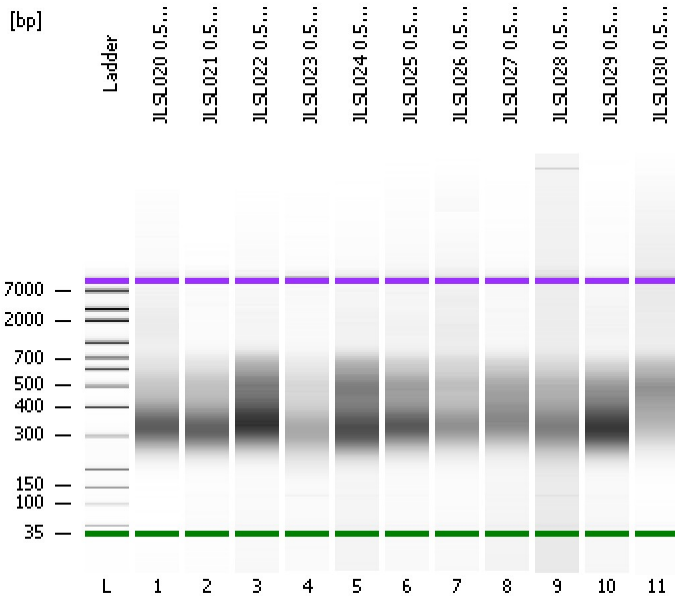


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
Modified: 10/24/2016 4:45:33 PM

### Electrophoresis File Run Summary



#### Instrument Information:

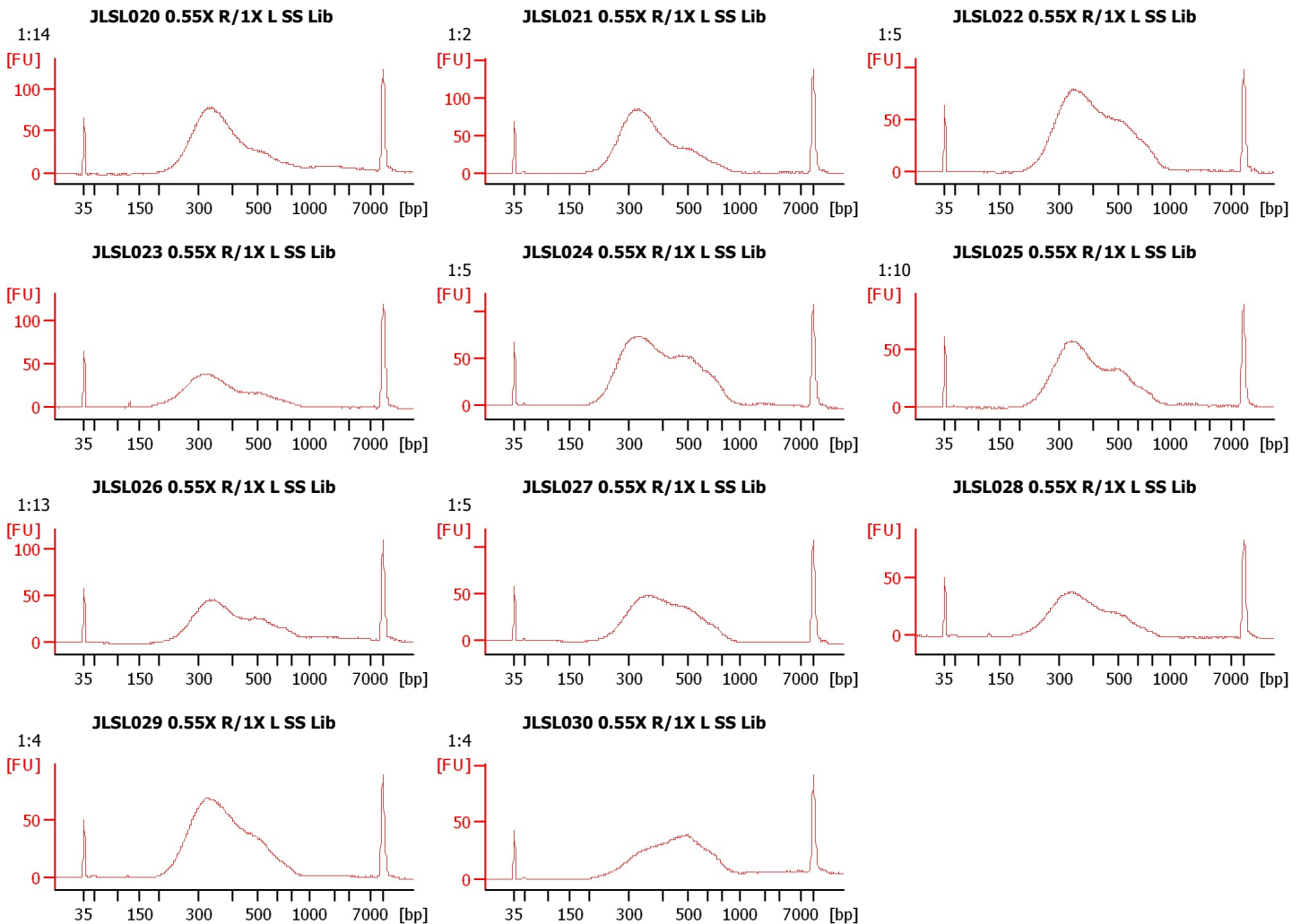
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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:\... bioanalyzer\2100 expert\data\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
 Modified: 10/24/2016 4:45:33 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
JLSL020 0.55X R/1X L SS Lib	1:14	<input type="checkbox"/>	✓			
JLSL021 0.55X R/1X L SS Lib	1:2	<input type="checkbox"/>	✓			
JLSL022 0.55X R/1X L SS Lib	1:5	<input type="checkbox"/>	✓			
JLSL023 0.55X R/1X L SS Lib		<input type="checkbox"/>	✓			
JLSL024 0.55X R/1X L SS Lib	1:5	<input type="checkbox"/>	✓			
JLSL025 0.55X R/1X L SS Lib	1:10	<input type="checkbox"/>	✓			
JLSL026 0.55X R/1X L SS Lib	1:13	<input type="checkbox"/>	✓			
JLSL027 0.55X R/1X L SS Lib	1:5	<input type="checkbox"/>	✓			
JLSL028 0.55X R/1X L SS Lib		<input type="checkbox"/>	✓			
JLSL029 0.55X R/1X L SS Lib	1:4	<input type="checkbox"/>	✓			
JLSL030 0.55X R/1X L SS Lib	1:4	<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\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
Modified: 10/24/2016 4:45:33 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

