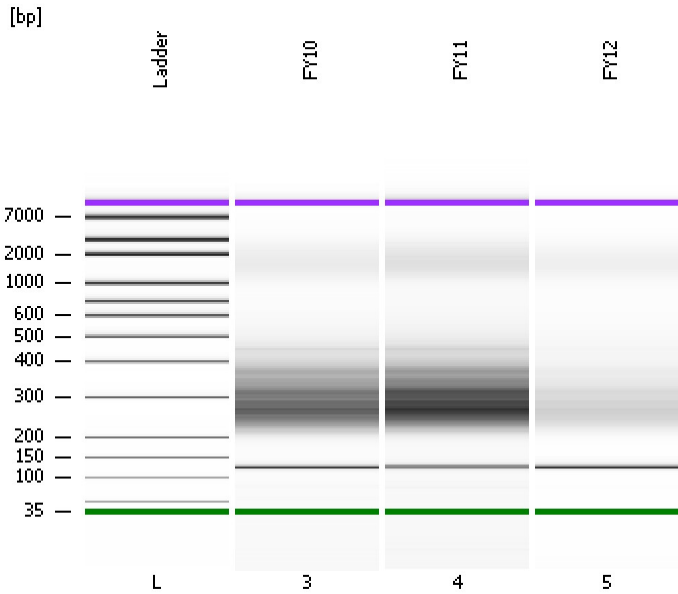


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nd Settings\Bioanalyzer\2014-04-01\2014-04-01\_001\_Cheng.xad

Created: 4/1/2014 2:21:57 PM  
Modified: 4/1/2014 3:21:06 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

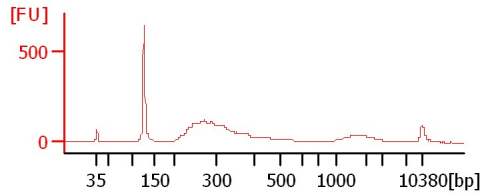
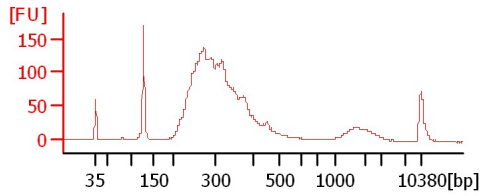
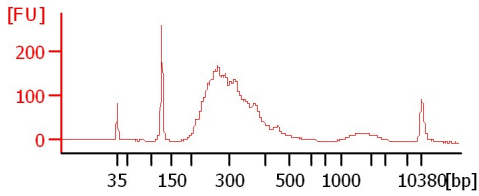
Chip Information:

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

**FY10**

**FY11**

**FY12**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nd Settings\Bioanalyzer\2014-04-01\2014-04-01\_001\_Cheng.xad

Created: 4/1/2014 2:21:57 PM  
Modified: 4/1/2014 3:21:06 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
FY10		<input type="checkbox"/>	✓			
FY11		<input type="checkbox"/>	✓			
FY12		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

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

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...nd Settings\Bioanalyzer\2014-04-01\2014-04-01\_001\_Cheng.xad

Created: 4/1/2014 2:21:57 PM  
 Modified: 4/1/2014 3:21:06 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

