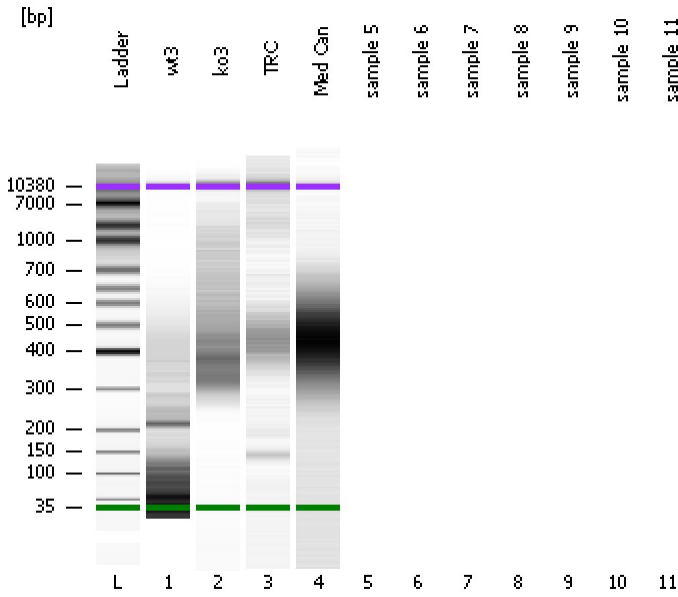


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-20\2014-03-20_003.xad

Created: 3/20/2014 2:11:30 PM
Modified: 3/20/2014 2:43:53 PM

Electrophoresis File Run Summary



Instrument Information:

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

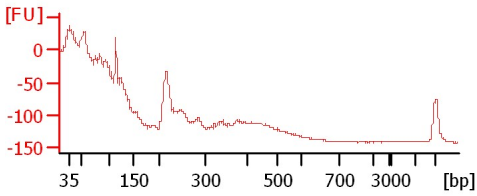
Assay Information:

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

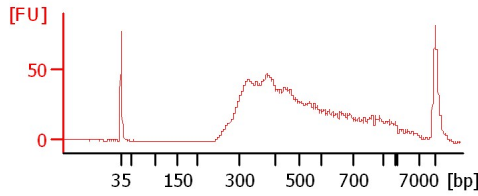
Chip Information:

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

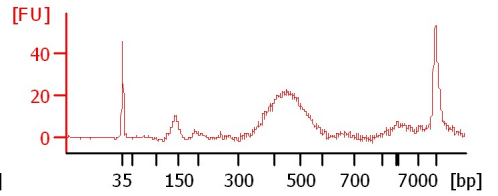
wt3



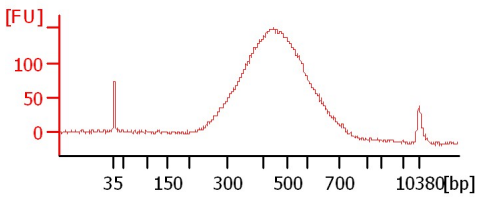
ko3



TRC



Med Can



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-20\2014-03-20_003.xad

Created: 3/20/2014 2:11:30 PM
 Modified: 3/20/2014 2:43:53 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
wt3		<input type="checkbox"/>	✓			
ko3		<input type="checkbox"/>	✓			
TRC		<input type="checkbox"/>	✓			
Med Can		<input type="checkbox"/>	✓			
sample 5		<input type="checkbox"/>				
sample 6		<input type="checkbox"/>				
sample 7		<input type="checkbox"/>				
sample 8		<input type="checkbox"/>				
sample 9		<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:\...ents and Settings\Bioanalyzer\2014-03-20\2014-03-20_003.xad

Created: 3/20/2014 2:11:30 PM
Modified: 3/20/2014 2:43:53 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

