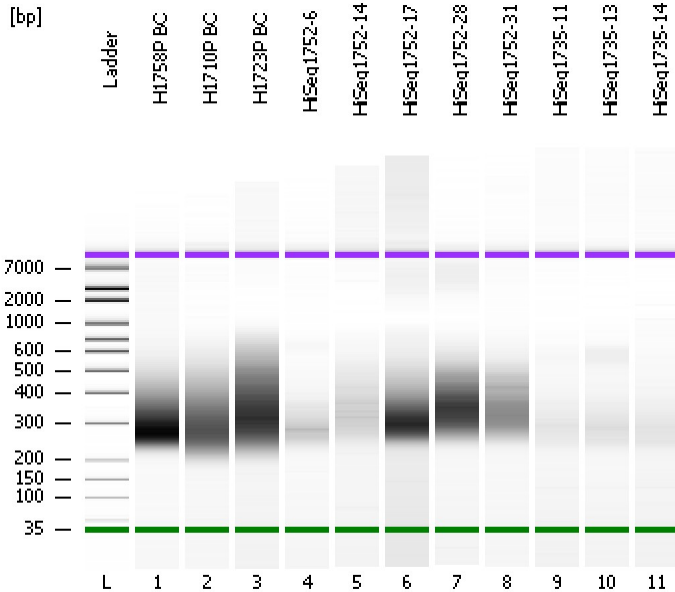


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
Modified: 4/18/2019 11:15:15 AM

Electrophoresis File Run Summary



Instrument Information:

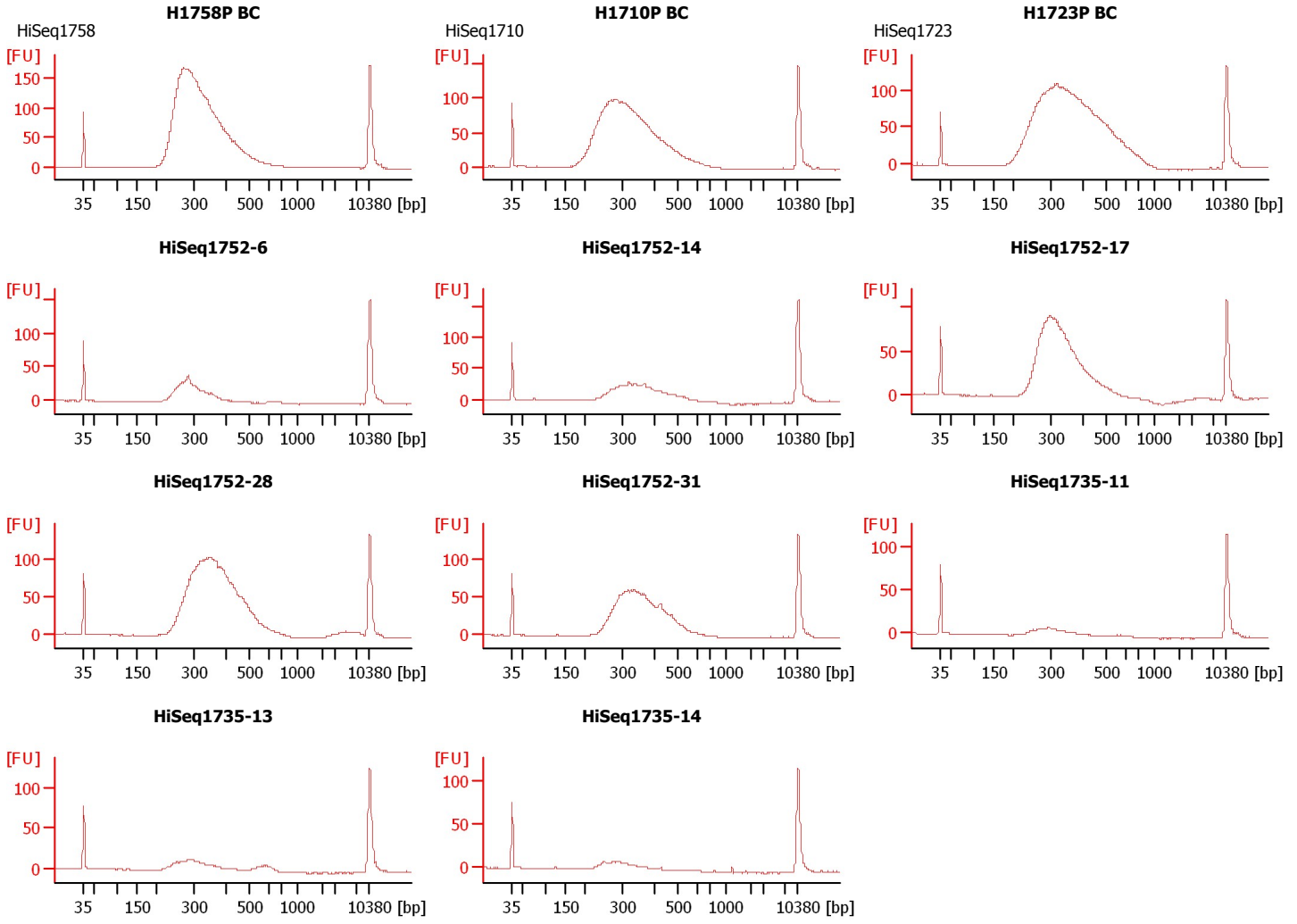
Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

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\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
Modified: 4/18/2019 11:15:15 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
H1758P BC	HiSeq1758	<input type="checkbox"/>	✓			
H1710P BC	HiSeq1710	<input type="checkbox"/>	✓			
H1723P BC	HiSeq1723	<input type="checkbox"/>	✓			
HiSeq1752-6		<input type="checkbox"/>	✓			
HiSeq1752-14		<input type="checkbox"/>	✓			
HiSeq1752-17		<input type="checkbox"/>	✓			
HiSeq1752-28		<input type="checkbox"/>	✓			
HiSeq1752-31		<input type="checkbox"/>	✓			
HiSeq1735-11		<input type="checkbox"/>	✓			
HiSeq1735-13		<input type="checkbox"/>	✓			
HiSeq1735-14		<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\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
Modified: 4/18/2019 11:15:15 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

