

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_001.xad

Created: 9/29/2014 10:32:14 AM  
Modified: 9/29/2014 11:26:46 AM

**Electrophoresis File Run Summary**

Instrument Information:

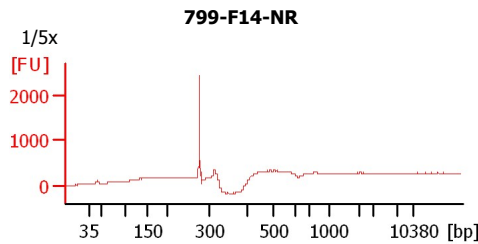
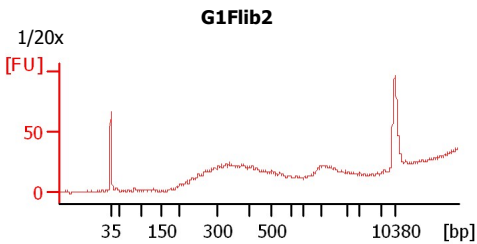
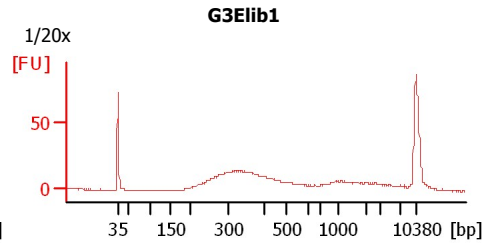
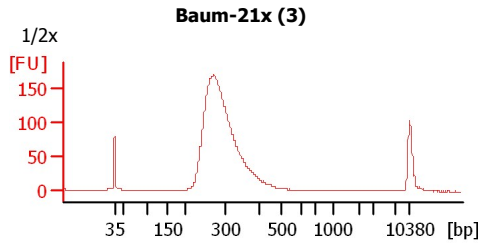
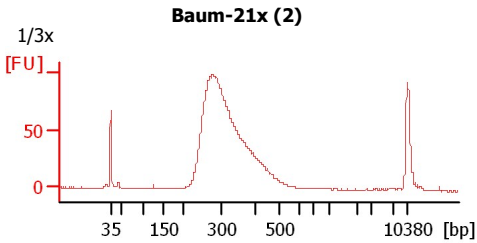
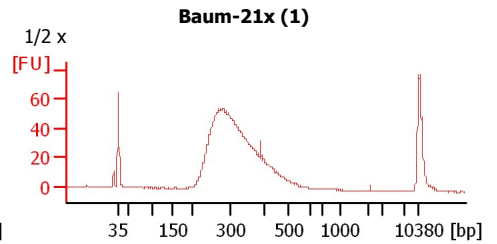
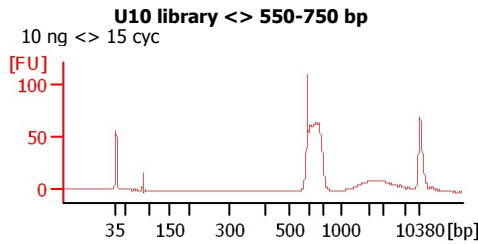
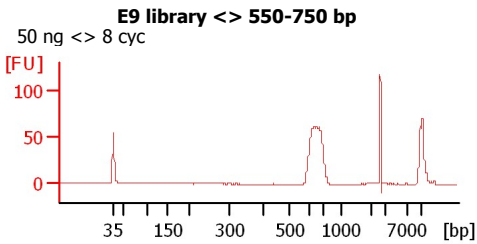
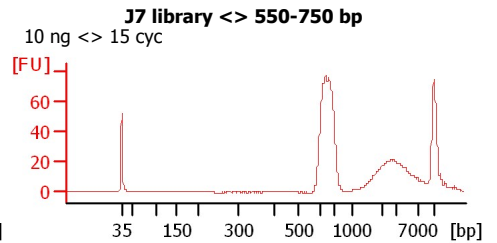
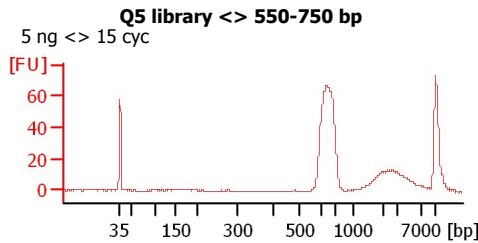
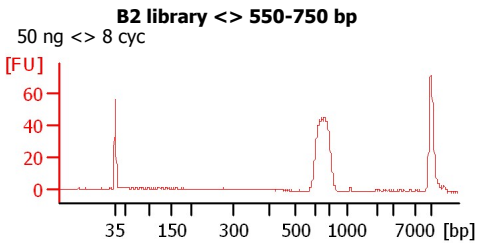
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_001.xad

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
B2 library <> 550-750 bp	50 ng <> 8 cyc	<input type="checkbox"/>	✓			
Q5 library <> 550-750 bp	5 ng <> 15 cyc	<input type="checkbox"/>	✓			
J7 library <> 550-750 bp	10 ng <> 15 cyc	<input type="checkbox"/>	✓			
E9 library <> 550-750 bp	50 ng <> 8 cyc	<input type="checkbox"/>	✓			
U10 library <> 550-750 bp	10 ng <> 15 cyc	<input type="checkbox"/>	✓			
Baum-21x (1)	1/2 x	<input type="checkbox"/>	✓			
Baum-21x (2)	1/3x	<input type="checkbox"/>	✓			
Baum-21x (3)	1/2x	<input type="checkbox"/>	✓			
G3Elib1	1/20x	<input type="checkbox"/>	✓			
G1Flib2	1/20x	<input type="checkbox"/>	✓			
799-F14-NR	1/5x	<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

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**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

