

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
Modified: 11/20/2015 4:31:44 PM

**Electrophoresis File Run Summary**

Instrument Information:

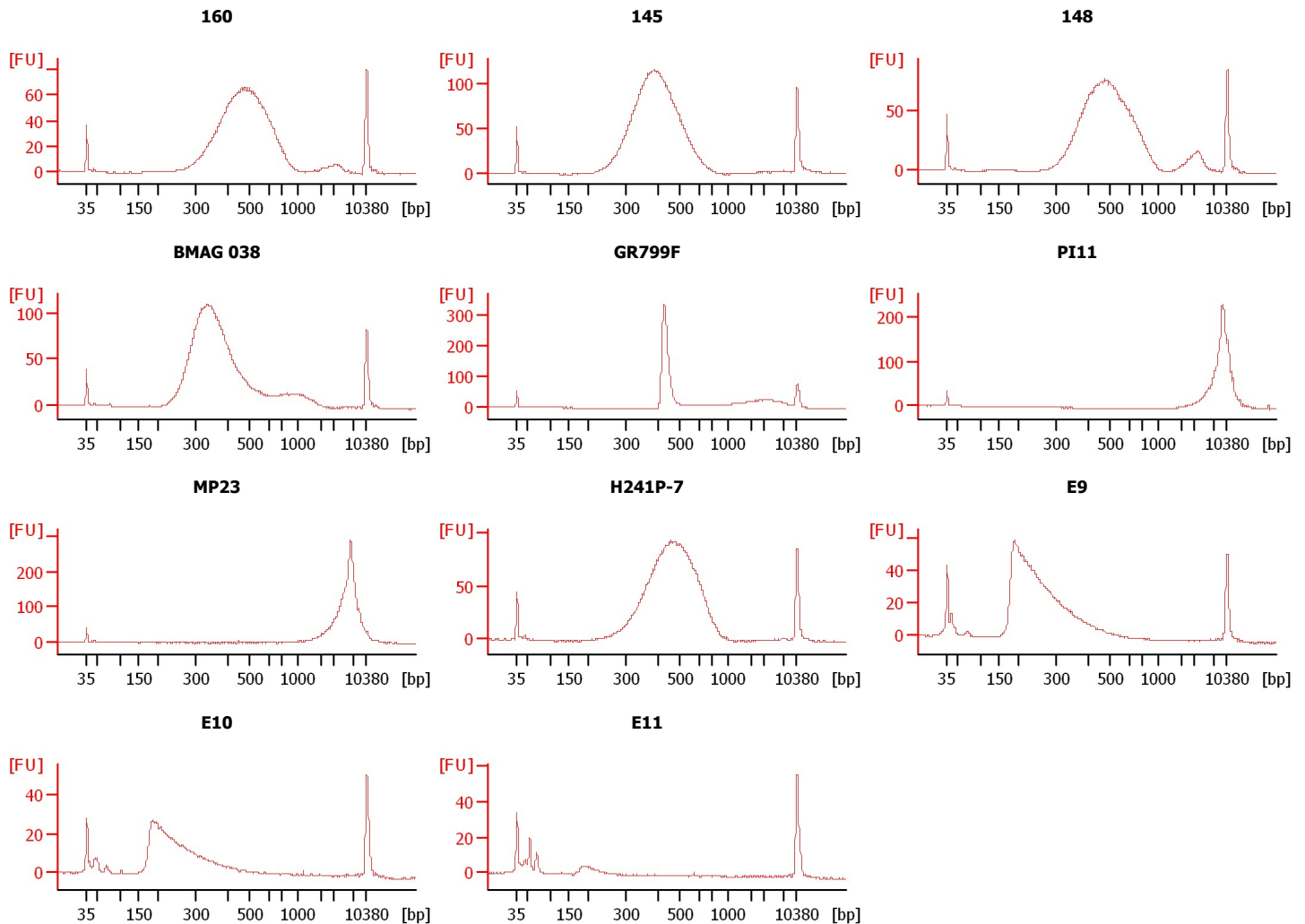
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
Modified: 11/20/2015 4:31:44 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
160		<input type="checkbox"/>	✓			
145		<input type="checkbox"/>	✓			
148		<input type="checkbox"/>	✓			
BMAG 038		<input type="checkbox"/>	✓			
GR799F		<input type="checkbox"/>	✓			
PI11		<input type="checkbox"/>	✓			
MP23		<input type="checkbox"/>	✓			
H241P-7		<input type="checkbox"/>	✓			
E9		<input type="checkbox"/>	✓			
E10		<input type="checkbox"/>	✓			
E11		<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\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
Modified: 11/20/2015 4:31:44 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

