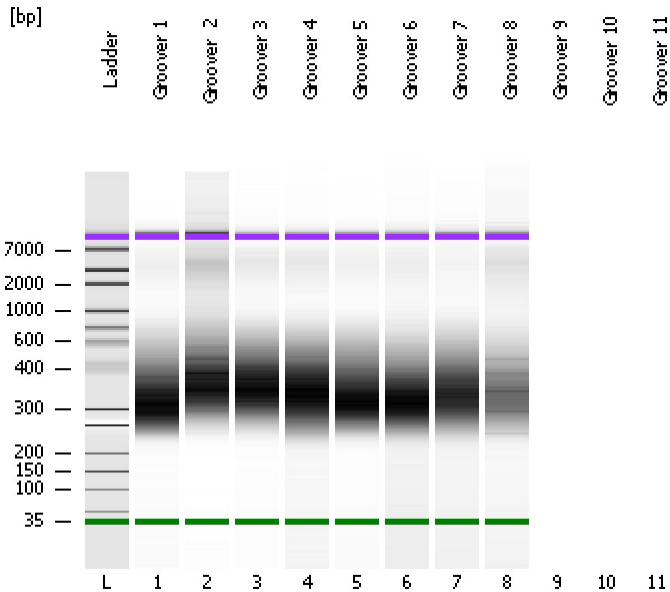


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
Modified: 7/14/2014 11:38:22 AM

Electrophoresis File Run Summary



Instrument Information:

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

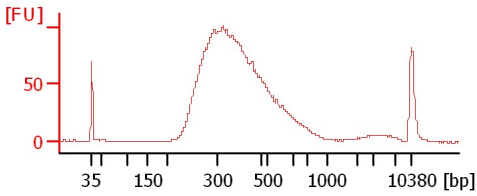
Assay Information:

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

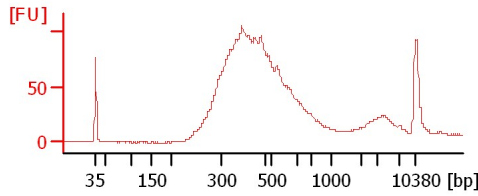
Chip Information:

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

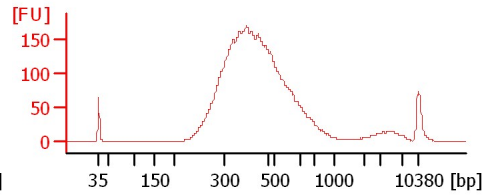
Groover 1



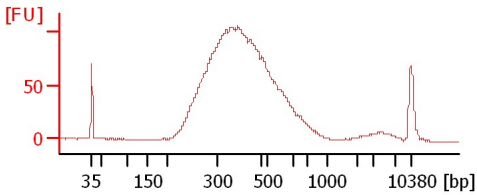
Groover 2



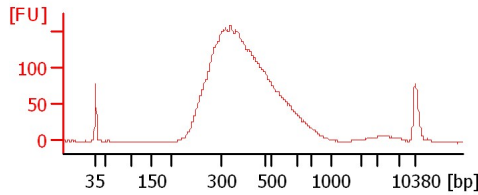
Groover 3



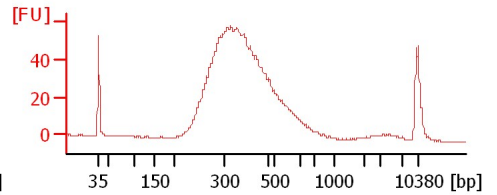
Groover 4



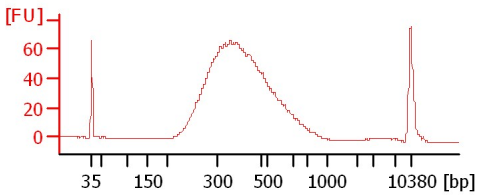
Groover 5



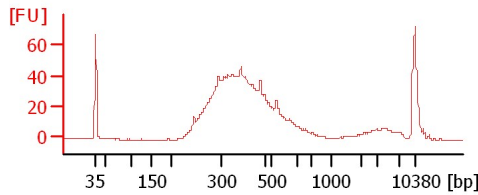
Groover 6



Groover 7



Groover 8



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
 Modified: 7/14/2014 11:38:22 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Groover 1		<input type="checkbox"/>	✓			
Groover 2		<input type="checkbox"/>	✓			
Groover 3		<input type="checkbox"/>	✓			
Groover 4		<input type="checkbox"/>	✓			
Groover 5		<input type="checkbox"/>	✓			
Groover 6		<input type="checkbox"/>	✓			
Groover 7		<input type="checkbox"/>	✓			
Groover 8		<input type="checkbox"/>	✓			
Groover 9		<input type="checkbox"/>	✗			
Groover 10		<input type="checkbox"/>	✗			
Groover 11		<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\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
Modified: 7/14/2014 11:38:22 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

