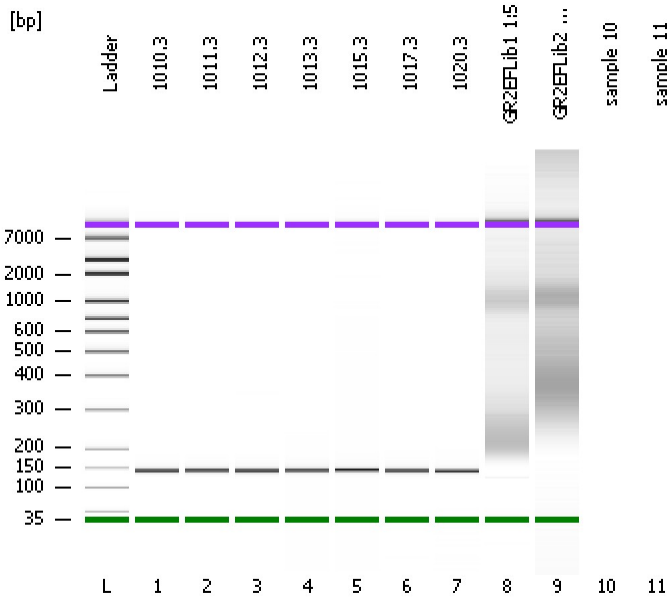


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
Modified: 10/31/2014 11:56:51 AM

**Electrophoresis File Run Summary**



Instrument Information:

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

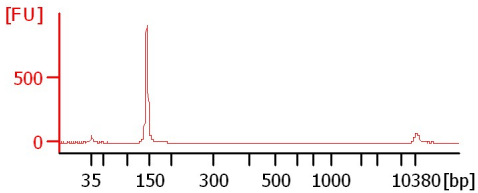
Assay Information:

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

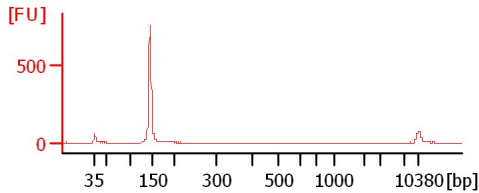
Chip Information:

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

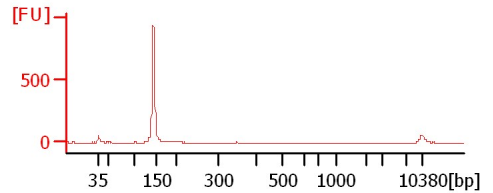
**1010.3**



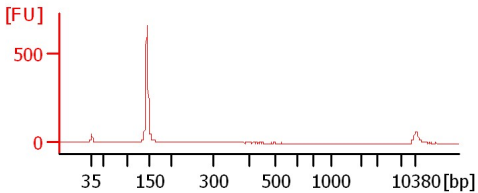
**1011.3**



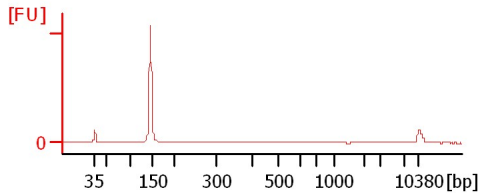
**1012.3**



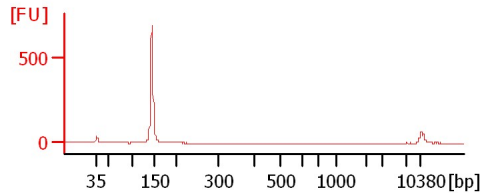
**1013.3**



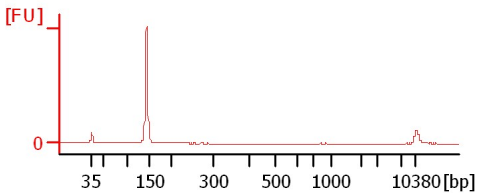
**1015.3**



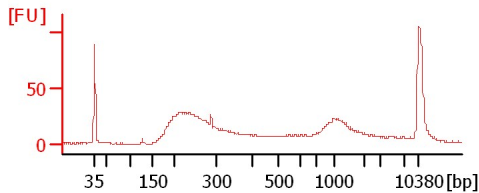
**1017.3**



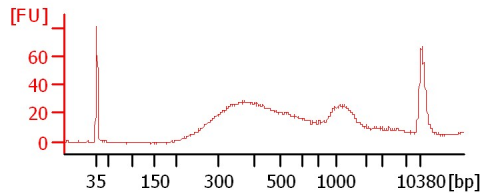
**1020.3**



**GR2EFLib1 1:5**



**GR2EFLib2 1:10**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
 Modified: 10/31/2014 11:56:51 AM

**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
1010.3		<input type="checkbox"/>	✓			
1011.3		<input type="checkbox"/>	✓			
1012.3		<input type="checkbox"/>	✓			
1013.3		<input type="checkbox"/>	✓			
1015.3		<input type="checkbox"/>	✓			
1017.3		<input type="checkbox"/>	✓			
1020.3		<input type="checkbox"/>	✓			
GR2EFLib1 1:5		<input type="checkbox"/>	✓			
GR2EFLib2 1:10		<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\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
Modified: 10/31/2014 11:56:51 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

