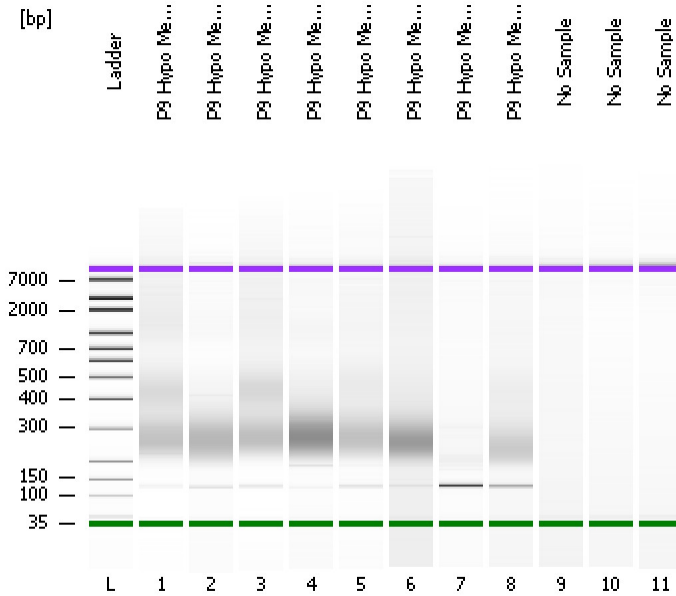


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
Modified: 9/29/2016 3:02:18 PM

Electrophoresis File Run Summary



Instrument Information:

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

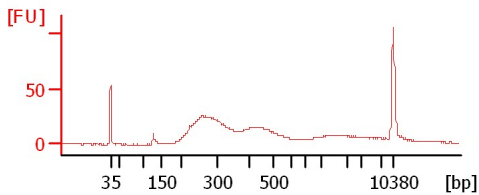
Assay Information:

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

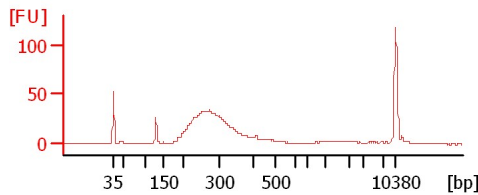
Chip Information:

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

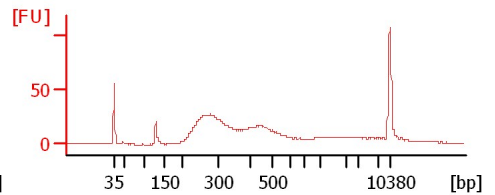
P9 Hypo Methyl-Seq 12



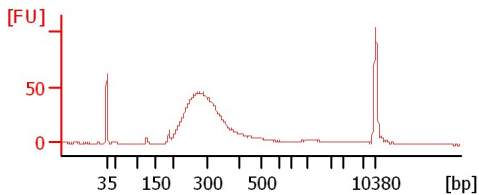
P9 Hypo Methyl-Seq 13



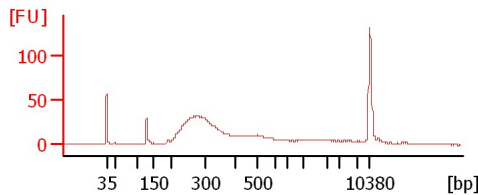
P9 Hypo Methyl-Seq 14



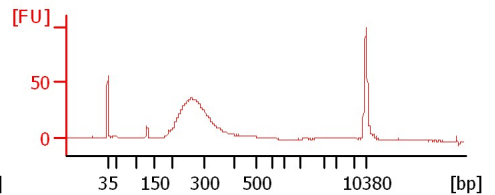
P9 Hypo Methyl-Seq 16



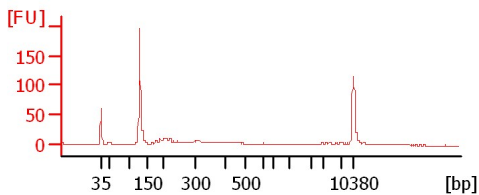
P9 Hypo Methyl-Seq 17



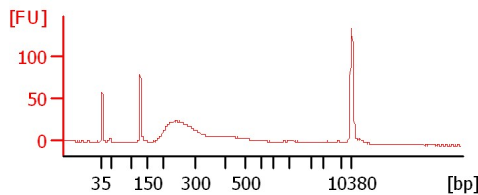
P9 Hypo Methyl-Seq 19



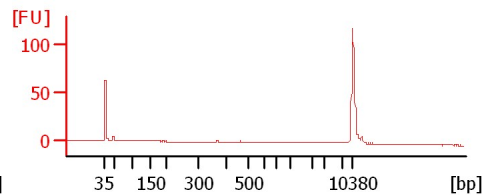
P9 Hypo Methyl-Seq 1



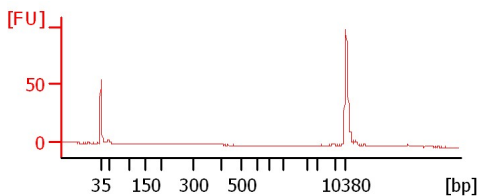
P9 Hypo Methyl-Seq 2



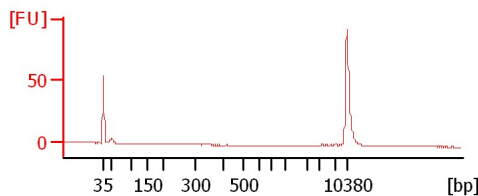
No Sample



No Sample



No Sample



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
Modified: 9/29/2016 3:02:18 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
P9 Hypo Methyl-Seq 12		<input type="checkbox"/>	✓			
P9 Hypo Methyl-Seq 13		<input type="checkbox"/>	✓			
P9 Hypo Methyl-Seq 14		<input type="checkbox"/>	✓			
P9 Hypo Methyl-Seq 16		<input type="checkbox"/>	✓			
P9 Hypo Methyl-Seq 17		<input type="checkbox"/>	✓			
P9 Hypo Methyl-Seq 19		<input type="checkbox"/>	✓			
P9 Hypo Methyl-Seq 1		<input type="checkbox"/>	✓			
P9 Hypo Methyl-Seq 2		<input type="checkbox"/>	✓			
No Sample		<input type="checkbox"/>	✓			
No Sample		<input type="checkbox"/>	✓			
No Sample		<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\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
Modified: 9/29/2016 3:02:18 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