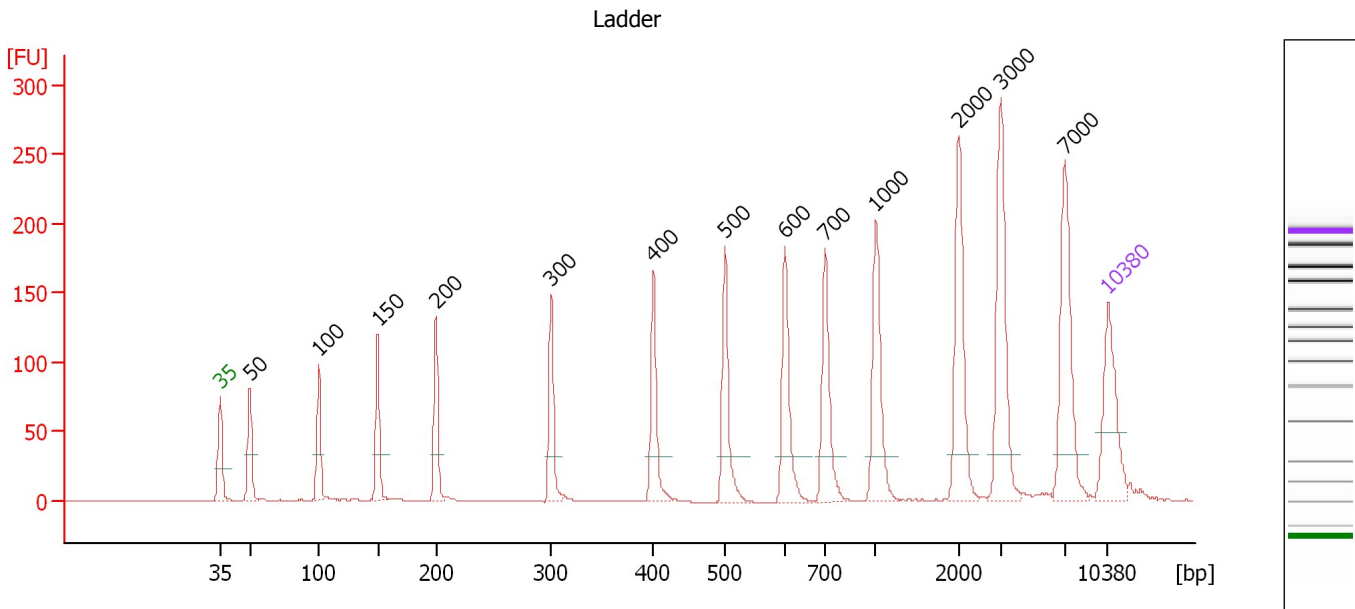
**Ladder**

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

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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

**Peak table for Ladder**

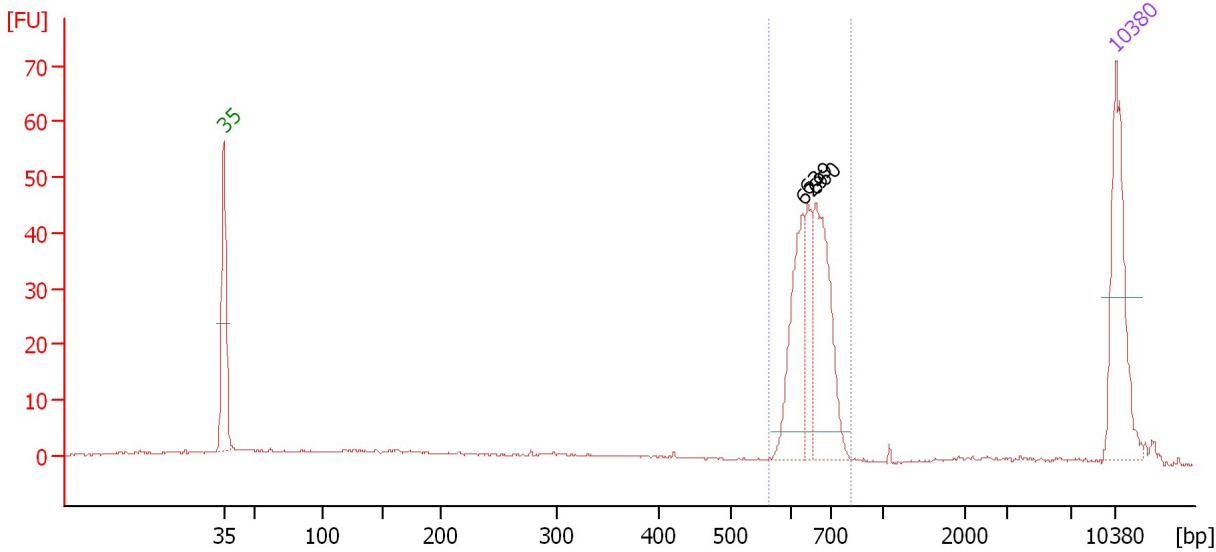
Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	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

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**Electropherogram Summary Continued ...**

B2 library <> 550-750 bp [ 50 ng <> 8 cyc ]



**Overall Results for sample 1 : B2 library <> 550-750 bp**

Number of peaks found: 3                      Corr. Area 1: 186.0  
 Noise: 0.2

**Peak table for sample 1 : B2 library <> 550-750 bp**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	629	81.66	196.8	
3	639	39.30	93.2	
4	660	108.16	248.1	
5	10,380	75.00	10.9	Upper Marker