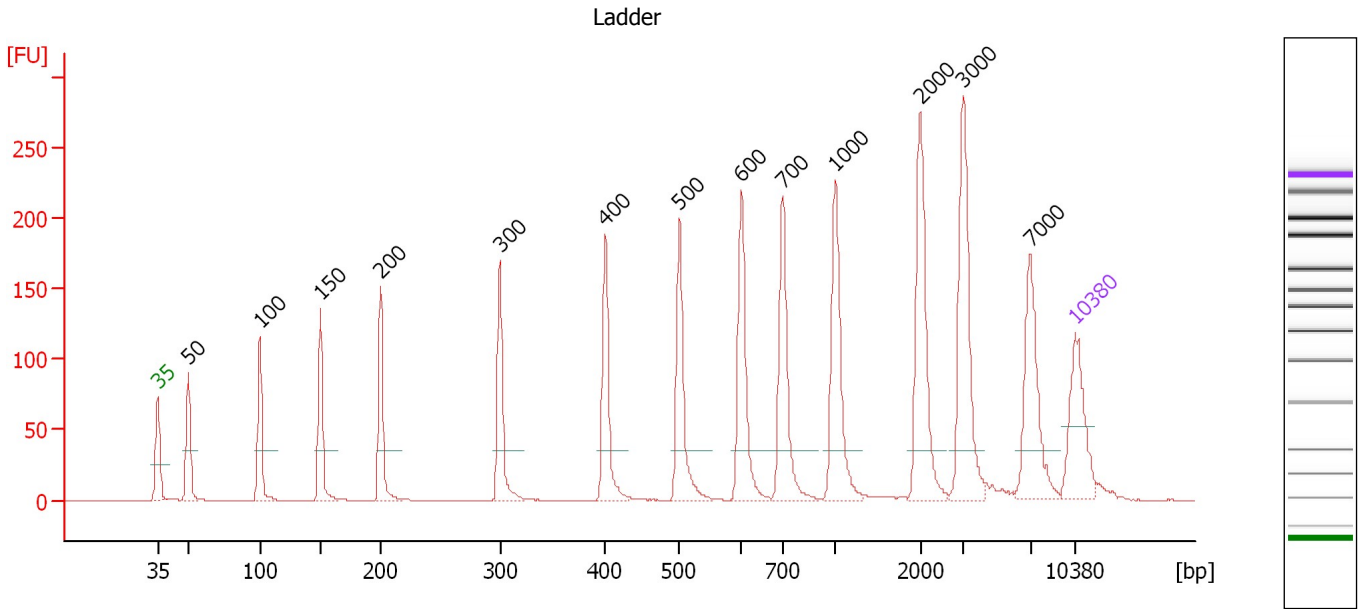
**Ladder**

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:\...ents and Settings\Bioanalyzer\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
 Modified: 10/31/2014 11:56:51 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

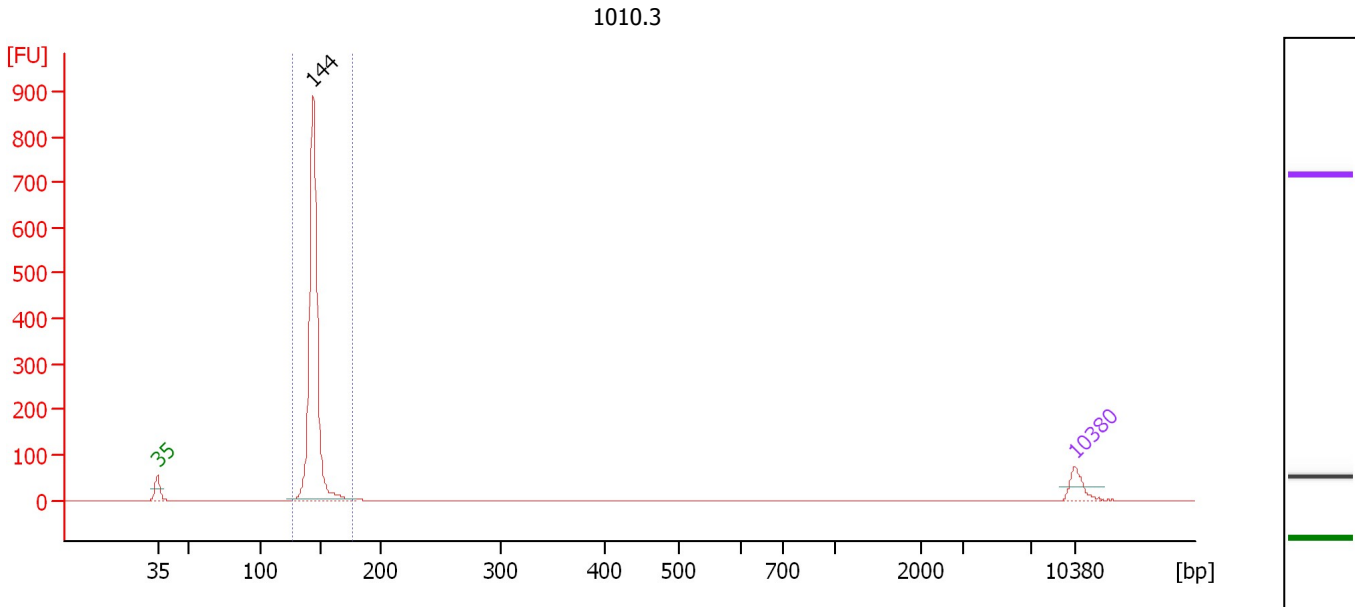
**Peak table for Ladder**

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:\...ents and Settings\Bioanalyzer\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
 Modified: 10/31/2014 11:56:51 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 1010.3**

