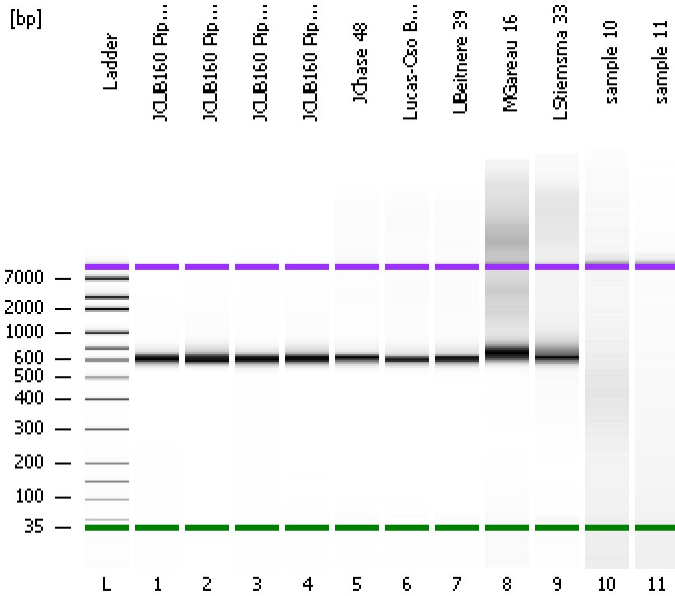


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
Modified: 11/5/2018 2:52:16 PM

Electrophoresis File Run Summary



Instrument Information:

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

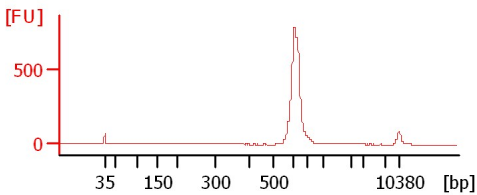
Assay Information:

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

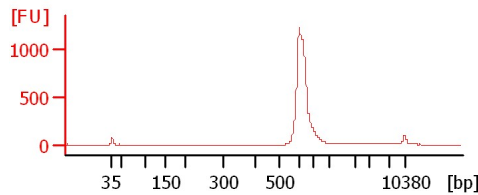
Chip Information:

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

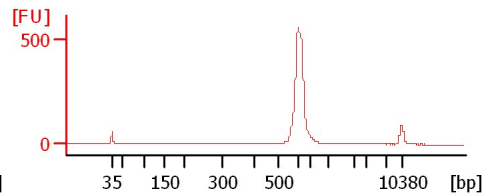
JcUB160 Pippin 1



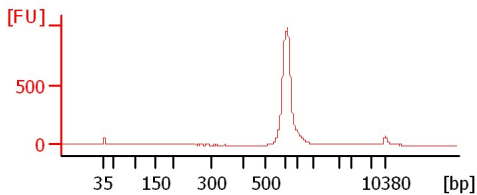
JcUB160 Pippin 2



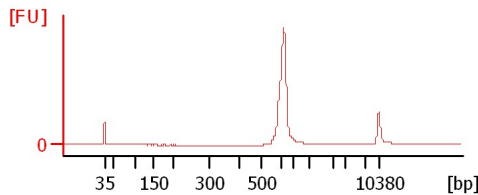
JcUB160 Pippin 3



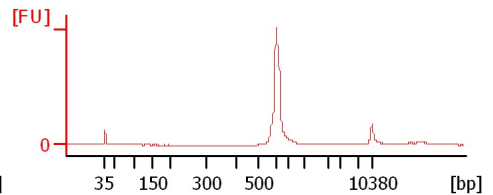
JcUB160 Pippin 4



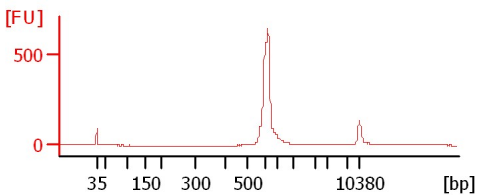
JChase 48



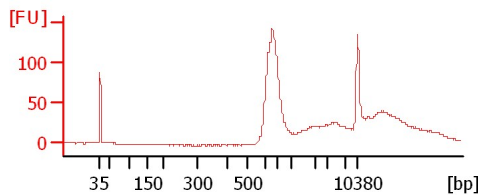
Lucas-Oso Bean 24



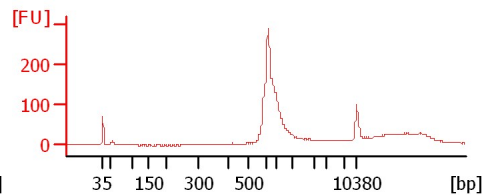
UBeitnere 39



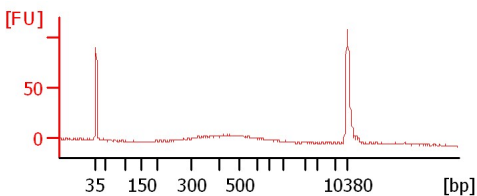
MGareau 16



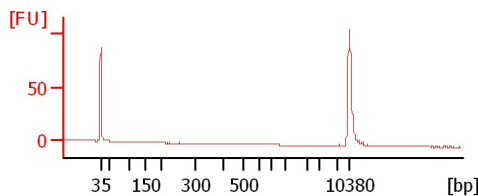
LStiemsma 33



sample 10



sample 11



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
 Modified: 11/5/2018 2:52:16 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
JCUB160 Pippin 1		<input type="checkbox"/>	✓			
JCUB160 Pippin 2		<input type="checkbox"/>	✓			
JCUB160 Pippin 3		<input type="checkbox"/>	✓			
JCUB160 Pippin 4		<input type="checkbox"/>	✓			
JChase 48		<input type="checkbox"/>	✓			
Lucas-Oso Bean 24		<input type="checkbox"/>	✓			
UBeitnere 39		<input type="checkbox"/>	✓			
MGareau 16		<input type="checkbox"/>	✓			
LStiemsma 33		<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:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
Modified: 11/5/2018 2:52:16 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

