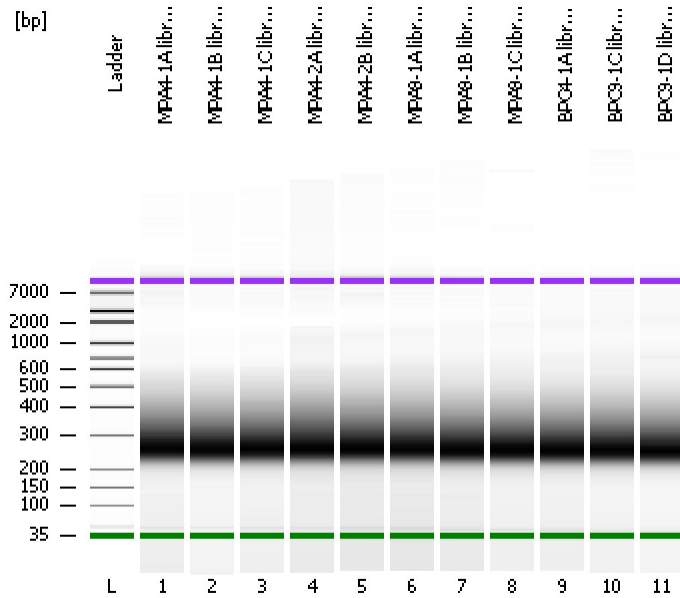


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-08\2016-08-08_001.xad

Created: 8/8/2016 9:56:04 AM
Modified: 8/8/2016 10:47:25 AM

Electrophoresis File Run Summary



Instrument Information:

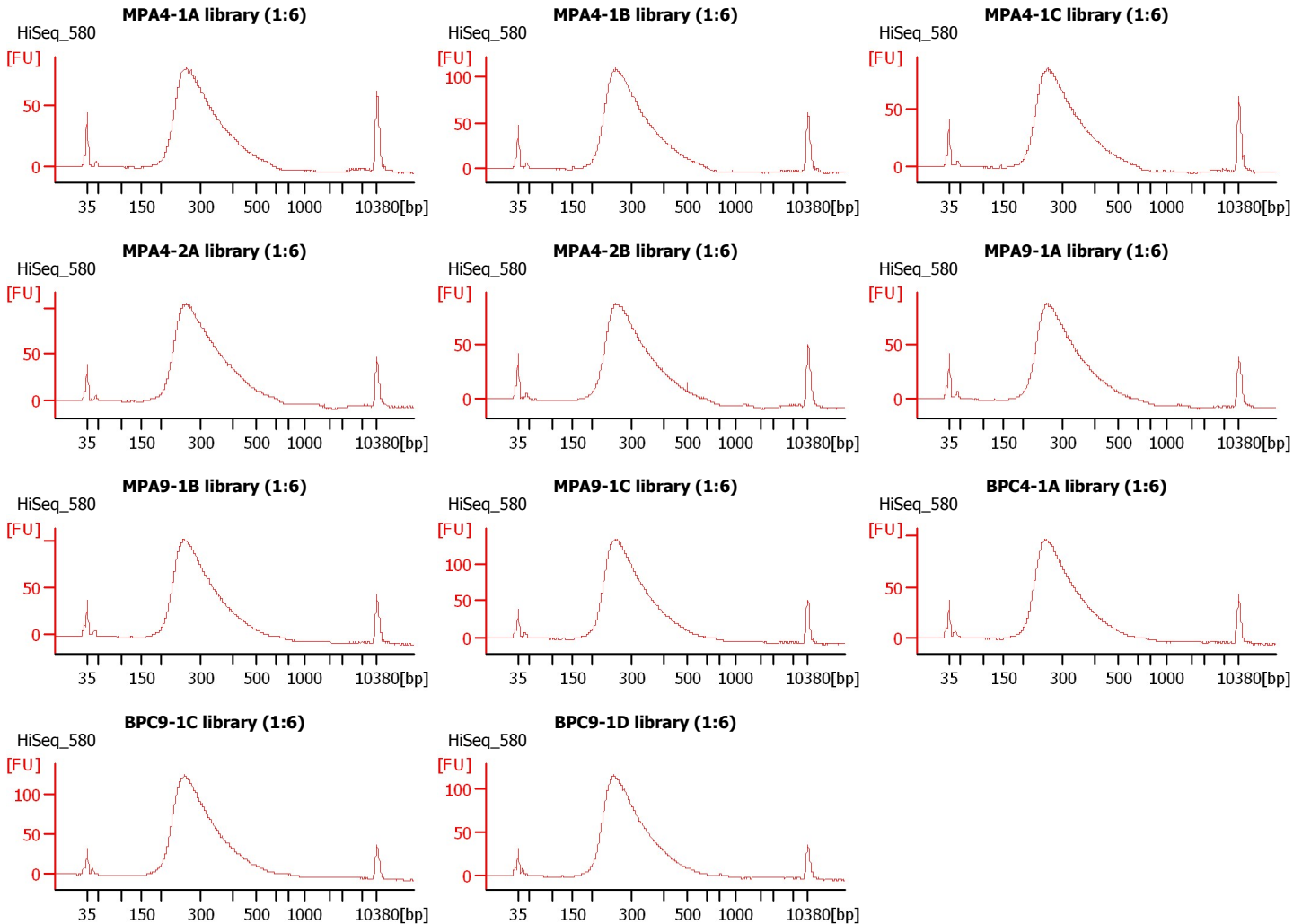
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:



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

Created: 8/8/2016 9:56:04 AM
 Modified: 8/8/2016 10:47:25 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
MPA4-1A library (1:6)	HiSeq_580	<input type="checkbox"/>	✓			
MPA4-1B library (1:6)	HiSeq_580	<input type="checkbox"/>	✓			
MPA4-1C library (1:6)	HiSeq_580	<input type="checkbox"/>	✓			
MPA4-2A library (1:6)	HiSeq_580	<input type="checkbox"/>	✓			
MPA4-2B library (1:6)	HiSeq_580	<input type="checkbox"/>	✓			
MPA9-1A library (1:6)	HiSeq_580	<input type="checkbox"/>	✓			
MPA9-1B library (1:6)	HiSeq_580	<input type="checkbox"/>	✓			
MPA9-1C library (1:6)	HiSeq_580	<input type="checkbox"/>	✓			
BPC4-1A library (1:6)	HiSeq_580	<input type="checkbox"/>	✓			
BPC9-1C library (1:6)	HiSeq_580	<input type="checkbox"/>	✓			
BPC9-1D library (1:6)	HiSeq_580	<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\2016-08-08\2016-08-08_001.xad

