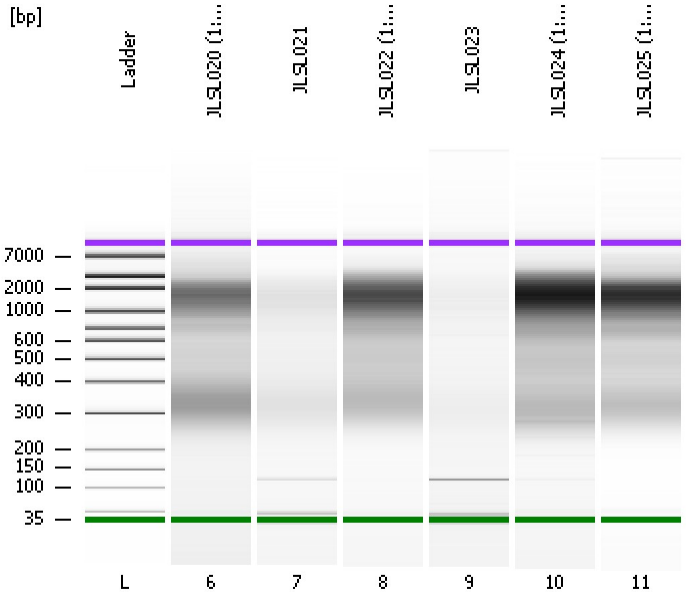


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
Modified: 10/20/2016 1:42:06 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

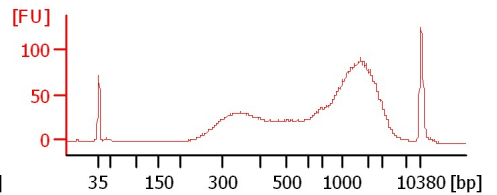
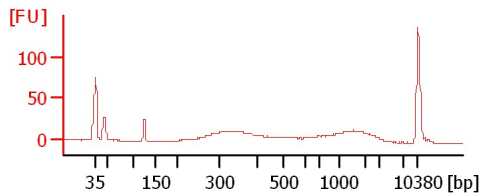
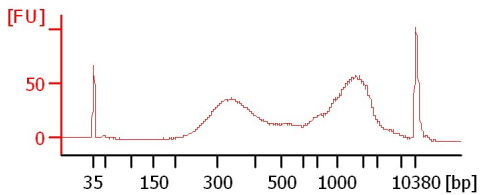
Chip Information:

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

**JLSL020 (1:36)**

**JLSL021**

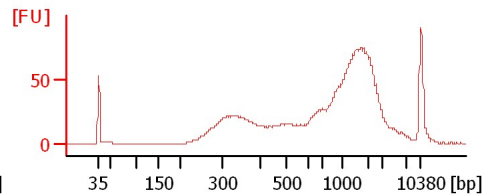
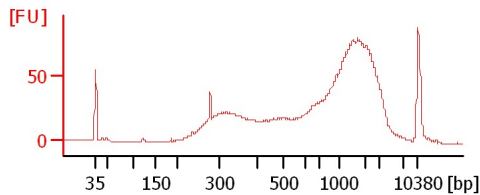
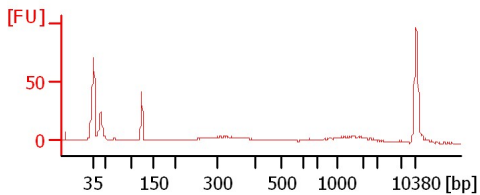
**JLSL022 (1:16)**



**JLSL023**

**JLSL024 (1:19)**

**JLSL025 (1:34)**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
 Modified: 10/20/2016 1:42:06 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
JLSL020 (1:36)		<input type="checkbox"/>				
JLSL021		<input type="checkbox"/>				
JLSL022 (1:16)		<input type="checkbox"/>				
JLSL023		<input type="checkbox"/>				
JLSL024 (1:19)		<input type="checkbox"/>				
JLSL025 (1:34)		<input type="checkbox"/>				
Ladder		<input type="checkbox"/>				

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
Modified: 10/20/2016 1:42:06 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

