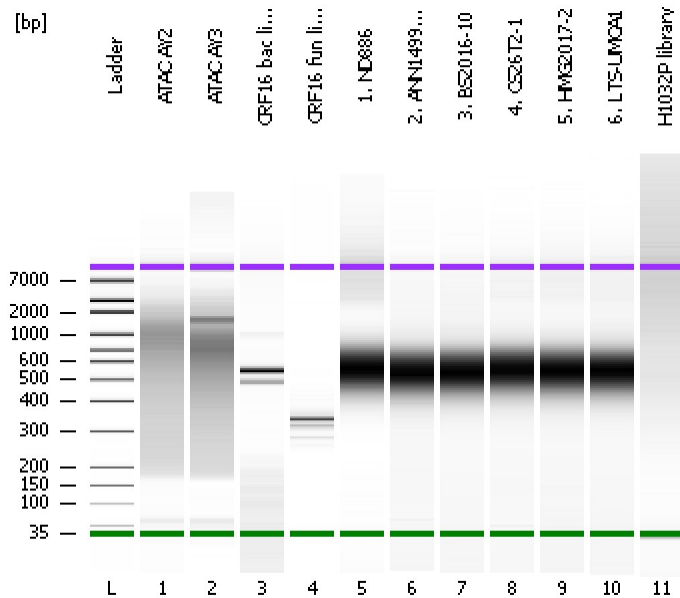


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
Modified: 8/14/2017 5:14:58 PM

**Electrophoresis File Run Summary**



Instrument Information:

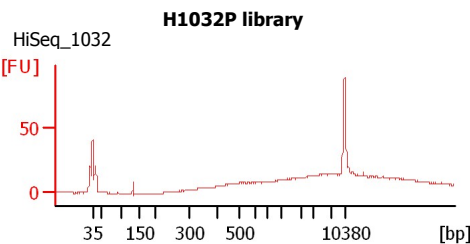
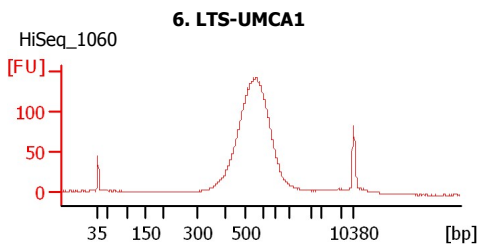
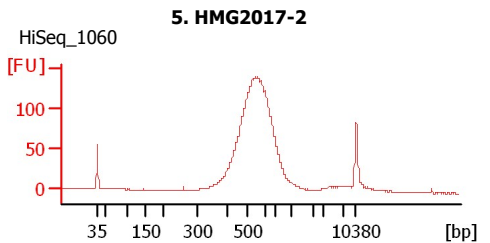
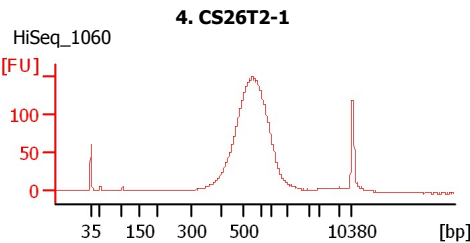
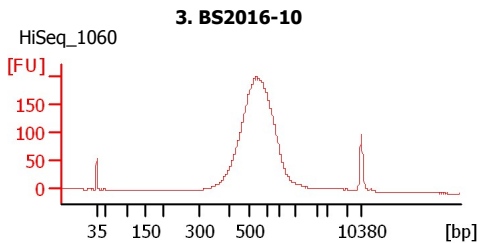
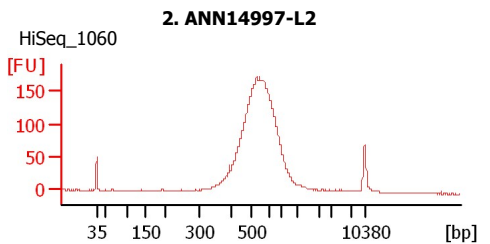
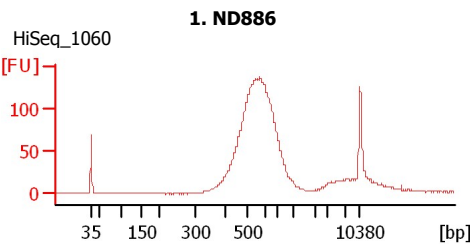
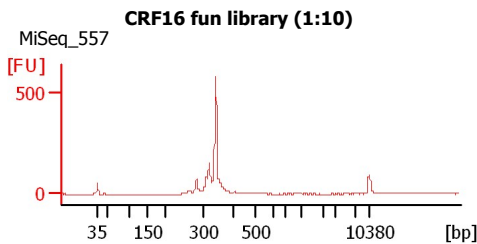
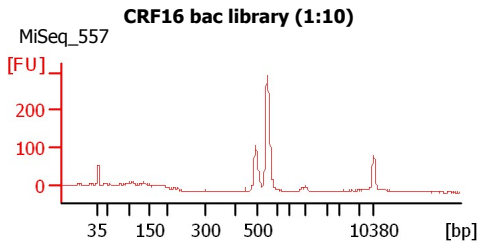
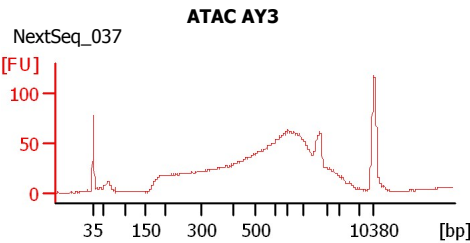
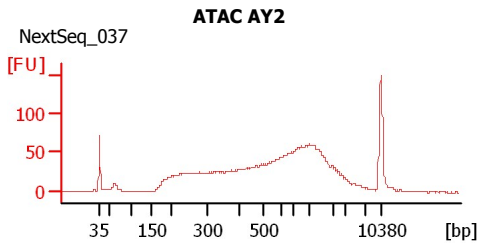
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
Modified: 8/14/2017 5:14:58 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
ATAC AY2	NextSeq_037	<input type="checkbox"/>	✓			
ATAC AY3	NextSeq_037	<input type="checkbox"/>	✓			
CRF16 bac library (1:10)	MiSeq_557	<input type="checkbox"/>	✓			
CRF16 fun library (1:10)	MiSeq_557	<input type="checkbox"/>	✓			
1. ND886	HiSeq_1060	<input type="checkbox"/>	✓			
2. ANN14997-L2	HiSeq_1060	<input type="checkbox"/>	✓			
3. BS2016-10	HiSeq_1060	<input type="checkbox"/>	✓			
4. CS26T2-1	HiSeq_1060	<input type="checkbox"/>	✓			
5. HMG2017-2	HiSeq_1060	<input type="checkbox"/>	✓			
6. LTS-UMCA1	HiSeq_1060	<input type="checkbox"/>	✓			
H1032P library	HiSeq_1032	<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

