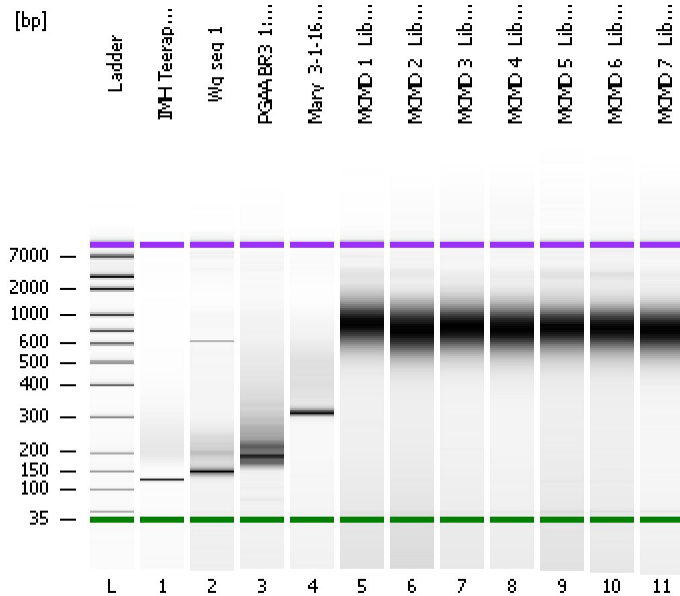


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
Modified: 3/8/2016 12:29:27 PM

Electrophoresis File Run Summary



Instrument Information:

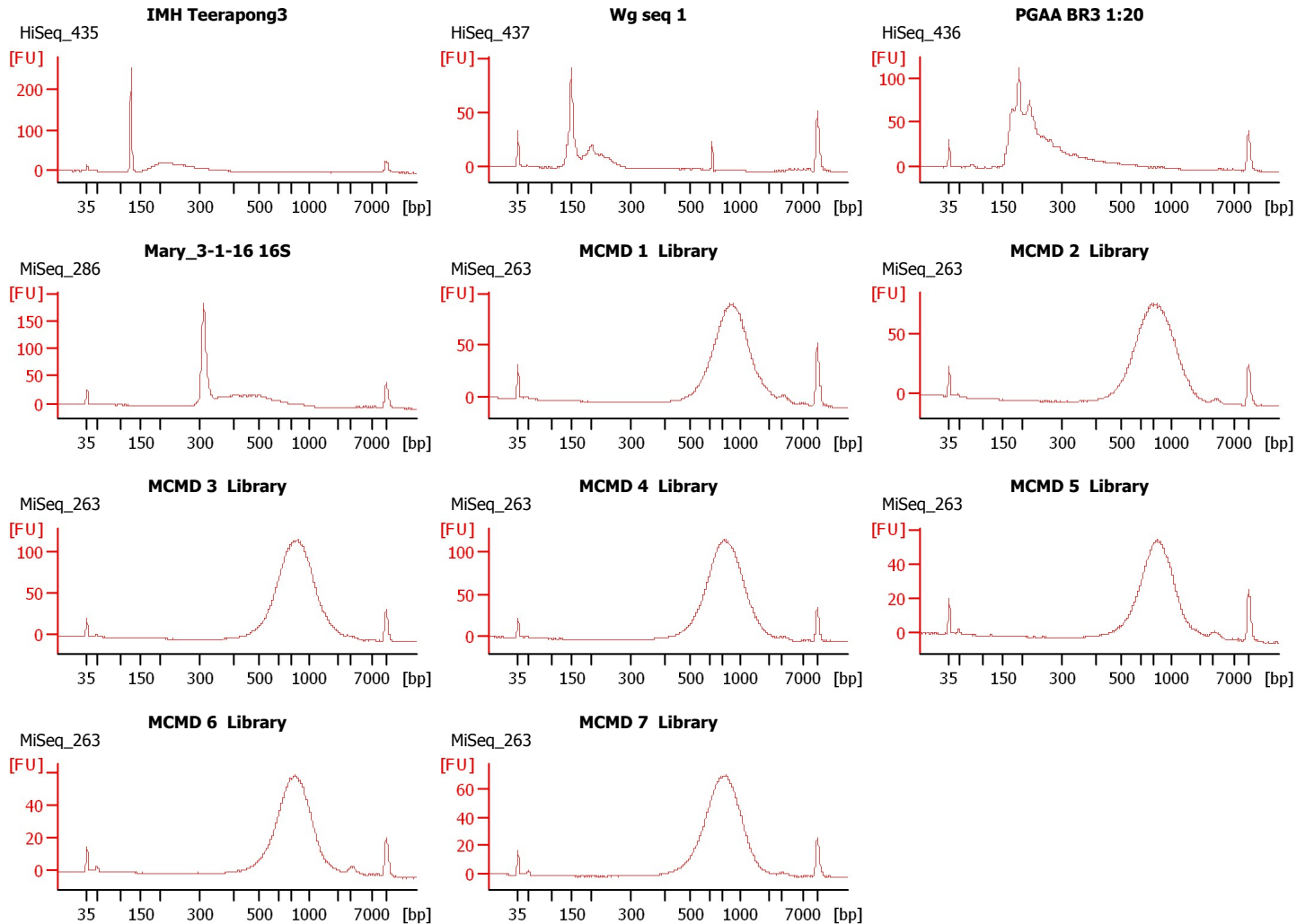
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
Modified: 3/8/2016 12:29:27 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
IMH Teerapong3	HiSeq_435	<input type="checkbox"/>	✓			
Wg seq 1	HiSeq_437	<input type="checkbox"/>	✓			
PGAA BR3 1:20	HiSeq_436	<input type="checkbox"/>	✓			
Mary_3-1-16 16S	MiSeq_286	<input type="checkbox"/>	✓			
MCMD 1 Library	MiSeq_263	<input type="checkbox"/>	✓			
MCMD 2 Library	MiSeq_263	<input type="checkbox"/>	✓			
MCMD 3 Library	MiSeq_263	<input type="checkbox"/>	✓			
MCMD 4 Library	MiSeq_263	<input type="checkbox"/>	✓			
MCMD 5 Library	MiSeq_263	<input type="checkbox"/>	✓			
MCMD 6 Library	MiSeq_263	<input type="checkbox"/>	✓			
MCMD 7 Library	MiSeq_263	<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\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
Modified: 3/8/2016 12:29:27 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