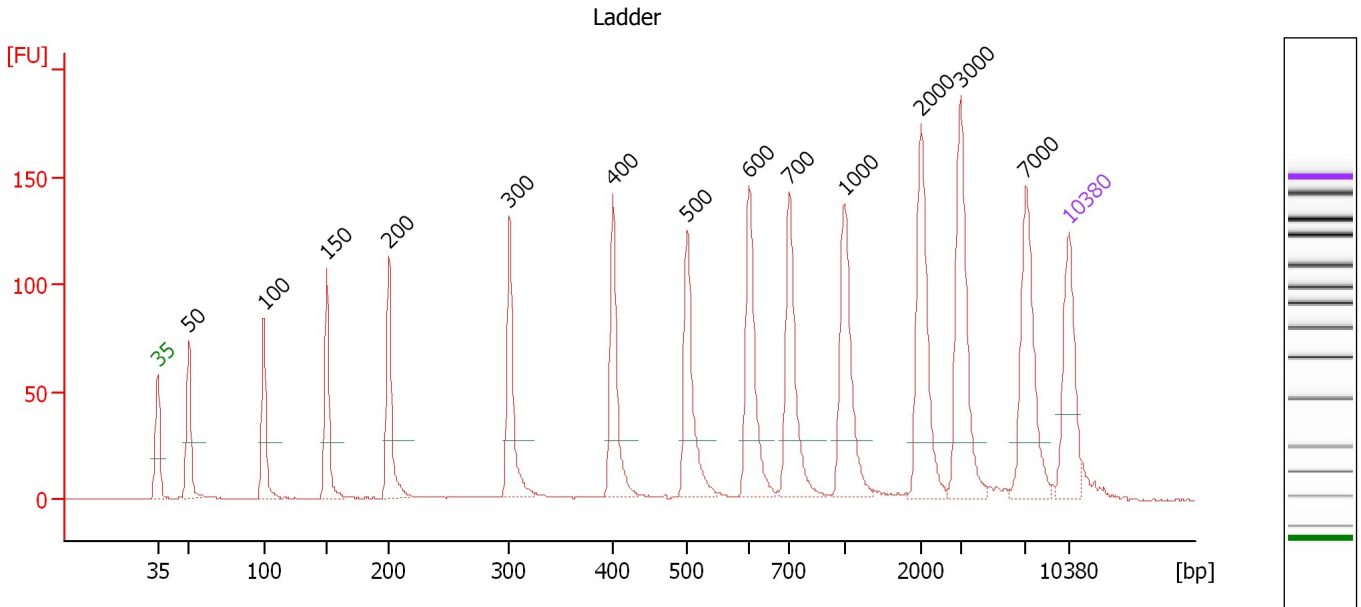
**Ladder**

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:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
 Modified: 10/20/2016 1:42:06 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

