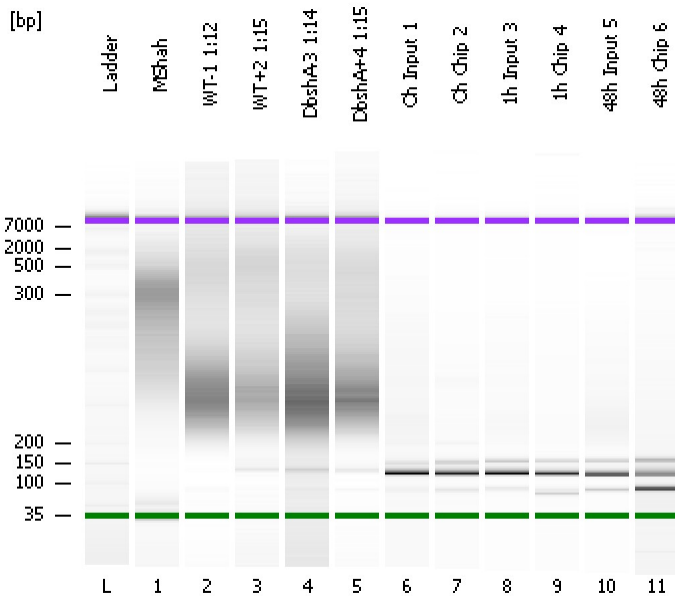


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

Created: 2/5/2014 11:30:42 AM
Modified: 2/5/2014 12:22:07 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

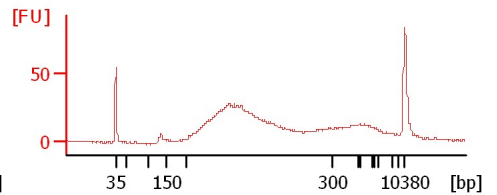
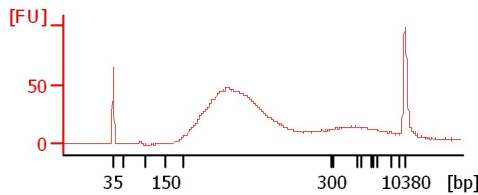
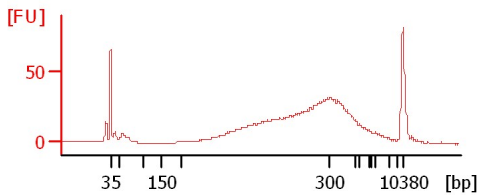
Chip Information:

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

MShah

WT-1 1:12

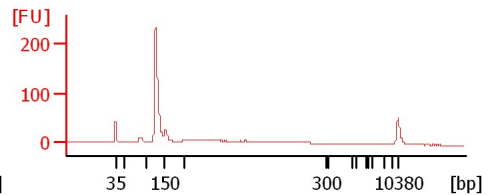
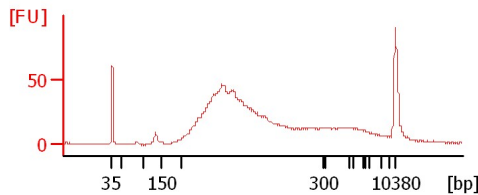
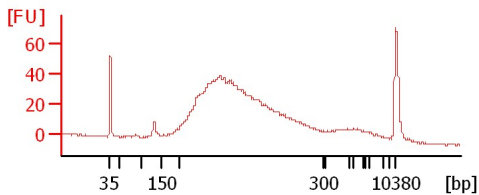
WT+2 1:15



DbshA-3 1:14

DbshA+4 1:15

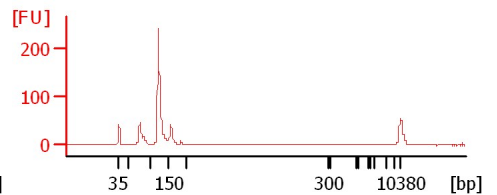
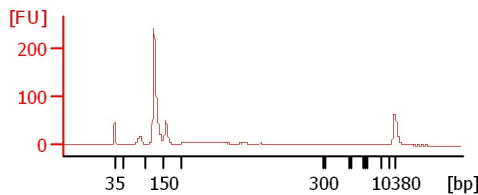
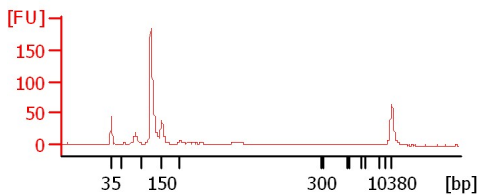
Oh Input 1



Oh Chip 2

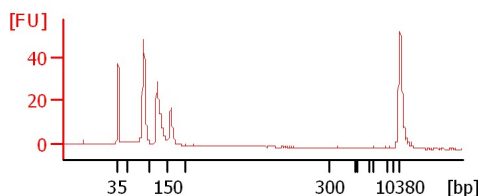
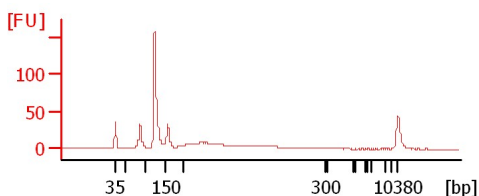
1h Input 3

1h Chip 4



48h Input 5

48h Chip 6



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

Created: 2/5/2014 11:30:42 AM
 Modified: 2/5/2014 12:22:07 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
MShah		<input type="checkbox"/>	✓			
WT-1 1:12		<input type="checkbox"/>	✓			
WT+2 1:15		<input type="checkbox"/>	✓			
DbshA-3 1:14		<input type="checkbox"/>	✓			
DbshA+4 1:15		<input type="checkbox"/>	✓			
Oh Input 1		<input type="checkbox"/>	✓			
Oh Chip 2		<input type="checkbox"/>	✓			
1h Input 3		<input type="checkbox"/>	✓			
1h Chip 4		<input type="checkbox"/>	✓			
48h Input 5		<input type="checkbox"/>	✓			
48h Chip 6		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

Created: 2/5/2014 11:30:42 AM
Modified: 2/5/2014 12:22:07 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

