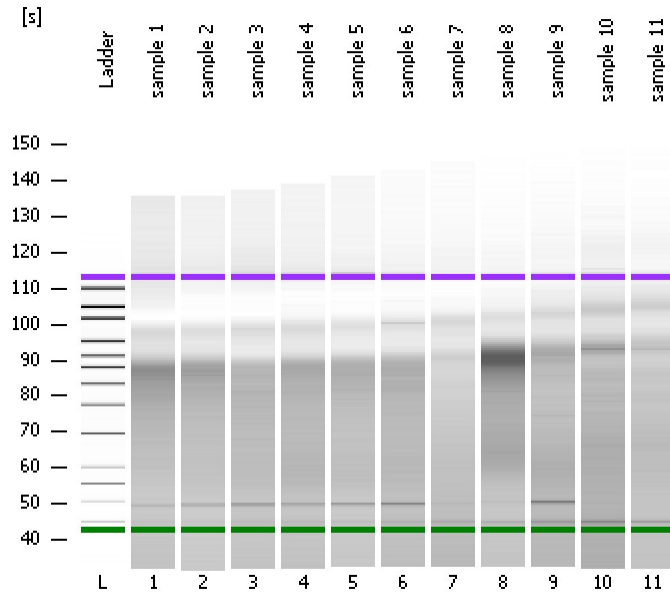


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
Modified: 5/5/2016 3:40:09 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

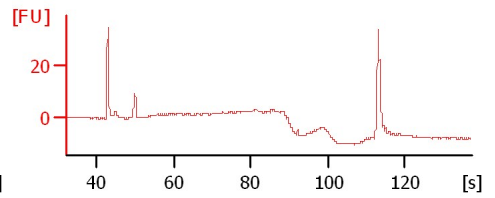
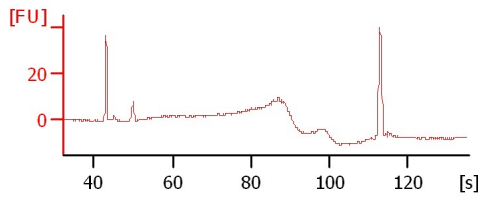
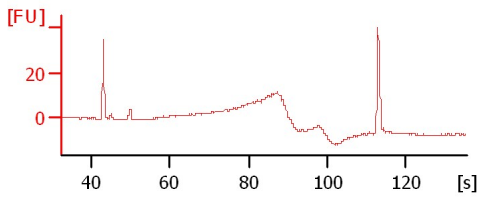
Chip Information:

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

sample 1

sample 2

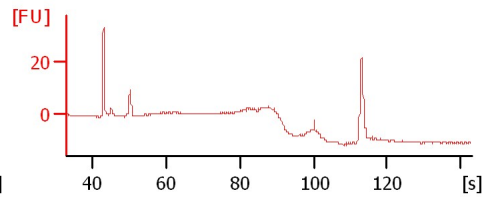
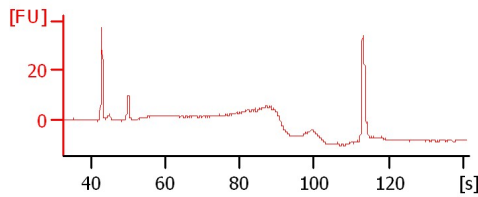
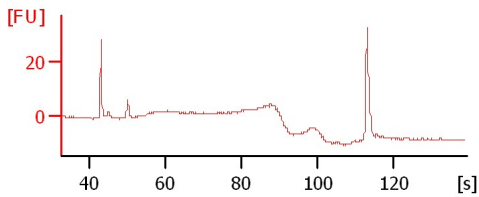
sample 3