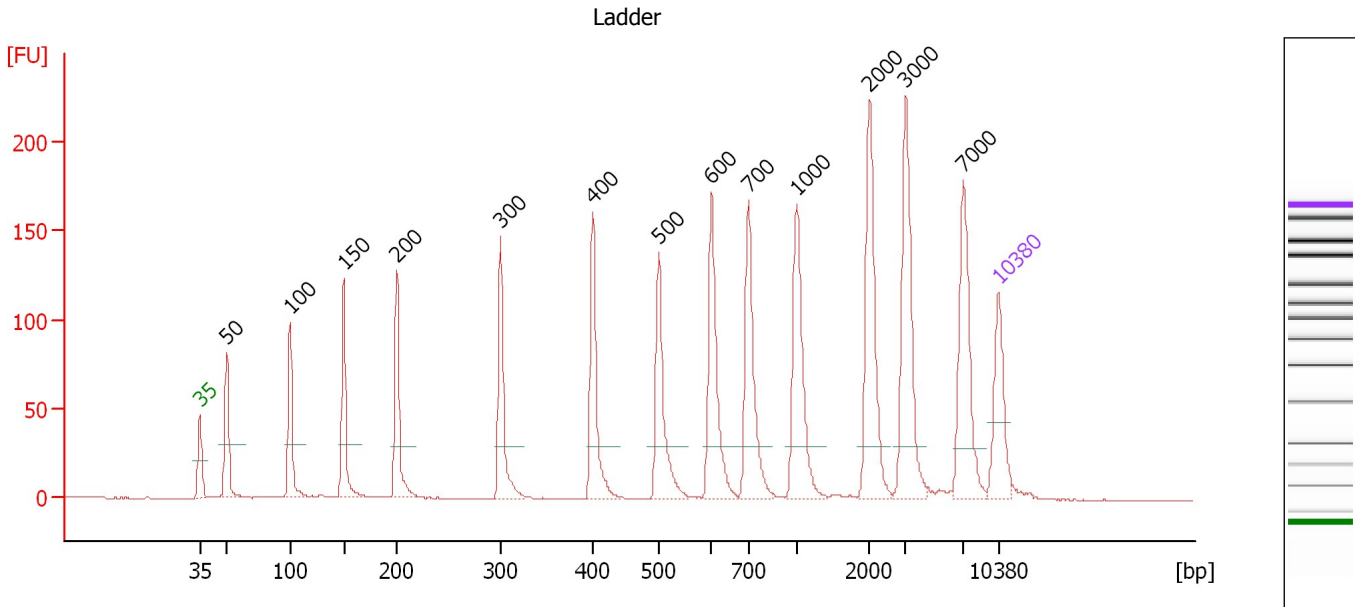
Ladder

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\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
 Modified: 9/29/2016 3:02:18 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

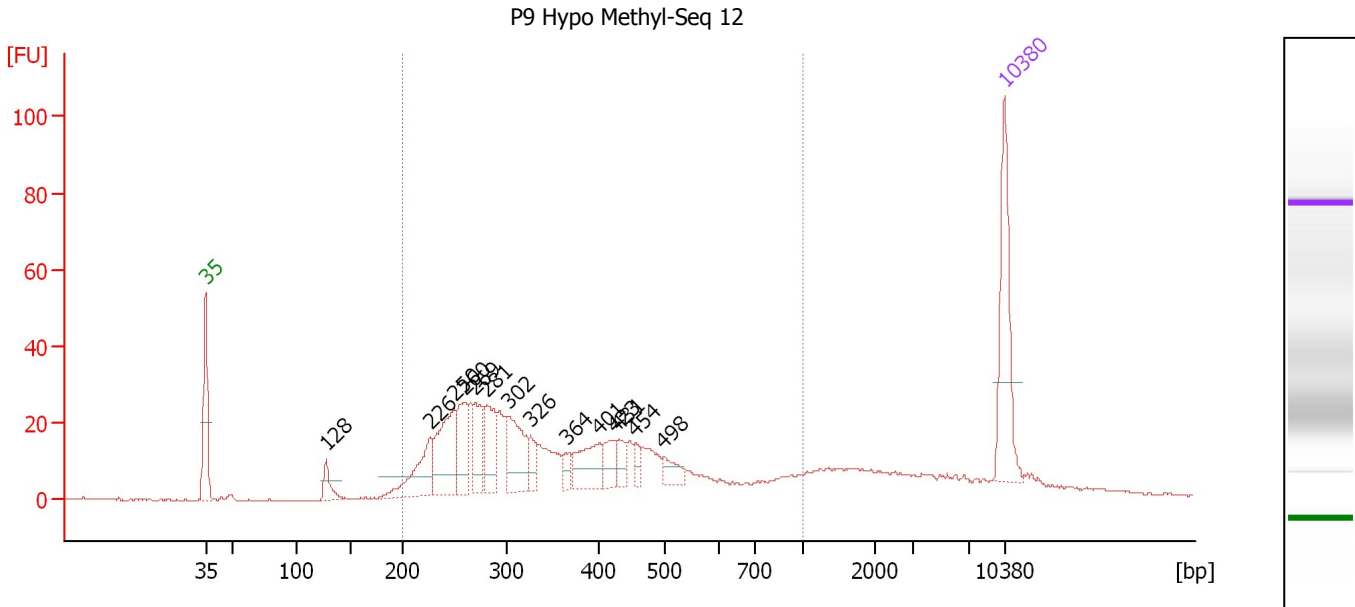
Peak table for Ladder

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	45.38
3	100	150.00	2,272.7	Ladder Peak	50.90
4	150	150.00	1,515.2	Ladder Peak	55.62
5	200	150.00	1,136.4	Ladder Peak	60.29
6	300	150.00	757.6	Ladder Peak	69.36
7	400	150.00	568.2	Ladder Peak	77.44
8	500	150.00	454.5	Ladder Peak	83.23
9	600	150.00	378.8	Ladder Peak	87.86
10	700	150.00	324.7	Ladder Peak	91.08
11	1,000	150.00	227.3	Ladder Peak	95.34
12	2,000	150.00	113.6	Ladder Peak	101.69
13	3,000	150.00	75.8	Ladder Peak	104.87
14	7,000	150.00	32.5	Ladder Peak	109.92
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
 Modified: 9/29/2016 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : P9 Hypo Methyl-Seq 12