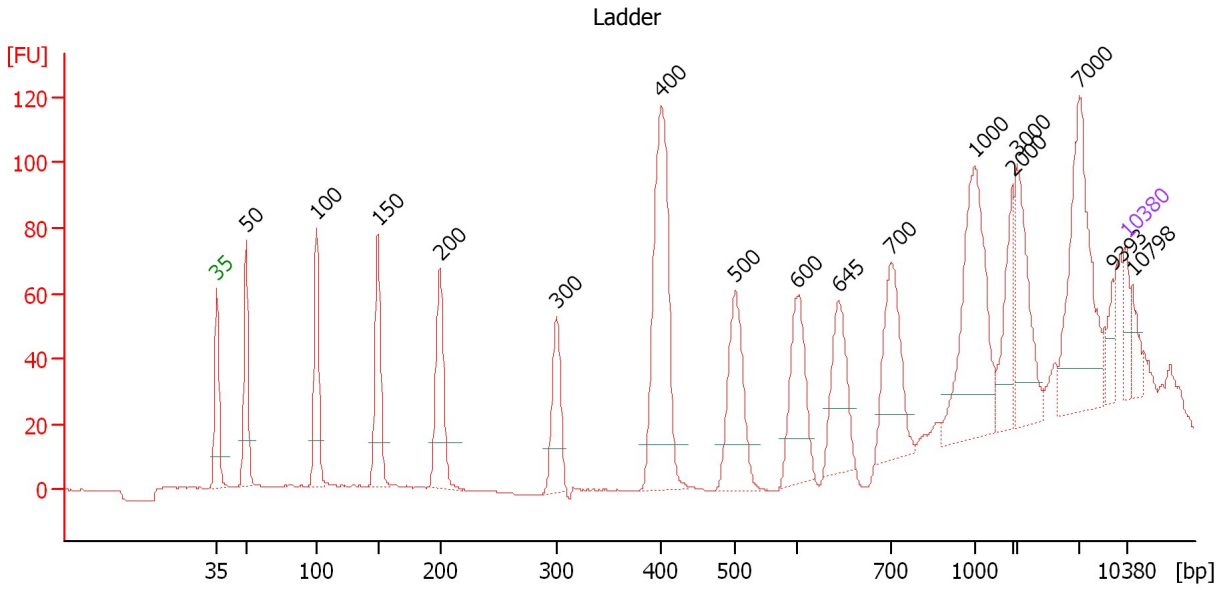
Ladder

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\2014-03-20\2014-03-20_003.xad

Created: 3/20/2014 2:11:30 PM
 Modified: 3/20/2014 2:43:53 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