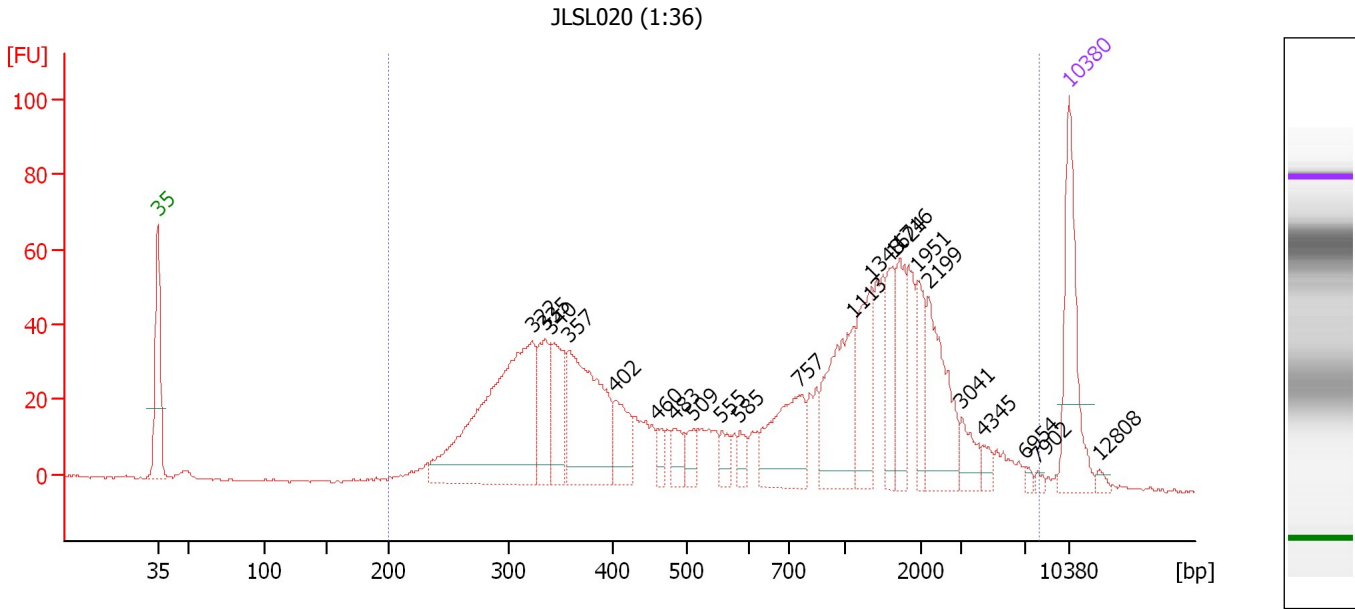
**Peak table for Ladder**

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	45.41
3	100	150.00	2,272.7	Ladder Peak	51.18
4	150	150.00	1,515.2	Ladder Peak	56.00
5	200	150.00	1,136.4	Ladder Peak	60.77
6	300	150.00	757.6	Ladder Peak	70.04
7	400	150.00	568.2	Ladder Peak	77.98
8	500	150.00	454.5	Ladder Peak	83.70
9	600	150.00	378.8	Ladder Peak	88.42
10	700	150.00	324.7	Ladder Peak	91.49
11	1,000	150.00	227.3	Ladder Peak	95.75
12	2,000	150.00	113.6	Ladder Peak	101.66
13	3,000	150.00	75.8	Ladder Peak	104.68
14	7,000	150.00	32.5	Ladder Peak	109.69
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
 Modified: 10/20/2016 1:42:06 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : JLSL020 (1:36)**

Number of peaks found: 22                      Corr. Area 1: 1,405.2  
 Noise: 0.4

**Peak table for sample 6 : JLSL020 (1:36)**

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	322	304.47	1,433.8		71.76
3	335	64.84	293.4		72.80
4	340	71.51	318.8		73.20
5	357	165.40	701.4		74.58
6	402	44.16	166.4		78.10
7	460	13.37	44.0		81.42
8	483	20.84	65.4		82.70
9	509	17.40	51.8		84.14
10	555	14.52	39.6		86.32
11	585	12.18	31.6		87.70
12	757	83.09	166.2		92.31
13	1,113	92.07	125.3		96.42
14	1,348	59.96	67.4		97.80
15	1,624	37.60	35.1		99.44
16	1,716	47.72	42.1		99.98
17	1,951	32.61	25.3		101.37
18	2,199	73.10	50.4		102.26
19	3,041	20.02	10.0		104.73
20	4,345	7.57	2.6		106.37
21	6,954	3.19	0.7		109.63
22	7,902	3.10	0.6		110.57
23	10,380	75.00	10.9	Upper Marker	113.00
24	12,808	0.00	0.0		115.38

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
Modified: 10/20/2016 1:42:06 PM

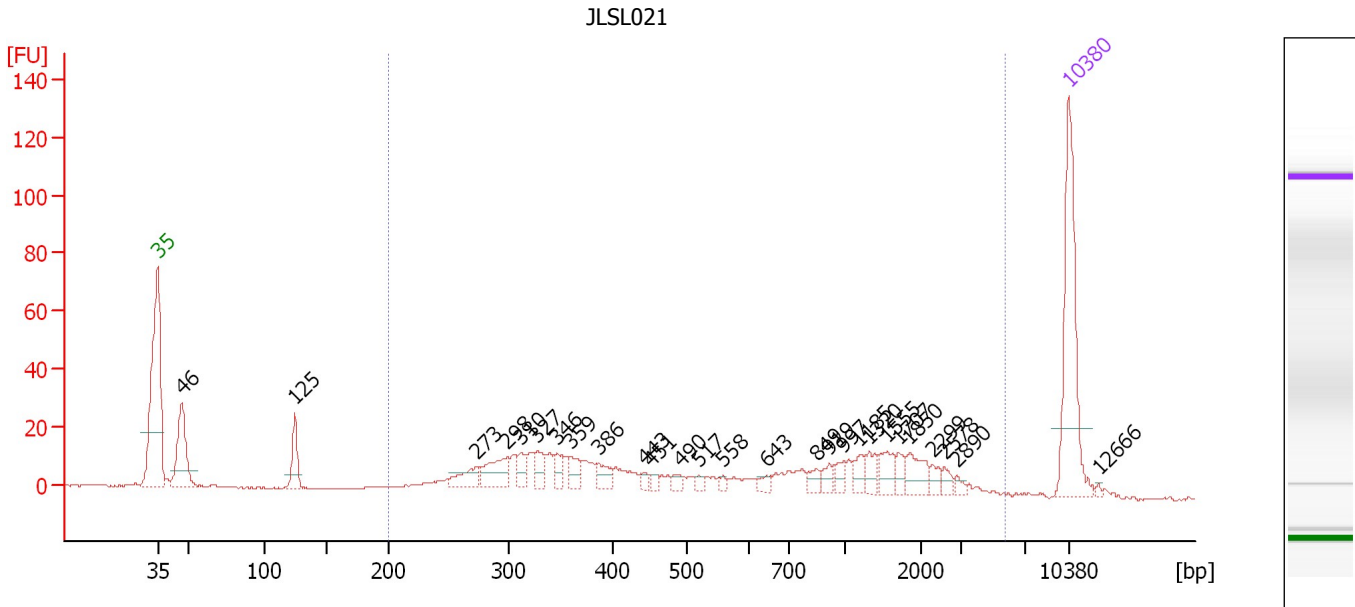
**Electropherogram Summary Continued ...****... Region table for sample 6 : JLSL020 (1:36)**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	8,092	1,165	1,405.2	4,459.4	■ 1,468.43	98	99.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
 Modified: 10/20/2016 1:42:06 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : JLSL021**