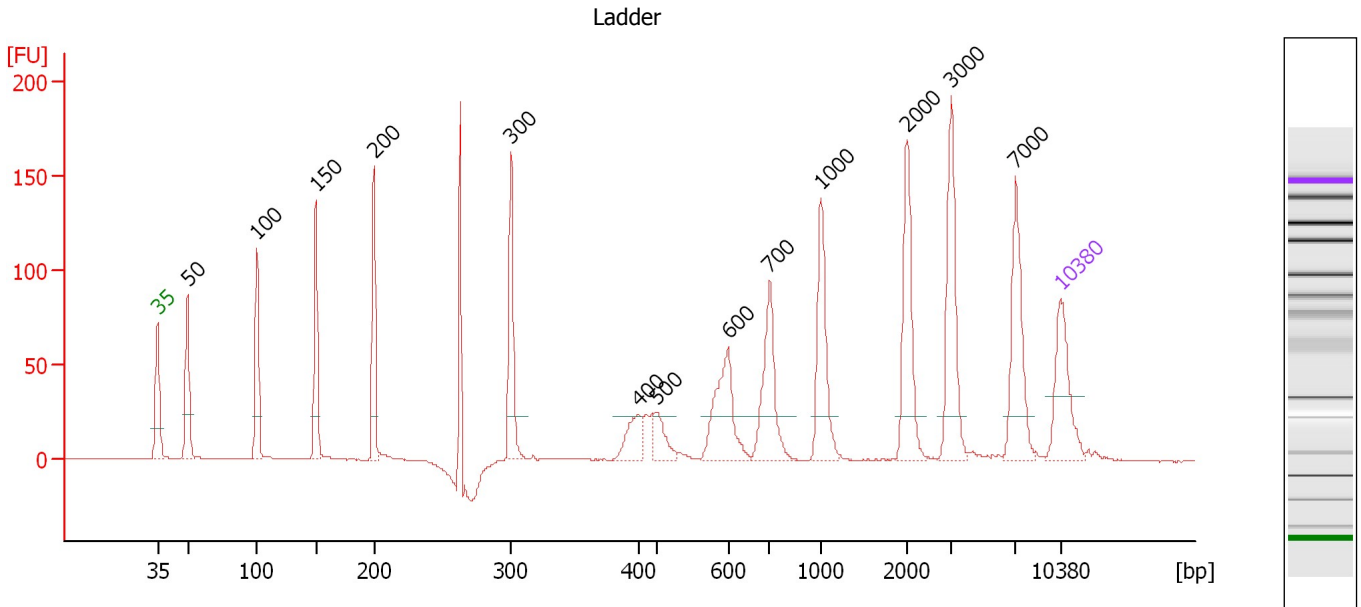
Ladder

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\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
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Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

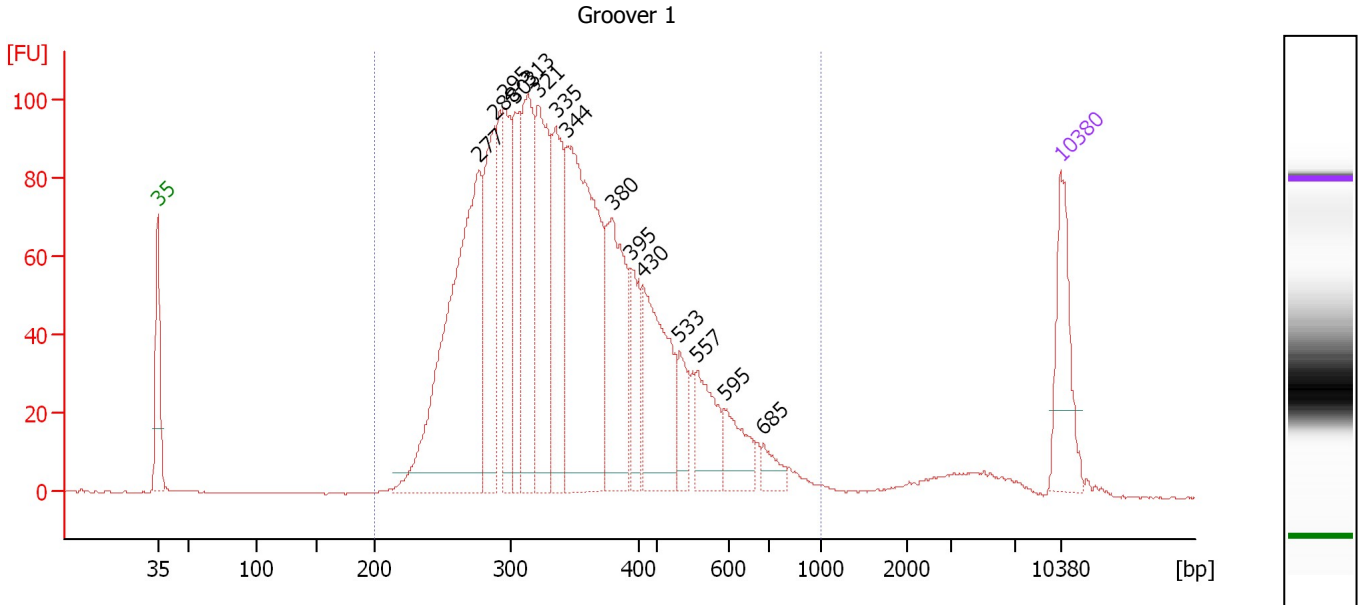
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
 Modified: 7/14/2014 11:38:22 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Groover 1

