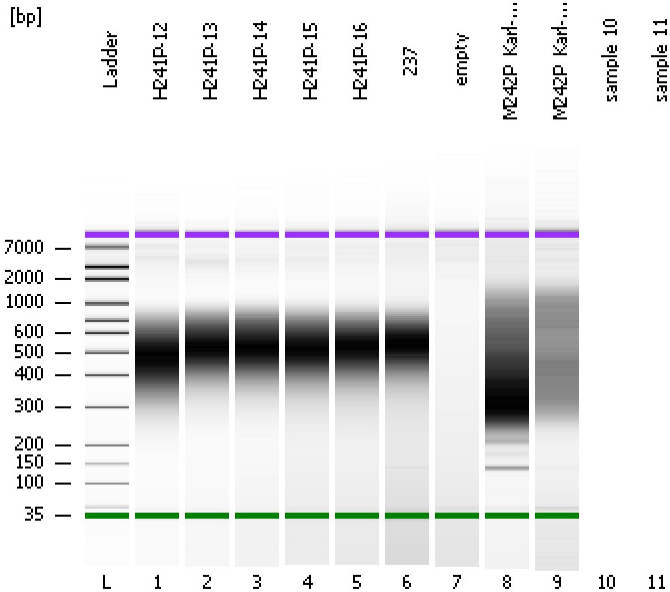


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
Modified: 11/25/2015 3:51:40 PM

Electrophoresis File Run Summary



Instrument Information:

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

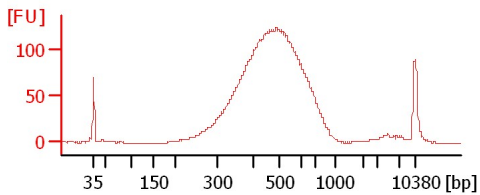
Assay Information:

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

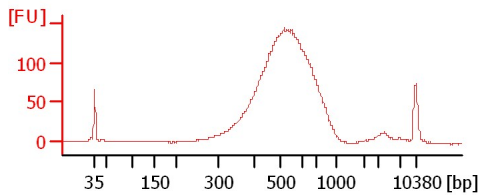
Chip Information:

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

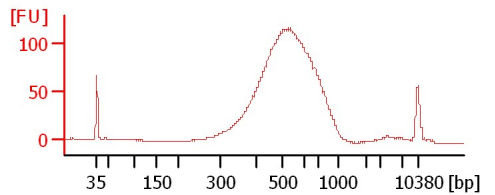
H241P-12



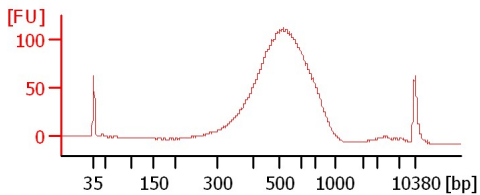
H241P-13



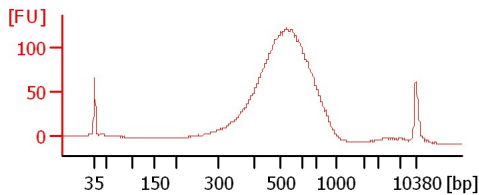
H241P-14



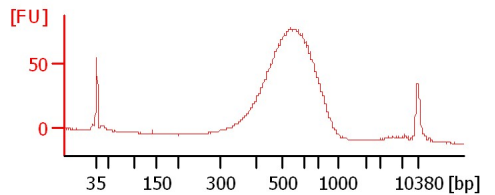
H241P-15



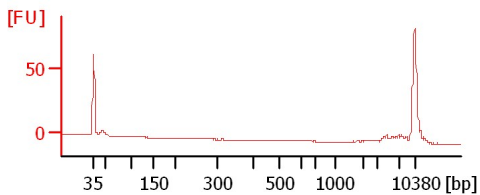
H241P-16



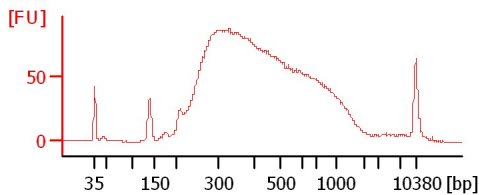
237



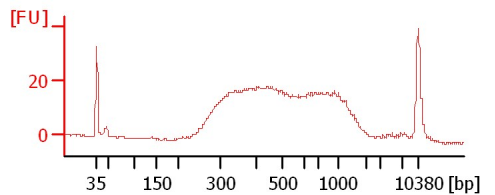
empty



M242P_Karl-1 BC



M242P_Karl-2 BC



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
 Modified: 11/25/2015 3:51:40 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
H241P-12		<input type="checkbox"/>	✓			
H241P-13		<input type="checkbox"/>	✓			
H241P-14		<input type="checkbox"/>	✓			
H241P-15		<input type="checkbox"/>	✓			
H241P-16		<input type="checkbox"/>	✓			
237		<input type="checkbox"/>	✓			
empty		<input type="checkbox"/>	✓			
M242P_Karl-1 BC		<input type="checkbox"/>	✓			
M242P_Karl-2 BC		<input type="checkbox"/>	✓			
sample 10		<input type="checkbox"/>				
sample 11		<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\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
Modified: 11/25/2015 3:51:40 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