Created: 8/8/2016 9:56:04 AM
Modified: 8/8/2016 10:47:25 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/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

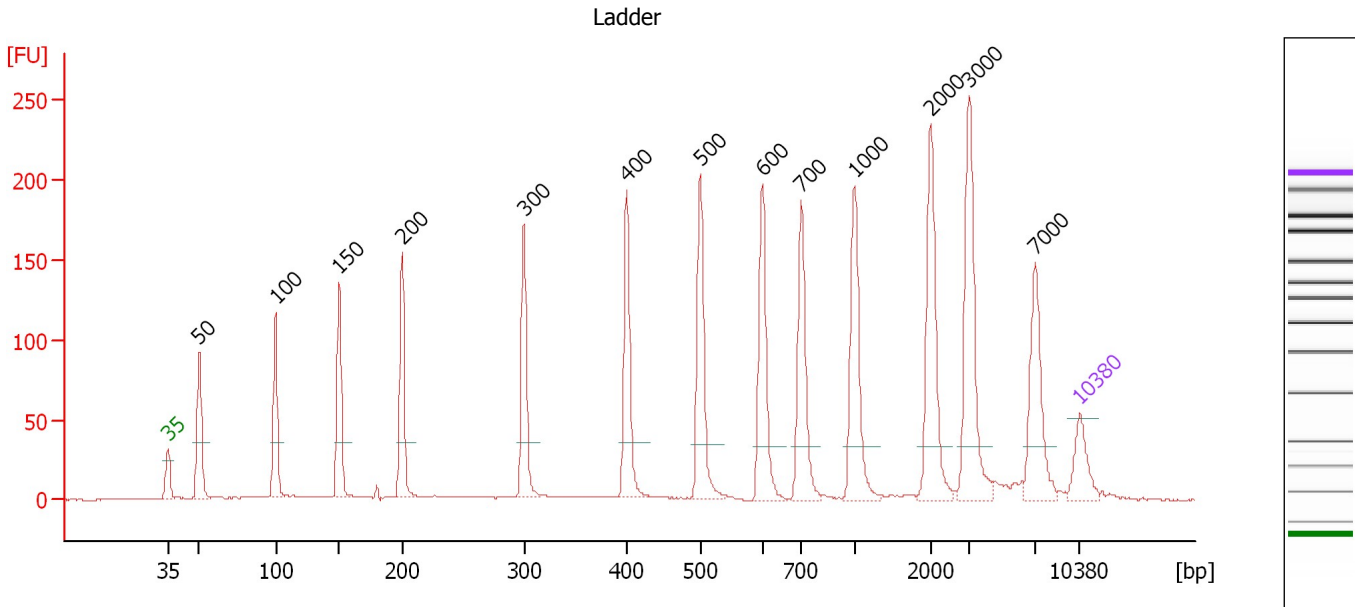
Ladder

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

Created: 8/8/2016 9:56:04 AM
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Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

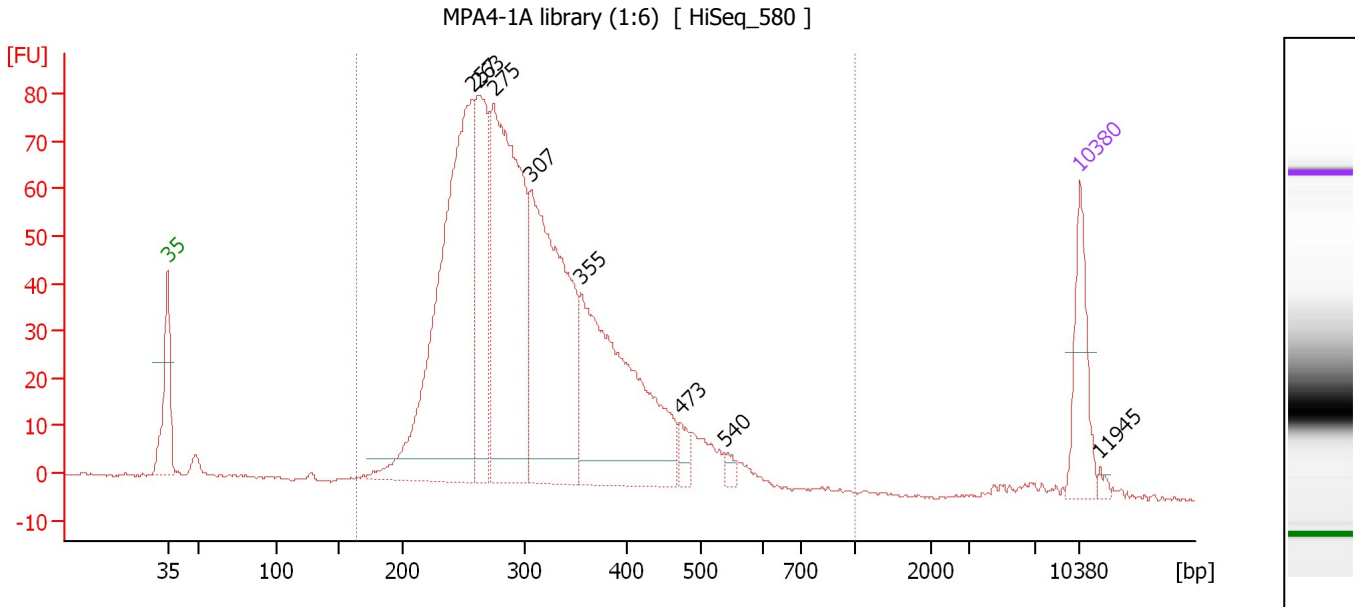
Peak table for Ladder

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	45.42
3	100	150.00	2,272.7	Ladder Peak	51.28
4	150	150.00	1,515.2	Ladder Peak	56.18
5	200	150.00	1,136.4	Ladder Peak	61.02
6	300	150.00	757.6	Ladder Peak	70.37
7	400	150.00	568.2	Ladder Peak	78.27
8	500	150.00	454.5	Ladder Peak	83.89
9	600	150.00	378.8	Ladder Peak	88.63
10	700	150.00	324.7	Ladder Peak	91.64
11	1,000	150.00	227.3	Ladder Peak	95.75
12	2,000	150.00	113.6	Ladder Peak	101.62
13	3,000	150.00	75.8	Ladder Peak	104.57
14	7,000	150.00	32.5	Ladder Peak	109.61
15	10,380	75.00	10.9	Upper Marker	113.00

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

Created: 8/8/2016 9:56:04 AM
 Modified: 8/8/2016 10:47:25 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : MPA4-1A library (1:6)

Number of peaks found: 8 Corr. Area 1: 1,422.2
 Noise: 0.3

Peak table for sample 1 : MPA4-1A library (1:6)