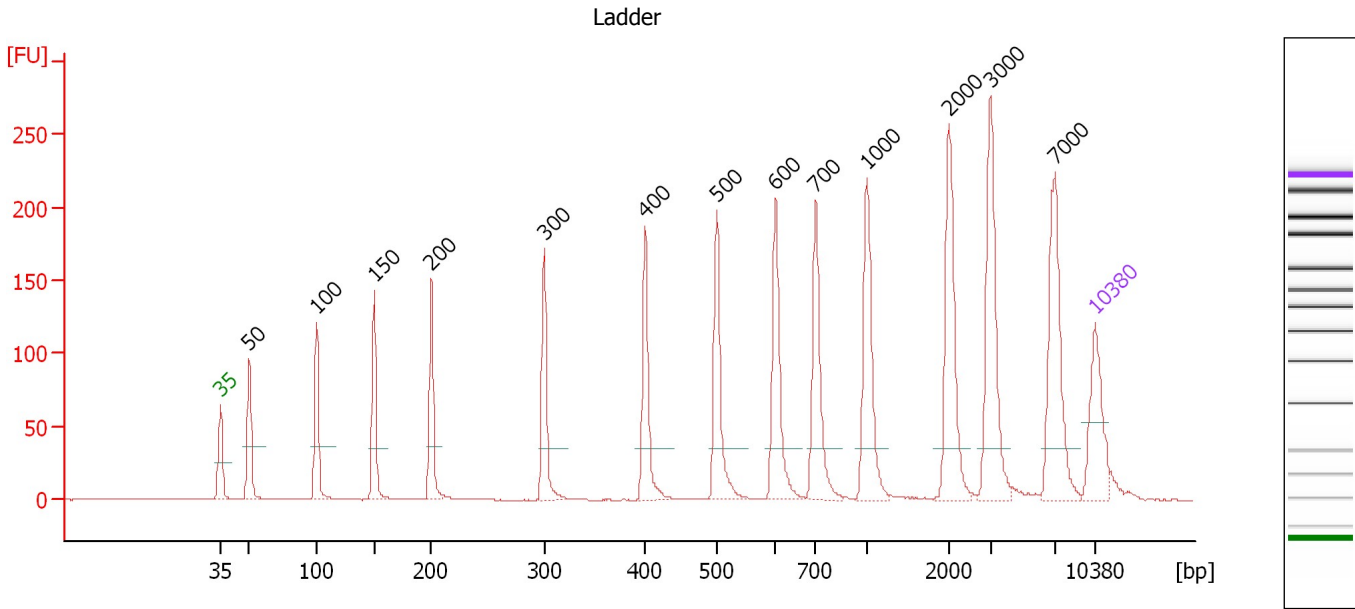
**Ladder**

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:\...nd Settings\Bioanalyzer\2014-04-01\2014-04-01\_001\_Cheng.xad

Created: 4/1/2014 2:21:57 PM  
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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

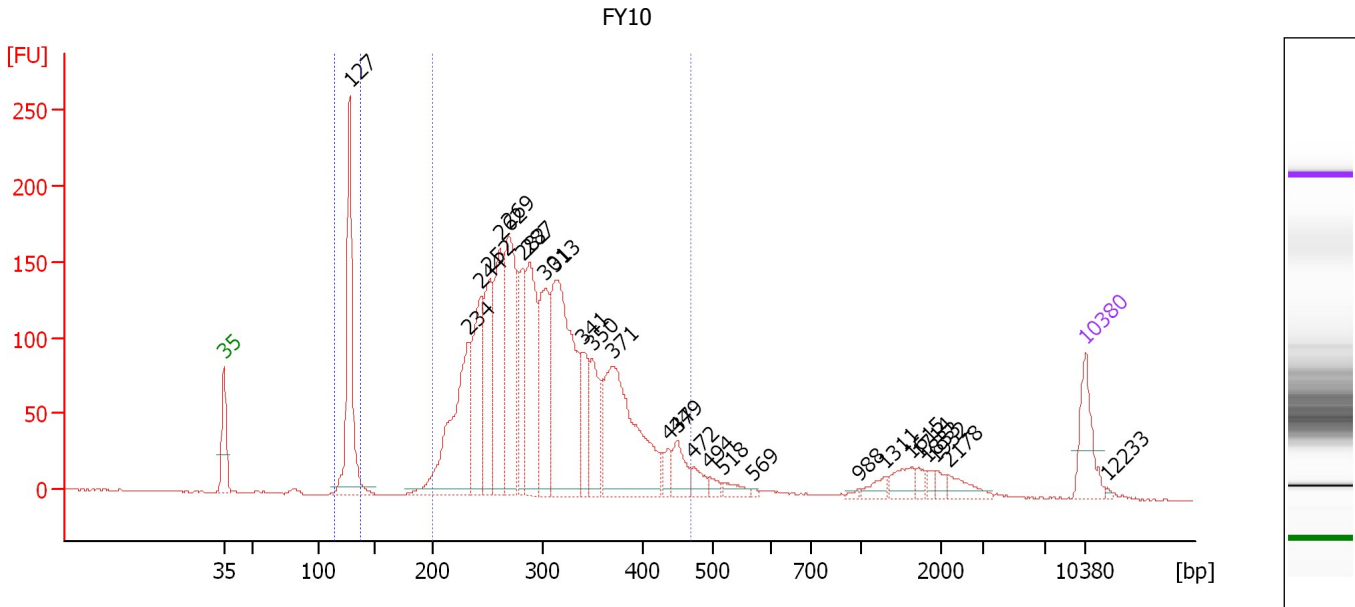
**Peak table for Ladder**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	45.30	50	150.00	4,545.5	Ladder Peak
3	50.68	100	150.00	2,272.7	Ladder Peak
4	55.29	150	150.00	1,515.2	Ladder Peak
5	59.85	200	150.00	1,136.4	Ladder Peak
6	68.89	300	150.00	757.6	Ladder Peak
7	76.95	400	150.00	568.2	Ladder Peak
8	82.71	500	150.00	454.5	Ladder Peak
9	87.41	600	150.00	378.8	Ladder Peak
10	90.61	700	150.00	324.7	Ladder Peak
11	94.70	1,000	150.00	227.3	Ladder Peak
12	101.27	2,000	150.00	113.6	Ladder Peak
13	104.60	3,000	150.00	75.8	Ladder Peak
14	109.76	7,000	150.00	32.5	Ladder Peak
15	113.00	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...nd Settings\Bioanalyzer\2014-04-01\2014-04-01\_001\_Cheng.xad

