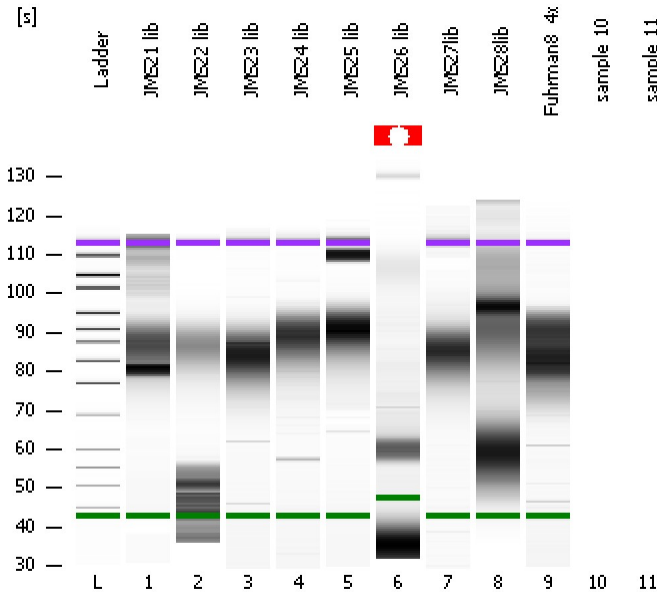


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2014-08-04\2014-08-04\_002.xad

Created: 8/4/2014 9:29:09 AM  
Modified: 8/5/2014 9:34:58 AM

### Electrophoresis File Run Summary



#### Instrument Information:

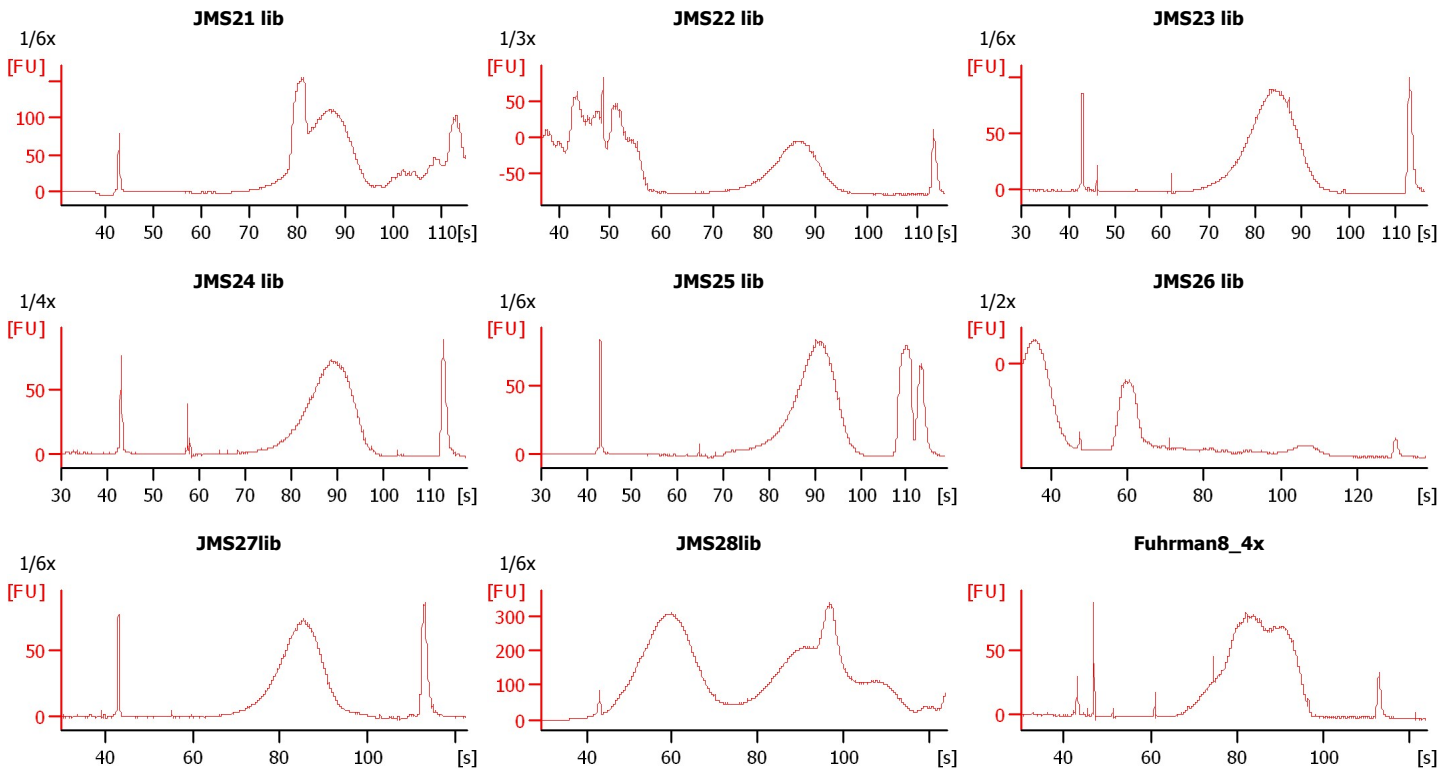
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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: 8/5/2014 9:34:58 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"/>	✓			
Fuhrman8_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: 8/5/2014 9:34:58 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