Number of peaks found: 1                      Corr. Area 1: 1,209.9  
 Noise: 0.2

**Peak table for sample 1 : 1010.3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	144	2,173.59	22,856.9	
3	10,380	75.00	10.9	Upper Marker

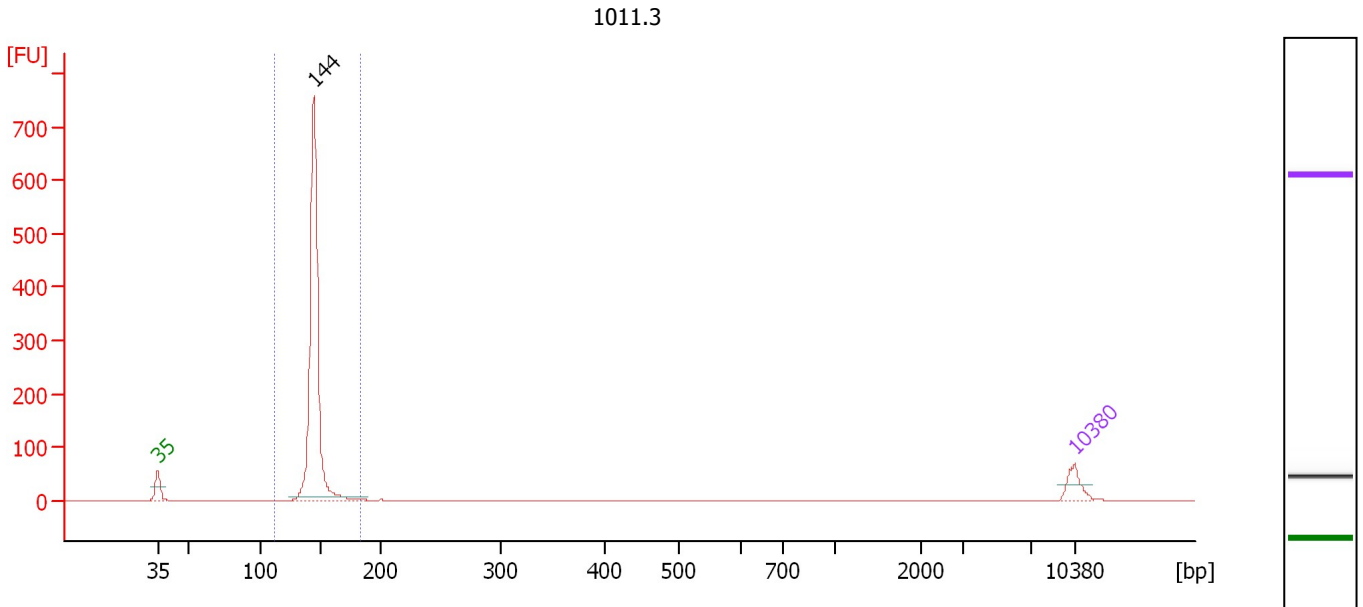
**Region table for sample 1 : 1010.3**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
127	145	177	1,209.9	98	3.3	2,169.90	22,710.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
 Modified: 10/31/2014 11:56:51 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 1011.3**

Number of peaks found: 1                      Corr. Area 1: 1,028.2  
 Noise: 0.1

**Peak table for sample 2 : 1011.3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	144	2,039.29	21,387.1	
3	10,380	75.00	10.9	Upper Marker