Created: 4/1/2014 2:21:57 PM  
 Modified: 4/1/2014 3:21:06 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : FY10**

Number of peaks found: 27                      Corr. Area 1: 2,796.5  
 Noise: 0.5    Corr. Area 2: 251.3

**Peak table for sample 3 : FY10**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	53.19	127	402.34	4,792.0	
3	62.89	234	377.97	2,450.8	
4	63.85	244	257.01	1,594.5	
5	64.54	252	220.89	1,328.7	
6	65.45	262	280.65	1,623.3	
7	66.10	269	343.10	1,931.5	
8	67.27	282	171.33	920.3	
9	67.75	287	280.84	1,480.8	
10	69.01	301	221.39	1,112.9	
11	69.92	313	536.36	2,598.9	
12	72.17	341	99.11	440.8	
13	72.91	350	129.04	558.9	
14	74.60	371	411.61	1,682.1	
15	79.11	437	27.74	96.1	
16	79.76	449	59.81	202.0	
17	81.10	472	32.08	103.0	
18	82.36	494	16.03	49.2	
19	83.57	518	22.37	65.4	
20	85.95	569	3.93	10.5	
21	94.54	988	4.46	6.8	
22	96.75	1,311	18.64	21.5	
23	98.74	1,615	34.66	32.5	
24	99.39	1,714	12.73	11.3	
25	100.17	1,833	10.61	8.8	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...nd Settings\Bioanalyzer\2014-04-01\2014-04-01\_001\_Cheng.xad

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 Modified: 4/1/2014 3:21:06 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 3 : FY10**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
26	100.82	1,932	12.87	10.1	
27	101.86	2,178	27.21	18.9	
28	113.00	10,380	75.00	10.9	Upper Marker
29	114.78	12,233	0.00	0.0	