**Chip Lot #**

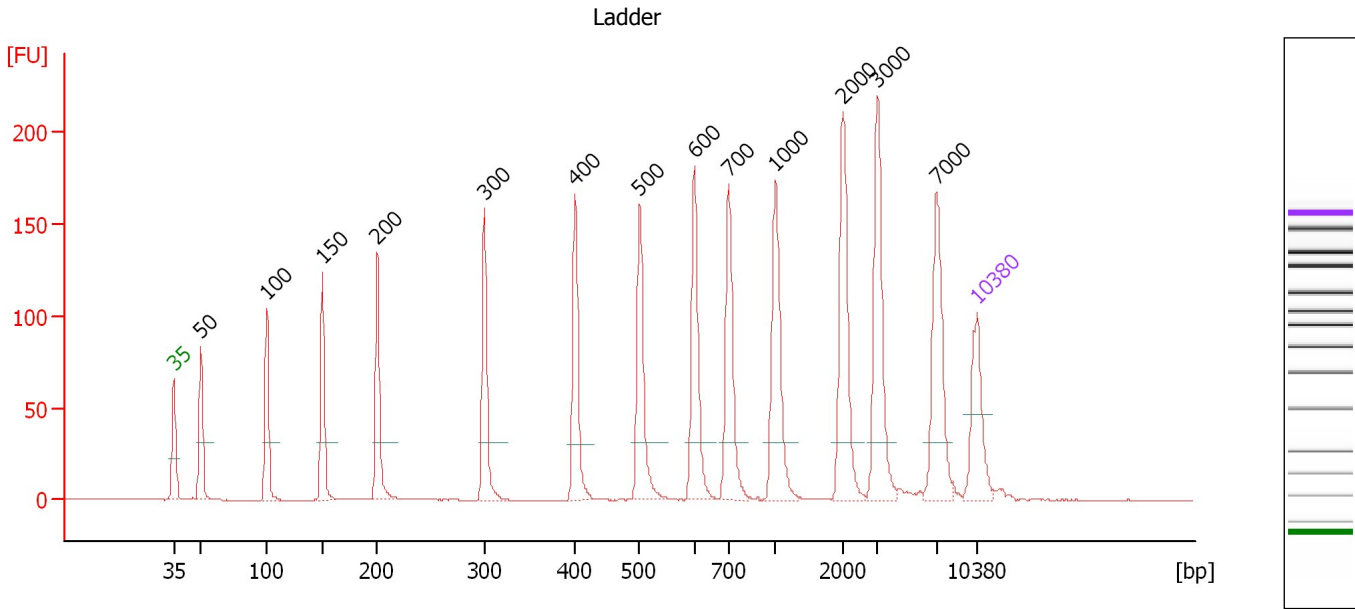
**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
 Modified: 8/14/2017 5:14:58 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

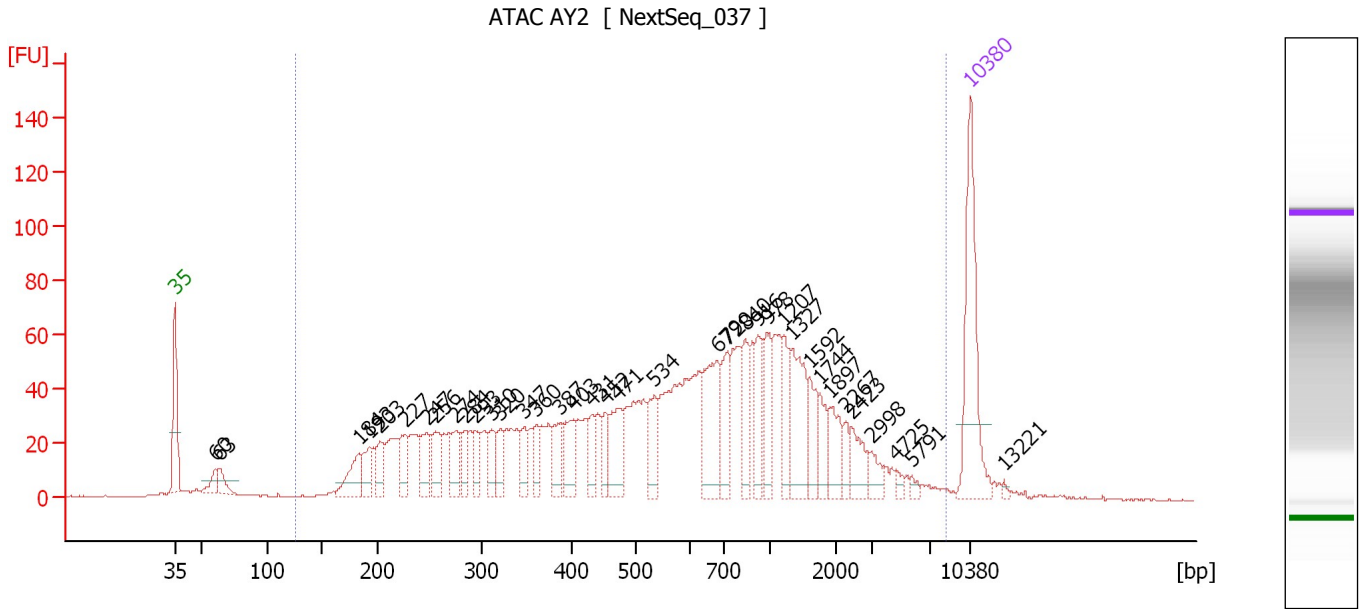
**Peak table for Ladder**

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	45.37
3	100	150.00	2,272.7	Ladder Peak	51.13
4	150	150.00	1,515.2	Ladder Peak	55.96
5	200	150.00	1,136.4	Ladder Peak	60.74
6	300	150.00	757.6	Ladder Peak	70.08
7	400	150.00	568.2	Ladder Peak	77.98
8	500	150.00	454.5	Ladder Peak	83.60
9	600	150.00	378.8	Ladder Peak	88.38
10	700	150.00	324.7	Ladder Peak	91.35
11	1,000	150.00	227.3	Ladder Peak	95.44
12	2,000	150.00	113.6	Ladder Peak	101.29
13	3,000	150.00	75.8	Ladder Peak	104.31
14	7,000	150.00	32.5	Ladder Peak	109.42
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
 Modified: 8/14/2017 5:14:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : ATAC AY2**