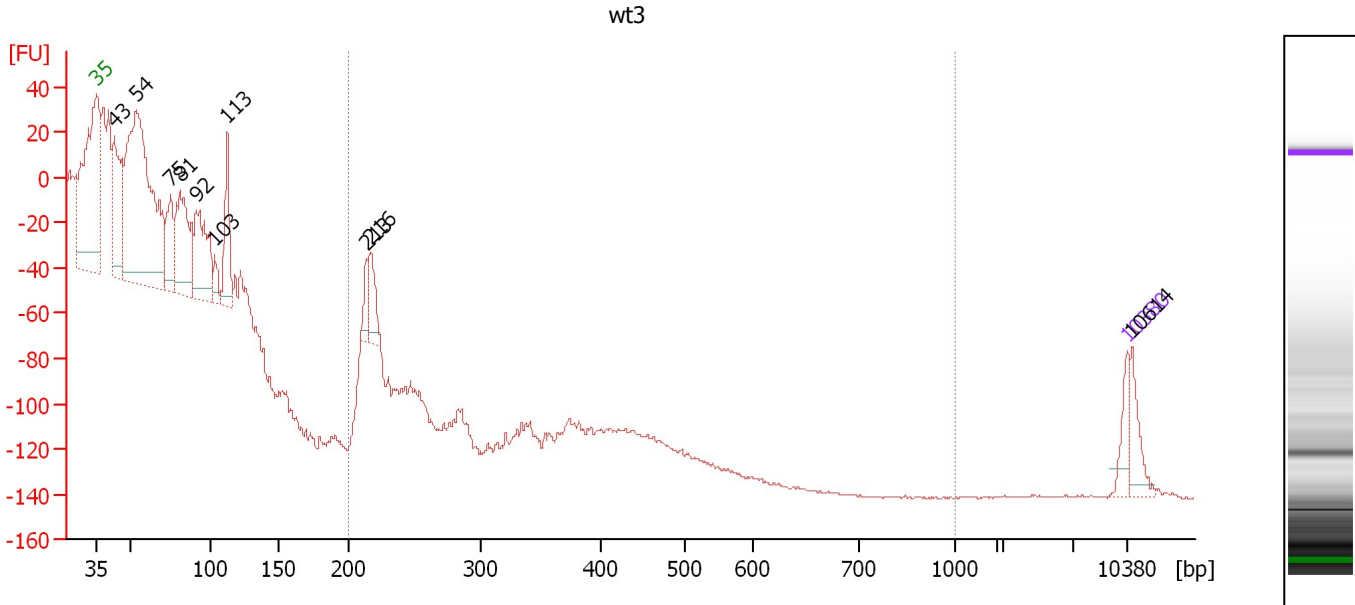
Peak table for Ladder

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	45.26	50	150.00	4,545.5	Ladder Peak
3	50.67	100	150.00	2,272.7	Ladder Peak
4	55.39	150	150.00	1,515.2	Ladder Peak
5	60.15	200	150.00	1,136.4	Ladder Peak
6	69.14	300	150.00	757.6	Ladder Peak
7	77.18	400	150.00	568.2	Ladder Peak
8	82.92	500	150.00	454.5	Ladder Peak
9	87.60	600	150.00	378.8	Ladder Peak
10	90.84	645	0.00	0.0	
11	94.82	700	150.00	324.7	Ladder Peak
12	101.31	1,000	150.00	227.3	Ladder Peak
13	104.22	2,000	150.00	113.6	Ladder Peak
14	104.55	3,000	150.00	75.8	Ladder Peak
15	109.35	7,000	150.00	32.5	Ladder Peak
16	111.93	9,393	0.00	0.0	
17	113.00	10,380	75.00	10.9	Upper Marker
18	113.45	10,798	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-20\2014-03-20_003.xad

Created: 3/20/2014 2:11:30 PM
 Modified: 3/20/2014 2:43:53 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : wt3

Number of peaks found: 10 Corr. Area 1: 1.6
 Noise: 0.4

Peak table for sample 1 : wt3

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	44.19	43	642.25	22,666.9	
3	45.68	54	2,016.21	56,711.2	
4	47.99	75	278.22	5,603.5	
5	48.64	81	552.47	10,304.0	
6	49.76	92	508.64	8,414.7	
7	50.99	103	78.90	1,156.5	
8	51.86	113	305.04	4,106.0	
9	61.30	213	92.93	661.9	
10	61.55	216	147.76	1,038.7	
11	113.00	10,380	75.00	10.9	Upper Marker
12	113.25	10,614	0.00	0.0	