**Region table for sample 1 : B2 library <> 550-750 bp**

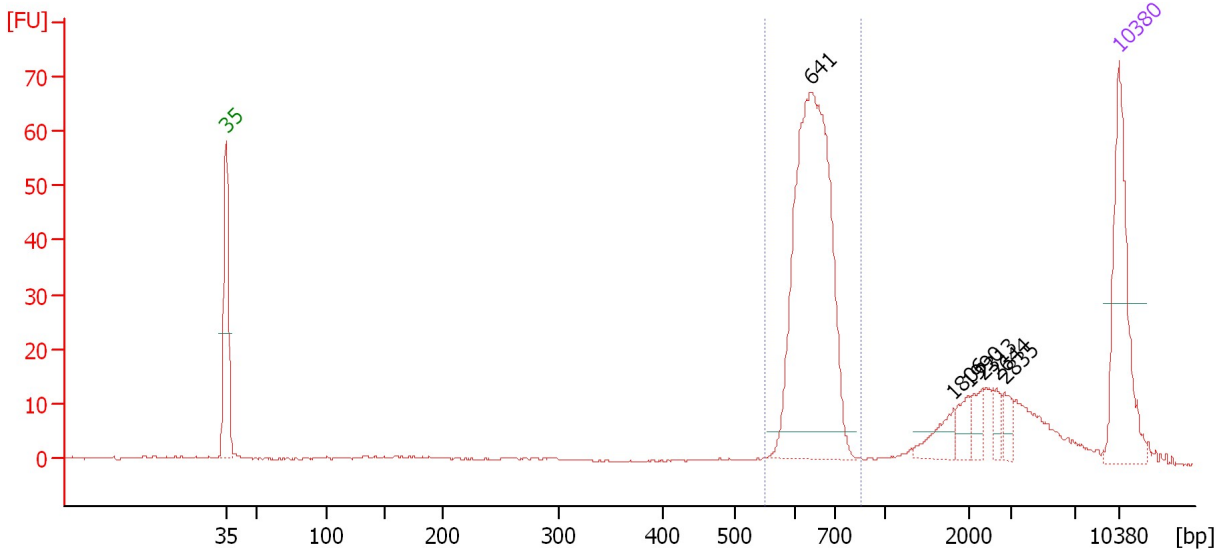
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
563	651	810	186.0	69	6.0	238.12	555.4	Blue

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**Electropherogram Summary Continued ...**

Q5 library <> 550-750 bp [ 5 ng <> 15 cyc ]



**Overall Results for sample 2 : Q5 library <> 550-750 bp**

Number of peaks found: 6                      Corr. Area 1: 277.4  
 Noise: 0.2

**Peak table for sample 2 : Q5 library <> 550-750 bp**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	641	312.41	737.9	
3	1,806	16.96	14.2	
4	1,990	11.86	9.0	
5	2,313	11.04	7.2	
6	2,644	6.40	3.7	
7	2,835	9.62	5.1	
8	10,380	75.00	10.9	Upper Marker

**Region table for sample 2 : Q5 library <> 550-750 bp**

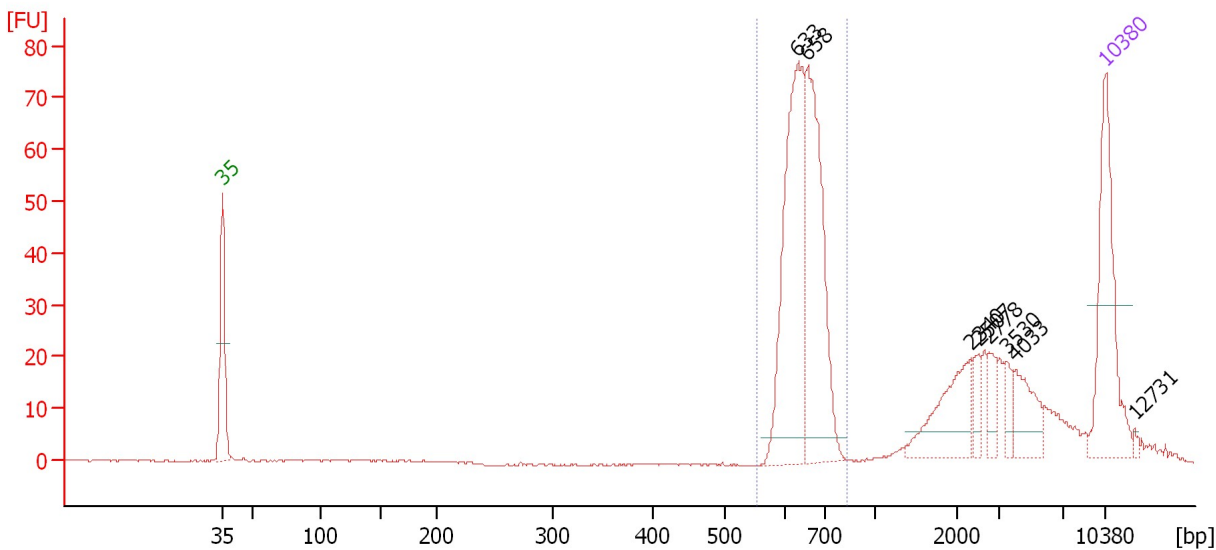
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
551	647	858	277.4	63	6.2	320.34	752.6	Blue

Assay Class: High Sensitivity DNA Assay  
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**Electropherogram Summary Continued ...**

J7 library <> 550-750 bp [ 10 ng <> 15 cyc ]



**Overall Results for sample 3 : J7 library <> 550-750 bp**

Number of peaks found: 8                      Corr. Area 1: 308.6  
 Noise: 0.1

**Peak table for sample 3 : J7 library <> 550-750 bp**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	633	182.53	437.1	
3	658	155.68	358.4	
4	2,340	48.92	31.7	
5	2,507	10.85	6.6	
6	2,778	12.31	6.7	
7	3,530	10.29	4.4	
8	4,033	26.64	10.0	
9	10,380	75.00	10.9	Upper Marker
10	12,731	0.00	0.0	

**Region table for sample 3 : J7 library <> 550-750 bp**

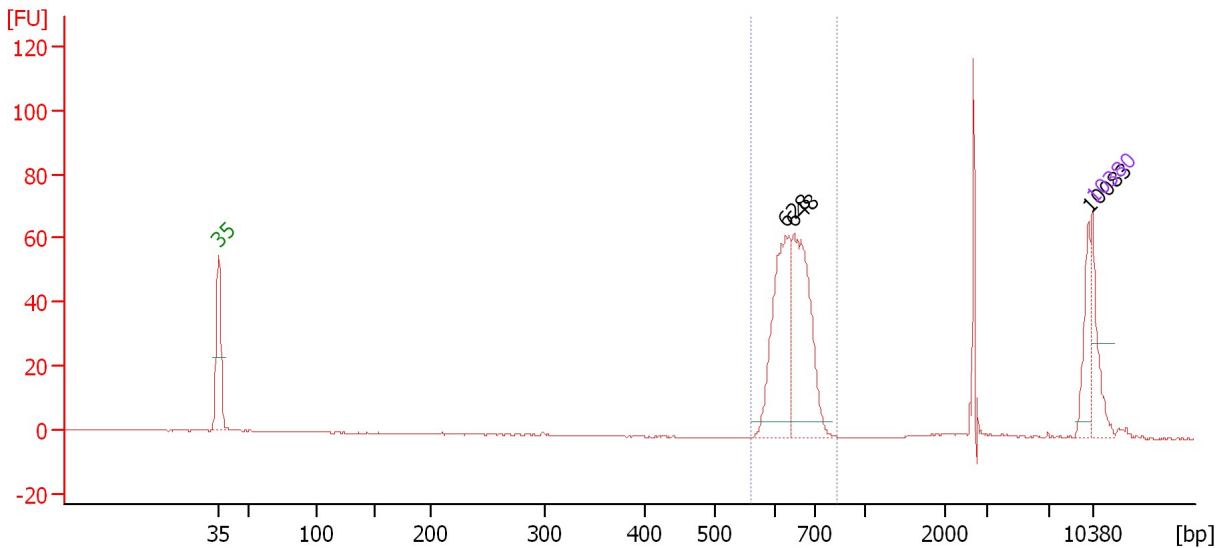
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
555	649	836	308.6	61	6.0	335.14	783.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_001.xad