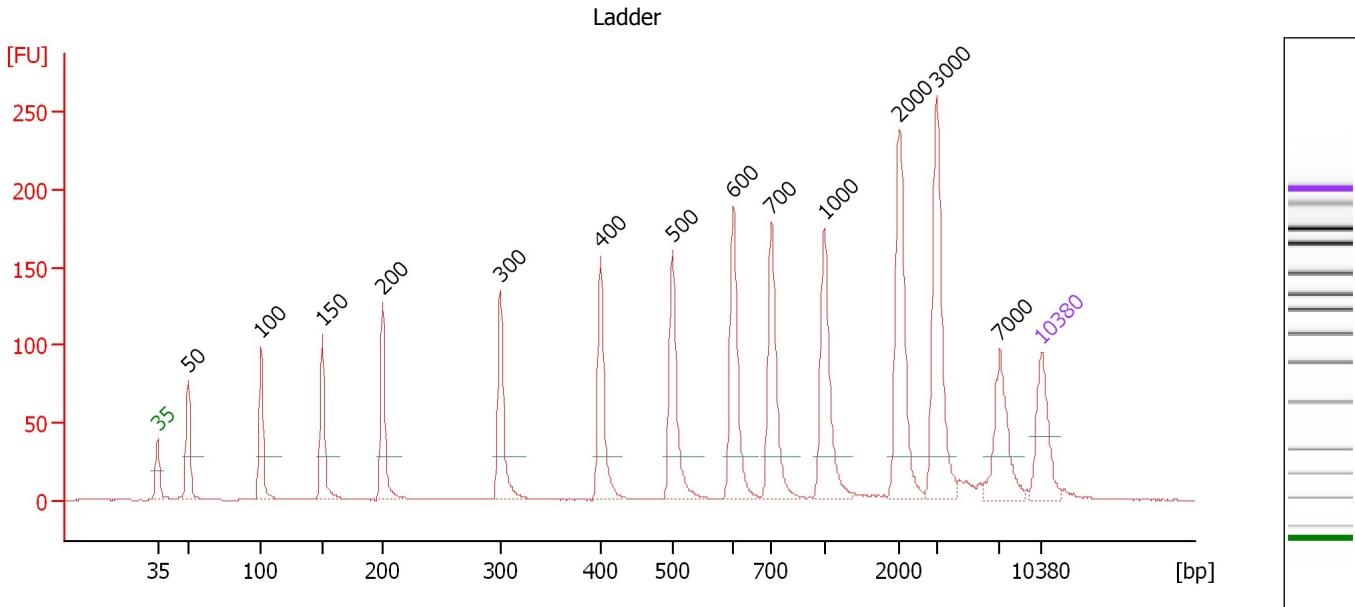
**Ladder**

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\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
 Modified: 11/20/2015 4:31:44 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

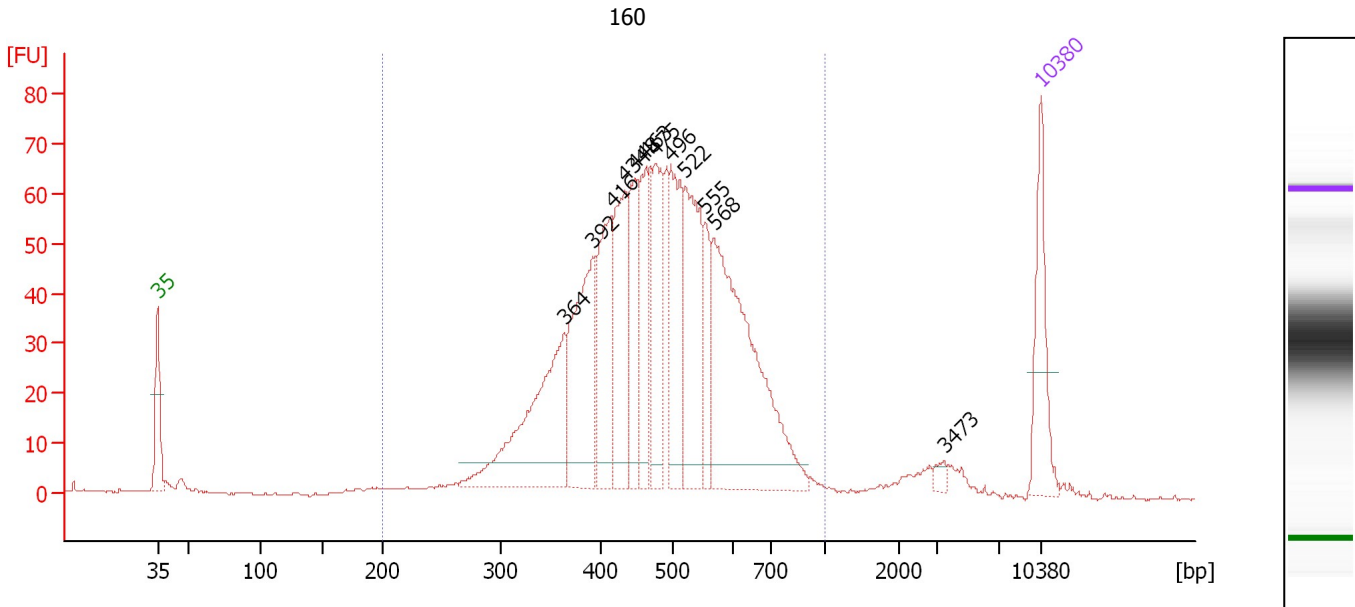
**Peak table for Ladder**

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	45.43
3	100	150.00	2,272.7	Ladder Peak	51.22
4	150	150.00	1,515.2	Ladder Peak	56.04
5	200	150.00	1,136.4	Ladder Peak	60.82
6	300	150.00	757.6	Ladder Peak	70.15
7	400	150.00	568.2	Ladder Peak	78.09
8	500	150.00	454.5	Ladder Peak	83.79
9	600	150.00	378.8	Ladder Peak	88.61
10	700	150.00	324.7	Ladder Peak	91.64
11	1,000	150.00	227.3	Ladder Peak	95.82
12	2,000	150.00	113.6	Ladder Peak	101.79
13	3,000	150.00	75.8	Ladder Peak	104.73
14	7,000	150.00	32.5	Ladder Peak	109.74
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
 Modified: 11/20/2015 4:31:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 160**

Number of peaks found: 12                      Corr. Area 1: 1,237.9  
 Noise: 0.2

**Peak table for sample 1 : 160**

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	364	244.01	1,016.1		75.22
3	392	201.01	776.6		77.47
4	416	143.31	522.3		78.99
5	434	152.35	531.5		80.05
6	448	106.72	360.9		80.83
7	463	102.74	336.0		81.70
8	475	128.24	408.7		82.39
9	496	151.49	462.4		83.58
10	522	176.59	513.0		84.83
11	555	57.84	157.9		86.43
12	568	362.77	967.3		87.08
13	3,473	7.52	3.3		105.32
14	10,380	75.00	10.9	Upper Marker	113.00