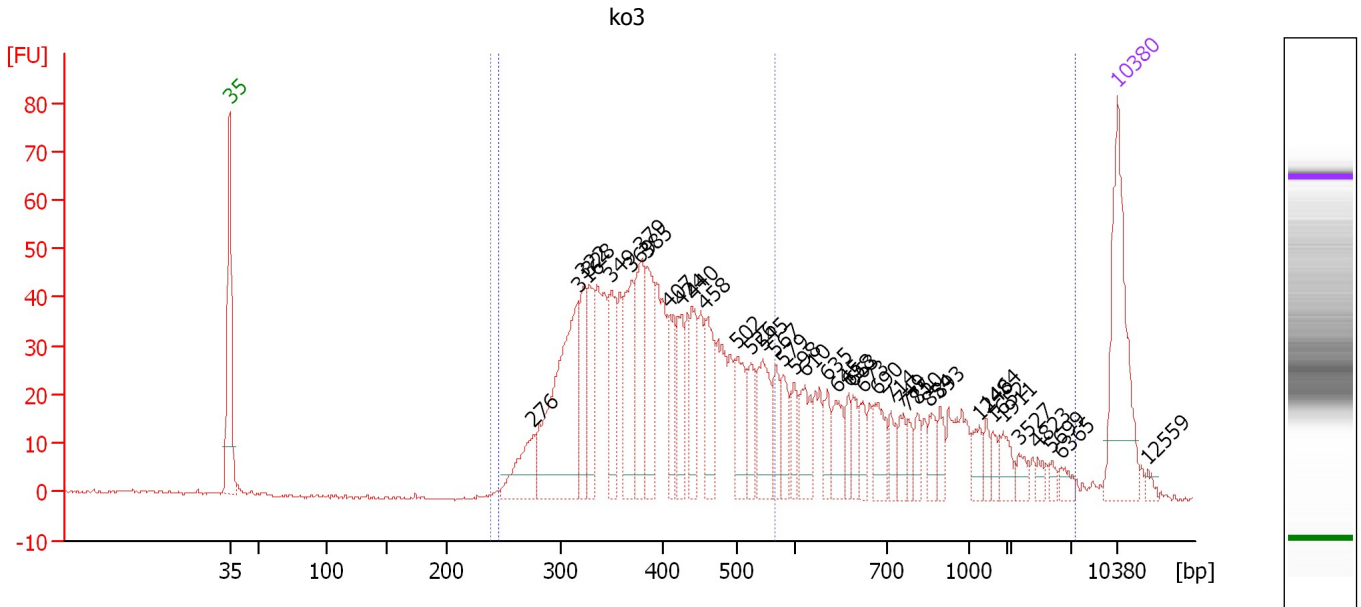
Region table for sample 1 : wt3

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	216	35.7	5.09	1.6	0	0.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-20\2014-03-20_003.xad

Created: 3/20/2014 2:11:30 PM
 Modified: 3/20/2014 2:43:53 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : ko3

Number of peaks found: 40 Corr. Area 1: 917.7
 Noise: 0.3 Corr. Area 2: 1,308.8

Peak table for sample 2 : ko3


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	66.96	276	44.35	243.6	
3	70.45	316	163.82	784.6	
4	70.87	322	41.91	197.5	
5	71.38	328	45.47	210.1	
6	73.10	349	47.64	206.7	
7	74.70	369	58.75	241.1	
8	75.46	379	65.83	263.5	
9	75.96	385	51.59	203.1	
10	77.60	407	32.79	122.0	
11	78.57	424	34.41	122.9	
12	79.45	440	39.90	137.5	
13	80.50	458	40.46	133.9	
14	83.02	502	37.62	113.5	
15	84.12	526	25.92	74.7	
16	85.04	545	43.57	121.1	
17	86.05	567	21.72	58.1	
18	86.64	579	21.12	55.2	
19	87.52	598	15.87	40.2	
20	88.32	610	29.18	72.5	
21	90.13	635	16.03	38.2	
22	90.84	645	22.84	53.7	
23	91.77	658	13.85	31.9	
24	92.15	663	12.93	29.6	
25	92.86	673	13.98	31.5	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-20\2014-03-20_003.xad



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 Modified: 3/20/2014 2:43:53 PM

Electropherogram Summary Continued ...

... Peak table for sample 2 : ko3

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
26	94.08	690	24.05	52.8	
27	95.13	714	13.36	28.3	
28	95.89	749	13.13	26.5	
29	96.44	775	9.47	18.5	
30	97.19	810	11.09	20.7	
31	98.16	854	13.14	23.3	
32	99.00	893	11.92	20.2	
33	102.03	1,248	11.97	14.5	
34	102.66	1,464	7.56	7.8	
35	103.20	1,652	7.61	7.0	
36	103.96	1,911	12.01	9.5	
37	105.18	3,527	7.20	3.1	
38	106.74	4,823	4.15	1.3	
39	107.79	5,699	3.40	0.9	
40	108.59	6,365	6.41	1.5	
41	 113.00	10,380	75.00	10.9	Upper Marker
42	115.35	12,559	0.00	0.0	