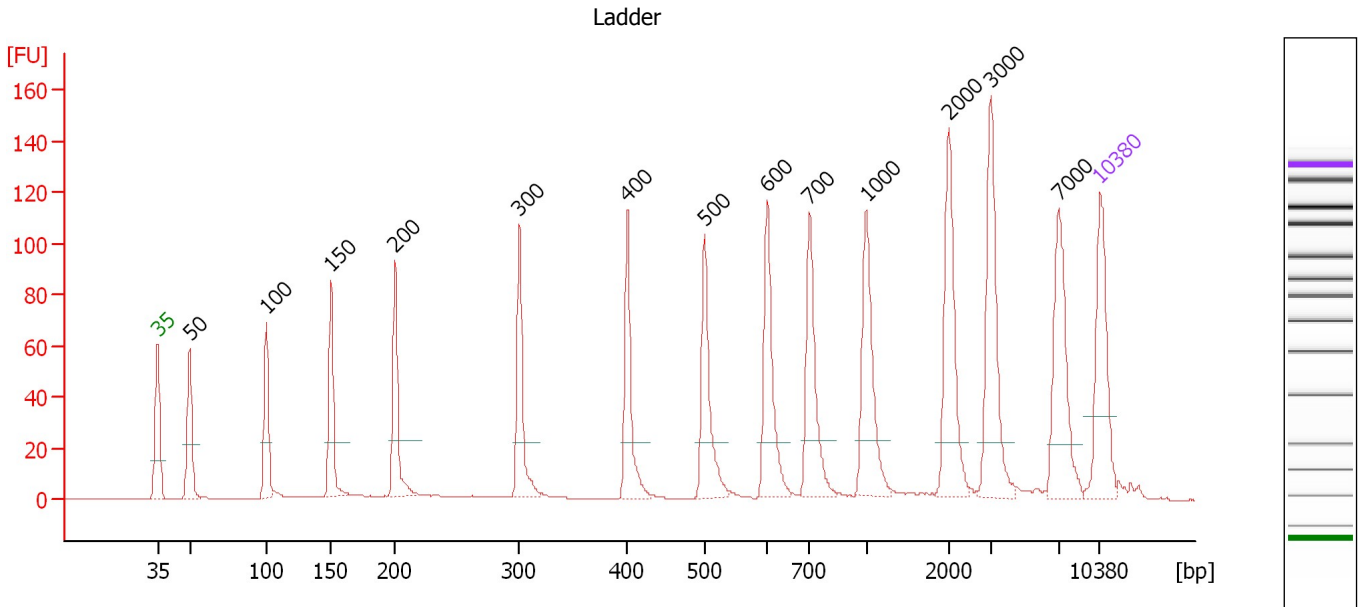
**Ladder**

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\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
 Modified: 10/24/2016 4:45:33 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

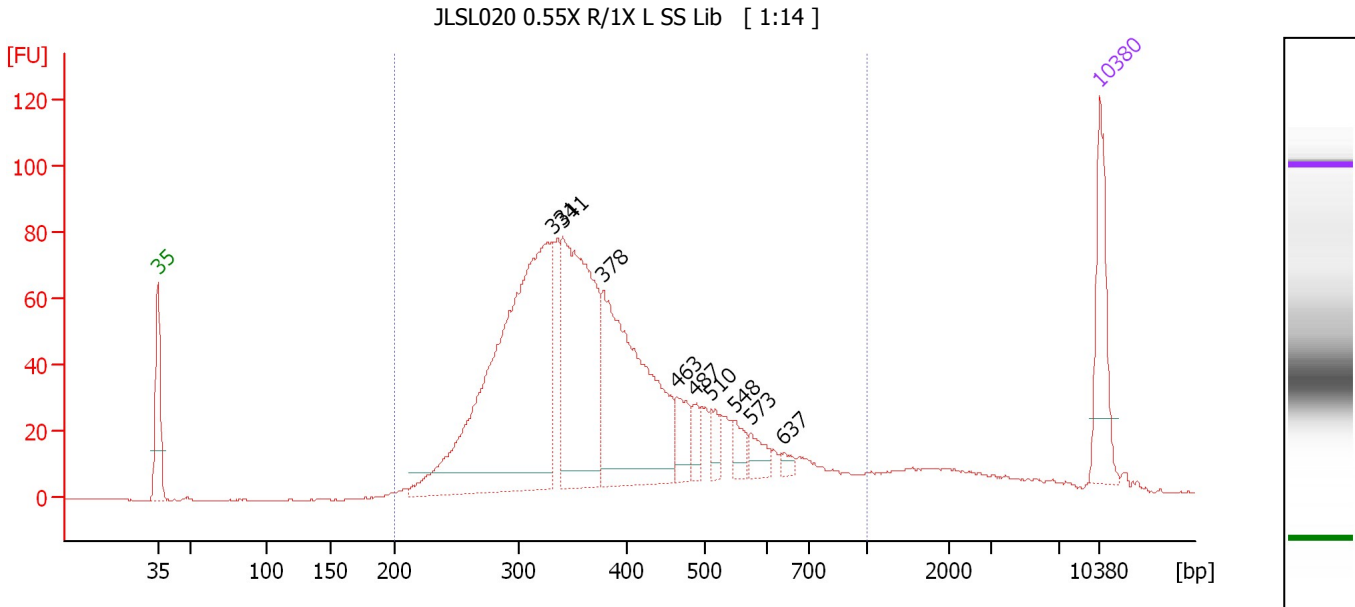
**Peak table for Ladder**

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	45.38
3	100	150.00	2,272.7	Ladder Peak	51.08
4	150	150.00	1,515.2	Ladder Peak	55.88
5	200	150.00	1,136.4	Ladder Peak	60.64
6	300	150.00	757.6	Ladder Peak	69.85
7	400	150.00	568.2	Ladder Peak	77.88
8	500	150.00	454.5	Ladder Peak	83.67
9	600	150.00	378.8	Ladder Peak	88.33
10	700	150.00	324.7	Ladder Peak	91.45
11	1,000	150.00	227.3	Ladder Peak	95.66
12	2,000	150.00	113.6	Ladder Peak	101.80
13	3,000	150.00	75.8	Ladder Peak	104.92
14	7,000	150.00	32.5	Ladder Peak	109.93
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
 Modified: 10/24/2016 4:45:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : JLSL020 0.55X R/1X L SS Lib**

Number of peaks found: 9                      Corr. Area 1: 1,513.6  
 Noise: 0.2

**Peak table for sample 1 : JLSL020 0.55X R/1X L SS Lib**

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	331	650.22	2,979.8		72.31
3	341	334.48	1,488.0		73.11
4	378	342.36	1,372.7		76.10
5	463	41.54	135.9		81.54
6	487	23.75	73.8		82.94
7	510	22.24	66.1		84.14
8	548	23.06	63.8		85.89
9	573	22.14	58.5		87.09
10	637	8.72	20.7		89.48
11	10,380	75.00	10.9	Upper Marker	113.00