Number of peaks found: 15 Corr. Area 1: 2,211.7
 Noise: 0.2

Peak table for sample 1 : Groover 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	277	520.21	2,846.3	
3	288	176.34	929.0	
4	295	138.09	709.5	
5	303	126.33	632.1	
6	313	193.32	934.4	
7	321	213.00	1,004.3	
8	335	167.16	755.5	
9	344	414.64	1,826.0	
10	380	178.96	714.0	
11	395	68.01	261.1	
12	430	166.64	587.1	
13	533	43.90	124.8	
14	557	72.69	197.6	
15	595	50.87	129.5	
16	685	20.61	45.6	
17	10,380	75.00	10.9	Upper Marker

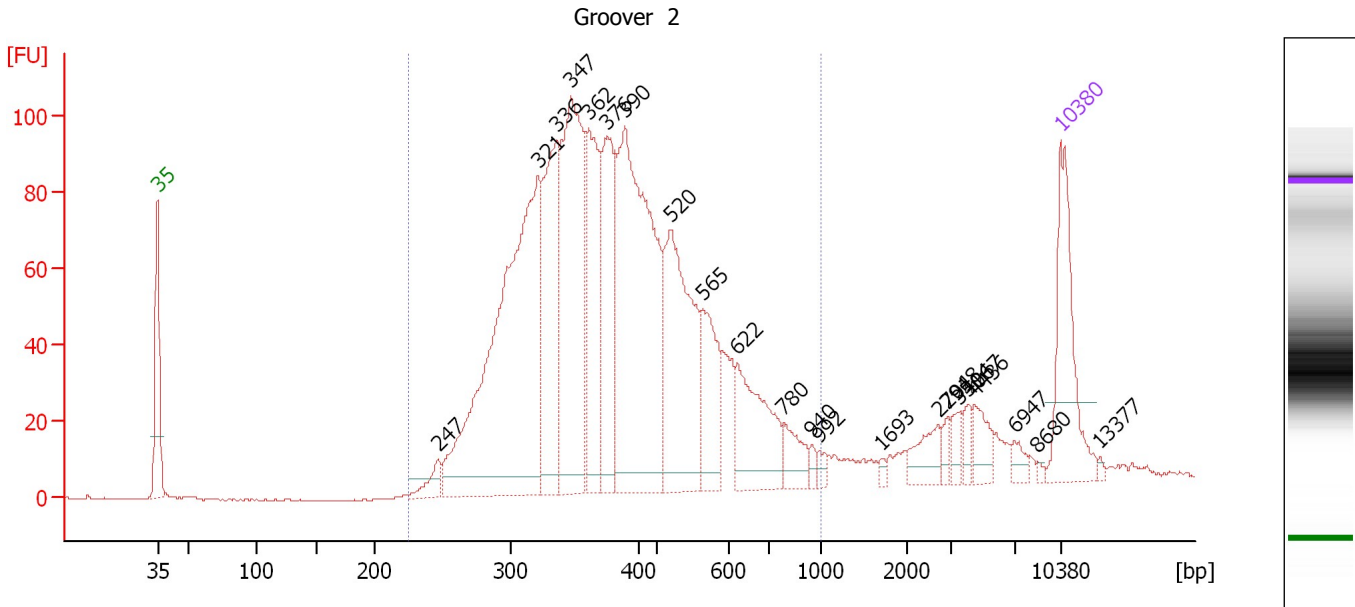
Region table for sample 1 : Groover 1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	368	12,592.8	2,777.89	2,211.7	97	30.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
 Modified: 7/14/2014 11:38:22 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Groover 2

Number of peaks found: 22 Corr. Area 1: 2,021.1
 Noise: 0.2

Peak table for sample 2 : Groover 2


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	247	19.22	118.0	
3	321	468.64	2,210.0	
4	336	166.48	751.2	
5	347	262.39	1,145.6	
6	362	131.17	549.7	
7	376	125.04	504.4	
8	390	346.42	1,347.2	
9	520	183.68	535.4	
10	565	71.36	191.3	
11	622	85.95	209.3	
12	780	25.28	49.1	
13	940	5.38	8.7	
14	992	5.53	8.5	
15	1,693	3.02	2.7	
16	2,704	21.95	12.3	
17	2,918	7.12	3.7	
18	3,514	10.66	4.6	
19	4,067	9.69	3.6	
20	4,436	18.67	6.4	
21	6,947	8.16	1.8	
22	8,680	1.81	0.3	
23	10,380	75.00	10.9	Upper Marker
24	13,377	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
Modified: 7/14/2014 11:38:22 AM

Electropherogram Summary Continued ...