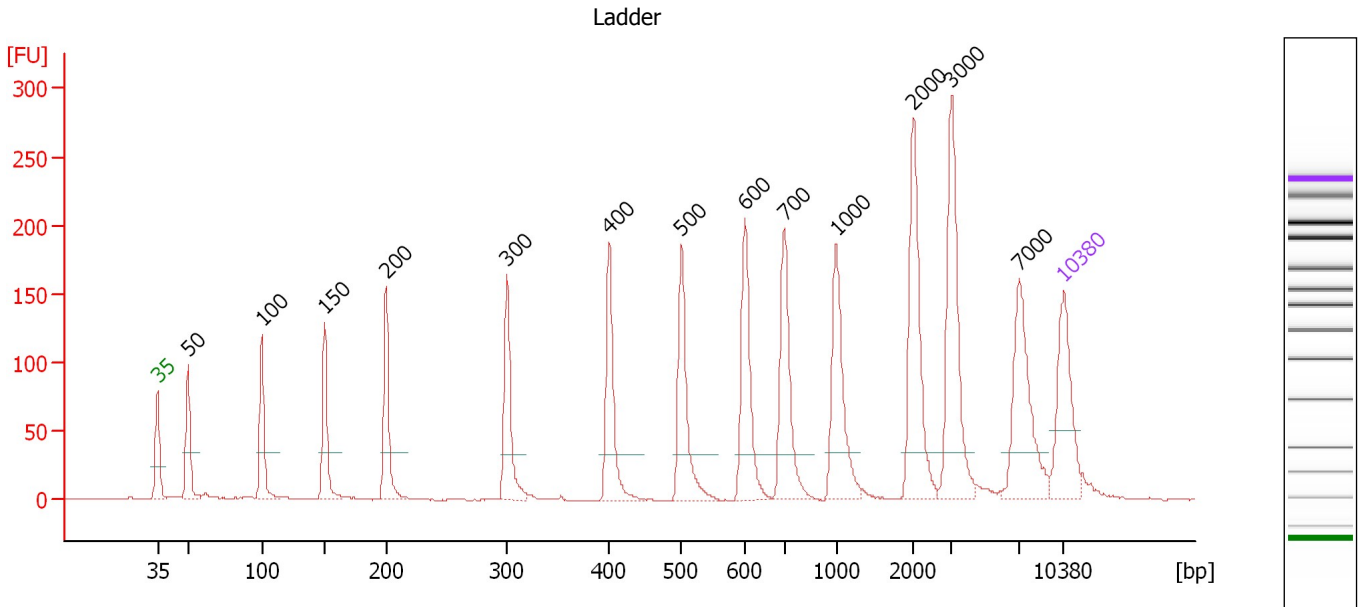
**Ladder**

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\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
 Modified: 4/18/2019 11:15:15 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.4

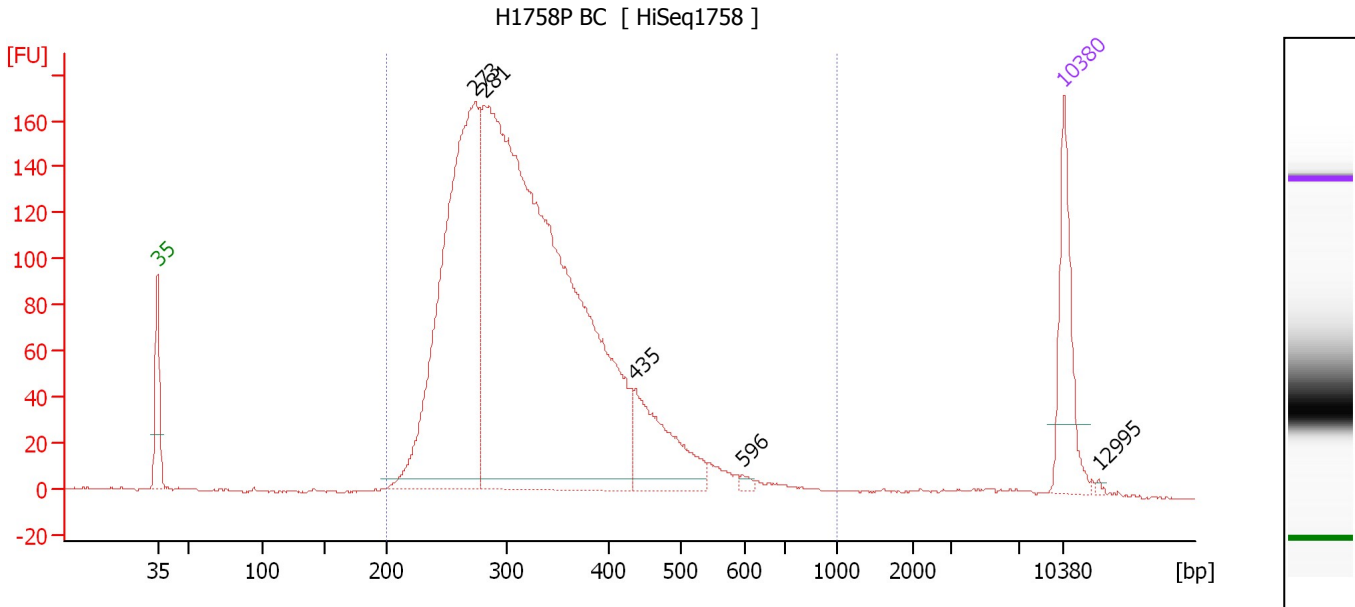
**Peak table for Ladder**

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	45.36
3	100	150.00	2,272.7	Ladder Peak	51.04
4	150	150.00	1,515.2	Ladder Peak	55.89
5	200	150.00	1,136.4	Ladder Peak	60.64
6	300	150.00	757.6	Ladder Peak	69.98
7	400	150.00	568.2	Ladder Peak	77.89
8	500	150.00	454.5	Ladder Peak	83.49
9	600	150.00	378.8	Ladder Peak	88.38
10	700	150.00	324.7	Ladder Peak	91.40
11	1,000	150.00	227.3	Ladder Peak	95.40
12	2,000	150.00	113.6	Ladder Peak	101.40
13	3,000	150.00	75.8	Ladder Peak	104.33
14	7,000	150.00	32.5	Ladder Peak	109.53
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
 Modified: 4/18/2019 11:15:15 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : H1758P BC**

Number of peaks found: 5                      Corr. Area 1: 3,021.8  
 Noise: 0.4

**Peak table for sample 1 : H1758P 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	273	661.40	3,664.7		67.50
3	281	1,436.99	7,741.5		68.23
4	435	124.29	432.7		79.86
5	596	4.54	11.6		88.18
6	10,380	75.00	10.9	Upper Marker	113.00
7	12,995	0.00	0.0		115.68

