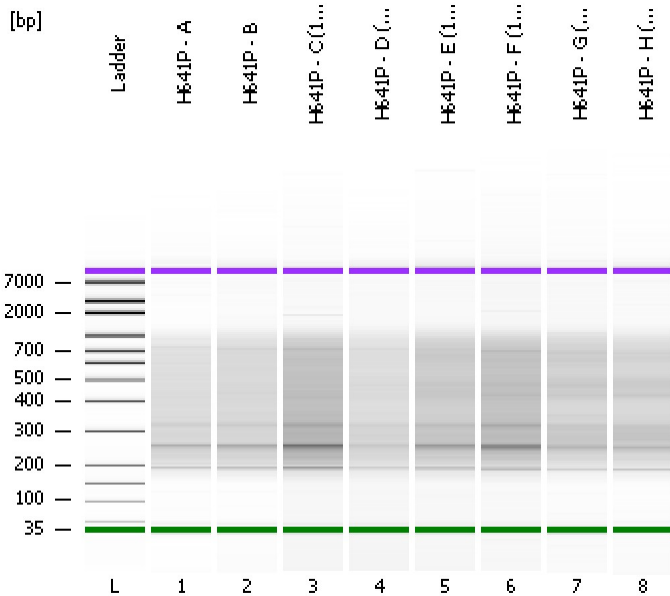


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
Modified: 11/21/2016 10:13:35 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

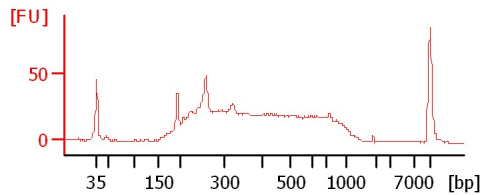
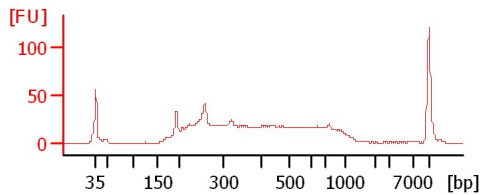
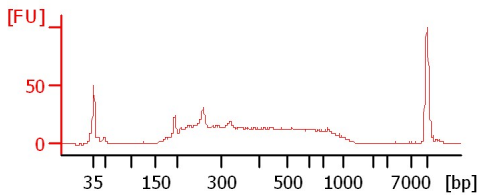
Chip Information:

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

**H641P - A**

**H641P - B**

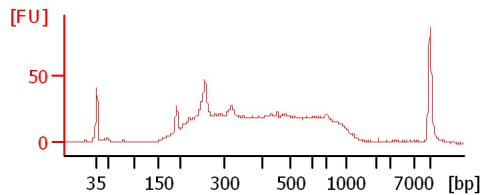
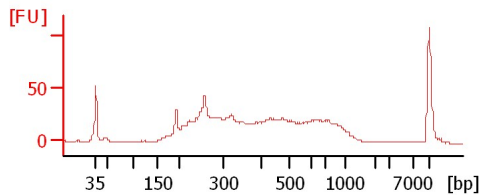
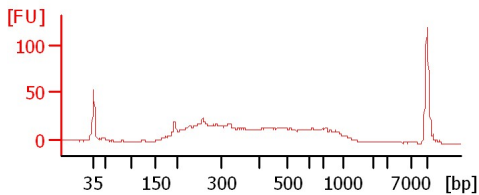
**H641P - C (1:2)**



**H641P - D (1:2)**

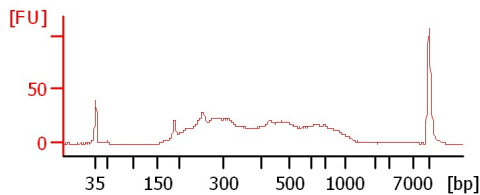
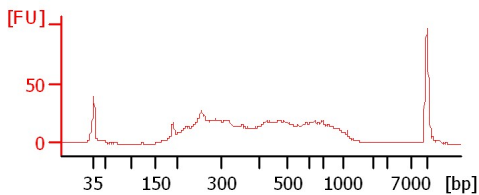
**H641P - E (1:2)**

**H641P - F (1:5)**



**H641P - G (1:2)**

**H641P - H (1:5)**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
Modified: 11/21/2016 10:13:35 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
H641P - A		<input type="checkbox"/>	✓			
H641P - B		<input type="checkbox"/>	✓			
H641P - C (1:2)		<input type="checkbox"/>	✓			
H641P - D (1:2)		<input type="checkbox"/>	✓			
H641P - E (1:2)		<input type="checkbox"/>	✓			
H641P - F (1:5)		<input type="checkbox"/>	✓			
H641P - G (1:2)		<input type="checkbox"/>	✓			
H641P - H (1:5)		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
Modified: 11/21/2016 10:13:35 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