Number of peaks found: 27                      Corr. Area 1: 451.1  
 Noise: 0.3

**Peak table for sample 7 : JLSL021**

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	65.51	2,137.1		44.84
3	125	29.00	352.9		53.54
4	273	17.35	96.2		67.56
5	298	27.59	140.3		69.85
6	310	10.74	52.5		70.84
7	327	13.27	61.5		72.18
8	346	9.81	43.0		73.67
9	359	13.07	55.2		74.72
10	386	11.99	47.1		76.86
11	443	4.06	13.9		80.44
12	451	4.01	13.5		80.88
13	490	4.42	13.7		83.12
14	517	3.43	10.0		84.51
15	558	2.99	8.1		86.45
16	643	5.03	11.9		89.73
17	849	6.91	12.3		93.61
18	919	6.65	11.0		94.61
19	997	6.98	10.6		95.70
20	1,185	8.67	11.1		96.84
21	1,320	9.09	10.4		97.64
22	1,555	13.43	13.1		99.03
23	1,707	6.60	5.9		99.92
24	1,850	15.66	12.8		100.77
25	2,299	5.33	3.5		102.56

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
 Modified: 10/20/2016 1:42:06 PM

### Electropherogram Summary Continued ...

#### ... Peak table for sample 7 : JLSL021

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	2,578	4.96	2.9		103.40
27	2,890	3.00	1.6		104.35
28	10,380	75.00	10.9	Upper Marker	113.00
29	12,666	0.00	0.0		115.24

#### Region table for sample 7 : JLSL021

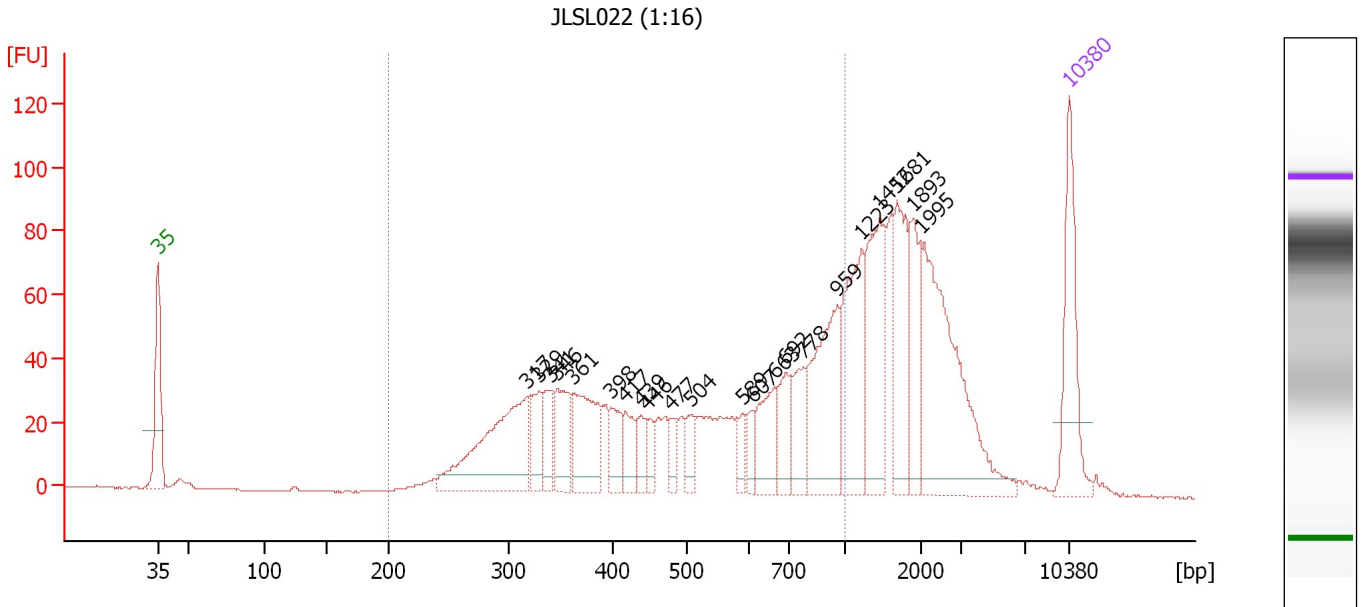
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	5,665	912	451.1	1,339.0	396.89	82	89.1