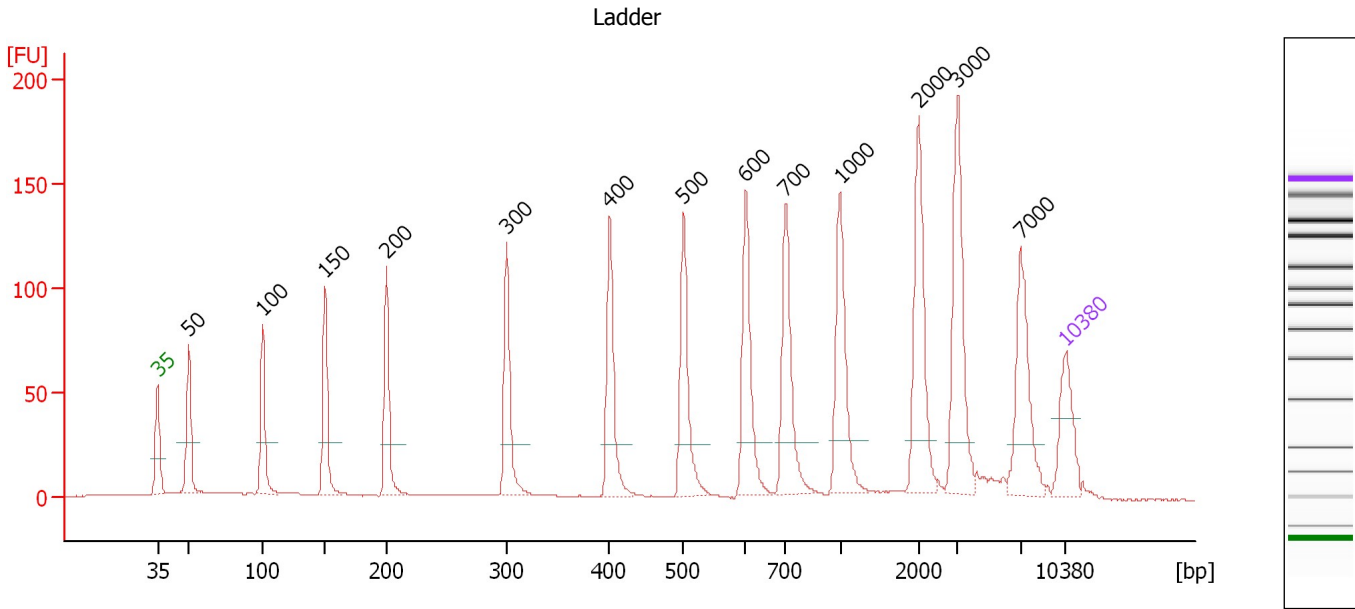
Ladder

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\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
 Modified: 11/25/2015 3:51:40 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

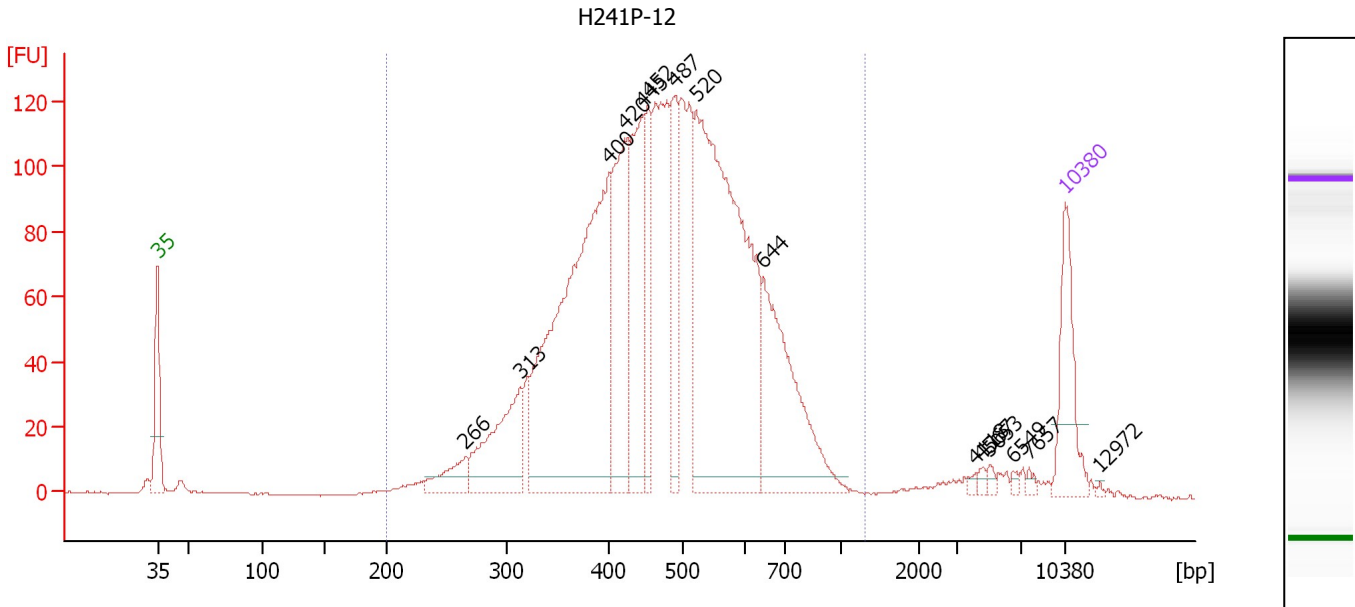
Peak table for Ladder

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	45.40
3	100	150.00	2,272.7	Ladder Peak	51.09
4	150	150.00	1,515.2	Ladder Peak	55.93
5	200	150.00	1,136.4	Ladder Peak	60.64
6	300	150.00	757.6	Ladder Peak	69.95
7	400	150.00	568.2	Ladder Peak	77.86
8	500	150.00	454.5	Ladder Peak	83.56
9	600	150.00	378.8	Ladder Peak	88.36
10	700	150.00	324.7	Ladder Peak	91.43
11	1,000	150.00	227.3	Ladder Peak	95.64
12	2,000	150.00	113.6	Ladder Peak	101.70
13	3,000	150.00	75.8	Ladder Peak	104.68
14	7,000	150.00	32.5	Ladder Peak	109.52
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
 Modified: 11/25/2015 3:51:40 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : H241P-12