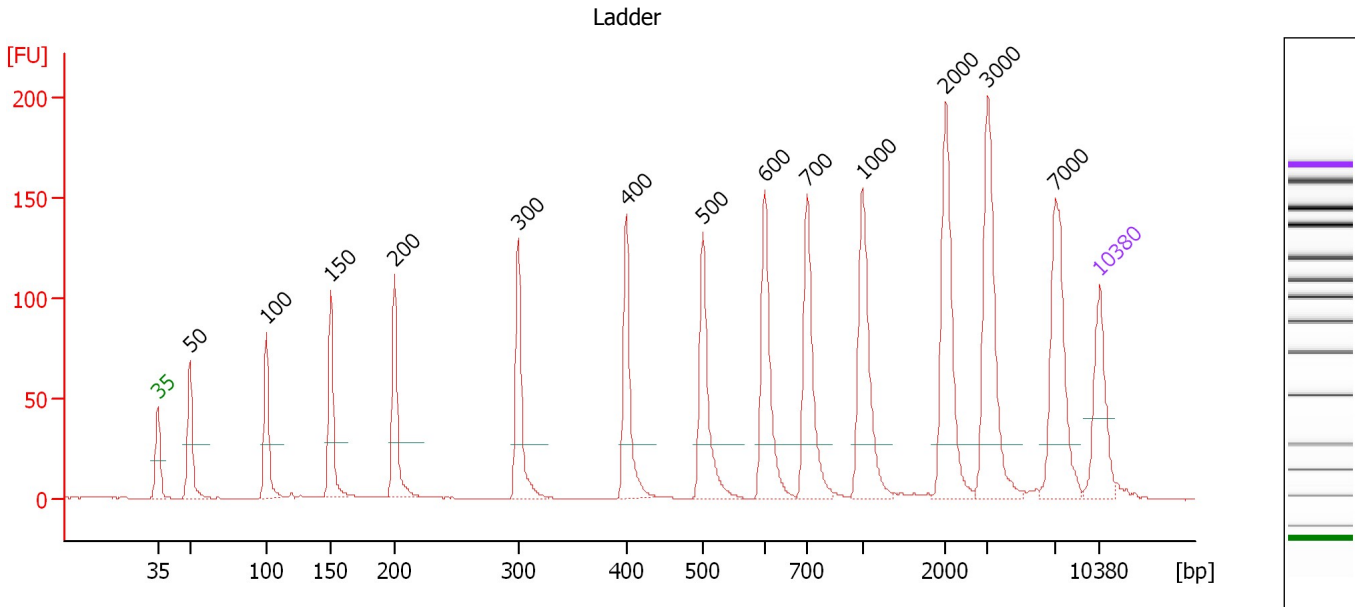
**Ladder**

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:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
 Modified: 11/21/2016 10:13:35 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

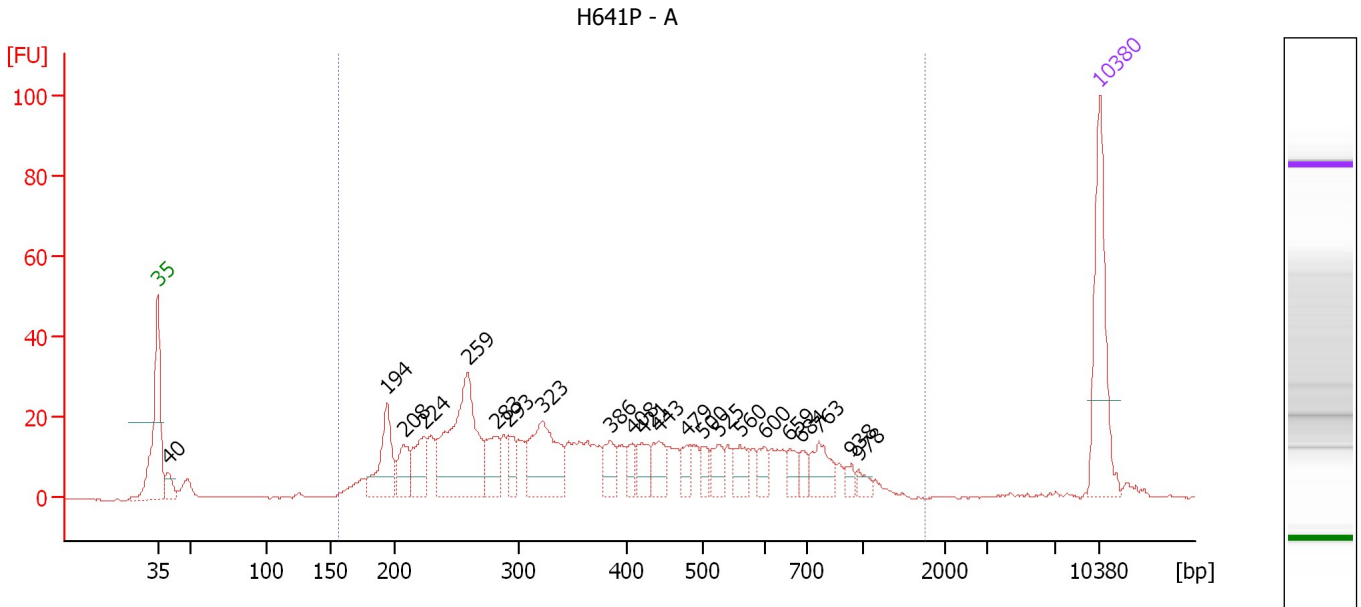
**Peak table for Ladder**

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	45.38
3	100	150.00	2,272.7	Ladder Peak	51.08
4	150	150.00	1,515.2	Ladder Peak	55.83
5	200	150.00	1,136.4	Ladder Peak	60.59
6	300	150.00	757.6	Ladder Peak	69.75
7	400	150.00	568.2	Ladder Peak	77.78
8	500	150.00	454.5	Ladder Peak	83.52
9	600	150.00	378.8	Ladder Peak	88.13
10	700	150.00	324.7	Ladder Peak	91.25
11	1,000	150.00	227.3	Ladder Peak	95.36
12	2,000	150.00	113.6	Ladder Peak	101.56
13	3,000	150.00	75.8	Ladder Peak	104.68
14	7,000	150.00	32.5	Ladder Peak	109.73
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
 Modified: 11/21/2016 10:13:35 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : H641P - A**