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	257	743.84	4,385.4		66.35
3	263	252.97	1,458.7		66.89
4	275	593.38	3,265.0		68.07
5	307	514.83	2,542.0		70.91
6	355	451.93	1,927.1		74.74
7	473	21.91	70.2		82.34
8	540	11.37	31.9		85.78
9	10,380	75.00	10.9	Upper Marker	113.00
10	11,945	0.00	0.0		114.57

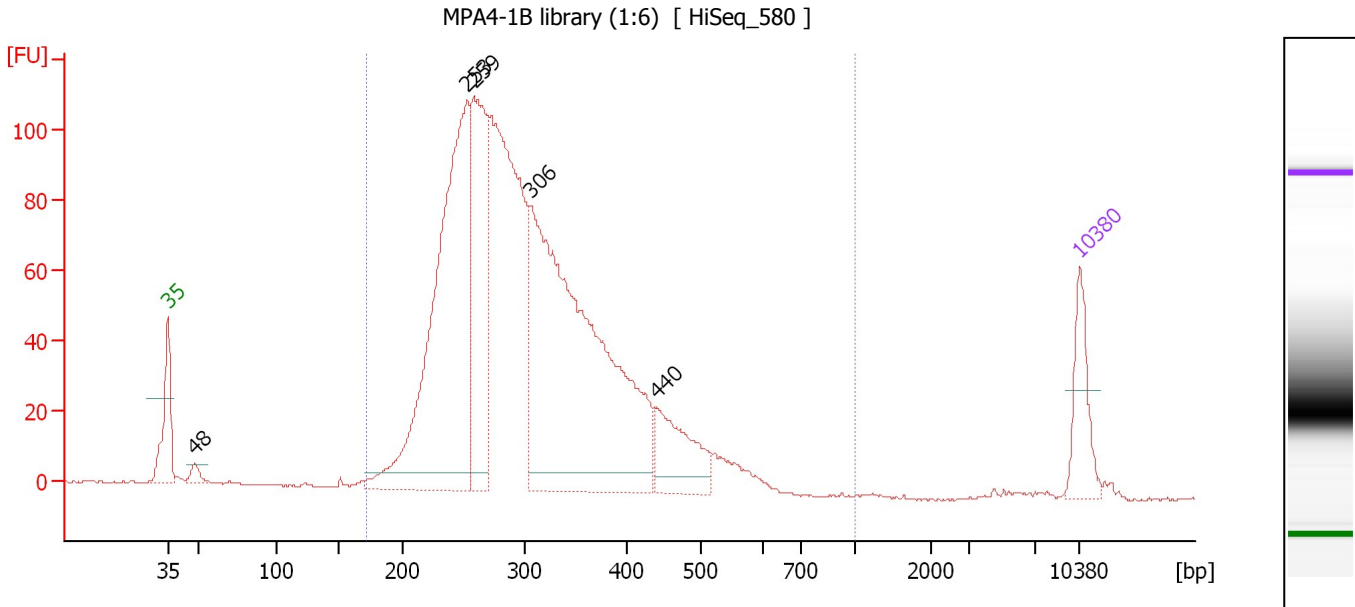
Region table for sample 1 : MPA4-1A library (1:6)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
164	1,000	313	1,422.2	13,498.9	2,611.65	99	23.9

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

Created: 8/8/2016 9:56:04 AM
 Modified: 8/8/2016 10:47:25 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : MPA4-1B library (1:6)

Number of peaks found: 5 Corr. Area 1: 1,926.3
 Noise: 0.3

Peak table for sample 2 : MPA4-1B library (1:6)

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	48	21.59	679.8		45.12
3	253	914.99	5,473.0		66.00
4	259	393.66	2,306.7		66.50
5	306	1,118.51	5,540.9		70.83
6	440	148.29	510.2		80.54
7	10,380	75.00	10.9	Upper Marker	113.00

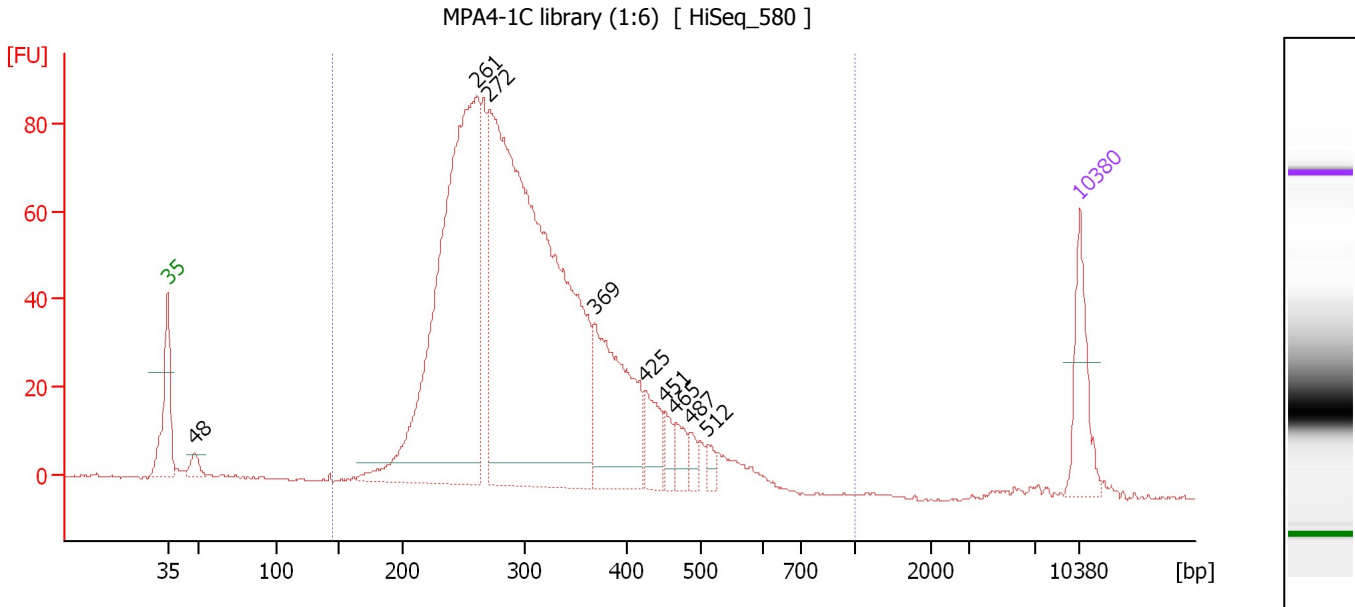
Region table for sample 2 : MPA4-1B library (1:6)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
172	1,000	311	1,926.3	17,025.9	3,260.78	98	24.3