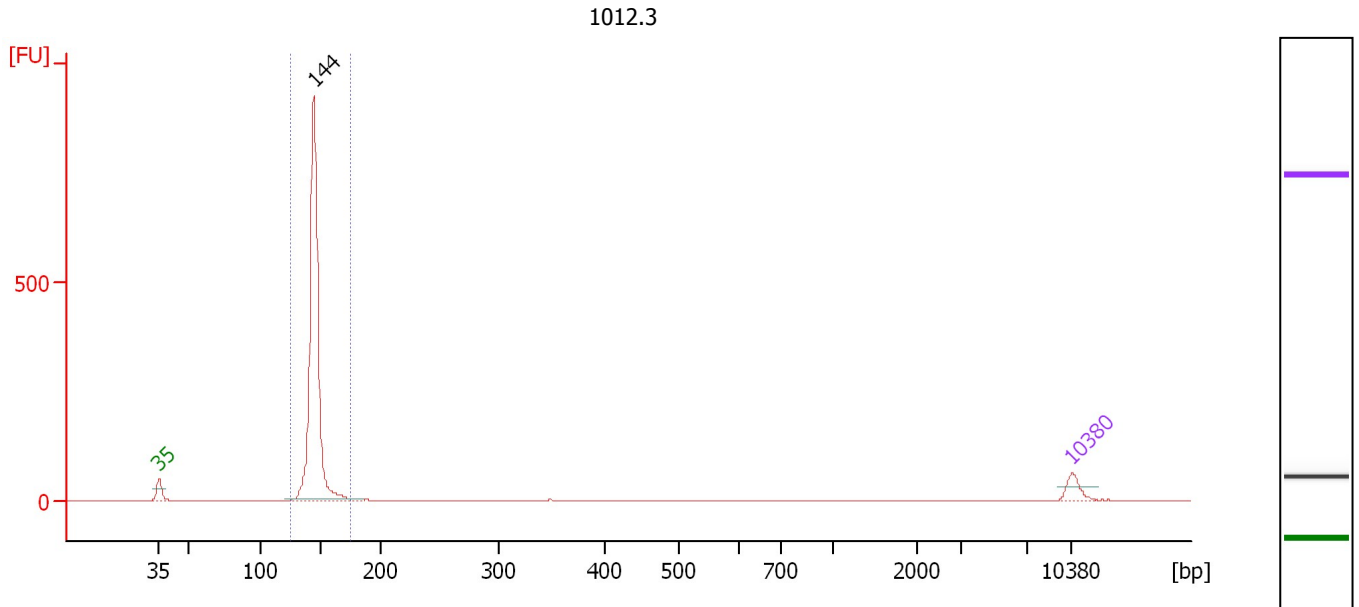
**Region table for sample 2 : 1011.3**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
113	146	183	1,028.2	98	3.7	2,046.16	21,326.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
 Modified: 10/31/2014 11:56:51 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 1012.3**

Number of peaks found: 1                      Corr. Area 1: 1,301.2  
 Noise: 0.1

**Peak table for sample 3 : 1012.3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	144	2,695.82	28,359.5	
3	10,380	75.00	10.9	Upper Marker

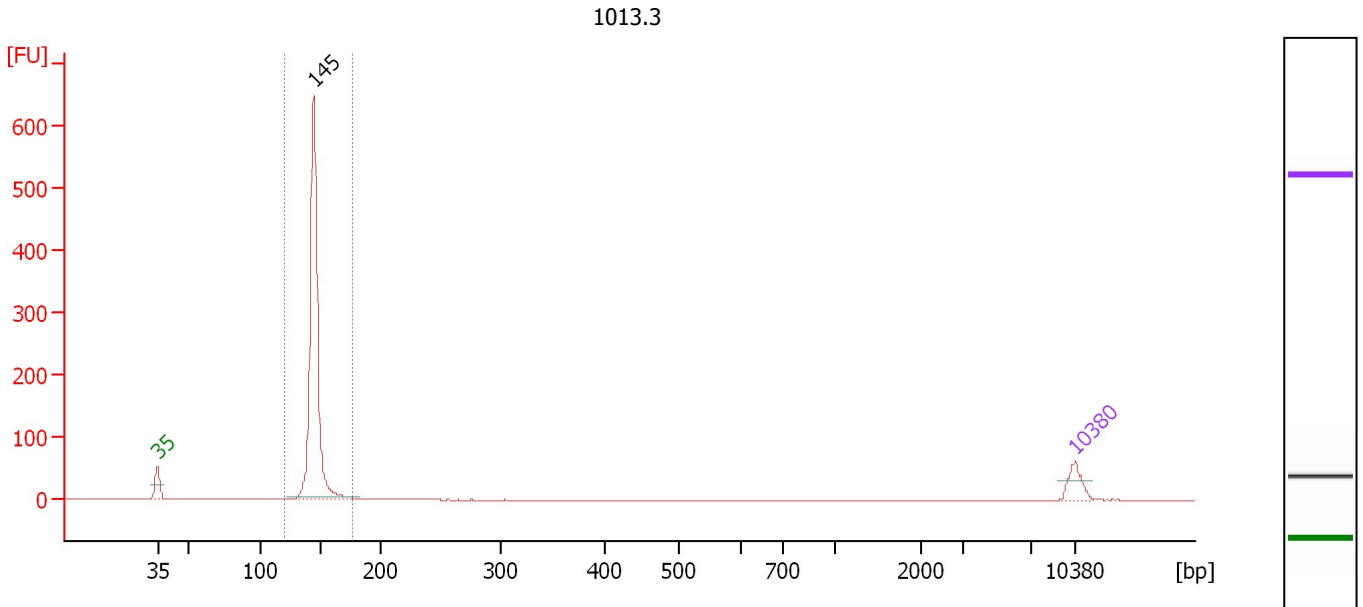
**Region table for sample 3 : 1012.3**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
125	145	175	1,301.2	98	3.5	2,688.95	28,134.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
 Modified: 10/31/2014 11:56:51 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 1013.3**

Number of peaks found: 1      Corr. Area 1: 852.7  
 Noise: 0.1

**Peak table for sample 4 : 1013.3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	145	1,827.95	19,153.5	
3	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : 1013.3**