sample 4

sample 5

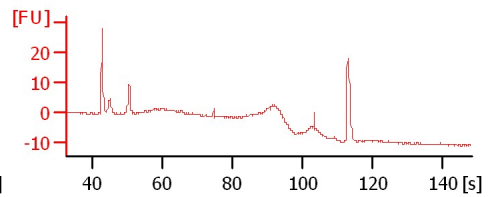
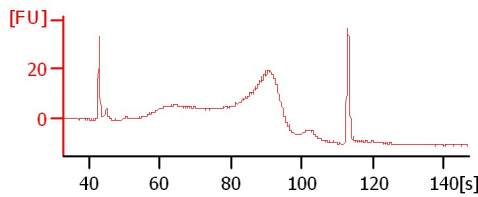
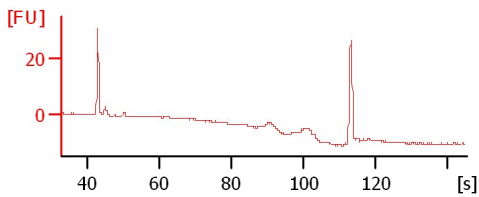
sample 6



sample 7

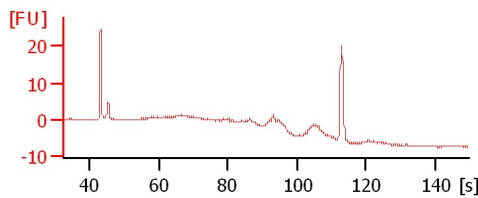
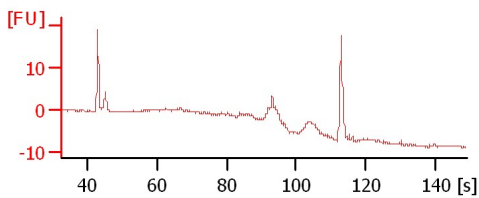
sample 8

sample 9



sample 10

sample 11



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
Modified: 5/5/2016 3:40:09 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1		<input type="checkbox"/>	✓			
sample 2		<input type="checkbox"/>	✓			
sample 3		<input type="checkbox"/>	✓			
sample 4		<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:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
Modified: 5/5/2016 3:40:09 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

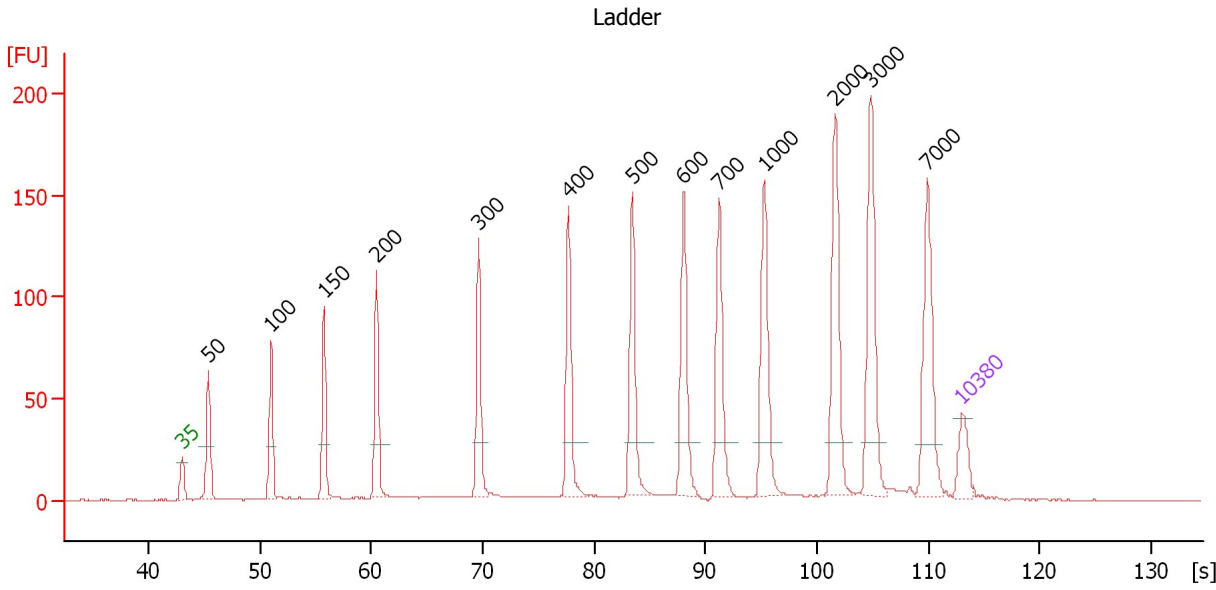
Ladder

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:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
 Modified: 5/5/2016 3:40:09 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