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

Created: 8/8/2016 9:56:04 AM
 Modified: 8/8/2016 10:47:25 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : MPA4-1C library (1:6)

Number of peaks found: 9 Corr. Area 1: 1,517.5
 Noise: 0.2

Peak table for sample 3 : MPA4-1C library (1:6)

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	48	23.12	734.8		45.05
3	261	958.84	5,568.0		66.72
4	272	1,382.62	7,713.2		67.71
5	369	265.58	1,091.1		75.80
6	425	58.98	210.5		79.65
7	451	27.18	91.3		81.15
8	465	30.69	99.9		81.94
9	487	17.37	54.1		83.14
10	512	14.65	43.4		84.44
11	10,380	75.00	10.9	Upper Marker	113.00

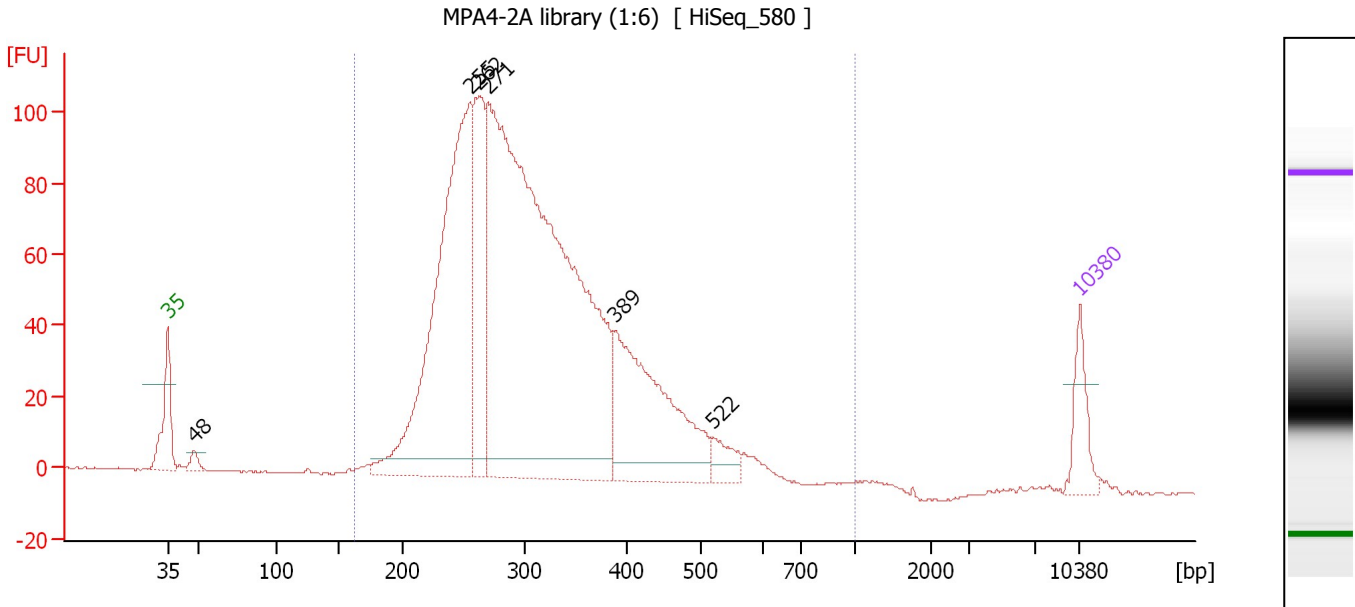
Region table for sample 3 : MPA4-1C library (1:6)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
144	1,000	311	1,517.5	14,751.9	2,830.53	99	24.3

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

Created: 8/8/2016 9:56:04 AM
 Modified: 8/8/2016 10:47:25 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : MPA4-2A library (1:6)

Number of peaks found: 6 Corr. Area 1: 1,914.2
 Noise: 0.2

Peak table for sample 4 : MPA4-2A library (1:6)

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	48	27.92	888.7		45.03
3	255	1,199.39	7,116.2		66.20
4	262	392.62	2,266.7		66.86
5	271	2,512.93	14,070.1		67.62
6	389	528.20	2,057.9		77.39
7	522	58.02	168.5		84.92
8	10,380	75.00	10.9	Upper Marker	113.00

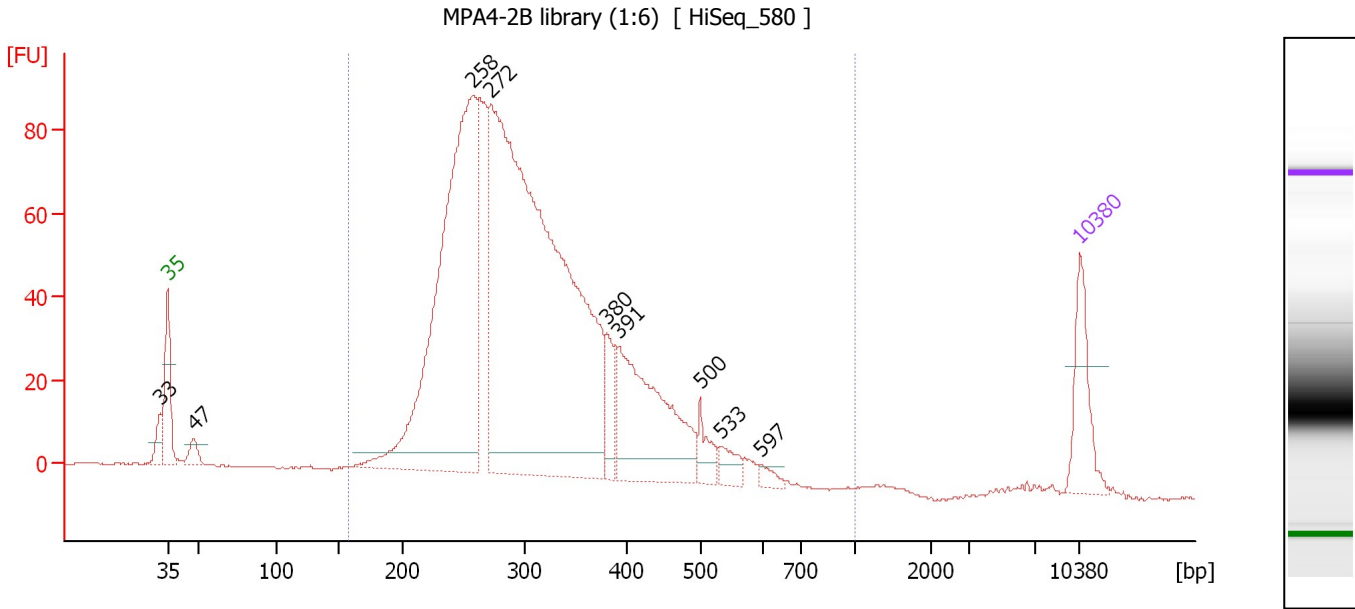
Region table for sample 4 : MPA4-2A library (1:6)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
162	1,000	315	1,914.2	22,803.7	4,421.43	99	24.6