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
 Modified: 10/20/2016 1:42:06 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : JLSL022 (1:16)**

Number of peaks found: 22                      Corr. Area 1: 1,049.4  
 Noise: 0.1


**Peak table for sample 8 : JLSL022 (1:16)**

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	317	180.42	863.2		71.36
3	329	43.07	198.5		72.31
4	341	36.44	162.1		73.26
5	346	58.11	254.7		73.67
6	361	88.17	369.6		74.92
7	398	32.55	123.9		77.82
8	417	29.78	108.3		78.93
9	439	21.60	74.6		80.18
10	446	18.17	61.8		80.58
11	477	18.09	57.4		82.38
12	504	21.15	63.6		83.89
13	589	17.52	45.1		87.90
14	607	16.90	42.2		88.65
15	663	52.30	119.6		90.35
16	692	38.99	85.4		91.25
17	778	43.50	84.7		92.61
18	959	113.68	179.7		95.16
19	1,223	105.14	130.3		97.07
20	1,452	97.32	101.5		98.42
21	1,681	83.21	75.0		99.77
22	1,893	51.77	41.4		101.02
23	1,995	184.44	140.1		101.63
24	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
Modified: 10/20/2016 1:42:06 PM

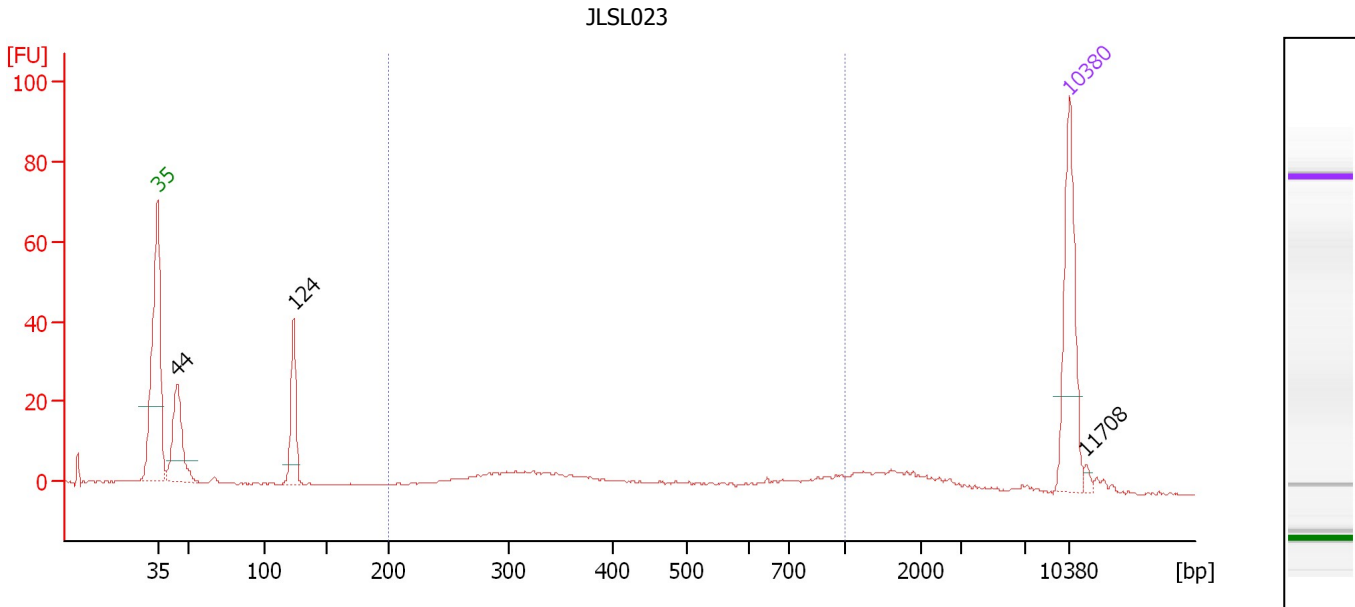
**Electropherogram Summary Continued ...****... Region table for sample 8 :      JLSL022 (1:16)**