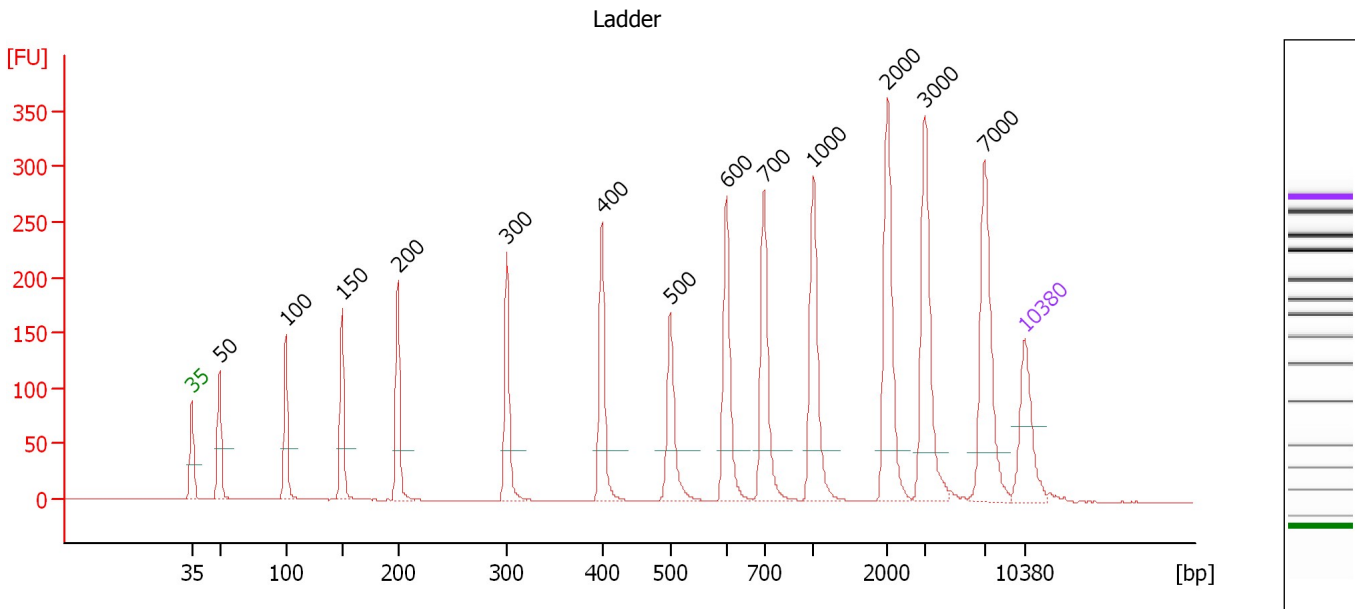
**Ladder**

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:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
 Modified: 11/5/2018 2:52:16 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.3

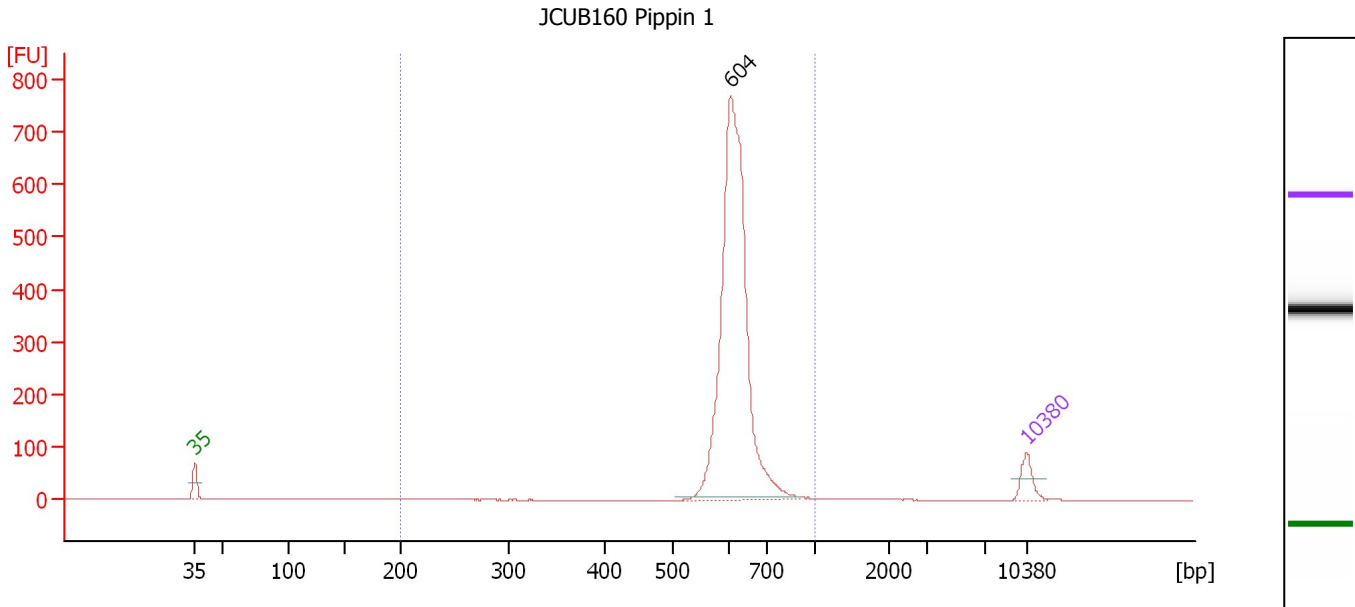
**Peak table for Ladder**

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	45.33
3	100	150.00	2,272.7	Ladder Peak	50.89
4	150	150.00	1,515.2	Ladder Peak	55.64
5	200	150.00	1,136.4	Ladder Peak	60.30
6	300	150.00	757.6	Ladder Peak	69.49
7	400	150.00	568.2	Ladder Peak	77.46
8	500	150.00	454.5	Ladder Peak	83.20
9	600	150.00	378.8	Ladder Peak	87.95
10	700	150.00	324.7	Ladder Peak	91.09
11	1,000	150.00	227.3	Ladder Peak	95.21
12	2,000	150.00	113.6	Ladder Peak	101.44
13	3,000	150.00	75.8	Ladder Peak	104.62
14	7,000	150.00	32.5	Ladder Peak	109.59
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
 Modified: 11/5/2018 2:52:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : JCUB160 Pippin 1**