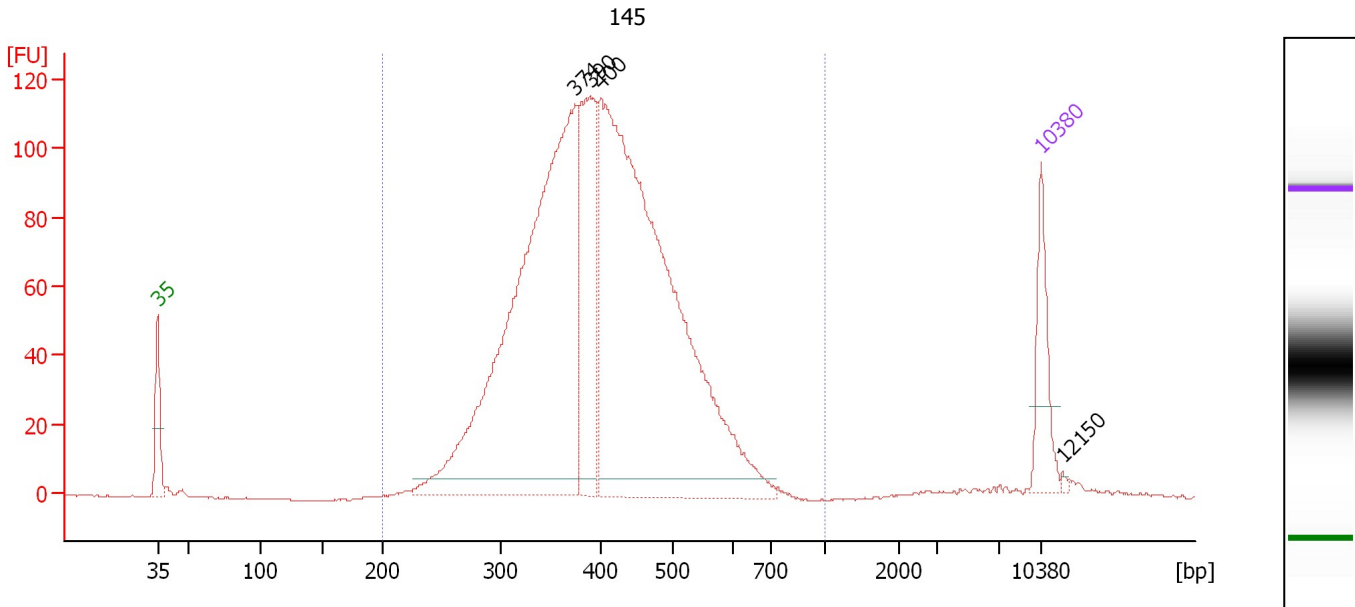
**Region table for sample 1 : 160**

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	484	1,237.9	6,911.9	2,048.31	95	23.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
 Modified: 11/20/2015 4:31:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 145**

Number of peaks found: 4                      Corr. Area 1: 2,052.8  
 Noise: 0.2

**Peak table for sample 2 : 145**

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	374	1,114.85	4,514.5		76.04
3	390	294.61	1,145.0		77.28
4	400	1,279.21	4,840.5		78.12
5	10,380	75.00	10.9	Upper Marker	113.00
6	12,150	0.00	0.0		114.71

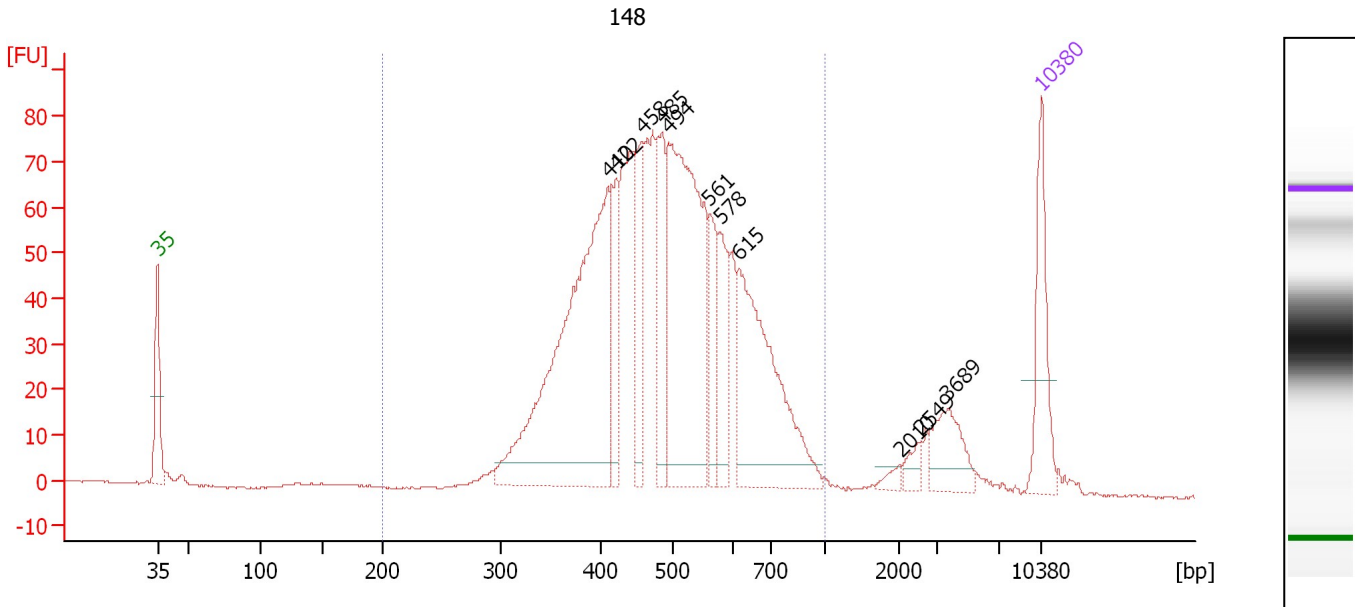
**Region table for sample 2 : 145**

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	407	2,052.8	10,837.5	2,756.38	98	20.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
 Modified: 11/20/2015 4:31:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 148**