Number of peaks found: 37      Corr. Area 1: 2,019.6  
 Noise: 0.2

**Peak table for sample 1 : ATAC AY2**

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	60	13.80	348.4		46.52
3	63	17.01	407.4		46.90
4	184	34.92	287.6		59.21
5	193	27.93	218.9		60.10
6	203	26.23	195.6		61.04
7	227	28.46	190.1		63.25
8	247	27.81	170.3		65.17
9	256	27.94	165.7		65.93
10	274	25.56	141.3		67.66
11	284	19.24	102.7		68.56
12	293	20.21	104.6		69.40
13	310	19.66	96.2		70.86
14	320	19.43	92.0		71.66
15	347	18.75	81.9		73.77
16	360	18.77	79.0		74.81
17	387	23.23	91.0		76.92
18	403	31.45	118.3		78.14
19	431	17.76	62.4		79.74
20	452	17.92	60.1		80.91
21	471	38.24	123.1		81.95
22	534	30.00	85.1		85.23
23	679	64.03	142.9		90.73
24	720	33.07	69.6		91.62
25	840	29.78	53.7		93.27

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
 Modified: 8/14/2017 5:14:58 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 1 : ATAC AY2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	916	29.42	48.6		94.30
27	978	30.70	47.5		95.15
28	1,207	26.37	33.1		96.65
29	1,327	50.02	57.1		97.36
30	1,592	23.61	22.5		98.91
31	1,744	16.70	14.5		99.80
32	1,897	23.41	18.7		100.69
33	2,267	9.15	6.1		102.10
34	2,423	20.33	12.7		102.57
35	2,998	10.20	5.2		104.31
36	4,725	3.42	1.1		106.52
37	5,791	3.31	0.9		107.88
38	10,380	75.00	10.9	Upper Marker	113.00
39	13,221	0.00	0.0		116.01

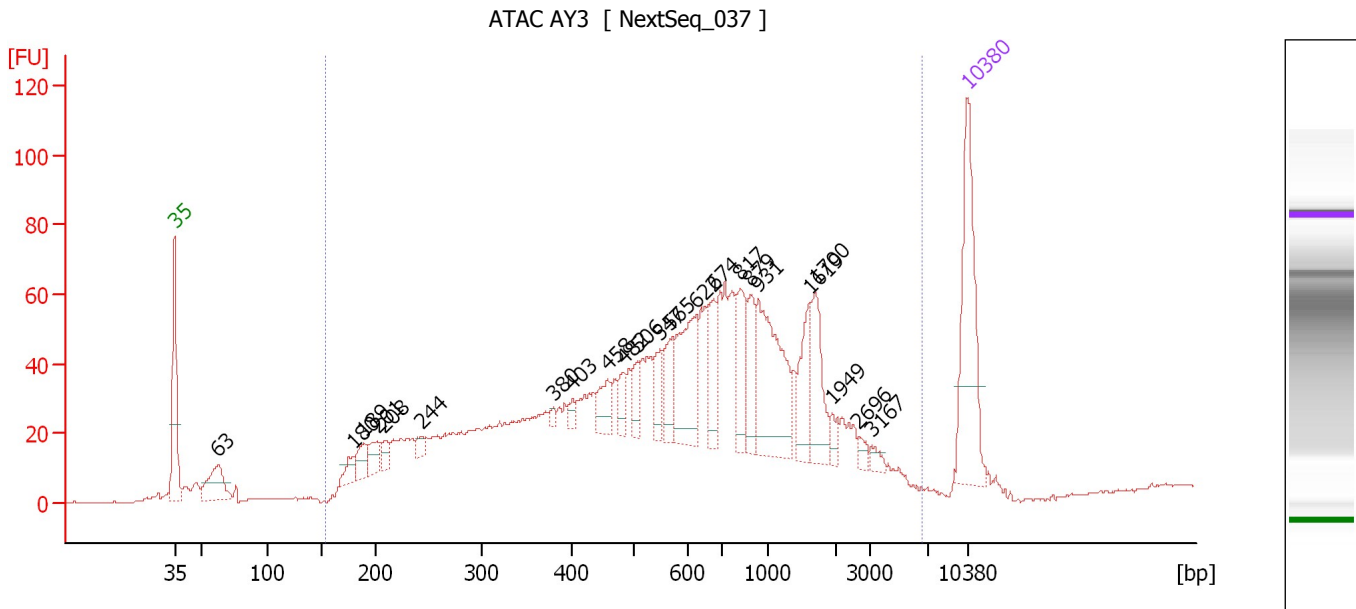
**Region table for sample 1 : ATAC AY2**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
125	8,367	906	2,019.6	5,312.8	1,474.39	96	100.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
 Modified: 8/14/2017 5:14:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : ATAC AY3**

Number of peaks found: 23                      Corr. Area 1: 1,797.4  
 Noise: 0.2

**Peak table for sample 2 : ATAC AY3**

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	63	44.15	1,062.8		46.86
3	180	13.63	114.8		58.82
4	189	17.80	142.5		59.71
5	201	16.60	125.1		60.84
6	208	10.18	74.1		61.50
7	244	7.36	45.7		64.84
8	380	3.28	13.1		76.42
9	403	5.17	19.5		78.12
10	458	18.97	62.8		81.22
11	482	12.77	40.1		82.59
12	506	13.97	41.9		83.86
13	547	19.28	53.4		85.84
14	565	22.50	60.4		86.69
15	622	64.52	157.1		89.04
16	674	29.75	66.8		90.59
17	817	37.35	69.3		92.95
18	879	28.46	49.1		93.79
19	931	86.28	140.4		94.50
20	1,619	29.23	27.4		99.07
21	1,700	37.40	33.3		99.54
22	1,949	6.49	5.0		101.00
23	2,696	4.66	2.6		103.40
24	3,167	4.68	2.2		104.53
25	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
Modified: 8/14/2017 5:14:58 PM

**Electropherogram Summary Continued ...**

... Region table for sample 2 :

