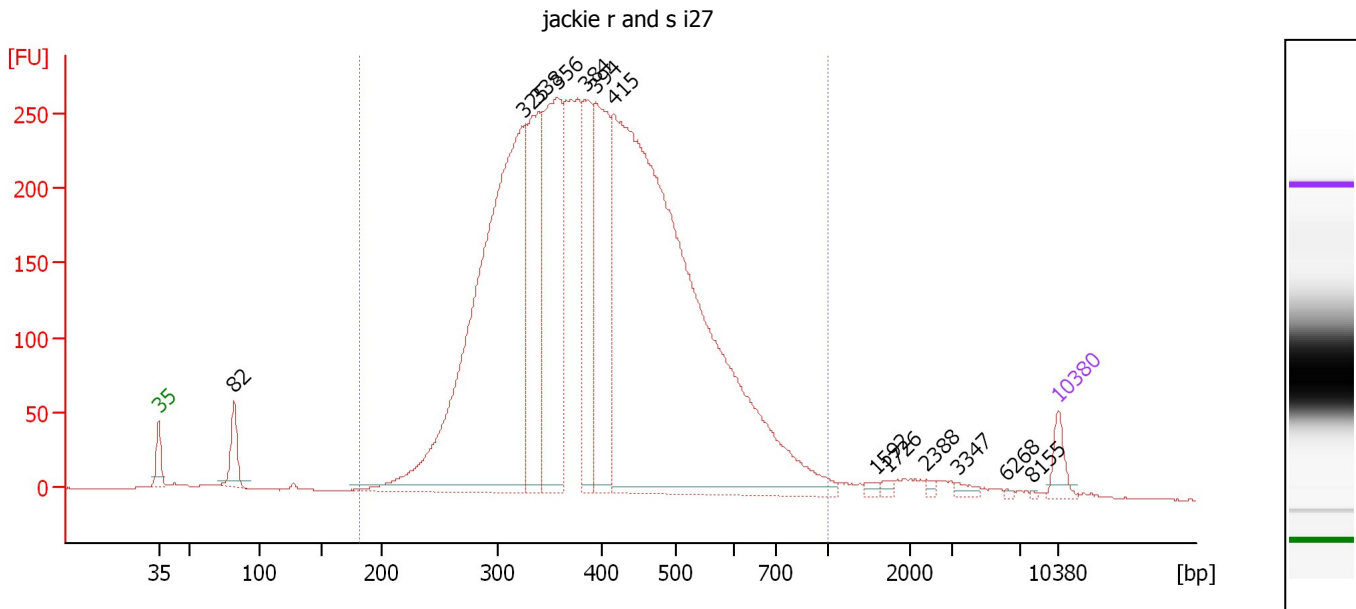
Region table for sample 7 : jackie sen i25

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
226	2,283	677	6,844.8	37,668.9	12,862.63	97	47.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 8 : jackie r and s i27

Number of peaks found: 13 Corr. Area 1: 6,062.9
 Noise: 0.2

Peak table for sample 8 : jackie r and s i27

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	82	202.16	3,743.5		48.88
3	325	3,256.03	15,185.4		71.44
4	338	869.05	3,893.1		72.52
5	356	1,177.77	5,009.3		73.98
6	384	595.05	2,350.4		76.19
7	394	892.28	3,434.7		77.00
8	415	4,936.31	18,001.9		78.40
9	1,592	17.58	16.7		98.86
10	1,726	15.64	13.7		99.72
11	2,388	13.03	8.3		102.75
12	3,347	23.01	10.4		105.17
13	6,268	5.40	1.3		109.01
14	8,155	4.23	0.8		111.00
15	10,380	75.00	10.9	Upper Marker	113.00