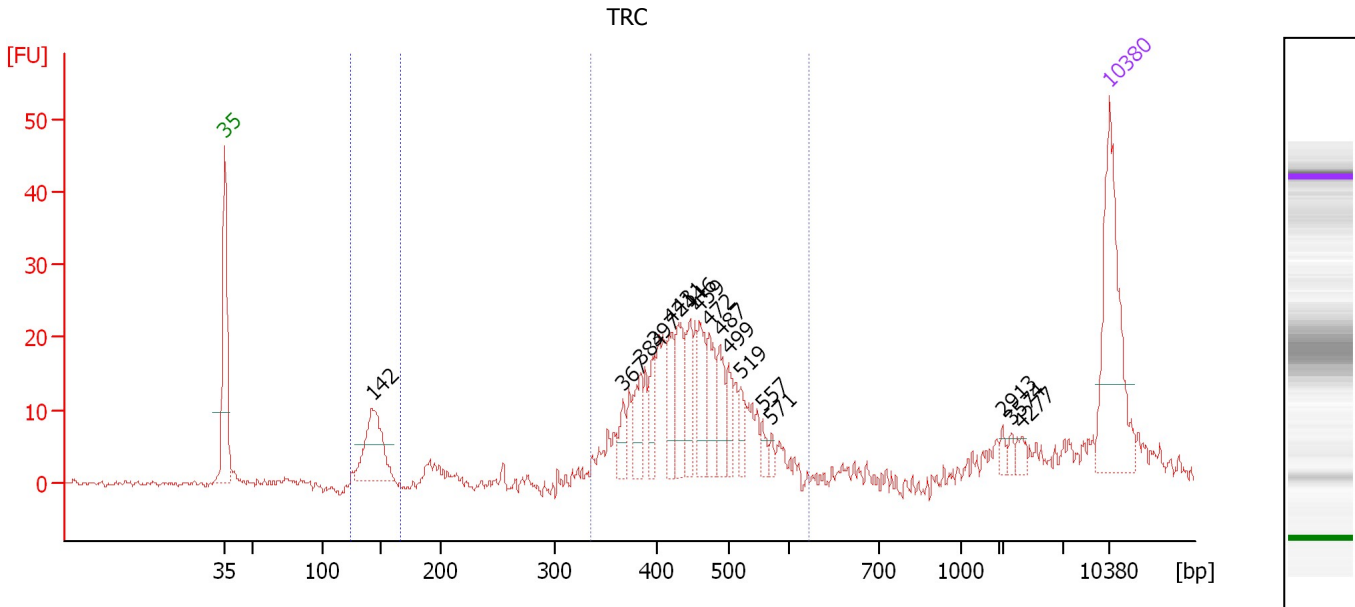
Region table for sample 2 : ko3

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. for Area	% of Total	Size distribution in CV [%]
237	565	396	4,290.2	1,064.37	 917.7	69	19.2
245	7,311	689	5,034.2	1,449.69	 1,308.8	99	100.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-20\2014-03-20_003.xad

Created: 3/20/2014 2:11:30 PM
 Modified: 3/20/2014 2:43:53 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : TRC

Number of peaks found: 17 Corr. Area 1: 250.8
 Noise: 0.4 Corr. Area 2: 29.5

Peak table for sample 3 : TRC

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	54.65	142	70.11	747.6	
3	74.52	367	14.58	60.2	
4	75.91	384	24.16	95.3	
5	76.97	397	18.74	71.5	
6	78.36	421	26.25	94.6	
7	78.95	431	31.12	109.4	
8	79.79	446	30.93	105.2	
9	80.55	459	28.38	93.7	
10	81.31	472	28.45	91.3	
11	82.20	487	23.65	73.5	
12	82.87	499	16.73	50.8	
13	83.80	519	12.23	35.7	
14	85.57	557	6.89	18.8	
15	86.25	571	4.48	11.9	
16	104.52	2,913	3.85	2.0	
17	105.24	3,574	3.34	1.4	
18	106.08	4,277	5.30	1.9	
19	113.00	10,380	75.00	10.9	Upper Marker