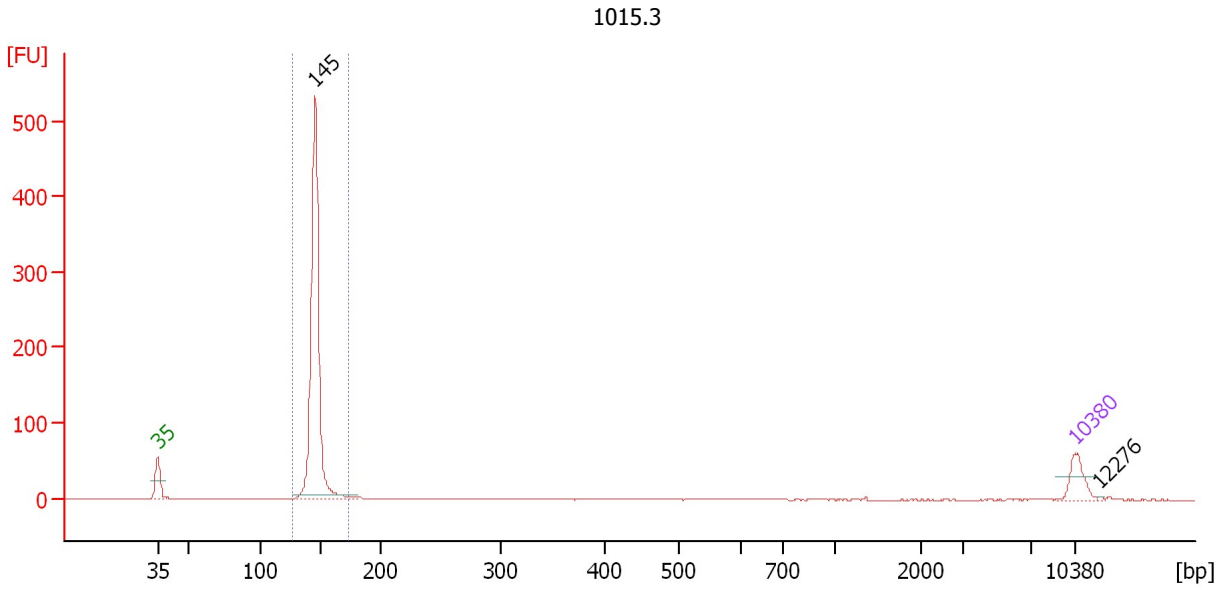
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
121	146	177	852.7	94	3.6	1,837.58	19,146.4	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
 Modified: 10/31/2014 11:56:51 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 1015.3**

Number of peaks found: 2                      Corr. Area 1: 684.9  
 Noise: 0.1

**Peak table for sample 5 : 1015.3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	145	1,440.43	15,006.9	
3	10,380	75.00	10.9	Upper Marker
4	12,276	0.00	0.0	

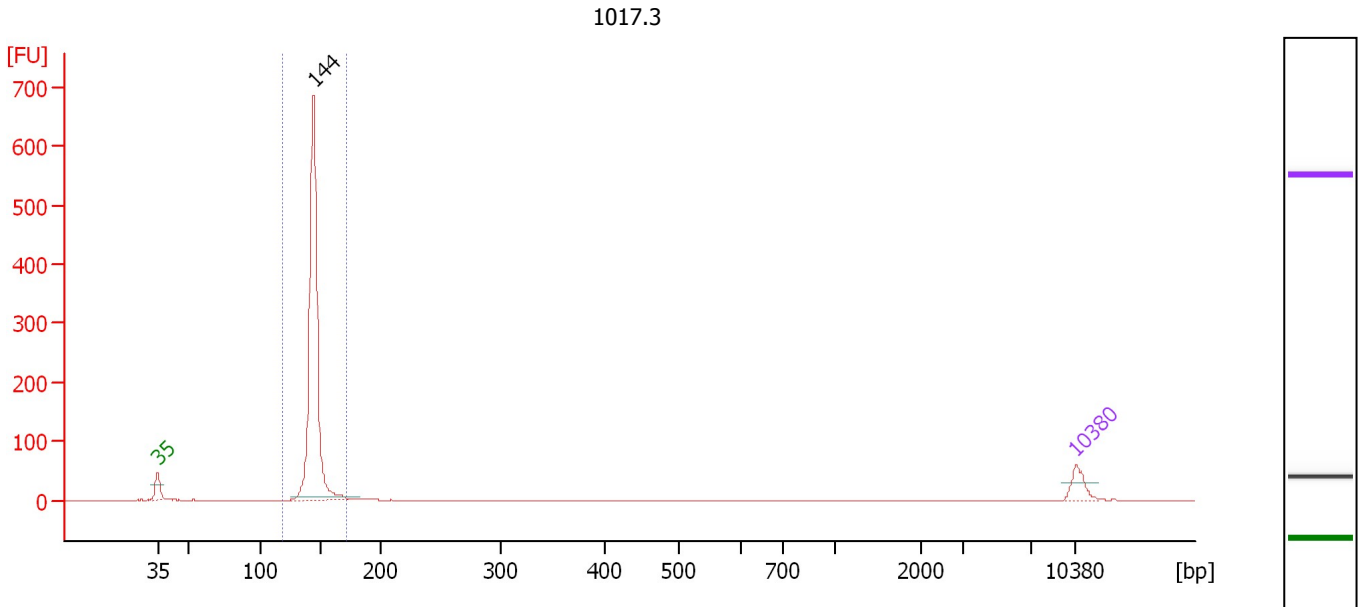
**Region table for sample 5 : 1015.3**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
127	146	174	684.9	95	3.1	1,449.96	15,045.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
 Modified: 10/31/2014 11:56:51 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 1017.3**