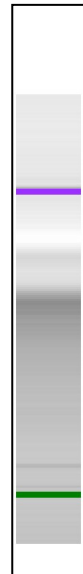
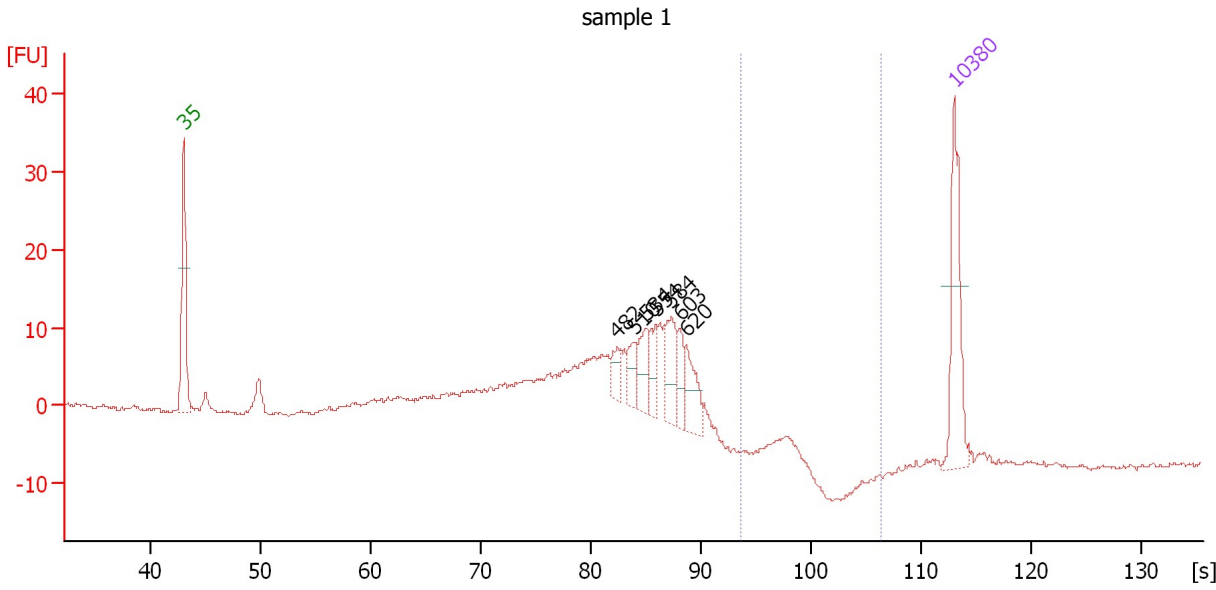
Peak table for Ladder

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	45.36
3	100	150.00	2,272.7	Ladder Peak	51.00
4	150	150.00	1,515.2	Ladder Peak	55.78
5	200	150.00	1,136.4	Ladder Peak	60.45
6	300	150.00	757.6	Ladder Peak	69.66
7	400	150.00	568.2	Ladder Peak	77.71
8	500	150.00	454.5	Ladder Peak	83.45
9	600	150.00	378.8	Ladder Peak	88.03
10	700	150.00	324.7	Ladder Peak	91.21
11	1,000	150.00	227.3	Ladder Peak	95.31
12	2,000	150.00	113.6	Ladder Peak	101.62
13	3,000	150.00	75.8	Ladder Peak	104.85
14	7,000	150.00	32.5	Ladder Peak	109.91
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
 Modified: 5/5/2016 3:40:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 7 Corr. Area 1: 1.2
 Noise: 0.3

