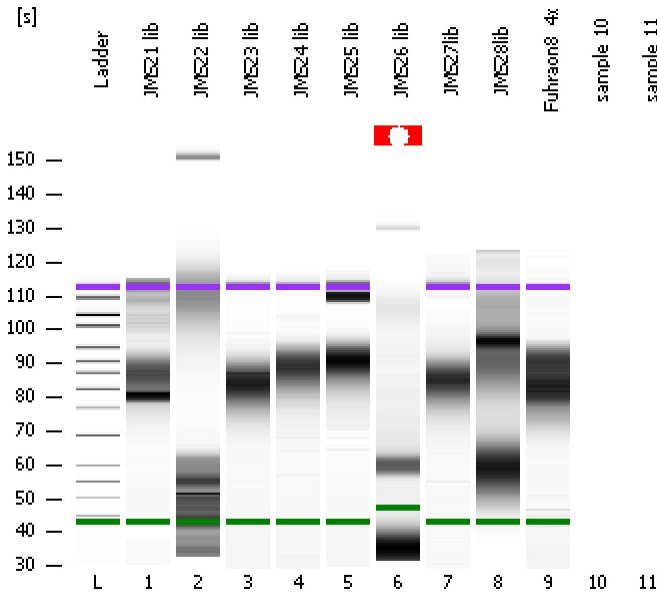


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
Modified: 8/4/2014 10:04:49 AM

**Electrophoresis File Run Summary**



Instrument Information:

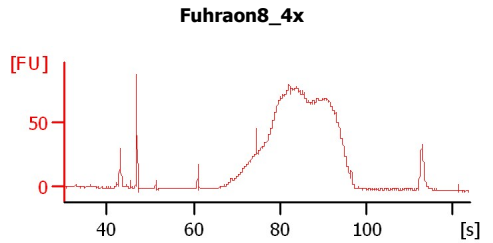
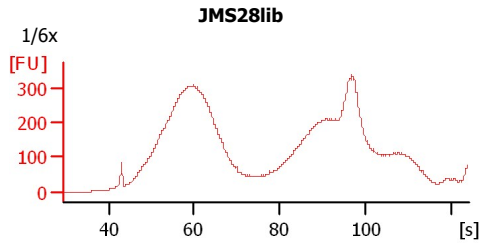
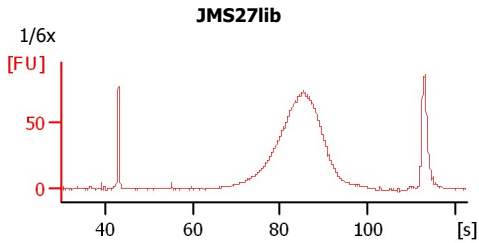
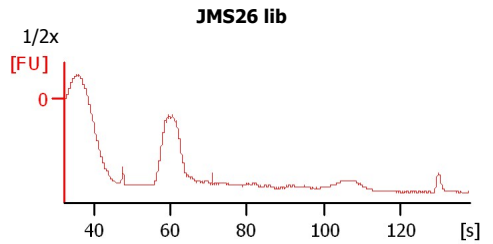
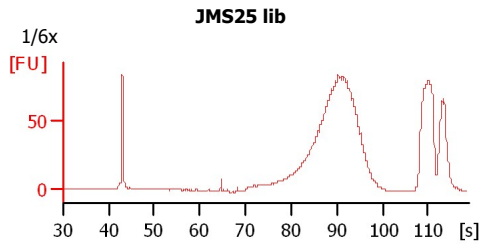
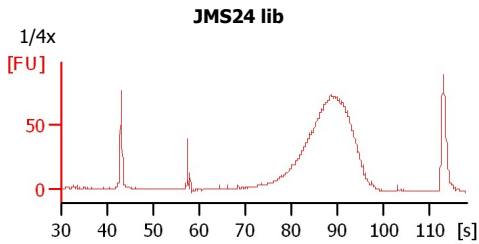
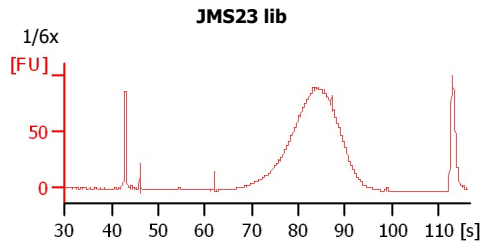
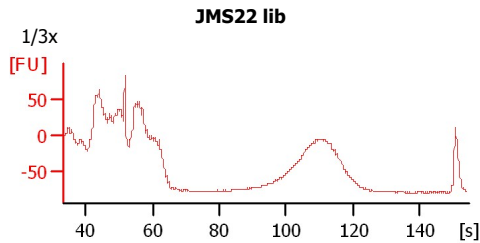
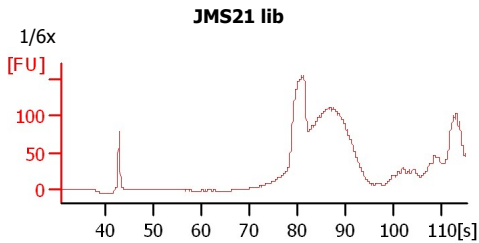
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
 Modified: 8/4/2014 10:04:49 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
JMS21 lib	1/6x	<input type="checkbox"/>	✓			
JMS22 lib	1/3x	<input type="checkbox"/>	✓			
JMS23 lib	1/6x	<input type="checkbox"/>	✓			
JMS24 lib	1/4x	<input type="checkbox"/>	✓			
JMS25 lib	1/6x	<input type="checkbox"/>	✓			
JMS26 lib	1/2x	<input type="checkbox"/>	✓			
JMS27lib	1/6x	<input type="checkbox"/>	✓			
JMS28lib	1/6x	<input type="checkbox"/>	✓			
Fuhraon8_4x		<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\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
Modified: 8/4/2014 10:04:49 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