Number of peaks found: 1                      Corr. Area 1: 2,195.1  
 Noise: 0.2

**Peak table for sample 1 : JCUB160 Pippin 1**

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	604	2,250.54	5,643.8		88.08
3	10,380	75.00	10.9	Upper Marker	113.00

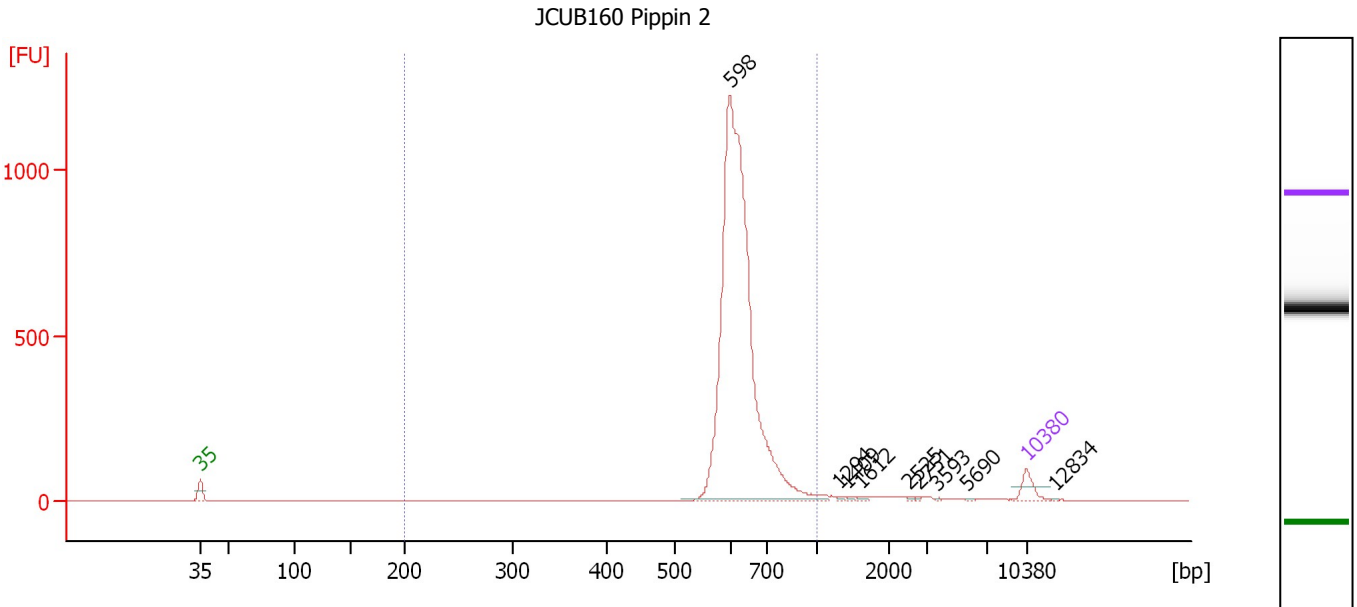
**Region table for sample 1 : JCUB160 Pippin 1**

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	621	2,282.71	2,195.1	5,591.0	99	7.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
 Modified: 11/5/2018 2:52:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : JCUB160 Pippin 2**

Number of peaks found: 9                      Corr. Area 1: 3,982.6  
 Noise: 0.3

**Peak table for sample 2 : JCUB160 Pippin 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	598	3,808.13	9,643.7		87.87
3	1,294	9.00	10.5		97.04
4	1,409	9.49	10.2		97.76
5	1,612	12.69	11.9		99.02
6	2,525	4.86	2.9		103.11
7	2,751	4.76	2.6		103.83
8	3,593	3.96	1.7		105.36
9	5,690	3.56	0.9		107.96
10	10,380	75.00	10.9	Upper Marker	113.00
11	12,834	0.00	0.0		115.47

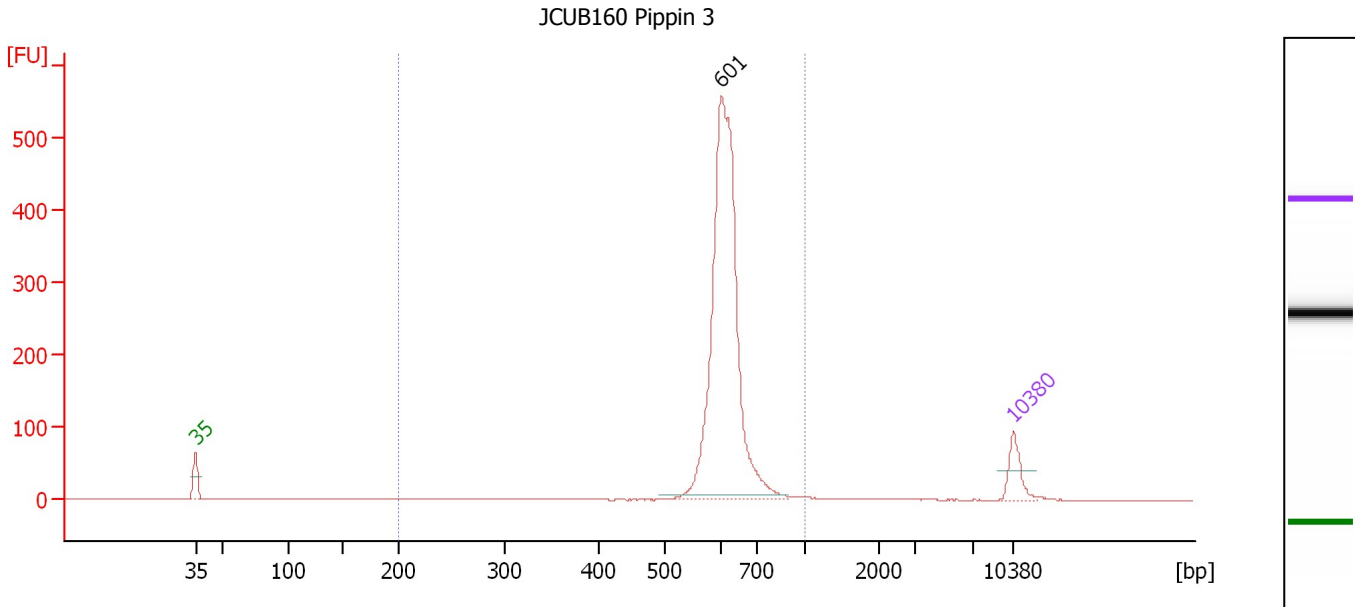
**Region table for sample 2 : JCUB160 Pippin 2**