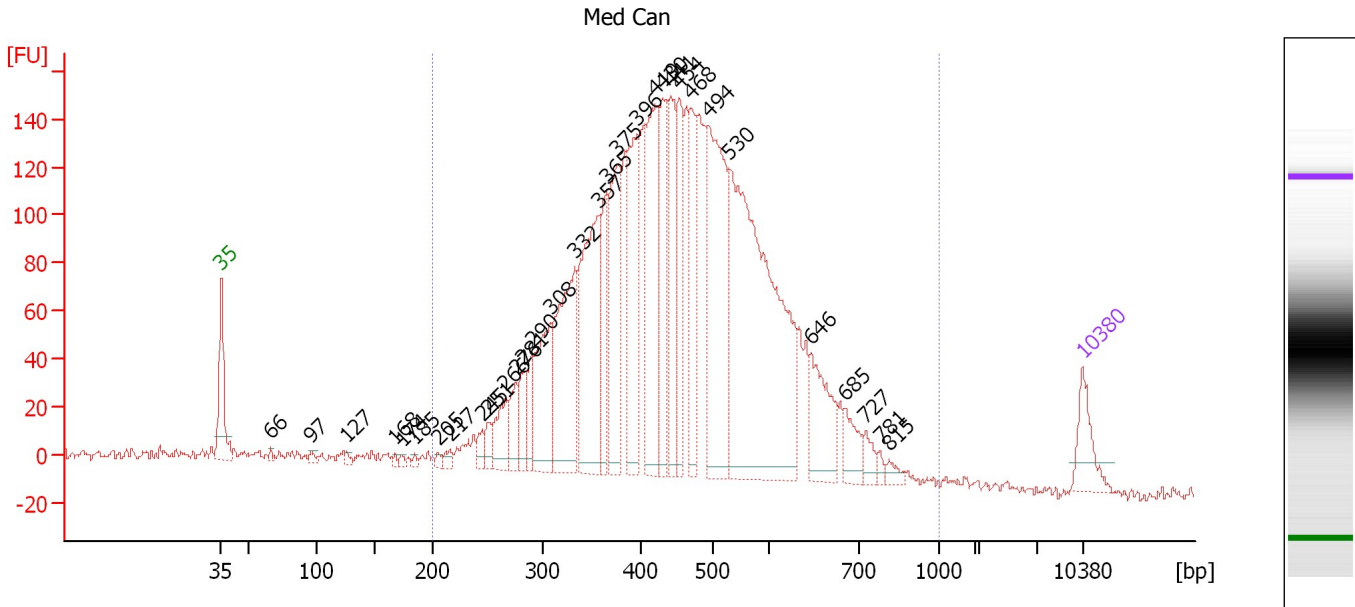
Region table for sample 3 : TRC

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
124	165	143	698.1	65.88	29.5	9	4.7
335	621	449	1,388.2	402.80	250.8	75	13.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-20\2014-03-20_003.xad

Created: 3/20/2014 2:11:30 PM
 Modified: 3/20/2014 2:43:53 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Med Can

Number of peaks found: 32 Corr. Area 1: 3,729.7
 Noise: 2.3

Peak table for sample 4 : Med Can

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	47.03	66	10.93	249.6	
3	50.33	97	15.35	240.3	
4	53.19	127	14.05	168.1	
5	57.13	168	9.44	85.0	
6	57.69	174	9.05	78.7	
7	58.73	185	8.83	72.3	
8	60.60	205	11.52	85.1	
9	61.64	217	20.28	141.9	
10	64.20	245	33.14	205.0	
11	64.72	251	37.82	228.5	
12	66.10	266	108.30	616.4	
13	66.97	276	82.53	453.3	
14	67.45	281	81.06	436.8	
15	68.27	290	84.56	441.3	
16	69.74	308	256.66	1,264.5	
17	71.74	332	409.41	1,866.6	
18	73.69	357	467.43	1,986.2	
19	74.34	365	177.13	736.0	
20	75.20	375	324.20	1,308.3	
21	76.85	396	317.52	1,215.1	
22	78.28	419	383.24	1,385.2	
23	78.89	430	235.81	831.4	
24	79.54	441	249.12	855.8	
25	80.28	454	198.79	663.6	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-20\2014-03-20_003.xad

Created: 3/20/2014 2:11:30 PM
 Modified: 3/20/2014 2:43:53 PM

Electropherogram Summary Continued ...