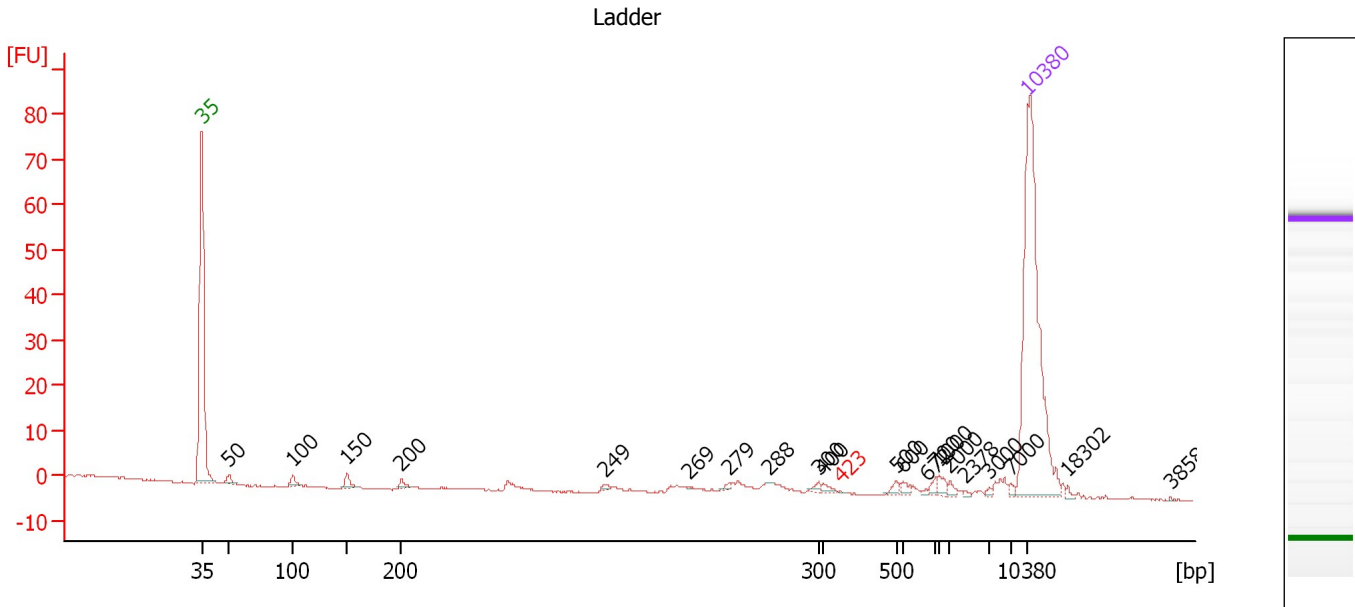
Ladder

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:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

Created: 2/5/2014 11:30:42 AM
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Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

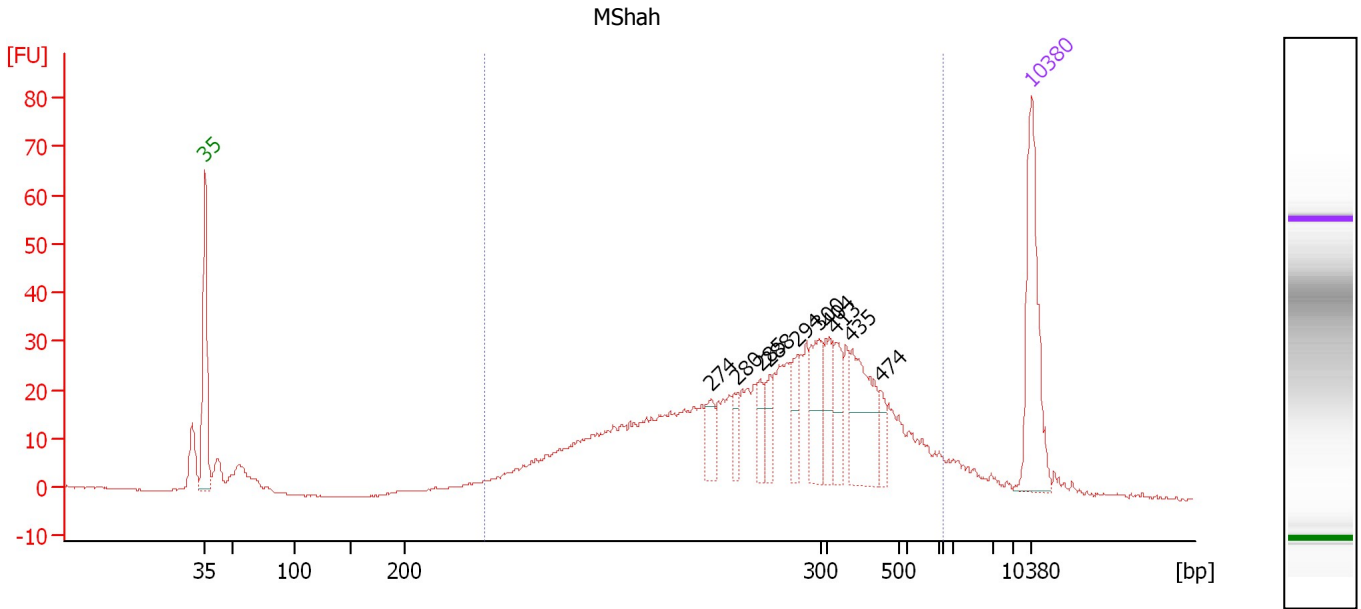
Peak table for Ladder

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	50.64	100	150.00	2,272.7	Ladder Peak
4	55.29	150	150.00	1,515.2	Ladder Peak
5	59.90	200	150.00	1,136.4	Ladder Peak
6	77.12	249	0.00	0.0	
7	84.21	269	0.00	0.0	
8	87.69	279	0.00	0.0	
9	91.08	288	0.00	0.0	
10	95.24	300	150.00	757.6	Ladder Peak
11	95.65	400	150.00	568.2	Ladder Peak
12	97.09	423	0.00	0.0	excluded peak
13	101.84	500	150.00	454.5	Ladder Peak
14	102.43	600	150.00	378.8	Ladder Peak
15	104.37	672	0.00	0.0	
16	105.14	700	150.00	324.7	Ladder Peak
17	105.50	1,000	150.00	227.3	Ladder Peak
18	106.40	2,000	150.00	113.6	Ladder Peak
19	107.67	2,378	0.00	0.0	
20	109.75	3,000	150.00	75.8	Ladder Peak
21	111.55	7,000	150.00	32.5	Ladder Peak
22	113.00	10,380	75.00	10.9	Upper Marker
23	116.39	18,302	0.00	0.0	
24	125.07	38,582	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

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Electropherogram Summary Continued ...