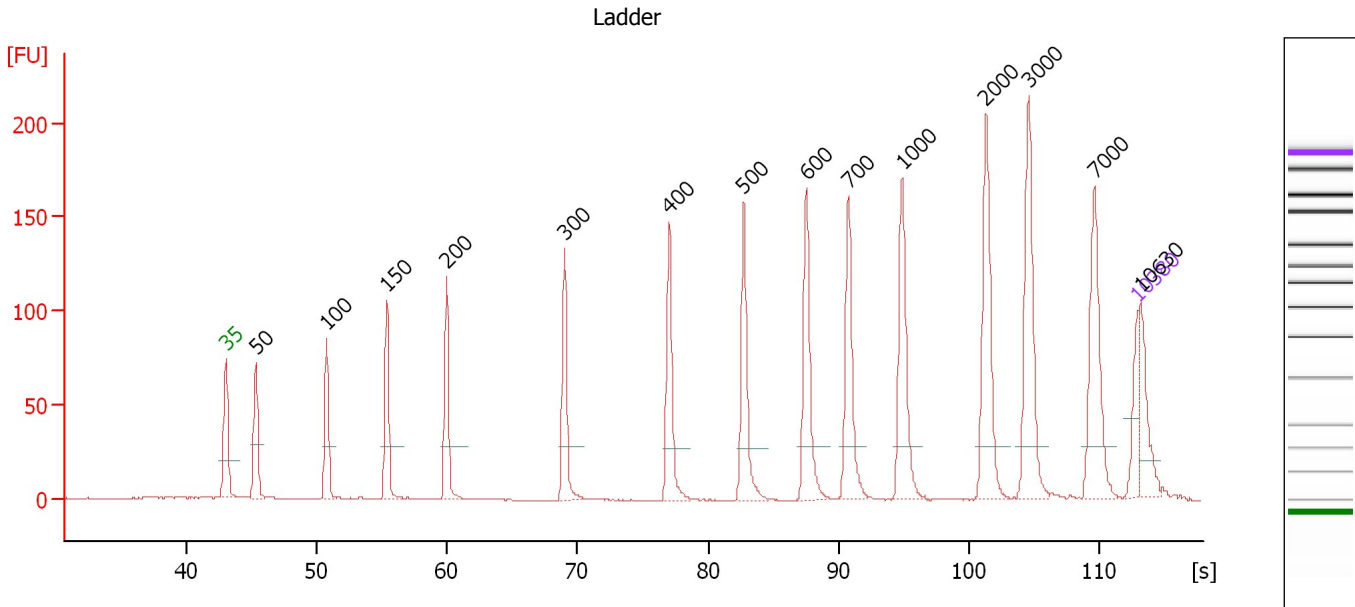
**Ladder**

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  
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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

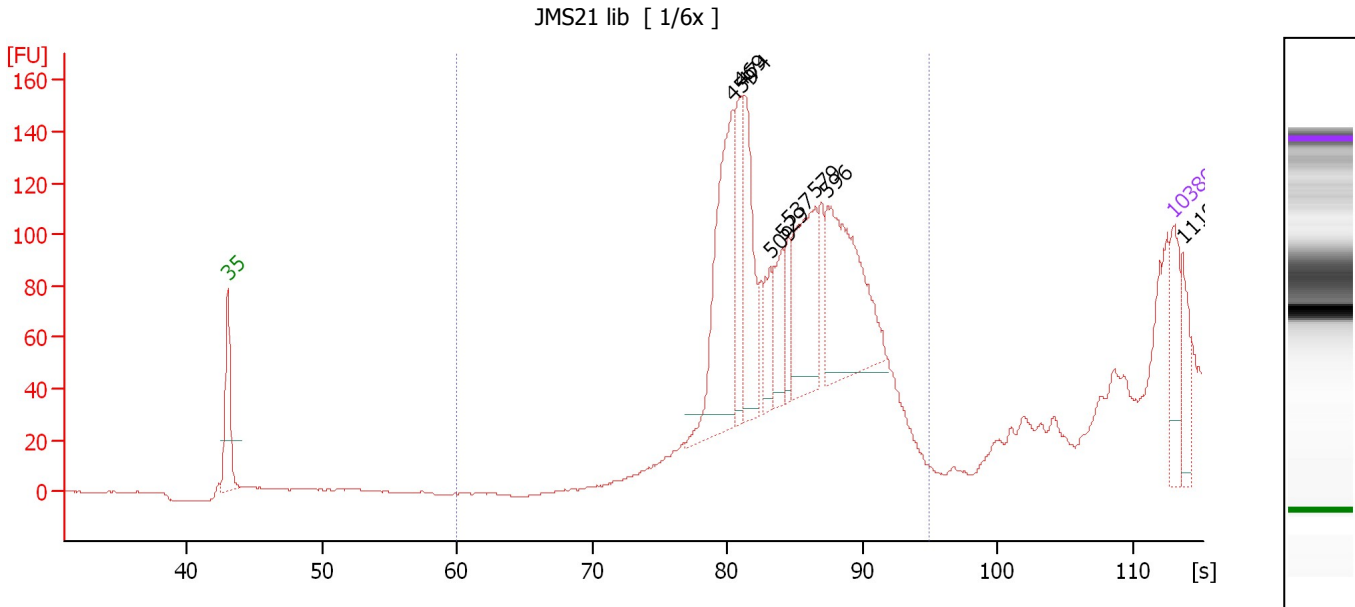
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker
16	10,630	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: 8/5/2014 9:34:58 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	459	386.35	1,276.4	
3	469	146.64	473.6	
4	474	200.75	641.7	
5	509	71.30	212.3	
6	529	87.70	251.3	
7	537	58.61	165.4	
8	579	228.70	598.5	
9	596	325.00	825.8	
10	10,380	75.00	10.9	Upper Marker
11	11,105	0.00	0.0	