Peak table for sample 1 : sample 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	482	20.31	63.8		82.41
3	510	22.50	66.8		83.93
4	534	31.81	90.3		85.00
5	554	26.67	72.9		85.93
6	584	45.90	119.1		87.29
7	603	21.56	54.2		88.12
8	620	36.54	89.3		88.66
9	10,380	75.00	10.9	Upper Marker	113.00

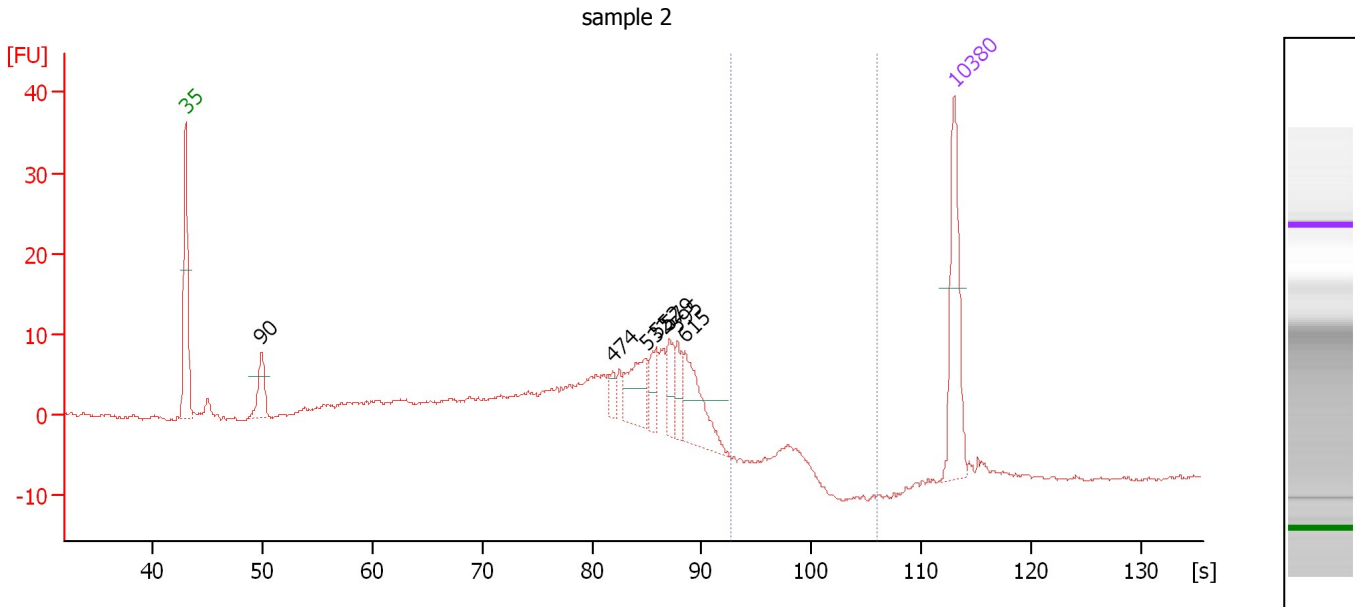
Region table for sample 1 : sample 1

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
93.58	106.38	1,362	1.2	2.9	2.64	0	5.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
 Modified: 5/5/2016 3:40:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 7 Corr. Area 1: 1.4
 Noise: 0.2

Peak table for sample 2 : sample 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	90	43.54	731.4		49.90
3	474	12.75	40.8		81.94
4	532	48.81	139.0		84.92
5	552	22.37	61.4		85.85
6	579	23.79	62.2		87.07
7	595	19.88	50.6		87.81
8	615	63.08	155.5		88.49
9	10,380	75.00	10.9	Upper Marker	113.00