Number of peaks found: 14 Corr. Area 1: 587.2
 Noise: 0.2

Peak table for sample 1 : P9 Hypo Methyl-Seq 12

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	128	22.60	267.2		53.55
3	226	68.28	457.5		62.66
4	250	88.28	535.4		64.81
5	260	53.83	314.2		65.70
6	269	46.90	263.7		66.58
7	281	52.44	282.5		67.66
8	302	68.71	345.3		69.48
9	326	19.96	92.8		71.44
10	364	11.29	46.9		74.57
11	401	45.31	171.1		77.51
12	423	23.24	83.3		78.77
13	431	16.72	58.8		79.24
14	454	10.67	35.6		80.59
15	498	17.63	53.7		83.11
16	10,380	75.00	10.9	Upper Marker	113.00

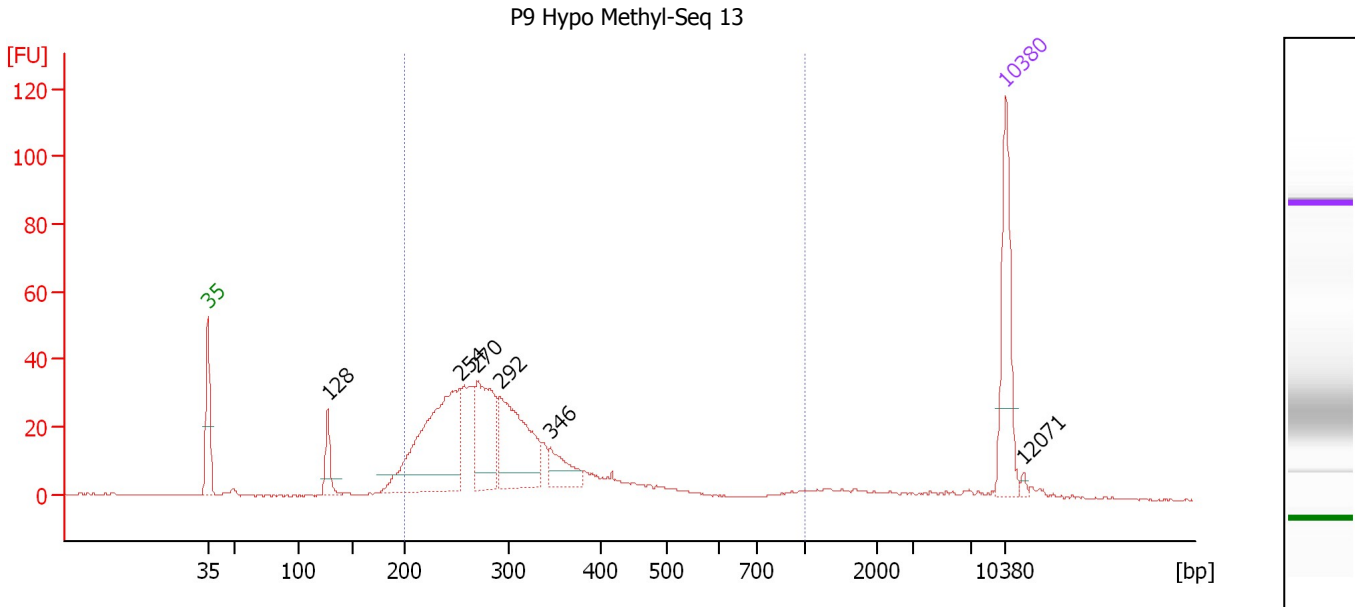
Region table for sample 1 : P9 Hypo Methyl-Seq 12

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	378	587.2	3,890.4	823.01	81	40.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
 Modified: 9/29/2016 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : P9 Hypo Methyl-Seq 13

Number of peaks found: 6 Corr. Area 1: 580.3
 Noise: 0.2

Peak table for sample 2 : P9 Hypo Methyl-Seq 13

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	128	37.41	443.5		53.52
3	254	243.02	1,451.0		65.16
4	270	115.28	646.2		66.66
5	292	142.66	740.4		68.62
6	346	36.98	162.0		73.07
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,071	0.00	0.0		114.54

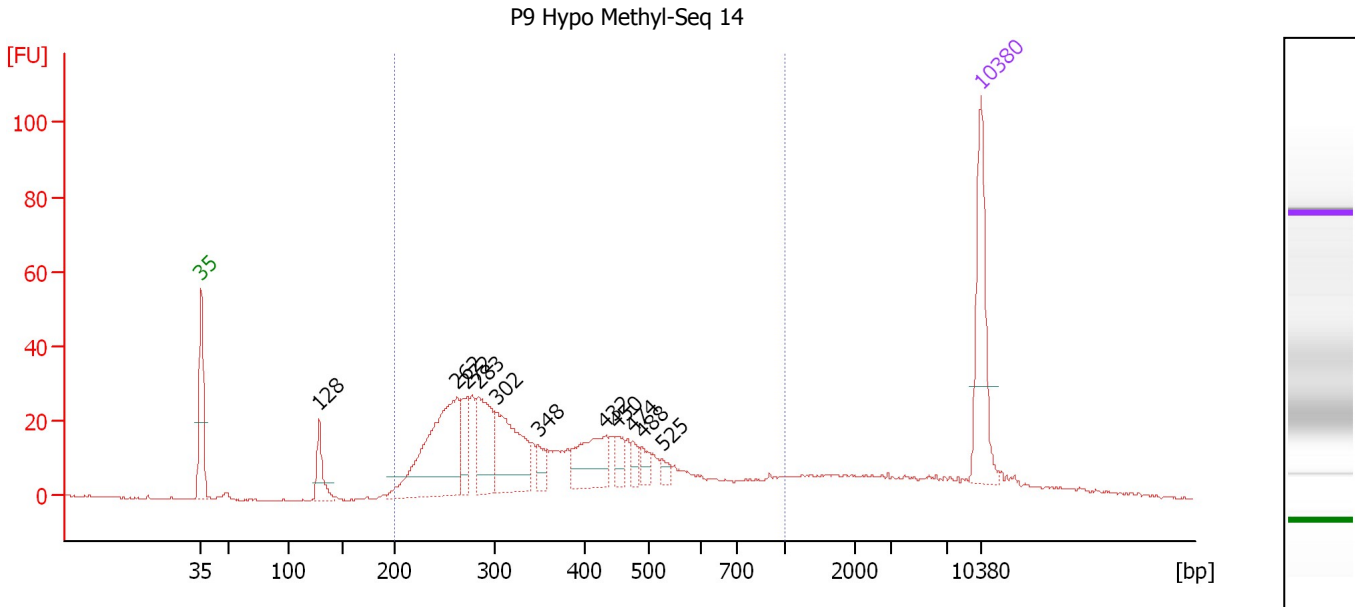
Region table for sample 2 : P9 Hypo Methyl-Seq 13