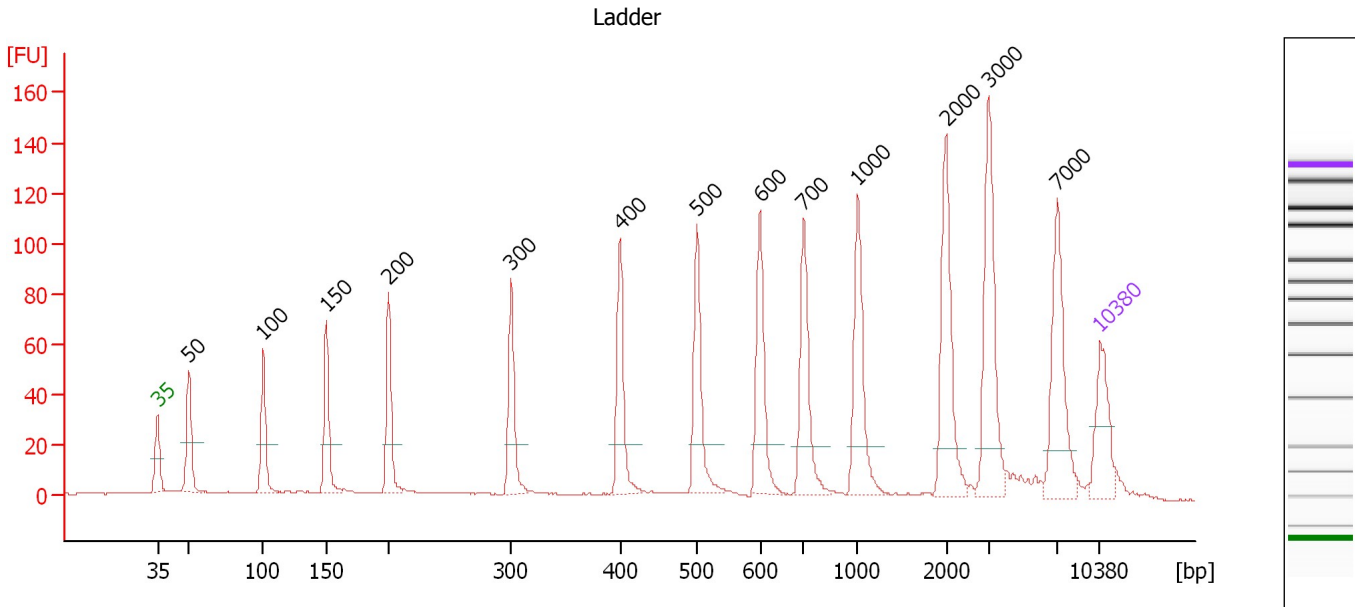
Ladder

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\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
 Modified: 3/8/2016 12:29:27 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

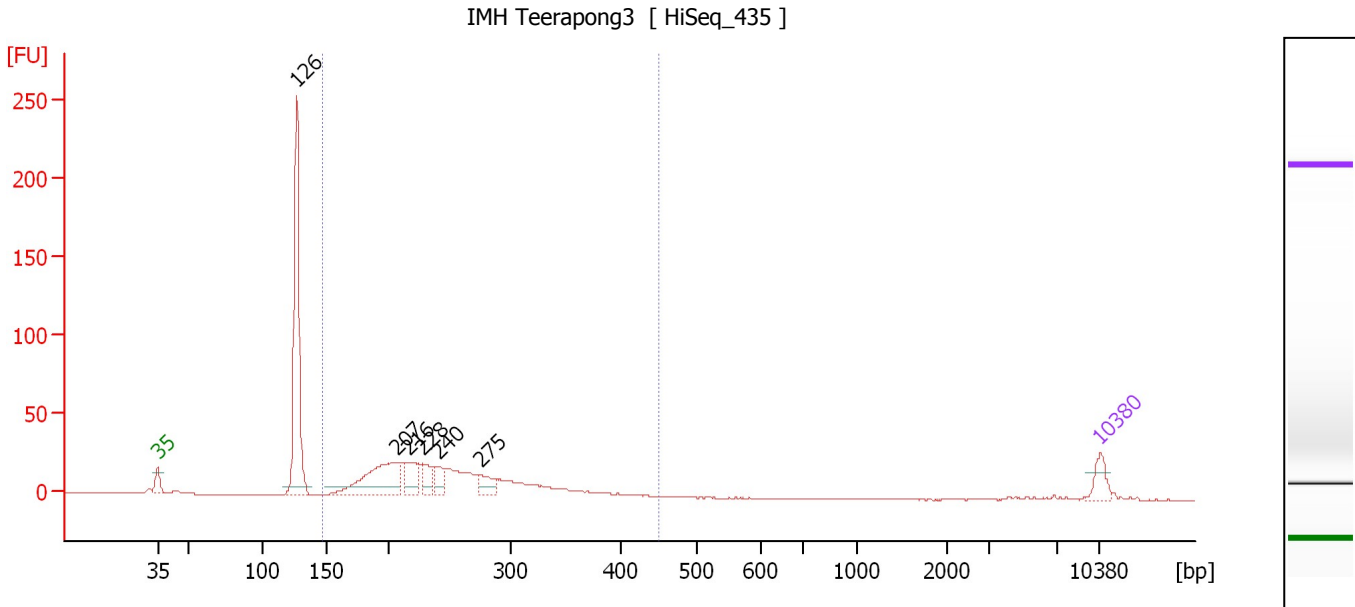
Peak table for Ladder

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	45.35
3	100	150.00	2,272.7	Ladder Peak	50.86
4	150	150.00	1,515.2	Ladder Peak	55.56
5	200	150.00	1,136.4	Ladder Peak	60.17
6	300	150.00	757.6	Ladder Peak	69.26
7	400	150.00	568.2	Ladder Peak	77.34
8	500	150.00	454.5	Ladder Peak	83.08
9	600	150.00	378.8	Ladder Peak	87.74
10	700	150.00	324.7	Ladder Peak	90.99
11	1,000	150.00	227.3	Ladder Peak	95.01
12	2,000	150.00	113.6	Ladder Peak	101.57
13	3,000	150.00	75.8	Ladder Peak	104.73
14	7,000	150.00	32.5	Ladder Peak	109.84
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
 Modified: 3/8/2016 12:29:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : IMH Teerapong3