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	629	3,803.27	3,982.6	9,232.1	95	9.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
 Modified: 11/5/2018 2:52:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : JCUB160 Pippin 3**

Number of peaks found: 1                      Corr. Area 1: 1,610.2  
 Noise: 0.2

**Peak table for sample 3 : JCUB160 Pippin 3**

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	601	1,576.69	3,972.1		87.99
3	10,380	75.00	10.9	Upper Marker	113.00

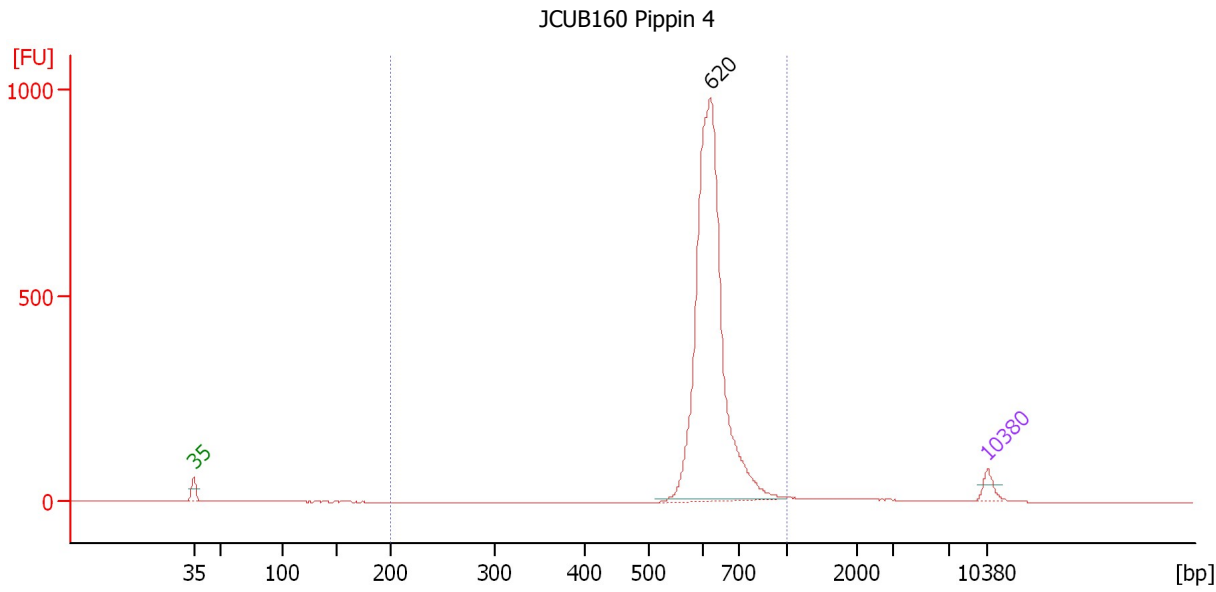
**Region table for sample 3 : JCUB160 Pippin 3**

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	618	1,608.96	1,610.2	3,961.9	97	7.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
 Modified: 11/5/2018 2:52:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : JCUB160 Pippin 4**

Number of peaks found: 1                      Corr. Area 1: 3,049.0  
 Noise: 0.2

**Peak table for sample 4 : JCUB160 Pippin 4**

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	620	3,926.84	9,604.0		88.56
3	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : JCUB160 Pippin 4**

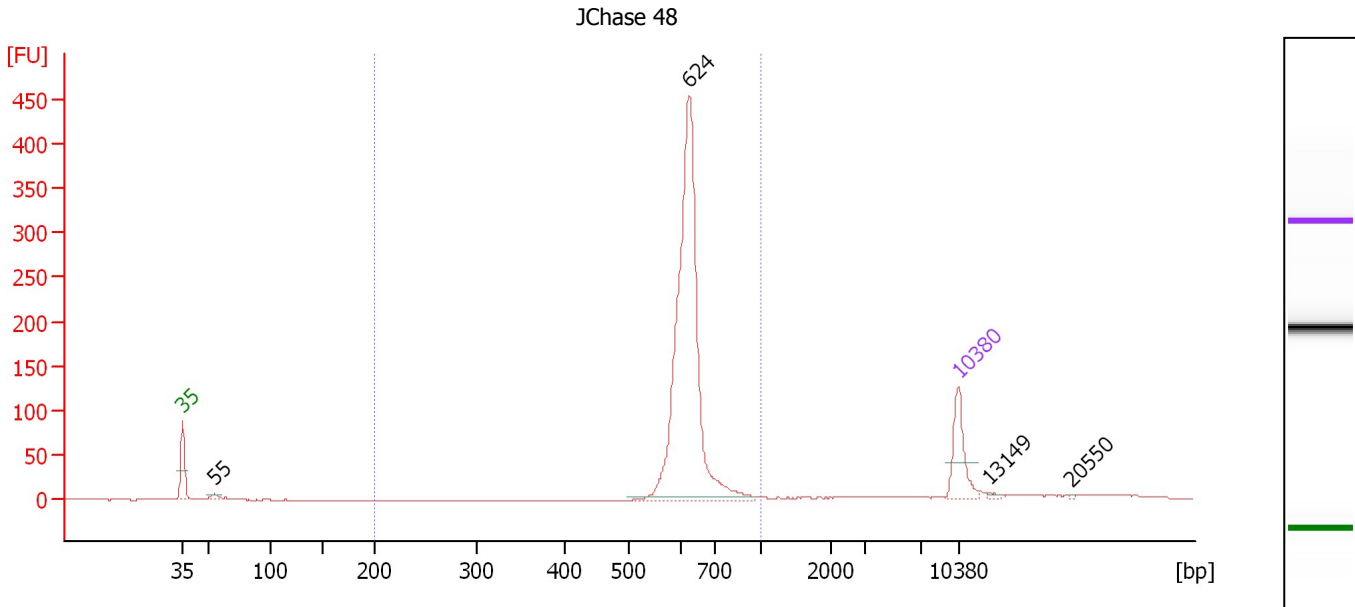
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	628	4,015.20	3,049.0	9,744.0	95	9.0