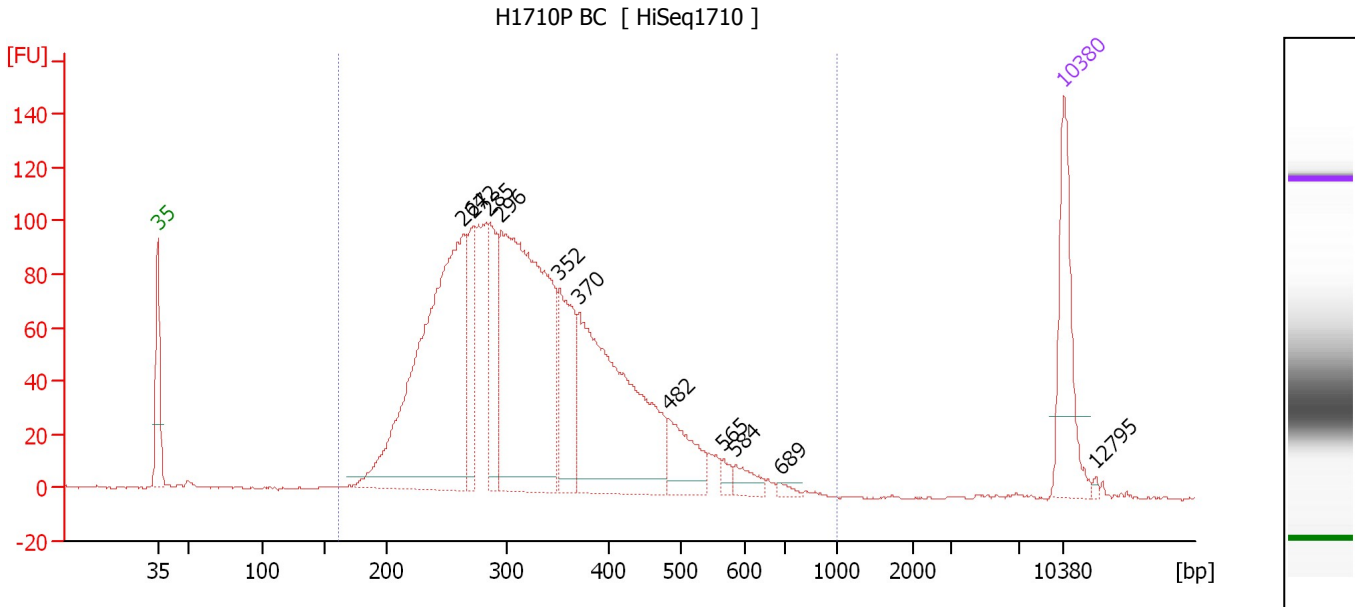
**Region table for sample 1 : H1758P BC**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	332	2,161.44	3,021.8	10,568.0	98	25.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
 Modified: 4/18/2019 11:15:15 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : H1710P BC**

Number of peaks found: 11                      Corr. Area 1: 2,372.6  
 Noise: 0.4

**Peak table for sample 2 : H1710P 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	264	513.78	2,948.0		66.62
3	272	73.57	409.9		67.36
4	285	104.37	555.4		68.55
5	296	470.42	2,411.9		69.56
6	352	105.47	454.6		74.06
7	370	319.00	1,306.0		75.52
8	482	60.36	189.6		82.50
9	565	8.75	23.5		86.67
10	584	16.74	43.4		87.59
11	689	4.91	10.8		91.07
12	10,380	75.00	10.9	Upper Marker	113.00
13	12,795	0.00	0.0		115.48

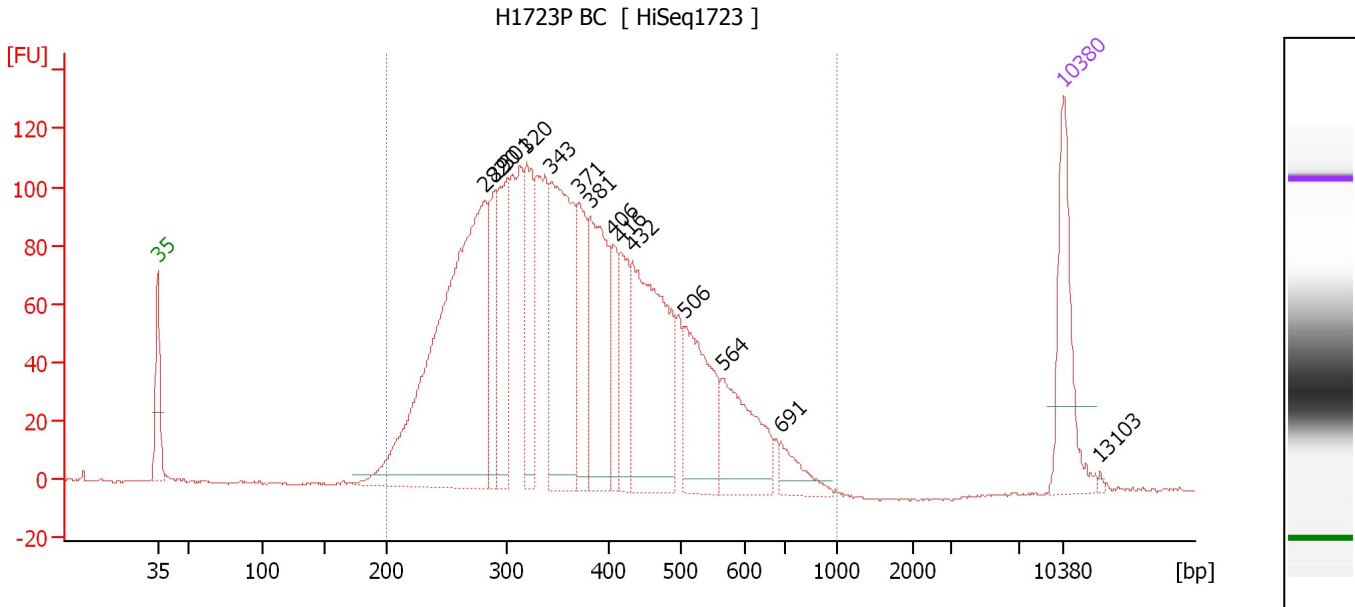
**Region table for sample 2 : H1710P BC**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
161	1,000	333	1,820.03	2,372.6	9,092.7	98	28.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
 Modified: 4/18/2019 11:15:15 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : H1723P BC**