Number of peaks found: 6 Corr. Area 1: 359.1
 Noise: 0.2

Peak table for sample 1 : IMH Teerapong3

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	126	1,288.78	15,486.7		53.32
3	207	551.06	4,036.8		60.79
4	216	189.51	1,330.8		61.60
5	228	113.82	757.5		62.68
6	240	95.75	604.3		63.81
7	275	111.48	613.6		67.01
8	10,380	75.00	10.9	Upper Marker	113.00

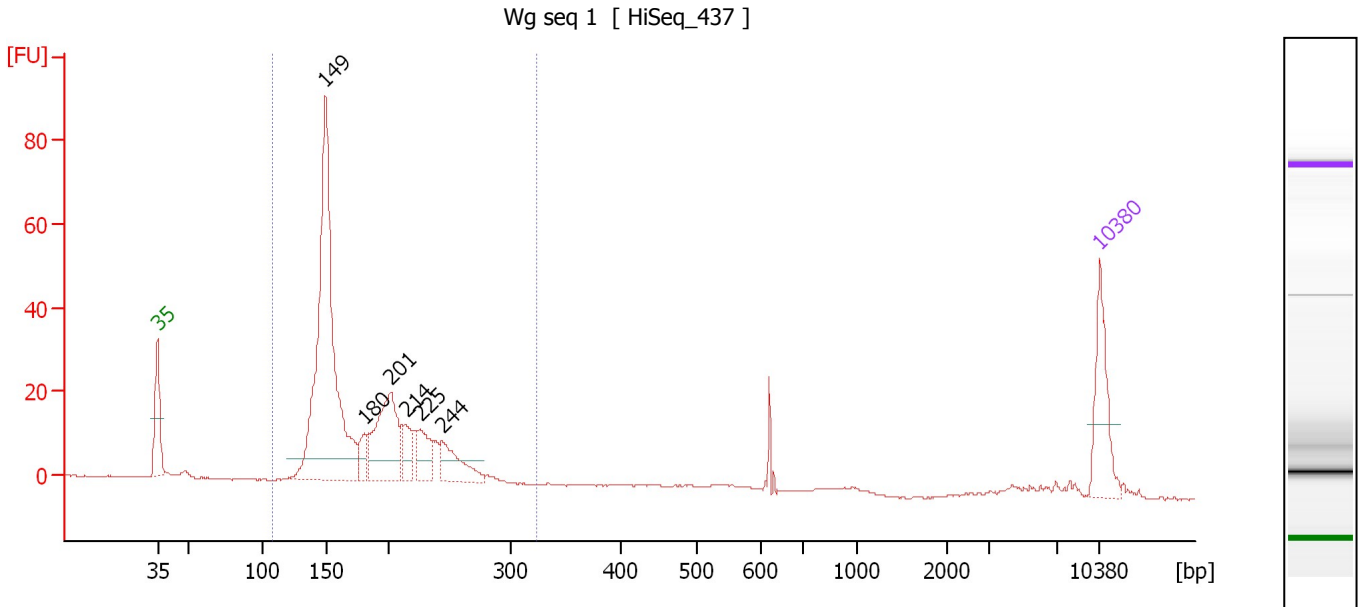
Region table for sample 1 : IMH Teerapong3

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
147	450	248	359.1	11,420.1	1,775.01	61	21.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
 Modified: 3/8/2016 12:29:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Wg seq 1

Number of peaks found: 6 Corr. Area 1: 398.9
 Noise: 0.2

Peak table for sample 2 : Wg seq 1

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	149	666.71	6,781.8		55.46
3	180	32.48	273.0		58.35
4	201	177.15	1,332.9		60.30
5	214	47.17	334.3		61.43
6	225	63.57	427.6		62.46
7	244	71.32	443.6		64.14
8	10,380	75.00	10.9	Upper Marker	113.00

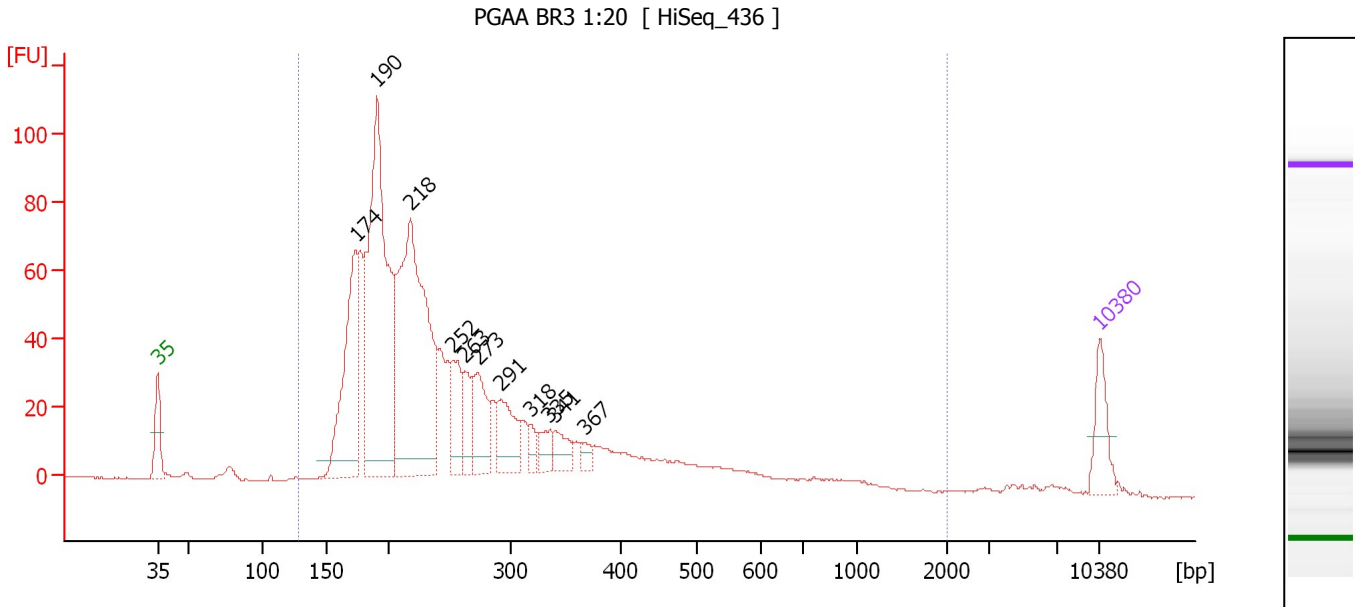
Region table for sample 2 : Wg seq 1

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
106	324	182	398.9	9,974.8	1,131.59	91	21.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
 Modified: 3/8/2016 12:29:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : PGAA BR3 1:20