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
 Modified: 11/5/2018 2:52:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : JChase 48**

Number of peaks found: 4                      Corr. Area 1: 1,054.8  
 Noise: 0.2

**Peak table for sample 5 : JChase 48**

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	55	10.67	296.3		45.84
3	624	806.06	1,956.9		88.70
4	10,380	75.00	10.9	Upper Marker	113.00
5	13,149	0.00	0.0		115.79
6	20,550	0.00	0.0		123.25

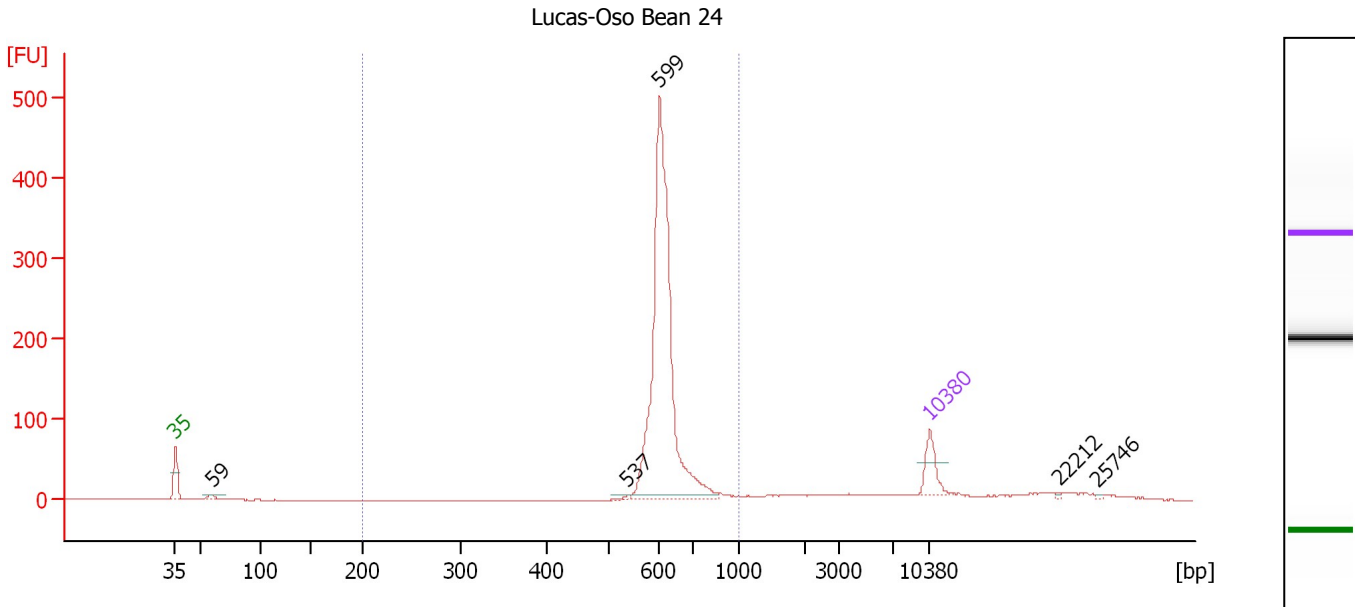
**Region table for sample 5 : JChase 48**

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	625	793.86	1,054.8	1,934.2	90	7.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
 Modified: 11/5/2018 2:52:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : Lucas-Oso Bean 24**

Number of peaks found: 5                      Corr. Area 1: 1,075.0  
 Noise: 0.3

**Peak table for sample 6 : Lucas-Oso Bean 24**

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	59	22.90	585.2		46.36
3	537	7.41	20.9		84.95
4	599	1,278.98	3,233.1		87.92
5	10,380	75.00	10.9	Upper Marker	113.00
6	22,212	0.00	0.0		124.92
7	25,746	0.00	0.0		128.48