Number of peaks found: 22                      Corr. Area 1: 691.5  
 Noise: 0.2

**Peak table for sample 1 : H641P - A**

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	40	17.84	680.5		43.75
3	194	63.59	496.0		60.04
4	208	33.17	242.0		61.29
5	224	40.70	275.3		62.79
6	259	153.51	896.5		66.03
7	283	36.09	192.9		68.23
8	293	20.18	104.5		69.08
9	323	84.08	394.7		71.58
10	386	23.42	92.0		76.63
11	408	13.77	51.1		78.22
12	421	20.18	72.7		78.97
13	443	26.39	90.4		80.22
14	479	12.74	40.3		82.32
15	500	12.27	37.2		83.52
16	525	18.40	53.1		84.67
17	560	20.46	55.4		86.27
18	600	13.51	34.1		88.12
19	659	13.00	29.9		89.97
20	684	9.69	21.4		90.77
21	763	28.34	56.3		92.11
22	938	7.38	11.9		94.51
23	978	7.57	11.7		95.06
24	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
Modified: 11/21/2016 10:13:35 AM

**Electropherogram Summary Continued ...**

... Region table for sample 1 :

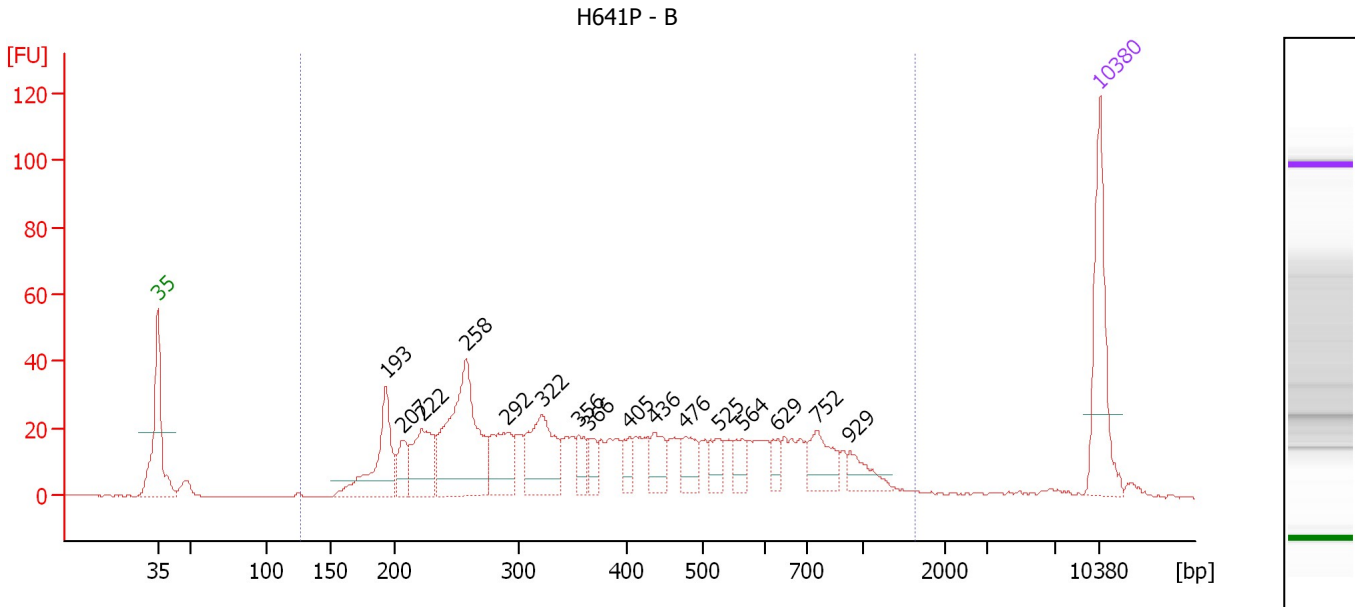
**H641P - A**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
157	1,739	426	691.5	4,475.3	■ 943.48	94	50.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
 Modified: 11/21/2016 10:13:35 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : H641P - B**

Number of peaks found: 16                      Corr. Area 1: 920.6  
 Noise: 0.2

**Peak table for sample 2 : H641P - B**

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	193	97.47	764.1		59.95
3	207	31.76	232.7		61.21
4	222	70.50	480.8		62.62
5	258	182.29	1,070.8		65.90
6	292	59.62	309.9		68.97
7	322	88.87	417.7		71.54
8	356	21.95	93.4		74.27
9	366	16.99	70.3		75.07
10	405	15.83	59.2		78.05
11	436	30.72	106.7		79.87
12	476	26.42	84.1		82.14
13	525	20.26	58.5		84.66
14	564	19.06	51.2		86.47
15	629	13.66	32.9		89.04
16	752	38.09	76.7		91.97
17	929	21.40	34.9		94.39
18	10,380	75.00	10.9	Upper Marker	113.00