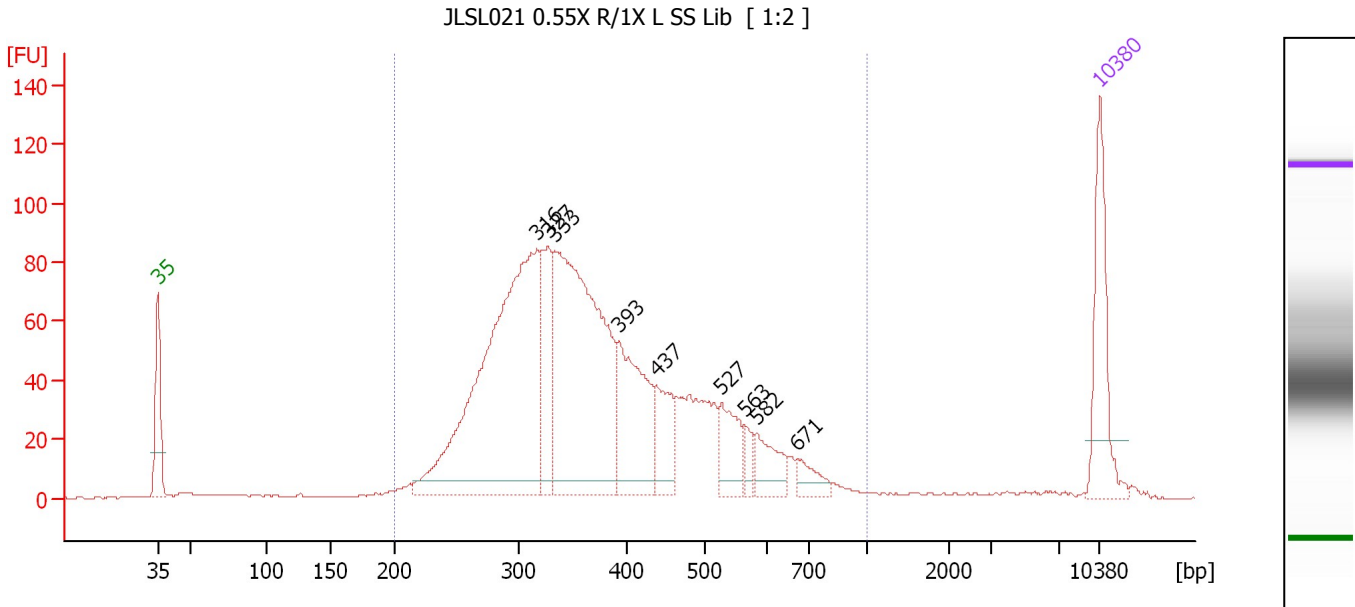
**Region table for sample 1 : JLSL020 0.55X R/1X L SS Lib**

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	394	1,513.6	7,928.6	1,857.31	91	31.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
 Modified: 10/24/2016 4:45:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : JLSL021 0.55X R/1X L SS Lib**

Number of peaks found: 9                      Corr. Area 1: 1,706.1  
 Noise: 0.2

**Peak table for sample 2 : JLSL021 0.55X R/1X L SS Lib**

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	316	530.57	2,543.3		71.14
3	327	93.78	434.9		71.99
4	333	426.59	1,941.1		72.50
5	393	137.44	529.8		77.32
6	437	57.50	199.2		80.04
7	527	51.33	147.7		84.91
8	563	14.99	40.3		86.62
9	582	37.23	97.0		87.47
10	671	21.09	47.6		90.54
11	10,380	75.00	10.9	Upper Marker	113.00

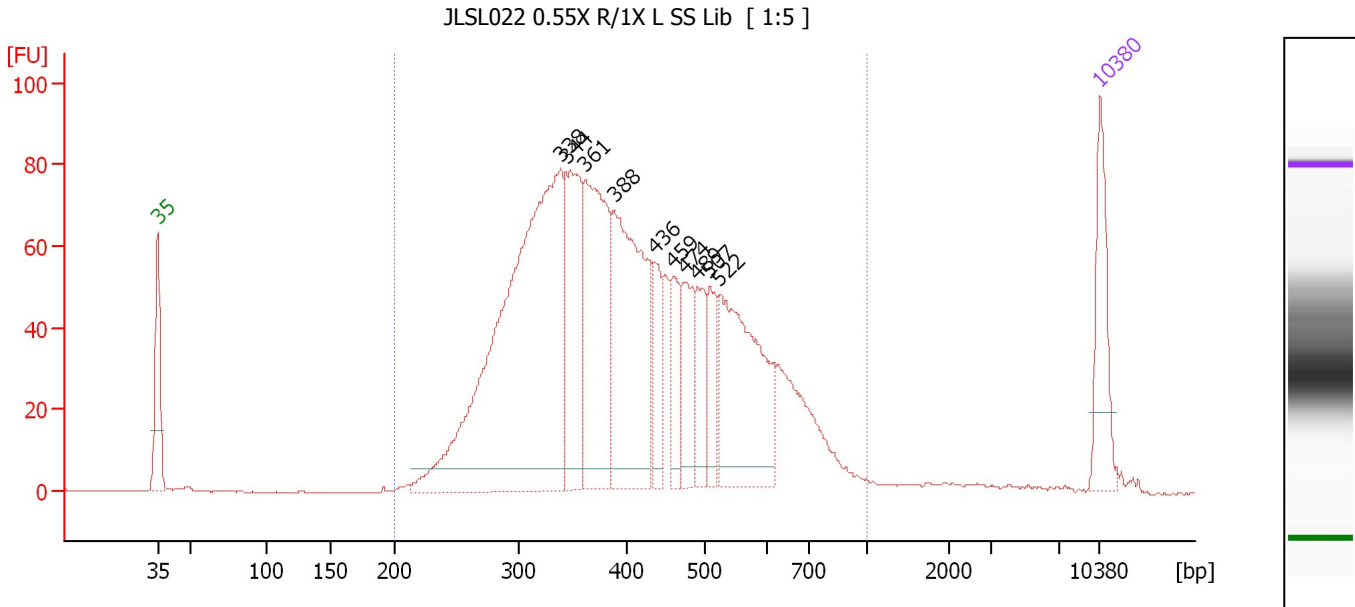
**Region table for sample 2 : JLSL021 0.55X R/1X L SS Lib**

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	385	1,706.1	6,867.3	1,579.80	95	29.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
 Modified: 10/24/2016 4:45:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : JLSL022 0.55X R/1X L SS Lib**