Number of peaks found: 15 Corr. Area 1: 2,524.0
 Noise: 0.2

Peak table for sample 1 : H241P-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	266	47.84	272.8		66.76
3	313	153.19	742.0		70.96
4	400	612.34	2,321.1		77.84
5	420	203.75	734.6		79.02
6	445	179.24	610.5		80.42
7	452	96.93	324.9		80.83
8	487	112.43	349.8		82.82
9	520	647.56	1,885.5		84.54
10	644	222.55	523.9		89.70
11	4,118	2.89	1.1		106.03
12	4,567	4.13	1.4		106.57
13	5,053	5.00	1.5		107.16
14	6,549	3.79	0.9		108.97
15	7,657	4.17	0.8		110.19
16	10,380	75.00	10.9	Upper Marker	113.00
17	12,972	0.00	0.0		115.67

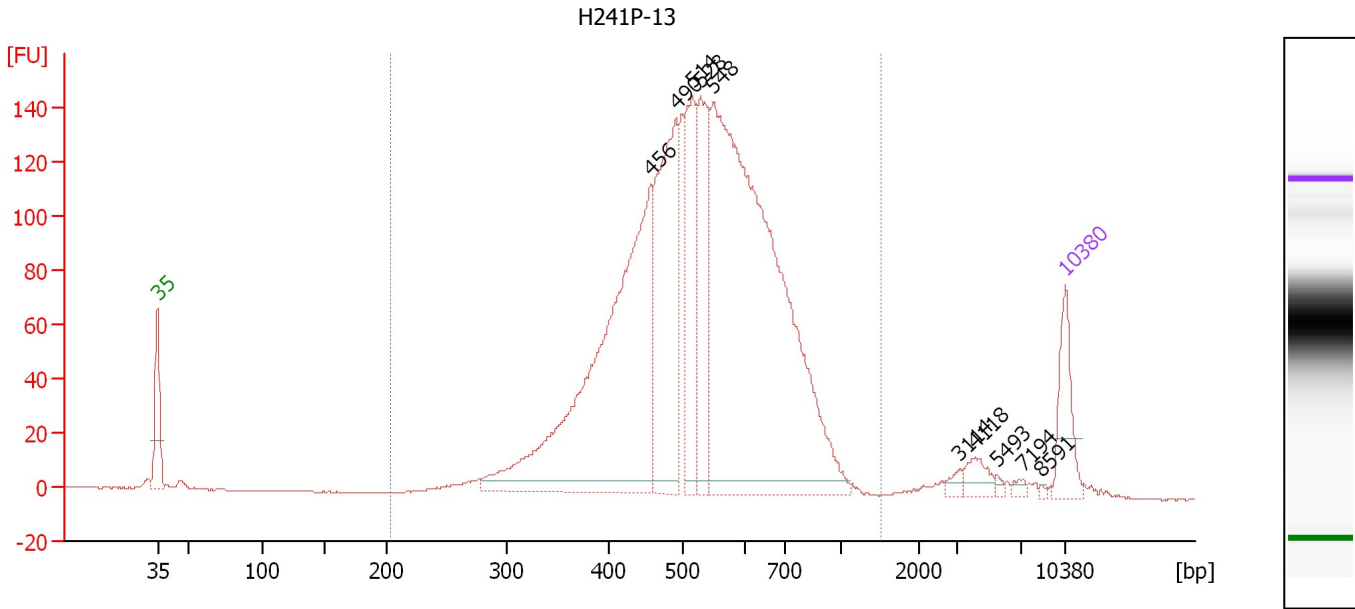
Region table for sample 1 : H241P-12

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,306	483	2,524.0	9,637.4	2,797.15	96	26.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
 Modified: 11/25/2015 3:51:40 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : H241P-13

Number of peaks found: 10 Corr. Area 1: 2,435.0
 Noise: 0.3

Peak table for sample 2 : H241P-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	456	934.96	3,103.6		81.08
3	490	420.68	1,301.9		82.97
4	514	227.01	669.4		84.23
5	528	223.00	640.0		84.90
6	548	1,351.62	3,739.6		85.85
7	3,114	10.90	5.3		104.82
8	4,118	28.35	10.4		106.03
9	5,493	4.99	1.4		107.69
10	7,194	7.12	1.5		109.72
11	8,591	2.38	0.4		111.16
12	10,380	75.00	10.9	Upper Marker	113.00