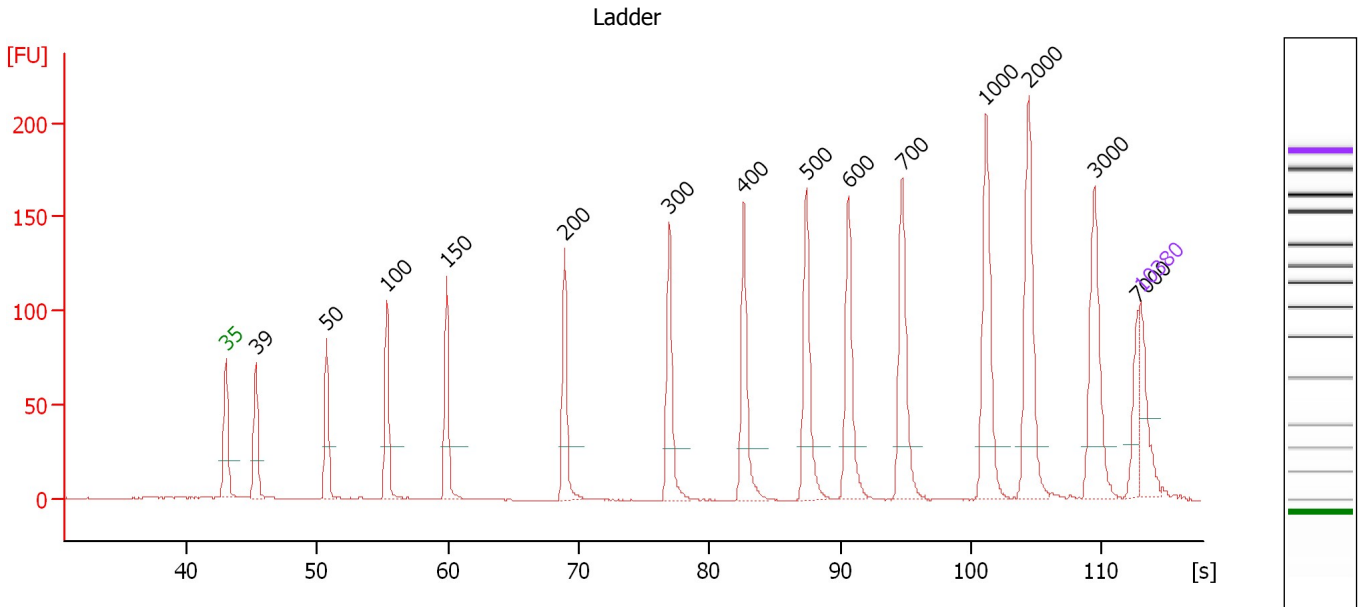
**Ladder**

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:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
 Modified: 8/4/2014 10:04:49 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

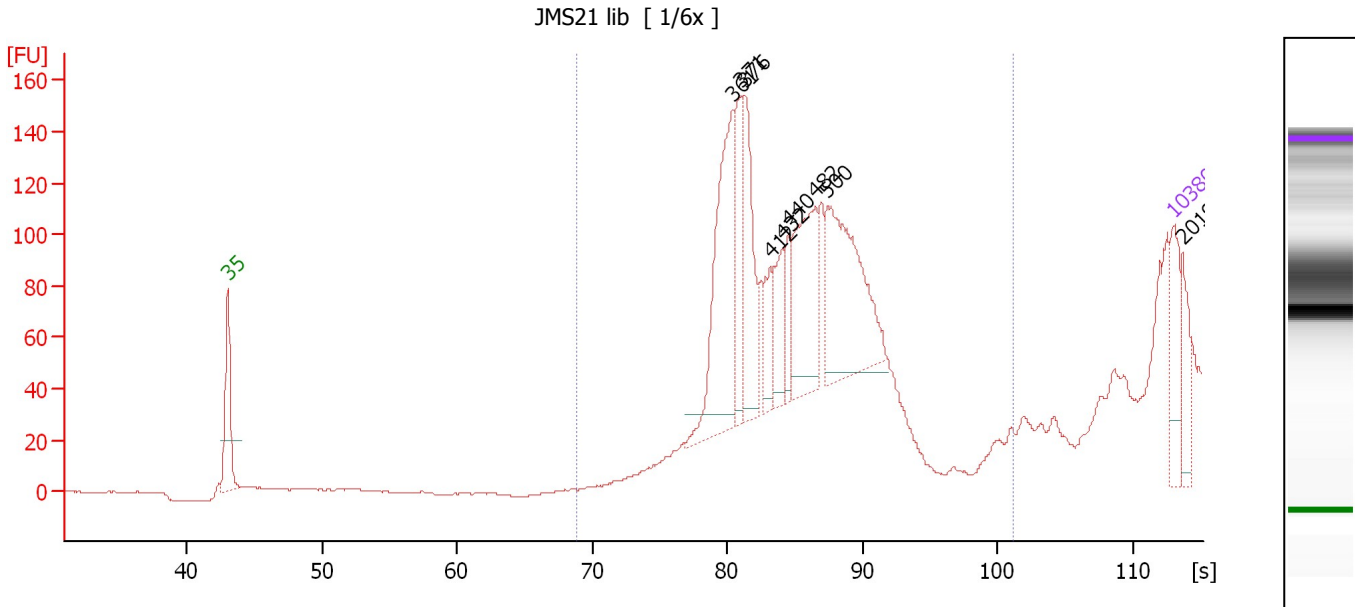
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	0.00	0.0	
3	50	150.00	4,545.5	Ladder Peak
4	100	150.00	2,272.7	Ladder Peak
5	150	150.00	1,515.2	Ladder Peak
6	200	150.00	1,136.4	Ladder Peak
7	300	150.00	757.6	Ladder Peak
8	400	150.00	568.2	Ladder Peak
9	500	150.00	454.5	Ladder Peak
10	600	150.00	378.8	Ladder Peak
11	700	150.00	324.7	Ladder Peak
12	1,000	150.00	227.3	Ladder Peak
13	2,000	150.00	113.6	Ladder Peak
14	3,000	150.00	75.8	Ladder Peak
15	7,000	150.00	32.5	Ladder Peak
16	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
 Modified: 8/4/2014 10:04:49 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : JMS21 lib**