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**Electropherogram Summary Continued ...**

E9 library <> 550-750 bp [ 50 ng <> 8 cyc ]



**Overall Results for sample 4 : E9 library <> 550-750 bp**

Number of peaks found: 3                      Corr. Area 1: 249.6  
 Noise: 0.1

**Peak table for sample 4 : E9 library <> 550-750 bp**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	628	286.10	690.4	
3	648	295.11	689.9	
4	10,083	62.98	9.5	
5	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : E9 library <> 550-750 bp**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
561	644	840	249.6	77	5.7	576.97	1,359.3	Blue

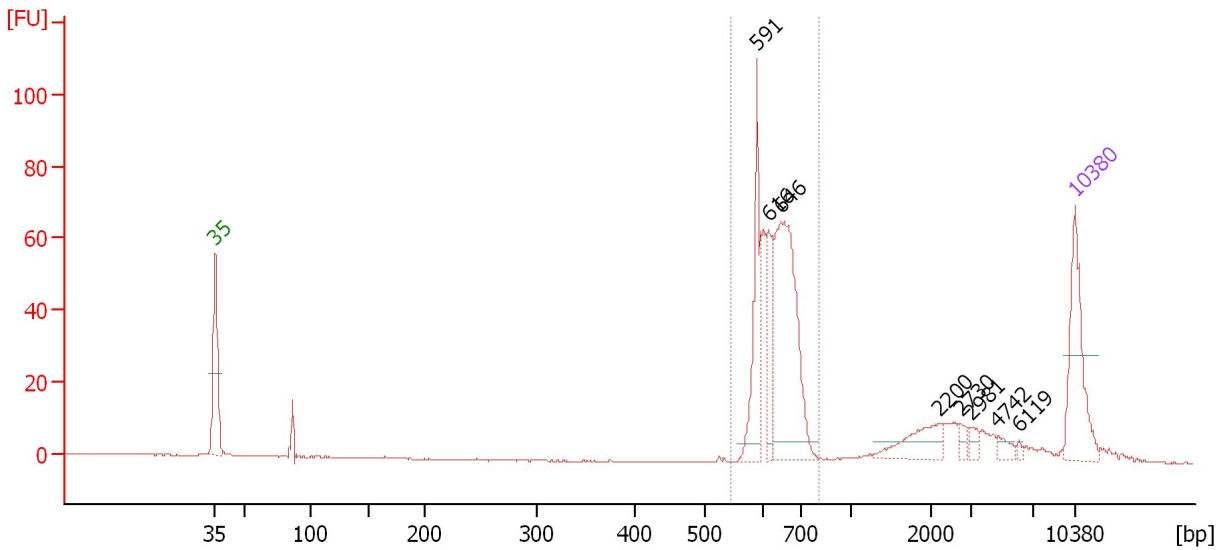


Assay Class: High Sensitivity DNA Assay  
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**Electropherogram Summary Continued ...**

U10 library <> 550-750 bp [ 10 ng <> 15 cyc ]



**Overall Results for sample 5 : U10 library <> 550-750 bp**

Number of peaks found: 8                      Corr. Area 1: 301.7  
 Noise: 0.2

**Peak table for sample 5 : U10 library <> 550-750 bp**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	591	84.88	217.7	
3	616	55.88	137.4	
4	646	219.27	513.9	
5	2,200	36.40	25.1	
6	2,730	7.13	4.0	
7	2,981	7.66	3.9	
8	4,742	8.57	2.7	
9	6,119	2.65	0.7	
10	10,380	75.00	10.9	Upper Marker

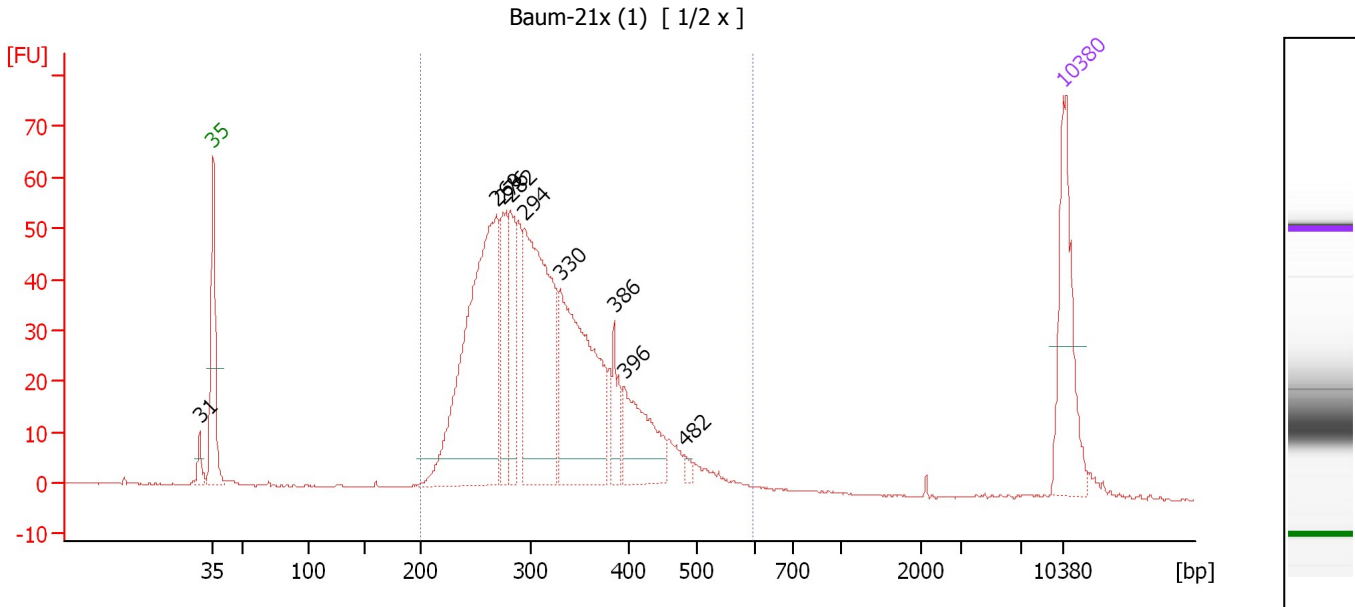
**Region table for sample 5 : U10 library <> 550-750 bp**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
545	636	814	301.7	72	6.1	409.06	977.7	Blue