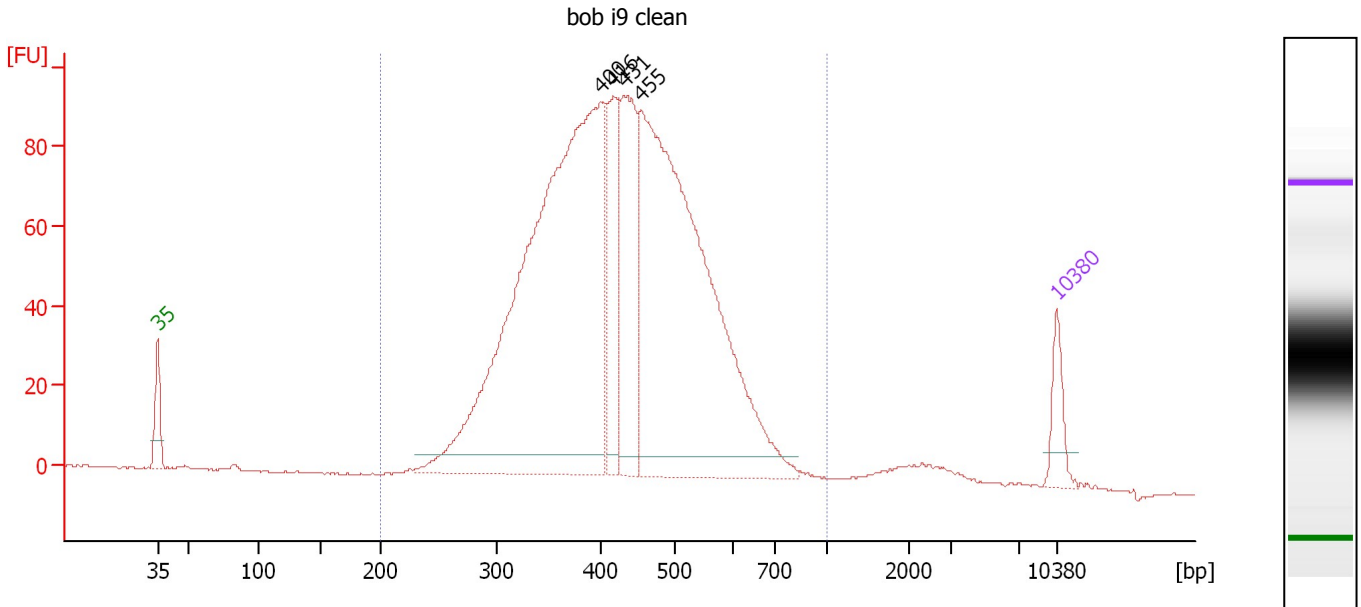
Region table for sample 8 : jackie r and s i27

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
182	1,000	411	6,062.9	51,472.0	12,754.97	96	27.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 9 : bob i9 clean

Number of peaks found: 4 Corr. Area 1: 1,830.8
 Noise: 0.2

Peak table for sample 9 : bob i9 clean

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	400	2,384.77	9,043.3		77.48
3	416	351.20	1,277.7		78.46
4	431	474.11	1,667.7		79.28
5	455	1,951.73	6,506.1		80.64
6	10,380	75.00	10.9	Upper Marker	113.00

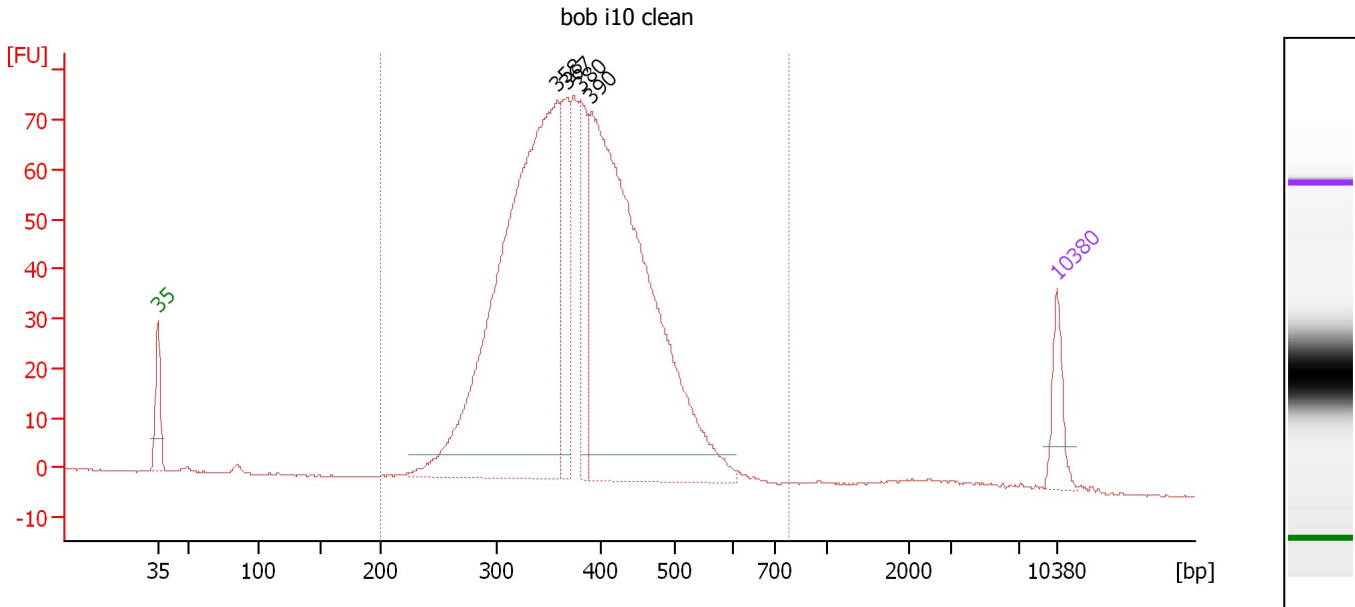
Region table for sample 9 : bob i9 clean