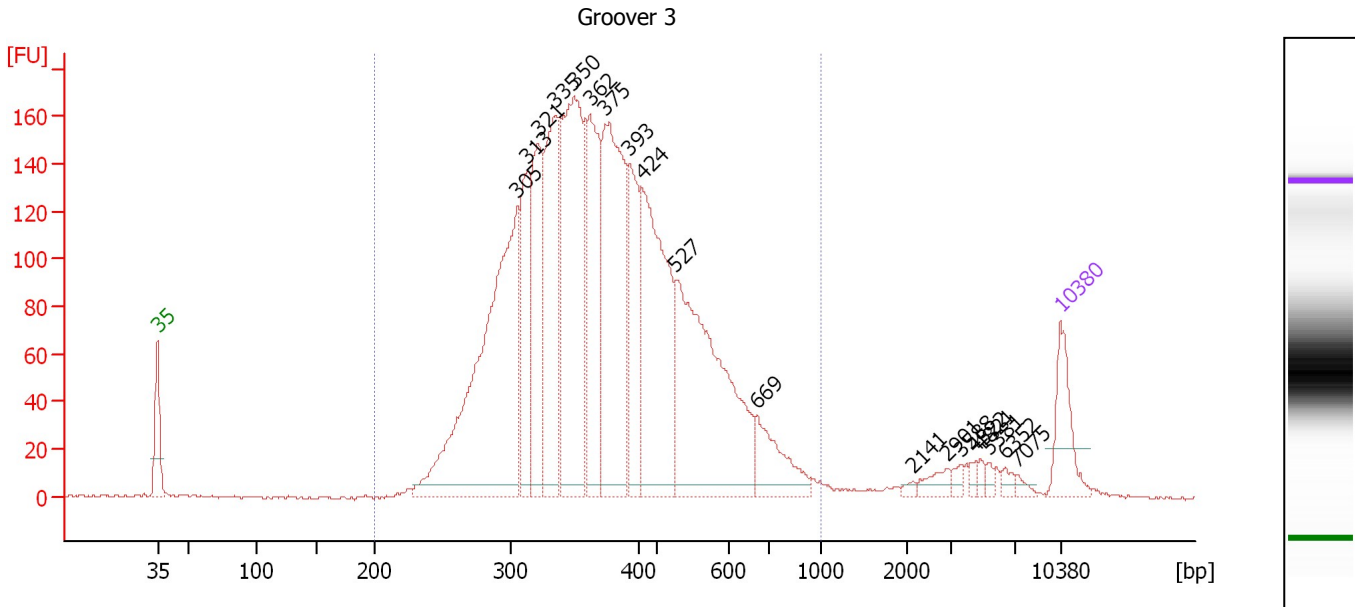
... Region table for sample 2 : Groover_2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
225	1,000	420	7,688.1	1,920.54	 2,021.1	91	31.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
 Modified: 7/14/2014 11:38:22 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Groover 3

Number of peaks found: 19 Corr. Area 1: 3,461.6
 Noise: 0.7

Peak table for sample 3 : Groover 3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	305	831.91	4,132.6	
3	313	205.52	994.7	
4	321	283.42	1,337.3	
5	335	360.41	1,630.9	
6	350	555.37	2,407.6	
7	362	300.83	1,258.1	
8	375	512.69	2,073.6	
9	393	201.65	777.3	
10	424	440.70	1,574.2	
11	527	561.42	1,612.7	
12	669	106.69	241.7	
13	2,141	6.14	4.3	
14	2,901	21.05	11.0	
15	3,588	10.38	4.4	
16	4,522	8.34	2.8	
17	4,821	8.54	2.7	
18	5,381	7.73	2.2	
19	6,352	10.31	2.5	
20	7,075	8.21	1.8	
21	10,380	75.00	10.9	Upper Marker