Number of peaks found: 14                      Corr. Area 1: 2,815.7  
 Noise: 0.3

**Peak table for sample 3 : H1723P 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	282	559.02	3,001.1		68.32
3	290	76.54	400.3		69.02
4	301	112.78	568.1		70.04
5	320	107.06	507.5		71.53
6	343	235.45	1,039.6		73.39
7	371	83.46	341.0		75.58
8	381	155.58	618.0		76.42
9	406	52.26	195.0		78.23
10	416	60.88	221.7		78.79
11	432	228.83	802.7		79.68
12	506	122.51	367.0		83.77
13	564	101.37	272.4		86.61
14	691	29.61	64.9		91.13
15	10,380	75.00	10.9	Upper Marker	113.00
16	13,103	0.00	0.0		115.79

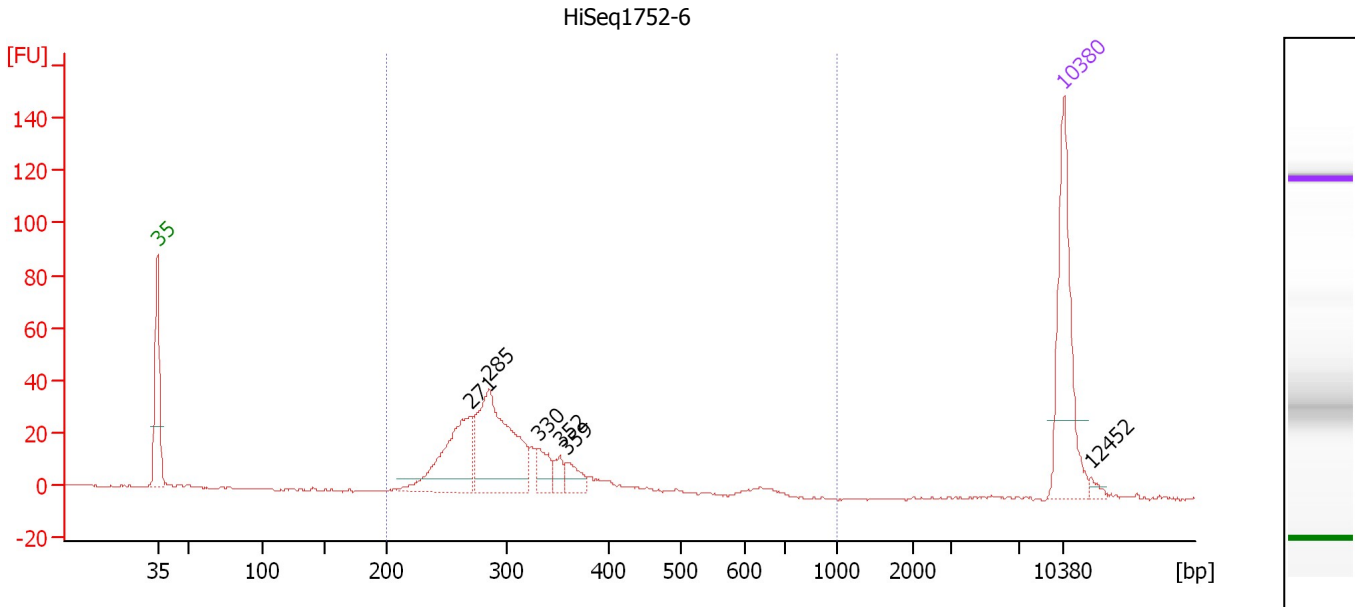
**Region table for sample 3 : H1723P BC**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	376	2,187.40	2,815.7	9,810.7	100	28.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
 Modified: 4/18/2019 11:15:15 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : HiSeq1752-6**

Number of peaks found: 6                      Corr. Area 1: 396.1  
 Noise: 0.3

**Peak table for sample 4 : HiSeq1752-6**

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	271	90.96	509.3		67.23
3	285	137.43	730.0		68.60
4	330	20.47	93.9		72.38
5	352	10.43	44.9		74.08
6	359	16.01	67.6		74.65
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,452	0.00	0.0		115.13

**Region table for sample 4 : HiSeq1752-6**

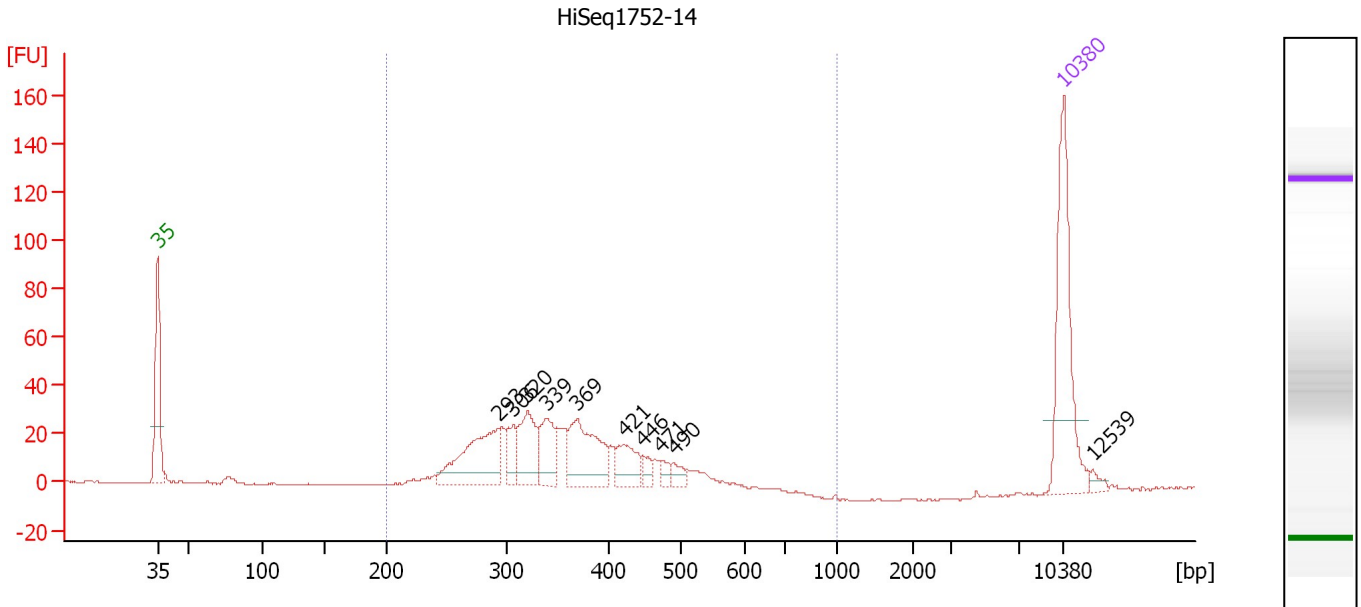
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	308	297.60	396.1	1,525.1	96	21.5