Number of peaks found: 9                      Corr. Area 1: 1,162.0  
 Noise: 0.2

**Peak table for sample 1 : JMS21 lib**

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	361	405.49	1,702.2	
3	371	152.08	620.3	
4	376	207.05	833.5	
5	412	72.24	265.8	
6	432	90.47	317.5	
7	440	60.91	209.7	
8	482	246.56	774.8	
9	500	355.57	1,078.4	
10	10,380	75.00	10.9	Upper Marker
11	20,197	0.00	0.0	

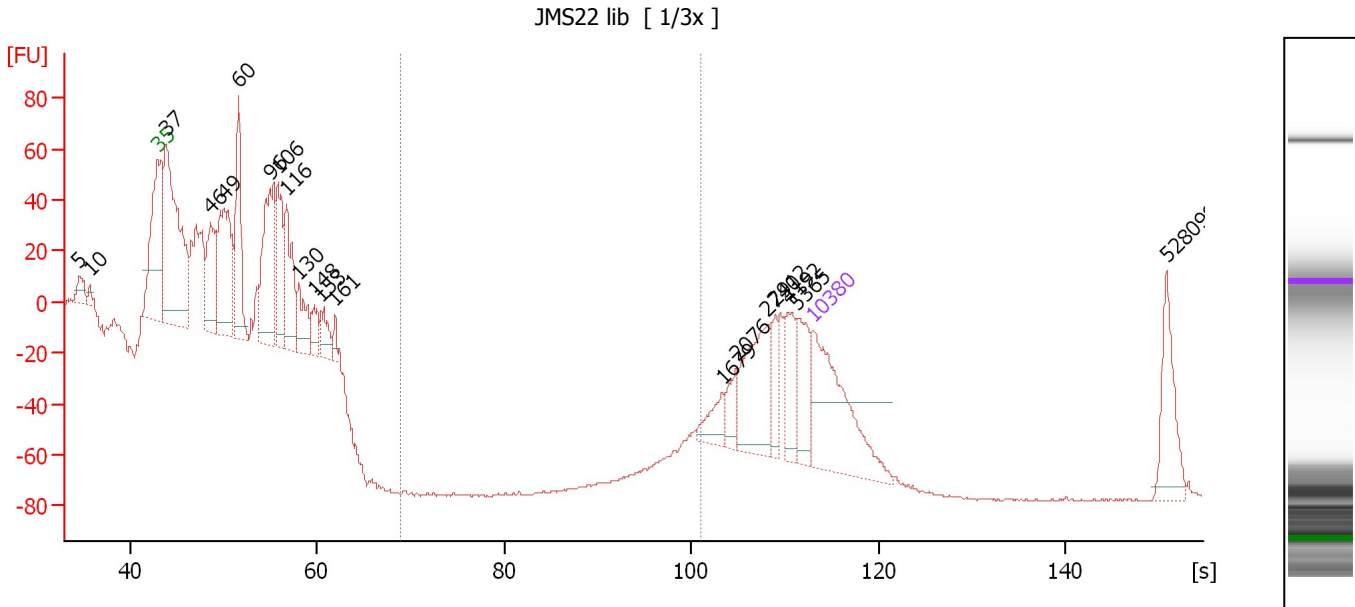
**Region table for sample 1 : JMS21 lib**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	445	6,128.5	1,726.17	1,162.0	95	18.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : JMS22 lib**

Number of peaks found: 20      Corr. Area 1: 0.0  
 Noise: 0.4

**Peak table for sample 2 : JMS22 lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	5	0.00	0.0	
2	10	0.00	0.0	
3	35	125.00	5,411.3	Lower Marker
4	37	231.43	9,562.1	
5	46	73.96	2,440.3	
6	49	114.49	3,561.5	
7	60	88.26	2,220.5	
8	96	115.67	1,818.3	
9	106	65.92	944.1	
10	116	70.90	927.2	
11	130	35.68	416.8	
12	148	17.82	182.5	
13	153	19.27	190.7	
14	161	8.67	81.4	
15	1,679	15.25	13.8	
16	2,076	13.54	9.9	
17	2,740	52.98	29.3	
18	2,912	16.62	8.6	
19	4,192	25.79	9.3	
20	5,365	31.56	8.9	
21	10,380	75.00	10.9	Upper Marker
22	528,099	0.00	0.0	