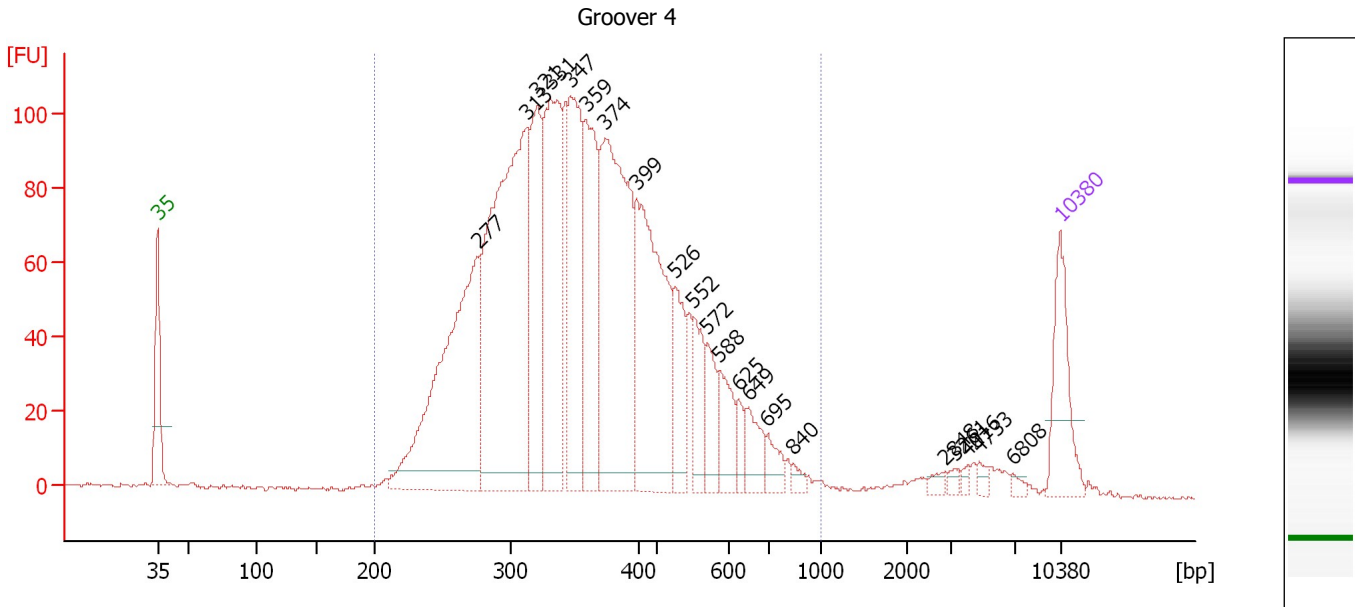
Region table for sample 3 : Groover 3

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	404	18,533.3	4,495.79	3,461.6	96	29.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
 Modified: 7/14/2014 11:38:22 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Groover 4

Number of peaks found: 21 Corr. Area 1: 2,457.8
 Noise: 0.5

Peak table for sample 4 : Groover 4


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	277	464.62	2,543.1	
3	313	621.70	3,012.9	
4	321	193.51	914.0	
5	331	304.38	1,392.0	
6	347	230.49	1,006.2	
7	359	208.76	881.0	
8	374	413.21	1,672.5	
9	399	311.07	1,182.1	
10	526	83.89	241.5	
11	552	58.97	161.8	
12	572	50.72	134.4	
13	588	56.01	144.4	
14	625	22.39	54.3	
15	649	40.10	93.7	
16	695	24.88	54.2	
17	840	9.09	16.4	
18	2,848	7.18	3.8	
19	3,261	5.50	2.6	
20	4,016	4.56	1.7	
21	4,733	6.94	2.2	
22	6,808	5.13	1.1	
23	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
Modified: 7/14/2014 11:38:22 AM

Electropherogram Summary Continued ...

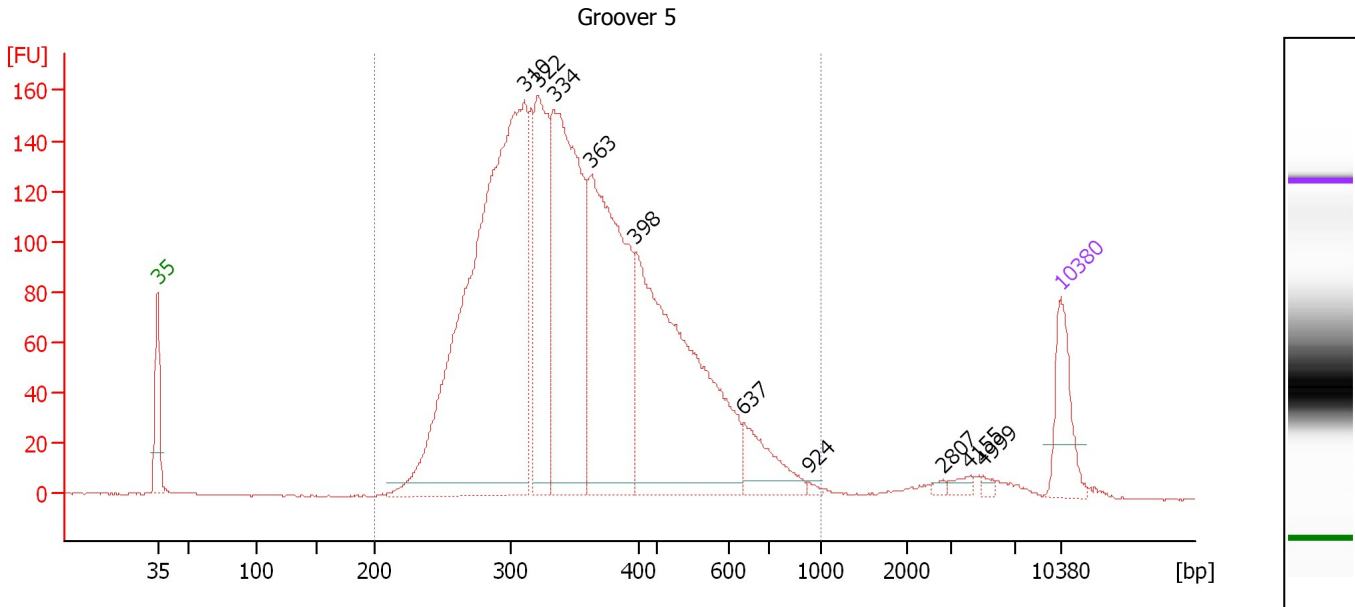
... Region table for sample 4 : Groover 4

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	384	14,336.9	3,279.53	 2,457.8	96	30.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
 Modified: 7/14/2014 11:38:22 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Groover 5

Number of peaks found: 10 Corr. Area 1: 3,334.9
 Noise: 0.3

Peak table for sample 5 : Groover 5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	310	1,364.49	6,660.0	
3	322	329.56	1,552.7	
4	334	637.53	2,894.3	
5	363	602.84	2,513.7	
6	398	687.70	2,615.8	
7	637	89.51	212.9	
8	924	3.94	6.5	
9	2,807	4.68	2.5	
10	4,155	10.61	3.9	
11	4,999	5.73	1.7	
12	10,380	75.00	10.9	Upper Marker