Setpoint Deviations for sample 1 : MShah

Height Threshold [FU] : 15

Overall Results for sample 1 : MShah

Number of peaks found: 10 Corr. Area 1: 756.8
 Noise: 0.1

Peak table for sample 1 : MShah

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	85.93	274	25.52	141.3	
3	88.10	280	19.39	105.0	
4	90.09	285	21.69	115.2	
5	90.86	288	22.17	116.8	
6	93.16	294	33.37	171.9	
7	95.10	300	50.80	256.9	
8	95.92	404	34.60	129.6	
9	96.46	413	31.46	115.4	
10	97.82	435	76.22	265.4	
11	100.26	474	15.15	48.4	
12	113.00	10,380	75.00	10.9	Upper Marker

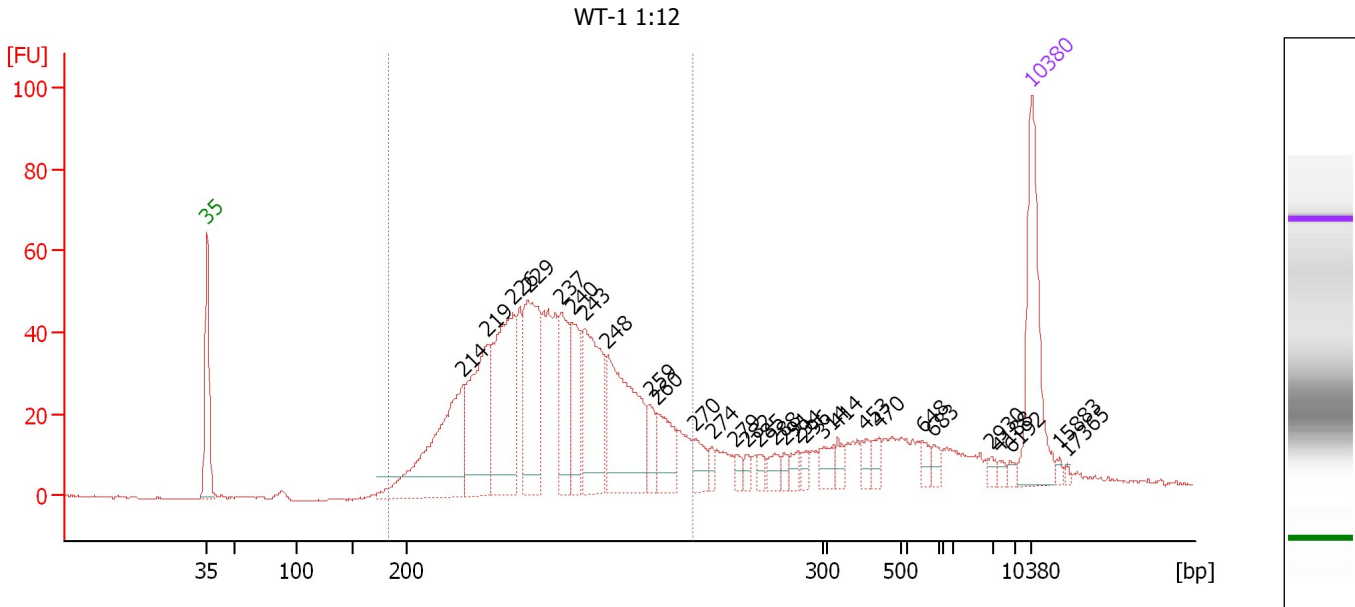
Region table for sample 1 : MShah

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
219	1,000	337	5,407.1	1,080.06	756.8	88	32.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 2 : WT-1 1:12

Number of peaks found: 30 Corr. Area 1: 1,009.1
 Noise: 0.3

Peak table for sample 2 : WT-1 1:12

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	64.73	214	178.35	1,264.7	
3	66.77	219	134.30	927.3	
4	68.94	226	168.13	1,129.2	
5	70.21	229	131.58	869.9	
6	73.06	237	78.72	502.7	
7	73.97	240	61.22	386.8	
8	75.06	243	119.95	748.3	
9	77.00	248	153.47	936.1	
10	80.58	259	24.58	144.1	
11	81.21	260	46.13	268.5	
12	84.47	270	20.83	117.1	
13	85.88	274	8.86	49.1	
14	87.87	279	7.96	43.2	
15	88.82	282	7.32	39.4	
16	89.82	285	9.38	49.9	
17	91.13	288	13.21	69.4	
18	91.99	291	7.23	37.7	
19	93.08	294	9.88	50.9	
20	93.76	296	6.91	35.4	
21	95.30	314	16.88	81.5	
22	96.52	414	10.41	38.1	
23	98.92	453	9.57	32.0	
24	100.01	470	10.82	34.8	
25	103.72	648	8.20	19.2	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad


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Electropherogram Summary Continued ...

... Peak table for sample 2 : WT-1 1:12

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
26	104.67	683	7.59	16.8	
27	109.51	2,930	3.82	2.0	
28	110.28	4,188	3.21	1.2	
29	111.19	6,192	3.25	0.8	
30	113.00	10,380	75.00	10.9	Upper Marker
31	115.35	15,883	0.00	0.0	
32	115.99	17,365	0.00	0.0	