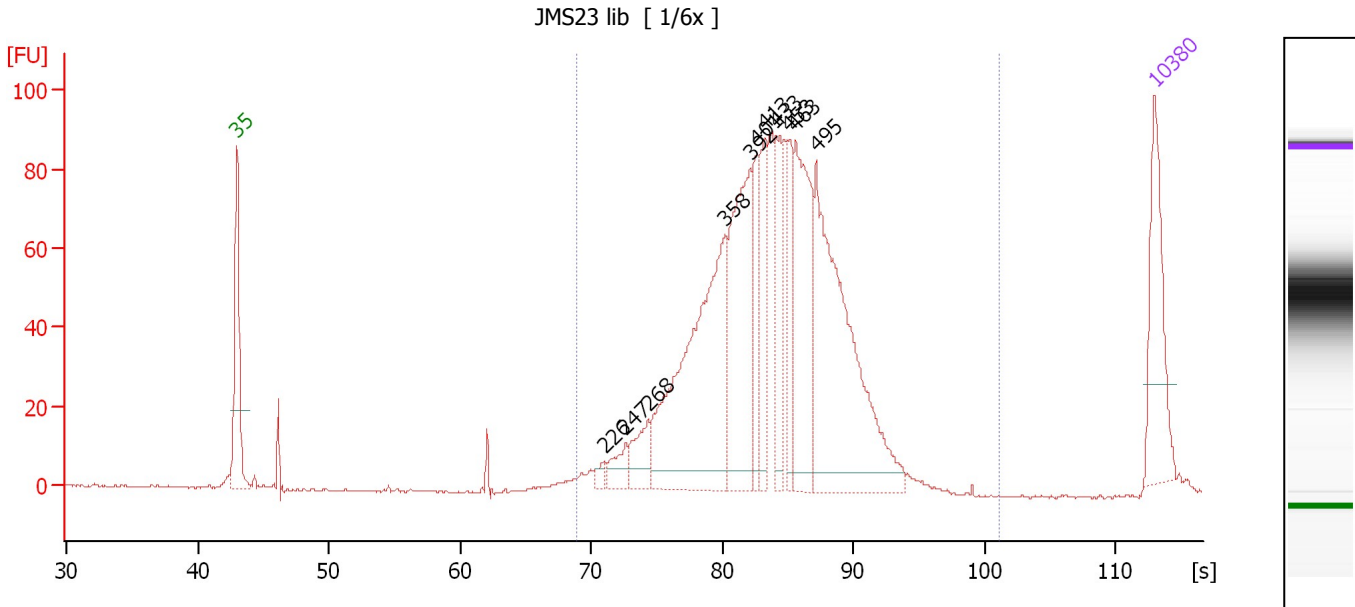
**Region table for sample 2 : JMS22 lib**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	0	0.0	0.00	0.0	0	0.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

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 Modified: 8/4/2014 10:04:49 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : JMS23 lib**

Number of peaks found: 11                      Corr. Area 1: 1,325.7  
 Noise: 0.3

**Peak table for sample 3 : JMS23 lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	226	9.55	63.9	
3	247	25.50	156.7	
4	268	41.43	234.2	
5	358	331.72	1,404.4	
6	392	192.86	745.7	
7	401	60.66	229.4	
8	413	72.29	264.9	
9	433	67.85	237.4	
10	453	61.34	204.9	
11	463	162.21	531.0	
12	495	319.37	977.0	
13	10,380	75.00	10.9	Upper Marker

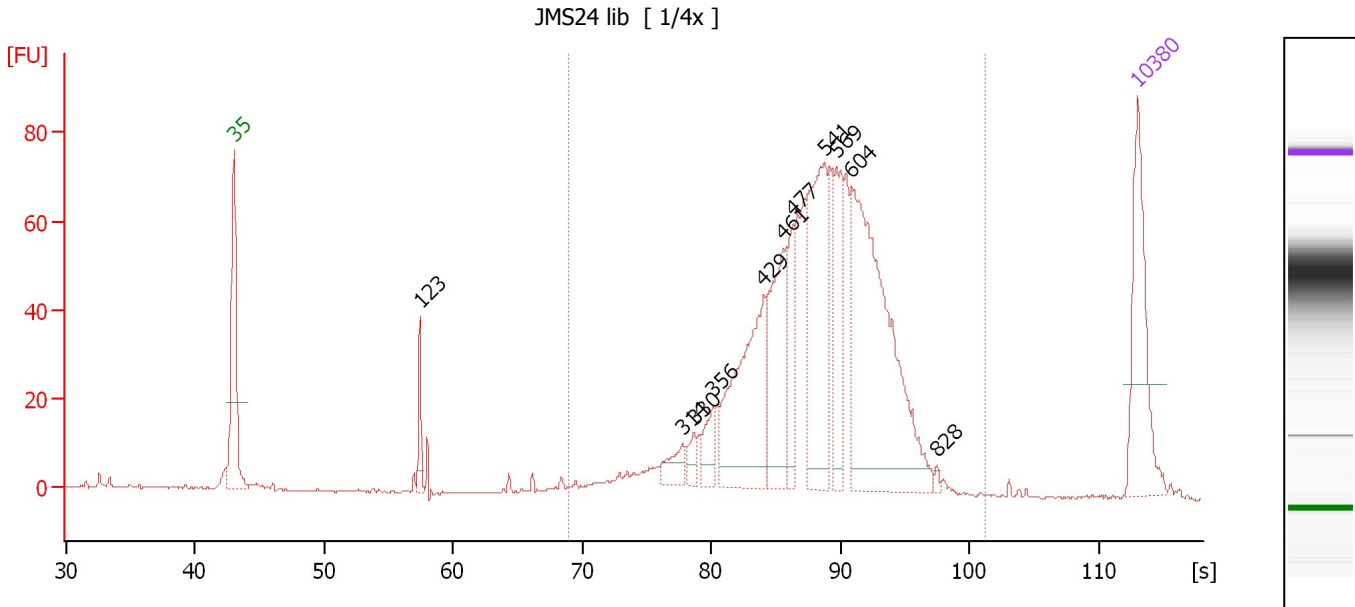
**Region table for sample 3 : JMS23 lib**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	426	5,571.6	1,453.77	1,325.7	98	22.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
 Modified: 8/4/2014 10:04:49 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : JMS24 lib**