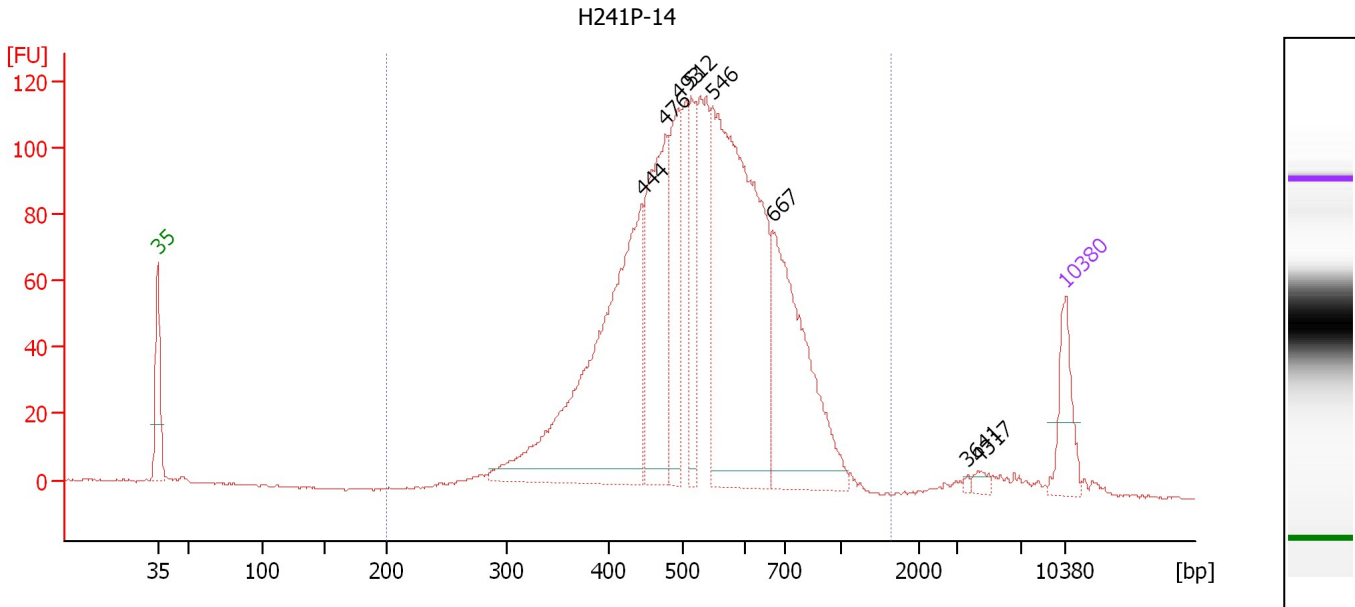
Region table for sample 2 : H241P-13

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
204	1,527	537	2,435.0	10,172.9	3,330.96	96	24.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
 Modified: 11/25/2015 3:51:40 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : H241P-14

Number of peaks found: 8 Corr. Area 1: 2,036.5
 Noise: 0.3

Peak table for sample 3 : H241P-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	444	795.74	2,716.3		80.36
3	476	388.67	1,237.8		82.18
4	493	208.67	641.9		83.14
5	512	138.84	410.9		84.14
6	546	890.31	2,470.1		85.77
7	667	427.63	971.7		90.41
8	3,641	3.63	1.5		105.45
9	4,317	11.24	3.9		106.27
10	10,380	75.00	10.9	Upper Marker	113.00

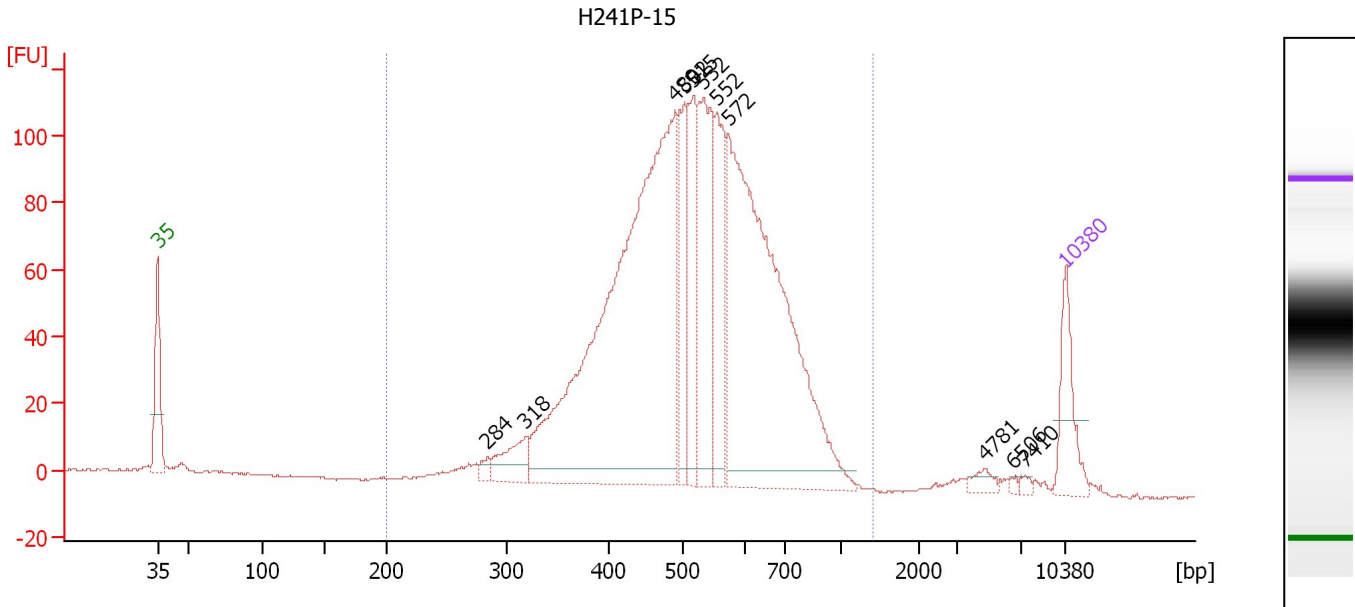
Region table for sample 3 : H241P-14

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,635	540	2,036.5	10,251.7	3,367.70	97	25.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
 Modified: 11/25/2015 3:51:40 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : H241P-15