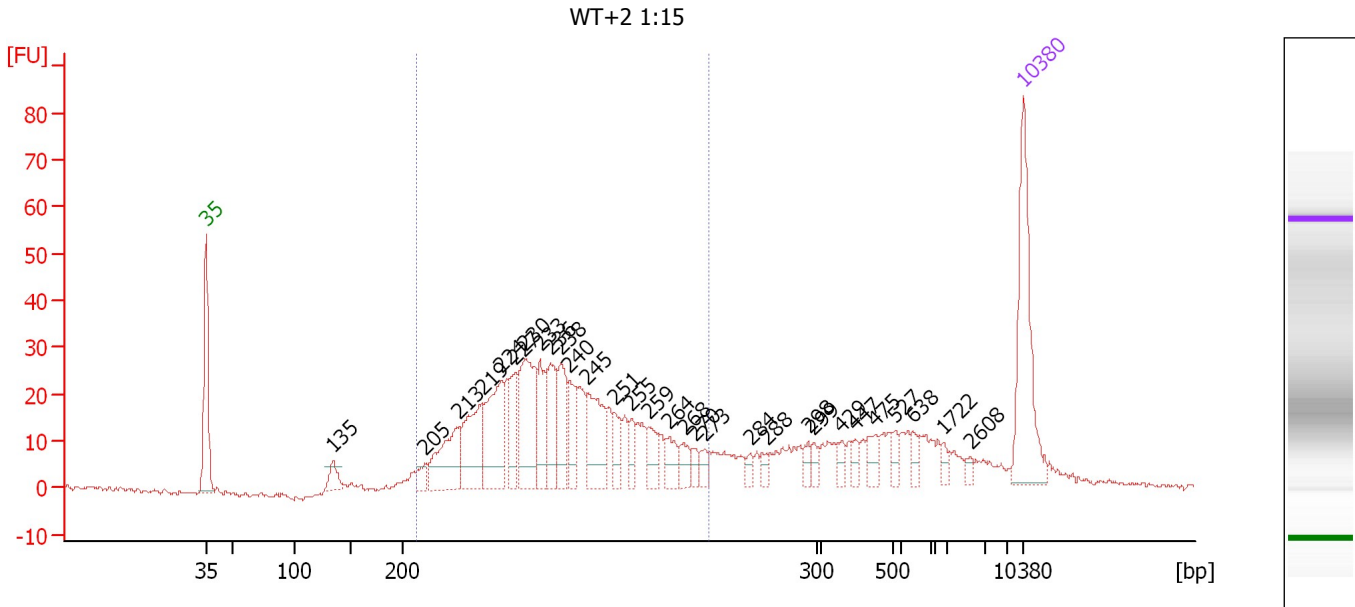
Region table for sample 2 : WT-1 1:12

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
183	269	234	8,158.4	1,261.61	1,009.1	78	6.9	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 3 : WT+2 1:15

Number of peaks found: 30 Corr. Area 1: 561.2
 Noise: 0.6

Peak table for sample 3 : WT+2 1:15

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	53.87	135	16.69	187.8	
3	61.72	205	11.24	83.0	
4	64.64	213	65.59	465.7	
5	66.61	219	69.89	483.6	
6	68.25	224	83.90	568.4	
7	69.48	227	37.44	249.8	
8	70.35	230	95.88	632.8	
9	71.63	233	43.00	279.4	
10	72.45	236	47.92	308.3	
11	73.32	238	48.35	307.9	
12	74.05	240	33.69	212.7	
13	75.65	245	62.32	386.1	
14	77.98	251	20.58	124.1	
15	79.44	255	16.22	96.3	
16	80.90	259	23.21	135.6	
17	82.63	264	19.88	114.0	
18	83.91	268	16.65	94.1	
19	84.78	270	9.18	51.4	
20	85.69	273	10.56	58.6	
21	89.58	284	8.07	43.0	
22	90.99	288	8.82	46.4	
23	94.55	298	9.20	46.8	
24	95.01	299	8.59	43.5	
25	97.43	429	8.29	29.3	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad


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Electropherogram Summary Continued ...

... Peak table for sample 3 : WT+2 1:15

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
26	98.57	447	8.50	28.8	
27	100.31	475	13.41	42.8	
28	102.00	527	8.90	25.6	
29	103.46	638	8.48	20.1	
30	106.15	1,722	4.78	4.2	
31	108.43	2,608	3.98	2.3	
32	113.00	10,380	75.00	10.9	Upper Marker

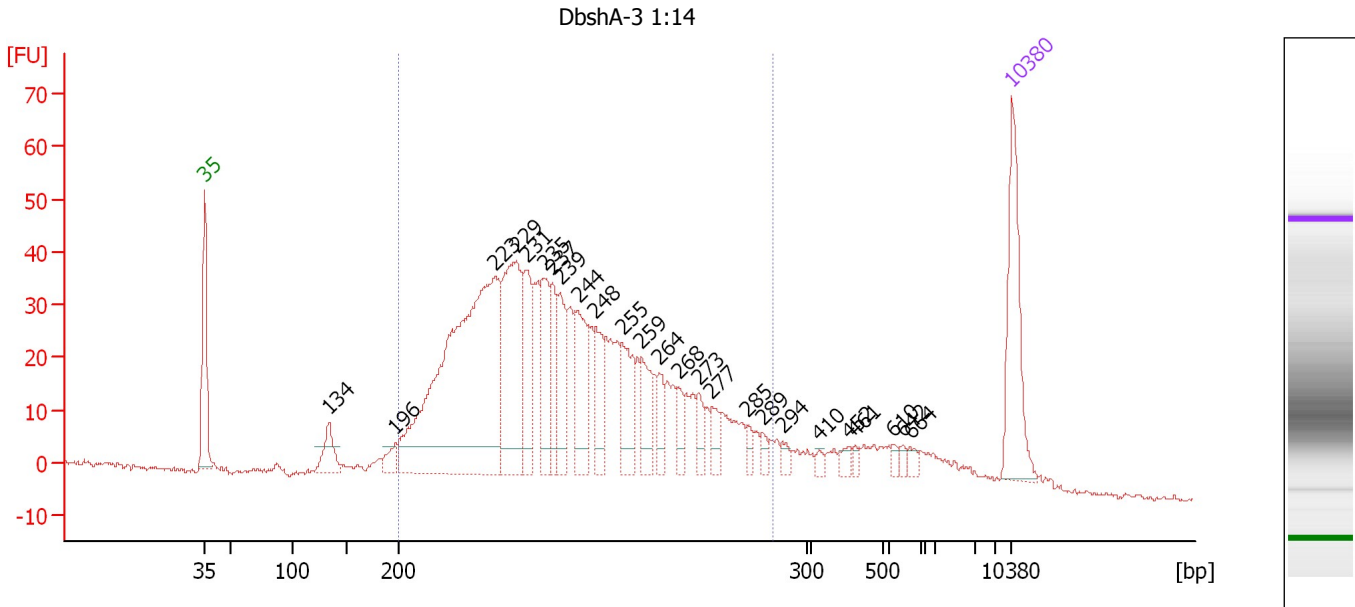
Region table for sample 3 : WT+2 1:15

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
203	274	237	5,380.6	842.49	561.2	70	7.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 4 : DbshA-3 1:14