Number of peaks found: 11      Corr. Area 1: 1,026.1  
 Noise: 0.2

**Peak table for sample 4 : JMS24 lib**

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	123	27.84	343.9	
3	314	22.50	108.5	
4	330	14.77	67.8	
5	356	27.03	115.1	
6	429	150.83	532.3	
7	461	101.45	333.2	
8	477	48.05	152.6	
9	541	150.98	423.1	
10	569	68.76	183.0	
11	604	276.47	693.1	
12	828	2.64	4.8	
13	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : JMS24 lib**

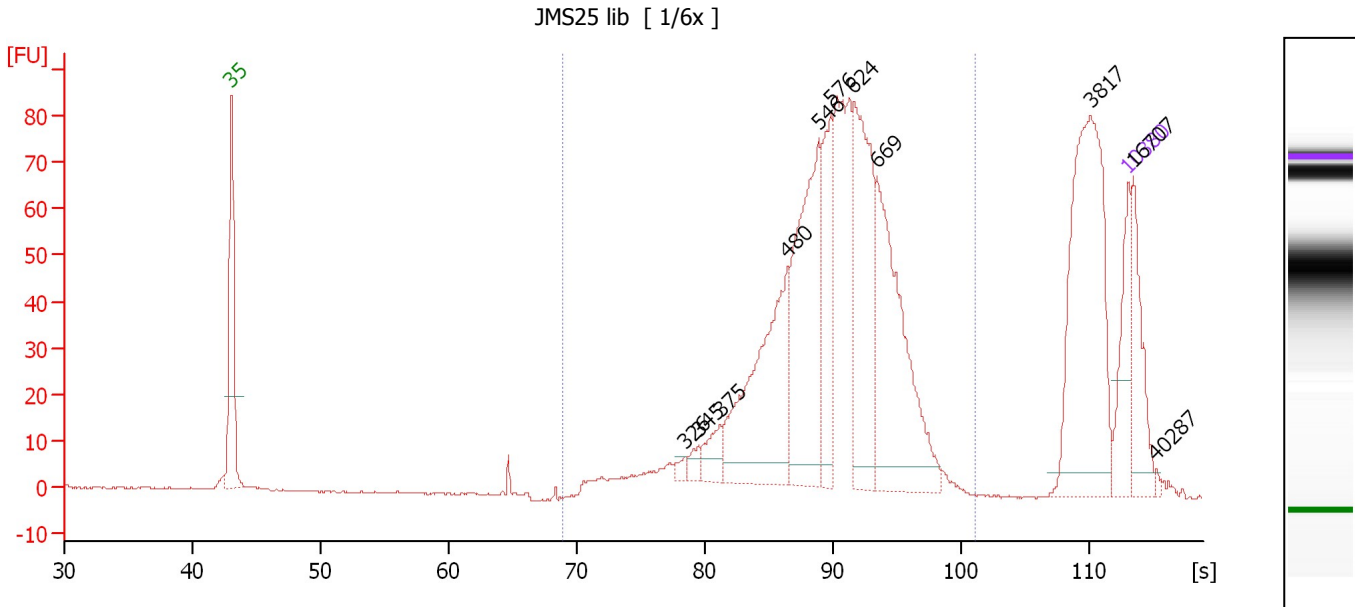
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	525	3,568.7	1,131.66	1,026.1	94	22.8



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
 Modified: 8/4/2014 10:04:49 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : JMS25 lib**

Number of peaks found: 11      Corr. Area 1: 1,049.6  
 Noise: 0.2

**Peak table for sample 5 : JMS25 lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	326	12.02	55.9	
3	345	17.08	75.0	
4	375	41.68	168.5	
5	480	313.52	989.4	
6	546	317.90	882.0	
7	576	140.40	369.2	
8	624	264.68	642.4	
9	669	323.14	731.6	
10	3,817	314.87	125.0	
11	10,380	75.00	10.9	Upper Marker
12	16,707	0.00	0.0	
13	40,287	0.00	0.0	

**Region table for sample 5 : JMS25 lib**

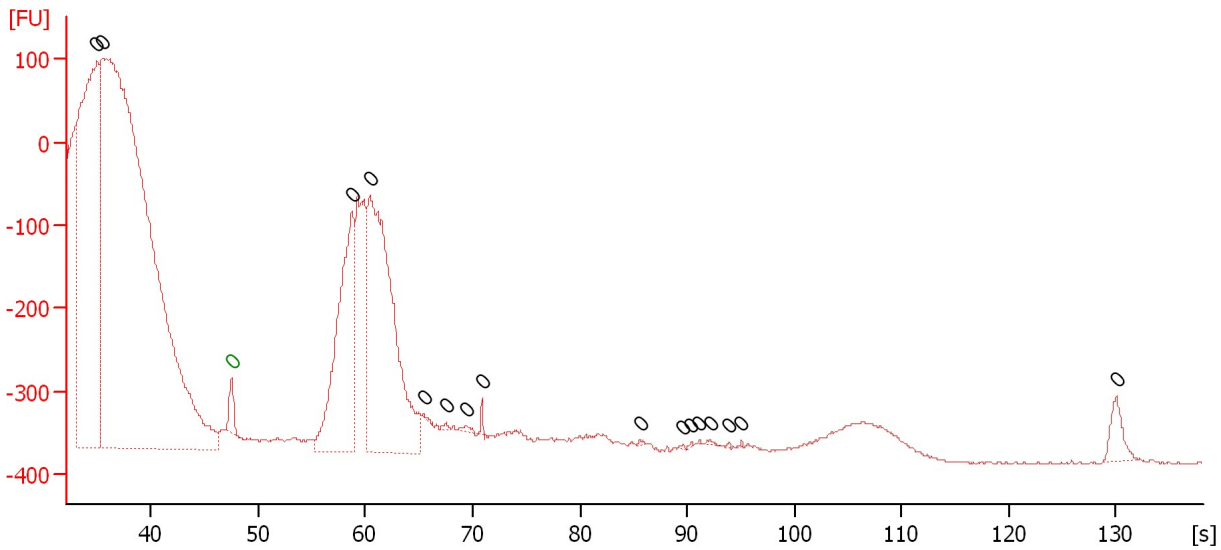
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	567	5,419.2	1,860.81	1,049.6	77	21.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
 Modified: 8/4/2014 10:04:49 AM