Number of peaks found: 11 Corr. Area 1: 1,992.0
 Noise: 0.3

Peak table for sample 4 : H241P-15

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	284	15.84	84.6		68.45
3	318	70.65	336.7		71.37
4	489	1,241.53	3,849.8		82.91
5	502	159.98	482.9		83.66
6	515	159.66	469.3		84.30
7	532	259.46	739.0		85.09
8	552	178.38	489.4		86.07
9	572	864.97	2,292.9		86.99
10	4,781	14.72	4.7		106.83
11	6,506	4.48	1.0		108.92
12	7,410	5.60	1.1		109.94
13	10,380	75.00	10.9	Upper Marker	113.00

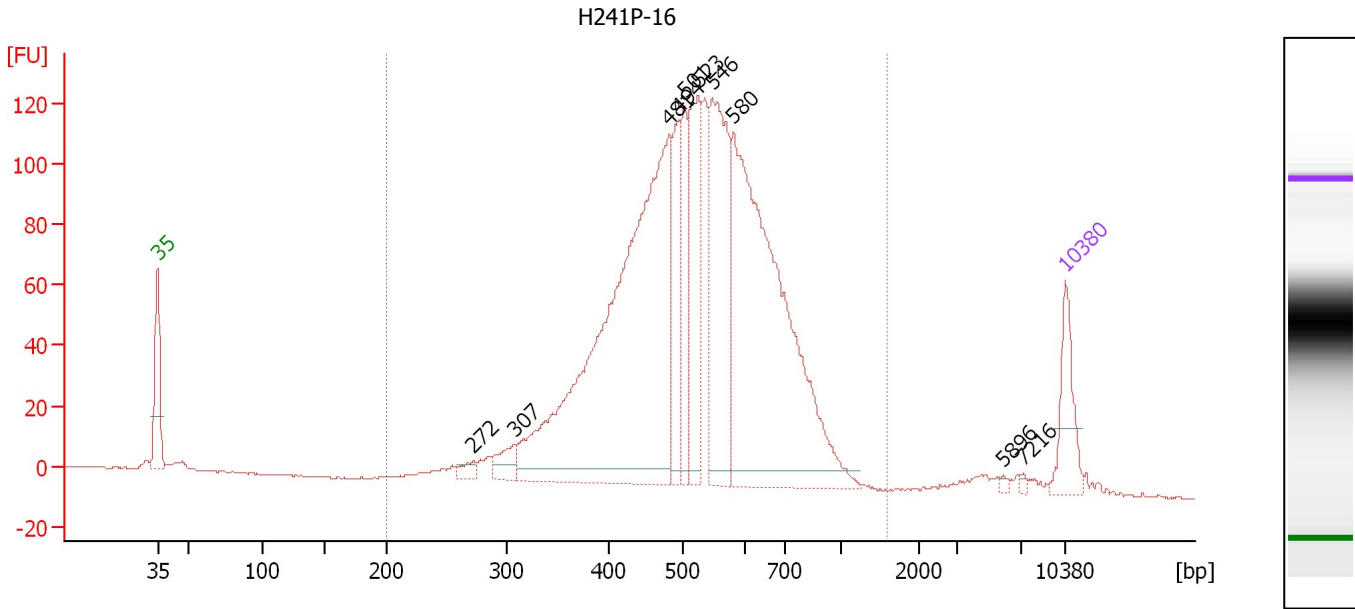
Region table for sample 4 : H241P-15

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,428	525	1,992.0	9,702.6	3,092.11	95	24.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
 Modified: 11/25/2015 3:51:40 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : H241P-16

Number of peaks found: 10 Corr. Area 1: 2,116.8
 Noise: 0.2

Peak table for sample 5 : H241P-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	272	20.57	114.4		67.37
3	307	44.36	219.1		70.49
4	481	1,184.55	3,730.3		82.49
5	494	146.24	448.9		83.20
6	501	139.69	422.3		83.62
7	523	235.72	683.0		84.66
8	546	362.64	1,007.1		85.75
9	580	863.47	2,255.4		87.40
10	5,896	3.75	1.0		108.18
11	7,216	3.98	0.8		109.74
12	10,380	75.00	10.9	Upper Marker	113.00