Number of peaks found: 10                      Corr. Area 1: 1,830.2  
 Noise: 0.1

**Peak table for sample 3 : JLSL022 0.55X R/1X L SS Lib**

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	338	838.78	3,761.4		72.89
3	344	192.44	848.6		73.35
4	361	278.01	1,165.4		74.78
5	388	320.83	1,252.3		76.93
6	436	64.87	225.6		79.94
7	459	68.60	226.2		81.32
8	474	78.48	250.7		82.19
9	489	63.95	198.0		83.06
10	507	61.92	185.2		83.98
11	522	249.31	723.7		84.69
12	10,380	75.00	10.9	Upper Marker	113.00

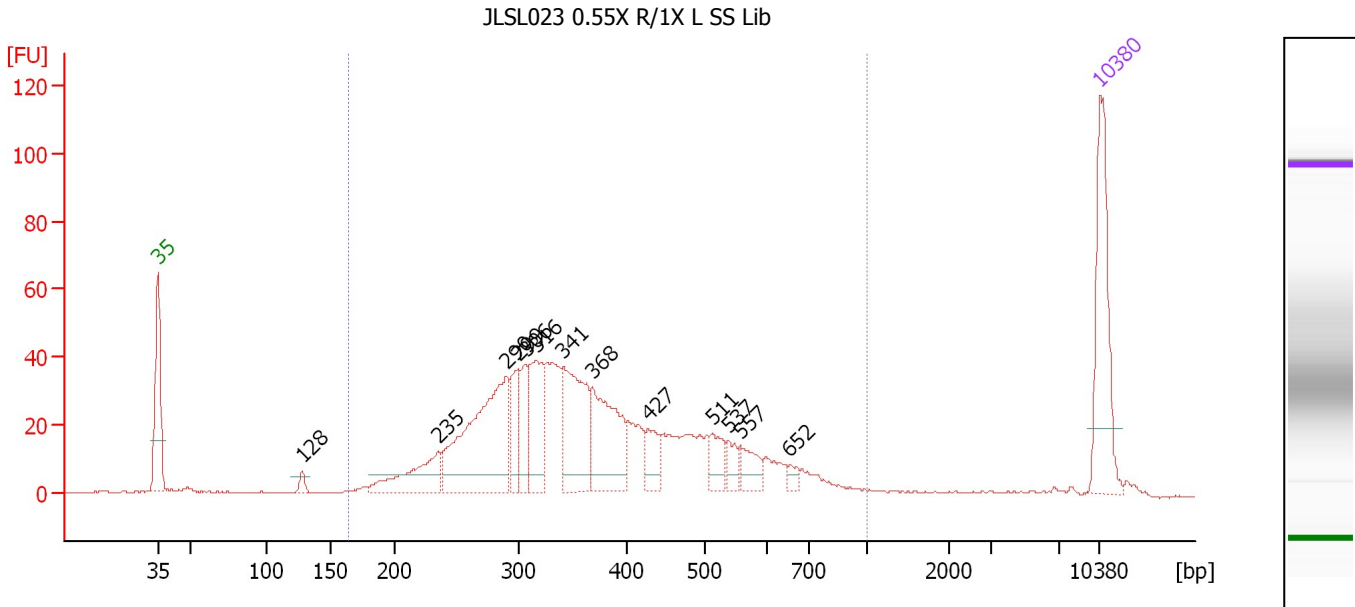
**Region table for sample 3 : JLSL022 0.55X R/1X L SS Lib**

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	422	1,830.2	10,217.5	2,552.99	96	29.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
 Modified: 10/24/2016 4:45:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : JLSL023 0.55X R/1X L SS Lib**

Number of peaks found: 13                      Corr. Area 1: 899.5  
 Noise: 0.2

**Peak table for sample 4 : JLSL023 0.55X R/1X L SS Lib**

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	128	8.00	94.7		53.78
3	235	59.82	386.3		63.83
4	290	182.54	954.5		68.91
5	299	40.77	206.4		69.79
6	306	39.10	193.4		70.36
7	316	66.36	318.2		71.13
8	341	100.45	446.1		73.16
9	368	95.22	392.4		75.28
10	427	23.93	85.0		79.42
11	511	21.93	65.0		84.19
12	537	14.46	40.8		85.38
13	557	20.57	56.0		86.32
14	652	6.47	15.0		89.94
15	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : JLSL023 0.55X R/1X L SS Lib**

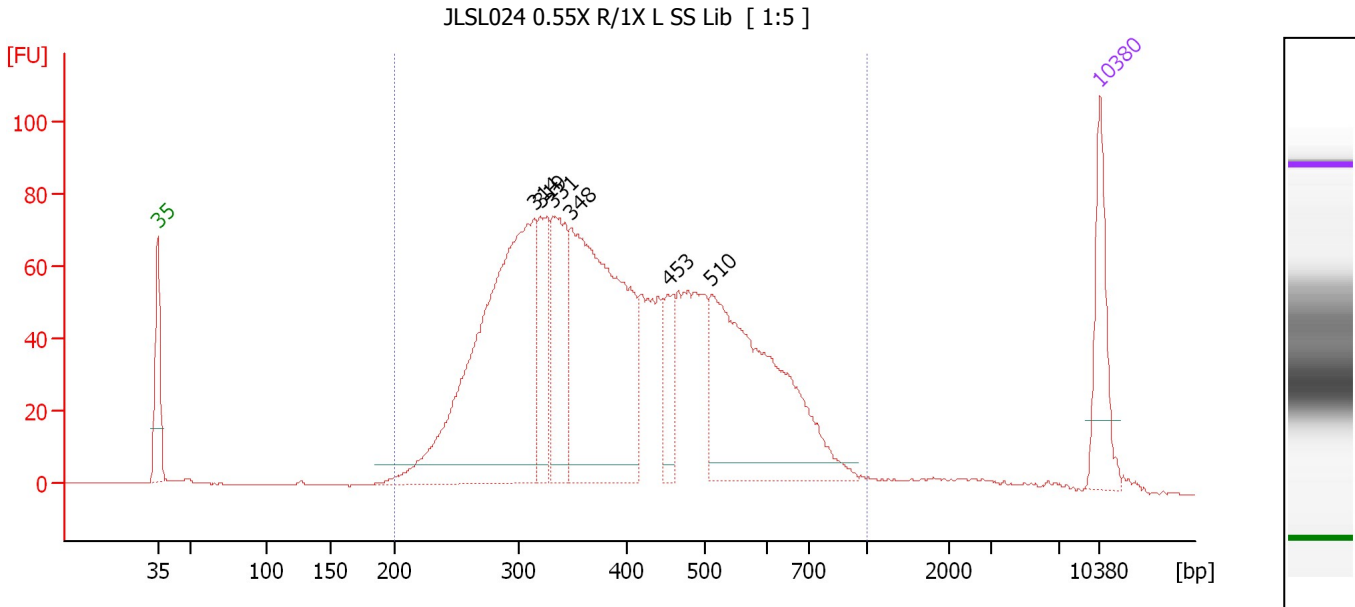
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
164	1,000	384	899.5	4,322.7	957.86	93	33.3