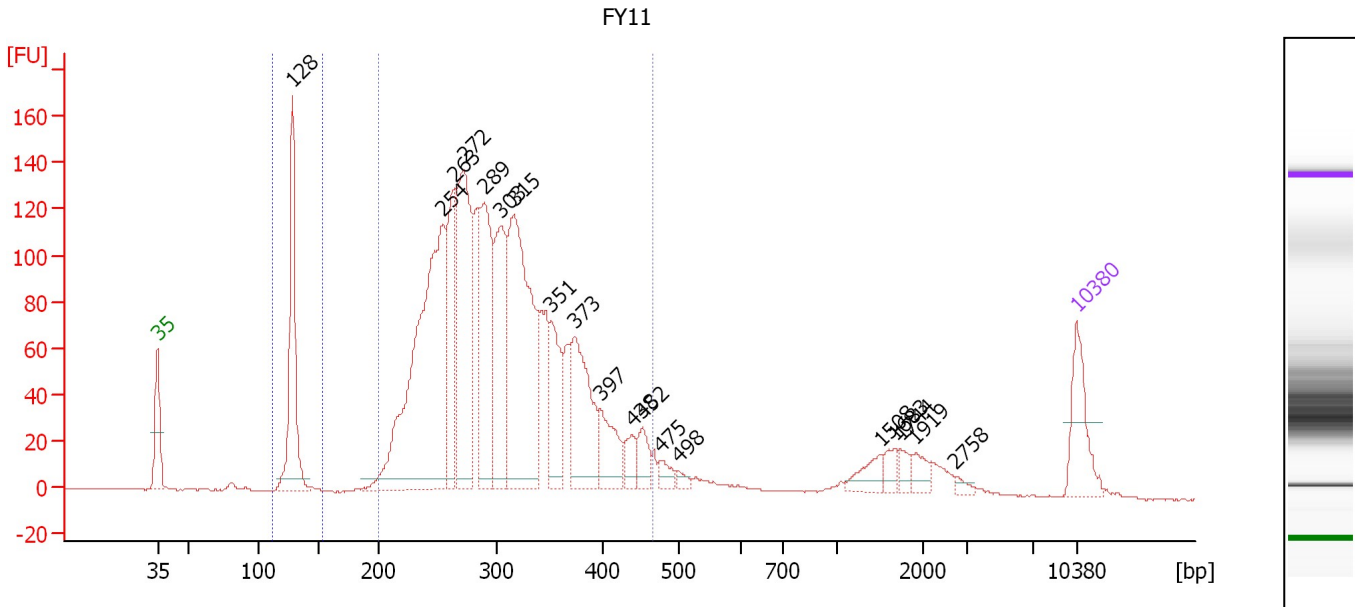
**Region table for sample 3 : FY10**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
113	137	127	4,560.2	382.82	251.3	8	2.3
200	470	304	17,656.8	3,392.85	2,796.5	84	18.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...nd Settings\Bioanalyzer\2014-04-01\2014-04-01\_001\_Cheng.xad

Created: 4/1/2014 2:21:57 PM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : FY11**

Number of peaks found: 19                      Corr. Area 1: 2,240.9  
 Noise: 0.3    Corr. Area 2: 170.0

**Peak table for sample 4 : FY11**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	53.27	128	296.65	3,507.3	
3	64.74	254	707.57	4,219.6	
4	65.58	263	199.30	1,146.6	
5	66.33	272	361.52	2,016.1	
6	67.88	289	268.49	1,408.4	
7	69.17	303	234.38	1,170.5	
8	70.14	315	476.27	2,287.3	
9	72.97	351	124.69	538.8	
10	74.79	373	193.53	785.8	
11	76.74	397	84.24	321.3	
12	79.13	438	34.19	118.3	
13	79.93	452	40.02	134.3	
14	81.25	475	20.40	65.1	
15	82.63	498	10.92	33.2	
16	98.03	1,508	29.98	30.1	
17	99.19	1,683	19.39	17.5	
18	99.58	1,744	13.50	11.7	
19	100.74	1,919	21.88	17.3	
20	103.79	2,758	7.17	3.9	
21	113.00	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : FY11**


From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
111	153	128	3,532.5	299.25	170.0	6	2.9

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nd Settings\Bioanalyzer\2014-04-01\2014-04-01\_001\_Cheng.xad

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**Electropherogram Summary Continued ...**