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	303	580.3	3,979.5	739.15	86	31.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
 Modified: 9/29/2016 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : P9 Hypo Methyl-Seq 14

Number of peaks found: 11 Corr. Area 1: 616.0
 Noise: 0.2

Peak table for sample 3 : P9 Hypo Methyl-Seq 14

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	128	41.30	487.2		53.58
3	262	190.49	1,100.5		65.93
4	272	43.76	243.5		66.84
5	283	81.96	438.2		67.85
6	302	107.17	538.6		69.48
7	348	18.04	78.6		73.21
8	432	64.06	224.7		79.29
9	450	17.01	57.2		80.35
10	474	13.31	42.5		81.73
11	488	12.34	38.3		82.55
12	525	7.37	21.3		84.37
13	10,380	75.00	10.9	Upper Marker	113.00

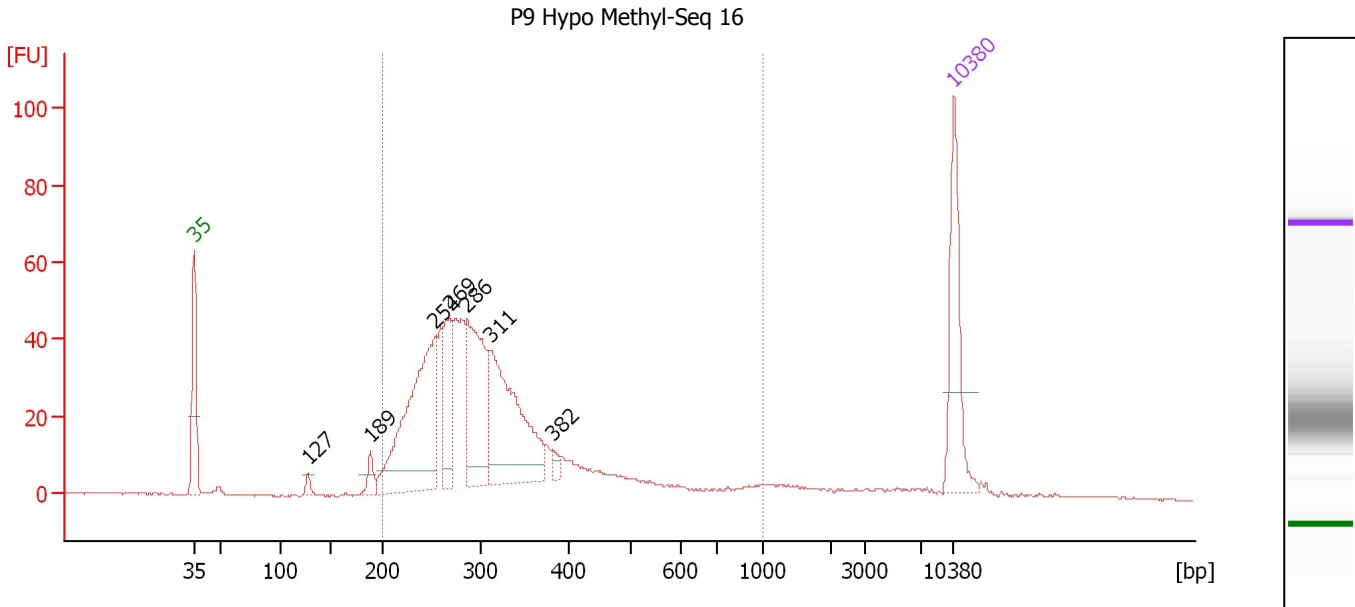
Region table for sample 3 : P9 Hypo Methyl-Seq 14

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	384	616.0	3,698.1	797.85	81	39.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
 Modified: 9/29/2016 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : P9 Hypo Methyl-Seq 16

Number of peaks found: 7 Corr. Area 1: 785.6
 Noise: 0.2

Peak table for sample 4 : P9 Hypo Methyl-Seq 16

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	127	7.74	92.2		53.47
3	189	16.97	136.4		59.22
4	254	252.65	1,504.8		65.22
5	269	72.25	406.9		66.55
6	286	151.30	800.5		68.12
7	311	197.77	963.9		70.23
8	382	8.22	32.6		75.98
9	10,380	75.00	10.9	Upper Marker	113.00

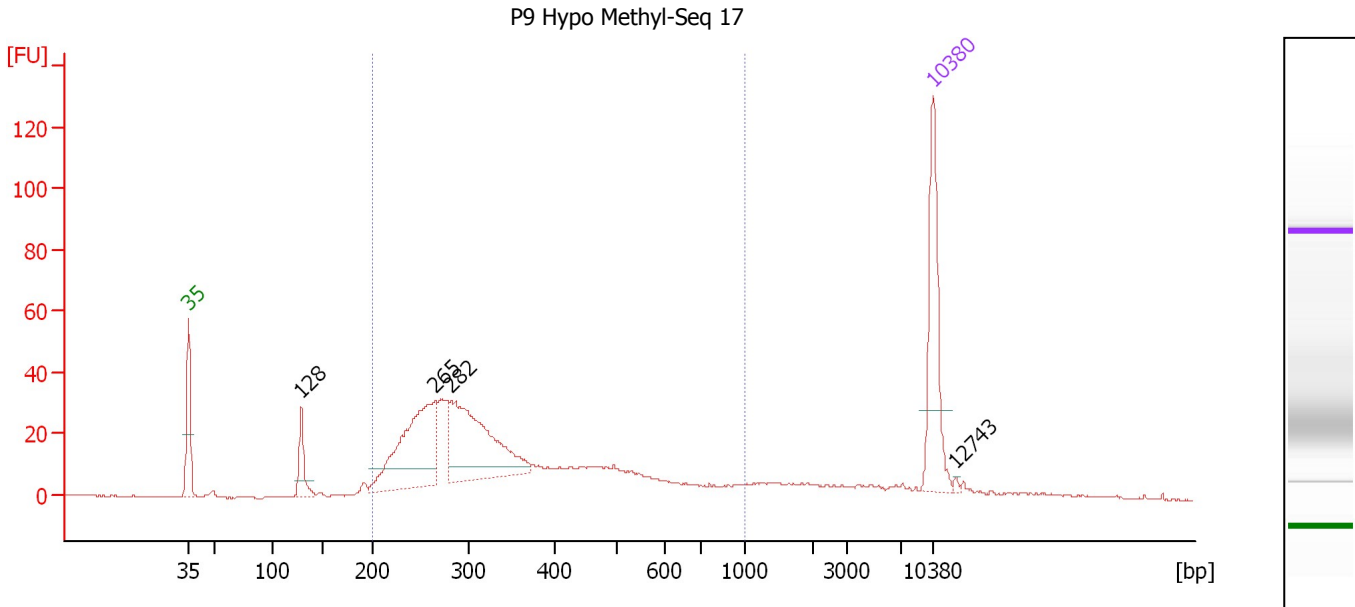
Region table for sample 4 : P9 Hypo Methyl-Seq 16