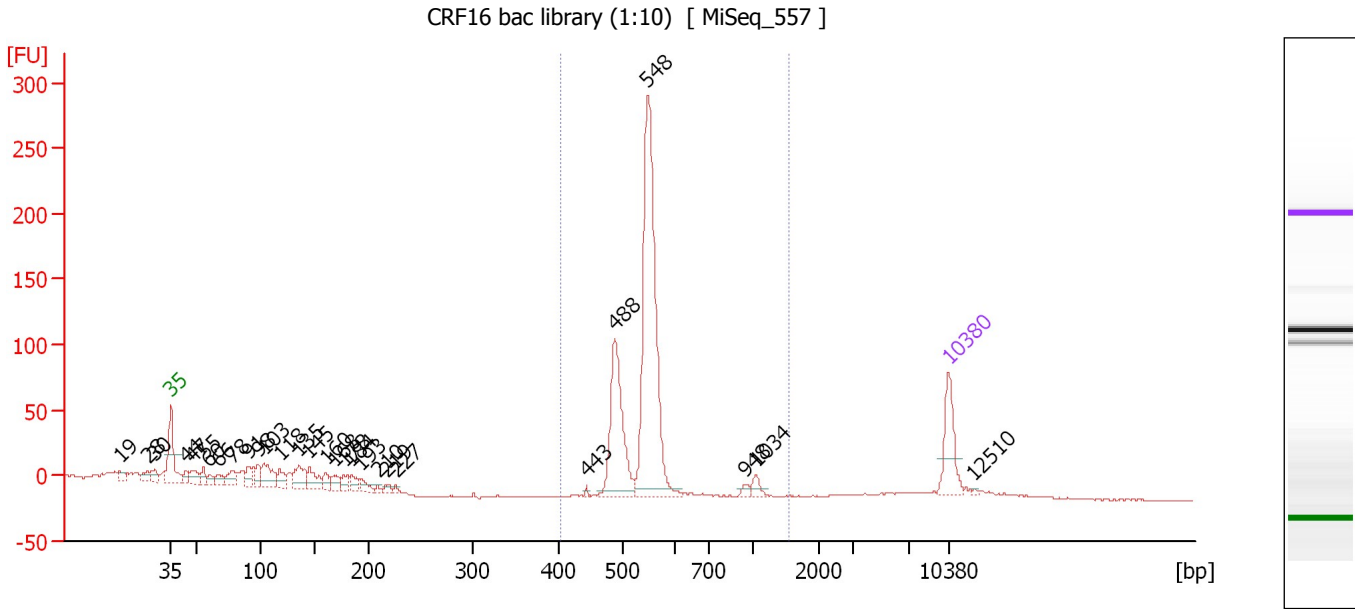
**ATAC AY3**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
154	6,617	814	1,797.4	5,028.5	■ 1,443.46	97	86.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
 Modified: 8/14/2017 5:14:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : CRF16 bac library (1:10)**

Number of peaks found: 29                      Corr. Area 1: 619.5  
 Noise: 0.5

**Peak table for sample 3 : CRF16 bac library (1:10)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	19	0.00	0.0		38.45
2	28	0.00	0.0		40.94
3	30	0.00	0.0		41.56
4	35	125.00	5,411.3	Lower Marker	43.00
5	44	23.79	822.9		44.39
6	47	40.84	1,304.1		44.97
7	55	24.76	679.1		45.97
8	60	17.25	436.9		46.50
9	66	23.90	544.7		47.27
10	78	41.13	797.6		48.61
11	91	32.53	543.9		50.05
12	98	38.51	597.3		50.86
13	103	75.54	1,109.0		51.44
14	118	34.05	438.6		52.83
15	135	67.02	752.4		54.51
16	145	51.65	540.2		55.47
17	160	24.41	230.6		56.95
18	168	29.12	262.8		57.67
19	178	22.83	194.4		58.63
20	184	22.85	187.7		59.25
21	193	21.26	166.5		60.12
22	210	5.88	42.4		61.65
23	219	11.92	82.5		62.51
24	227	6.09	40.7		63.28
25	443	3.02	10.3		80.40



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
 Modified: 8/14/2017 5:14:58 PM

### Electropherogram Summary Continued ...

#### ... Peak table for sample 3 : CRF16 bac library (1:10)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	488	237.96	738.4		82.94
27	548	566.52	1,565.3		85.91
28	948	7.69	12.3		94.73
29	1,034	14.26	20.9		95.64
30	10,380	75.00	10.9	Upper Marker	113.00
31	12,510	0.00	0.0		115.25

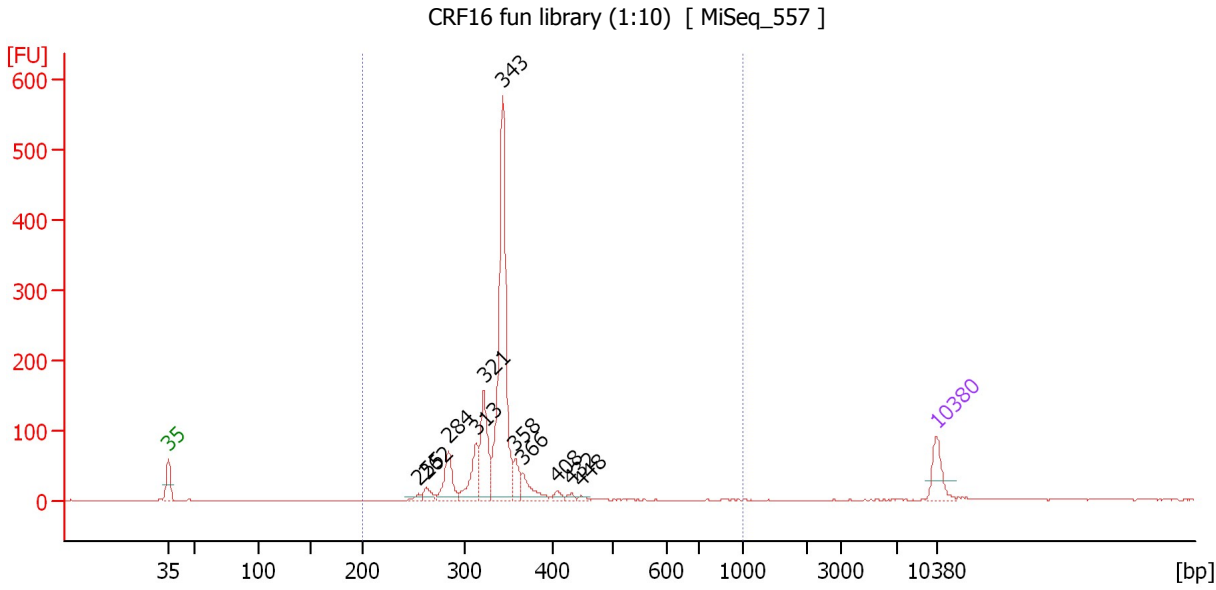
#### Region table for sample 3 : CRF16 bac library (1:10)