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
 Modified: 4/18/2019 11:15:15 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : HiSeq1752-14**

Number of peaks found: 10                      Corr. Area 1: 499.3  
 Noise: 0.3

**Peak table for sample 5 : HiSeq1752-14**

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	293	76.52	395.6		69.33
3	306	19.77	97.7		70.49
4	320	42.01	199.0		71.55
5	339	34.83	155.5		73.09
6	369	60.77	249.4		75.45
7	421	24.80	89.3		79.06
8	446	7.80	26.5		80.46
9	471	6.52	21.0		81.85
10	490	7.52	23.3		82.91
11	10,380	75.00	10.9	Upper Marker	113.00
12	12,539	0.00	0.0		115.21

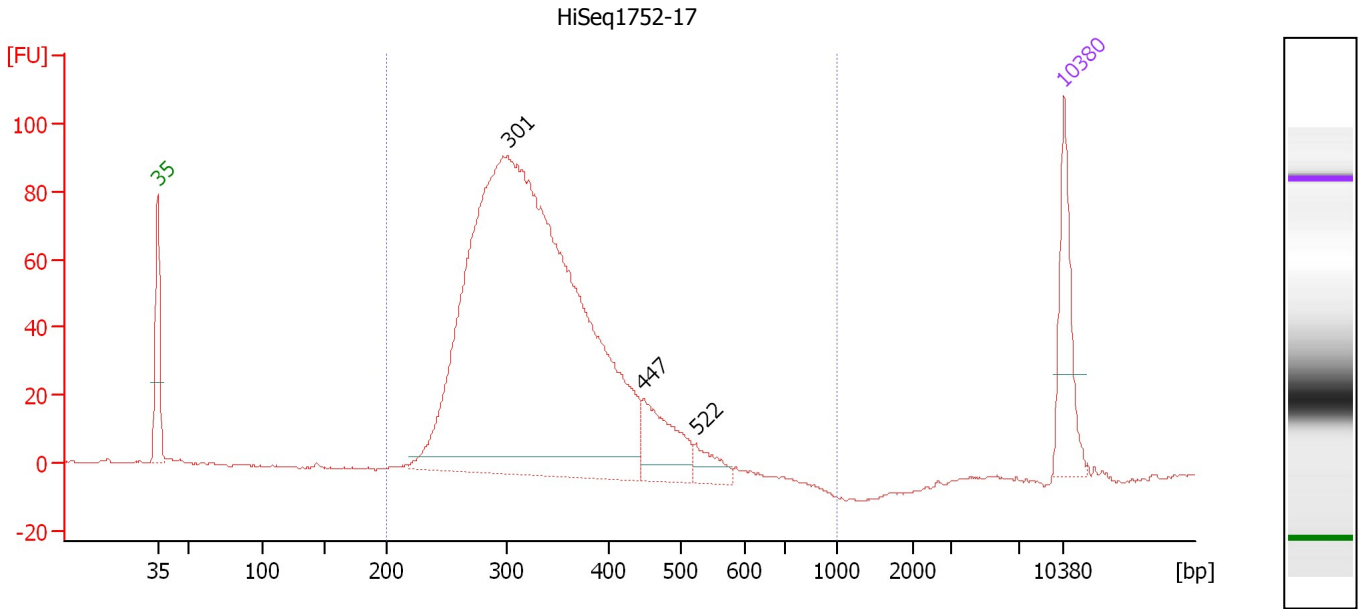
**Region table for sample 5 : HiSeq1752-14**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	355	329.07	499.3	1,477.8	97	19.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
 Modified: 4/18/2019 11:15:15 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : HiSeq1752-17**

Number of peaks found: 3                      Corr. Area 1: 1,371.5  
 Noise: 0.4

**Peak table for sample 6 : HiSeq1752-17**

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	301	1,659.22	8,356.4		70.04
3	447	93.91	318.1		80.54
4	522	30.75	89.2		84.58
5	10,380	75.00	10.9	Upper Marker	113.00

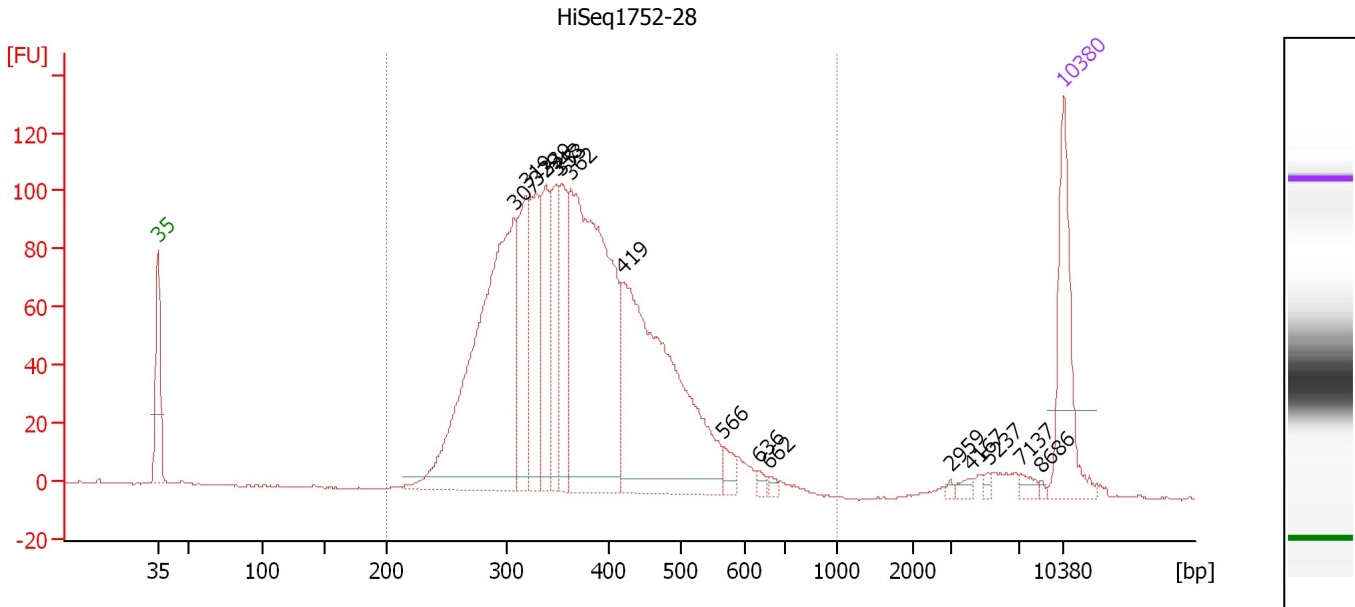
**Region table for sample 6 : HiSeq1752-17**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	333	1,572.85	1,371.5	7,452.9	99	18.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
 Modified: 4/18/2019 11:15:15 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : HiSeq1752-28**