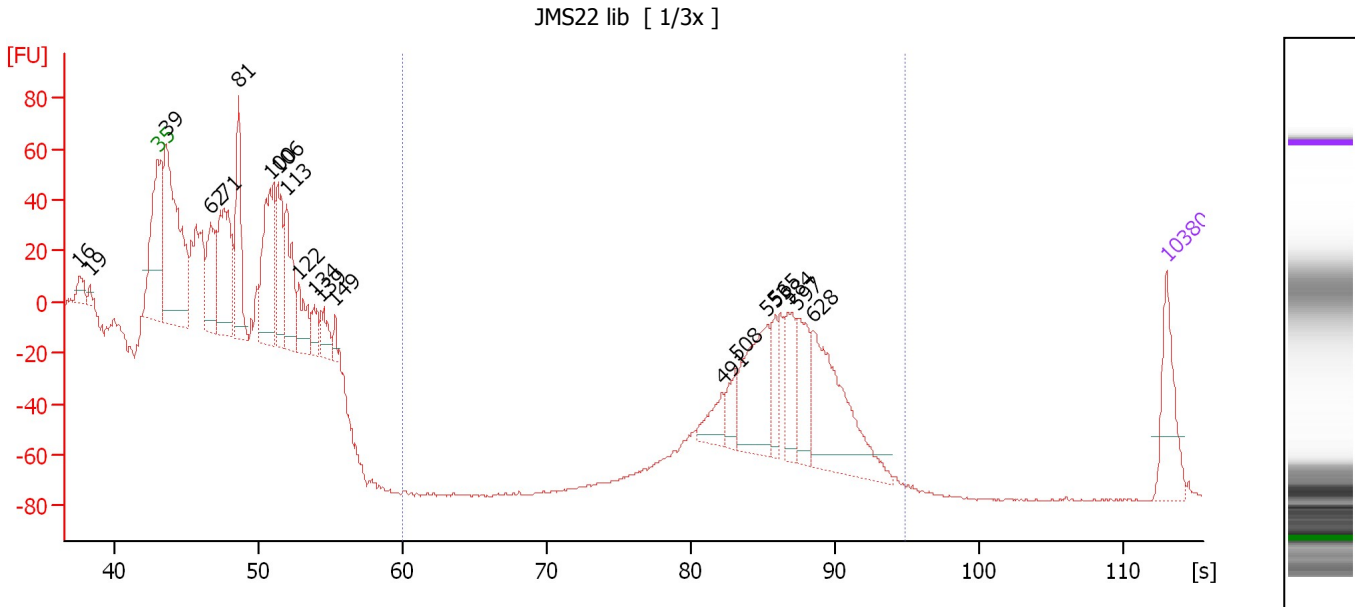
**Region table for sample 1 : JMS21 lib**

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	543	4,762.4	1,656.27	1,162.0	95	15.3

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: 8/5/2014 9:34:58 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 20      Corr. Area 1: 359.1  
 Noise: 0.4

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	16	0.00	0.0	
2	19	0.00	0.0	
3	35	125.00	5,411.3	Lower Marker
4	39	522.83	20,505.0	
5	62	165.55	4,023.0	
6	71	260.79	5,572.2	
7	81	202.50	3,811.4	
8	100	264.47	3,989.9	
9	106	150.57	2,142.4	
10	113	162.67	2,182.3	
11	122	82.36	1,024.3	
12	134	41.45	470.4	
13	139	44.90	490.3	
14	149	20.27	205.7	
15	491	45.27	139.8	
16	508	41.37	123.3	
17	553	154.79	424.0	
18	565	48.01	128.8	
19	584	72.57	188.2	
20	597	86.99	220.7	
21	628	220.68	532.2	
22	10,380	75.00	10.9	Upper Marker