Number of peaks found: 11 Corr. Area 1: 1,372.3
 Noise: 0.2

Peak table for sample 3 : PGAA BR3 1:20

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	174	451.76	3,943.9		57.73
3	190	931.88	7,412.4		59.30
4	218	922.13	6,419.9		61.77
5	252	134.37	806.3		64.94
6	263	93.88	541.6		65.86
7	273	155.66	864.8		66.78
8	291	136.76	711.1		68.48
9	318	31.06	148.2		70.68
10	335	45.77	206.9		72.10
11	341	55.22	245.5		72.56
12	367	24.13	99.6		74.67
13	10,380	75.00	10.9	Upper Marker	113.00

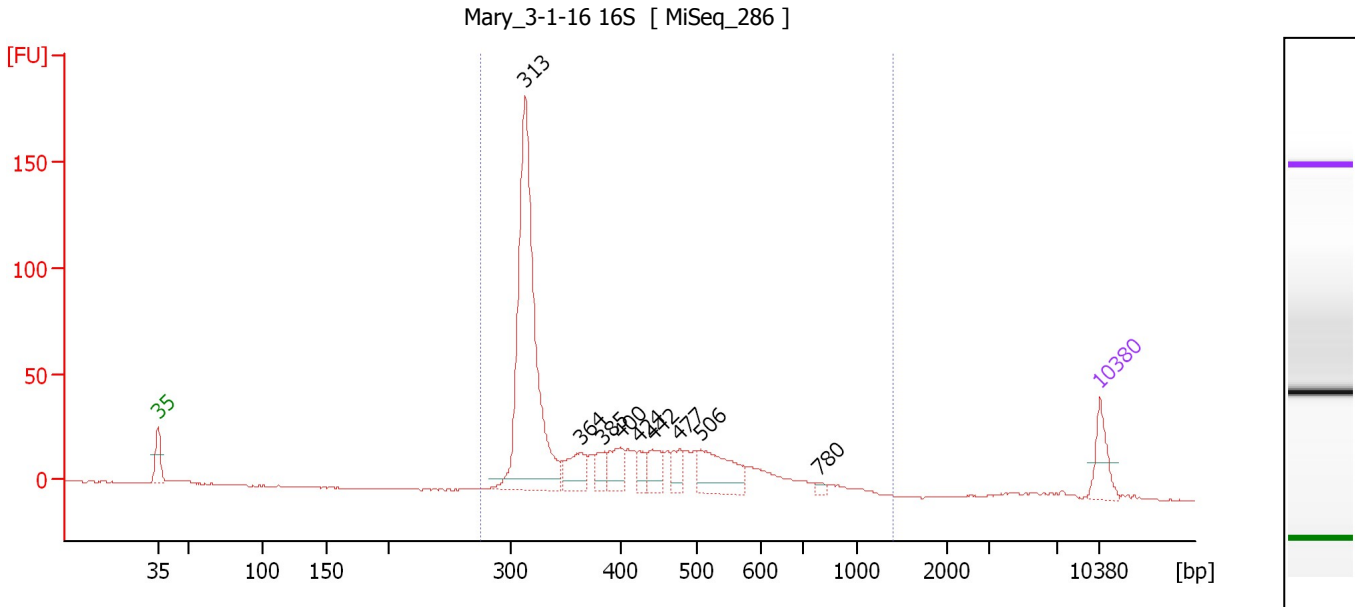
Region table for sample 3 : PGAA BR3 1:20

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
128	2,035	285	1,372.3	27,455.5	4,167.23	97	59.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
 Modified: 3/8/2016 12:29:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Mary 3-1-16 16S

Number of peaks found: 9 Corr. Area 1: 726.0
 Noise: 0.3

Peak table for sample 4 : Mary 3-1-16 16S

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	313	1,098.89	5,323.1		70.29
3	364	108.93	453.2		74.45
4	385	53.67	211.2		76.13
5	400	90.96	344.5		77.35
6	424	41.59	148.7		78.70
7	442	81.59	280.0		79.73
8	477	59.67	189.7		81.74
9	506	186.50	558.2		83.37
10	780	11.93	23.2		92.07
11	10,380	75.00	10.9	Upper Marker	113.00

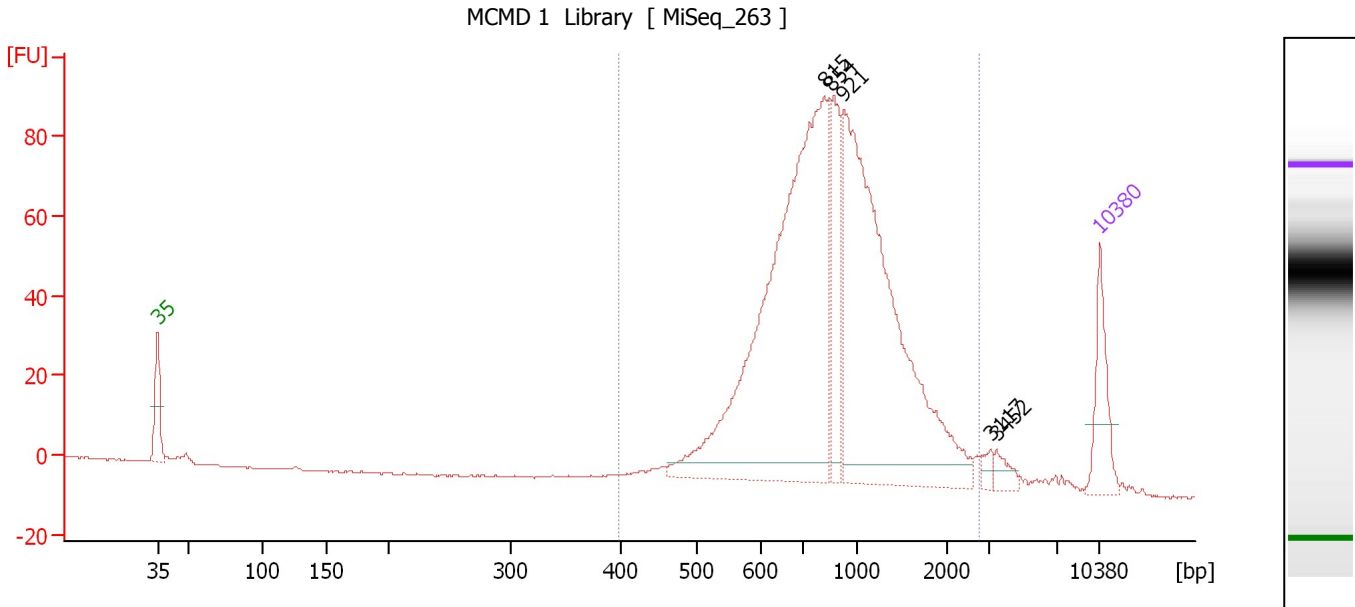
Region table for sample 4 : Mary 3-1-16 16S