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	433	1,830.8	20,283.1	5,426.38	98	22.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

Created: 2/18/2016 2:14:12 PM
 Modified: 2/18/2016 2:55:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : bob i10 clean

Number of peaks found: 4 Corr. Area 1: 1,233.4
 Noise: 0.1

Peak table for sample 10 : bob i10 clean

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	358	1,783.28	7,553.2		74.10
3	367	239.47	988.0		74.87
4	380	228.41	910.4		75.91
5	390	1,639.31	6,363.4		76.74
6	10,380	75.00	10.9	Upper Marker	113.00

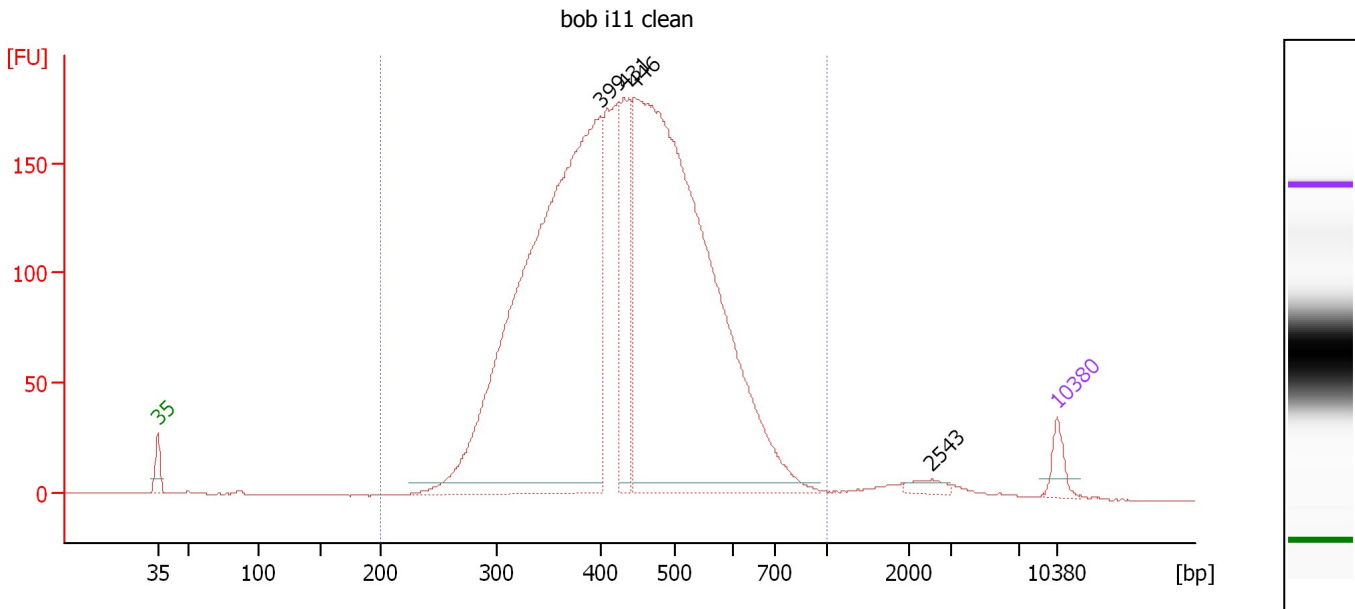
Region table for sample 10 : bob i10 clean

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	779	382	1,233.4	17,548.0	4,253.76	98	17.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

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 Modified: 2/18/2016 2:55:33 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : bob i11 clean

Number of peaks found: 4 Corr. Area 1: 3,496.8
 Noise: 0.1

Peak table for sample 11 : bob i11 clean

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	399	4,492.57	17,054.1		77.45
3	431	629.84	2,211.6		79.32
4	446	4,657.67	15,825.7		80.15
5	2,543	47.14	28.1		103.24
6	10,380	75.00	10.9	Upper Marker	113.00