Number of peaks found: 11                      Corr. Area 1: 1,416.0  
 Noise: 0.2

**Peak table for sample 3 : 148**

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	410	522.11	1,928.3		78.68
3	422	75.46	271.1		79.33
4	458	88.97	294.0		81.42
5	485	108.00	337.0		82.96
6	494	399.49	1,224.1		83.47
7	561	69.85	188.6		86.73
8	578	74.90	196.2		87.57
9	615	252.86	623.1		89.06
10	2,010	7.48	5.6		101.82
11	2,549	13.83	8.2		103.41
12	3,689	50.56	20.8		105.59
13	10,380	75.00	10.9	Upper Marker	113.00

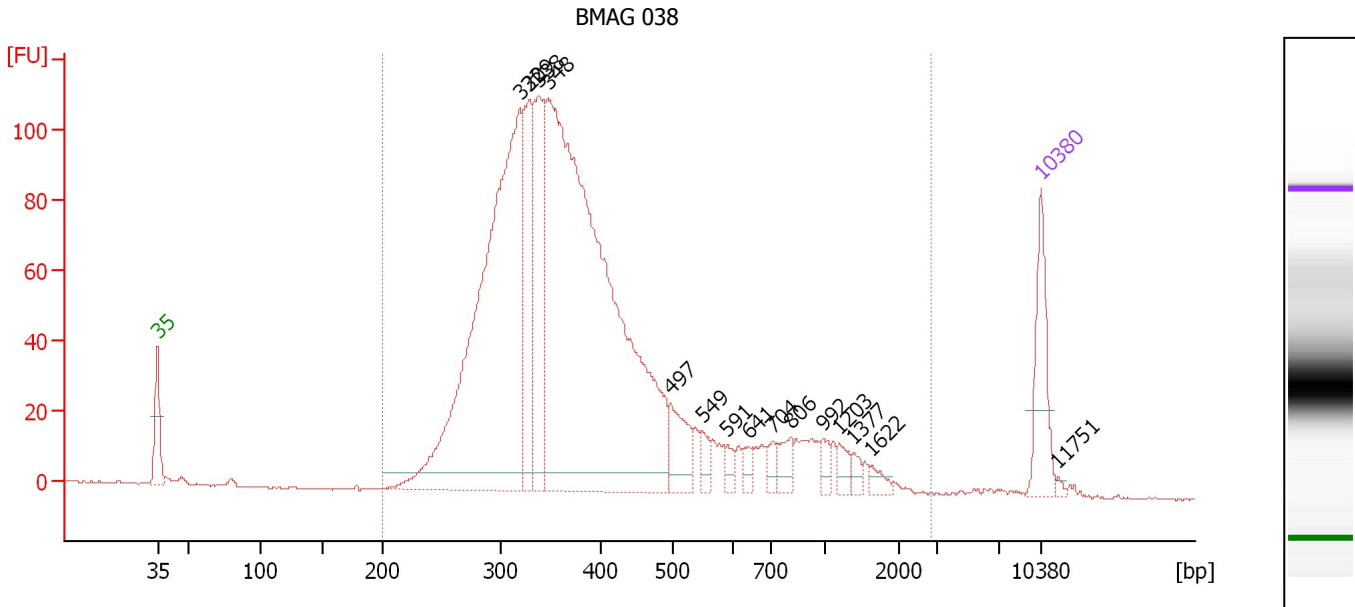
**Region table for sample 3 : 148**

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	499	1,416.0	6,623.2	2,037.42	93	23.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
 Modified: 11/20/2015 4:31:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : BMAG 038**

Number of peaks found: 15                      Corr. Area 1: 1,972.2  
 Noise: 0.2

**Peak table for sample 4 : BMAG 038**

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	320	906.28	4,294.0		71.72
3	329	188.63	869.5		72.43
4	338	209.19	938.8		73.13
5	348	1,307.14	5,695.6		73.94
6	497	66.42	202.5		83.62
7	549	21.79	60.1		86.17
8	591	15.16	38.9		88.16
9	641	15.01	35.5		89.86
10	704	16.59	35.7		91.70
11	806	26.05	49.0		93.11
12	992	15.91	24.3		95.71
13	1,203	16.73	21.1		97.04
14	1,377	11.07	12.2		98.07
15	1,622	12.11	11.3		99.54
16	10,380	75.00	10.9	Upper Marker	113.00
17	11,751	0.00	0.0		114.32