... Region table for sample 4 : FY11

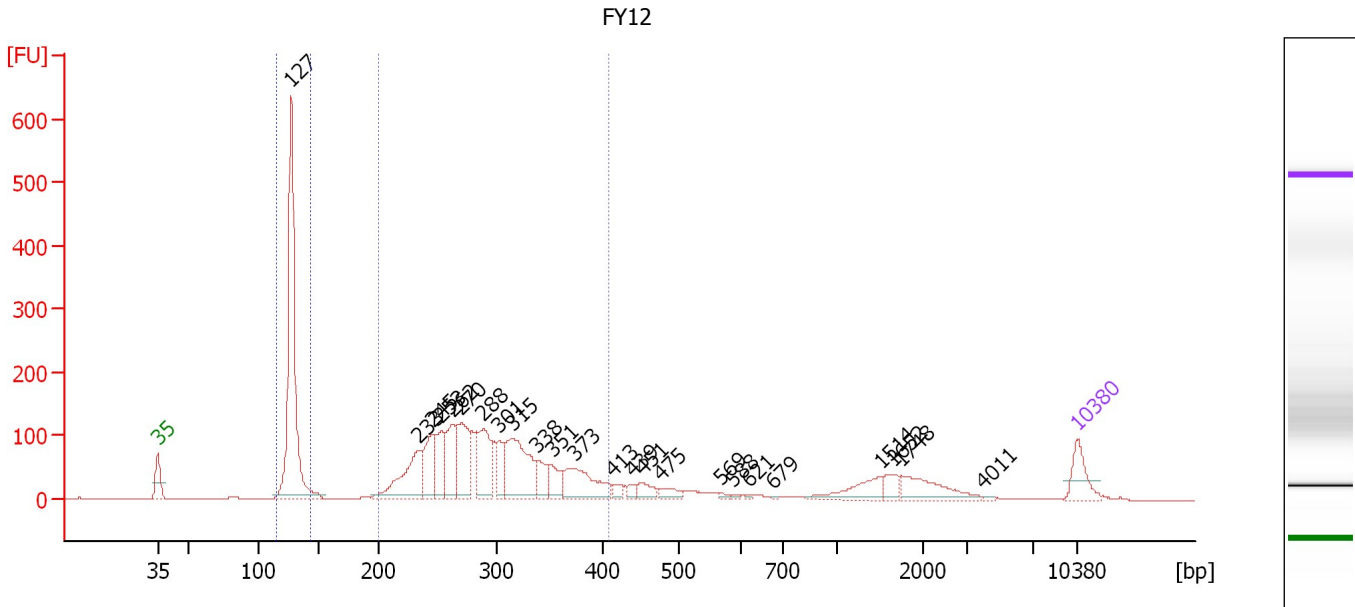
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ $\mu$ l]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	465	305	16,212.2	3,138.36	 2,240.9	84	18.2



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...nd Settings\Bioanalyzer\2014-04-01\2014-04-01\_001\_Cheng.xad

Created: 4/1/2014 2:21:57 PM  
 Modified: 4/1/2014 3:21:06 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : FY12**

Number of peaks found: 24                      Corr. Area 1: 1,831.1  
 Noise: 0.3    Corr. Area 2: 694.9

**Peak table for sample 5 : FY12**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	53.17	127	1,024.43	12,213.0	
3	62.85	233	257.93	1,675.9	
4	63.94	245	169.61	1,048.1	
5	64.61	253	153.30	919.2	
6	65.43	262	172.24	997.2	
7	66.15	270	218.30	1,226.4	
8	67.78	288	219.58	1,156.4	
9	69.00	301	90.78	456.4	
10	70.09	315	320.37	1,541.9	
11	71.94	338	83.91	376.4	
12	73.03	351	76.03	328.0	
13	74.79	373	193.80	786.9	
14	77.73	413	25.60	93.8	
15	79.22	439	20.82	71.8	
16	79.90	451	44.83	150.6	
17	81.26	475	39.27	125.3	
18	85.96	569	7.76	20.7	
19	86.86	588	6.53	16.8	
20	88.08	621	5.72	14.0	
21	89.94	679	3.52	7.8	
22	98.08	1,514	87.59	87.7	
23	98.98	1,652	38.59	35.4	
24	99.61	1,748	110.25	95.6	
25	105.90	4,011	3.14	1.2	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...nd Settings\Bioanalyzer\2014-04-01\2014-04-01\_001\_Cheng.xad

Created: 4/1/2014 2:21:57 PM  
 Modified: 4/1/2014 3:21:06 PM

### Electropherogram Summary Continued ...

#### ... Peak table for sample 5 : FY12

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
26	113.00	10,380	75.00	10.9	Upper Marker