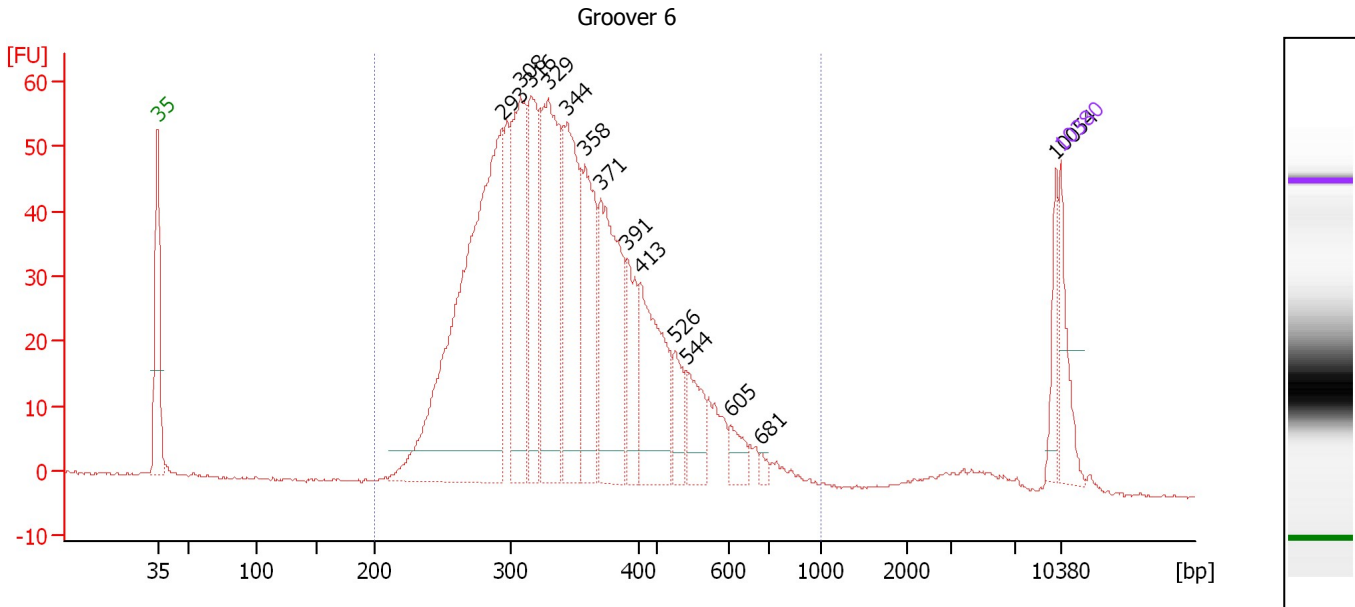
Region table for sample 5 : Groover 5

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	378	17,002.4	3,851.20	3,334.9	97	30.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
 Modified: 7/14/2014 11:38:22 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Groover 6

Number of peaks found: 14 Corr. Area 1: 1,195.1
 Noise: 0.2

Peak table for sample 6 : Groover 6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	293	1,149.95	5,941.1	
3	308	390.42	1,921.8	
4	316	283.39	1,358.4	
5	329	421.83	1,941.3	
6	344	359.42	1,583.8	
7	358	275.04	1,164.1	
8	371	375.00	1,533.0	
9	391	136.99	530.7	
10	413	273.91	1,006.0	
11	526	73.71	212.4	
12	544	90.11	251.0	
13	605	41.65	104.3	
14	681	11.83	26.3	
15	10,054	48.73	7.3	
16	10,380	75.00	10.9	Upper Marker