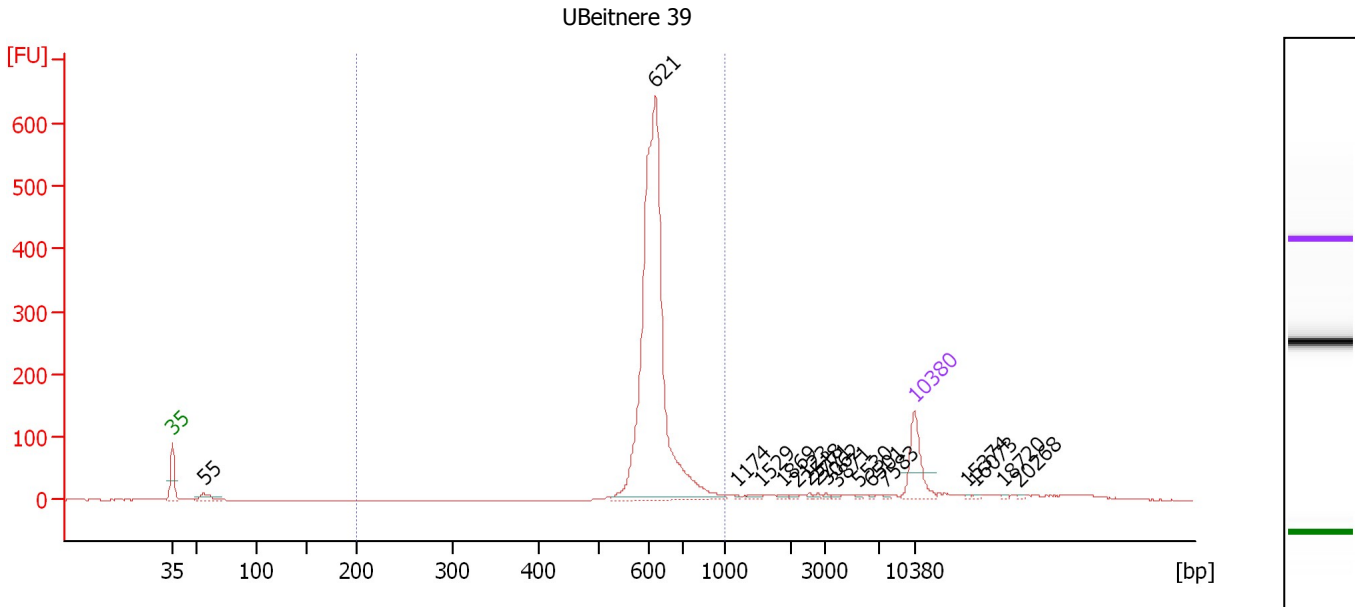
**Region table for sample 6 : Lucas-Oso Bean 24**

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	619	1,320.21	1,075.0	3,248.8	83	8.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
 Modified: 11/5/2018 2:52:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : UBeitnere 39**

Number of peaks found: 17                      Corr. Area 1: 1,632.1  
 Noise: 0.4

**Peak table for sample 7 : UBeitnere 39**

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	55	28.97	793.8		45.92
3	621	1,065.03	2,600.5		88.59
4	1,174	2.71	3.5		96.29
5	1,529	6.98	6.9		98.51
6	1,869	3.32	2.7		100.62
7	2,123	3.70	2.6		101.83
8	2,518	2.92	1.8		103.09
9	2,771	3.04	1.7		103.89
10	3,062	2.77	1.4		104.70
11	3,871	4.16	1.6		105.70
12	5,530	2.52	0.7		107.77
13	6,501	2.25	0.5		108.97
14	7,583	2.51	0.5		110.18
15	10,380	75.00	10.9	Upper Marker	113.00
16	15,374	0.00	0.0		118.03
17	16,073	0.00	0.0		118.74
18	18,720	0.00	0.0		121.40
19	20,268	0.00	0.0		122.96

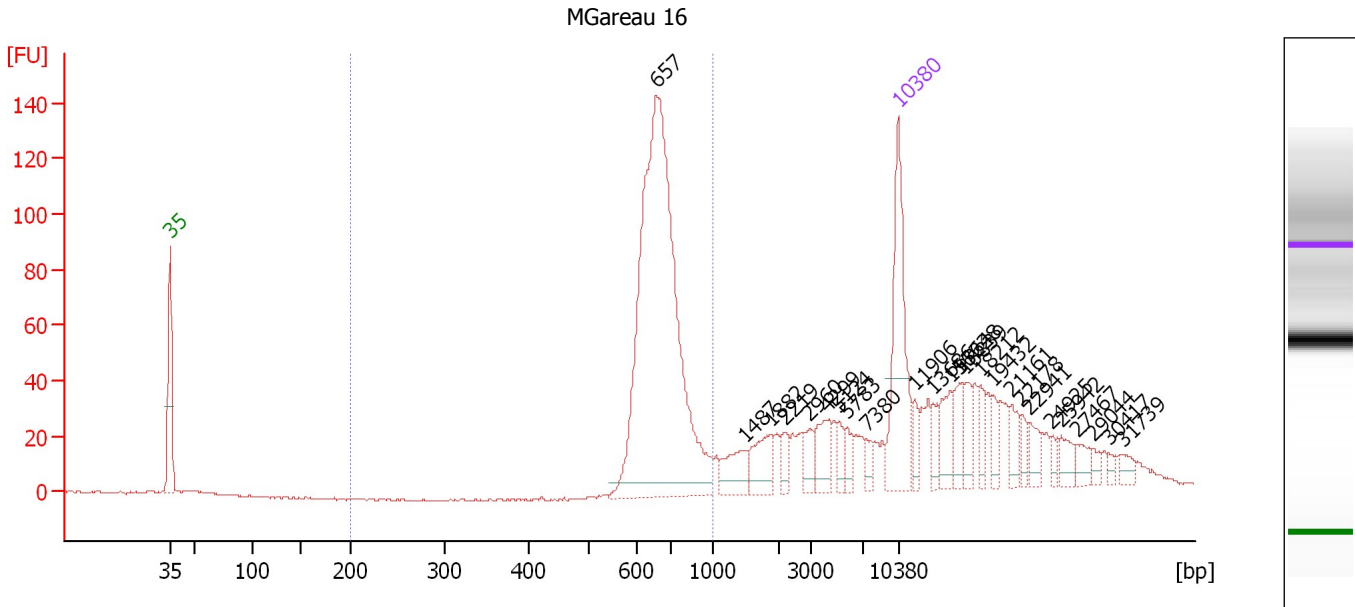
**Region table for sample 7 : UBeitnere 39**

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	624	1,071.42	1,632.1	2,617.5	85	9.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
 Modified: 11/5/2018 2:52:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : MGareau 16**