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
275	1,392	408	726.0	8,073.7	1,980.08	99	30.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
 Modified: 3/8/2016 12:29:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : MCMD 1 Library

Number of peaks found: 5 Corr. Area 1: 1,066.2
 Noise: 0.2

Peak table for sample 5 : MCMD 1 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	815	965.34	1,795.0		92.53
3	854	150.16	266.5		93.05
4	921	756.60	1,244.5		93.96
5	3,117	13.22	6.4		104.88
6	3,452	18.61	8.2		105.31
7	10,380	75.00	10.9	Upper Marker	113.00

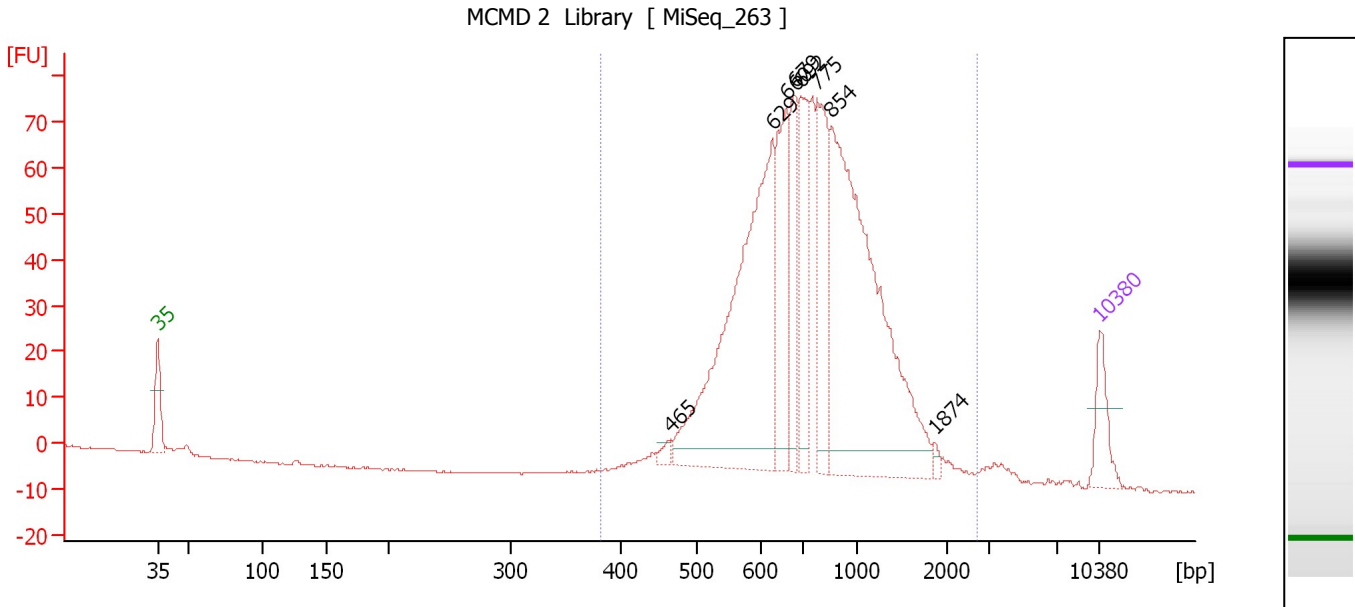
Region table for sample 5 : MCMD 1 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
398	2,796	954	1,066.2	3,519.7	1,903.92	97	41.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
 Modified: 3/8/2016 12:29:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : MCMD 2 Library

Number of peaks found: 8 Corr. Area 1: 1,023.1
 Noise: 0.2

Peak table for sample 6 : MCMD 2 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	465	21.10	68.7		81.09
3	629	936.16	2,256.5		88.67
4	660	279.96	642.9		89.68
5	679	200.05	446.4		90.31
6	692	216.86	474.5		90.74
7	775	281.13	549.5		92.00
8	854	1,024.96	1,817.6		93.06
9	1,874	11.74	9.5		100.74
10	10,380	75.00	10.9	Upper Marker	113.00

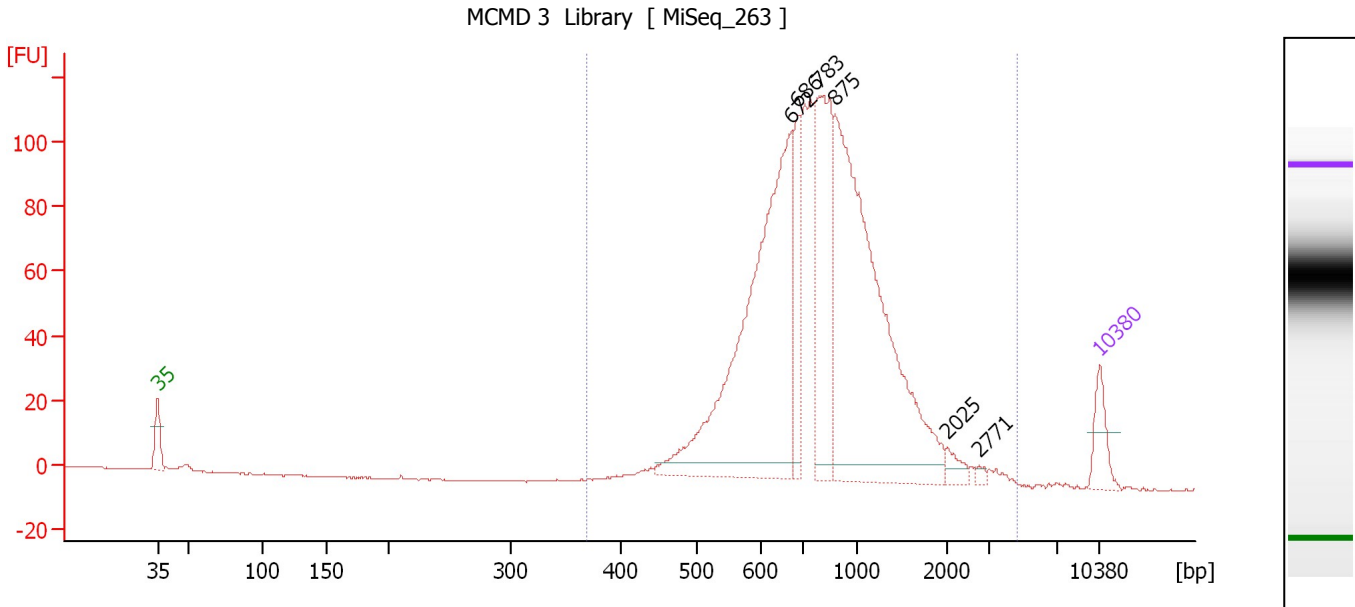
Region table for sample 6 : MCMD 2 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
383	2,723	829	1,023.1	6,715.2	3,229.55	98	38.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
 Modified: 3/8/2016 12:29:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : MCMD 3 Library