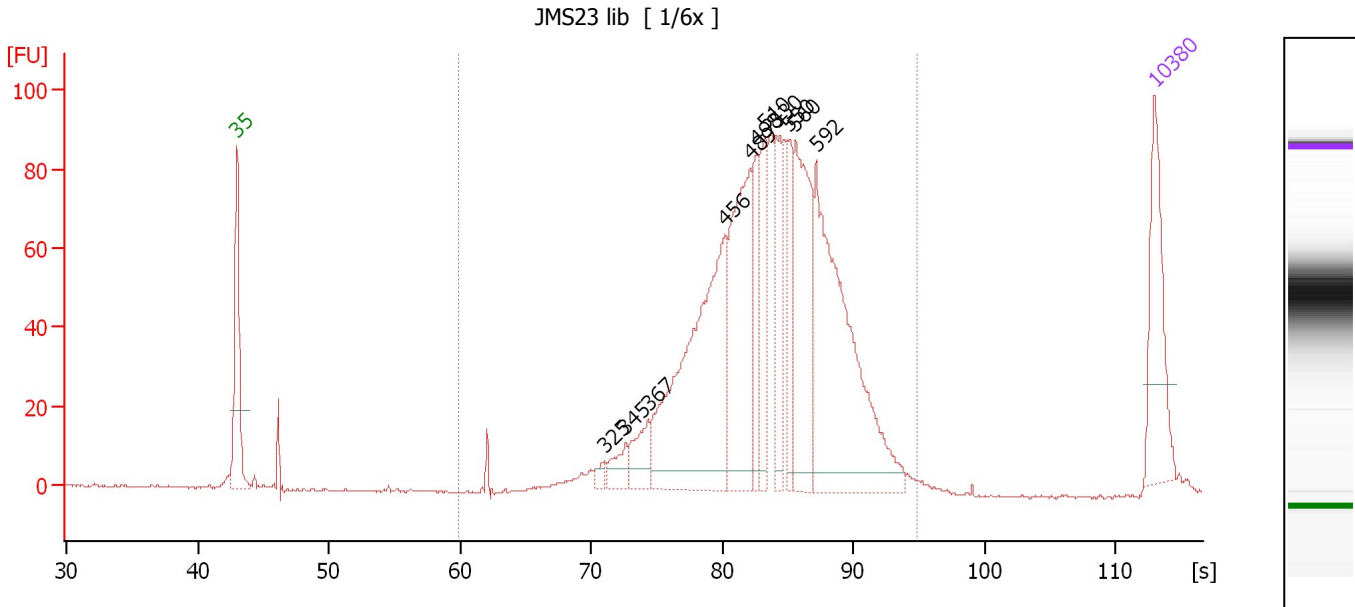
**Region table for sample 2 : JMS22 lib**

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	591	1,076.8	416.43	359.1	25	9.3

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: 8/5/2014 9:34:58 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 11      Corr. Area 1: 1,332.4  
 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	325	8.54	39.8	
3	345	22.77	99.9	
4	367	36.90	152.5	
5	456	314.97	1,047.5	
6	489	190.22	588.9	
7	498	60.36	183.6	
8	510	71.25	211.5	
9	530	65.70	187.8	
10	550	58.33	160.6	
11	560	152.99	414.1	
12	592	292.97	749.8	
13	10,380	75.00	10.9	Upper Marker

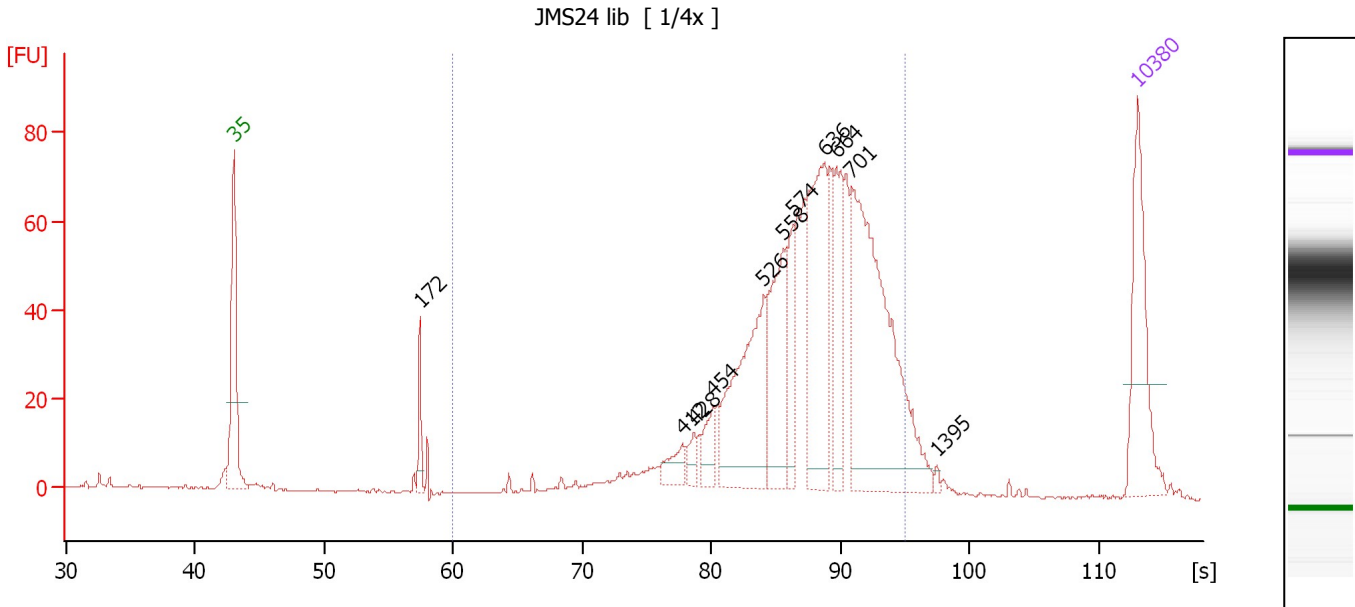
**Region table for sample 3 : JMS23 lib**

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	524	4,237.5	1,387.04	1,332.4	99	19.7