<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>
200	1,000	538	1,049.4	3,631.5	 1,035.94	58	39.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
 Modified: 10/20/2016 1:42:06 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : JLSL023**

Number of peaks found: 3                      Corr. Area 1: 112.2  
 Noise: 0.3

**Peak table for sample 9 : JLSL023**

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	44	89.25	3,050.1		44.50
3	124	64.48	790.6		53.45
4	10,380	75.00	10.9	Upper Marker	113.00
5	11,708	0.00	0.0		114.30

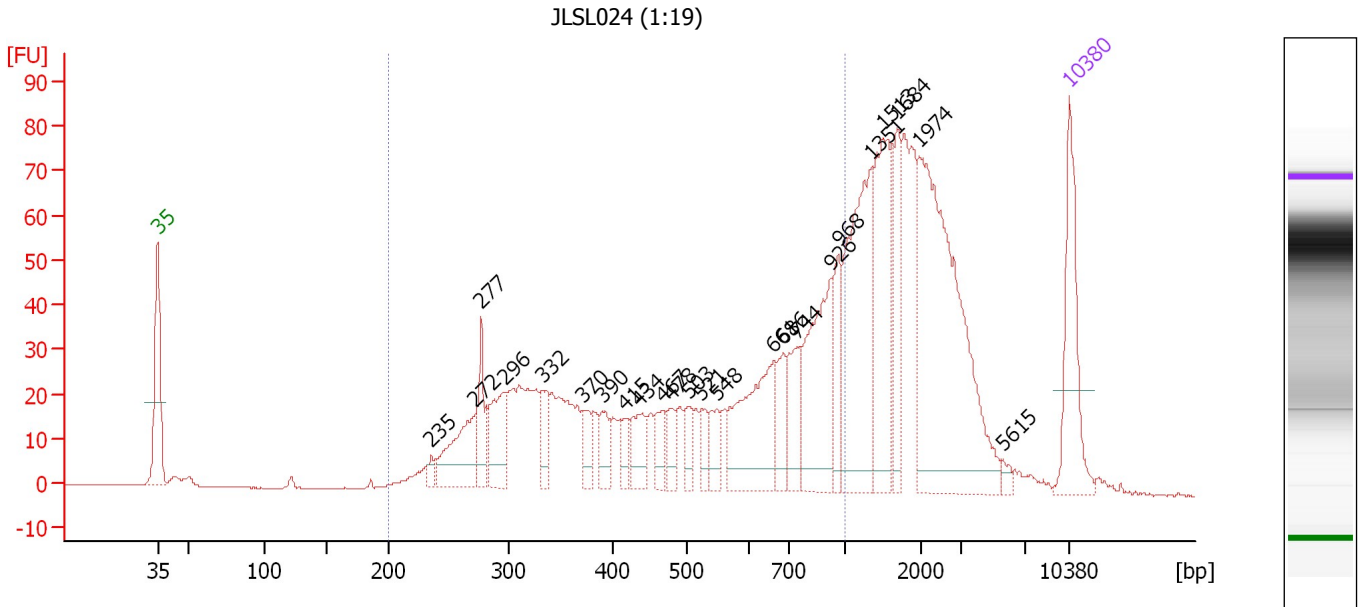
**Region table for sample 9 : JLSL023**

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	474	112.2	616.9	152.26	39	44.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
 Modified: 10/20/2016 1:42:06 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : JLSL024 (1:19)**

Number of peaks found: 24                      Corr. Area 1: 849.0  
 Noise: 0.1

**Peak table for sample 10 : JLSL024 (1:19)**

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	235	9.73	62.7		64.03
3	272	82.79	461.8		67.41
4	277	39.24	215.0		67.86
5	296	58.06	297.6		69.63
6	332	33.29	151.8		72.60
7	370	26.28	107.5		75.63
8	390	25.58	99.3		77.19
9	415	17.81	65.0		78.86
10	434	33.82	118.1		79.92
11	467	24.78	80.5		81.78
12	478	22.52	71.4		82.44
13	503	19.50	58.7		83.85
14	521	19.83	57.6		84.71
15	548	21.72	60.0		85.97
16	661	115.63	264.9		90.31
17	686	38.38	84.8		91.06
18	744	45.99	93.6		92.12
19	926	118.99	194.8		94.69
20	968	43.31	67.8		95.30
21	1,351	167.03	187.4		97.82
22	1,513	121.54	121.7		98.78
23	1,684	54.73	49.3		99.79
24	1,974	269.35	206.8		101.50
25	5,615	6.01	1.6		107.96