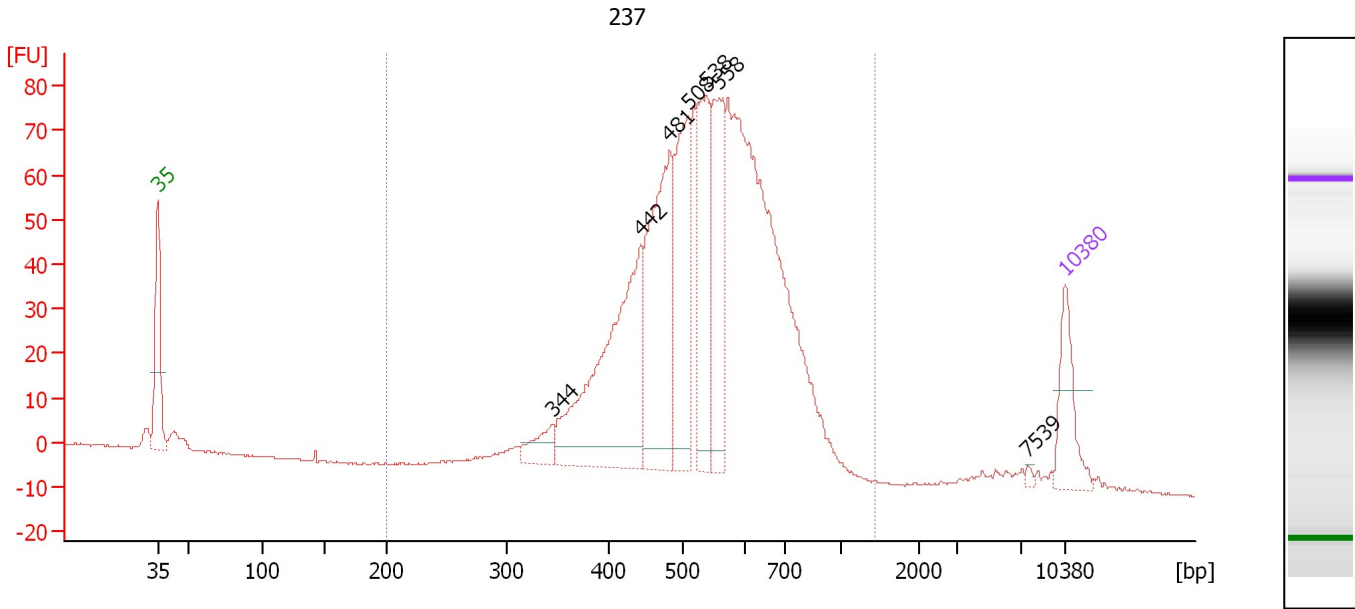
Region table for sample 5 : H241P-16

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,599	529	2,116.8	9,935.5	3,197.31	97	24.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
 Modified: 11/25/2015 3:51:40 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 237

Number of peaks found: 7 Corr. Area 1: 1,270.5
 Noise: 0.2

Peak table for sample 6 : 237

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	344	48.65	214.4		73.42
3	442	450.38	1,542.5		80.28
4	481	367.41	1,157.1		82.49
5	508	243.32	726.3		83.93
6	538	217.73	613.6		85.36
7	558	202.31	549.7		86.32
8	7,539	4.19	0.8		110.07
9	10,380	75.00	10.9	Upper Marker	113.00

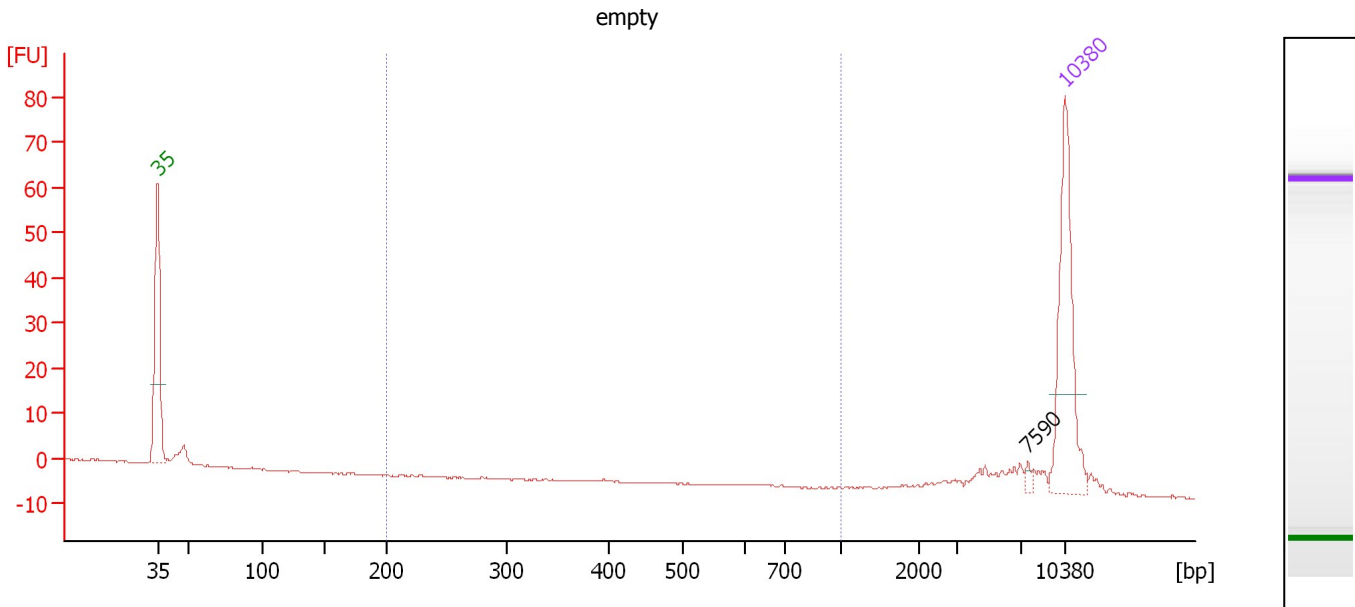
Region table for sample 6 : 237

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,454	544	1,270.5	7,651.6	2,581.18	97	22.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
 Modified: 11/25/2015 3:51:40 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : empty

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

Peak table for sample 7 : empty

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	7,590	2.86	0.6		110.13
3	10,380	75.00	10.9	Upper Marker	113.00