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
402	1,550	546	619.5	2,106.7	748.50	71	13.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
 Modified: 8/14/2017 5:14:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : CRF16 fun library (1:10)**

Number of peaks found: 11                      Corr. Area 1: 1,157.3  
 Noise: 0.5

**Peak table for sample 4 : CRF16 fun library (1:10)**

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	255	15.68	93.3		65.85
3	262	38.09	220.3		66.53
4	284	136.96	731.1		68.57
5	313	142.10	688.1		71.10
6	321	245.42	1,156.6		71.78
7	343	843.44	3,725.3		73.48
8	358	64.13	271.6		74.65
9	366	79.60	329.1		75.33
10	408	17.23	63.9		78.44
11	432	12.37	43.4		79.75
12	448	9.63	32.6		80.67
13	10,380	75.00	10.9	Upper Marker	113.00

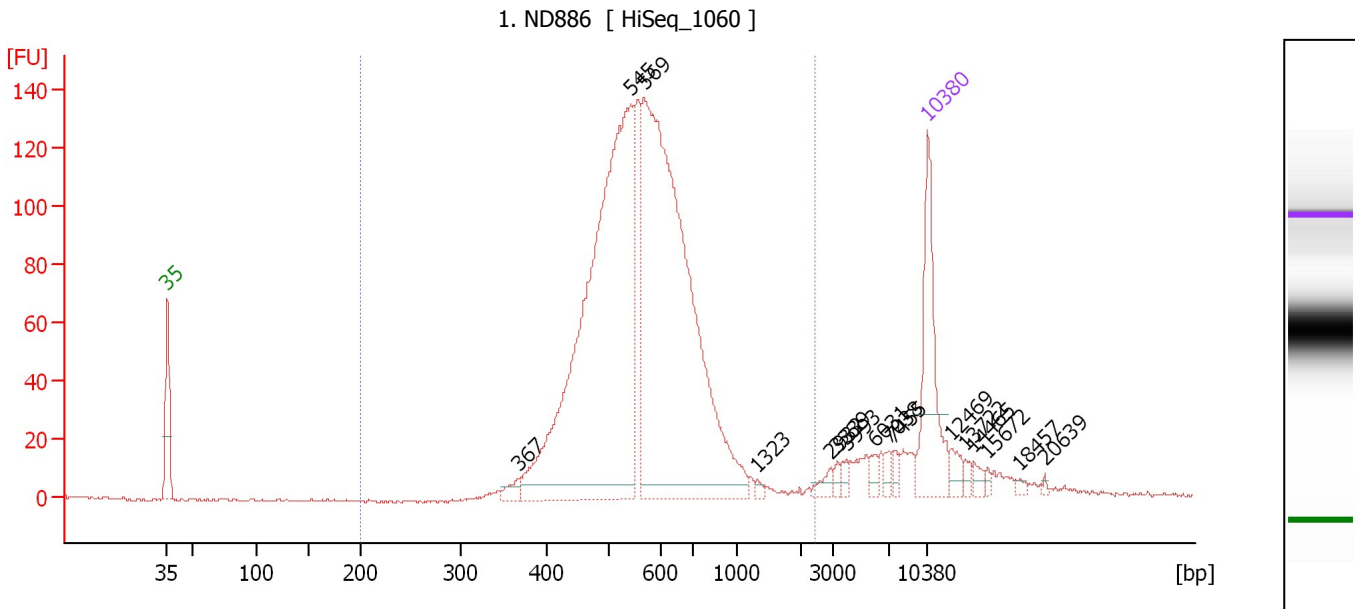
**Region table for sample 4 : CRF16 fun library (1:10)**

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	336	1,157.3	7,313.6	1,603.16	98	10.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
 Modified: 8/14/2017 5:14:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 1. ND886**

Number of peaks found: 16                      Corr. Area 1: 1,730.4  
 Noise: 0.5

**Peak table for sample 5 : 1. ND886**

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	367	10.78	44.5		75.37
3	545	593.04	1,649.6		85.74
4	569	587.95	1,564.6		86.92
5	1,323	3.12	3.6		97.33
6	2,932	7.32	3.8		104.11
7	3,339	4.01	1.8		104.75
8	3,993	5.37	2.0		105.58
9	6,031	6.19	1.6		108.19
10	7,038	6.24	1.3		109.46
11	7,455	5.74	1.2		109.91
12	10,380	75.00	10.9	Upper Marker	113.00
13	12,469	0.00	0.0		115.21
14	13,722	0.00	0.0		116.54
15	14,465	0.00	0.0		117.32
16	15,672	0.00	0.0		118.60
17	18,457	0.00	0.0		121.55
18	20,639	0.00	0.0		123.86