**Region table for sample 4 : BMAG 038**

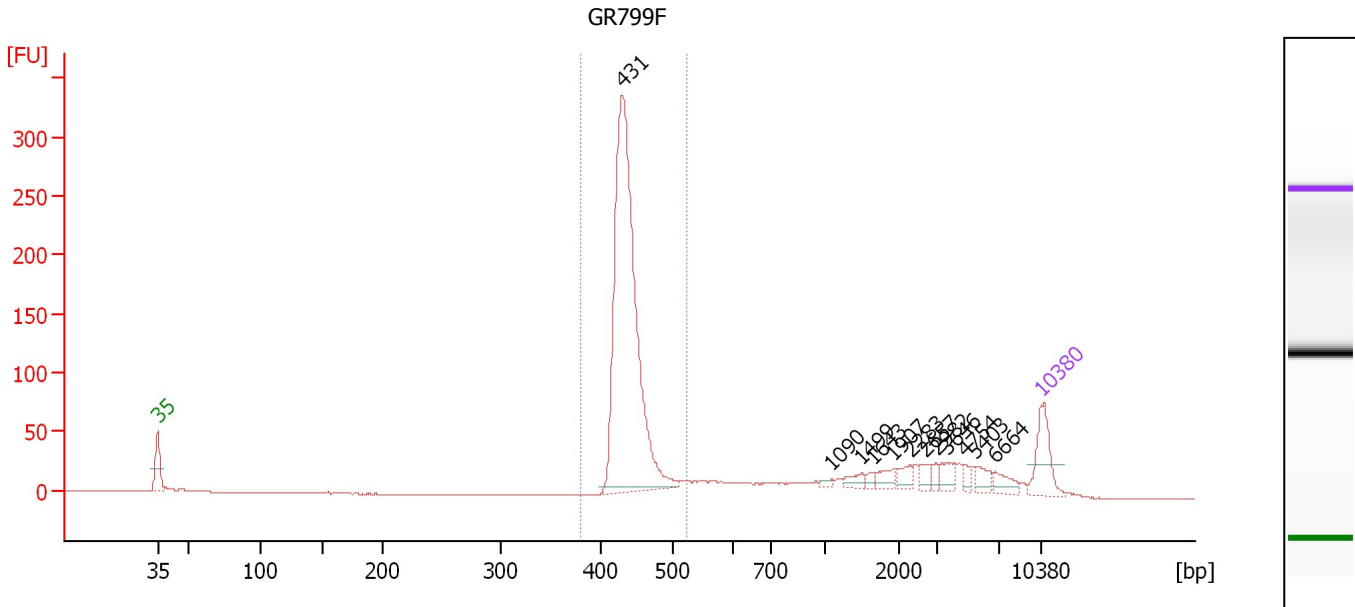
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,843	431	1,972.2	12,075.9	2,887.80	99	55.3



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
 Modified: 11/20/2015 4:31:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : GR799F**

Number of peaks found: 12                      Corr. Area 1: 860.4  
 Noise: 0.2

**Peak table for sample 5 : GR799F**

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	431	1,033.30	3,631.4		79.86
3	1,090	5.90	8.2		96.36
4	1,499	17.52	17.7		98.80
5	1,643	10.00	9.2		99.66
6	1,907	22.33	17.7		101.24
7	2,283	21.97	14.6		102.62
8	2,657	17.82	10.2		103.72
9	2,982	14.48	7.4		104.68
10	3,646	25.16	10.5		105.54
11	4,754	12.51	4.0		106.93
12	5,403	24.91	7.0		107.74
13	6,664	25.69	5.8		109.32
14	10,380	75.00	10.9	Upper Marker	113.00

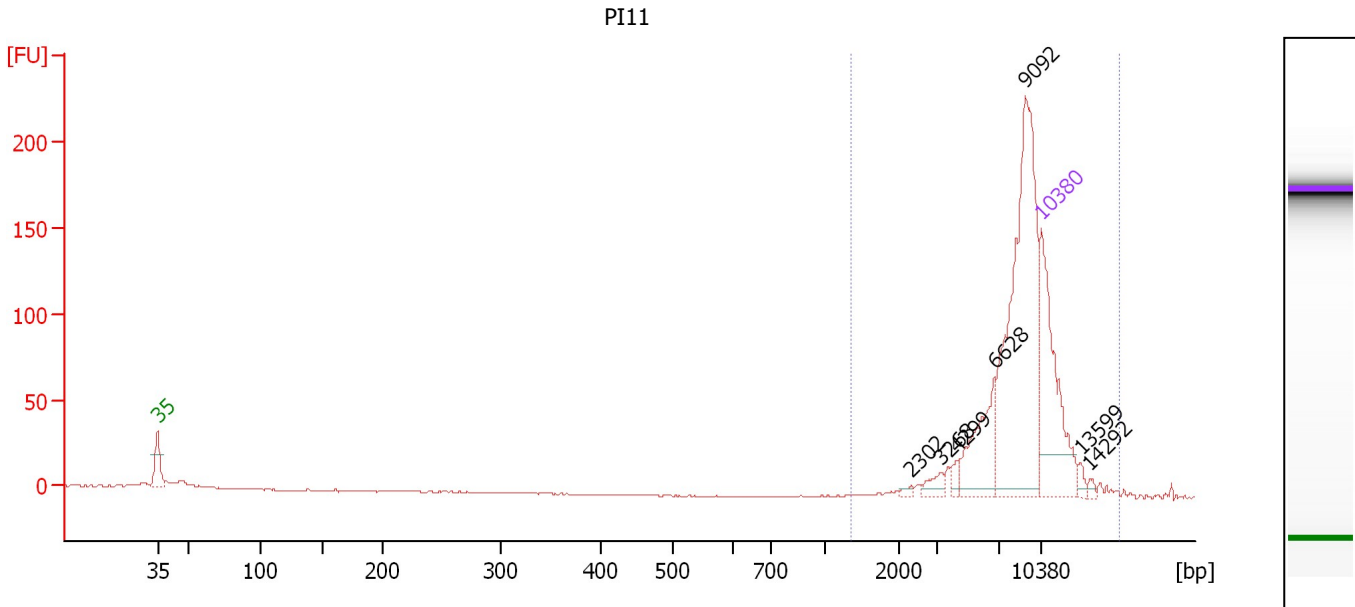
**Region table for sample 5 : GR799F**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
380	524	440	860.4	3,706.7	1,074.85	62	4.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
 Modified: 11/20/2015 4:31:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : PI11**

Number of peaks found: 7                      Corr. Area 1: 655.0  
 Noise: 0.2

**Peak table for sample 6 : PI11**

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	2,302	2.26	1.5		102.68
3	3,268	7.26	3.4		105.07
4	4,299	5.05	1.8		106.36
5	6,628	44.51	10.2		109.27
6	9,092	178.88	29.8		111.76
7	10,380	75.00	10.9	Upper Marker	113.00
8	13,599	0.00	0.0		116.11
9	14,292	0.00	0.0		116.77