... Peak table for sample 4 : Med Can

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
26	81.10	468	193.29	625.4	
27	82.57	494	543.53	1,667.4	
28	84.31	530	1,103.90	3,158.4	
29	90.94	646	184.47	432.5	
30	93.71	685	69.21	153.2	
31	95.40	727	37.15	77.4	
32	96.57	781	12.17	23.6	
33	97.31	815	19.43	36.1	
34	113.00	10,380	75.00	10.9	Upper Marker

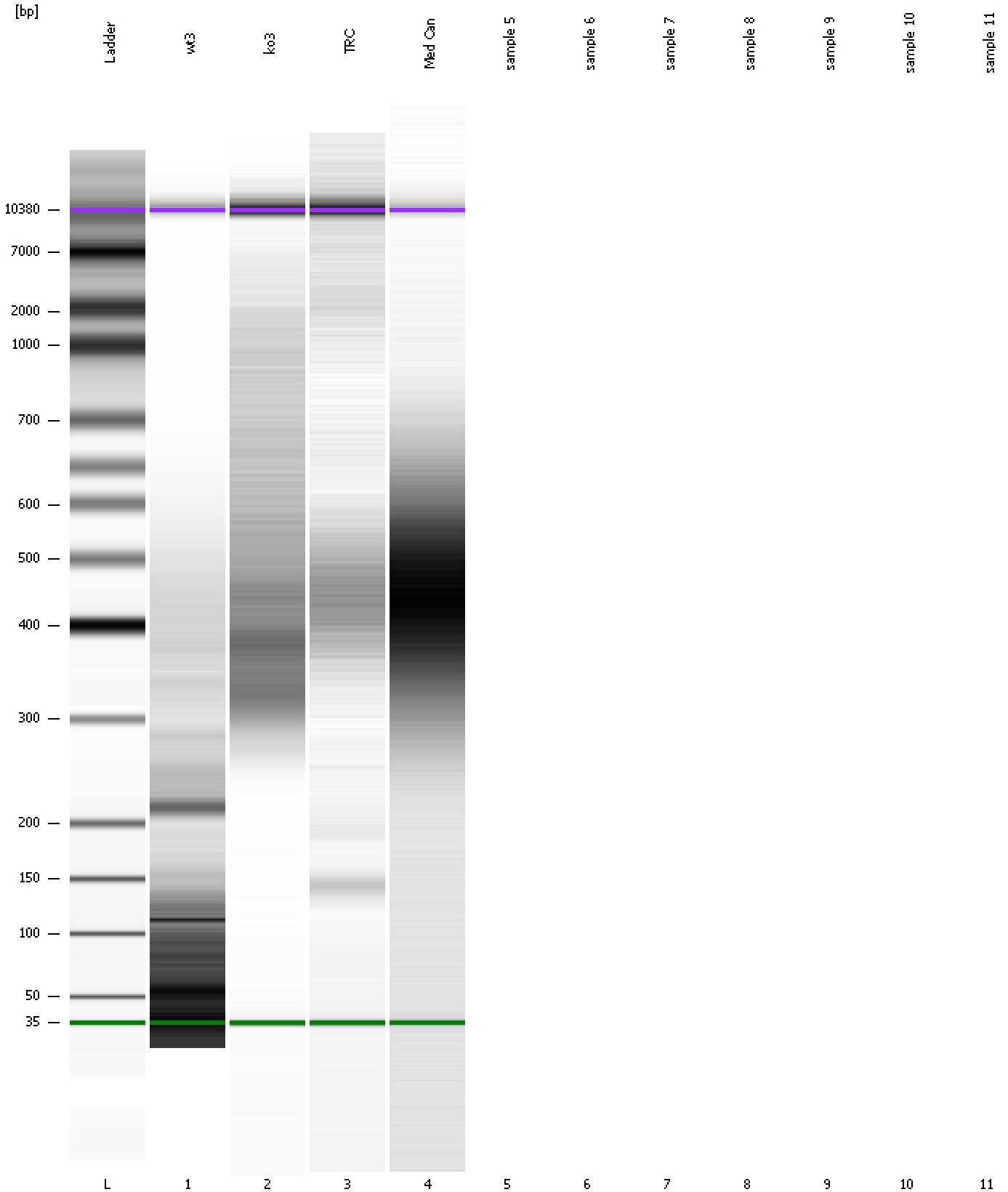
Region table for sample 4 : Med Can

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	459	24,405.3	6,686.19	3,729.7	94	25.8