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

Created: 8/8/2016 9:56:04 AM
 Modified: 8/8/2016 10:47:25 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : MPA4-2B library (1:6)

Number of peaks found: 9 Corr. Area 1: 1,575.2
 Noise: 0.2

Peak table for sample 5 : MPA4-2B library (1:6)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.43
2	35	125.00	5,411.3	Lower Marker	43.00
3	47	27.46	876.4		45.01
4	258	933.31	5,470.9		66.49
5	272	1,583.10	8,827.3		67.73
6	380	59.08	235.4		76.71
7	391	289.63	1,121.2		77.59
8	500	38.99	118.2		83.88
9	533	28.11	80.0		85.43
10	597	12.65	32.1		88.48
11	10,380	75.00	10.9	Upper Marker	113.00

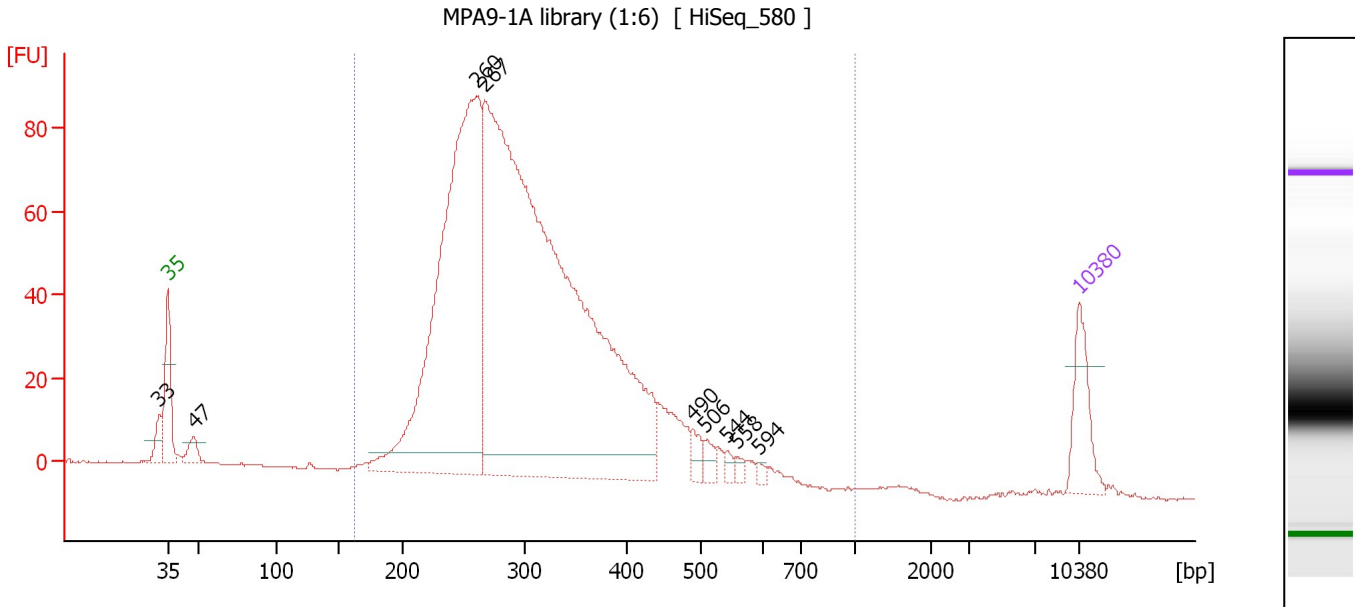
Region table for sample 5 : MPA4-2B library (1:6)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
157	1,000	313	1,575.2	15,681.9	3,019.78	98	24.5

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

Created: 8/8/2016 9:56:04 AM
 Modified: 8/8/2016 10:47:25 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : MPA9-1A library (1:6)

Number of peaks found: 9 Corr. Area 1: 1,530.7
 Noise: 0.2

Peak table for sample 6 : MPA9-1A library (1:6)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.37
2	35	125.00	5,411.3	Lower Marker	43.00
3	47	35.70	1,143.3		44.99
4	260	1,211.94	7,057.7		66.65
5	267	2,357.19	13,353.7		67.33
6	490	24.33	75.2		83.34
7	506	22.29	66.7		84.17
8	544	11.33	31.6		85.95
9	558	9.63	26.2		86.63
10	594	6.98	17.8		88.36
11	10,380	75.00	10.9	Upper Marker	113.00

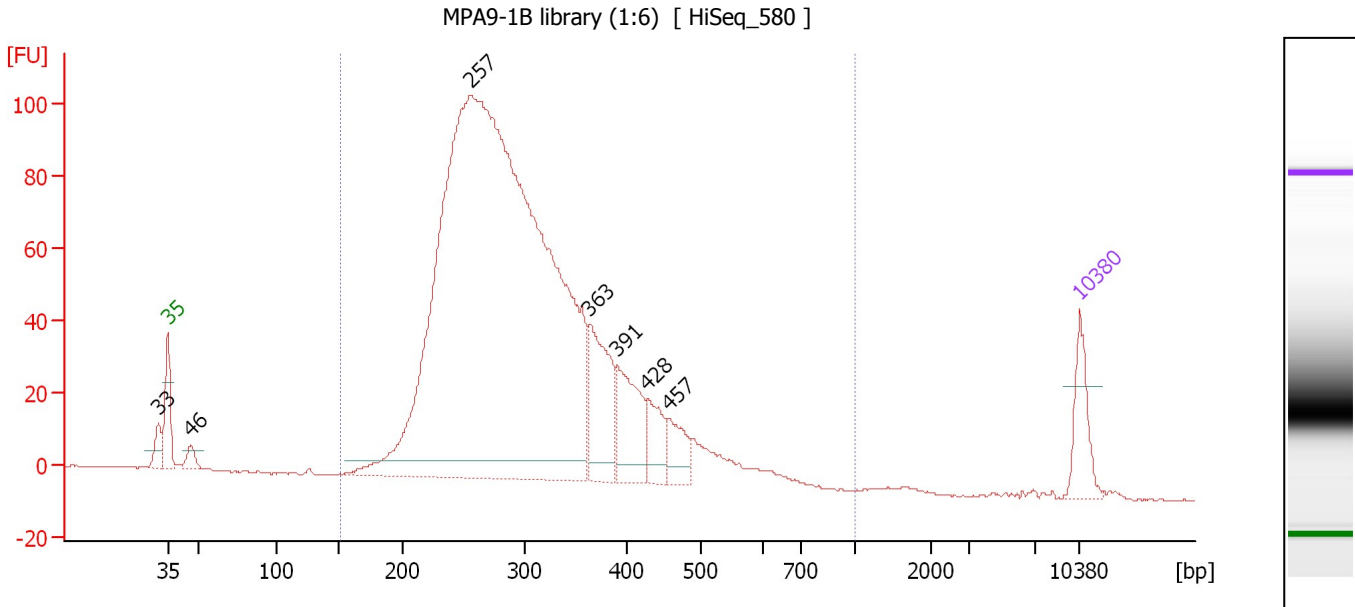
Region table for sample 6 : MPA9-1A library (1:6)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
161	1,000	312	1,530.7	18,164.6	3,491.95	98	24.7