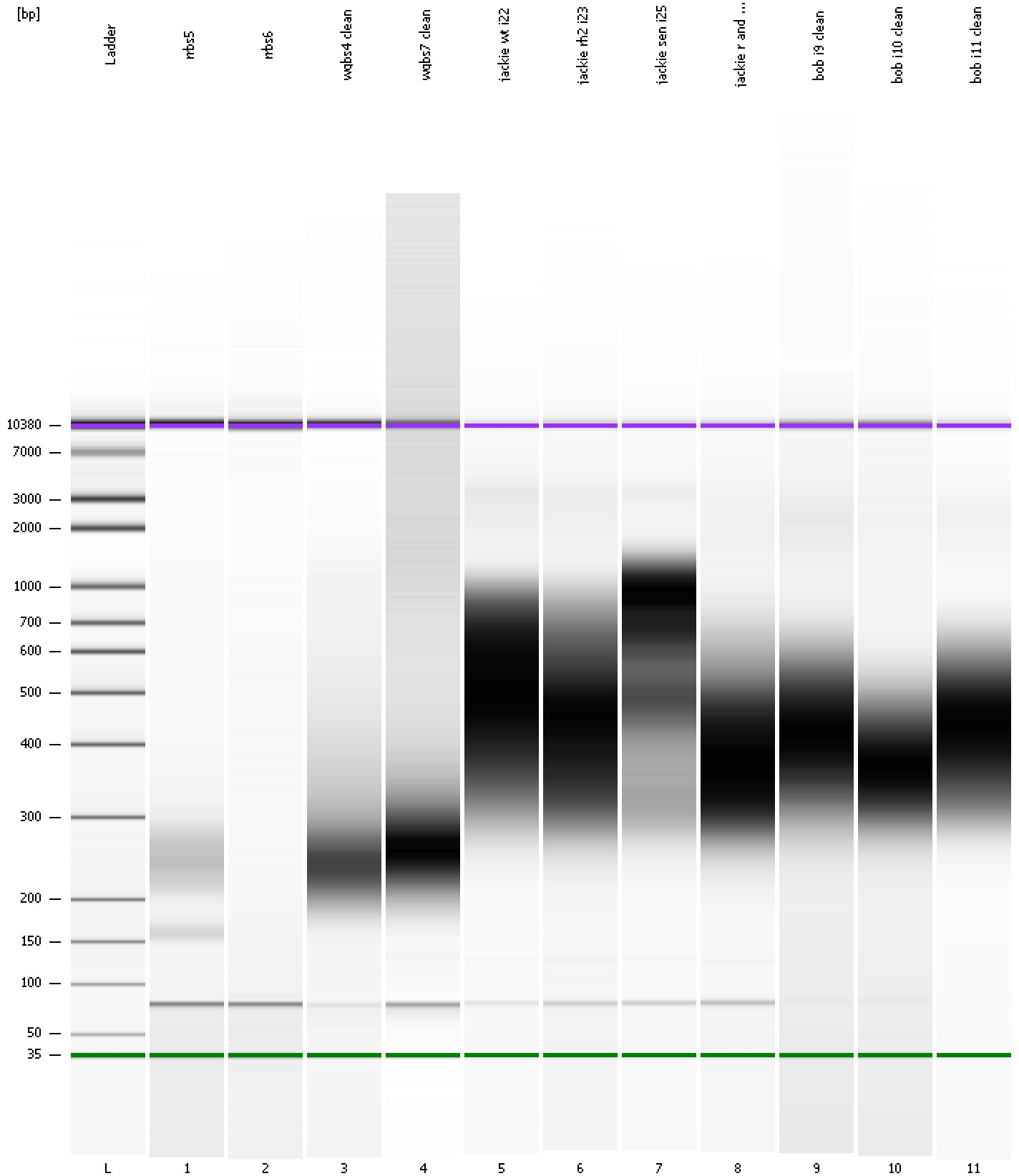
Region table for sample 11 : bob i11 clean

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	440	3,496.8	40,812.1	11,082.96	98	22.7

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

Created: 2/18/2016 2:14:12 PM
Modified: 2/18/2016 2:55:33 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad

Created: 2/18/2016 2:14:12 PM
 Modified: 2/18/2016 2:55:33 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		2/18/2016 2:55:31 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2016-02-18\2016-02-18_001.xad)		Instrument	Run		2/18/2016 2:14:17 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		2/18/2016 2:14:17 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		2/18/2016 2:14:17 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		2/18/2016 2:14:17 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		2/18/2016 2:14:17 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		2/18/2016 2:14:17 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		2/18/2016 2:14:17 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1