Number of peaks found: 1                      Corr. Area 1: 917.4  
 Noise: 0.2

**Peak table for sample 6 : 1017.3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	144	2,092.86	21,946.5	
3	10,380	75.00	10.9	Upper Marker

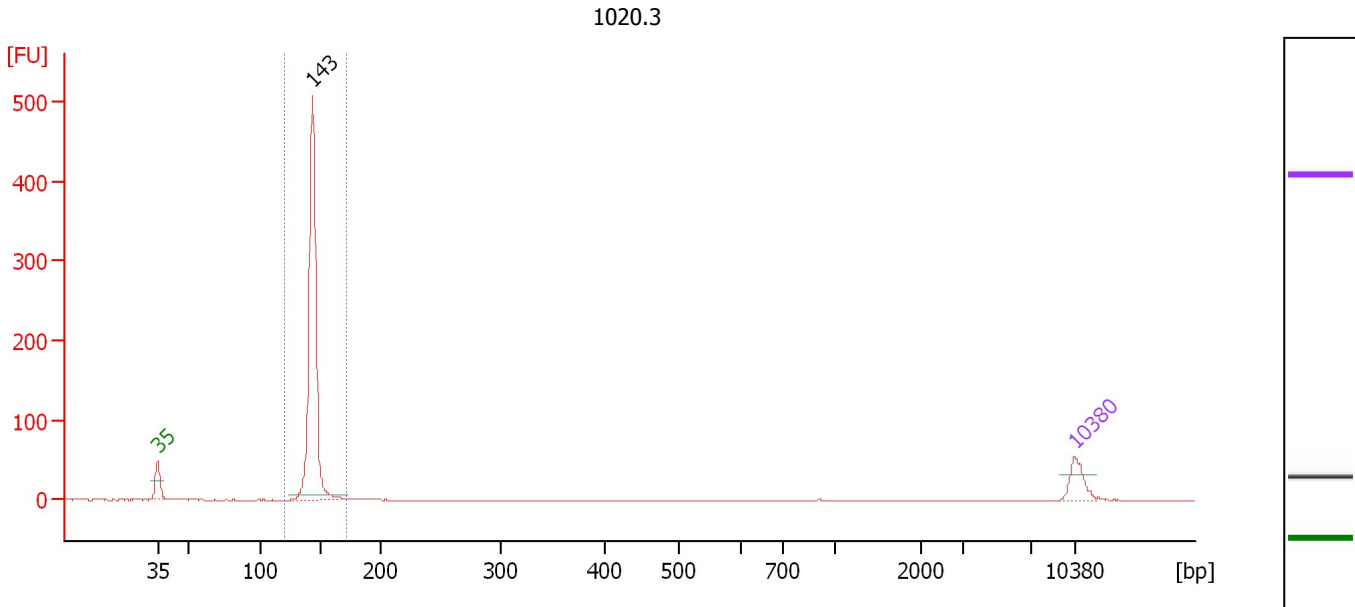
**Region table for sample 6 : 1017.3**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
118	145	172	917.4	95	3.4	2,099.10	21,963.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
 Modified: 10/31/2014 11:56:51 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 1020.3**

Number of peaks found: 1                      Corr. Area 1: 616.0  
 Noise: 0.1

**Peak table for sample 7 : 1020.3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	143	1,464.74	15,471.8	
3	10,380	75.00	10.9	Upper Marker

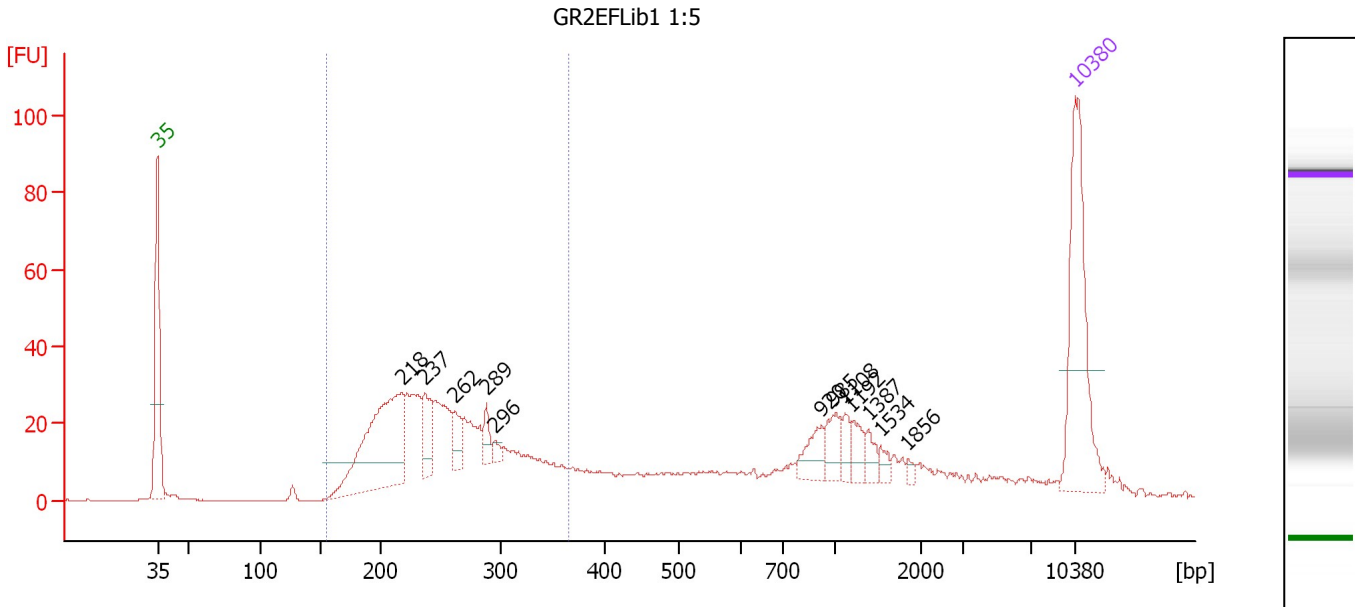
**Region table for sample 7 : 1020.3**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
120	144	171	616.0	96	2.9	1,473.62	15,513.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
 Modified: 10/31/2014 11:56:51 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : GR2EFLib1 1:5**