Number of peaks found: 25 Corr. Area 1: 1,071.0
 Noise: 0.5

Peak table for sample 4 : DbshA-3 1:14

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	53.82	134	36.55	412.7	
3	59.55	196	16.19	125.0	
4	68.11	223	542.13	3,679.9	
5	70.05	229	177.53	1,176.1	
6	70.93	231	69.75	457.1	
7	72.41	235	70.02	450.7	
8	73.15	237	50.87	324.6	
9	73.79	239	64.85	410.6	
10	75.36	244	79.55	494.4	
11	76.89	248	56.02	342.2	
12	79.20	255	60.53	360.2	
13	80.87	259	46.30	270.5	
14	82.39	264	28.45	163.5	
15	84.10	268	20.98	118.4	
16	85.81	273	21.96	121.8	
17	86.97	277	21.01	115.1	
18	90.07	285	10.01	53.1	
19	91.41	289	10.59	55.5	
20	93.07	294	9.85	50.8	
21	96.26	410	4.93	18.2	
22	98.85	452	7.73	25.9	
23	99.45	461	4.84	15.9	
24	102.69	610	4.49	11.2	
25	103.57	642	4.37	10.3	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

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Electropherogram Summary Continued ...

... Peak table for sample 4 : DbshA-3 1:14

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
26	104.17	664	6.26	14.3	
27	113.00	10,380	75.00	10.9	Upper Marker

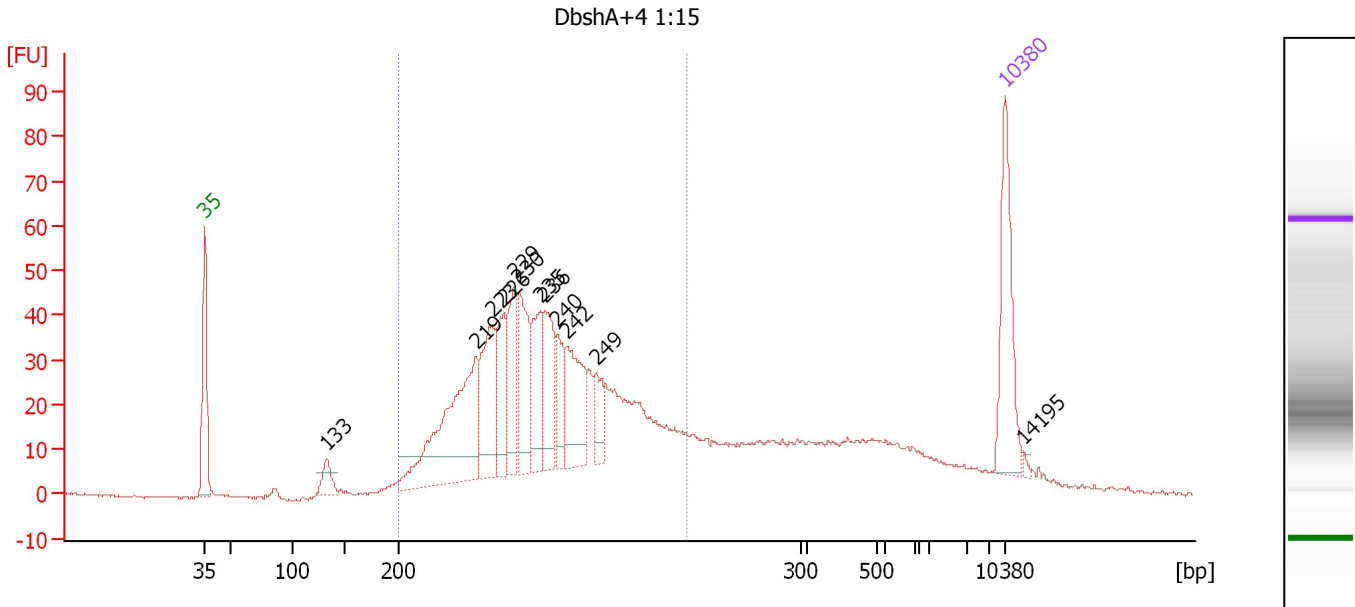
Region table for sample 4 : DbshA-3 1:14

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	292	241	11,555.1	1,837.28	1,071.0	85	9.1	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 5 : DbshA+4 1:15

Number of peaks found: 12 Corr. Area 1: 880.3
 Noise: 0.3

Peak table for sample 5 : DbshA+4 1:15

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	53.68	133	25.60	292.3	
3	66.74	219	228.76	1,580.2	
4	68.14	223	114.10	774.2	
5	69.16	226	72.52	485.8	
6	70.05	229	84.35	558.8	
7	70.47	230	94.53	623.0	
8	72.38	235	78.62	506.2	
9	72.75	236	79.55	509.9	
10	73.87	240	48.62	307.5	
11	74.71	242	95.71	599.4	
12	77.23	249	34.30	208.7	
13	113.00	10,380	75.00	10.9	Upper Marker
14	114.63	14,195	0.00	0.0	