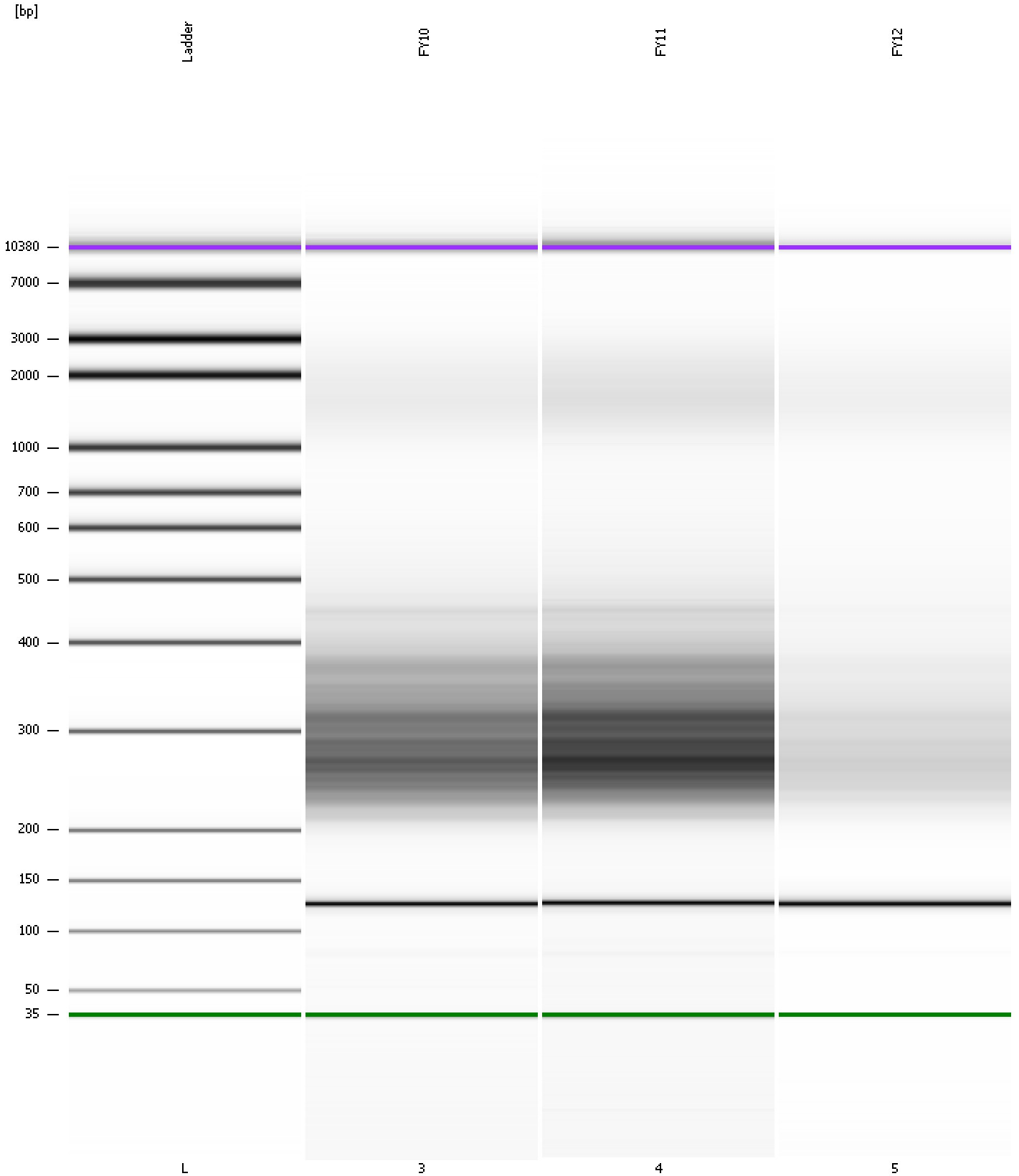
#### Region table for sample 5 : FY12

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
116	144	128	11,916.3	1,005.43	694.9	22	3.0
200	408	293	11,350.3	2,130.62	1,831.1	59	16.2

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nd Settings\Bioanalyzer\2014-04-01\2014-04-01\_001\_Cheng.xad