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**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : Baum-21x (1)**

Number of peaks found: 9                      Corr. Area 1: 955.1  
 Noise: 0.2

**Peak table for sample 6 : Baum-21x (1)**

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	269	349.67	1,967.4	
4	276	73.05	401.6	
5	282	75.90	407.3	
6	294	252.75	1,300.7	
7	330	220.87	1,013.5	
8	386	31.92	125.4	
9	396	78.45	300.1	
10	482	5.56	17.5	
11	10,380	75.00	10.9	Upper Marker

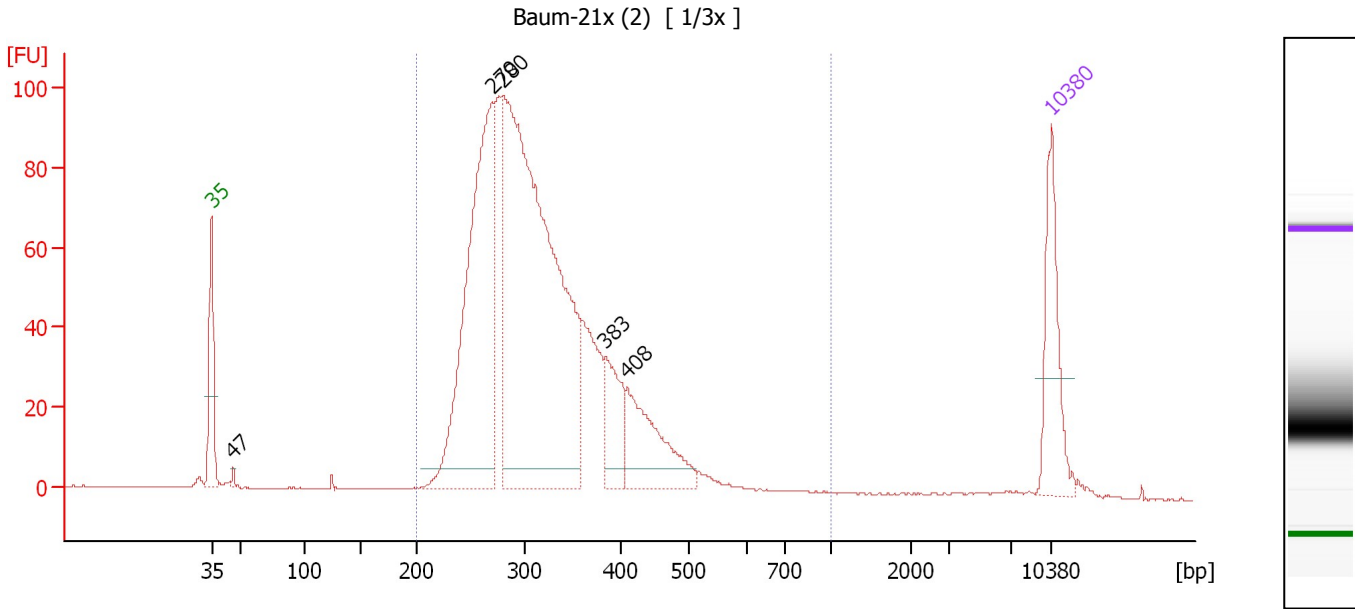
**Region table for sample 6 : Baum-21x (1)**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/µl]	Molarity [pmol/l]	Color
200	321	599	955.1	97	21.1	1,231.83	6,138.4	Blue

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**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : Baum-21x (2)**

Number of peaks found: 5                      Corr. Area 1: 1,501.1  
 Noise: 0.2

**Peak table for sample 7 : Baum-21x (2)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	47	4.62	150.0	
3	270	458.86	2,575.6	
4	280	842.43	4,555.1	
5	383	71.40	282.5	
6	408	113.71	422.4	
7	10,380	75.00	10.9	Upper Marker