Number of peaks found: 25                      Corr. Area 1: 611.6  
 Noise: 0.4

**Peak table for sample 8 : MGareau 16**

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	657	431.13	994.3		89.73
3	1,487	22.56	23.0		98.24
4	1,882	24.52	19.7		100.70
5	2,219	10.24	7.0		102.14
6	2,960	12.13	6.2		104.49
7	4,299	20.49	7.2		106.24
8	5,124	9.98	3.0		107.26
9	5,783	8.43	2.2		108.08
10	7,380	6.44	1.3		109.98
11	10,380	75.00	10.9	Upper Marker	113.00
12	11,906	0.00	0.0		114.54
13	13,686	0.00	0.0		116.33
14	15,364	0.00	0.0		118.02
15	16,228	0.00	0.0		118.89
16	16,839	0.00	0.0		119.51
17	18,212	0.00	0.0		120.89
18	19,432	0.00	0.0		122.12
19	21,161	0.00	0.0		123.86
20	22,178	0.00	0.0		124.89
21	22,941	0.00	0.0		125.66
22	24,925	0.00	0.0		127.66
23	25,942	0.00	0.0		128.68
24	27,467	0.00	0.0		130.22
25	29,044	0.00	0.0		131.81

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
Modified: 11/5/2018 2:52:16 PM

**Electropherogram Summary Continued ...****... Peak table for sample 8 : MGareau 16**

Peak	Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	30,417	0.00	0.0		133.19
27	31,739	0.00	0.0		134.52

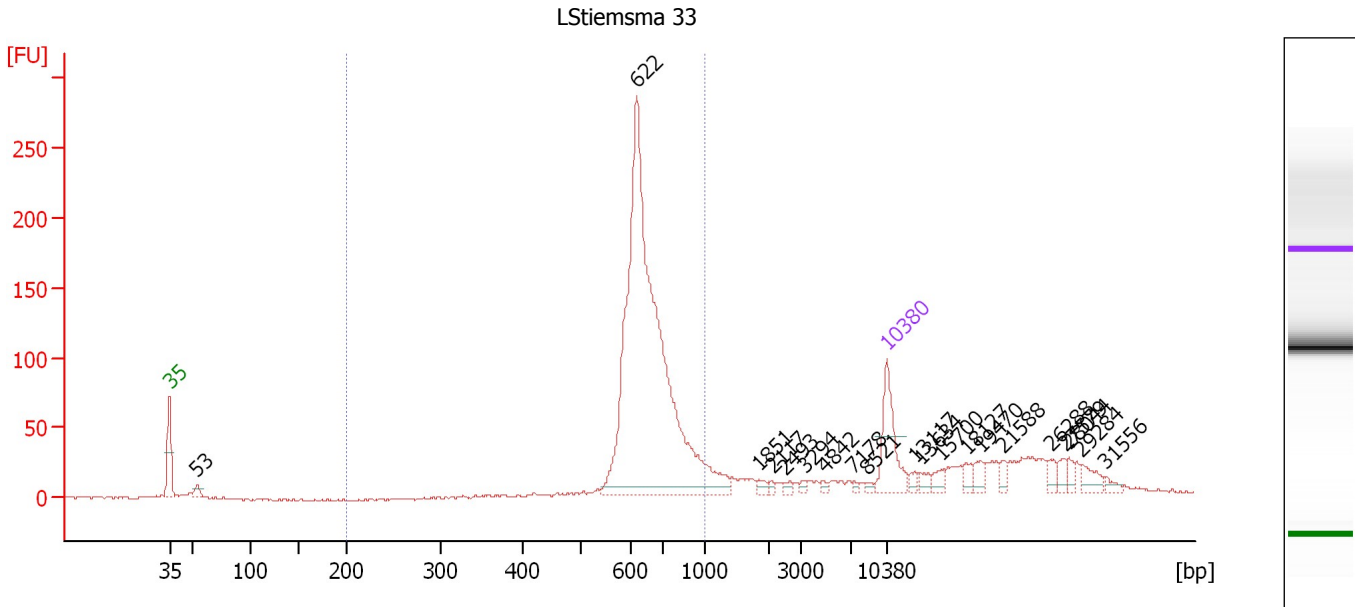
**Region table for sample 8 : MGareau 16**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ $\mu$ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	682	401.89	611.6	902.4	 47	11.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
 Modified: 11/5/2018 2:52:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : LStiemsma 33**

Number of peaks found: 20                      Corr. Area 1: 1,053.3  
 Noise: 0.8

**Peak table for sample 9 : LStiemsma 33**

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	53	15.09	428.4		45.71
3	622	964.56	2,349.1		88.64
4	1,851	7.21	5.9		100.51
5	2,117	4.36	3.1		101.81
6	2,493	5.30	3.2		103.01
7	3,294	5.21	2.4		104.99
8	4,842	4.52	1.4		106.91
9	7,178	3.88	0.8		109.77
10	8,521	4.04	0.7		111.13
11	10,380	75.00	10.9	Upper Marker	113.00
12	13,117	0.00	0.0		115.76
13	13,634	0.00	0.0		116.28
14	15,700	0.00	0.0		118.36
15	18,127	0.00	0.0		120.81
16	19,470	0.00	0.0		122.16
17	21,588	0.00	0.0		124.29
18	26,288	0.00	0.0		129.03
19	27,579	0.00	0.0		130.33
20	28,044	0.00	0.0		130.80
21	29,284	0.00	0.0		132.05
22	31,556	0.00	0.0		134.34

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
Modified: 11/5/2018 2:52:16 PM