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

Created: 8/8/2016 9:56:04 AM
 Modified: 8/8/2016 10:47:25 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : MPA9-1B library (1:6)

Number of peaks found: 7 Corr. Area 1: 1,730.3
 Noise: 0.2

Peak table for sample 7 : MPA9-1B library (1:6)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.31
2	35	125.00	5,411.3	Lower Marker	43.00
3	46	35.46	1,171.2		44.76
4	257	3,787.34	22,360.4		66.32
5	363	235.27	981.3		75.37
6	391	177.68	688.7		77.55
7	428	84.54	299.3		79.84
8	457	73.19	242.5		81.49
9	10,380	75.00	10.9	Upper Marker	113.00

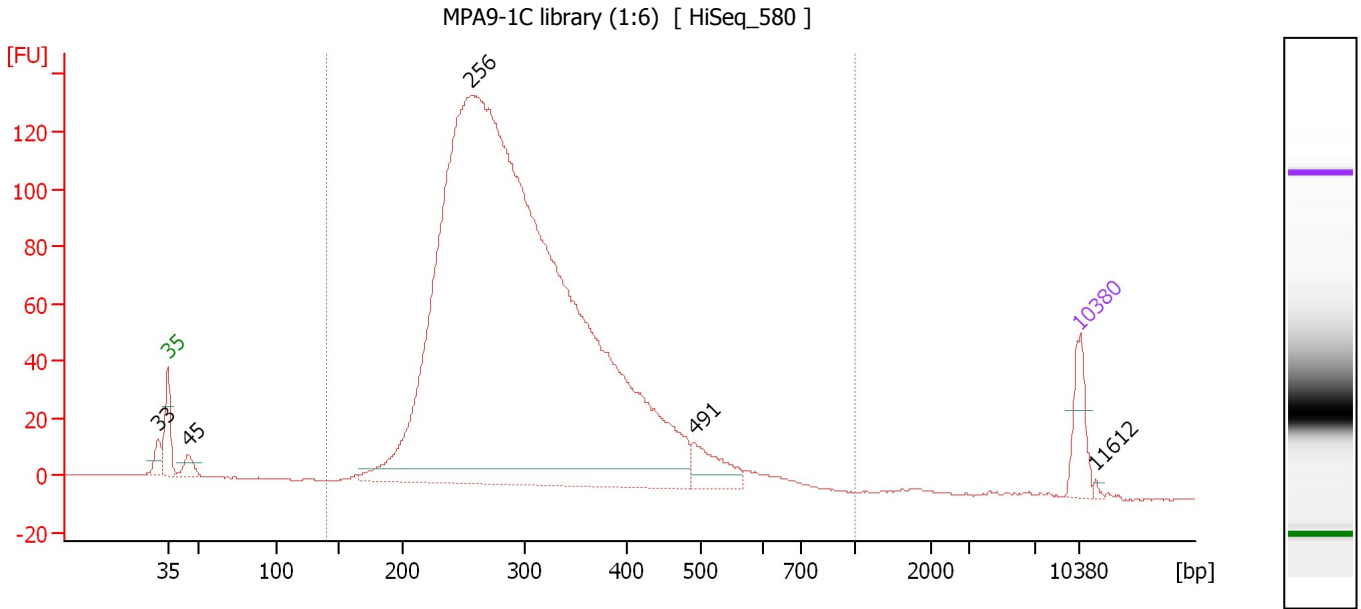
Region table for sample 7 : MPA9-1B library (1:6)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
152	1,000	307	1,730.3	21,986.0	4,171.08	98	24.0

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

Created: 8/8/2016 9:56:04 AM
 Modified: 8/8/2016 10:47:25 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : MPA9-1C library (1:6)

Number of peaks found: 5 Corr. Area 1: 2,267.5
 Noise: 0.3

Peak table for sample 8 : MPA9-1C library (1:6)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.30
2	35	125.00	5,411.3	Lower Marker	43.00
3	45	45.13	1,531.4		44.56
4	256	5,525.39	32,695.2		66.26
5	491	102.64	316.5		83.40
6	10,380	75.00	10.9	Upper Marker	113.00
7	11,612	0.00	0.0		114.24

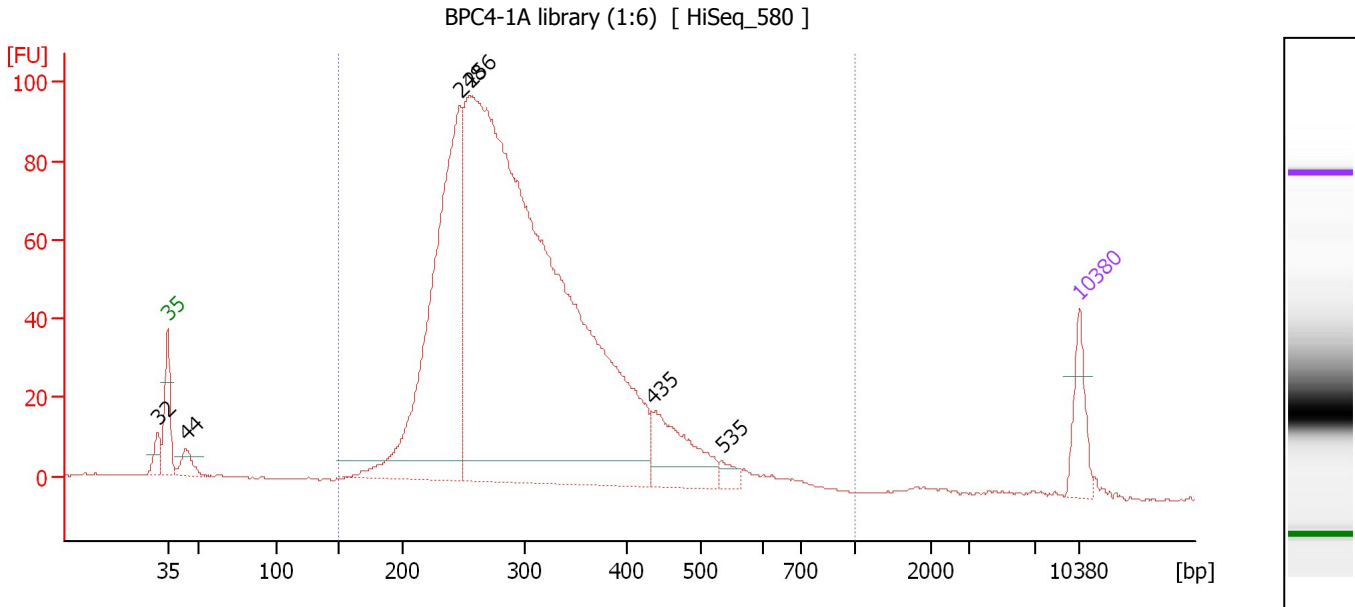
Region table for sample 8 : MPA9-1C library (1:6)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
140	1,000	308	2,267.5	27,096.8	5,137.23	98	25.1