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
 Modified: 10/24/2016 4:45:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : JLSL024 0.55X R/1X L SS Lib**

Number of peaks found: 6                      Corr. Area 1: 1,937.6  
 Noise: 0.2

**Peak table for sample 5 : JLSL024 0.55X R/1X L SS Lib**

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	314	641.59	3,096.6		70.97
3	319	114.10	541.7		71.39
4	331	167.77	768.1		72.33
5	348	503.52	2,192.7		73.70
6	453	60.26	201.6		80.94
7	510	403.79	1,199.5		84.14
8	10,380	75.00	10.9	Upper Marker	113.00

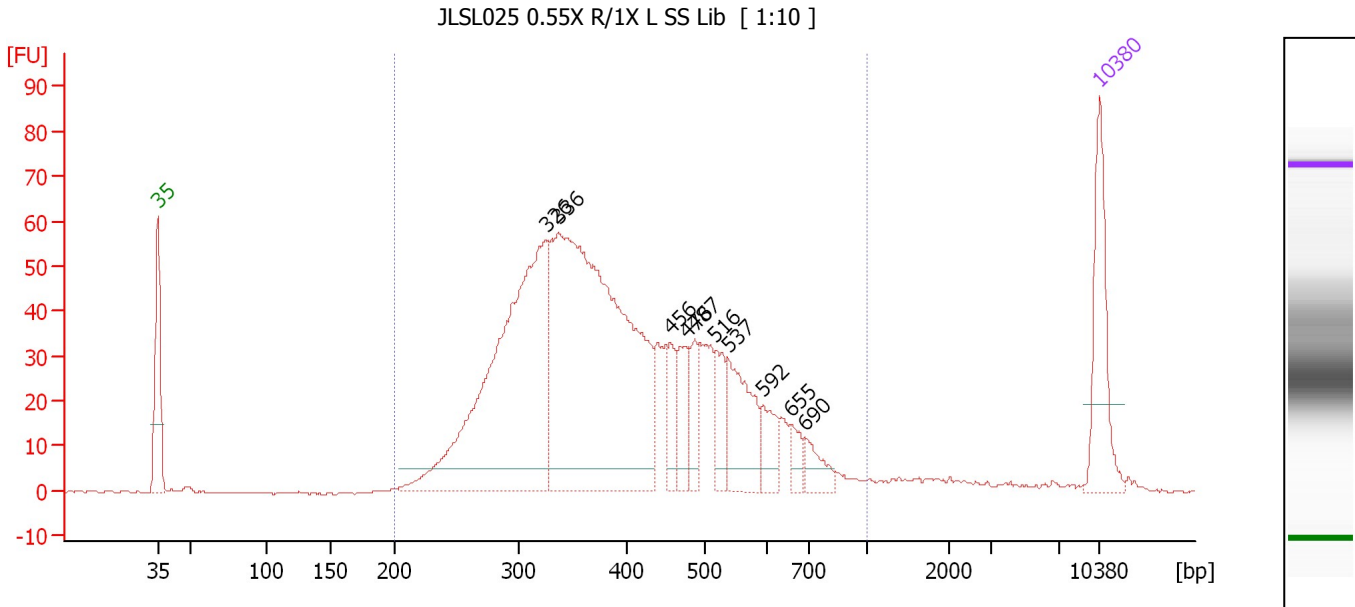
**Region table for sample 5 : JLSL024 0.55X R/1X L SS Lib**

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	415	1,937.6	9,584.0	2,319.35	96	31.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
 Modified: 10/24/2016 4:45:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : JLSL025 0.55X R/1X L SS Lib**

Number of peaks found: 10                      Corr. Area 1: 1,238.4  
 Noise: 0.2

**Peak table for sample 6 : JLSL025 0.55X R/1X L SS Lib**

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	326	506.78	2,354.9		71.94
3	336	700.75	3,160.4		72.74
4	456	38.55	128.2		81.10
5	476	48.35	154.0		82.26
6	487	35.52	110.6		82.89
7	516	39.34	115.5		84.43
8	537	86.32	243.7		85.38
9	592	34.45	88.1		87.97
10	655	18.37	42.5		90.04
11	690	23.44	51.4		91.15
12	10,380	75.00	10.9	Upper Marker	113.00

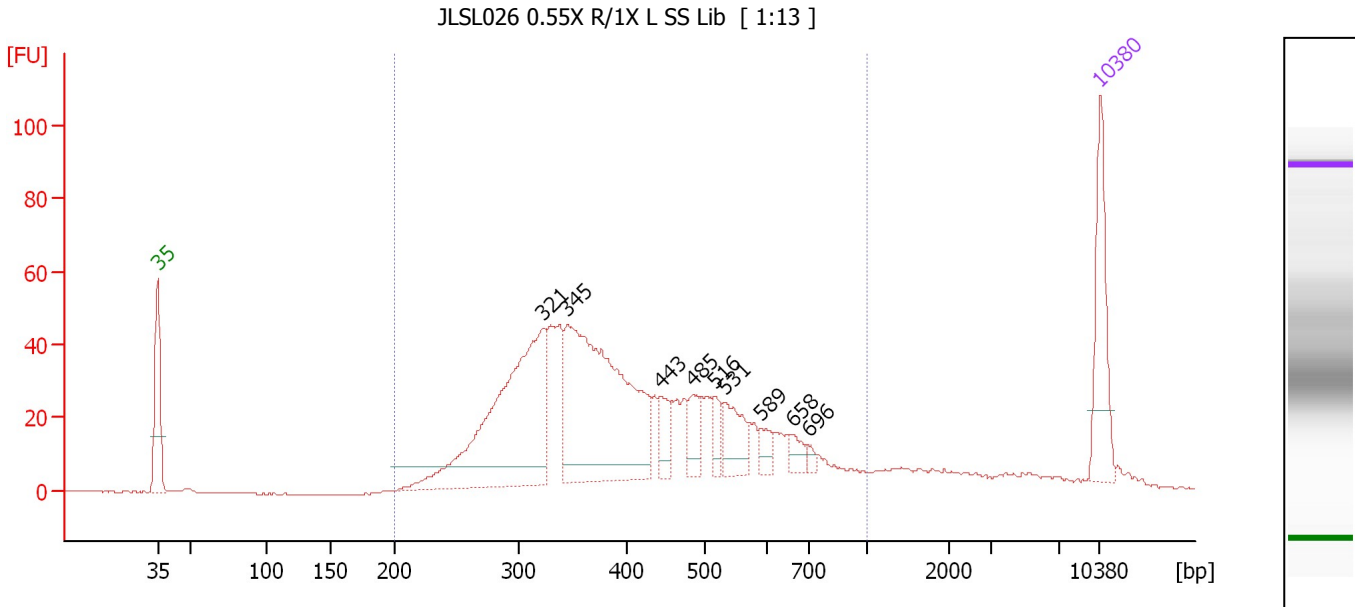
**Region table for sample 6 : JLSL025 0.55X R/1X L SS Lib**