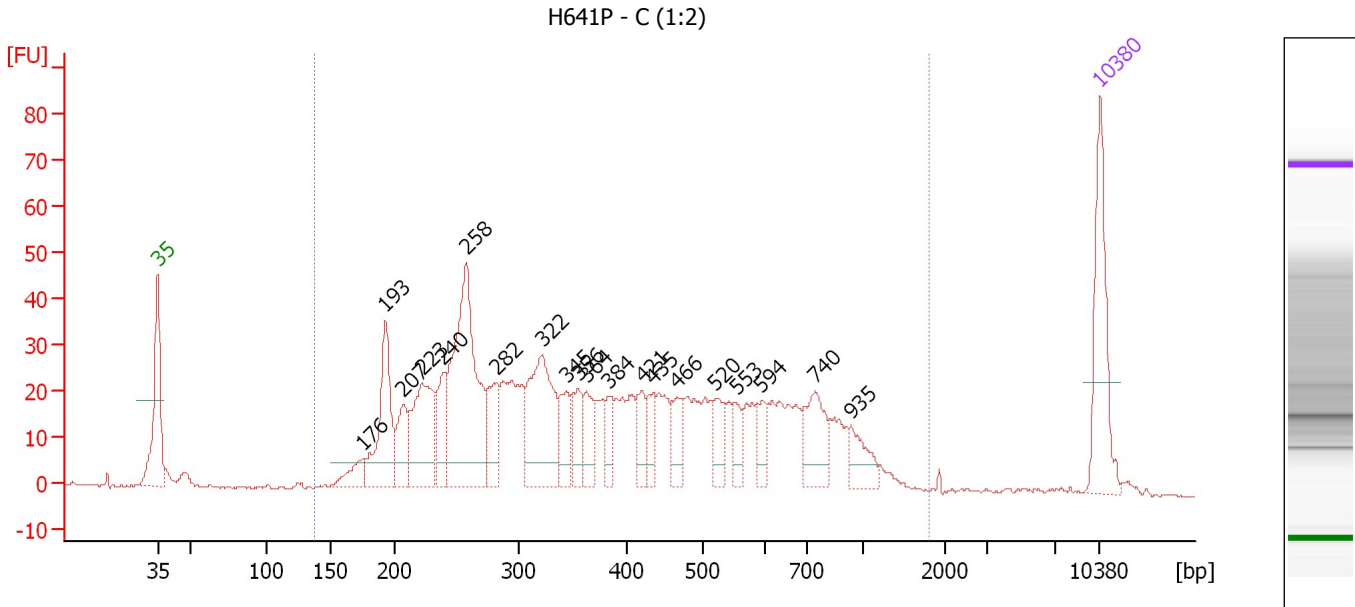
**Region table for sample 2 : H641P - B**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
126	1,635	441	920.6	4,966.2	1,058.26	96	52.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
 Modified: 11/21/2016 10:13:35 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : H641P - C (1:2)**

Number of peaks found: 20                      Corr. Area 1: 1,043.3  
 Noise: 0.3

**Peak table for sample 3 : H641P - C (1:2)**


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	176	25.54	220.0		58.29
3	193	108.01	847.2		59.94
4	207	45.24	331.3		61.22
5	223	108.09	734.0		62.71
6	240	45.40	286.7		64.25
7	258	238.46	1,401.2		65.89
8	282	55.03	295.1		68.15
9	322	134.30	631.6		71.53
10	345	34.88	153.4		73.33
11	356	30.29	128.9		74.25
12	364	32.84	136.8		74.87
13	384	26.95	106.5		76.46
14	421	28.53	102.7		78.98
15	435	24.41	85.0		79.80
16	466	26.14	84.9		81.59
17	520	24.45	71.2		84.47
18	553	19.04	52.2		85.95
19	594	21.44	54.7		87.85
20	740	54.40	111.3		91.80
21	935	27.98	45.3		94.47
22	10,380	75.00	10.9	Upper Marker	113.00



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
Modified: 11/21/2016 10:13:35 AM

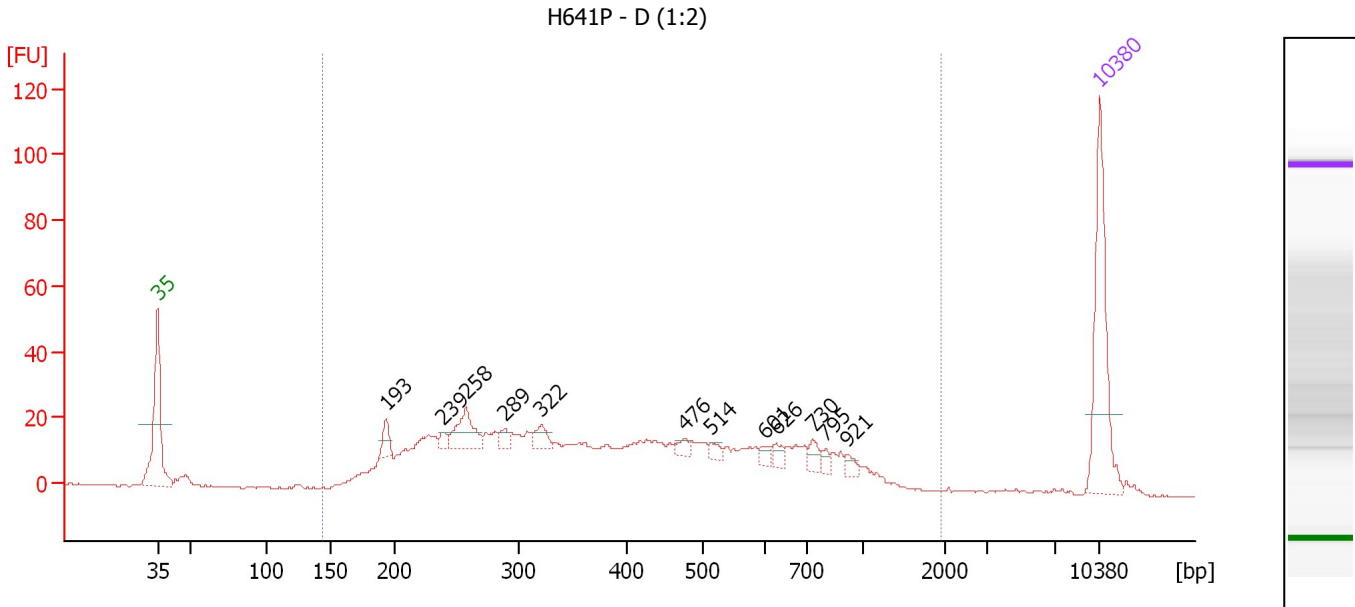
**Electropherogram Summary Continued ...****... Region table for sample 3 :      H641P - C (1:2)**