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
Modified: 10/20/2016 1:42:06 PM

**Electropherogram Summary Continued ...****... Peak table for sample 10 : JLSL024 (1:19)**

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

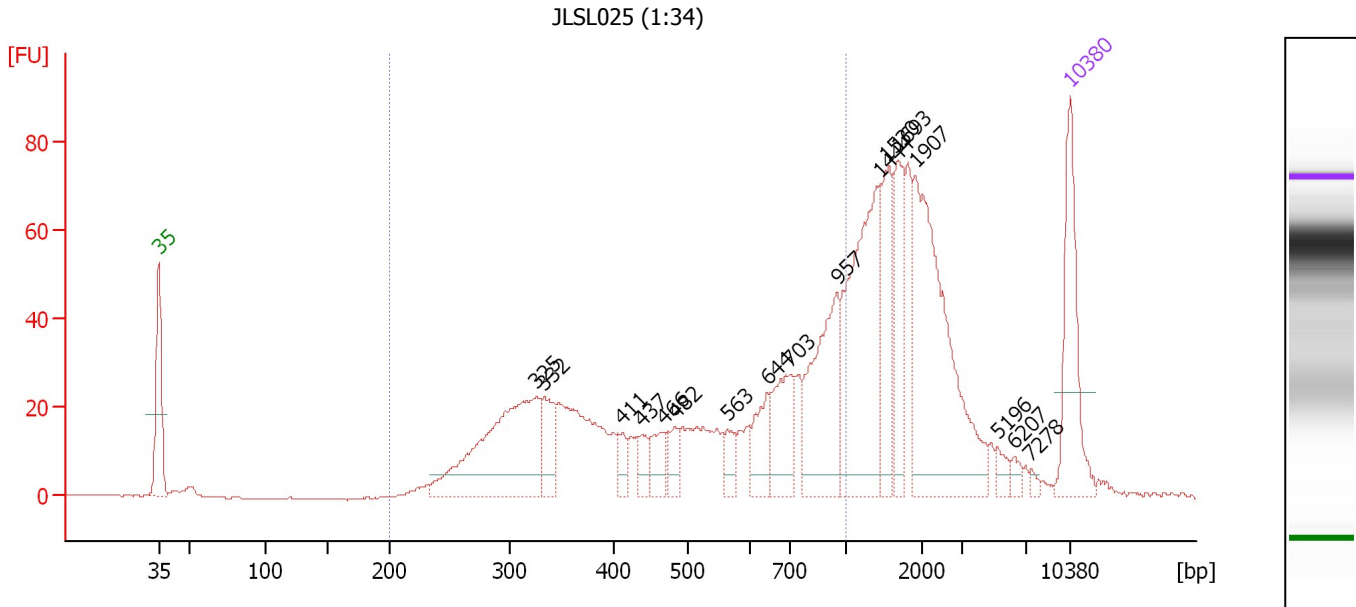
**Region table for sample 10 : JLSL024 (1:19)**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/ $\mu$ l]	% of Total	Size distribution in CV [%]
200	1,000	539	849.0	4,267.0	1,182.57	55	41.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
 Modified: 10/20/2016 1:42:06 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : JLSL025 (1:34)**

Number of peaks found: 17                      Corr. Area 1: 710.3  
 Noise: 0.2

**Peak table for sample 11 : JLSL025 (1:34)**

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	325	209.92	979.3		72.00
3	332	45.56	208.0		72.56
4	411	14.06	51.8		78.63
5	437	16.64	57.7		80.10
6	466	25.23	82.0		81.77
7	482	20.07	63.1		82.68
8	563	18.39	49.5		86.68
9	644	37.87	89.1		89.77
10	703	57.97	124.9		91.54
11	957	112.47	178.1		95.13
12	1,444	171.76	180.2		98.37
13	1,530	66.98	66.3		98.88
14	1,693	59.73	53.5		99.84
15	1,907	199.02	158.1		101.11
16	5,196	8.70	2.5		107.43
17	6,207	6.32	1.5		108.70
18	7,278	3.72	0.8		109.96
19	10,380	75.00	10.9	Upper Marker	113.00