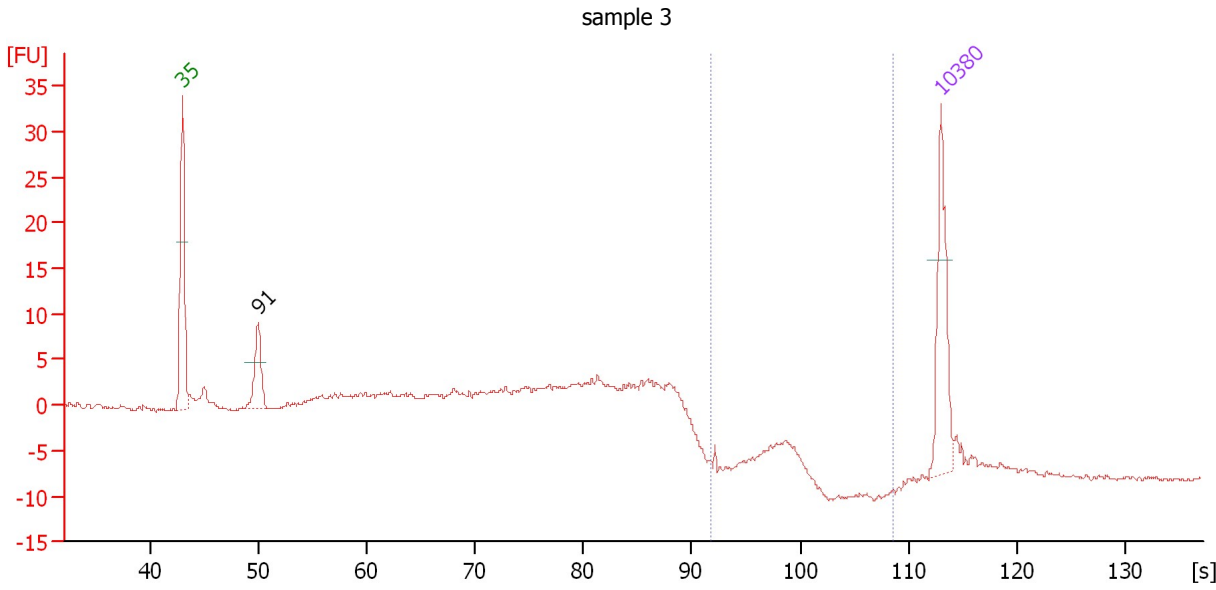
Region table for sample 2 : sample 2

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
92.64	106.01	1,422	1.4	3.0	2.85	0	5.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
 Modified: 5/5/2016 3:40:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 1 Corr. Area 1: 1.8
 Noise: 0.2

Peak table for sample 3 : sample 3

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	91	62.10	1,033.6		49.99
3	10,380	75.00	10.9	Upper Marker	113.00