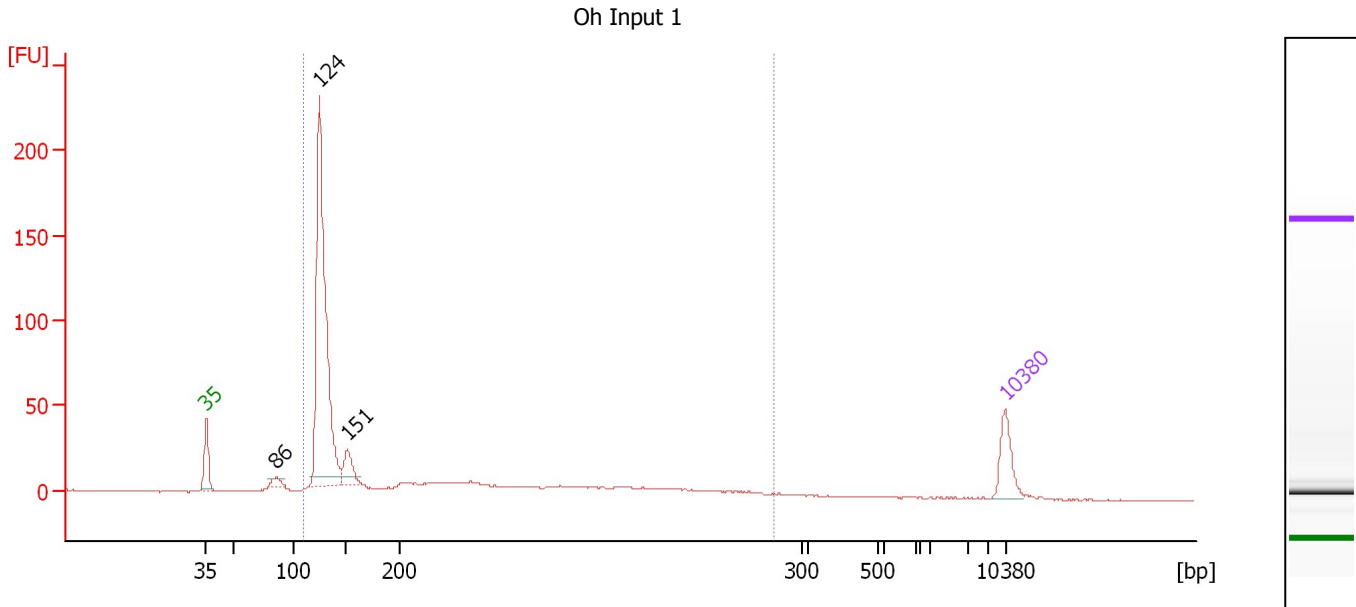
Region table for sample 5 : DbshA+4 1:15

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	271	236	8,886.3	1,385.02	880.3	73	6.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 6 : Oh Input 1

Number of peaks found: 3 Corr. Area 1: 700.9
 Noise: 0.3

Peak table for sample 6 : Oh Input 1

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	49.12	86	34.96	617.7	
3	52.90	124	1,133.56	13,816.8	
4	55.37	151	92.86	932.3	
5	113.00	10,380	75.00	10.9	Upper Marker

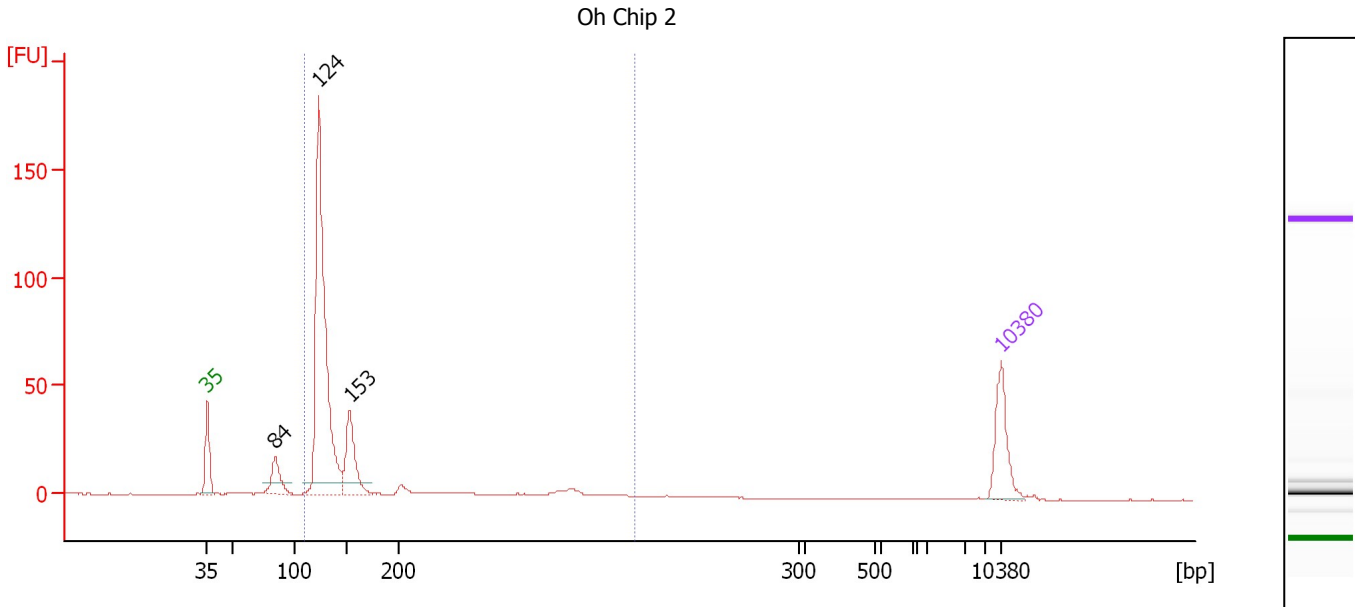
Region table for sample 6 : Oh Input 1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
110	293	172	19,124.6	1,890.05	700.9	92	32.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 7 : Oh Chip 2

Number of peaks found: 3 Corr. Area 1: 440.0
 Noise: 0.1

Peak table for sample 7 : Oh Chip 2

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	48.97	84	72.48	1,301.6	
3	52.83	124	749.14	9,190.4	
4	55.55	153	142.81	1,415.9	
5	113.00	10,380	75.00	10.9	Upper Marker