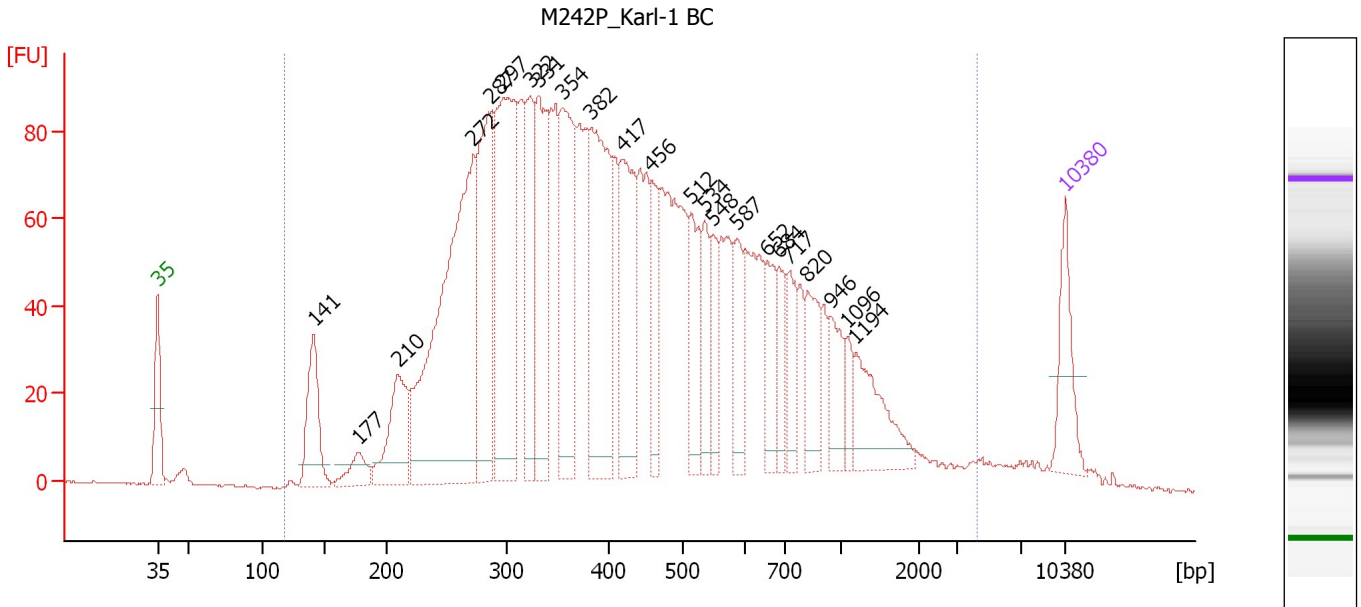
Region table for sample 7 : empty

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:\...ents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
 Modified: 11/25/2015 3:51:40 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : M242P_Karl-1 BC

Number of peaks found: 23 Corr. Area 1: 3,043.6
 Noise: 0.2

Peak table for sample 8 : M242P_Karl-1 BC

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	141	158.03	1,700.3		55.05
3	177	48.78	418.1		58.45
4	210	156.45	1,129.1		61.56
5	272	731.61	4,076.3		67.34
6	287	287.09	1,516.8		68.72
7	297	428.93	2,189.3		69.66
8	322	166.79	783.6		71.73
9	331	230.16	1,054.8		72.37
10	354	265.12	1,135.8		74.20
11	382	341.41	1,352.8		76.47
12	417	217.94	791.7		78.84
13	456	95.85	318.4		81.06
14	512	114.89	340.2		84.12
15	534	80.04	227.0		85.21
16	548	70.36	194.6		85.85
17	587	78.97	203.9		87.72
18	652	75.02	174.4		89.95
19	684	60.58	134.2		90.93
20	717	69.73	147.3		91.67
21	820	86.22	159.4		93.11
22	946	66.66	106.7		94.88
23	1,096	31.44	43.5		96.22
24	1,194	110.09	139.8		96.81
25	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
Modified: 11/25/2015 3:51:40 PM

Electropherogram Summary Continued ...

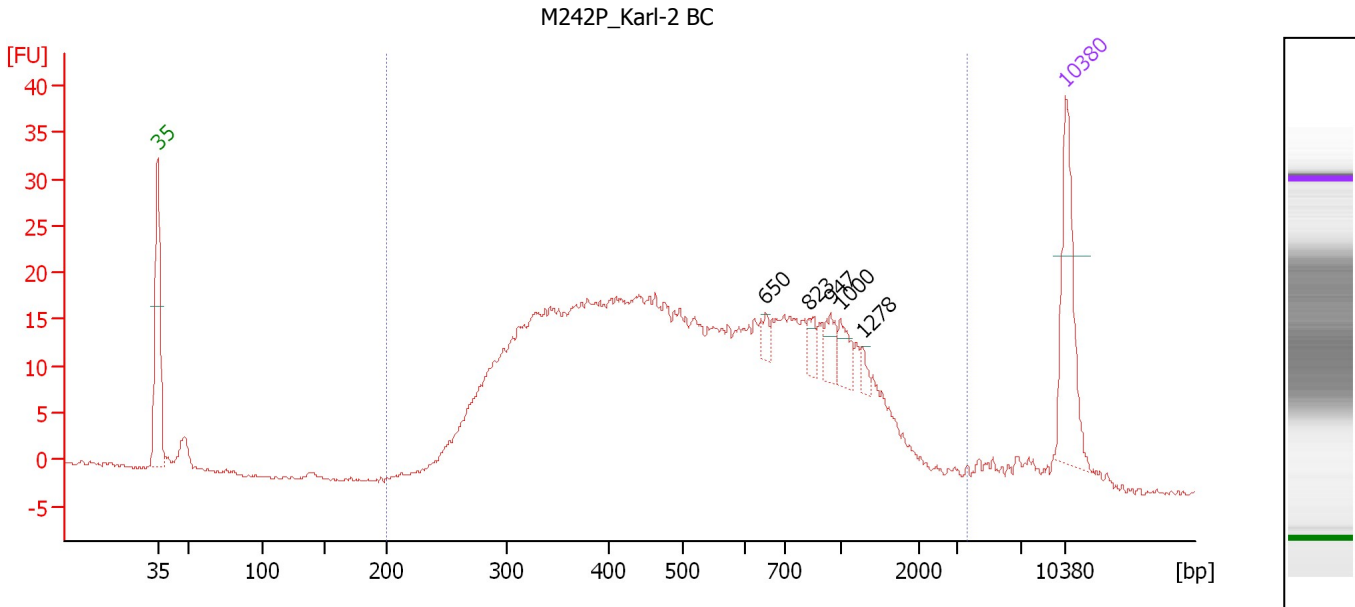
... Region table for sample 8 : M242P_Karl-1 BC