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	322	785.6	5,228.8	1,012.77	91	34.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
 Modified: 9/29/2016 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : P9 Hypo Methyl-Seq 17

Number of peaks found: 4 Corr. Area 1: 633.0
 Noise: 0.2

Peak table for sample 5 : P9 Hypo Methyl-Seq 17

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	128	38.07	449.2		53.58
3	265	169.17	965.9		66.22
4	282	176.46	948.2		67.72
5	10,380	75.00	10.9	Upper Marker	113.00
6	12,743	0.00	0.0		115.16

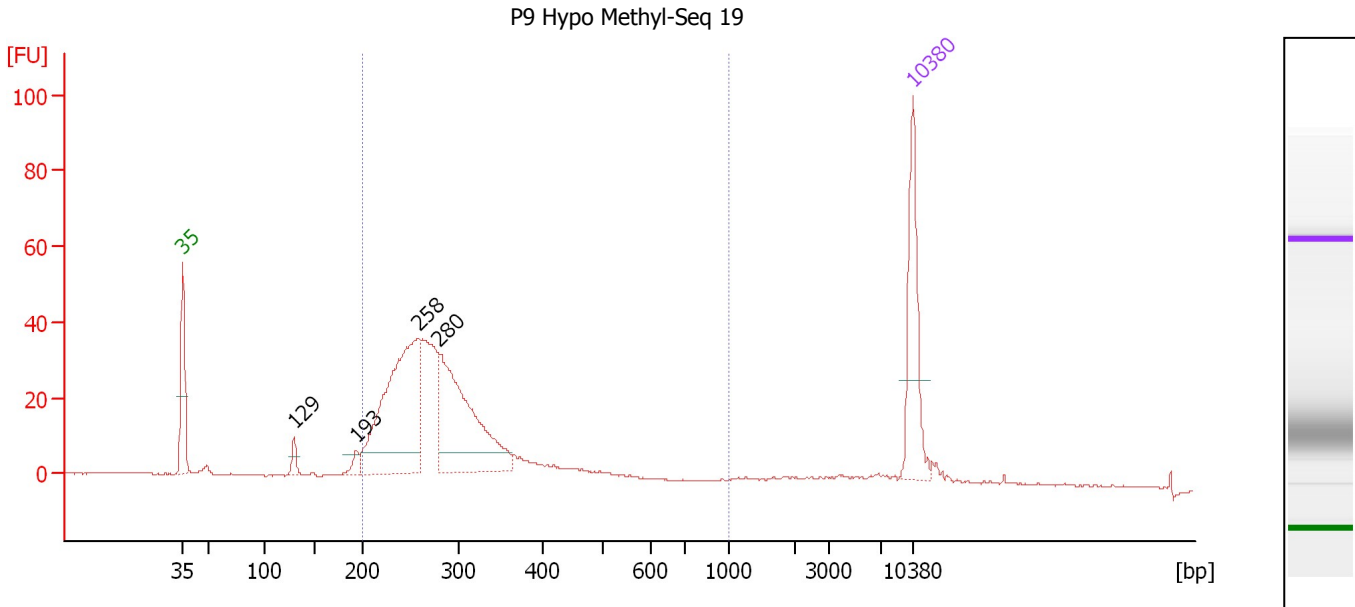
Region table for sample 5 : P9 Hypo Methyl-Seq 17

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	361	633.0	3,162.4	647.38	83	40.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
 Modified: 9/29/2016 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : P9 Hypo Methyl-Seq 19

Number of peaks found: 4 Corr. Area 1: 554.1
 Noise: 0.2

Peak table for sample 6 : P9 Hypo Methyl-Seq 19

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	129	14.93	174.8		53.68
3	193	11.76	92.5		59.61
4	258	278.51	1,633.1		65.58
5	280	222.18	1,200.6		67.58
6	10,380	75.00	10.9	Upper Marker	113.00