<b>From [bp]</b>	<b>To [bp]</b>	<b>Average Size [bp]</b>	<b>Corr. Area</b>	<b>Molarity [pmol/l]</b>	<b>Co Conc. lor [pg/μl]</b>	<b>% of Total</b>	<b>Size distribution in CV [%]</b>
138	1,793	435	1,043.3	7,698.6	 1,641.83	97	51.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
 Modified: 11/21/2016 10:13:35 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : H641P - D (1:2)**

Number of peaks found: 12                      Corr. Area 1: 724.4  
 Noise: 0.3

**Peak table for sample 4 : H641P - D (1:2)**

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	193	14.25	111.7		59.95
3	239	7.14	45.2		64.18
4	258	35.22	206.9		65.90
5	289	7.73	40.5		68.77
6	322	13.10	61.7		71.48
7	476	6.66	21.2		82.17
8	514	6.04	17.8		84.15
9	601	5.14	12.9		88.17
10	626	7.43	18.0		88.95
11	730	9.58	19.9		91.67
12	795	4.92	9.4		92.55
13	921	5.66	9.3		94.27
14	10,380	75.00	10.9	Upper Marker	113.00

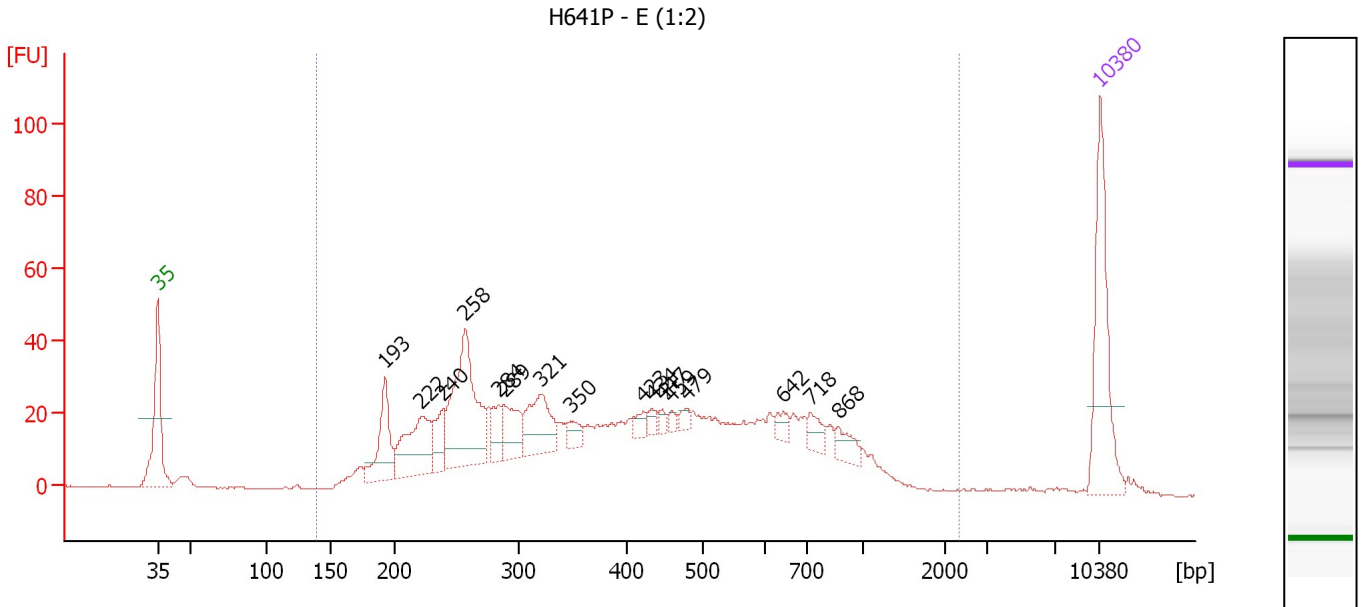
**Region table for sample 4 : H641P - D (1:2)**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
143	1,934	450	724.4	3,886.4	843.88	97	54.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
 Modified: 11/21/2016 10:13:35 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : H641P - E (1:2)**

Number of peaks found: 16                      Corr. Area 1: 1,032.1  
 Noise: 0.2

**Peak table for sample 5 : H641P - E (1:2)**

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	193	59.72	469.2		59.91
3	222	73.30	500.3		62.60
4	240	27.55	174.0		64.24
5	258	133.48	784.8		65.88
6	284	23.97	127.8		68.31
7	289	35.22	184.7		68.73
8	321	53.64	252.8		71.48
9	350	13.36	57.9		73.75
10	423	7.89	28.3		79.08
11	434	6.61	23.1		79.72
12	447	5.28	17.9		80.46
13	459	4.51	14.9		81.20
14	479	6.26	19.8		82.31
15	642	9.29	21.9		89.44
16	718	12.98	27.4		91.50
17	868	13.66	23.8		93.56
18	10,380	75.00	10.9	Upper Marker	113.00