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
117	4,203	516	3,043.6	24,800.0	■ 5,844.47	98	76.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
 Modified: 11/25/2015 3:51:40 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : M242P_Karl-2 BC

Number of peaks found: 5 Corr. Area 1: 658.3
 Noise: 0.2

Peak table for sample 9 : M242P_Karl-2 BC

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	650	8.88	20.7		89.88
3	823	11.41	21.0		93.16
4	947	18.07	28.9		94.89
5	1,000	17.88	27.1		95.64
6	1,278	7.17	8.5		97.32
7	10,380	75.00	10.9	Upper Marker	113.00

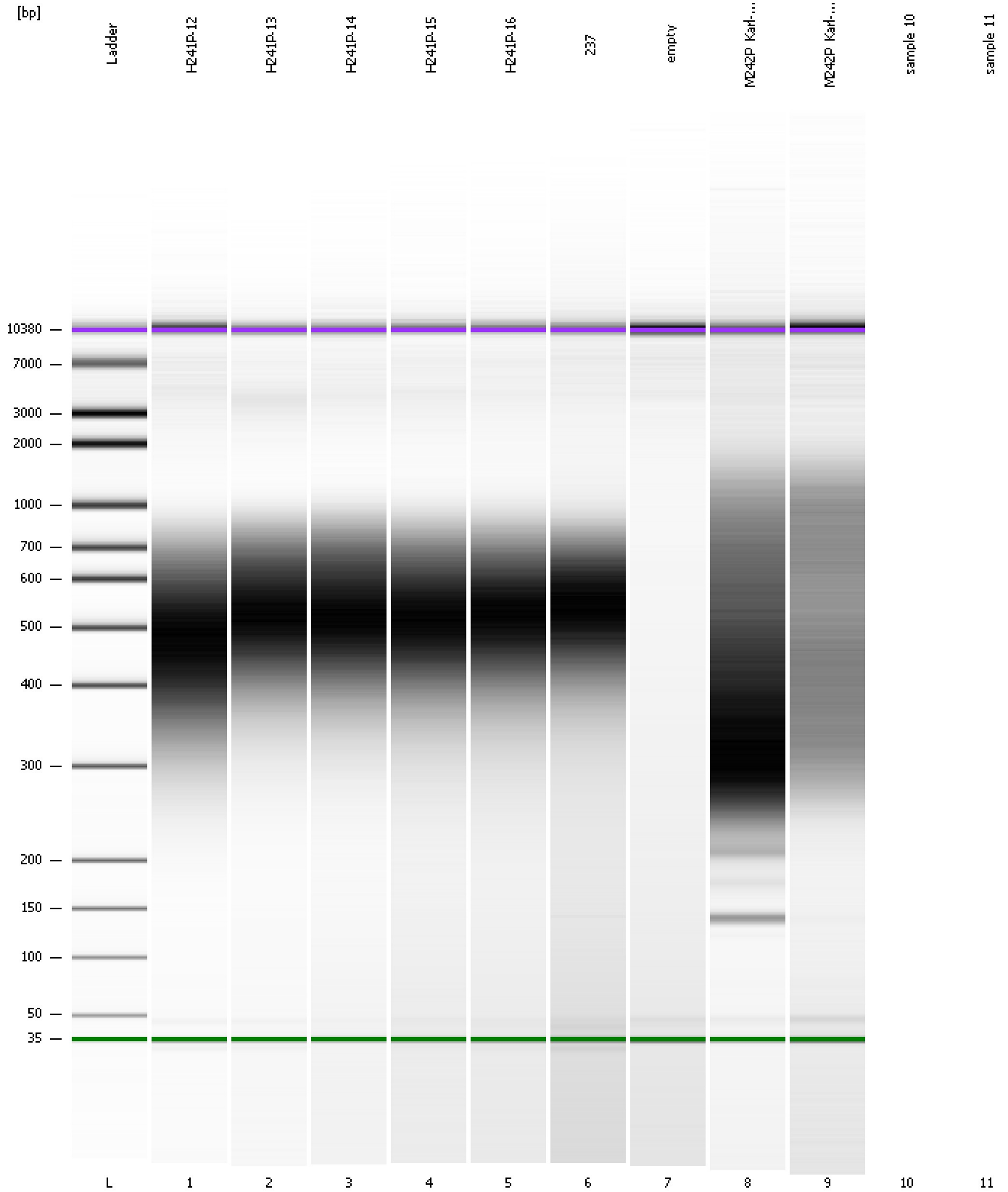
Region table for sample 9 : M242P_Karl-2 BC

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	3,655	627	658.3	6,287.7	1,881.56	96	64.5

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
Modified: 11/25/2015 3:51:40 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
Modified: 11/25/2015 3:51:40 PM

Invalid Samples

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad

Created: 11/25/2015 3:07:42 PM
 Modified: 11/25/2015 3:51:40 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 10)		Instrument	Run		11/25/2015 3:43:16 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-11-25\2015-11-25_003.xad)		Instrument	Run		11/25/2015 3:07:47 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		11/25/2015 3:07:47 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/25/2015 3:07:47 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/25/2015 3:07:47 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		11/25/2015 3:07:47 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/25/2015 3:07:47 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/25/2015 3:07:47 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1