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: 8/5/2014 9:34:58 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 11      Corr. Area 1: 992.3  
 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	172	25.88	227.8	
3	412	20.29	74.6	
4	428	13.58	48.1	
5	454	25.61	85.5	
6	526	146.53	421.8	
7	558	95.81	260.0	
8	574	44.77	118.2	
9	636	145.34	346.4	
10	664	68.86	157.1	
11	701	288.83	624.5	
12	1,395	2.34	2.5	
13	10,380	75.00	10.9	Upper Marker

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

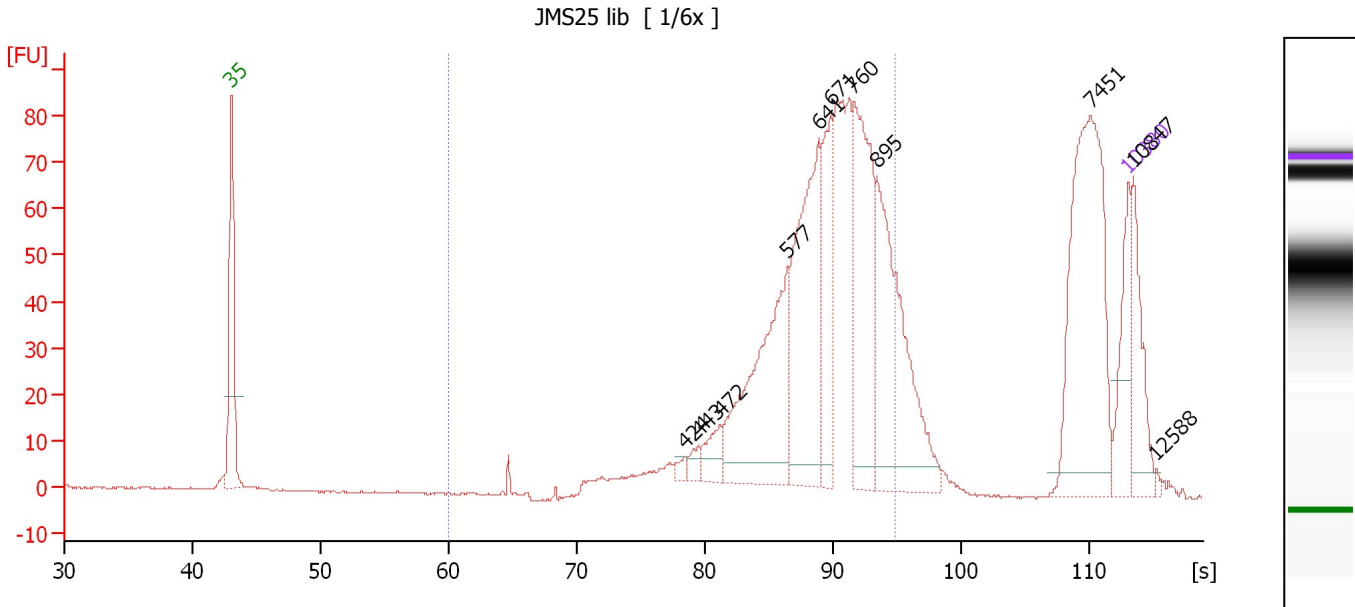
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	628	2,746.8	1,054.24	992.3	91	22.9



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: 8/5/2014 9:34:58 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 11      Corr. Area 1: 957.1  
 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	424	11.00	39.3	
3	443	15.98	54.7	
4	472	40.34	129.4	
5	577	291.33	765.1	
6	641	308.35	728.8	
7	671	141.97	320.5	
8	760	266.64	531.3	
9	895	300.66	509.2	
10	7,451	319.39	65.0	
11	10,380	75.00	10.9	Upper Marker
12	10,847	0.00	0.0	
13	12,588	0.00	0.0	

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

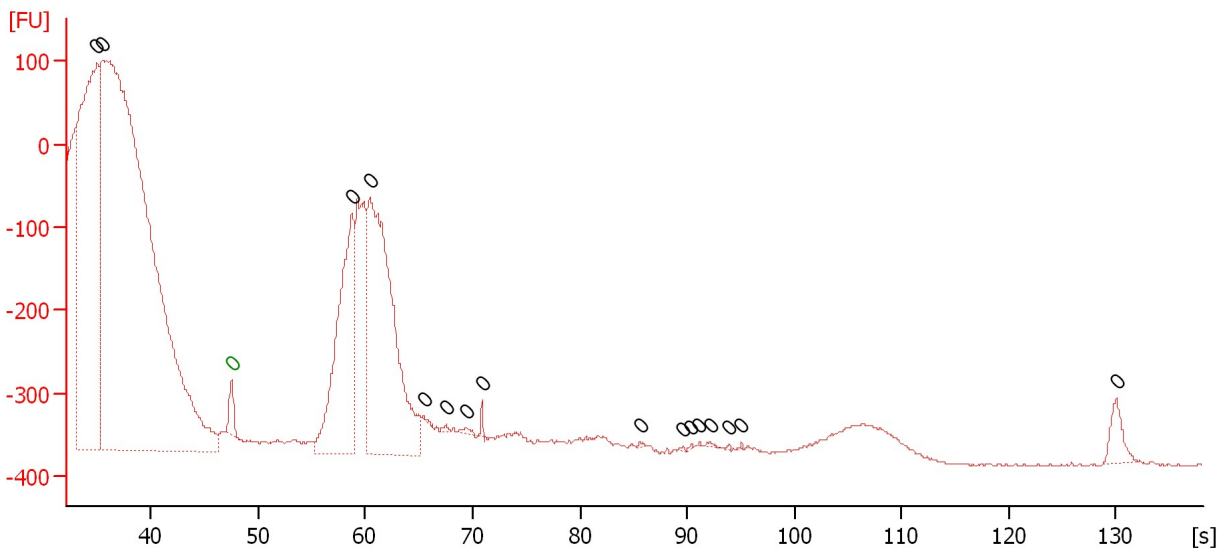
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	672	3,986.0	1,640.12	957.1	70	22.4