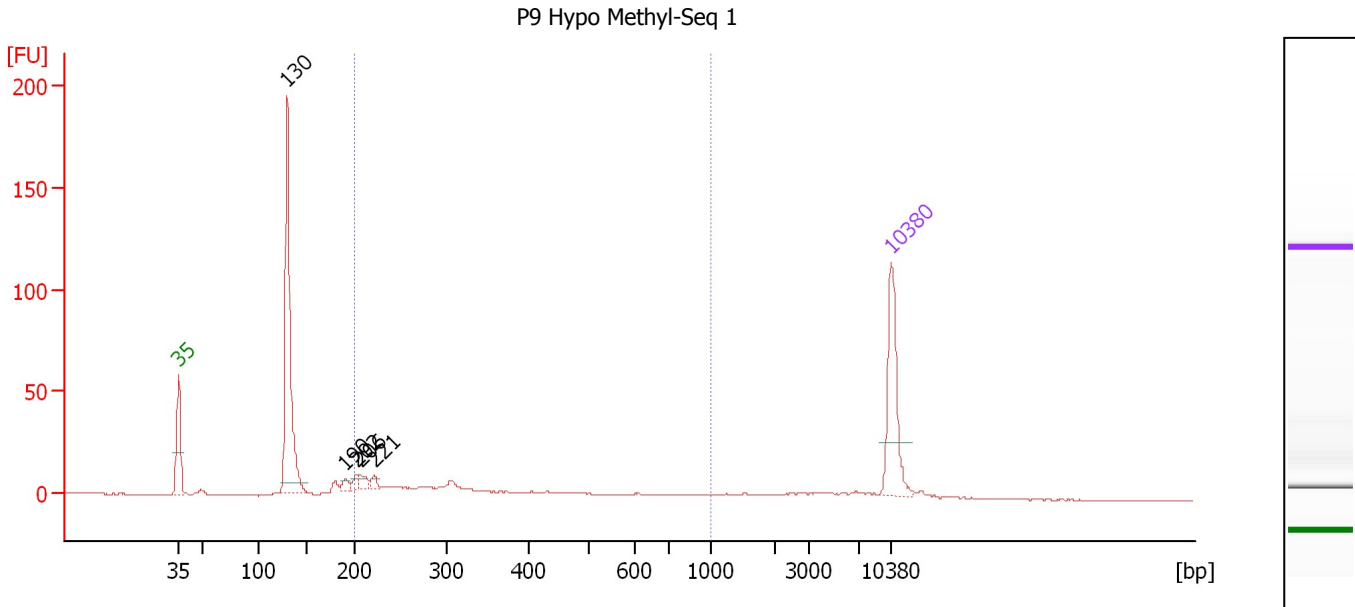
Region table for sample 6 : P9 Hypo Methyl-Seq 19

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	301	554.1	4,116.1	757.16	82	32.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
 Modified: 9/29/2016 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : P9 Hypo Methyl-Seq 1

Number of peaks found: 5 Corr. Area 1: 143.1
 Noise: 0.2

Peak table for sample 7 : P9 Hypo Methyl-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	130	293.74	3,434.8		53.69
3	190	9.39	74.7		59.40
4	202	8.48	63.7		60.45
5	206	11.53	84.7		60.87
6	221	8.03	55.0		62.23
7	10,380	75.00	10.9	Upper Marker	113.00

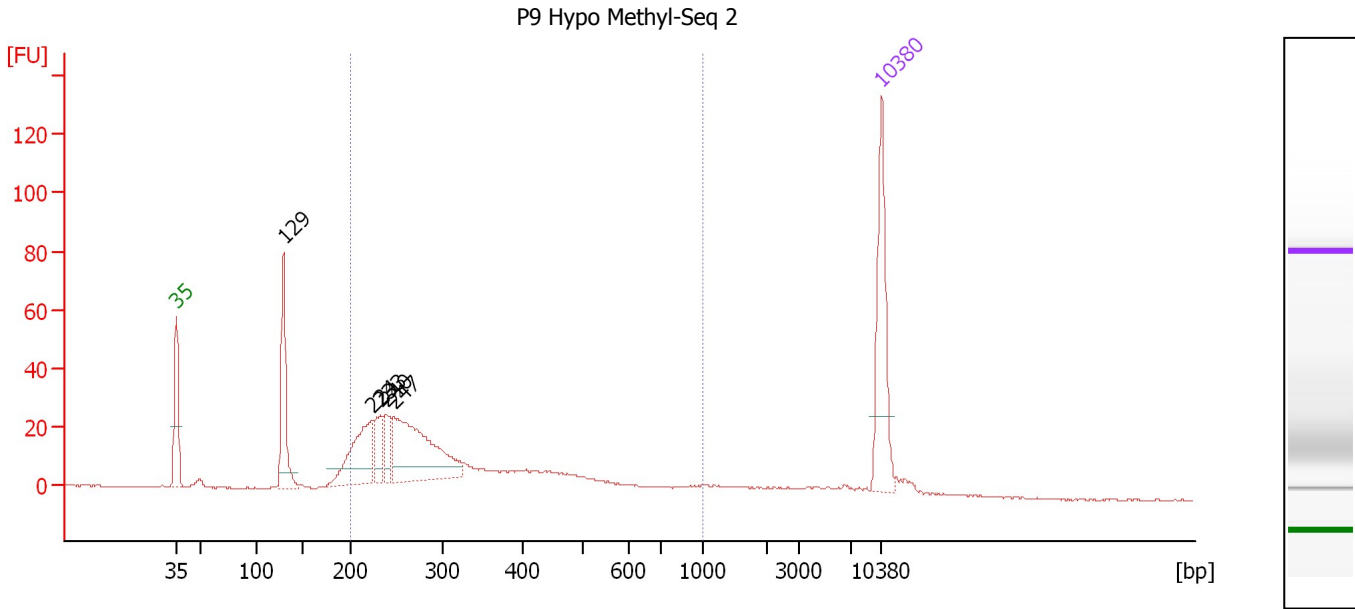
Region table for sample 7 : P9 Hypo Methyl-Seq 1

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	362	143.1	839.4	162.94	33	46.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
 Modified: 9/29/2016 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : P9 Hypo Methyl-Seq 2

Number of peaks found: 5 Corr. Area 1: 460.3
 Noise: 0.2

Peak table for sample 8 : P9 Hypo Methyl-Seq 2

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	129	100.67	1,182.4		53.63
3	224	93.26	630.6		62.47
4	233	36.91	240.2		63.26
5	240	26.52	167.6		63.90
6	247	160.53	983.1		64.59
7	10,380	75.00	10.9	Upper Marker	113.00