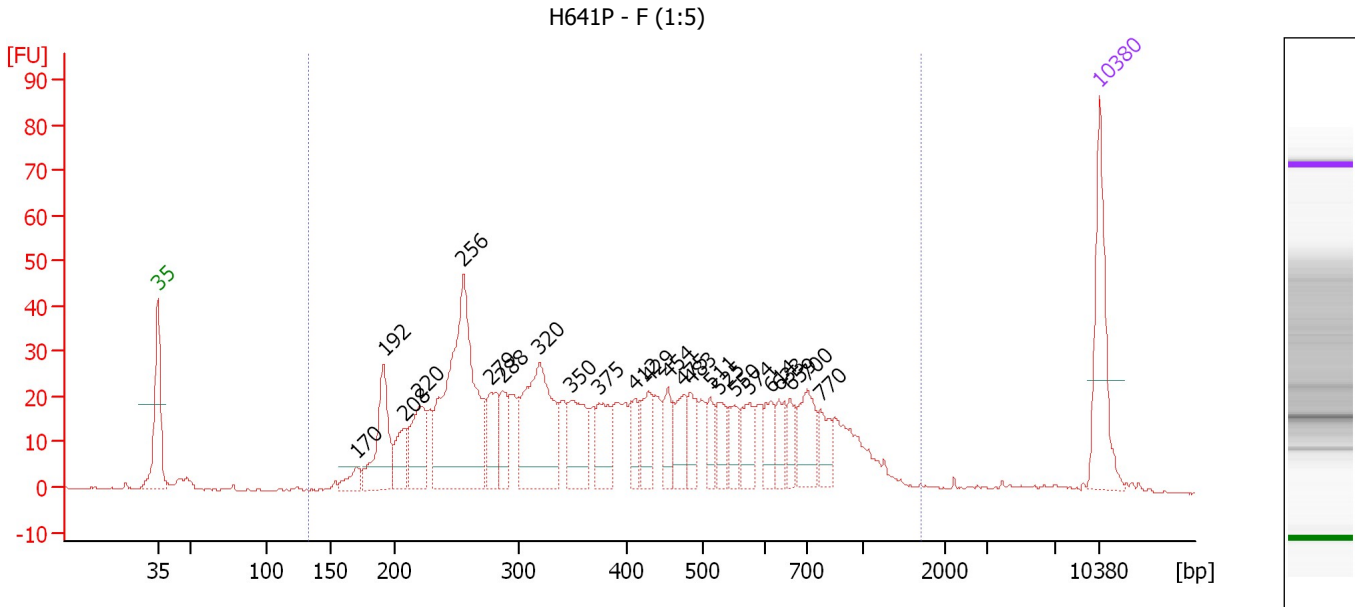
**Region table for sample 5 : H641P - E (1:2)**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
140	2,325	458	1,032.1	5,460.5	1,195.36	97	55.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
 Modified: 11/21/2016 10:13:35 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : H641P - F (1:5)**

Number of peaks found: 24                      Corr. Area 1: 993.5  
 Noise: 0.3

**Peak table for sample 6 : H641P - F (1:5)**

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	170	18.83	168.0		57.71
3	192	93.72	740.9		59.79
4	208	39.59	288.9		61.29
5	220	71.47	492.6		62.41
6	256	298.75	1,768.8		65.71
7	279	51.12	278.0		67.79
8	288	38.60	203.1		68.64
9	320	166.90	790.1		71.36
10	350	65.91	285.3		73.76
11	375	48.46	195.7		75.79
12	412	26.99	99.3		78.45
13	429	41.02	144.7		79.47
14	454	29.69	99.0		80.91
15	475	36.46	116.3		82.08
16	483	28.93	90.7		82.56
17	511	24.54	72.7		84.05
18	525	28.57	82.4		84.69
19	550	23.39	64.5		85.81
20	574	29.55	78.0		86.93
21	614	25.82	63.7		88.58
22	633	21.46	51.3		89.17
23	659	21.15	48.6		89.97
24	700	50.50	109.3		91.25
25	770	25.16	49.5		92.21

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
 Modified: 11/21/2016 10:13:35 AM

### Electropherogram Summary Continued ...

#### ... Peak table for sample 6 : H641P - F (1:5)

Peak	Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	10,380	75.00	10.9	Upper Marker	113.00