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: 8/5/2014 9:34:58 AM

**Electropherogram Summary Continued ...**

JMS26 lib [ 1/2x ]



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

Number of peaks found: 16                      Noise: 1.1

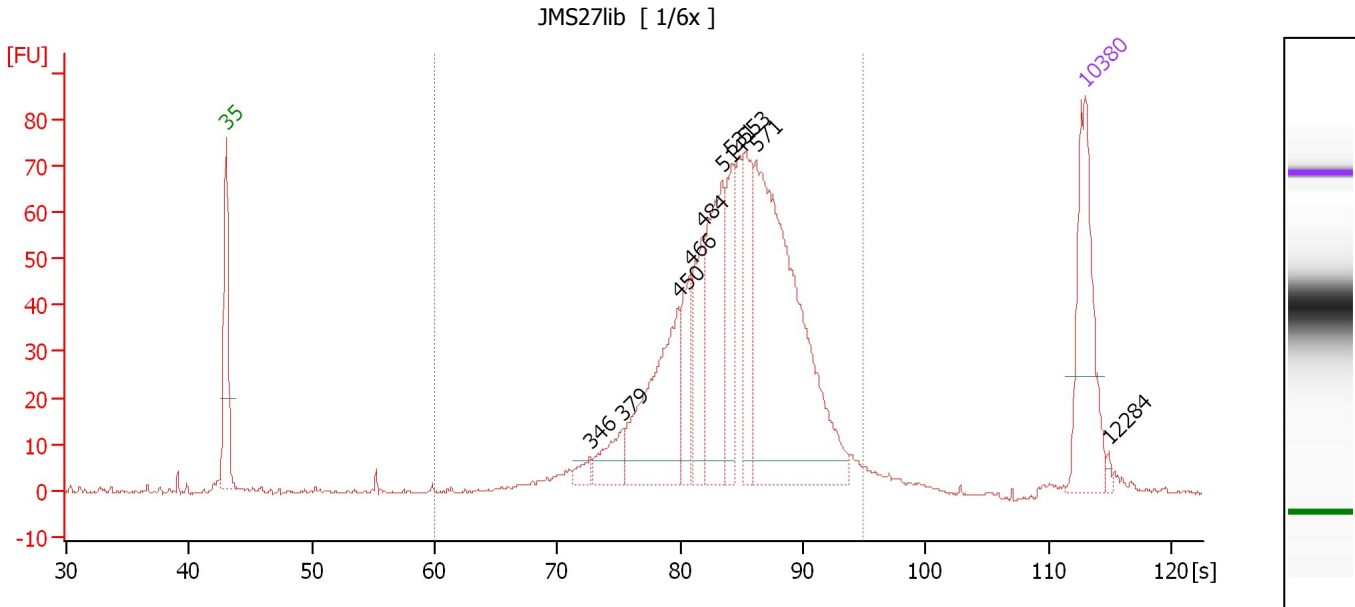
**Peak table for sample 6 : JMS26 lib**

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: 8/5/2014 9:34:58 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : JMS27lib**

Number of peaks found: 10                      Corr. Area 1: 1,029.8  
 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	346	9.34	40.9	
3	379	28.40	113.6	
4	450	127.02	427.9	
5	466	42.91	139.5	
6	484	60.12	188.4	
7	514	108.15	318.7	
8	531	60.40	172.5	
9	553	67.80	185.7	
10	571	296.55	786.4	
11	10,380	75.00	10.9	Upper Marker
12	12,284	0.00	0.0	