**Electropherogram Summary Continued ...**

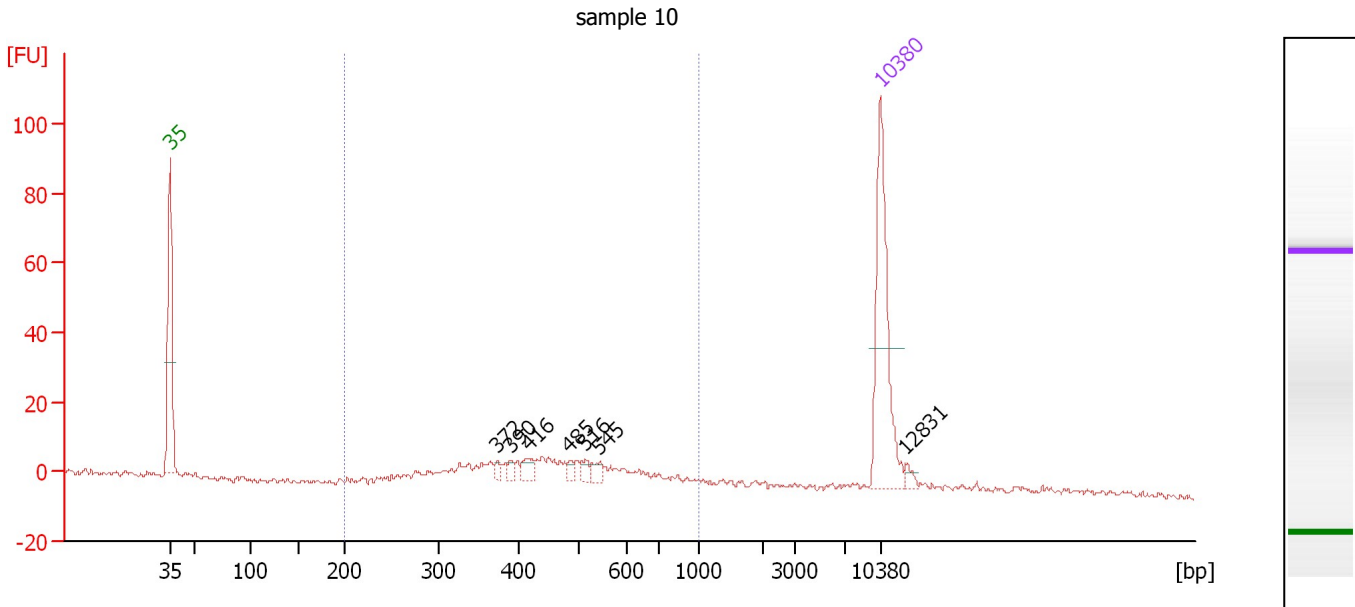
... Region table for sample 9 : LStiemsma 33

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ $\mu$ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	668	925.20	1,053.3	2,132.0	 68	13.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
 Modified: 11/5/2018 2:52:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample 10**

Number of peaks found: 7                      Corr. Area 1: 162.5  
 Noise: 0.8

**Peak table for sample 10 : sample 10**

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	372	3.81	15.5		75.27
3	390	4.24	16.5		76.63
4	416	8.99	32.8		78.37
5	485	3.98	12.4		82.36
6	516	5.33	15.7		83.94
7	545	6.21	17.2		85.36
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,831	0.00	0.0		115.47

**Region table for sample 10 : sample 10**

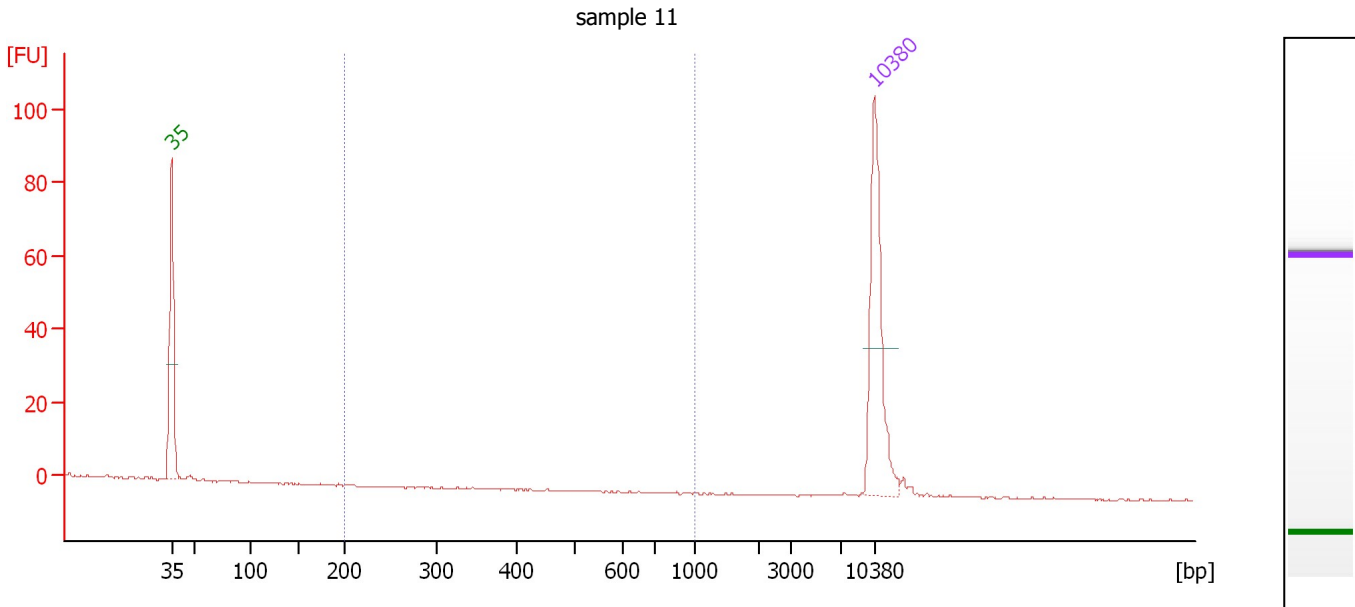
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	475	139.77	162.5	503.3	73	30.8



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
 Modified: 11/5/2018 2:52:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : sample 11**

Number of peaks found: 0                      Corr. Area 1: 0.0  
 Noise: 0.1

**Peak table for sample 11 : sample 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

**Region table for sample 11 : sample 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	1,000	0	0.00	0.0	0.0	0	0.0

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-11-05\2018-11-05\_003.xad

Created: 11/5/2018 2:10:56 PM  
Modified: 11/5/2018 2:52:16 PM

**Gel Image**