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	410	1,238.4	7,049.4	1,712.22	94	30.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
 Modified: 10/24/2016 4:45:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : JLSL026 0.55X R/1X L SS Lib**

Number of peaks found: 9                      Corr. Area 1: 1,011.9  
 Noise: 0.2

**Peak table for sample 7 : JLSL026 0.55X R/1X L SS Lib**

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	321	365.62	1,724.9		71.55
3	345	397.03	1,745.7		73.43
4	443	31.67	108.3		80.37
5	485	34.73	108.6		82.78
6	516	21.97	64.6		84.40
7	531	50.50	144.2		85.10
8	589	14.70	37.8		87.84
9	658	16.85	38.8		90.15
10	696	6.40	13.9		91.33
11	10,380	75.00	10.9	Upper Marker	113.00

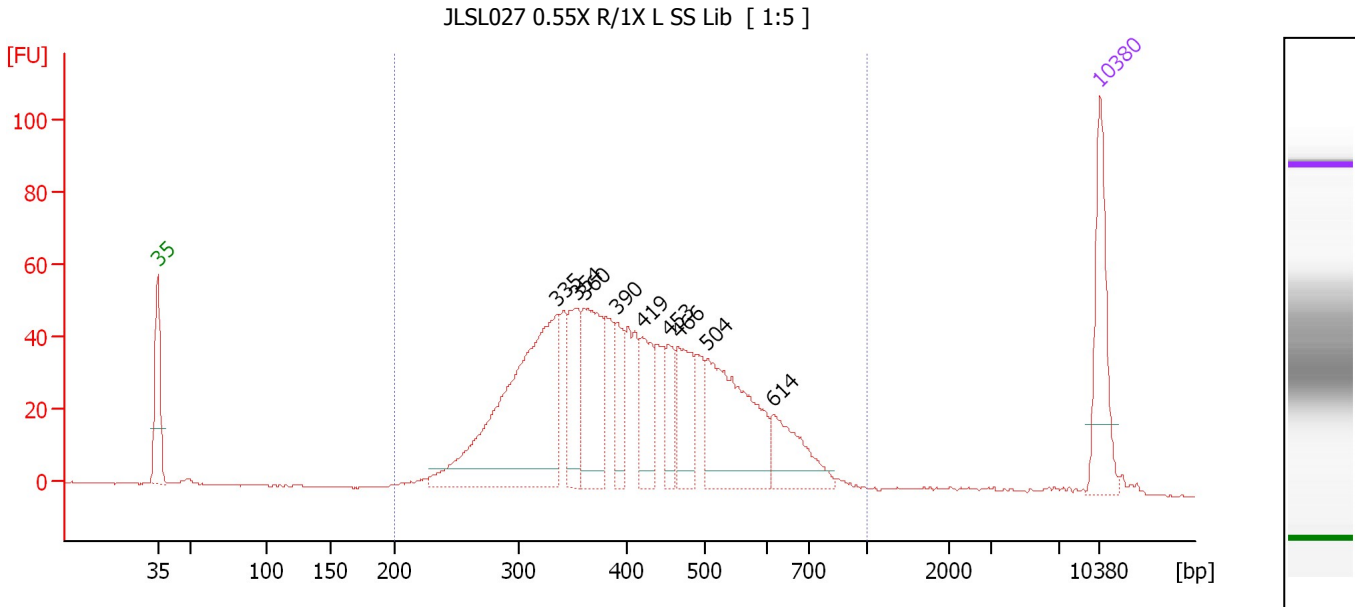
**Region table for sample 7 : JLSL026 0.55X R/1X L SS Lib**

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	423	1,011.9	5,571.6	1,371.69	88	33.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
 Modified: 10/24/2016 4:45:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : JLSL027 0.55X R/1X L SS Lib**

Number of peaks found: 9                      Corr. Area 1: 1,136.9  
 Noise: 0.2

**Peak table for sample 8 : JLSL027 0.55X R/1X L SS Lib**

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	335	368.79	1,665.6		72.70
3	354	76.61	328.2		74.16
4	360	132.74	558.0		74.70
5	390	46.52	180.7		77.08
6	419	65.85	238.2		78.97
7	453	38.30	128.0		80.98
8	466	73.41	238.9		81.68
9	504	180.68	543.5		83.84
10	614	68.49	169.0		88.77
11	10,380	75.00	10.9	Upper Marker	113.00

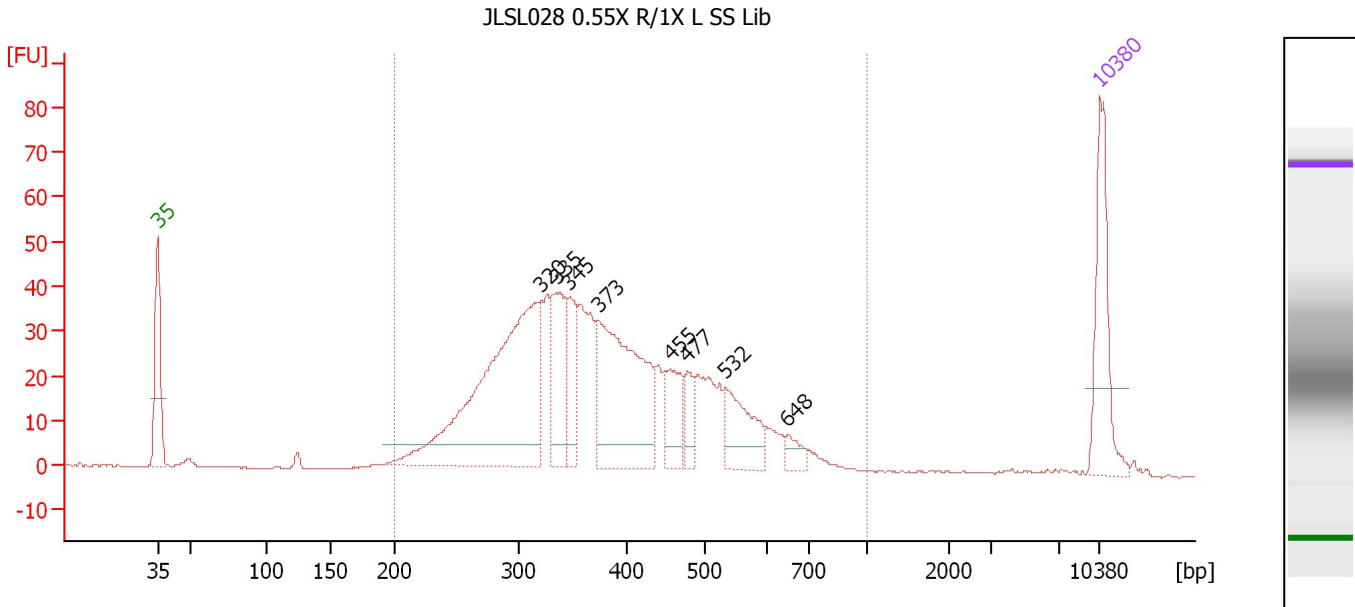
**Region table for sample 8 : JLSL027 0.55X R/1X L SS Lib**