Created: 4/1/2014 2:21:57 PM  
Modified: 4/1/2014 3:21:06 PM

**Gel Image**

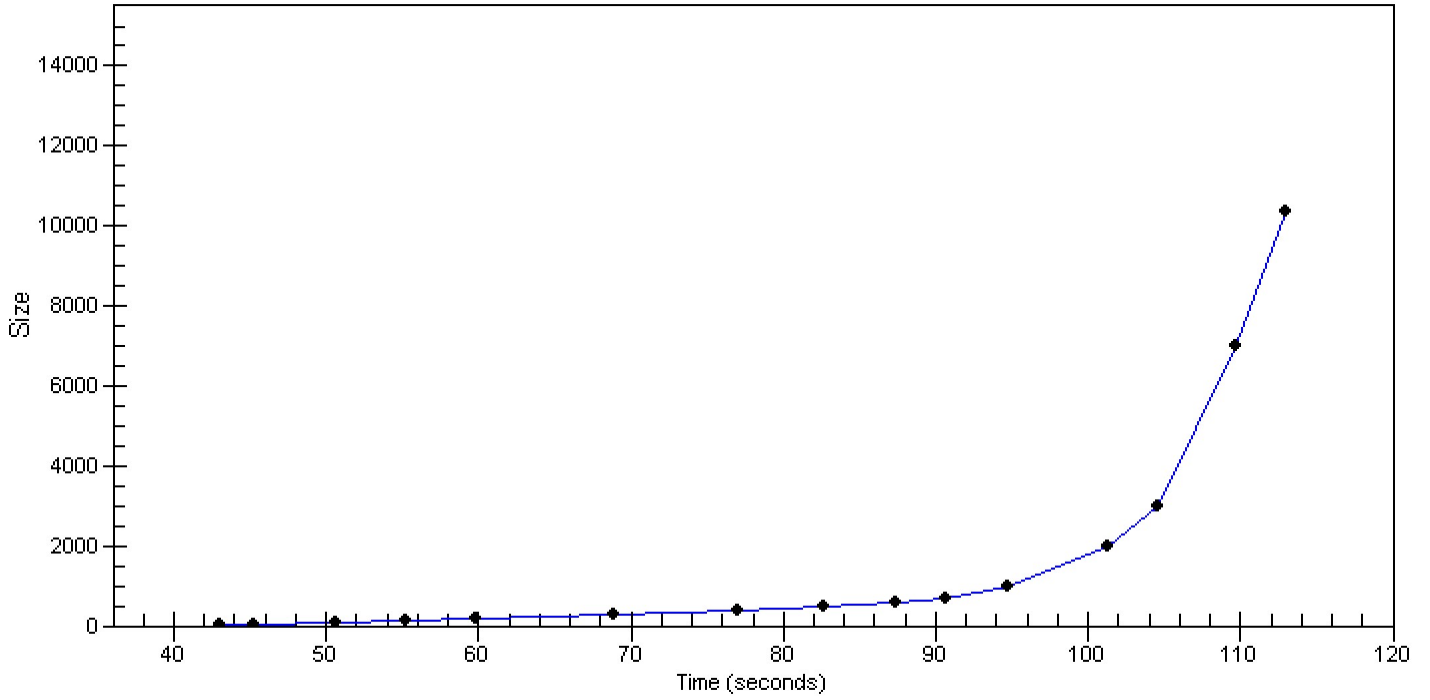


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...nd Settings\Bioanalyzer\2014-04-01\2014-04-01\_001\_Cheng.xad

Created: 4/1/2014 2:21:57 PM  
Modified: 4/1/2014 3:21:06 PM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay Created: 4/1/2014 2:21:57 PM  
 Data Path: C:\...nd Settings\Bioanalyzer\2014-04-01\2014-04-01\_001\_Cheng.xad Modified: 4/1/2014 3:21:06 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 6)		Instrument	Run		4/1/2014 2:46:08 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-04-01\2014-04-01_001.xad)		Instrument	Run		4/1/2014 2:22:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/1/2014 2:22:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/1/2014 2:22:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/1/2014 2:22:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/1/2014 2:22:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/1/2014 2:22:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/1/2014 2:22:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1