Number of peaks found: 16                      Corr. Area 1: 2,046.8  
 Noise: 0.3

**Peak table for sample 7 : HiSeq1752-28**

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	307	435.14	2,145.7		70.55
3	319	108.24	514.8		71.45
4	329	102.73	472.8		72.29
5	339	90.78	406.2		73.04
6	348	83.77	364.6		73.78
7	353	82.80	355.3		74.18
8	362	398.07	1,663.8		74.92
9	419	355.30	1,285.3		78.94
10	566	12.82	34.3		86.74
11	636	5.45	13.0		89.47
12	662	4.34	9.9		90.26
13	2,959	2.08	1.1		104.21
14	4,167	5.02	1.8		105.85
15	5,237	3.30	1.0		107.24
16	7,137	5.90	1.3		109.67
17	8,686	1.73	0.3		111.26
18	10,380	75.00	10.9	Upper Marker	113.00

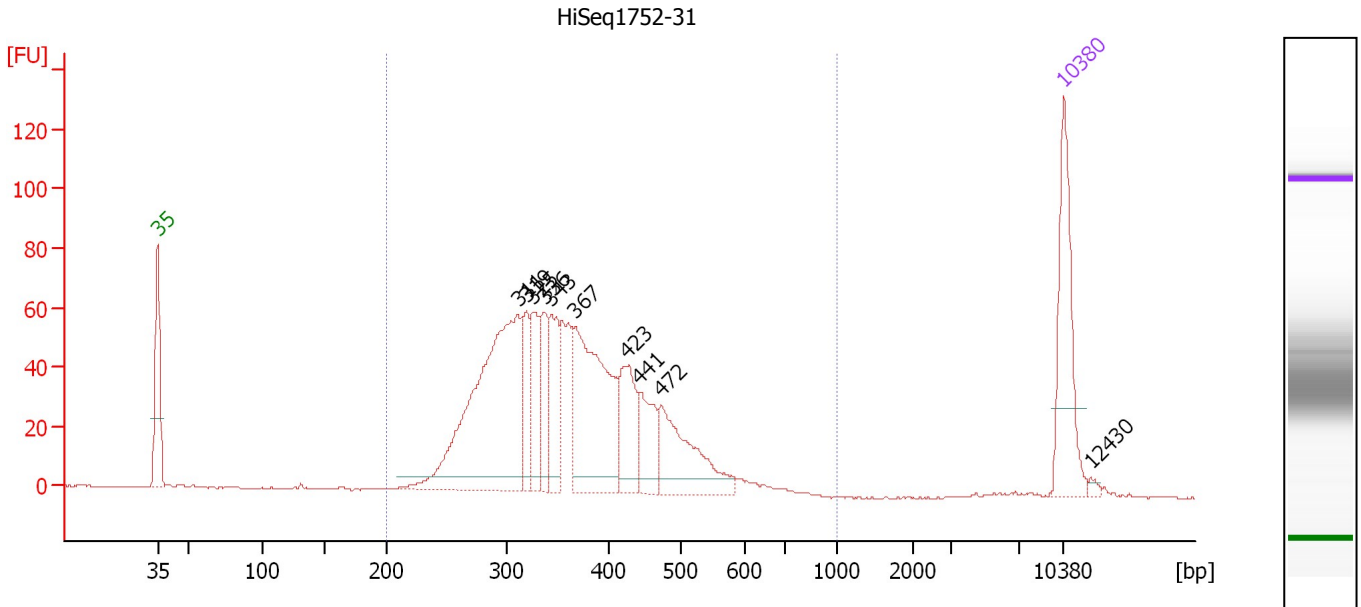
**Region table for sample 7 : HiSeq1752-28**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	375	1,681.83	2,046.8	7,223.7	97	22.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
 Modified: 4/18/2019 11:15:15 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : HiSeq1752-31**

Number of peaks found: 10                      Corr. Area 1: 1,161.9  
 Noise: 0.3

**Peak table for sample 8 : HiSeq1752-31**

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	311	321.04	1,564.6		70.84
3	319	49.23	233.7		71.49
4	325	56.32	262.2		71.99
5	336	47.55	214.3		72.84
6	343	63.52	280.4		73.39
7	367	181.60	749.3		75.30
8	423	64.43	230.6		79.20
9	441	47.75	163.9		80.20
10	472	93.63	300.7		81.91
11	10,380	75.00	10.9	Upper Marker	113.00
12	12,430	0.00	0.0		115.10