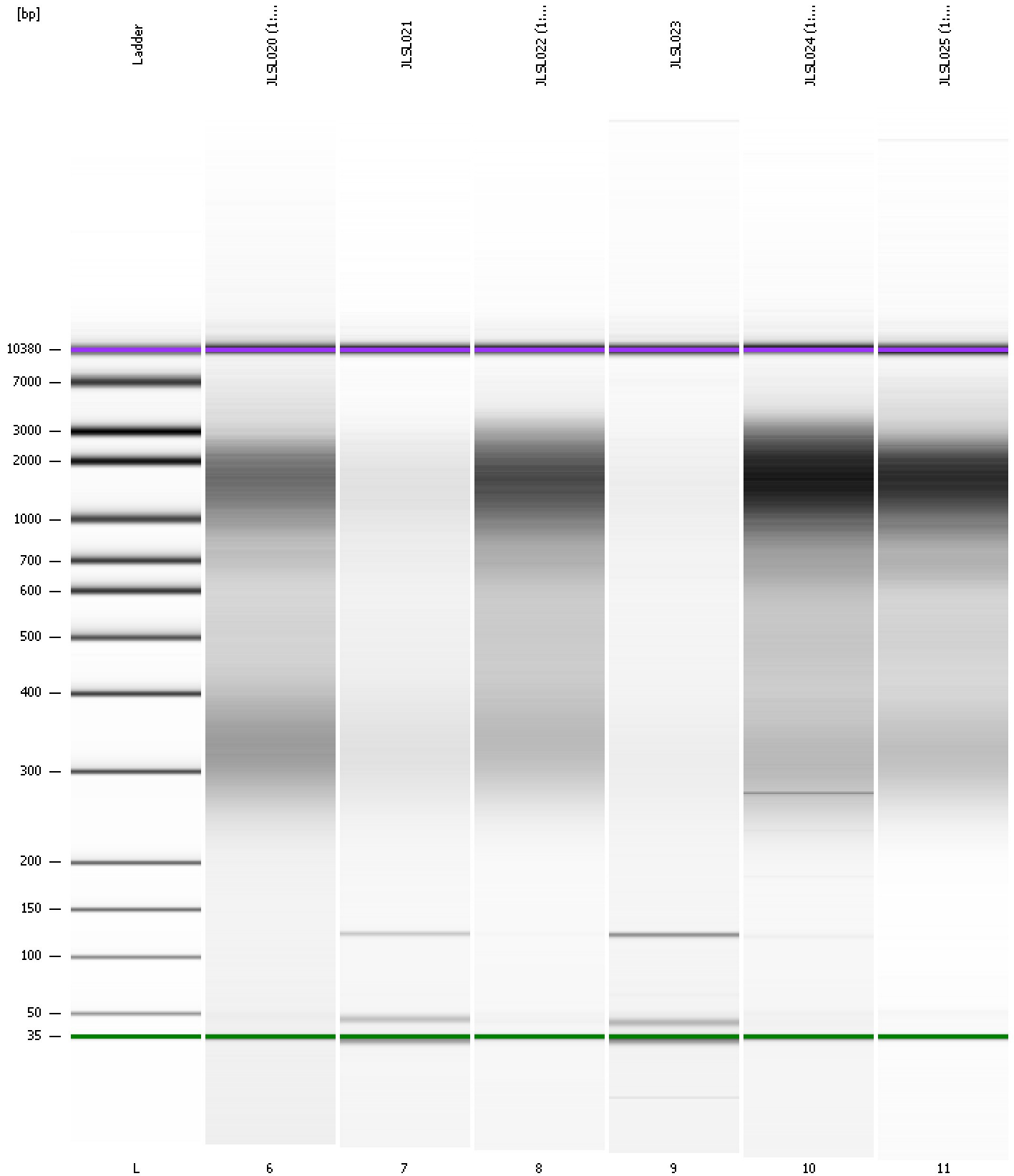
**Region table for sample 11 : JLSL025 (1:34)**

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	544	710.3	3,084.9	872.59	54	40.9

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
Modified: 10/20/2016 1:42:06 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...0 expert\data\2016-10-20\2016-10-20\_001\_JLSL020-JLSL025.xad

Created: 10/20/2016 10:18:29 AM  
 Modified: 10/20/2016 1:42:06 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		10/20/2016 10:59:48 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\2016-10-20\2016-10-20_001.xad)		Instrument	Run		10/20/2016 10:18:34 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/20/2016 10:18:34 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/20/2016 10:18:34 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/20/2016 10:18:34 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/20/2016 10:18:34 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/20/2016 10:18:34 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/20/2016 10:18:34 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1