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

Created: 8/8/2016 9:56:04 AM
 Modified: 8/8/2016 10:47:25 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : BPC4-1A library (1:6)

Number of peaks found: 6 Corr. Area 1: 1,634.7
 Noise: 0.2

Peak table for sample 9 : BPC4-1A library (1:6)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.24
2	35	125.00	5,411.3	Lower Marker	43.00
3	44	58.56	2,029.6		44.41
4	248	1,172.73	7,177.6		65.47
5	256	3,634.73	21,540.6		66.23
6	435	203.88	709.8		80.25
7	535	26.35	74.6		85.55
8	10,380	75.00	10.9	Upper Marker	113.00

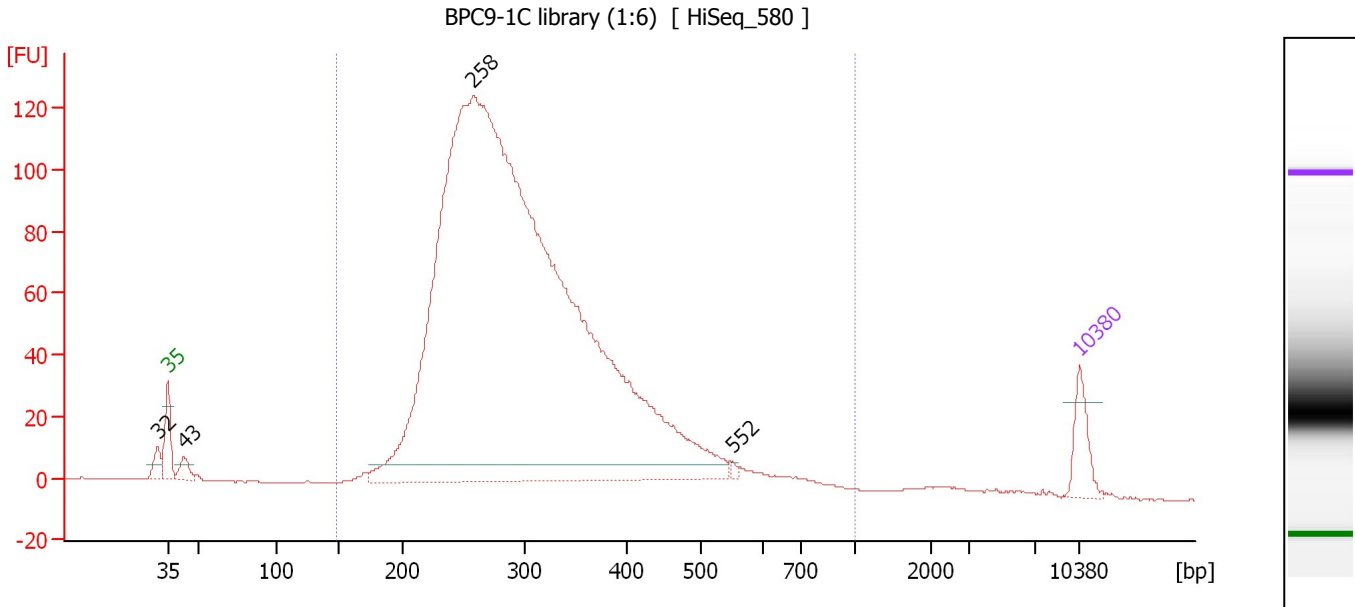
Region table for sample 9 : BPC4-1A library (1:6)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
150	1,000	307	1,634.7	24,953.0	4,710.86	97	25.4

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

Created: 8/8/2016 9:56:04 AM
 Modified: 8/8/2016 10:47:25 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : BPC9-1C library (1:6)

Number of peaks found: 4 Corr. Area 1: 2,087.5
 Noise: 0.2

Peak table for sample 10 : BPC9-1C library (1:6)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.24
2	35	125.00	5,411.3	Lower Marker	43.00
3	43	50.24	1,779.5		44.26
4	258	6,134.04	35,970.3		66.48
5	552	8.43	23.1		86.35
6	10,380	75.00	10.9	Upper Marker	113.00