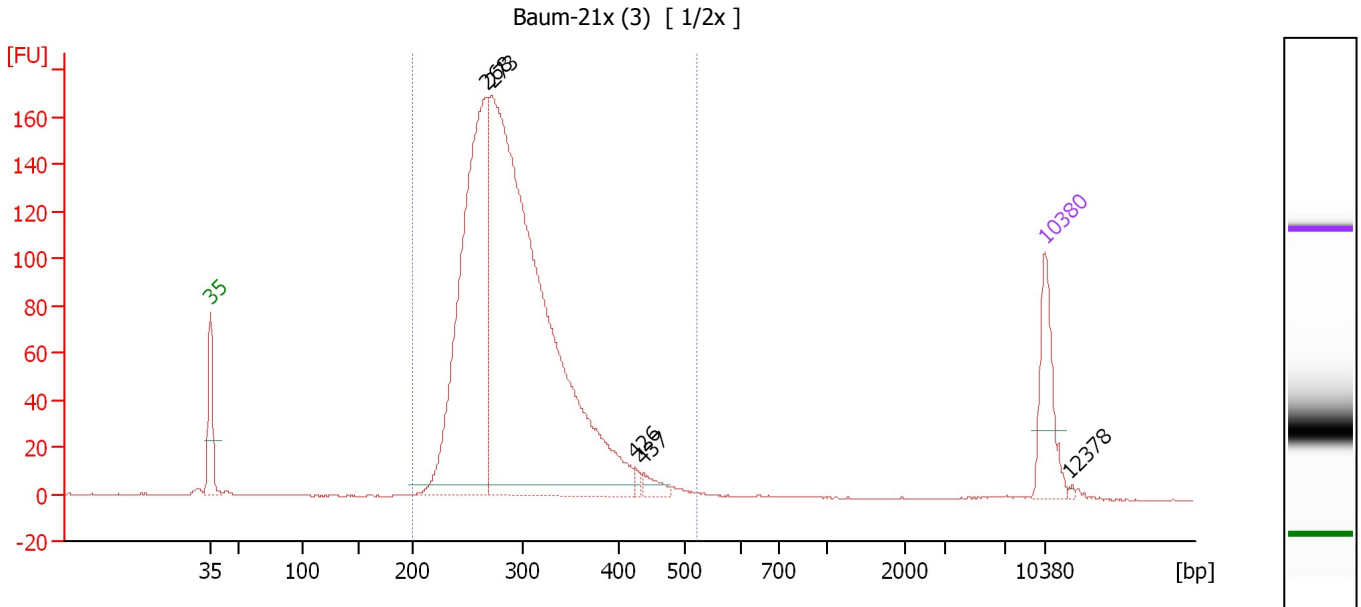
**Region table for sample 7 : Baum-21x (2)**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	322	1,000	1,501.1	97	23.3	1,739.02	8,630.5	Blue

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**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : Baum-21x (3)**

Number of peaks found: 5                      Corr. Area 1: 2,087.6  
 Noise: 0.1

**Peak table for sample 8 : Baum-21x (3)**

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	268	751.10	4,252.1	
3	273	1,454.83	8,087.2	
4	426	8.19	29.1	
5	437	18.07	62.6	
6	10,380	75.00	10.9	Upper Marker
7	12,378	0.00	0.0	

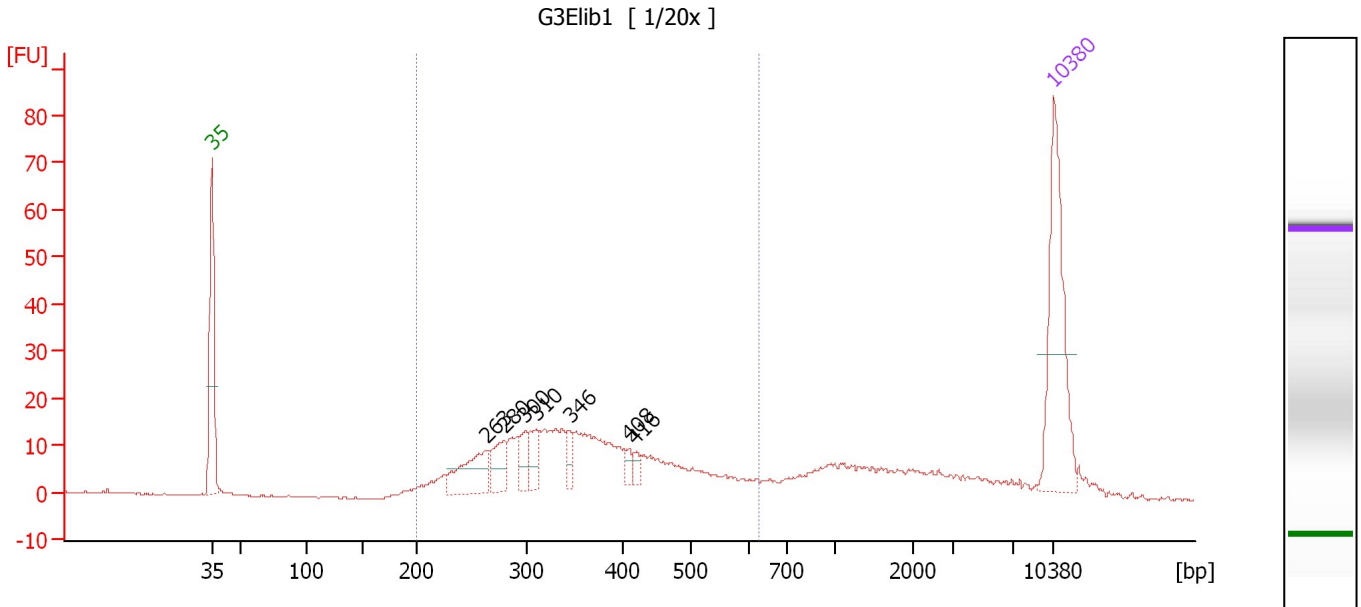
**Region table for sample 8 : Baum-21x (3)**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/µl]	Molarity [pmol/l]	Color
200	296	521	2,087.6	98	16.2	2,169.67	11,413.3	Blue

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**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : G3Elib1**

Number of peaks found: 7                      Corr. Area 1: 341.9  
 Noise: 0.2

**Peak table for sample 9 : G3Elib1**

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	263	43.29	249.0	
3	280	24.44	132.5	
4	300	15.96	80.7	
5	310	19.04	93.1	
6	346	10.89	47.7	
7	408	7.15	26.6	
8	416	5.66	20.6	
9	10,380	75.00	10.9	Upper Marker