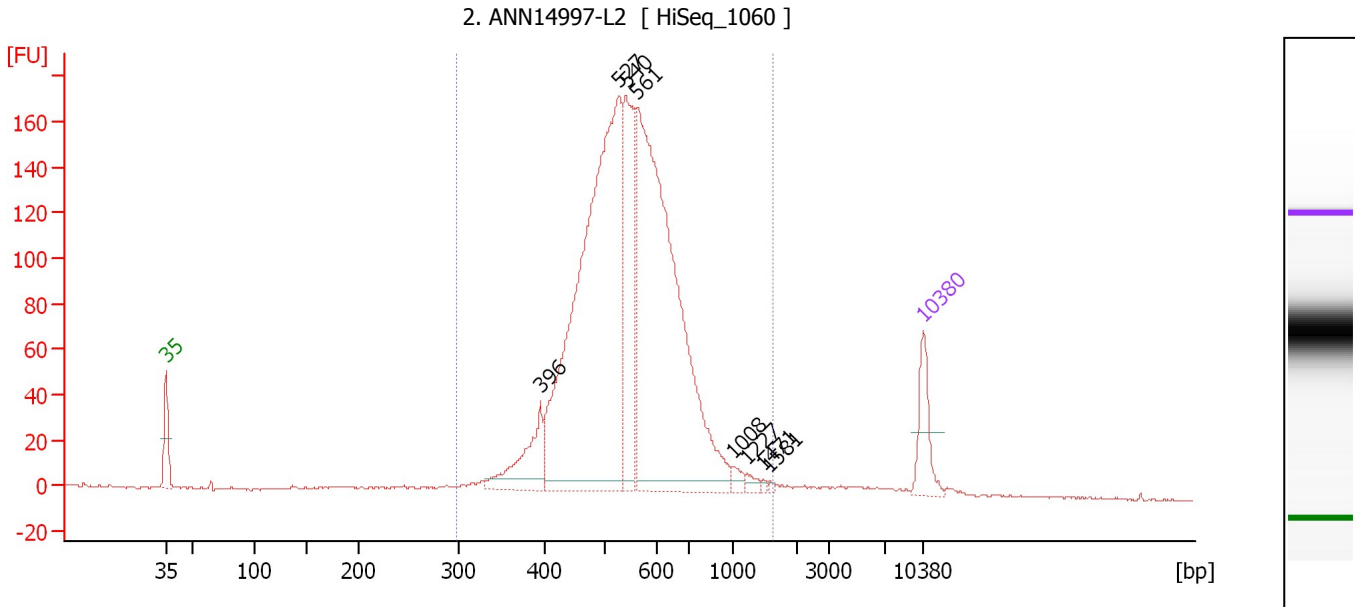
**Region table for sample 5 : 1. ND886**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	2,477	587	1,730.4	3,507.0	1,276.71	90	28.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
 Modified: 8/14/2017 5:14:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 2. ANN14997-L2**

Number of peaks found: 8                      Corr. Area 1: 2,186.0  
 Noise: 0.5

**Peak table for sample 6 : 2. ANN14997-L2**

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	396	149.69	573.3		77.63
3	527	1,334.88	3,839.0		84.88
4	540	330.16	926.0		85.52
5	561	1,189.68	3,213.8		86.51
6	1,008	16.95	25.5		95.49
7	1,227	12.86	15.9		96.77
8	1,471	4.26	4.4		98.20
9	1,581	3.59	3.4		98.84
10	10,380	75.00	10.9	Upper Marker	113.00

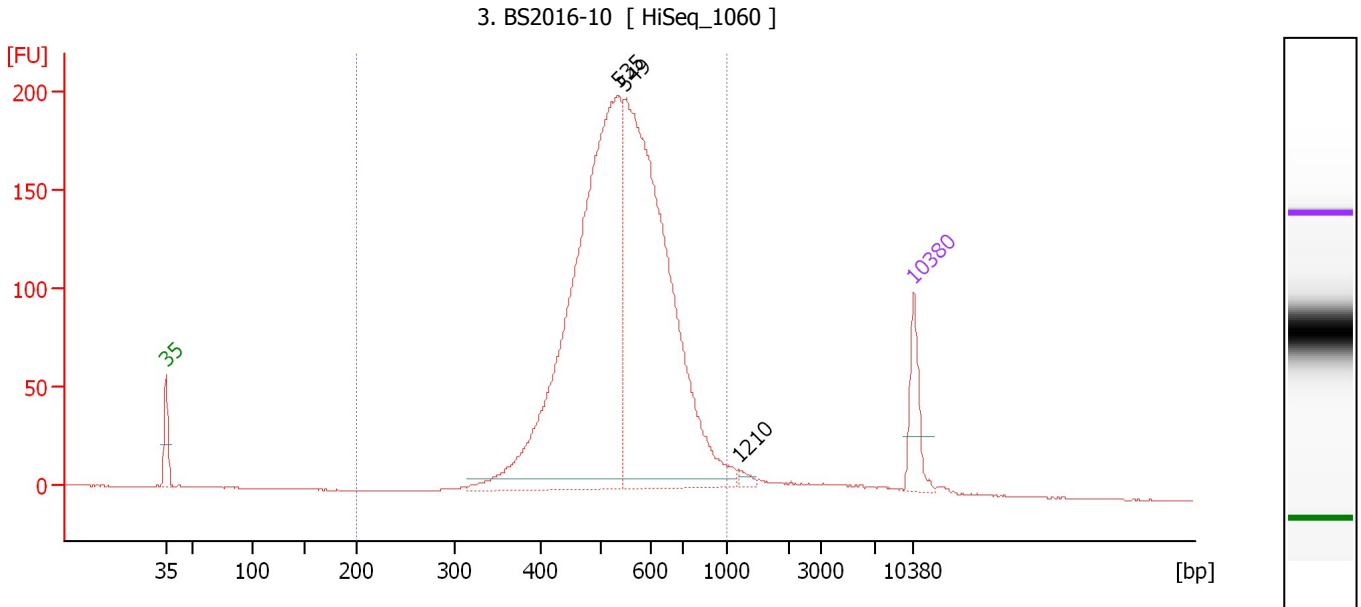
**Region table for sample 6 : 2. ANN14997-L2**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
297	1,629	561	2,186.0	8,933.0	3,123.18	97	24.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
 Modified: 8/14/2017 5:14:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 3. BS2016-10**

Number of peaks found: 3                      Corr. Area 1: 2,478.8  
 Noise: 0.2

**Peak table for sample 7 : 3. BS2016-10**

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	535	1,473.17	4,169.2		85.29
3	549	1,319.91	3,643.1		85.94
4	1,210	9.80	12.3		96.67
5	10,380	75.00	10.9	Upper Marker	113.00