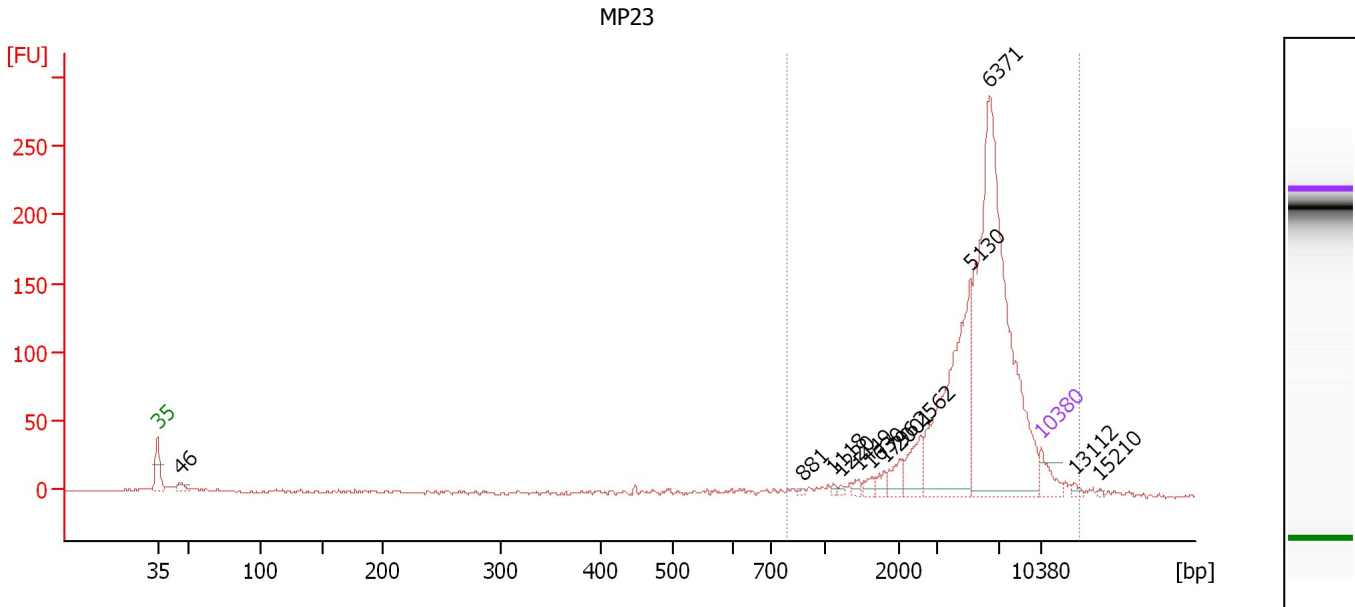
**Region table for sample 6 : PI11**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
1,340	16,840	8,828	655.0	53.6	252.91	93	28.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
 Modified: 11/20/2015 4:31:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : MP23**

Number of peaks found: 13                      Corr. Area 1: 1,225.4  
 Noise: 0.6

**Peak table for sample 7 : MP23**

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	46	46.38	1,517.5		44.84
3	881	8.49	14.6		94.17
4	1,118	12.25	16.6		96.52
5	1,220	11.25	14.0		97.14
6	1,449	21.52	22.5		98.50
7	1,630	32.62	30.3		99.58
8	1,796	30.95	26.1		100.57
9	2,001	67.08	50.8		101.80
10	2,562	121.33	71.8		103.44
11	5,130	763.90	225.6		107.40
12	6,371	1,706.37	405.8		108.95
13	10,380	75.00	10.9	Upper Marker	113.00
14	13,112	0.00	0.0		115.64
15	15,210	0.00	0.0		117.66

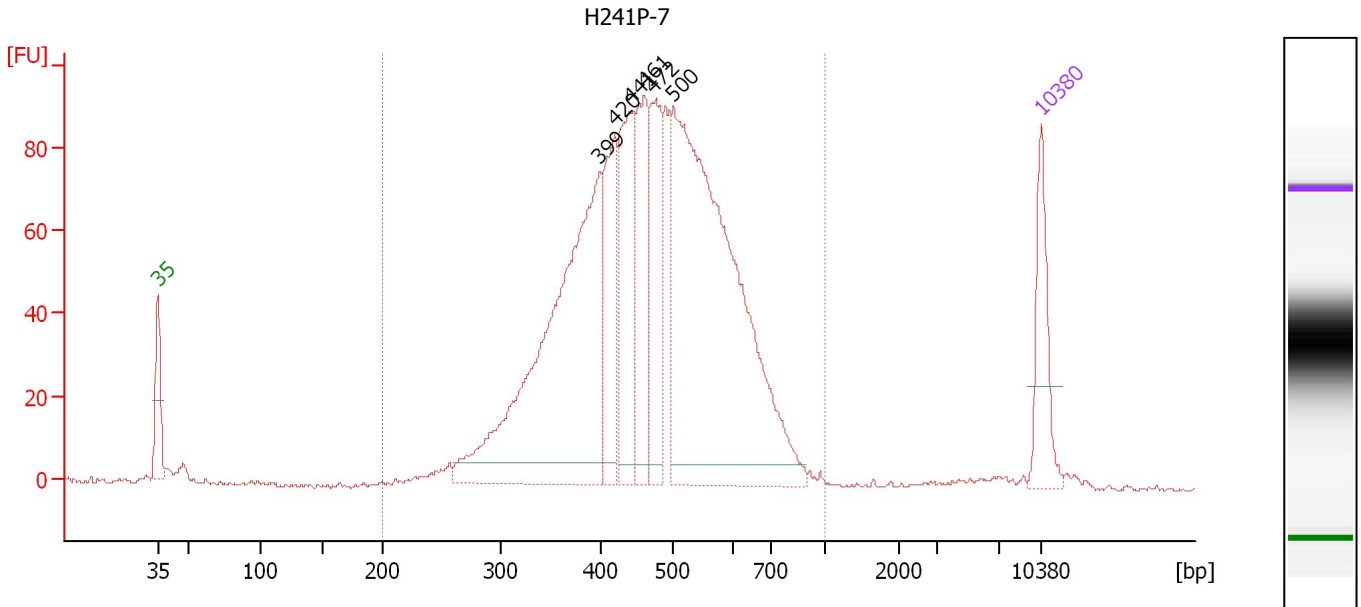
**Region table for sample 7 : MP23**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
789	13,460	5,726	1,225.4	1,012.0	2,873.83	90	41.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
 Modified: 11/20/2015 4:31:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : H241P-7**