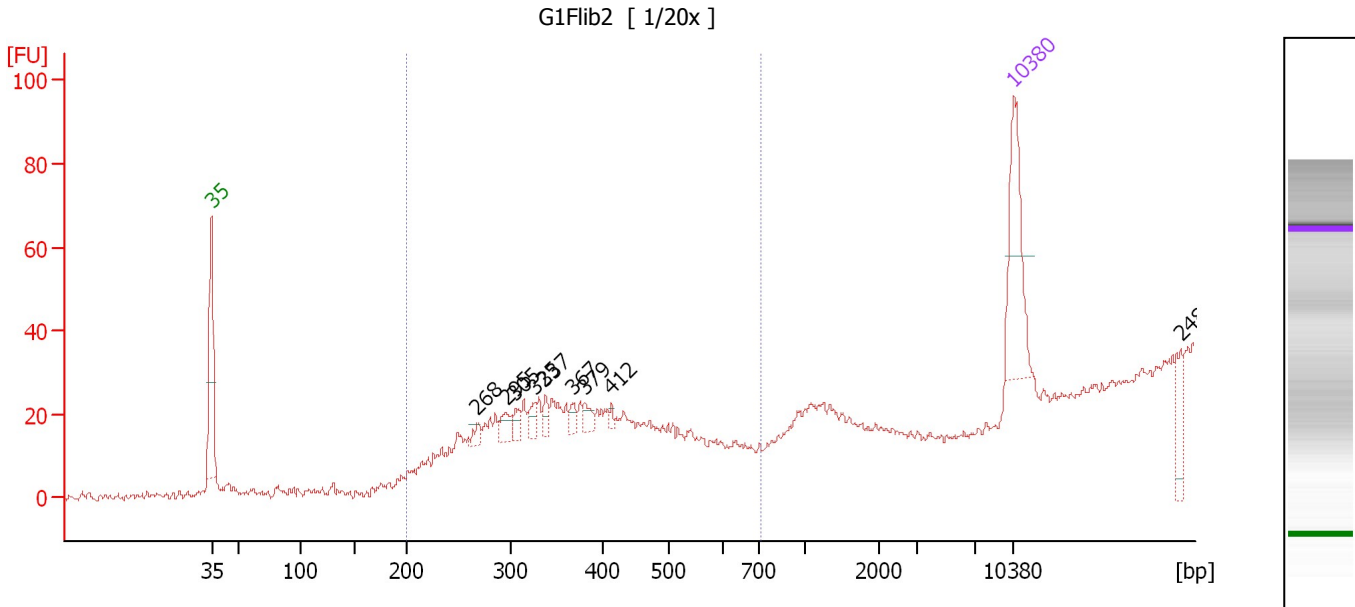
**Region table for sample 9 : G3Elib1**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/µl]	Molarity [pmol/l]	Color
200	364	630	341.9	72	25.8	380.73	1,733.3	Blue

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**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : G1Flib2**

Number of peaks found: 9                      Corr. Area 1: 107.2  
 Noise: 1.1

**Peak table for sample 10 : G1Flib2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	268	9.95	56.3	
3	295	16.17	83.0	
4	305	12.13	60.3	
5	325	12.02	56.0	
6	337	11.05	49.6	
7	367	9.07	37.5	
8	379	10.91	43.6	
9	412	4.50	16.5	
10	10,380	75.00	10.9	Upper Marker
11	24,830	0.00	0.0	

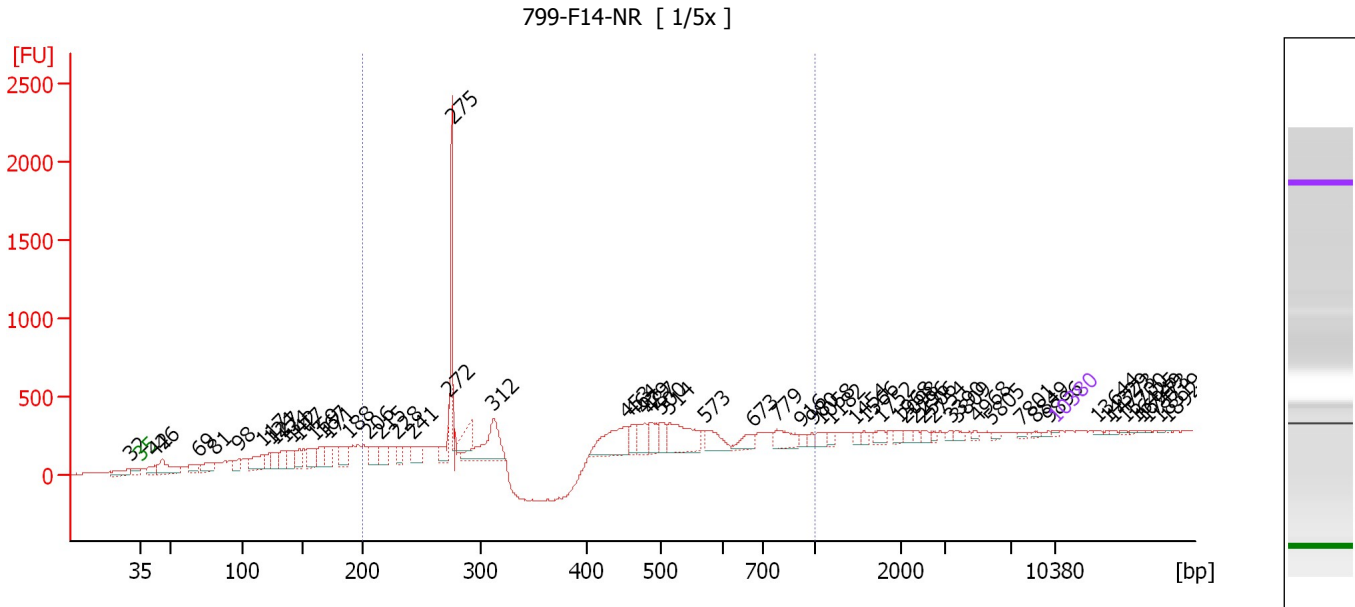
**Region table for sample 10 : G1Flib2**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	334	718	107.2	98	13.3	170.99	793.4	Blue

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**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 799-F14-NR**

Number of peaks found: 60                      Corr. Area 1: 5,388.2  
 Noise: 3.9