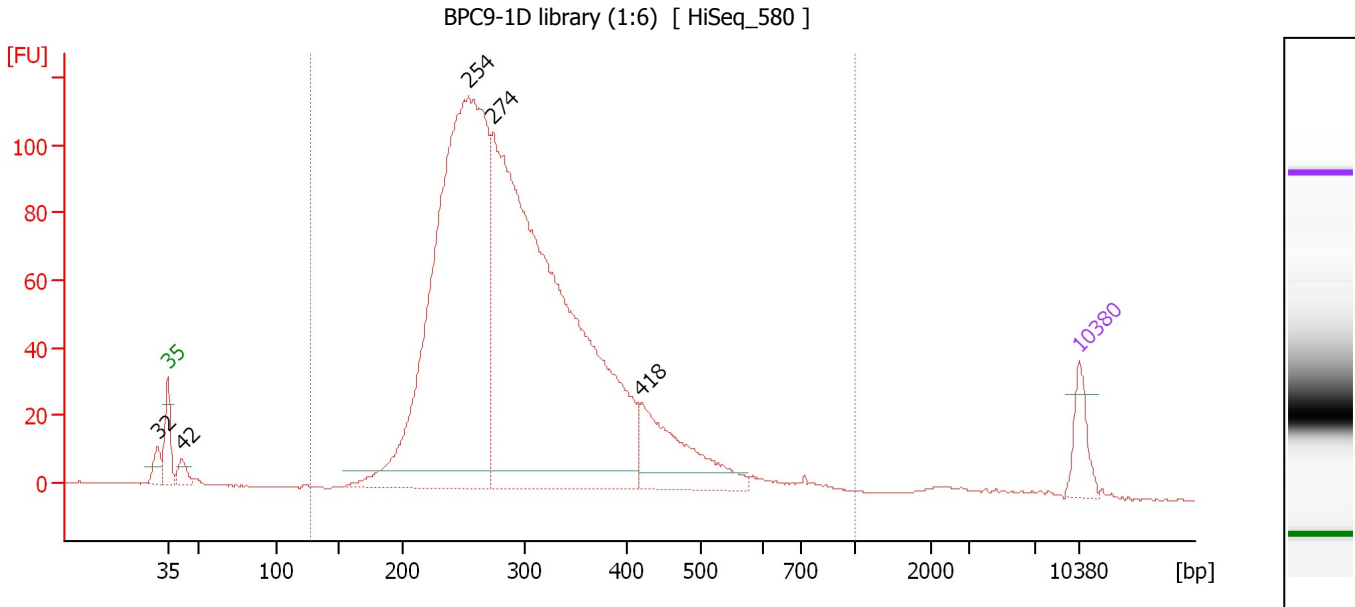
Region table for sample 10 : BPC9-1C library (1:6)

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	310	2,087.5	30,879.5	5,855.78	98	26.7

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

Created: 8/8/2016 9:56:04 AM
 Modified: 8/8/2016 10:47:25 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : BPC9-1D library (1:6)

Number of peaks found: 5 Corr. Area 1: 1,878.3
 Noise: 0.2

Peak table for sample 11 : BPC9-1D library (1:6)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.23
2	35	125.00	5,411.3	Lower Marker	43.00
3	42	52.63	1,907.7		44.10
4	254	2,535.18	15,094.6		66.11
5	274	2,911.94	16,076.6		67.98
6	418	344.83	1,249.3		79.29
7	10,380	75.00	10.9	Upper Marker	113.00

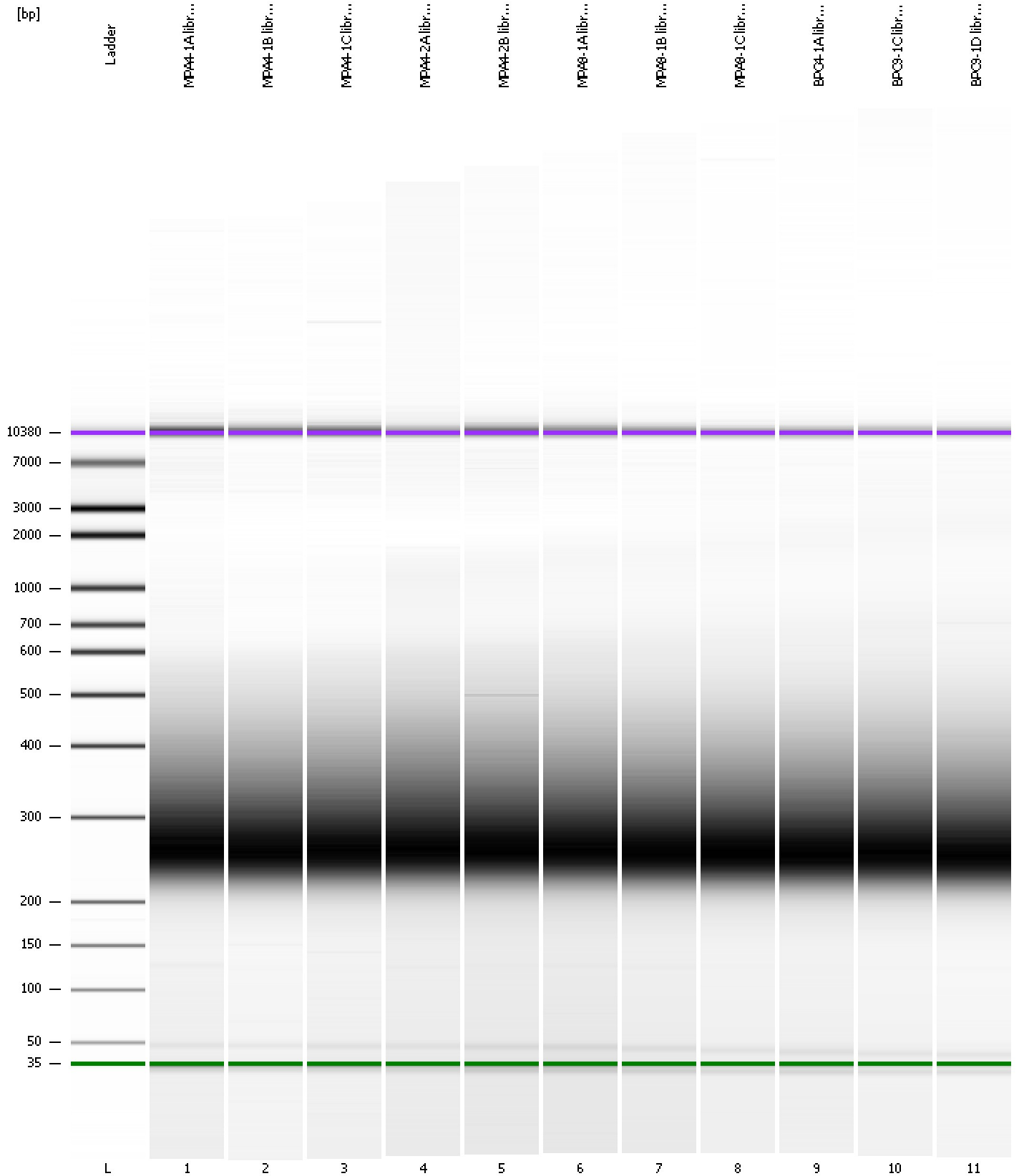
Region table for sample 11 : BPC9-1D library (1:6)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
127	1,000	306	1,878.3	29,607.0	5,565.34	98	26.6

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

Created: 8/8/2016 9:56:04 AM
Modified: 8/8/2016 10:47:25 AM

Gel Image



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

Created: 8/8/2016 9:56:04 AM
 Modified: 8/8/2016 10:47:25 AM

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		8/8/2016 10:37:21 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\2016-08-08\2016-08-08_001.xad)		Instrument	Run		8/8/2016 9:56:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		8/8/2016 9:56:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/8/2016 9:56:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/8/2016 9:56:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		8/8/2016 9:56:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/8/2016 9:56:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/8/2016 9:56:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1