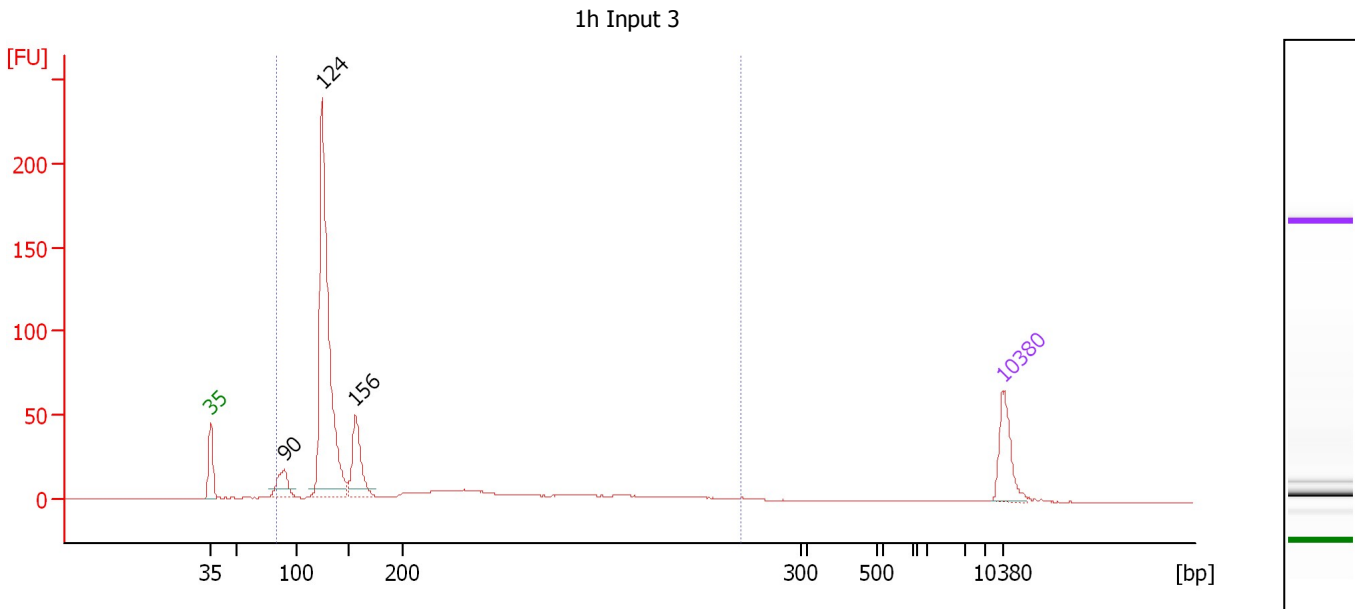
Region table for sample 7 : Oh Chip 2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
111	259	145	11,014.3	993.64	440.0	90	24.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

Created: 2/5/2014 11:30:42 AM
 Modified: 2/5/2014 12:22:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 1h Input 3

Number of peaks found: 3 Corr. Area 1: 701.6
 Noise: 0.1

Peak table for sample 8 : 1h Input 3

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	49.55	90	84.49	1,425.1	
3	52.90	124	892.47	10,879.1	
4	55.82	156	159.38	1,550.5	
5	113.00	10,380	75.00	10.9	Upper Marker

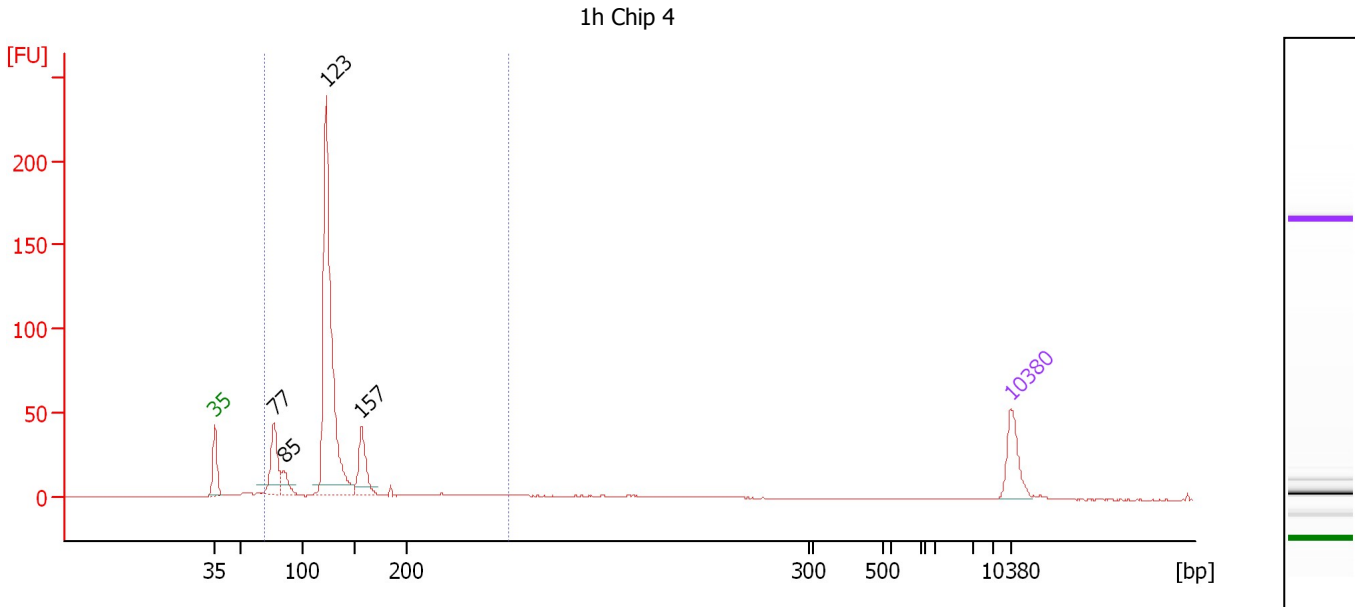
Region table for sample 8 : 1h Input 3

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
83	285	158	15,848.9	1,461.77	701.6	95	31.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

Created: 2/5/2014 11:30:42 AM
 Modified: 2/5/2014 12:22:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 1h Chip 4

Number of peaks found: 4 Corr. Area 1: 506.6
 Noise: 0.1

Peak table for sample 9 : 1h Chip 4

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	48.21	77	171.82	3,371.4	
3	49.05	85	55.64	990.2	
4	52.81	123	982.19	12,070.0	
5	55.90	157	140.09	1,355.2	
6	113.00	10,380	75.00	10.9	Upper Marker