**Peak table for sample 11 : 799-F14-NR**

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	42	933.16	33,469.8	
4	46	2,261.55	75,134.1	
5	69	833.08	18,169.2	
6	81	1,242.27	23,215.7	
7	98	859.83	13,304.4	
8	117	1,681.13	21,822.0	
9	124	870.48	10,626.1	
10	127	923.04	10,997.9	
11	134	1,246.15	14,077.1	
12	142	1,086.29	11,629.9	
13	147	956.99	9,881.2	
14	159	1,303.72	12,416.7	
15	167	1,248.72	11,355.3	
16	171	1,107.93	9,788.7	
17	188	1,225.93	9,863.1	
18	206	1,217.61	8,970.6	
19	215	1,016.55	7,162.3	
20	228	674.40	4,481.4	
21	241	1,183.08	7,424.9	
22	272	802.22	4,464.2	
23	275	1,201.61	6,610.7	
24	312	3,640.73	17,704.9	
25	453	2,688.92	8,984.3	
26	464	897.07	2,932.1	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_001.xad


Created: 9/29/2014 10:32:14 AM  
 Modified: 9/29/2014 11:26:46 AM

**Electropherogram Summary Continued ...**

**... Peak table for sample 11 : 799-F14-NR**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	479	1,126.89	3,566.8	
28	487	1,016.54	3,165.1	
29	500	838.65	2,539.4	
30	514	2,805.81	8,270.0	
31	573	1,173.17	3,102.0	
32	673	726.81	1,637.1	
33	779	1,127.96	2,194.9	
34	916	265.43	439.1	
35	980	270.16	417.7	
36	1,058	382.25	547.3	
37	1,182	227.11	291.1	
38	1,454	224.86	234.2	
39	1,566	223.01	215.8	
40	1,752	360.35	311.7	
41	1,968	237.41	182.7	
42	2,098	243.21	175.7	
43	2,296	169.31	111.7	
44	2,506	214.45	129.6	
45	2,754	136.30	75.0	
46	3,390	166.00	74.2	
47	3,809	204.35	81.3	
48	4,968	146.60	44.7	
49	5,805	131.66	34.4	
50	7,801	111.81	21.7	
51	8,849	99.94	17.1	
52	9,896	102.38	15.7	
53	10,380	75.00	10.9	Upper Marker
54	13,644	0.00	0.0	
55	14,329	0.00	0.0	
56	14,773	0.00	0.0	
57	15,700	0.00	0.0	
58	16,425	0.00	0.0	
59	16,949	0.00	0.0	
60	17,473	0.00	0.0	
61	18,319	0.00	0.0	
62	18,924	0.00	0.0	

**Region table for sample 11 : 799-F14-NR**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	444	1,000	5,388.2	56	42.5	27,816.83	123,109.5	



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Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_001.xad

Created: 9/29/2014 10:32:14 AM  
Modified: 9/29/2014 11:26:46 AM

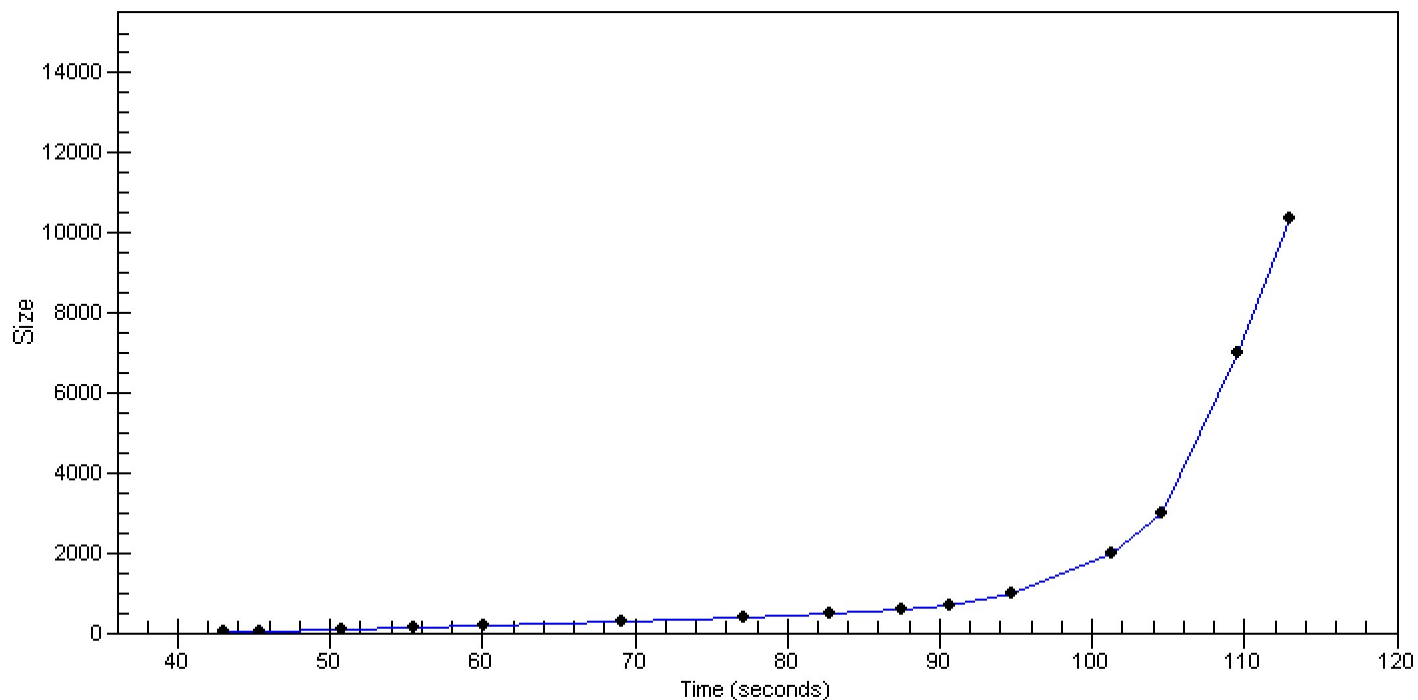
**Gel Image**

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_001.xad

Created: 9/29/2014 10:32:14 AM  
Modified: 9/29/2014 11:26:46 AM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_001.xad

Created: 9/29/2014 10:32:14 AM  
 Modified: 9/29/2014 11:26:46 AM

**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		9/29/2014 11:13:33 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-09-29\2014-09-29_001.xad)		Instrument	Run		9/29/2014 10:32:19 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/29/2014 10:32:19 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/29/2014 10:32:19 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/29/2014 10:32:19 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/29/2014 10:32:19 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/29/2014 10:32:19 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/29/2014 10:32:19 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1