**Electropherogram Summary Continued ...**

JMS26 lib [ 1/2x ]



**Overall Results for sample 6 : JMS26 lib**

Number of peaks found: 16      Noise: 1.1

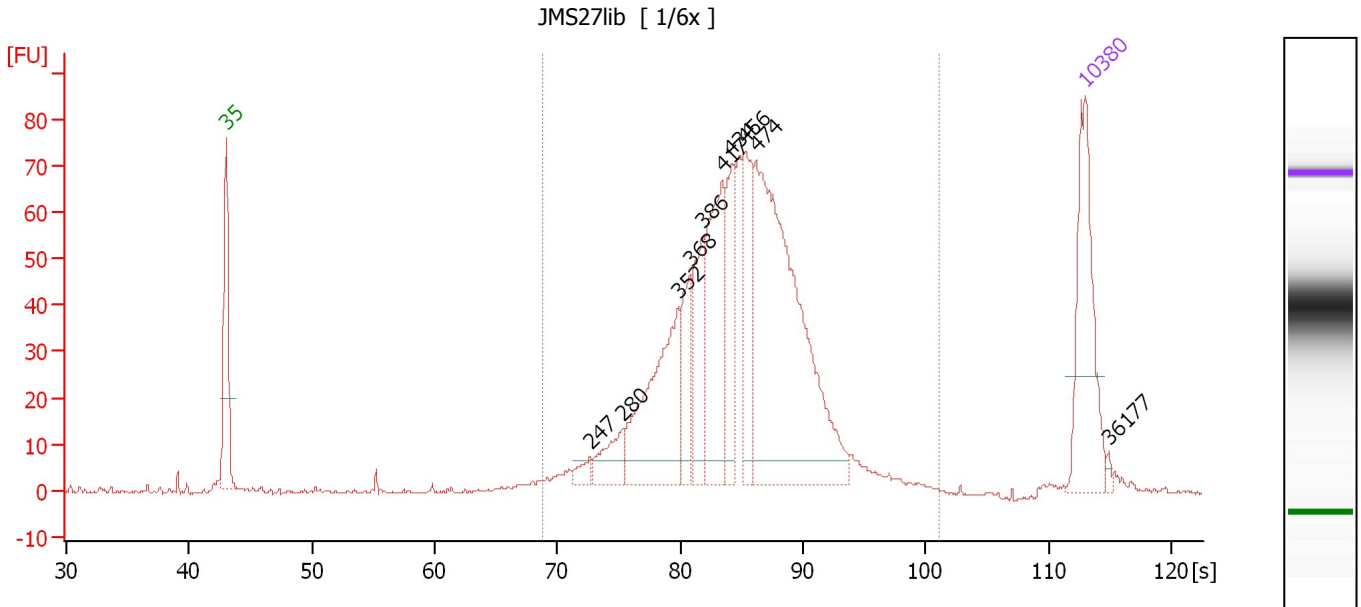
**Peak table for sample 6 : JMS26 lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	0	0.00	0.0	
3	0	0.00	0.0	Lower Marker
4	0	0.00	0.0	
5	0	0.00	0.0	
6	0	0.00	0.0	
7	0	0.00	0.0	
8	0	0.00	0.0	
9	0	0.00	0.0	
10	0	0.00	0.0	
11	0	0.00	0.0	
12	0	0.00	0.0	
13	0	0.00	0.0	
14	0	0.00	0.0	
15	0	0.00	0.0	
16	0	0.00	0.0	
17	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
 Modified: 8/4/2014 10:04:49 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : JMS27lib**

Number of peaks found: 10                      Corr. Area 1: 1,038.4  
 Noise: 0.3

**Peak table for sample 7 : JMS27lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	247	10.46	64.2	
3	280	31.92	172.7	
4	352	134.68	579.7	
5	368	44.66	183.8	
6	386	61.35	240.8	
7	417	110.10	399.9	
8	434	62.41	218.1	
9	456	71.47	237.3	
10	474	317.60	1,014.2	
11	10,380	75.00	10.9	Upper Marker
12	36,177	0.00	0.0	