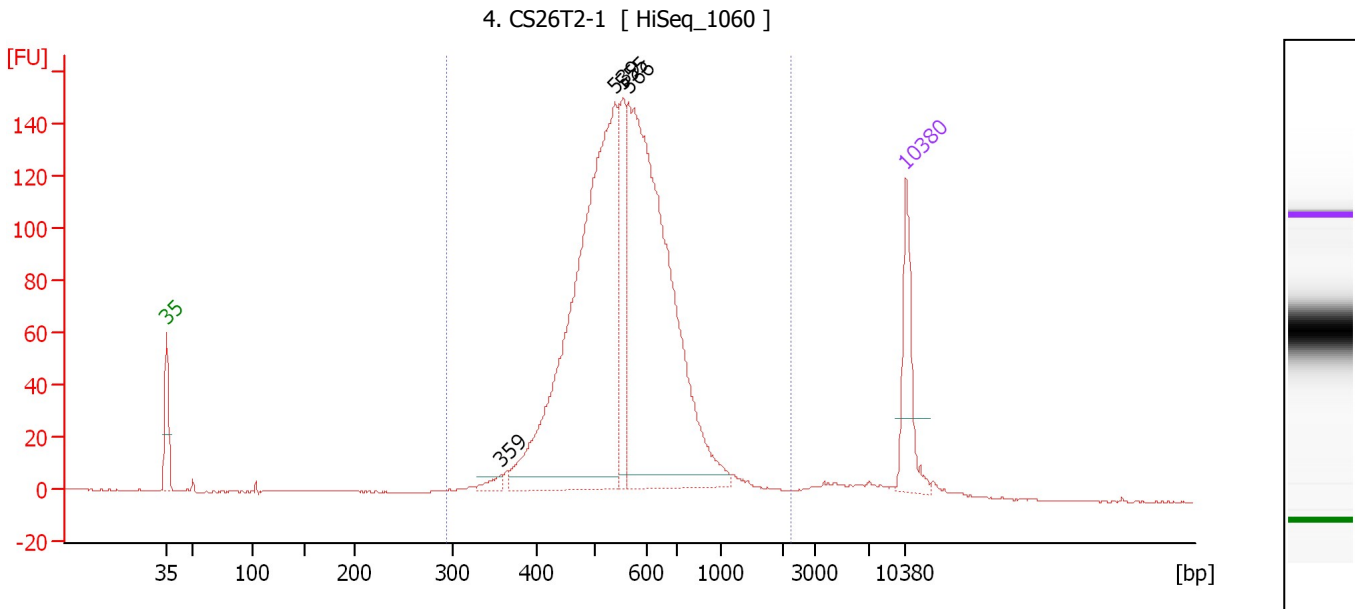
**Region table for sample 7 : 3. BS2016-10**

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	551	2,478.8	8,284.8	2,885.21	95	18.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
 Modified: 8/14/2017 5:14:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 4. CS26T2-1**

Number of peaks found: 4                      Corr. Area 1: 1,885.4  
 Noise: 0.2

**Peak table for sample 8 : 4. CS26T2-1**

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	359	13.19	55.7		74.72
3	539	788.70	2,216.1		85.47
4	555	125.70	343.1		86.23
5	566	759.94	2,035.6		86.74
6	10,380	75.00	10.9	Upper Marker	113.00

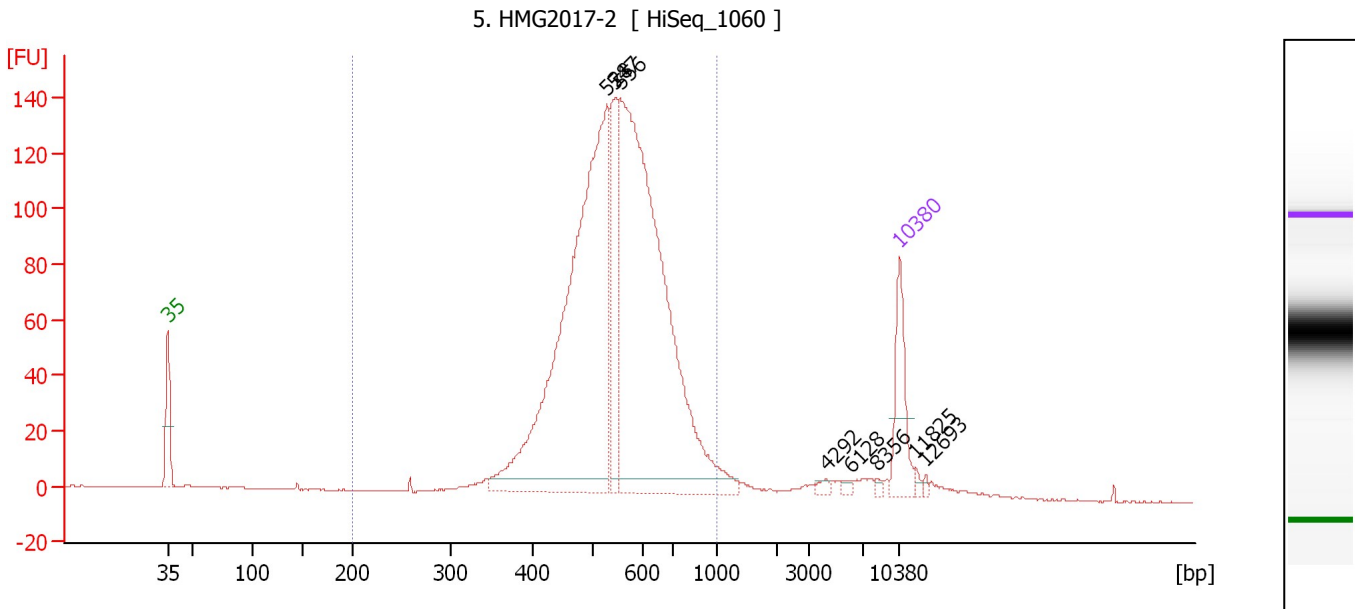
**Region table for sample 8 : 4. CS26T2-1**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
295	2,272	583	1,885.4	5,073.8	1,821.42	96	30.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
 Modified: 8/14/2017 5:14:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 5. HMG2017-2**

Number of peaks found: 8                      Corr. Area 1: 1,729.8  
 Noise: 0.1

**Peak table for sample 9 : 5. HMG2017-2**

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	528	934.35	2,678.8		84.96
3	547	155.12	430.0		85.83
4	556	984.39	2,681.7		86.28
5	4,292	6.40	2.3		105.96
6	6,128	5.73	1.4		108.31
7	8,356	3.83	0.7		110.86
8	10,380	75.00	10.9	Upper Marker	113.00
9	11,825	0.00	0.0		114.53
10	12,693	0.00	0.0		115.45