Number of peaks found: 12      Corr. Area 1: 499.5  
 Noise: 0.1

**Peak table for sample 8 : GR2EFLib1 1:5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	218	133.38	927.0	
3	237	27.23	173.8	
4	262	16.16	93.5	
5	289	11.43	60.0	
6	296	4.90	25.1	
7	920	17.17	28.3	
8	985	15.58	24.0	
9	1,108	8.83	12.1	
10	1,192	10.87	13.8	
11	1,387	7.77	8.5	
12	1,534	4.93	4.9	
13	1,856	2.62	2.1	
14	10,380	75.00	10.9	Upper Marker

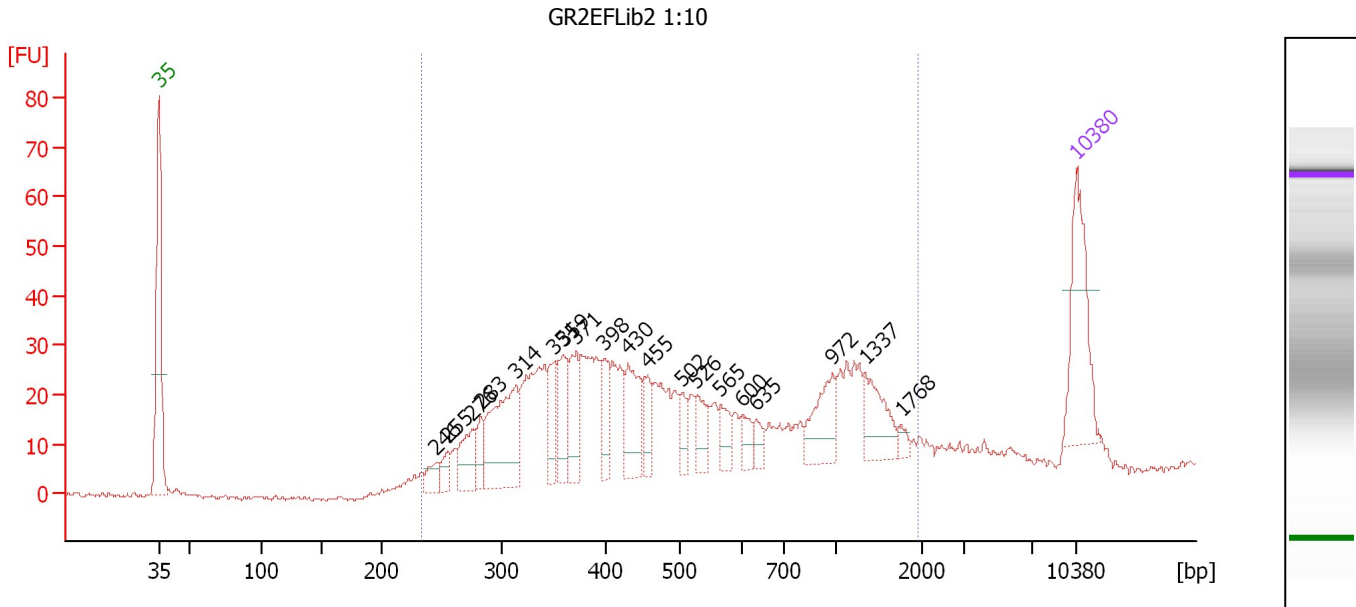
**Region table for sample 8 : GR2EFLib1 1:5**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
156	252	365	499.5	57	19.0	494.77	3,099.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
 Modified: 10/31/2014 11:56:51 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : GR2EFLib2 1:10**