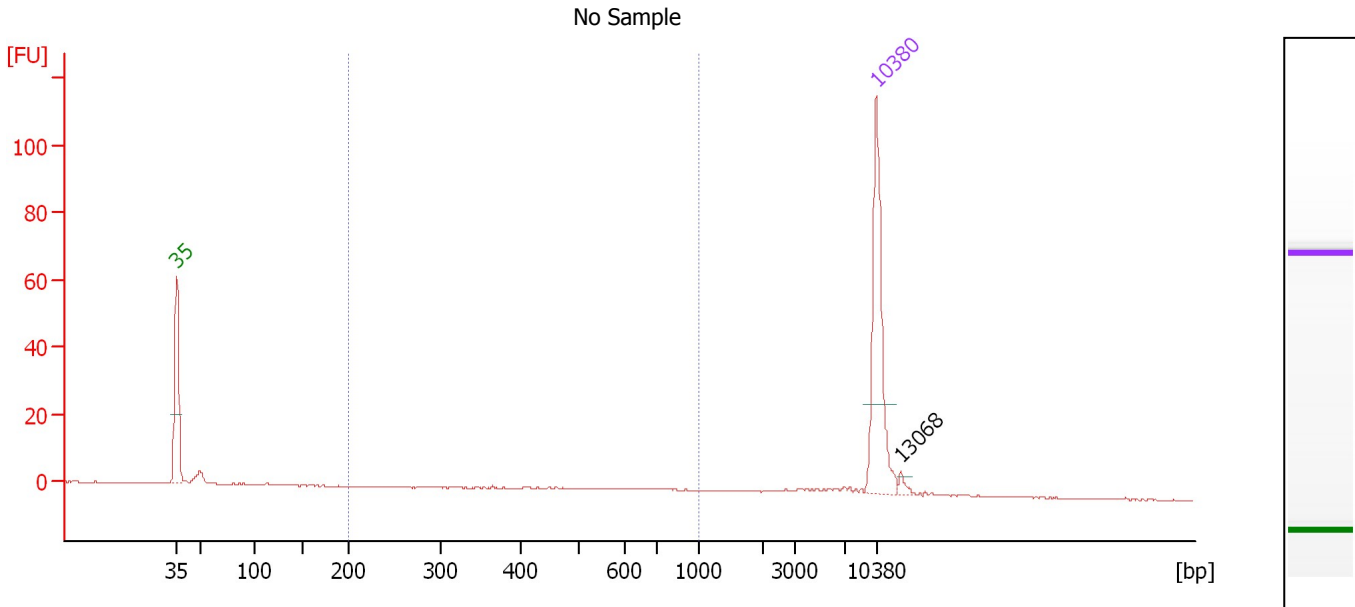
Region table for sample 8 : P9 Hypo Methyl-Seq 2

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	335	460.3	2,549.1	481.90	74	42.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
 Modified: 9/29/2016 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : No Sample

Number of peaks found: 1 Corr. Area 1: 13.4
 Noise: 0.1

Peak table for sample 9 : No Sample

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
3	13,068	0.00	0.0		115.45

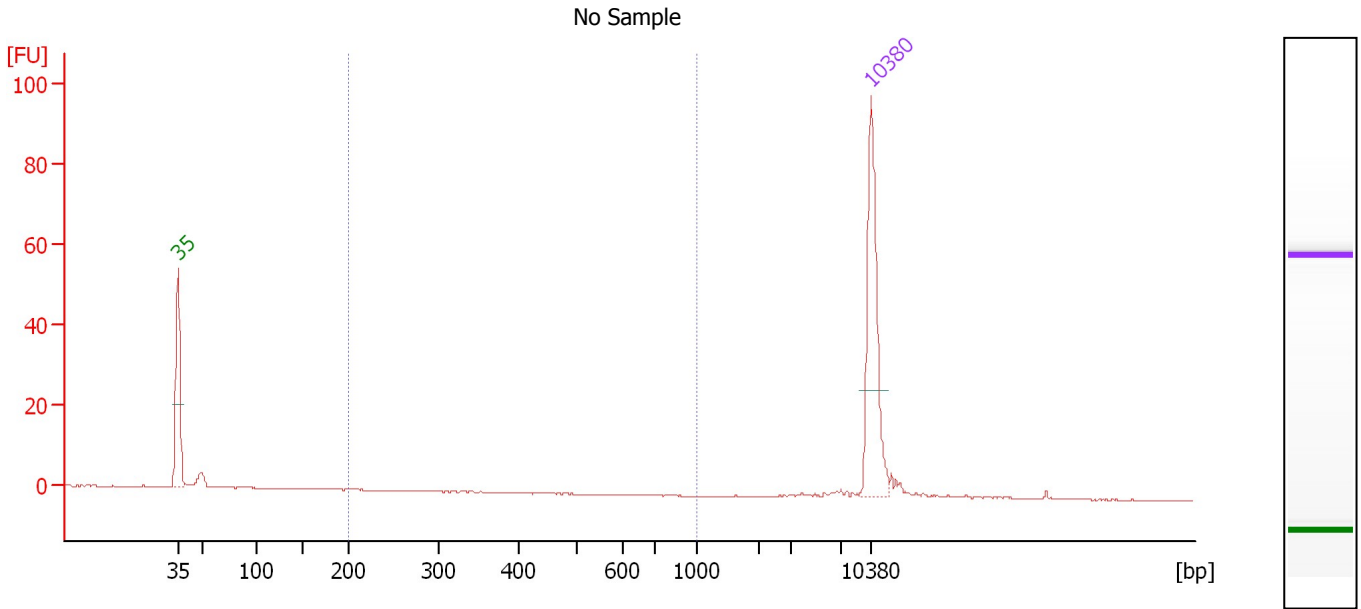
Region table for sample 9 : No Sample

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	575	13.4	39.0	12.88	28	31.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
 Modified: 9/29/2016 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : No Sample