Number of peaks found: 6                      Corr. Area 1: 1,737.7  
 Noise: 0.4

**Peak table for sample 8 : H241P-7**

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	399	638.10	2,424.1		78.00
3	420	158.87	573.4		79.22
4	441	201.62	692.4		80.44
5	461	161.36	530.5		81.56
6	472	167.30	536.6		82.22
7	500	843.43	2,555.5		83.79
8	10,380	75.00	10.9	Upper Marker	113.00

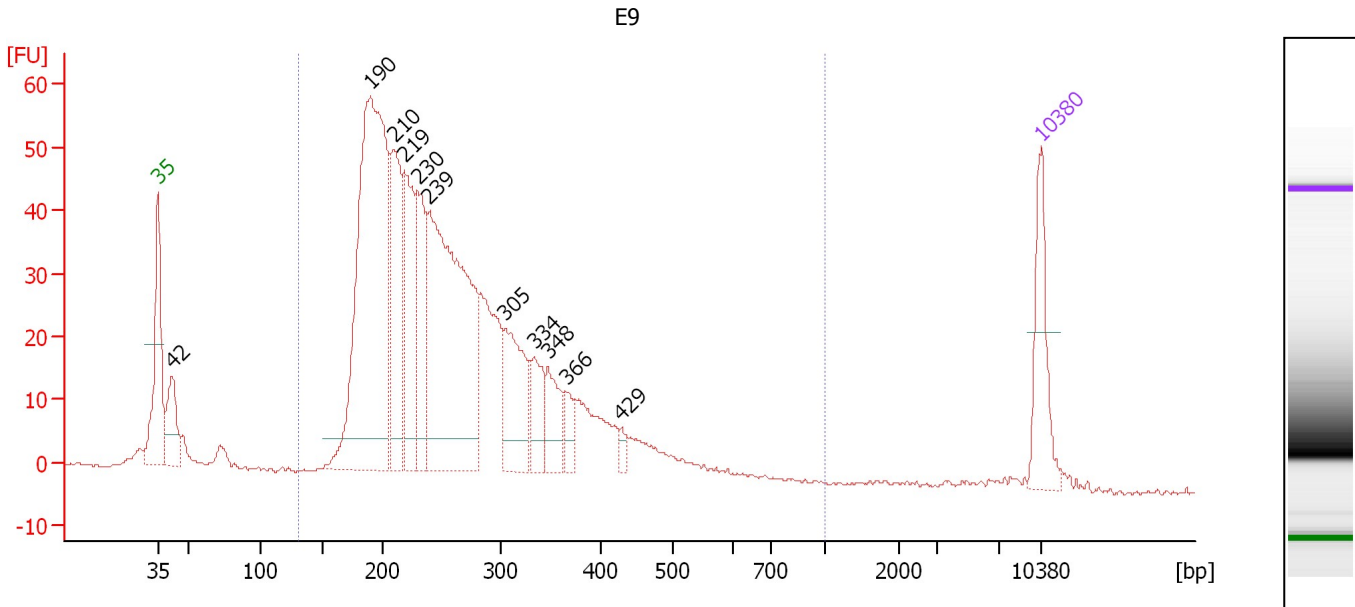
**Region table for sample 8 : H241P-7**

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	475	1,737.7	8,160.8	2,366.63	94	23.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
 Modified: 11/20/2015 4:31:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : E9**

Number of peaks found: 11                      Corr. Area 1: 990.2  
 Noise: 0.3

**Peak table for sample 9 : E9**

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	42	83.90	3,029.9		44.13
3	190	715.31	5,714.7		59.83
4	210	192.62	1,391.3		61.73
5	219	182.86	1,267.6		62.55
6	230	123.02	810.0		63.63
7	239	559.51	3,539.9		64.50
8	305	135.89	676.1		70.51
9	334	60.30	273.8		72.82
10	348	60.76	264.7		73.95
11	366	23.73	98.3		75.38
12	429	11.53	40.7		79.74
13	10,380	75.00	10.9	Upper Marker	113.00