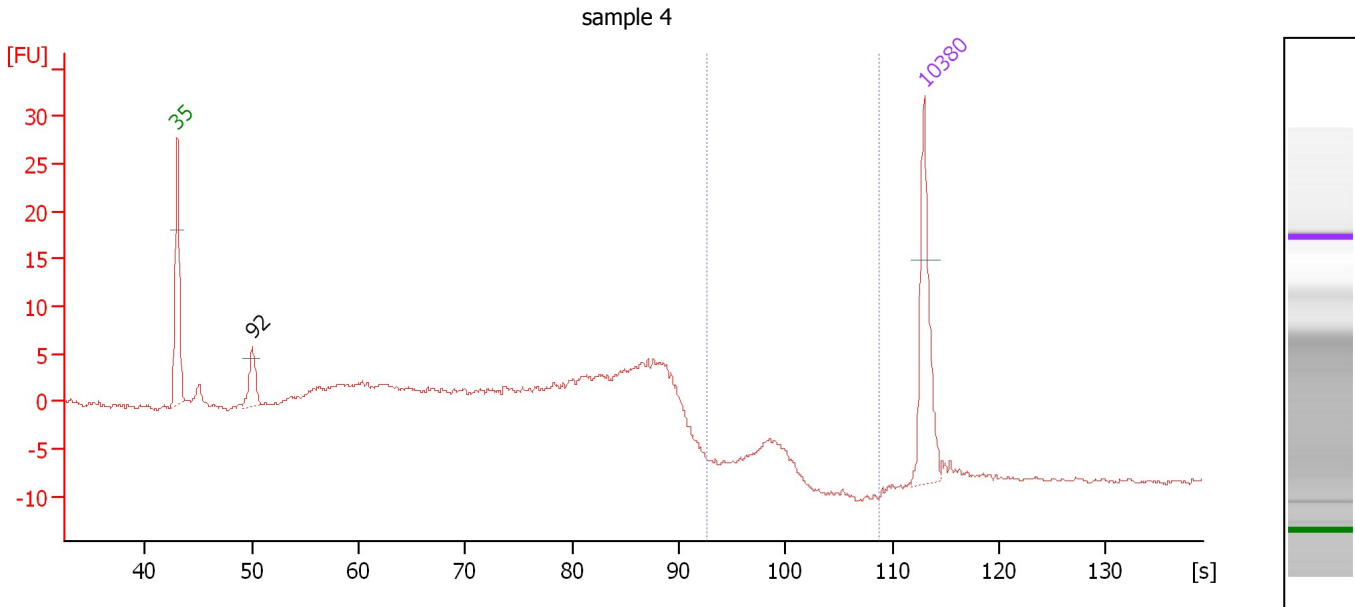
Region table for sample 3 : sample 3

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
91.80	108.60	1,486	1.8	4.6	4.49	1	8.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
 Modified: 5/5/2016 3:40:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 1 Corr. Area 1: 1.9
 Noise: 0.2

Peak table for sample 4 : sample 4

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	92	40.07	663.4		50.05
3	10,380	75.00	10.9	Upper Marker	113.00

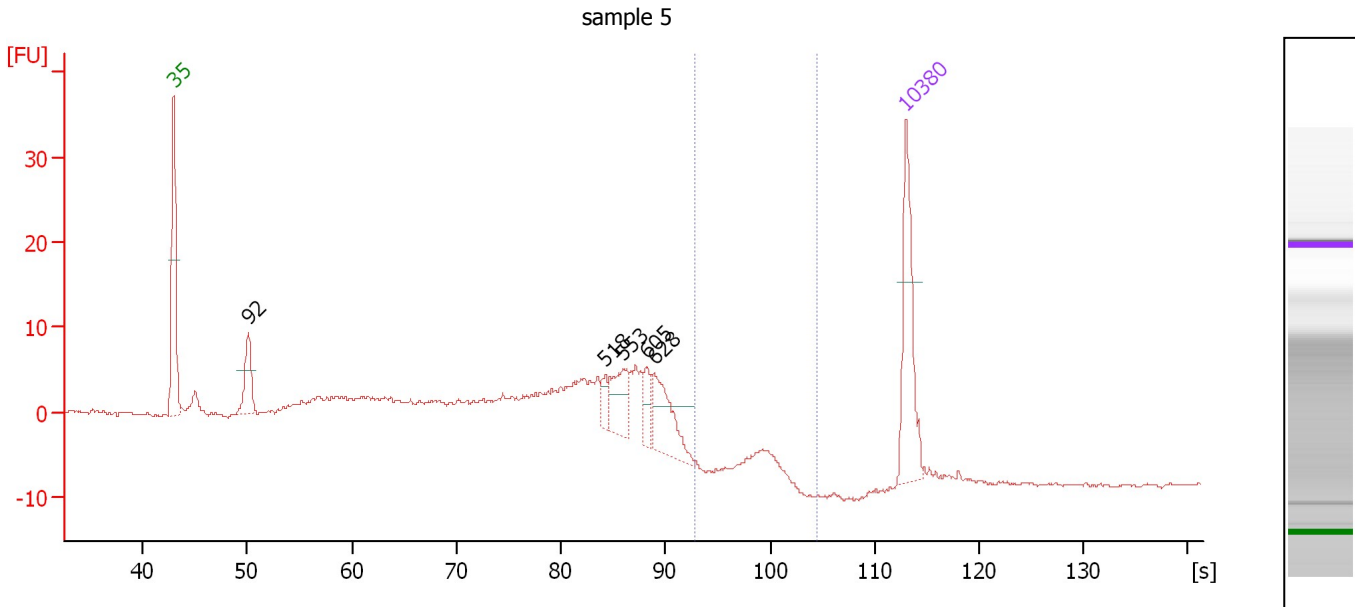
Region table for sample 4 : sample 4

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
92.67	108.81	1,547	1.9	4.5	4.60	1	6.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
 Modified: 5/5/2016 3:40:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 5 Corr. Area 1: 1.0
 Noise: 0.2