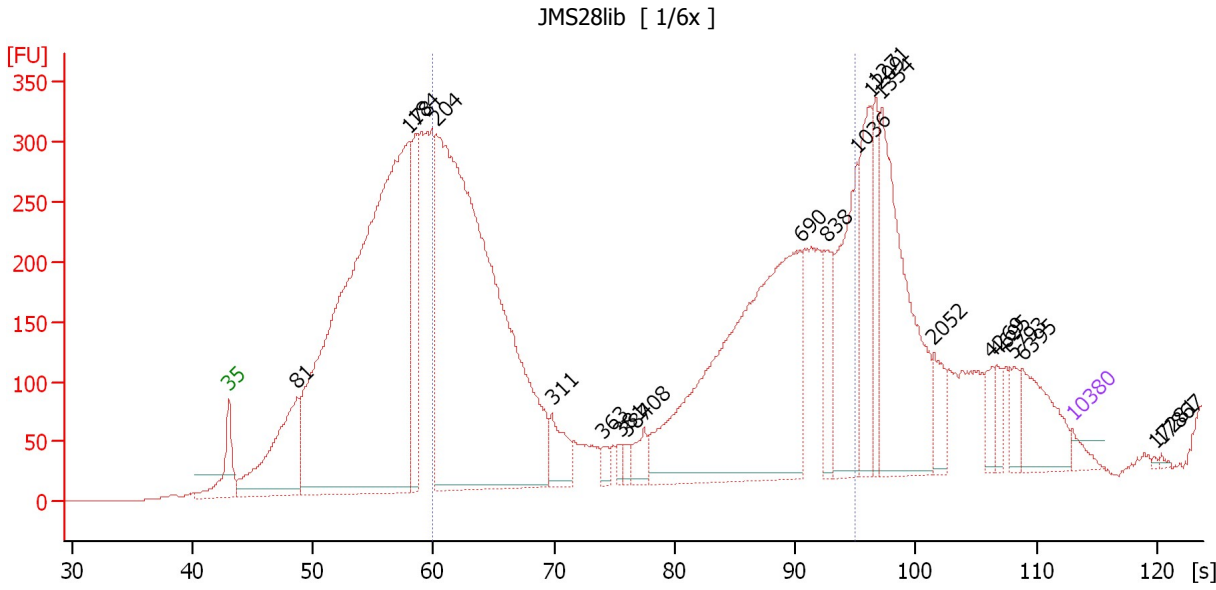
**Region table for sample 7 : JMS27lib**

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	542	2,741.7	921.46	1,029.8	96	21.0

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: 8/5/2014 9:34:58 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : JMS28lib**

Number of peaks found: 22                      Corr. Area 1: 5,086.6  
 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	81	1,680.03	31,351.4	
3	178	10,081.68	85,598.9	
4	184	953.82	7,841.7	
5	204	8,899.04	66,153.3	
6	311	360.96	1,761.2	
7	363	85.99	359.0	
8	381	66.00	262.8	
9	387	64.92	254.4	
10	408	175.61	652.7	
11	690	3,929.02	8,629.3	
12	838	385.98	697.5	
13	1,036	960.31	1,404.7	
14	1,209	689.04	863.5	
15	1,271	403.95	481.4	
16	1,354	1,616.46	1,808.2	
17	2,052	205.62	151.8	
18	4,269	122.42	43.4	
19	4,695	96.42	31.1	
20	5,793	142.07	37.2	
21	6,395	459.45	108.8	
22	10,380	75.00	10.9	Upper Marker
23	17,281	0.00	0.0	
24	17,867	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: 8/5/2014 9:34:58 AM

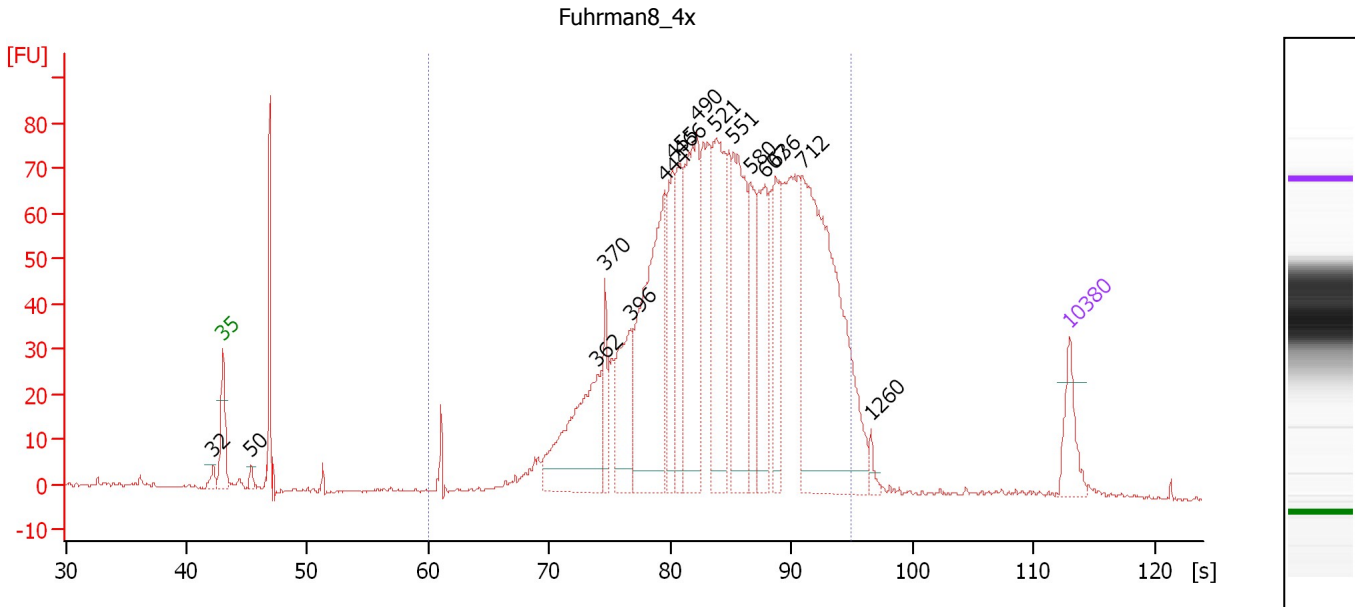
**Electropherogram Summary Continued ...****... Region table for sample 8 : JMS28lib**