Number of peaks found: 6 Corr. Area 1: 1,398.5
 Noise: 0.2

Peak table for sample 7 : MCMD 3 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	672	1,344.95	3,030.9		90.09
3	686	235.04	519.2		90.54
4	783	546.00	1,056.2		92.11
5	875	1,328.98	2,301.5		93.34
6	2,025	32.93	24.6		101.64
7	2,771	10.62	5.8		104.00
8	10,380	75.00	10.9	Upper Marker	113.00

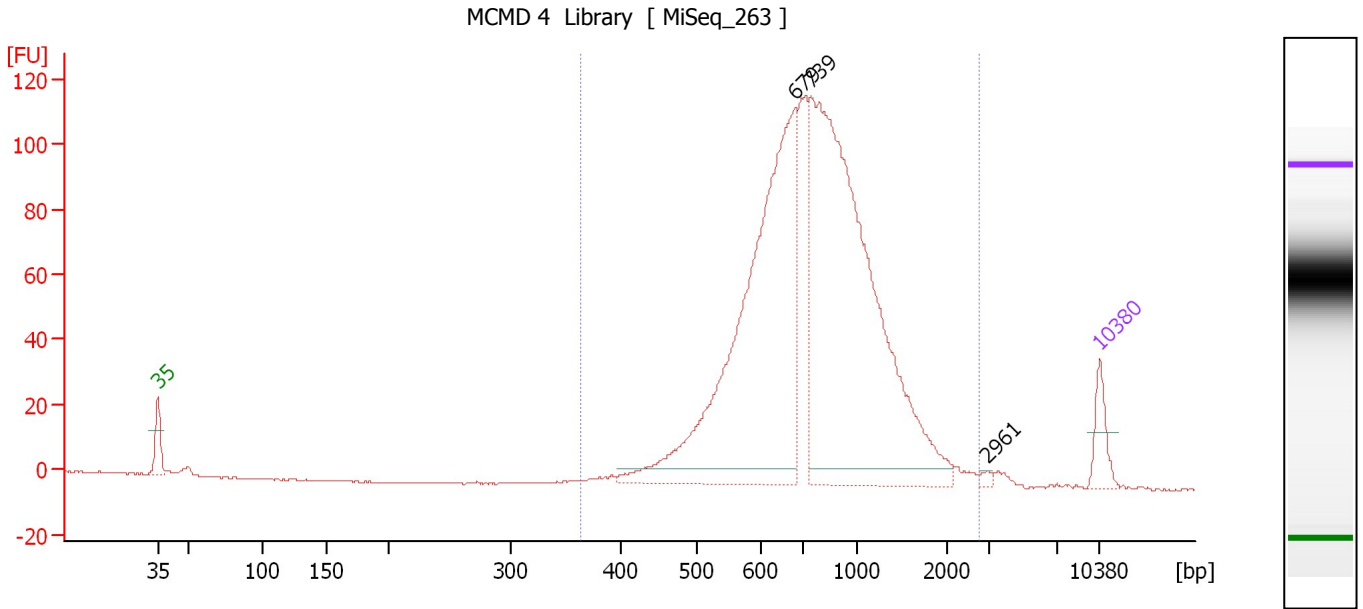
Region table for sample 7 : MCMD 3 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
370	4,651	908	1,398.5	7,872.6	3,979.37	98	50.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
 Modified: 3/8/2016 12:29:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : MCMD 4 Library

Number of peaks found: 3 Corr. Area 1: 1,385.3
 Noise: 0.2

Peak table for sample 8 : MCMD 4 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	679	1,701.21	3,794.9		90.32
3	739	2,065.30	4,234.3		91.52
4	2,961	11.06	5.7		104.61
5	10,380	75.00	10.9	Upper Marker	113.00