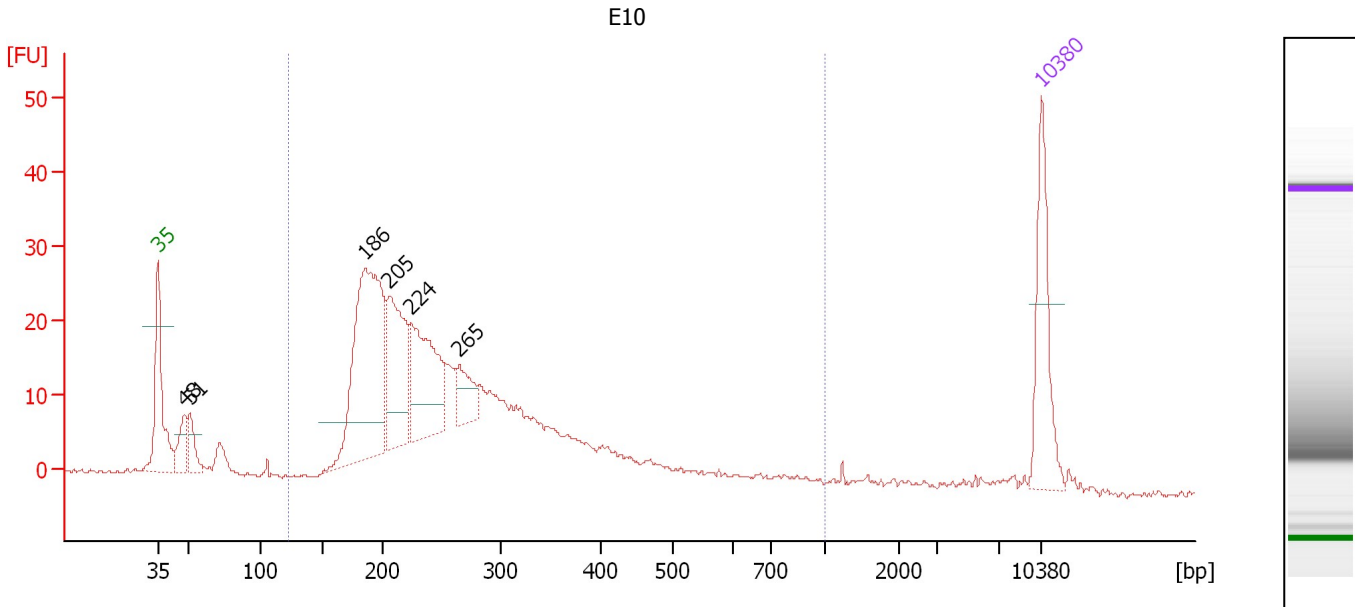
**Region table for sample 9 : E9**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
131	1,000	272	990.2	15,670.5	2,517.71	93	33.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
 Modified: 11/20/2015 4:31:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : E10**

Number of peaks found: 6                      Corr. Area 1: 465.8  
 Noise: 0.3

**Peak table for sample 10 : E10**

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	48	38.08	1,201.5		45.11
3	51	34.88	1,031.6		45.58
4	186	316.80	2,586.6		59.44
5	205	143.76	1,061.9		61.30
6	224	148.56	1,005.3		63.05
7	265	40.88	233.4		66.92
8	10,380	75.00	10.9	Upper Marker	113.00

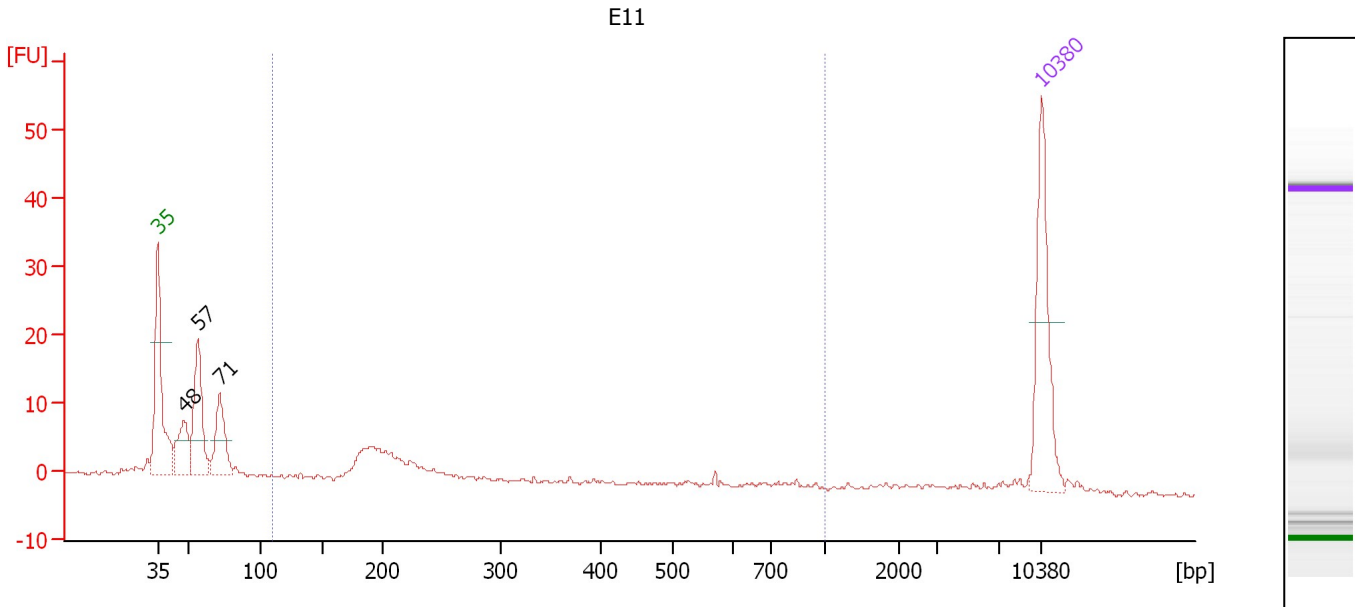
**Region table for sample 10 : E10**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
122	1,000	279	465.8	7,765.3	1,237.70	90	40.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
 Modified: 11/20/2015 4:31:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : E11**

Number of peaks found: 3                      Corr. Area 1: 54.2  
 Noise: 0.4

**Peak table for sample 11 : E11**

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	48	48.41	1,536.9		45.06
3	57	91.17	2,439.8		46.20
4	71	61.20	1,299.9		47.90
5	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 11 : E11**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
109	1,000	305	54.2	900.5	133.80	35	61.0

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
Modified: 11/20/2015 4:31:44 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-20\2015-11-20\_002.xad

Created: 11/20/2015 3:42:50 PM  
 Modified: 11/20/2015 4:31:44 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		11/20/2015 4:24:07 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-11-20\2015-11-20_002.xad)		Instrument	Run		11/20/2015 3:42:55 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		11/20/2015 3:42:55 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/20/2015 3:42:55 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/20/2015 3:42:55 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		11/20/2015 3:42:55 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/20/2015 3:42:55 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/20/2015 3:42:55 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1