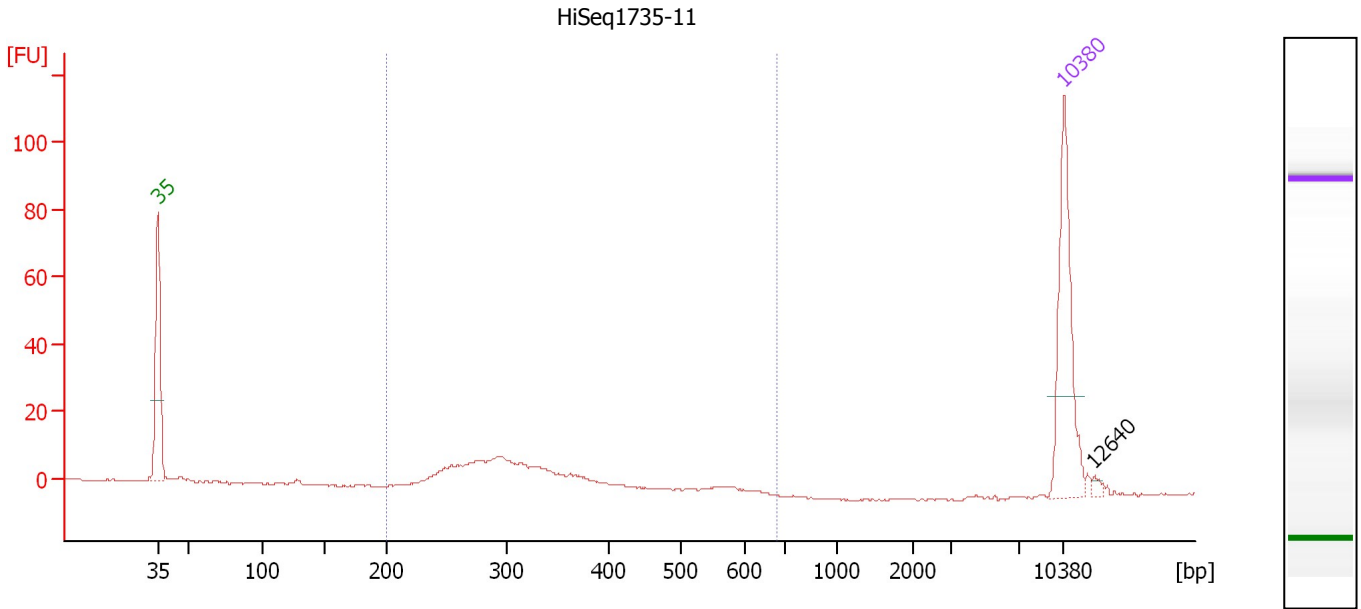
**Region table for sample 8 : HiSeq1752-31**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	367	998.33	1,161.9	4,374.4	98	21.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
 Modified: 4/18/2019 11:15:15 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : HiSeq1735-11**

Number of peaks found: 1                      Corr. Area 1: 94.4  
 Noise: 0.2

**Peak table for sample 9 : HiSeq1735-11**

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	12,640	0.00	0.0		115.32

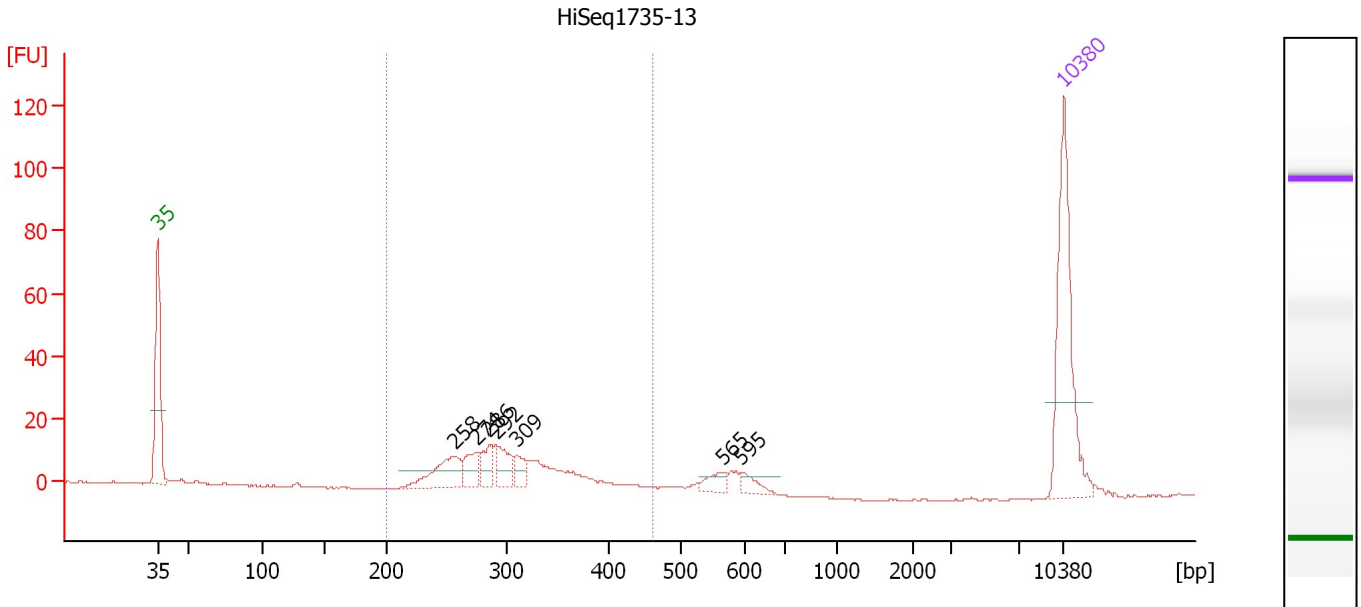
**Region table for sample 9 : HiSeq1735-11**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	680	301	99.01	94.4	508.1	92	13.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
 Modified: 4/18/2019 11:15:15 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : HiSeq1735-13**

Number of peaks found: 7                      Corr. Area 1: 161.5  
 Noise: 0.2

**Peak table for sample 10 : HiSeq1735-13**

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	258	35.99	211.8		66.01
3	274	18.49	102.2		67.58
4	286	15.19	80.6		68.64
5	292	20.35	105.7		69.19
6	309	11.95	58.6		70.71
7	565	9.09	24.4		86.66
8	595	8.02	20.4		88.12
9	10,380	75.00	10.9	Upper Marker	113.00