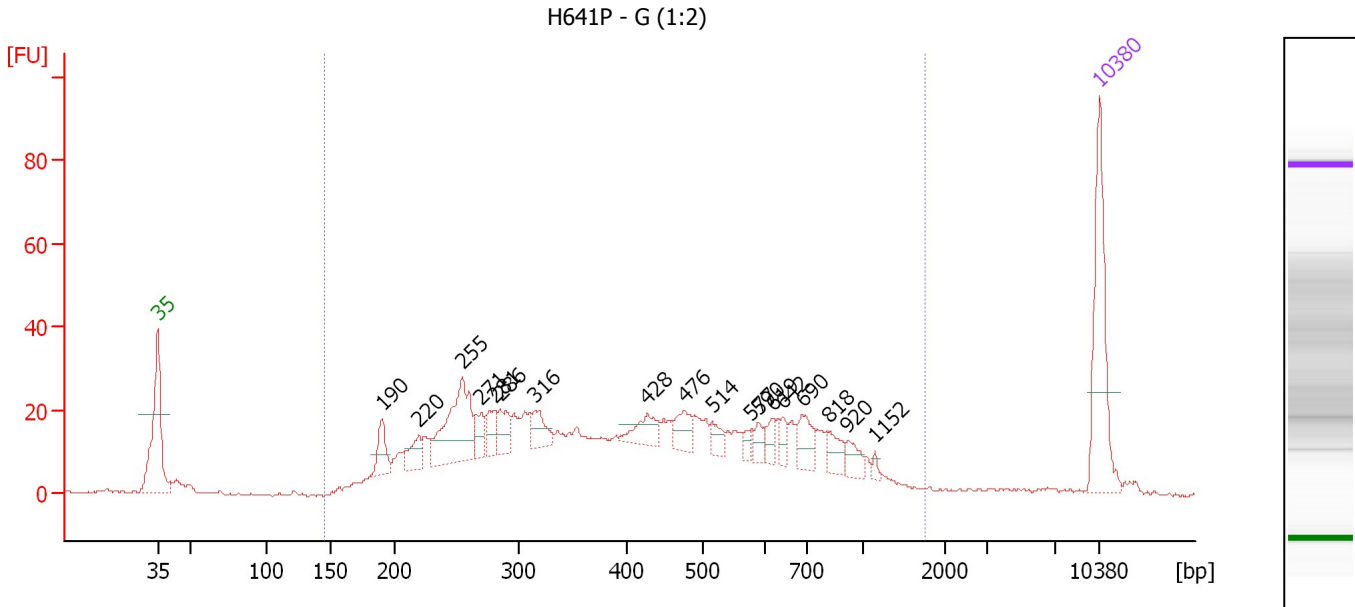
#### Region table for sample 6 : H641P - F (1:5)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/ $\mu$ l]	% of Total	Size distribution in CV [%]
133	1,690	447	993.5	7,818.6	1,711.16	95	51.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
 Modified: 11/21/2016 10:13:35 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : H641P - G (1:2)**

Number of peaks found: 18                      Corr. Area 1: 799.2  
 Noise: 0.3

**Peak table for sample 7 : H641P - G (1:2)**

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	190	27.63	220.3		59.64
3	220	22.74	156.9		62.38
4	255	97.17	576.7		65.65
5	271	18.49	103.6		67.05
6	281	19.93	107.4		68.02
7	286	23.46	124.4		68.44
8	316	23.87	114.5		71.02
9	428	23.80	84.2		79.40
10	476	21.69	69.1		82.13
11	514	12.16	35.8		84.17
12	577	7.31	19.2		87.07
13	590	9.51	24.4		87.66
14	619	10.82	26.5		88.74
15	642	11.25	26.6		89.43
16	690	23.17	50.9		90.94
17	818	16.75	31.0		92.87
18	920	12.69	20.9		94.27
19	1,152	3.65	4.8		96.31
20	10,380	75.00	10.9	Upper Marker	113.00

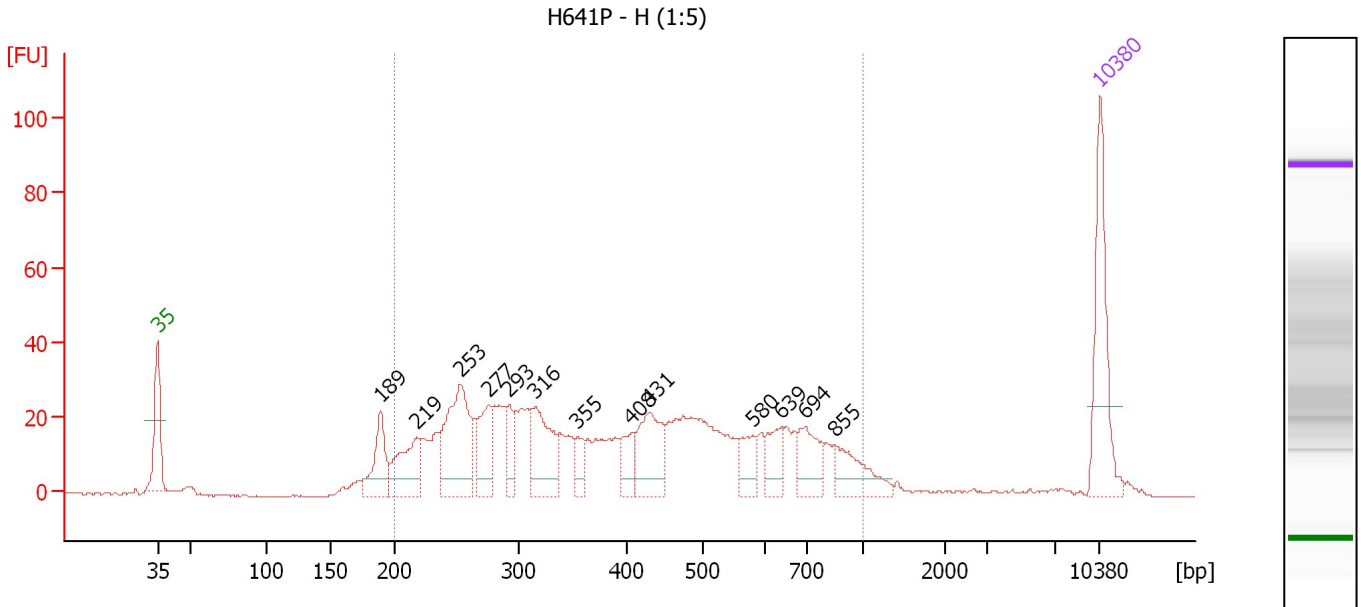
**Region table for sample 7 : H641P - G (1:2)**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
146	1,750	465	799.2	5,297.2	1,194.15	94	52.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
 Modified: 11/21/2016 10:13:35 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : H641P - H (1:5)**