Number of peaks found: 19      Corr. Area 1: 560.0  
 Noise: 0.6

**Peak table for sample 9 : GR2EFLib2 1:10**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	246	17.19	106.0	
3	255	17.54	104.2	
4	276	38.83	213.2	
5	283	22.51	120.4	
6	314	115.06	555.4	
7	351	34.13	147.3	
8	359	45.54	192.1	
9	371	47.37	193.5	
10	398	32.96	125.4	
11	430	56.29	198.5	
12	455	27.54	91.6	
13	502	18.50	55.8	
14	526	24.01	69.1	
15	565	21.28	57.1	
16	600	15.10	38.1	
17	635	13.35	31.9	
18	972	45.27	70.5	
19	1,337	40.98	46.4	
20	1,768	5.73	4.9	
21	10,380	75.00	10.9	Upper Marker

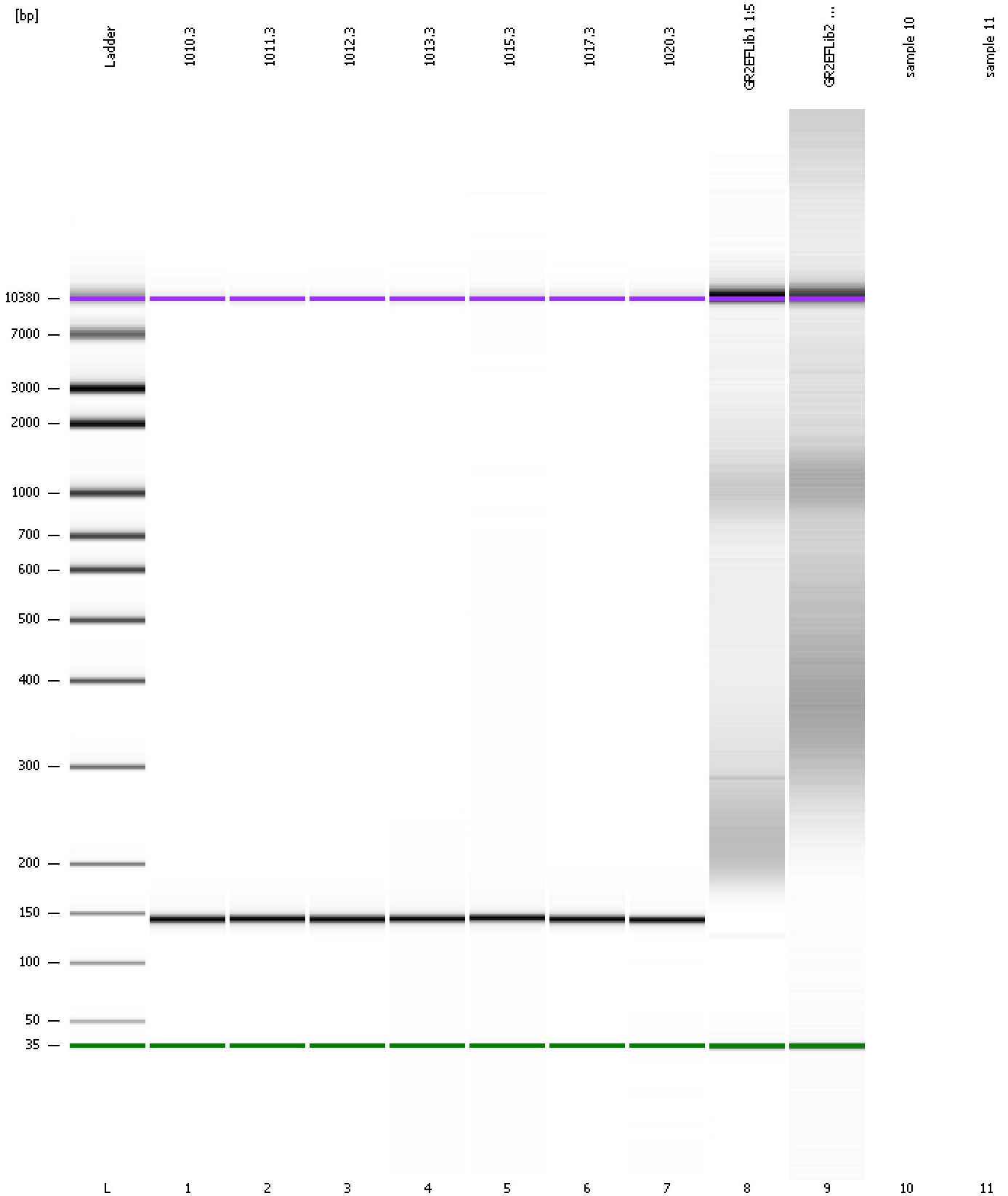
**Region table for sample 9 : GR2EFLib2 1:10**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
234	575	1,970	560.0	100	60.3	880.11	3,141.1	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
Modified: 10/31/2014 11:56:51 AM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
Modified: 10/31/2014 11:56:51 AM

**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\2014-10-31\2014-10-31\_002.xad

Created: 10/31/2014 11:20:36 AM  
 Modified: 10/31/2014 11:56:51 AM

**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		10/31/2014 11:56:10 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-10-31\2014-10-31_002.xad)		Instrument	Run		10/31/2014 11:20:42 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/31/2014 11:20:42 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/31/2014 11:20:42 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/31/2014 11:20:42 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/31/2014 11:20:42 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/31/2014 11:20:42 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/31/2014 11:20:42 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1