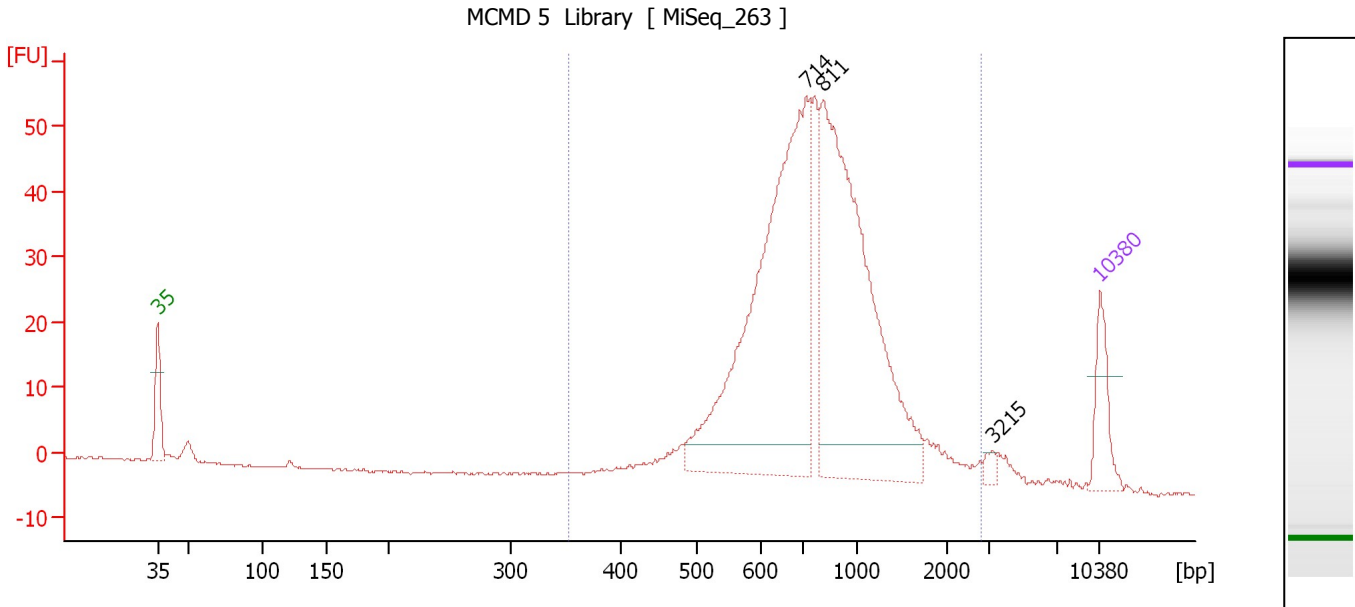
Region table for sample 8 : MCMD 4 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
364	2,794	846	1,385.3	8,310.6	4,041.08	97	40.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
 Modified: 3/8/2016 12:29:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : MCMD 5 Library

Number of peaks found: 3 Corr. Area 1: 613.4
 Noise: 0.2

Peak table for sample 9 : MCMD 5 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	714	1,002.66	2,128.7		91.18
3	811	870.21	1,625.4		92.48
4	3,215	13.40	6.3		105.00
5	10,380	75.00	10.9	Upper Marker	113.00

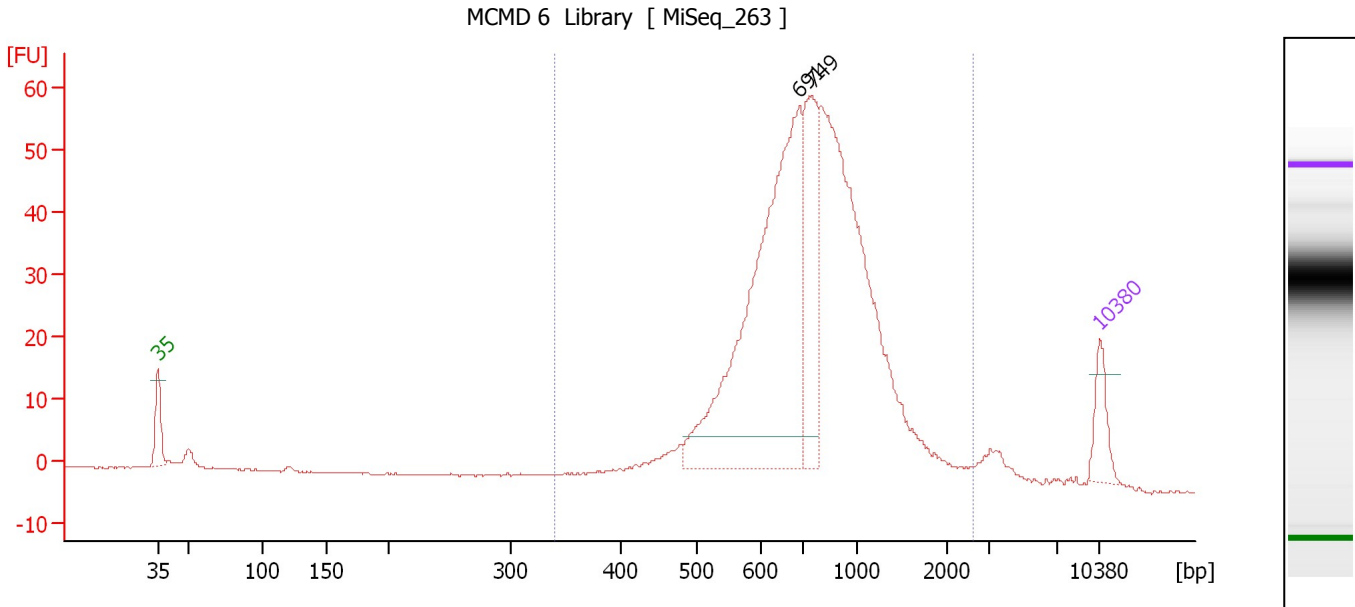
Region table for sample 9 : MCMD 5 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
352	2,825	854	613.4	4,260.9	2,106.11	97	40.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
 Modified: 3/8/2016 12:29:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : MCMD 6 Library

Number of peaks found: 2 Corr. Area 1: 668.1
 Noise: 0.1

Peak table for sample 10 : MCMD 6 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	691	1,283.14	2,814.9		90.69
3	749	368.62	746.1		91.64
4	10,380	75.00	10.9	Upper Marker	113.00