Number of peaks found: 13                      Corr. Area 1: 781.7  
 Noise: 0.3

**Peak table for sample 8 : H641P - H (1:5)**

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	189	58.10	465.3		59.56
3	219	68.28	473.0		62.30
4	253	125.19	748.8		65.47
5	277	54.05	295.9		67.62
6	293	32.07	165.7		69.13
7	316	73.39	351.5		71.06
8	355	18.31	78.1		74.18
9	408	25.03	93.0		78.22
10	431	64.61	227.1		79.56
11	580	25.66	67.1		87.19
12	639	27.74	65.8		89.34
13	694	38.85	84.8		91.06
14	855	40.68	72.1		93.38
15	10,380	75.00	10.9	Upper Marker	113.00

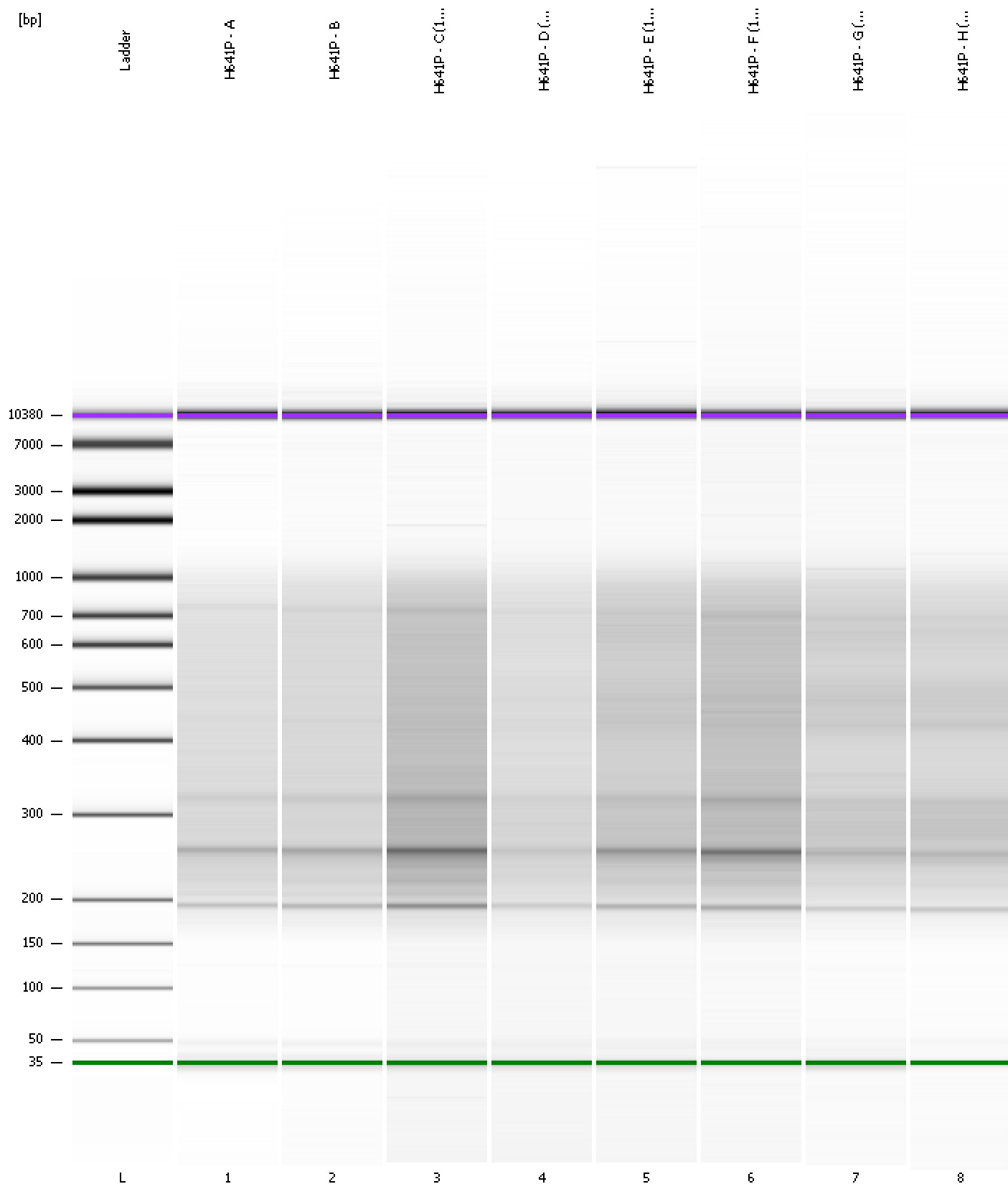
**Region table for sample 8 : H641P - H (1:5)**

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	434	781.7	4,389.1	1,012.11	89	41.4

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
Modified: 11/21/2016 10:13:35 AM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...rt\data\2016-11-21\2016-11-21\_001\_H641P\_A-B-C-D-E-F-G-H.xad

Created: 11/21/2016 9:29:05 AM  
 Modified: 11/21/2016 10:13:35 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		11/21/2016 10:10:52 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-11-21\2016-11-21_001.xad)		Instrument	Run		11/21/2016 9:29:10 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		11/21/2016 9:29:10 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/21/2016 9:29:10 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/21/2016 9:29:10 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		11/21/2016 9:29:10 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/21/2016 9:29:10 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/21/2016 9:29:10 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1