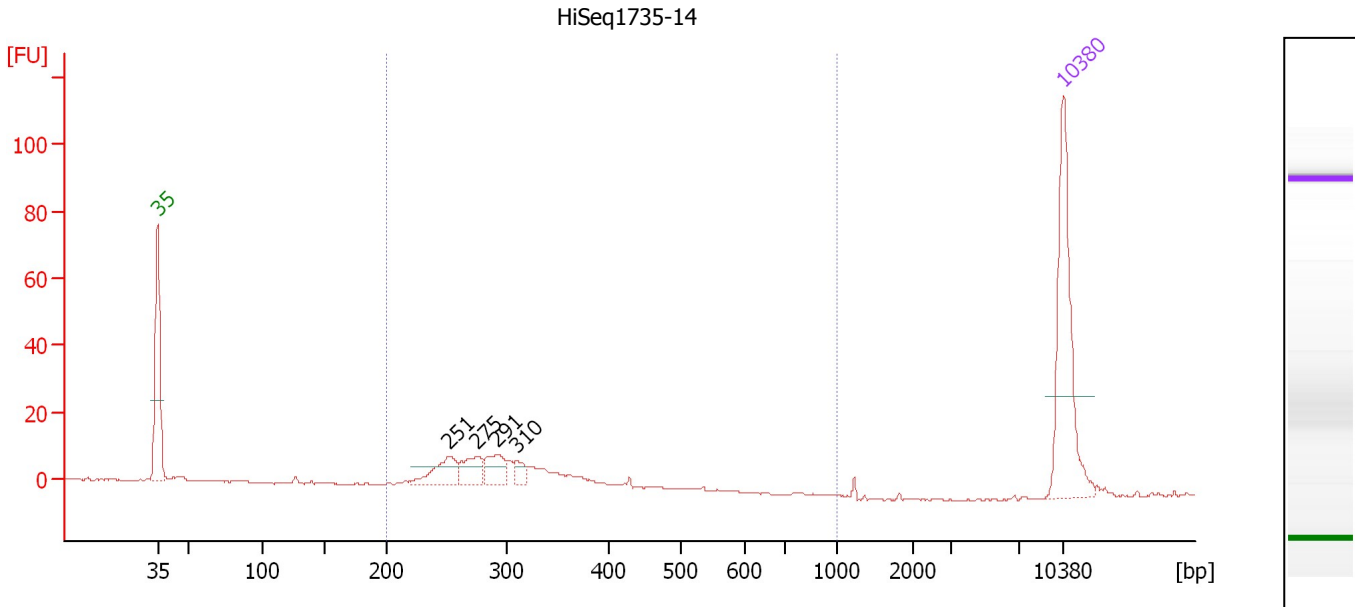
**Region table for sample 10 : HiSeq1735-13**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	460	302	147.24	161.5	757.3	81	14.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
 Modified: 4/18/2019 11:15:15 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : HiSeq1735-14**

Number of peaks found: 4                      Corr. Area 1: 110.8  
 Noise: 0.2

**Peak table for sample 11 : HiSeq1735-14**

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	251	27.16	163.8		65.42
3	275	21.64	119.4		67.60
4	291	20.82	108.3		69.17
5	310	9.06	44.2		70.80
6	10,380	75.00	10.9	Upper Marker	113.00

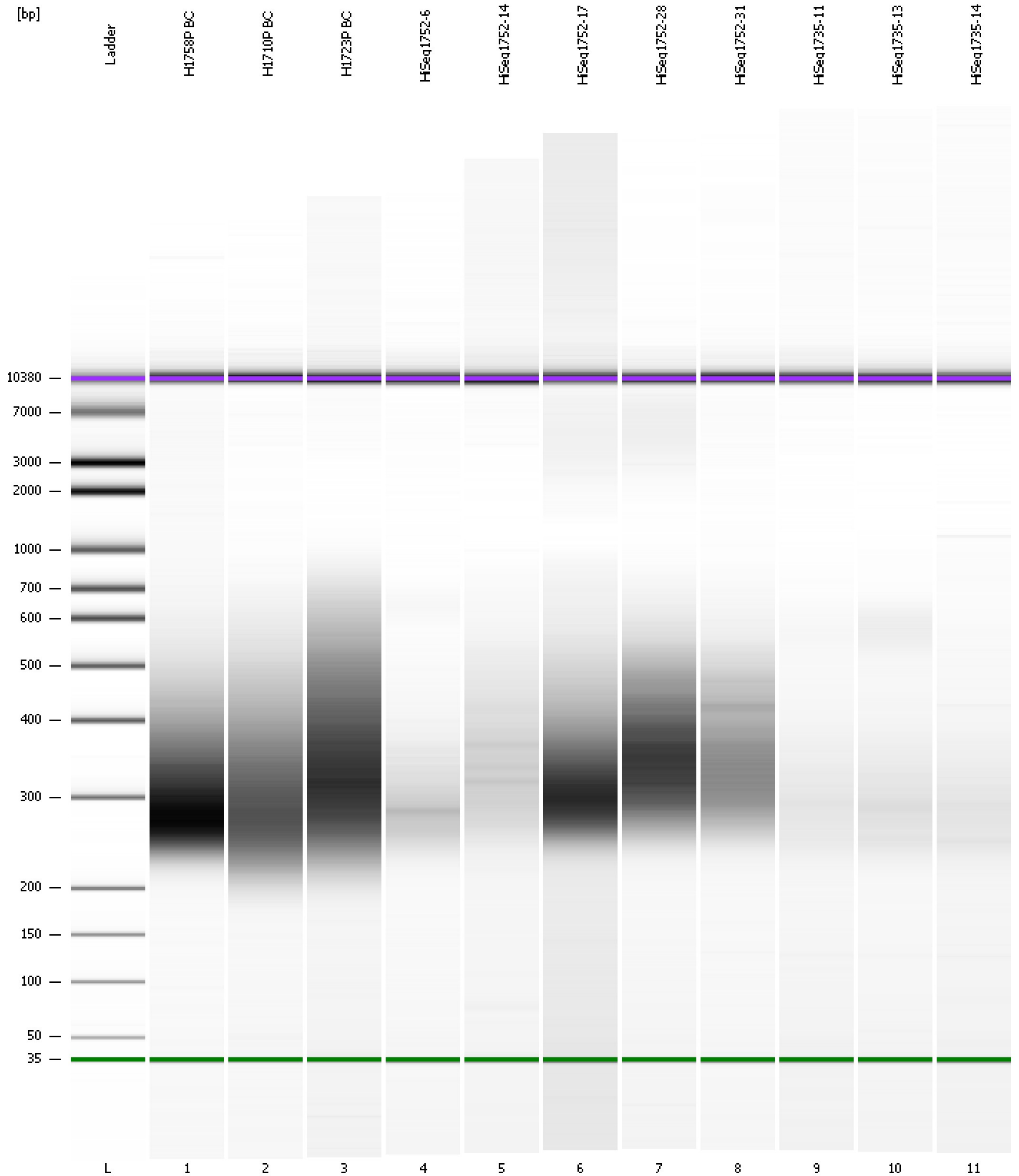
**Region table for sample 11 : HiSeq1735-14**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	295	110.45	110.8	579.4	92	14.1

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
Modified: 4/18/2019 11:15:15 AM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-04-18\2019-04-18\_001.xad

Created: 4/18/2019 10:33:58 AM  
 Modified: 4/18/2019 11:15:15 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		4/18/2019 11:15:14 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\2019-04-18\2019-04-18_001.xad)		Instrument	Run		4/18/2019 10:34:03 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		4/18/2019 10:34:03 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/18/2019 10:34:03 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/18/2019 10:34:03 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		4/18/2019 10:34:03 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/18/2019 10:34:03 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/18/2019 10:34:03 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1