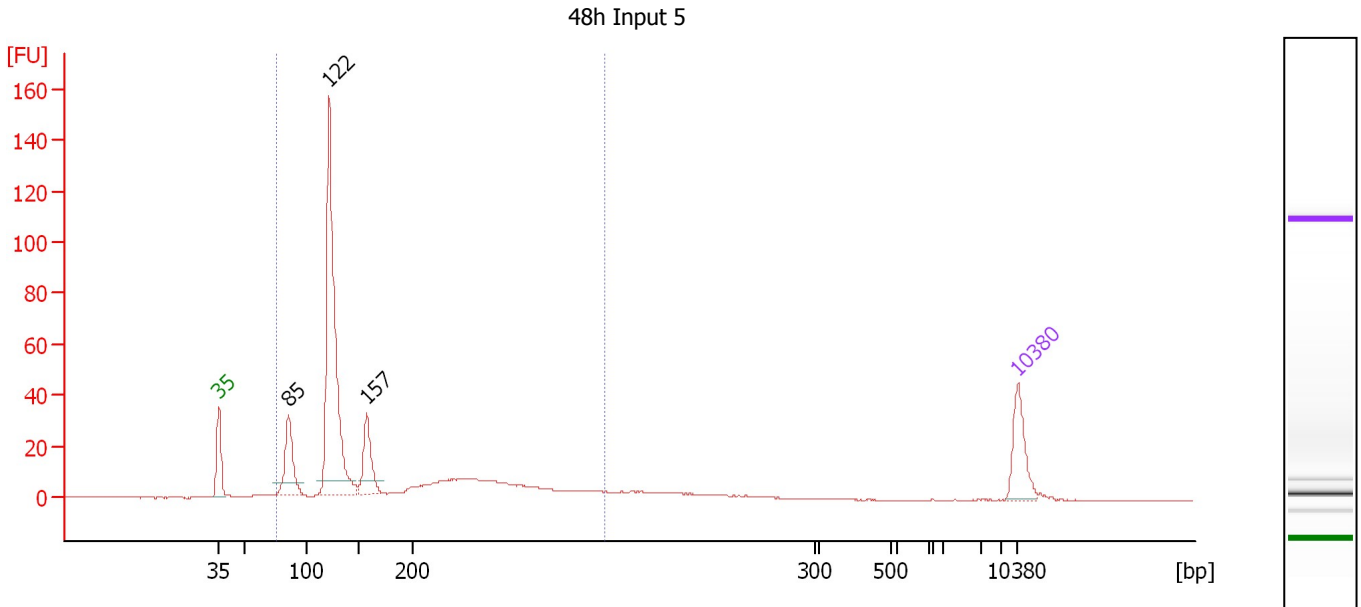
Region table for sample 9 : 1h Chip 4

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
69	225	124	17,928.1	1,387.28	506.6	99	18.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

Created: 2/5/2014 11:30:42 AM
 Modified: 2/5/2014 12:22:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 48h Input 5

Number of peaks found: 3 Corr. Area 1: 500.8
 Noise: 0.1

Peak table for sample 10 : 48h Input 5

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	49.07	85	166.03	2,947.4	
3	52.67	122	781.17	9,712.1	
4	55.94	157	131.91	1,272.4	
5	113.00	10,380	75.00	10.9	Upper Marker

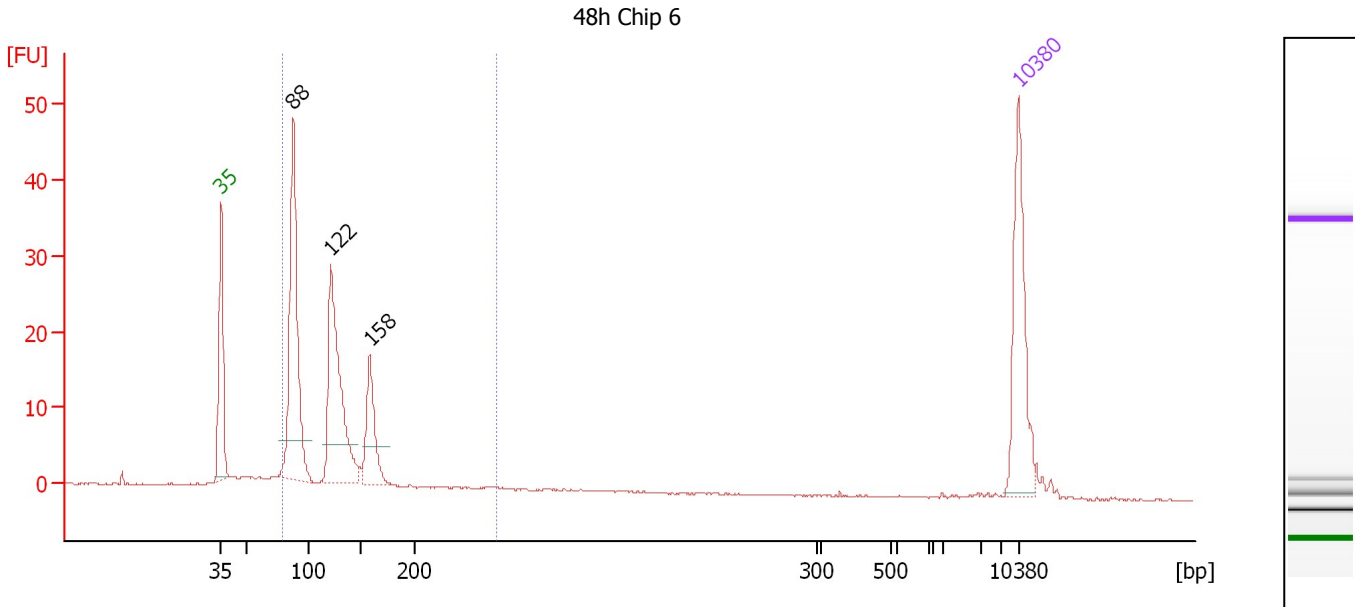
Region table for sample 10 : 48h Input 5

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
75	248	155	17,211.1	1,535.56	500.8	91	31.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

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 Modified: 2/5/2014 12:22:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 48h Chip 6

Number of peaks found: 3 Corr. Area 1: 182.2
 Noise: 0.1

Peak table for sample 11 : 48h Chip 6

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	49.32	88	222.23	3,841.2	
3	52.65	122	188.89	2,354.2	
4	56.06	158	69.60	665.9	
5	113.00	10,380	75.00	10.9	Upper Marker

Region table for sample 11 : 48h Chip 6

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
79	221	119	7,366.2	535.87	182.2	86	26.2	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-02-05\2014-02-05_001.xad

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Modified: 2/5/2014 12:22:07 PM

Gel Image