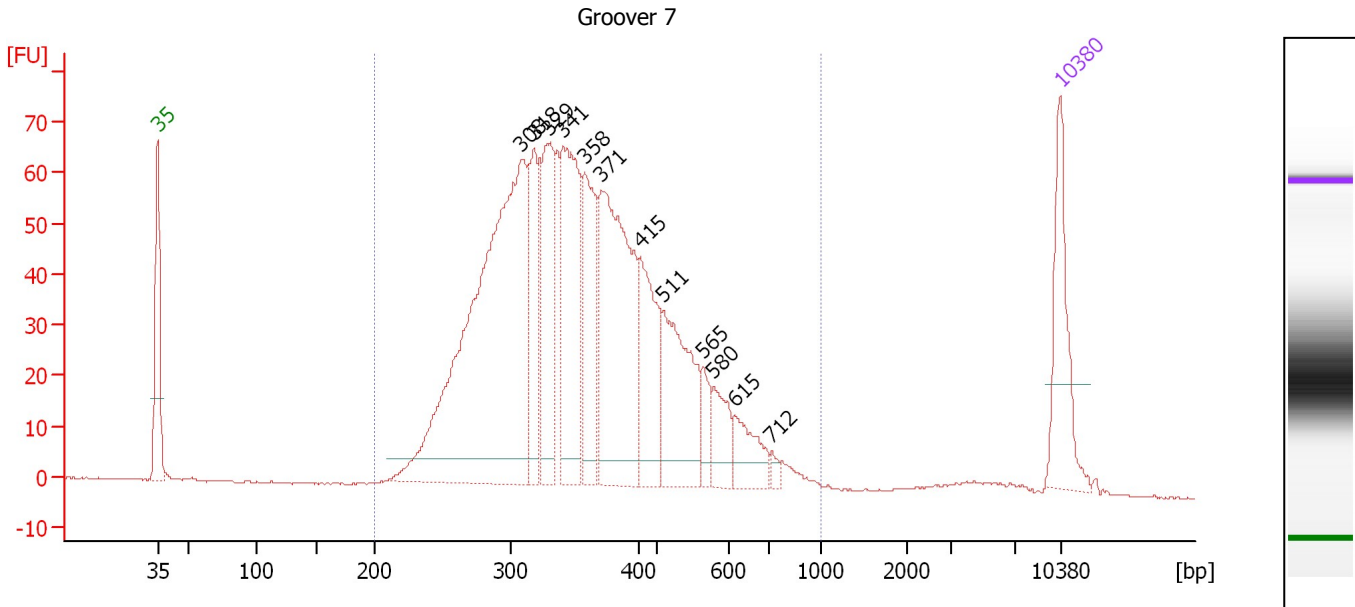
Region table for sample 6 : Groover 6

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	363	19,951.4	4,403.16	1,195.1	96	28.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
 Modified: 7/14/2014 11:38:22 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Groover 7

Number of peaks found: 12 Corr. Area 1: 1,449.1
 Noise: 0.2

Peak table for sample 7 : Groover 7

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	308	646.04	3,174.7	
3	318	114.03	543.0	
4	329	151.68	698.4	
5	341	209.59	930.1	
6	358	126.46	534.9	
7	371	287.26	1,174.6	
8	415	114.88	419.5	
9	511	138.33	410.5	
10	565	26.02	69.7	
11	580	39.88	104.1	
12	615	41.98	103.4	
13	712	6.84	14.6	
14	10,380	75.00	10.9	Upper Marker

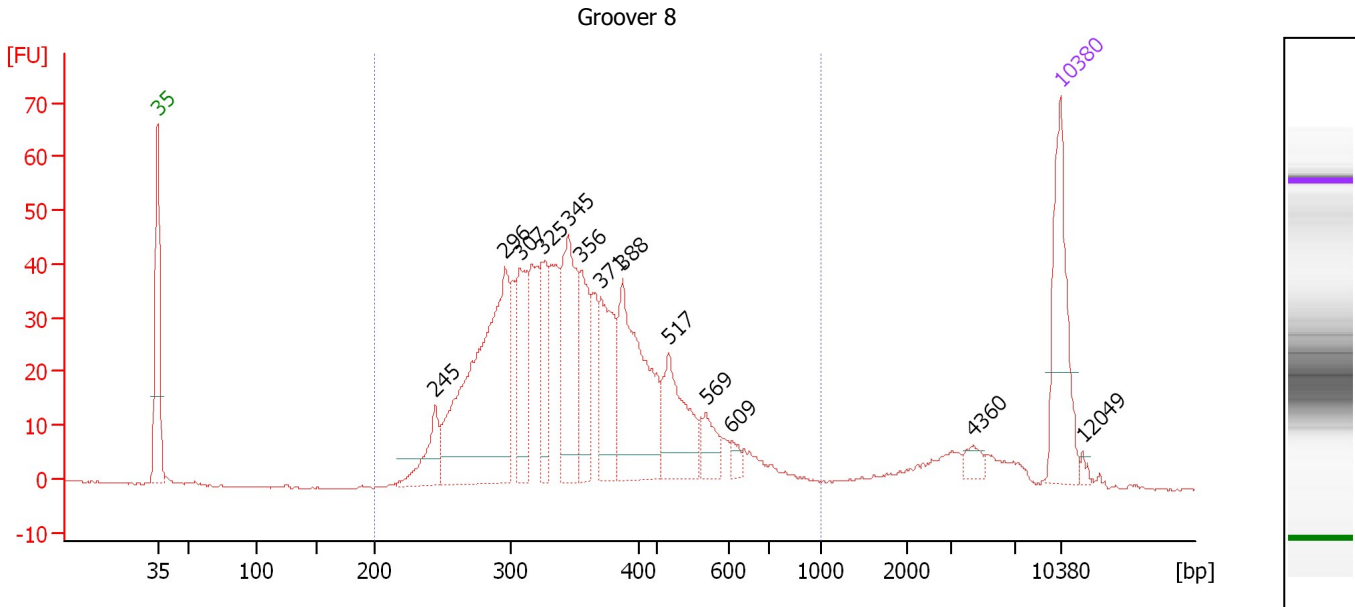
Region table for sample 7 : Groover 7

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	381	8,918.5	2,040.92	1,449.1	98	29.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
 Modified: 7/14/2014 11:38:22 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : Groover 8