Number of peaks found: 0 Corr. Area 1: 0.2
 Noise: 0.1

Peak table for sample 10 : No Sample

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

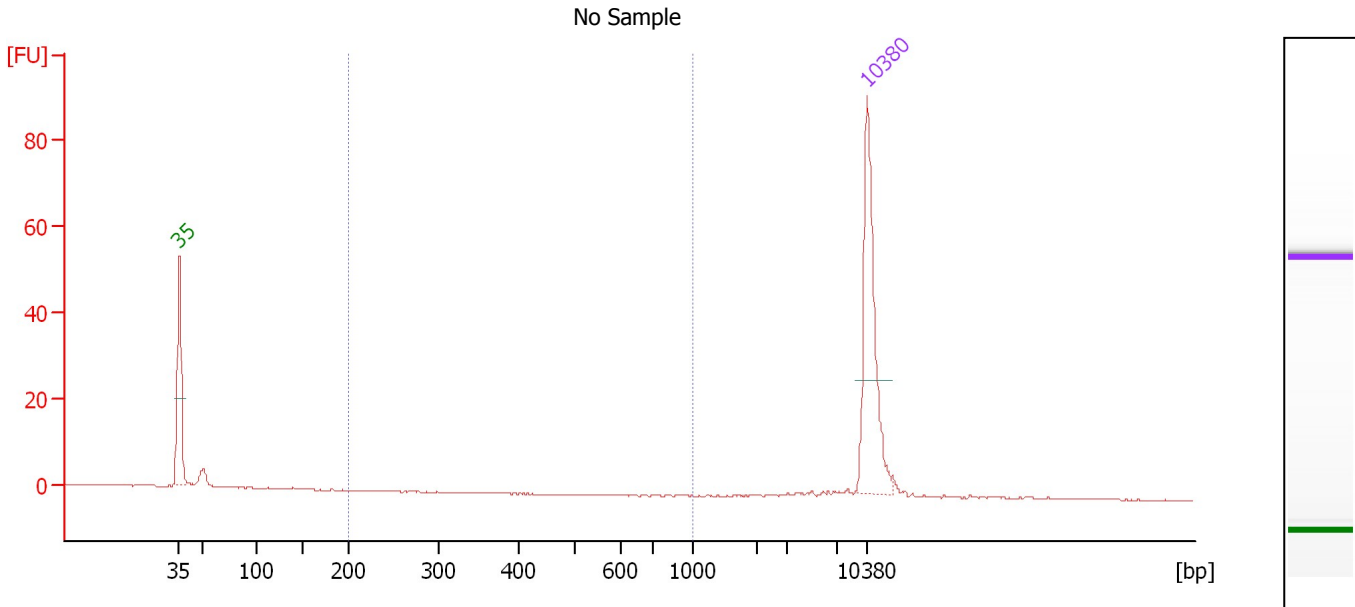
Region table for sample 10 : No Sample

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	220	0.2	1.8	0.26	1	15.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
 Modified: 9/29/2016 3:02:18 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : No Sample

Number of peaks found: 0 Corr. Area 1: 0.0
 Noise: 0.1

Peak table for sample 11 : No Sample

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

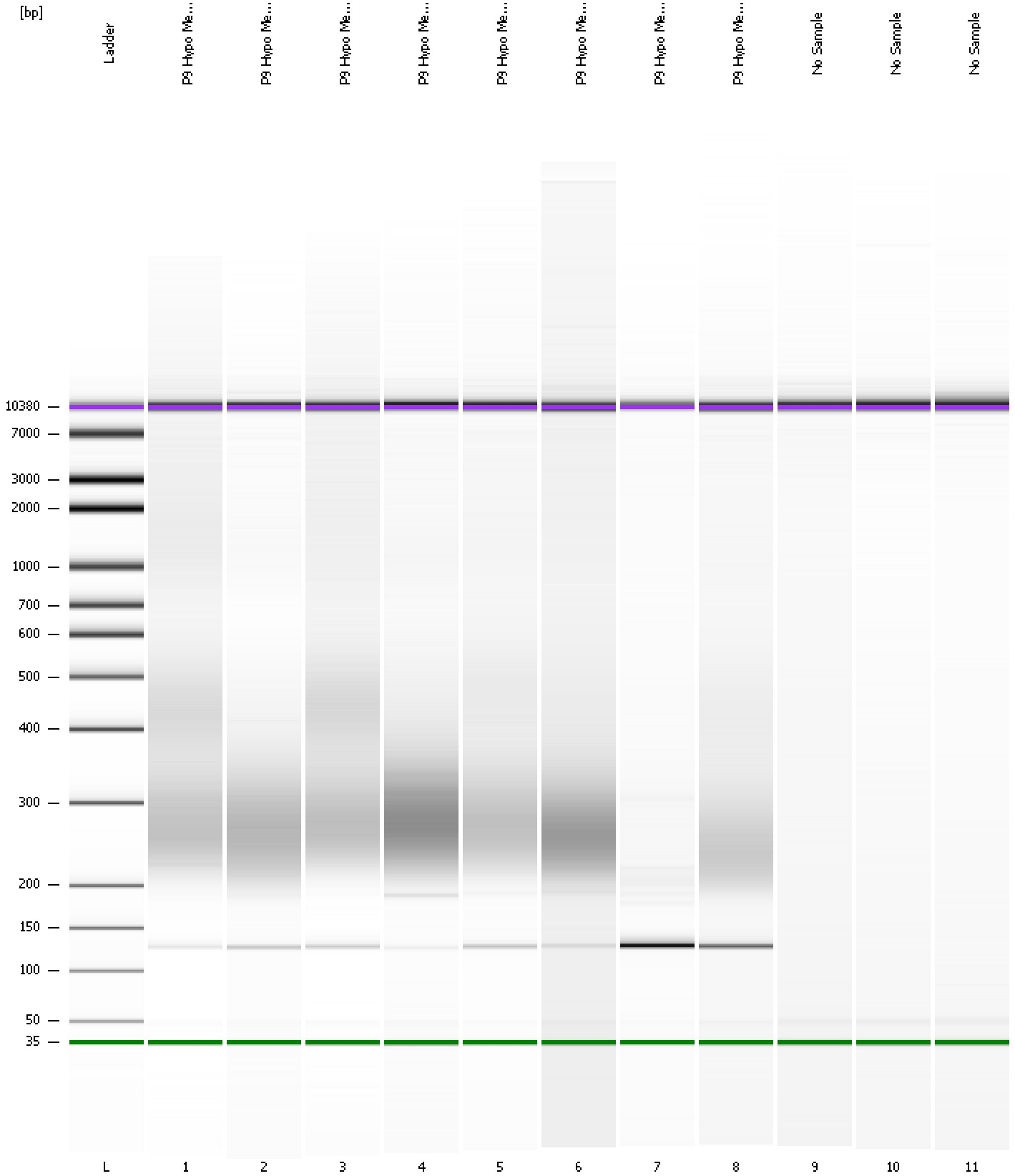
Region table for sample 11 : No Sample

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	0	0.0	0.0	0.00	0	0.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
Modified: 9/29/2016 3:02:18 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad

Created: 9/29/2016 2:21:01 PM
 Modified: 9/29/2016 3:02:18 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		9/29/2016 3:02:17 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-09-29\2016-09-29_002.xad)		Instrument	Run		9/29/2016 2:21:06 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/29/2016 2:21:06 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/29/2016 2:21:06 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/29/2016 2:21:06 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/29/2016 2:21:06 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/29/2016 2:21:06 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/29/2016 2:21:06 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1