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	471	64,728.7	13,556.75	 5,086.6	45	51.6

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: 8/5/2014 9:34:58 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : Fuhrman8\_4x**

Number of peaks found: 16      Corr. Area 1: 1,639.1  
 Noise: 0.3

**Peak table for sample 9 : Fuhrman8\_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	50	21.37	642.5	
4	362	405.59	1,697.5	
5	370	94.15	385.9	
6	396	221.55	848.7	
7	444	588.45	2,010.0	
8	455	226.45	753.6	
9	466	178.39	579.8	
10	490	464.46	1,435.0	
11	521	387.40	1,126.9	
12	551	382.27	1,050.7	
13	580	156.56	409.1	
14	607	236.39	590.1	
15	636	198.77	473.6	
16	712	911.30	1,940.4	
17	1,260	19.23	23.1	
18	10,380	75.00	10.9	Upper Marker

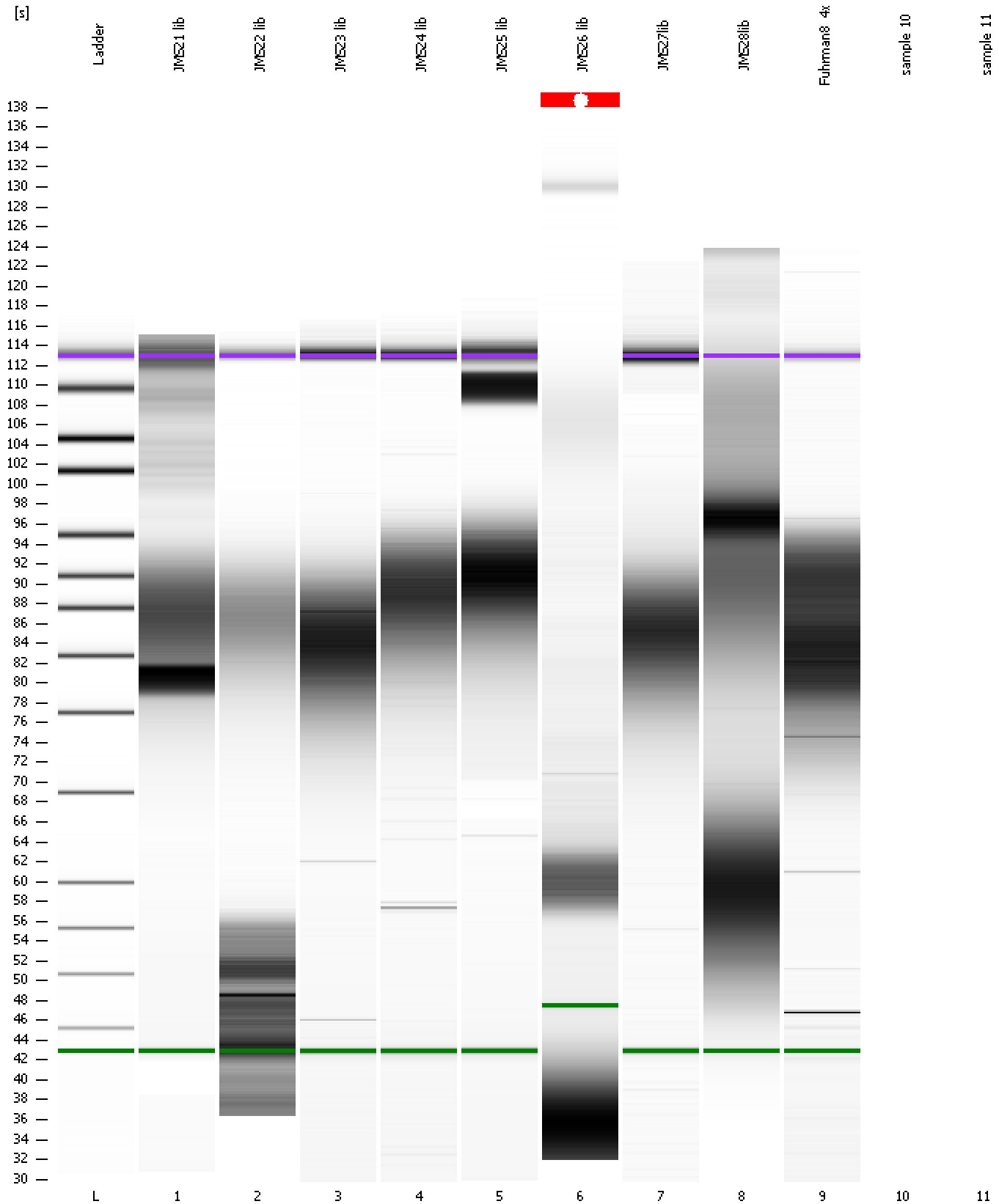
**Region table for sample 9 : Fuhrman8\_4x**

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	561	16,316.7	5,438.51	1,639.1	93	27.9

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: 8/5/2014 9:34:58 AM

**Gel Image**



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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: 8/5/2014 9:34:58 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 Created: 8/4/2014 9:29:09 AM  
 Data Path: C:\... bioanalyzer\2100 expert\data\2014-08-04\2014-08-04\_002.xad Modified: 8/5/2014 9:34:58 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