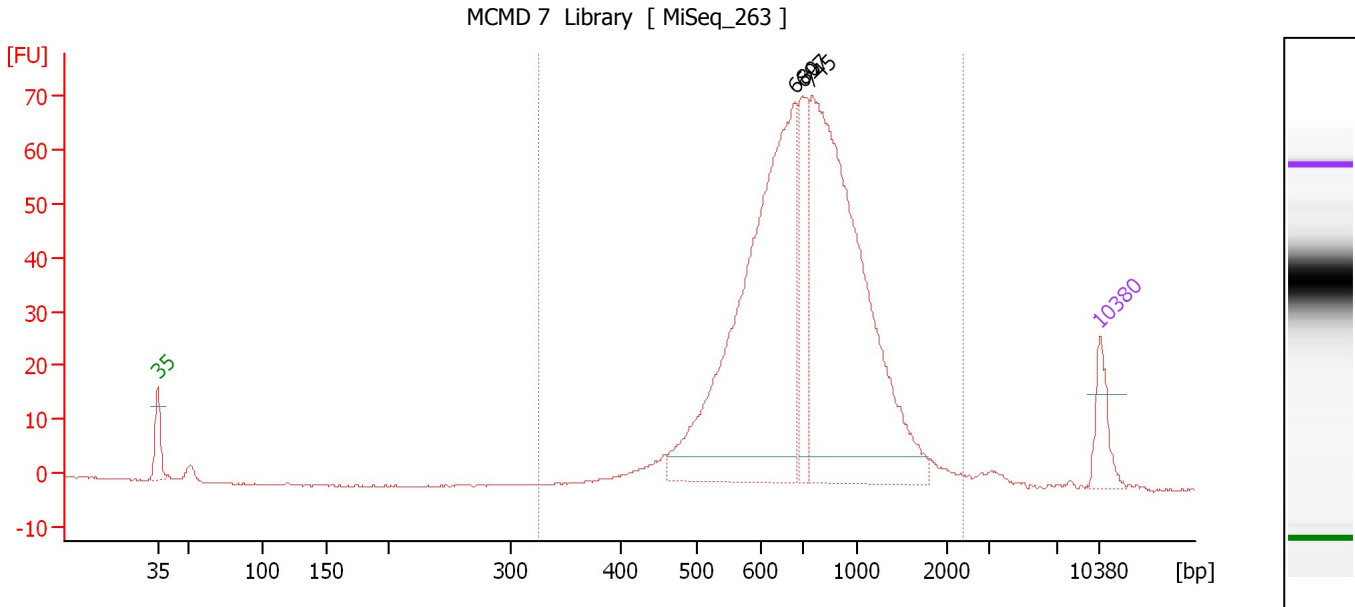
Region table for sample 10 : MCMD 6 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
340	2,620	829	668.1	6,538.1	3,144.73	95	38.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
 Modified: 3/8/2016 12:29:27 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : MCMD 7 Library

Number of peaks found: 3 Corr. Area 1: 815.1
 Noise: 0.1

Peak table for sample 11 : MCMD 7 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	680	1,337.55	2,980.7		90.34
3	697	240.01	521.8		90.89
4	745	1,331.17	2,706.9		91.60
5	10,380	75.00	10.9	Upper Marker	113.00

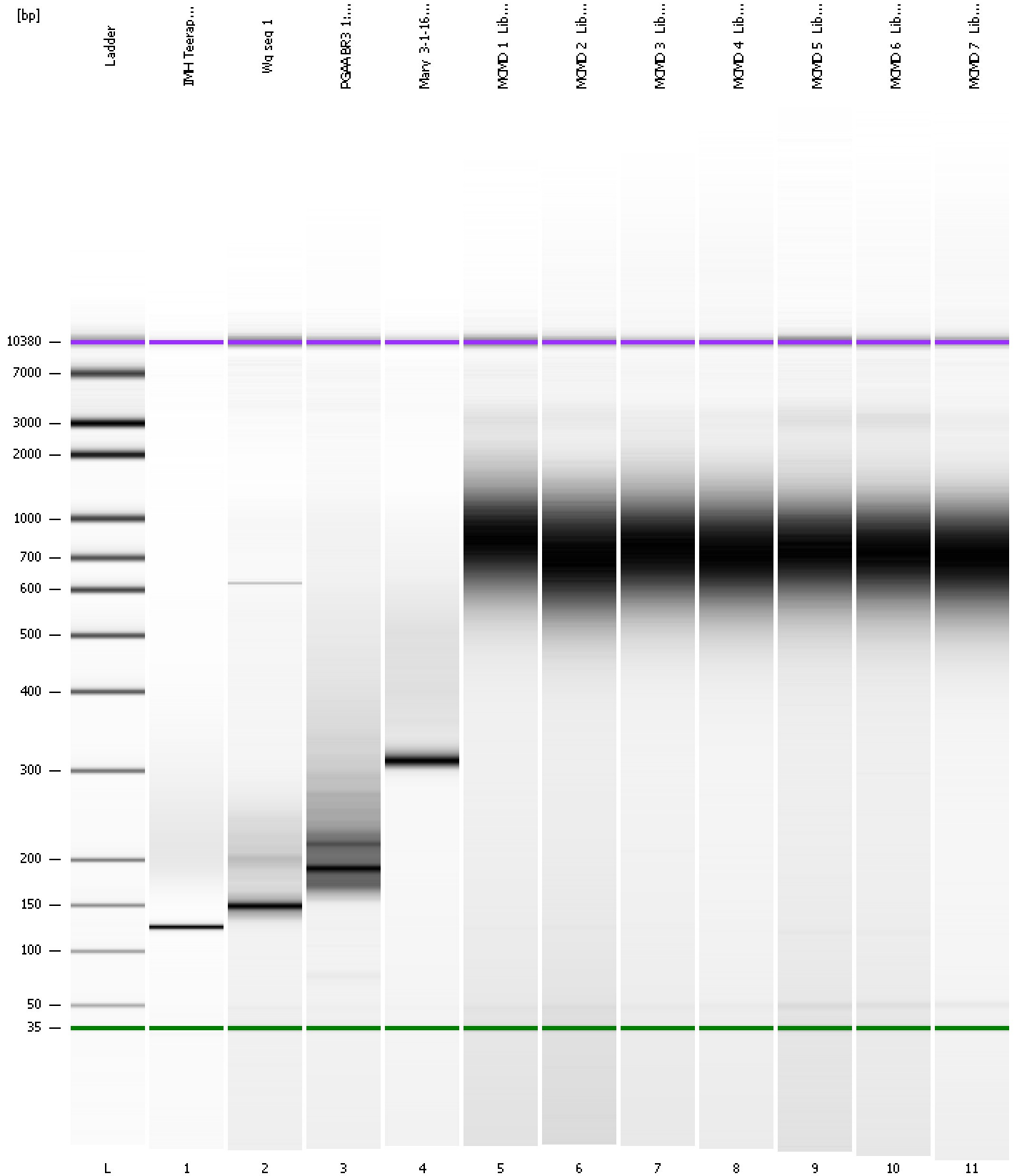
Region table for sample 11 : MCMD 7 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
325	2,405	800	815.1	6,457.8	3,029.35	96	36.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
Modified: 3/8/2016 12:29:27 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-08\2016-03-08_001.xad

Created: 3/8/2016 11:37:00 AM
 Modified: 3/8/2016 12:29:27 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		3/8/2016 12:18:17 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\2016-03-08\2016-03-08_001.xad)		Instrument	Run		3/8/2016 11:37:06 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/8/2016 11:37:06 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/8/2016 11:37:06 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/8/2016 11:37:06 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/8/2016 11:37:06 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/8/2016 11:37:06 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/8/2016 11:37:06 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1