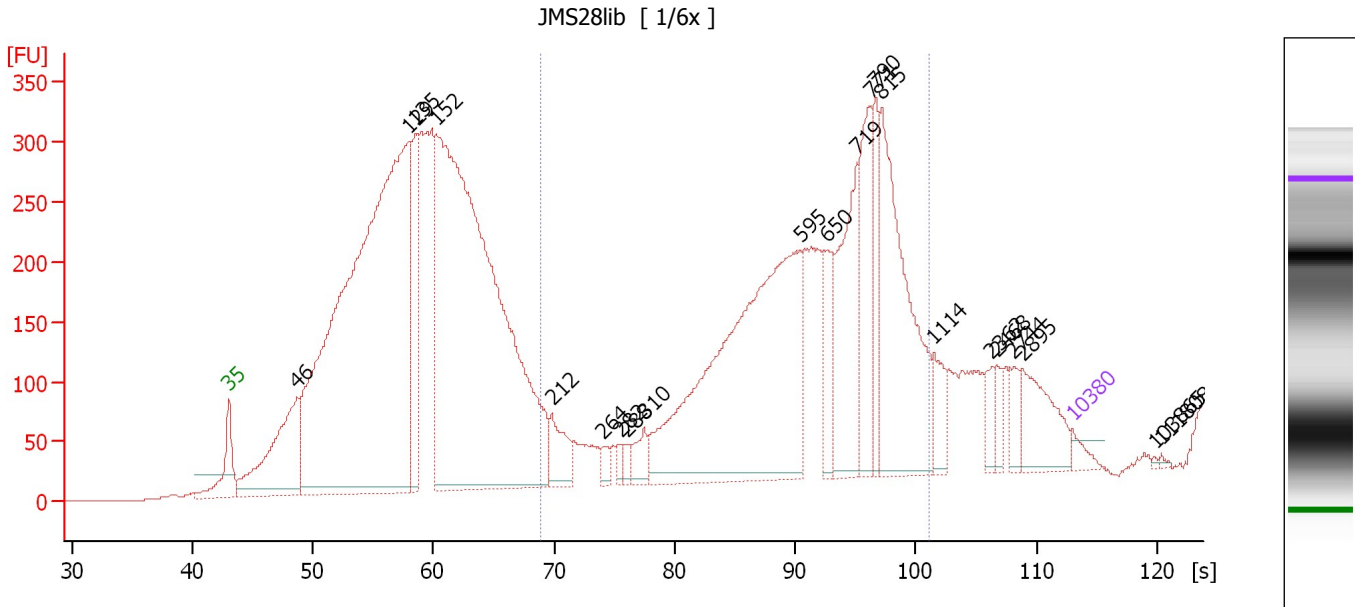
**Region table for sample 7 : JMS27lib**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	450	3,581.4	974.09	1,038.4	96	25.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
 Modified: 8/4/2014 10:04:49 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : JMS28lib**

Number of peaks found: 22                      Corr. Area 1: 3,766.6  
 Noise: 0.2

**Peak table for sample 8 : JMS28lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	46	1,708.59	56,183.1	
3	129	10,886.95	127,841.7	
4	135	1,033.39	11,607.3	
5	152	9,733.97	96,870.8	
6	212	402.85	2,883.0	
7	264	96.51	553.3	
8	282	74.21	398.7	
9	288	73.03	384.1	
10	310	195.73	957.3	
11	595	3,786.76	9,641.6	
12	650	401.39	935.1	
13	719	1,089.24	2,294.3	
14	771	780.13	1,532.2	
15	790	457.06	876.3	
16	815	1,827.49	3,396.3	
17	1,114	228.61	310.8	
18	2,362	121.06	77.7	
19	2,468	95.08	58.4	
20	2,744	139.08	76.8	
21	2,895	448.01	234.5	
22	10,380	75.00	10.9	Upper Marker
23	103,865	0.00	0.0	
24	111,808	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
Modified: 8/4/2014 10:04:49 AM

**Electropherogram Summary Continued ...**

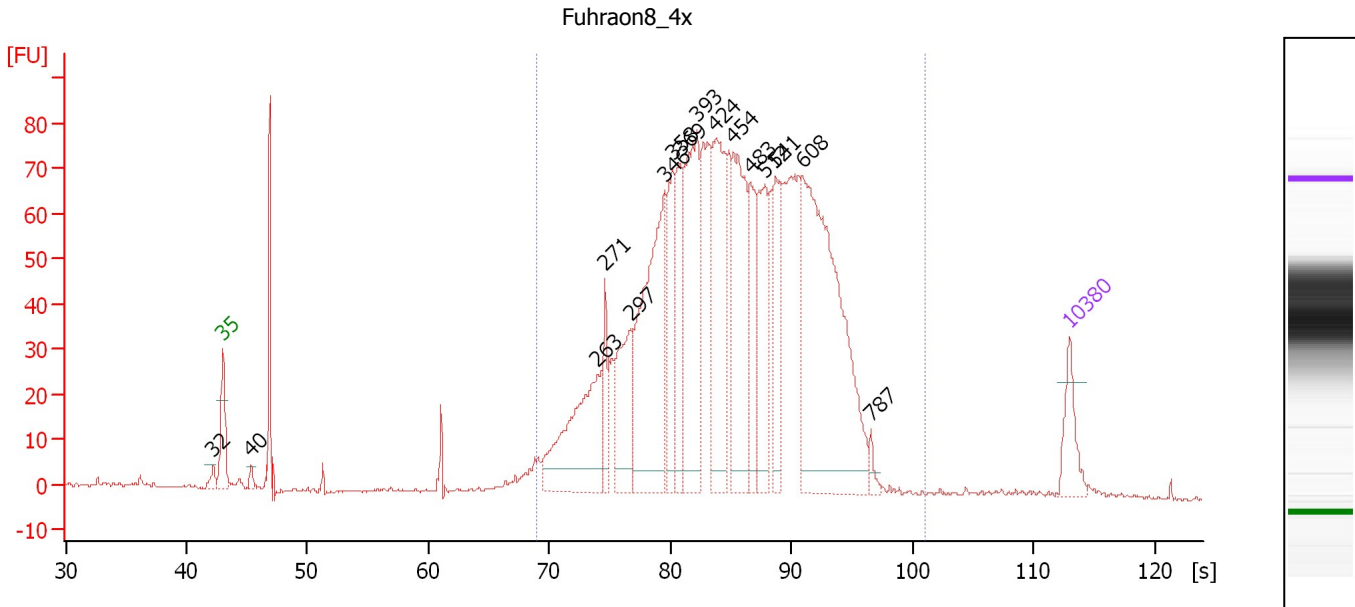
... Region table for sample 8 : JMS28lib