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-20\2014-03-20_003.xad

Created: 3/20/2014 2:11:30 PM
Modified: 3/20/2014 2:43:53 PM

Gel Image

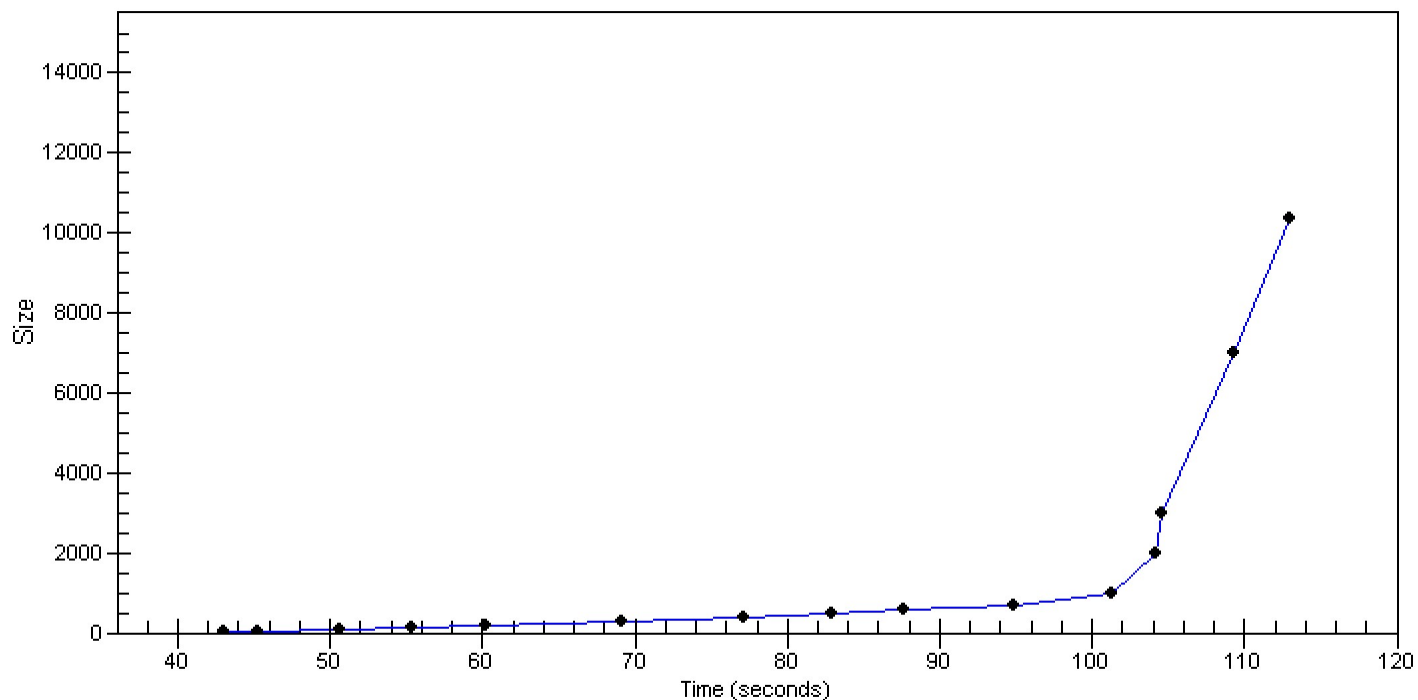


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-20\2014-03-20_003.xad

Created: 3/20/2014 2:11:30 PM
Modified: 3/20/2014 2:43:53 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-20\2014-03-20_003.xad

Created: 3/20/2014 2:11:30 PM
Modified: 3/20/2014 2:43:53 PM

Invalid Samples

Sample 5 has not been run, no results available.

Sample 6 has not been run, no results available.

Sample 7 has not been run, no results available.

Sample 8 has not been run, no results available.

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-20\2014-03-20_003.xad

Created: 3/20/2014 2:11:30 PM
 Modified: 3/20/2014 2:43:53 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 5)		Instrument	Run		3/20/2014 2:32:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-03-20\2014-03-20_003.xad)		Instrument	Run		3/20/2014 2:11:36 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/20/2014 2:11:36 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/20/2014 2:11:36 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/20/2014 2:11:36 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/20/2014 2:11:36 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/20/2014 2:11:36 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/20/2014 2:11:36 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1