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	423	1,136.9	5,346.0	1,355.48	98	27.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
 Modified: 10/24/2016 4:45:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : JLSL028 0.55X R/1X L SS Lib**

Number of peaks found: 8                      Corr. Area 1: 850.1  
 Noise: 0.1

**Peak table for sample 9 : JLSL028 0.55X R/1X L SS Lib**

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	383.77	1,816.2		71.47
3	335	84.92	384.0		72.67
4	345	60.21	264.2		73.48
5	373	222.26	902.7		75.71
6	455	51.21	170.6		81.05
7	477	24.72	78.5		82.35
8	532	65.78	187.2		85.19
9	648	14.29	33.4		89.81
10	10,380	75.00	10.9	Upper Marker	113.00

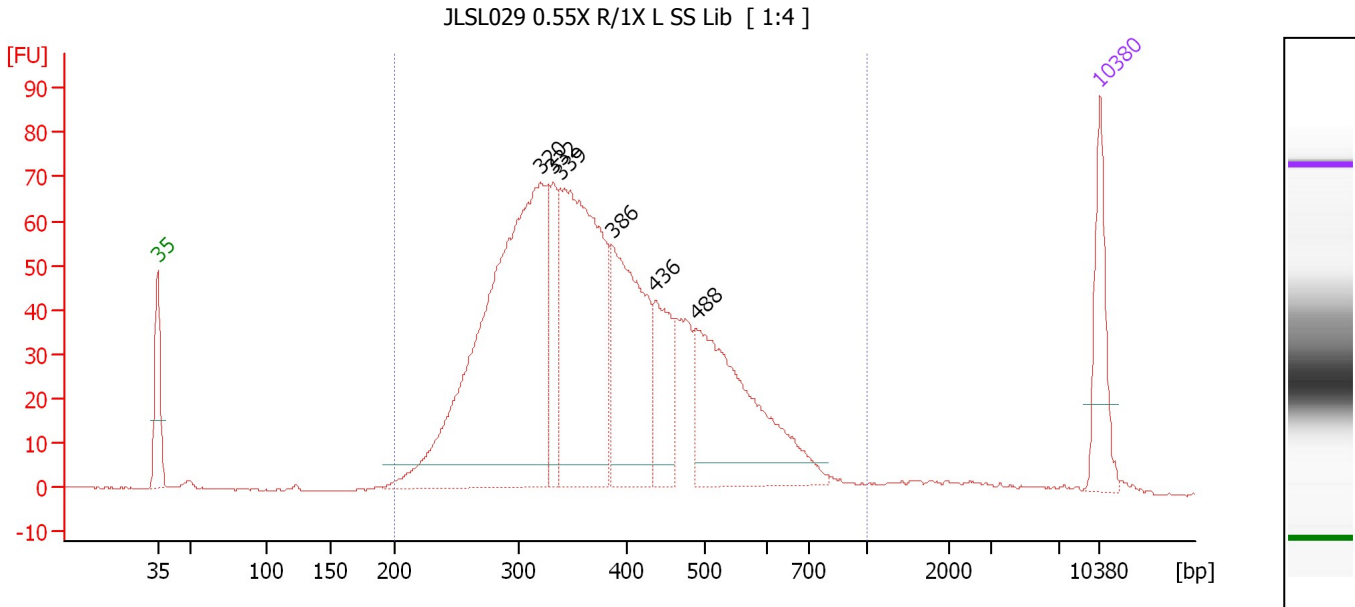
**Region table for sample 9 : JLSL028 0.55X R/1X L SS Lib**

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	392	850.1	5,381.2	1,259.29	96	28.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
 Modified: 10/24/2016 4:45:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : JLSL029 0.55X R/1X L SS Lib**

Number of peaks found: 6                      Corr. Area 1: 1,497.5  
 Noise: 0.1

**Peak table for sample 10 : JLSL029 0.55X R/1X L SS Lib**

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	836.12	3,963.3		71.43
3	332	111.63	509.6		72.41
4	339	482.86	2,159.7		72.96
5	386	277.72	1,090.5		76.74
6	436	113.62	394.7		79.97
7	488	314.68	976.7		82.98
8	10,380	75.00	10.9	Upper Marker	113.00

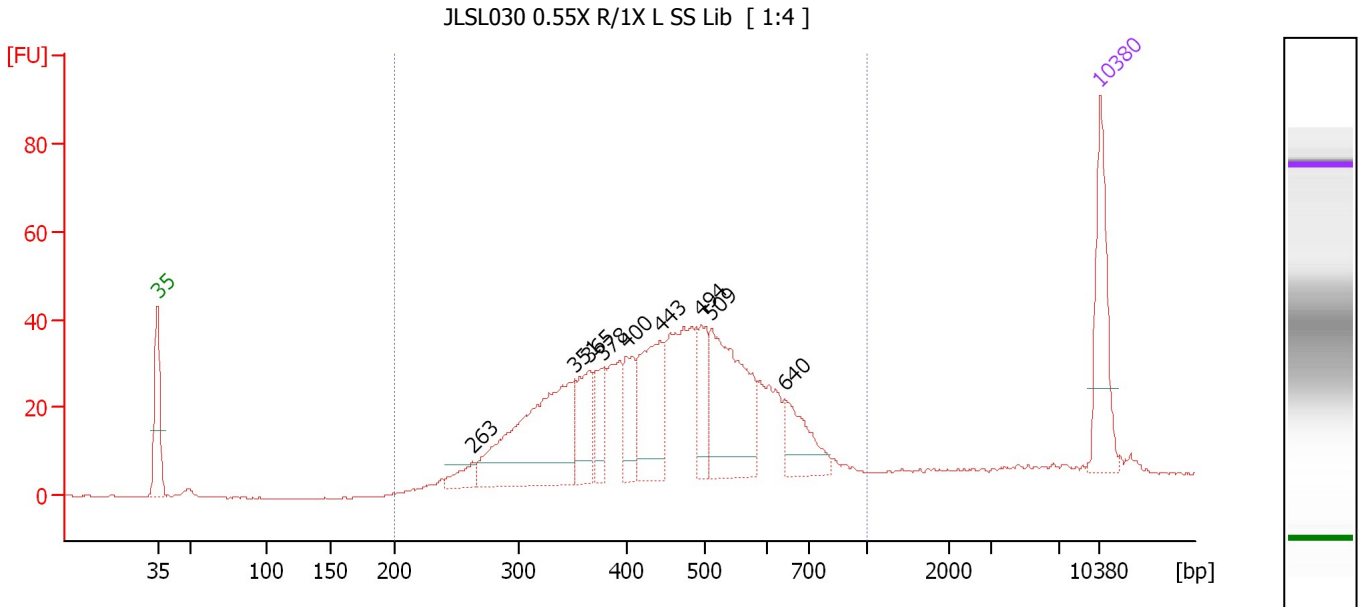
**Region table for sample 10 : JLSL029 0.55X R/1X L SS Lib**