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ $\mu$ l]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	628	25,877.5	8,943.80	 3,766.6	33	29.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

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 Modified: 8/4/2014 10:04:49 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : Fuhraon8 4x**

Number of peaks found: 16      Corr. Area 1: 1,659.7  
 Noise: 0.3

**Peak table for sample 9 : Fuhraon8 4x**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	32	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	40	22.71	869.5	
4	263	455.17	2,618.5	
5	271	105.75	591.0	
6	297	249.45	1,272.6	
7	346	628.39	2,752.9	
8	358	238.57	1,010.8	
9	369	185.62	763.1	
10	393	470.41	1,814.4	
11	424	396.82	1,418.4	
12	454	402.32	1,341.7	
13	483	168.90	529.9	
14	512	255.70	756.9	
15	541	206.40	578.1	
16	608	878.13	2,188.4	
17	787	21.76	41.9	
18	10,380	75.00	10.9	Upper Marker

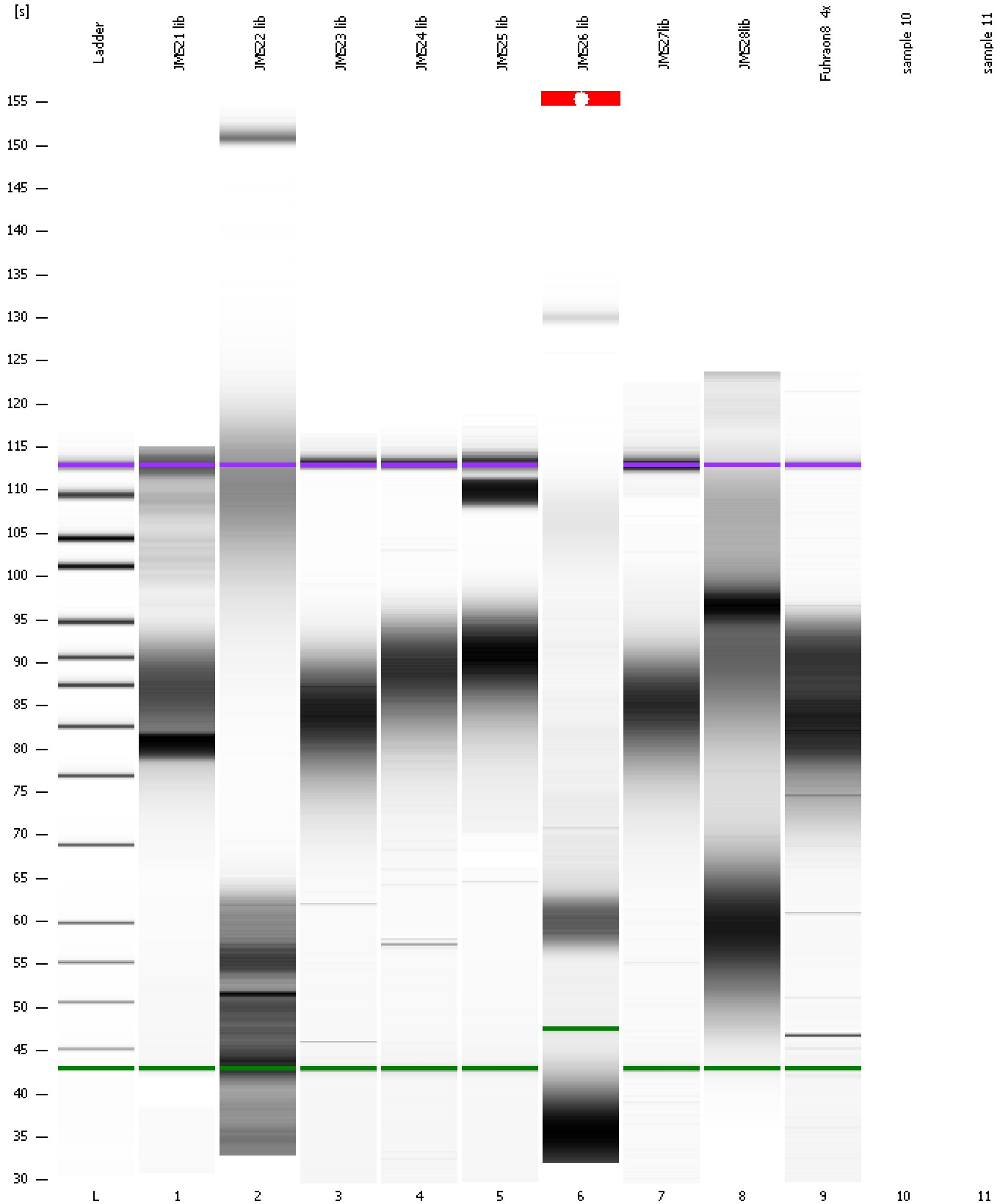
**Region table for sample 9 : Fuhraon8 4x**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	461	21,653.0	5,782.82	1,659.7	94	29.3

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
Modified: 8/4/2014 10:04:49 AM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
Modified: 8/4/2014 10:04:49 AM

**Invalid Samples**

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\Data\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
 Modified: 8/4/2014 10:04:49 AM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 10)		Instrument	Run		8/4/2014 10:04:45 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\2014-08-04\2014-08-04_002.xad)		Instrument	Run		8/4/2014 9:29:14 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		8/4/2014 9:29:14 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/4/2014 9:29:14 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/4/2014 9:29:14 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		8/4/2014 9:29:14 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/4/2014 9:29:14 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/4/2014 9:29:14 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1