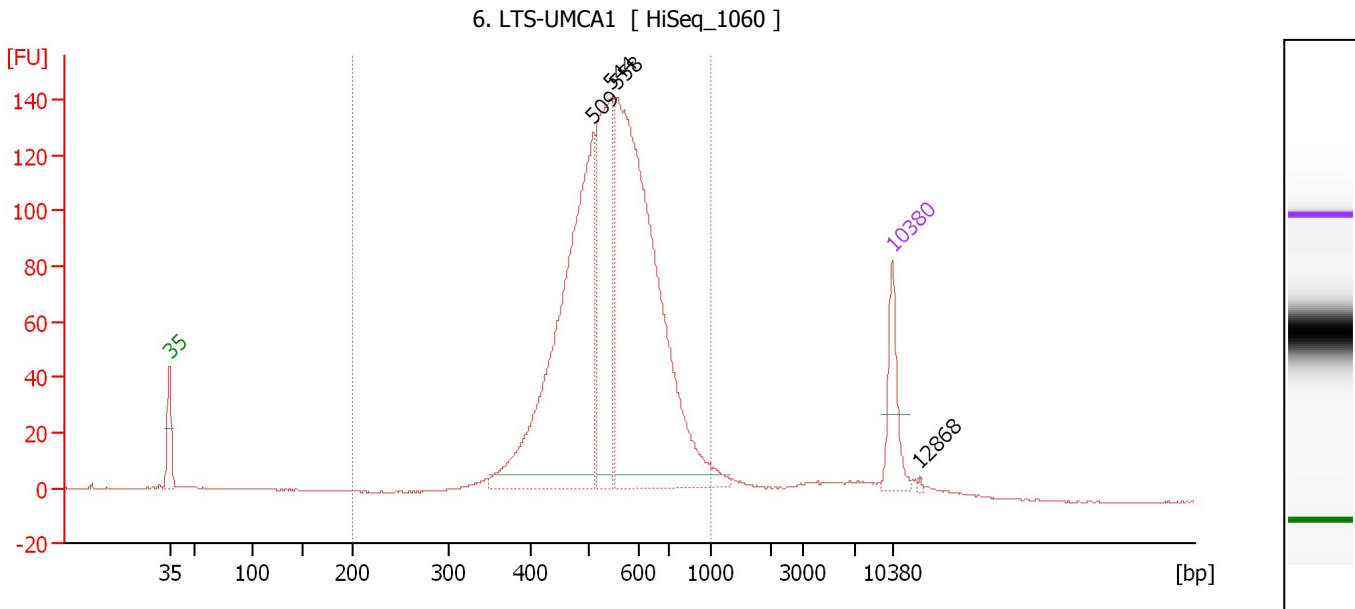
**Region table for sample 9 : 5. HMG2017-2**

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	557	1,729.8	6,093.1	2,138.29	93	19.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
 Modified: 8/14/2017 5:14:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 6. LTS-UMCA1**

Number of peaks found: 4                      Corr. Area 1: 1,716.1  
 Noise: 0.2

**Peak table for sample 10 : 6. LTS-UMCA1**

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	509	841.75	2,504.4		84.04
3	544	358.74	999.6		85.69
4	558	1,038.10	2,819.7		86.36
5	10,380	75.00	10.9	Upper Marker	113.00
6	12,868	0.00	0.0		115.63

**Region table for sample 10 : 6. LTS-UMCA1**

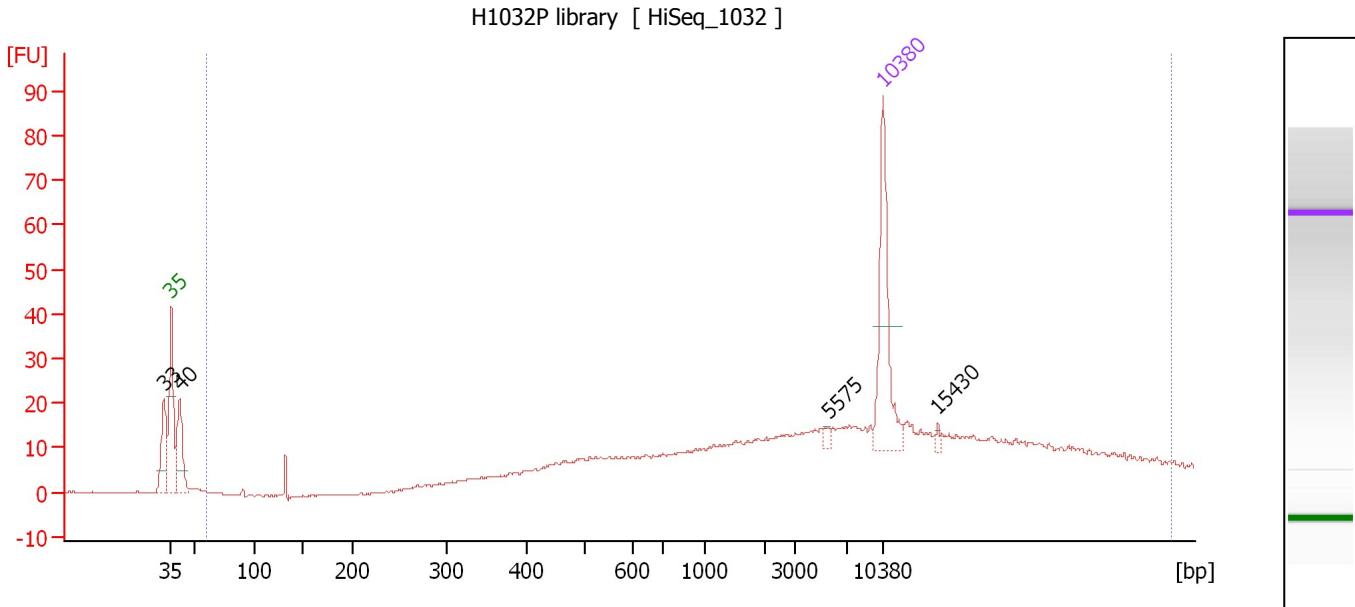
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	554	1,716.1	6,777.5	2,364.80	93	19.1



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

Created: 8/14/2017 3:57:26 PM  
 Modified: 8/14/2017 5:14:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : H1032P library**

Number of peaks found: 4                      Corr. Area 1: 358.5  
 Noise: 0.2

**Peak table for sample 11 : H1032P library**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.32
2	35	125.00	5,411.3	Lower Marker	43.00
3	40	72.10	2,710.1		43.84
4	5,575	3.45	0.9		107.60
5	10,380	75.00	10.9	Upper Marker	113.00
6	15,430	0.00	0.0		118.34

**Region table for sample 11 : H1032P library**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
60	37,017	9,877	358.5	579.8	430.56	87	90.5

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2017-08-14\2017-08-14\_002.xad

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Modified: 8/14/2017 5:14:58 PM

**Gel Image**