Number of peaks found: 13 Corr. Area 1: 921.2
 Noise: 0.1

Peak table for sample 8 : Groover 8

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	245	47.43	293.4	
3	296	296.27	1,518.8	
4	307	79.51	392.2	
5	325	62.38	290.7	
6	345	121.42	533.2	
7	356	66.52	283.5	
8	371	81.43	332.6	
9	388	154.94	605.2	
10	517	76.98	225.4	
11	569	23.83	63.4	
12	609	7.69	19.1	
13	4,360	8.65	3.0	
14	10,380	75.00	10.9	Upper Marker
15	12,049	0.00	0.0	

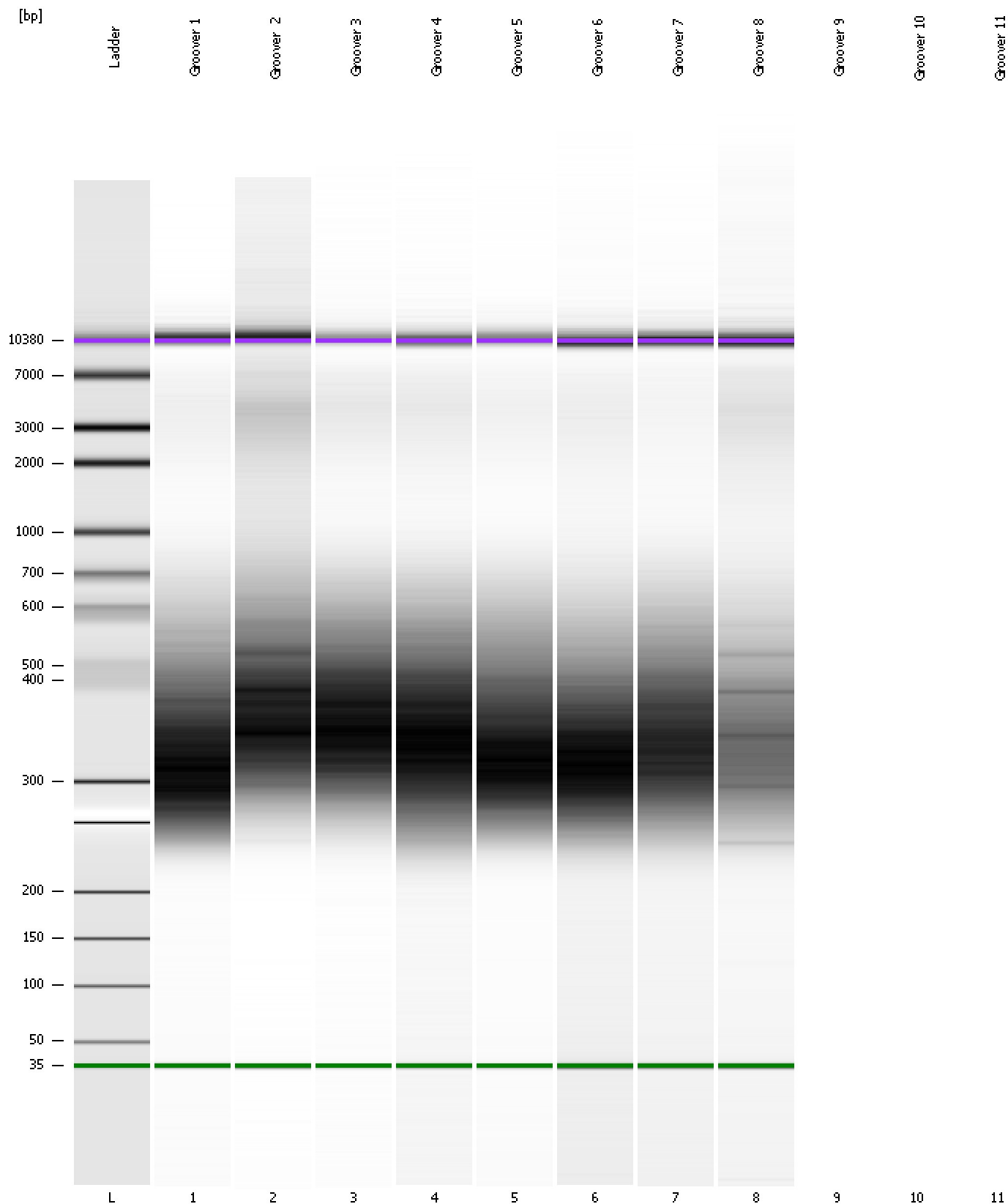
Region table for sample 8 : Groover 8

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	379	5,977.8	1,360.12	921.2	89	30.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
Modified: 7/14/2014 11:38:22 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
Modified: 7/14/2014 11:38:22 AM

Invalid Samples

Sample 9 has not been run, no results available.

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:\... bioanalyzer\2100 expert\Data\2014-07-14\2014-07-14_003.xad

Created: 7/14/2014 10:59:23 AM
 Modified: 7/14/2014 11:38:22 AM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run aborted on port 1		Instrument	Run		7/14/2014 11:32:31 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\2014-07-14\2014-07-14_003.xad)		Instrument	Run		7/14/2014 10:59:29 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		7/14/2014 10:59:29 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/14/2014 10:59:29 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/14/2014 10:59:29 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		7/14/2014 10:59:29 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/14/2014 10:59:29 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/14/2014 10:59:29 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1