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	390	1,497.5	10,095.0	2,357.38	96	28.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
 Modified: 10/24/2016 4:45:33 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : JLSL030 0.55X R/1X L SS Lib**

Number of peaks found: 9                      Corr. Area 1: 869.6  
 Noise: 0.1

**Peak table for sample 11 : JLSL030 0.55X R/1X L SS Lib**

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	263	23.58	136.1		66.41
3	351	232.32	1,003.3		73.93
4	365	65.56	272.4		75.04
5	378	41.80	167.7		76.09
6	400	52.17	197.7		77.86
7	443	114.54	392.0		80.35
8	494	52.70	161.5		83.34
9	509	167.68	498.7		84.11
10	640	55.38	131.0		89.59
11	10,380	75.00	10.9	Upper Marker	113.00

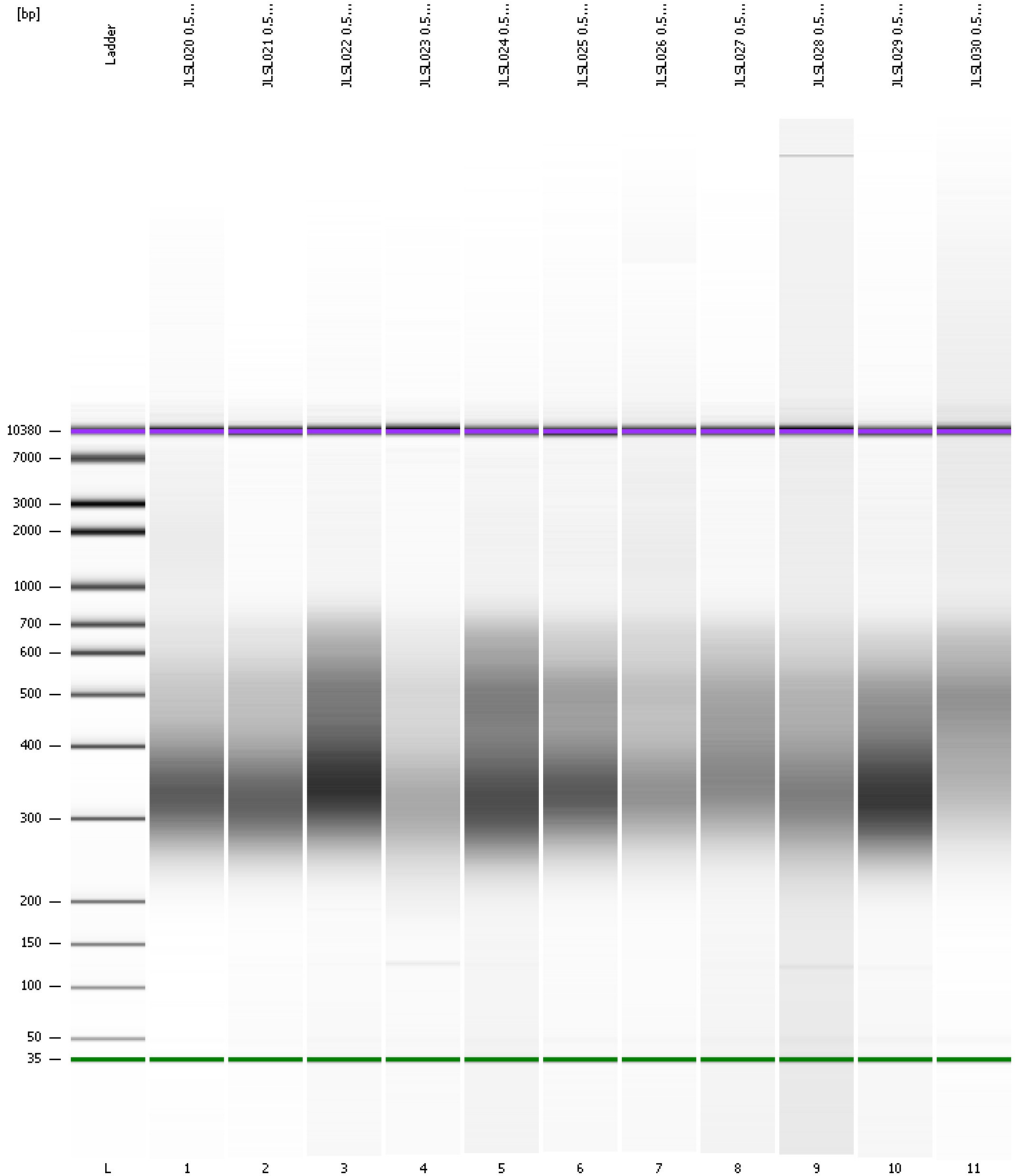
**Region table for sample 11 : JLSL030 0.55X R/1X L SS Lib**

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	465	869.6	4,867.5	1,329.27	81	29.5

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
Modified: 10/24/2016 4:45:33 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-10-24\2016-10-24\_004.xad

Created: 10/24/2016 3:38:56 PM  
 Modified: 10/24/2016 4:45:33 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		10/24/2016 4:20:13 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-10-24\2016-10-24_004.xad)		Instrument	Run		10/24/2016 3:39:02 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/24/2016 3:39:02 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/24/2016 3:39:02 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/24/2016 3:39:02 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/24/2016 3:39:02 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/24/2016 3:39:02 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/24/2016 3:39:02 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1