Peak table for sample 5 : sample 5

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	92	53.49	882.0		50.09
3	518	13.34	39.0		84.29
4	553	39.36	107.8		85.88
5	605	16.72	41.9		88.19
6	628	57.39	138.5		88.91
7	10,380	75.00	10.9	Upper Marker	113.00

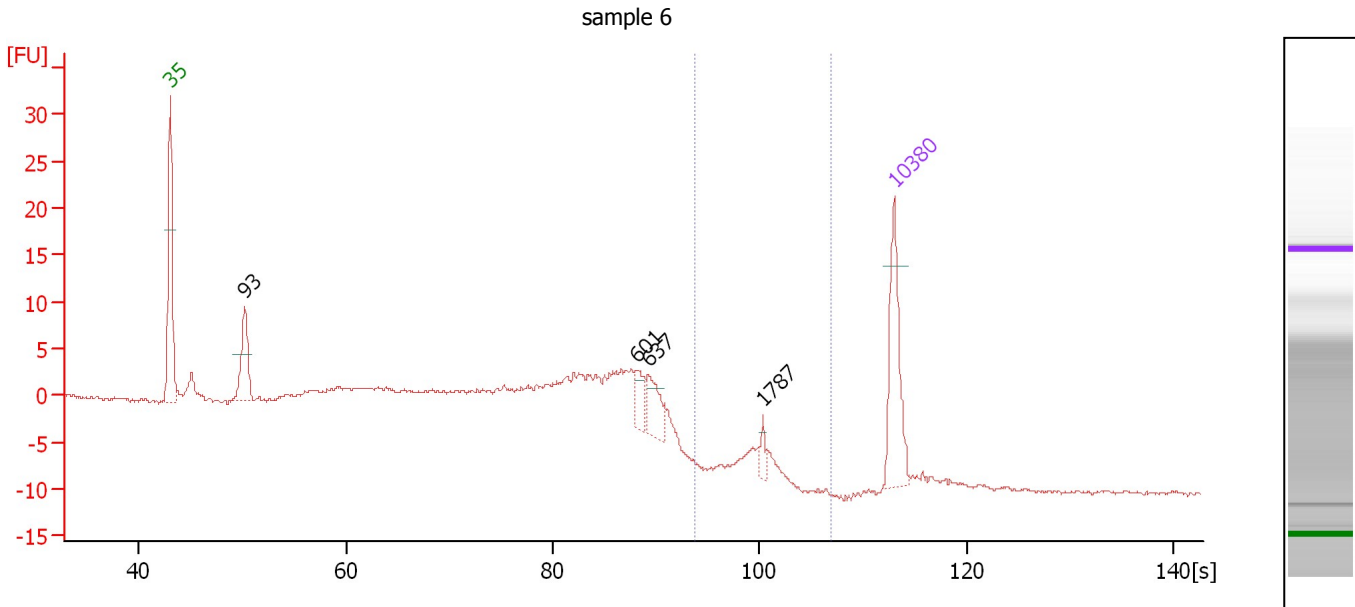
Region table for sample 5 : sample 5

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
92.87	104.48	1,651	1.0	1.9	2.09	0	4.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
 Modified: 5/5/2016 3:40:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 4 Corr. Area 1: 2.3
 Noise: 0.2

Peak table for sample 6 : sample 6

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	93	76.44	1,244.7		50.22
3	601	21.08	53.1		88.07
4	637	35.59	84.6		89.22
5	1,787	8.46	7.2		100.28
6	10,380	75.00	10.9	Upper Marker	113.00

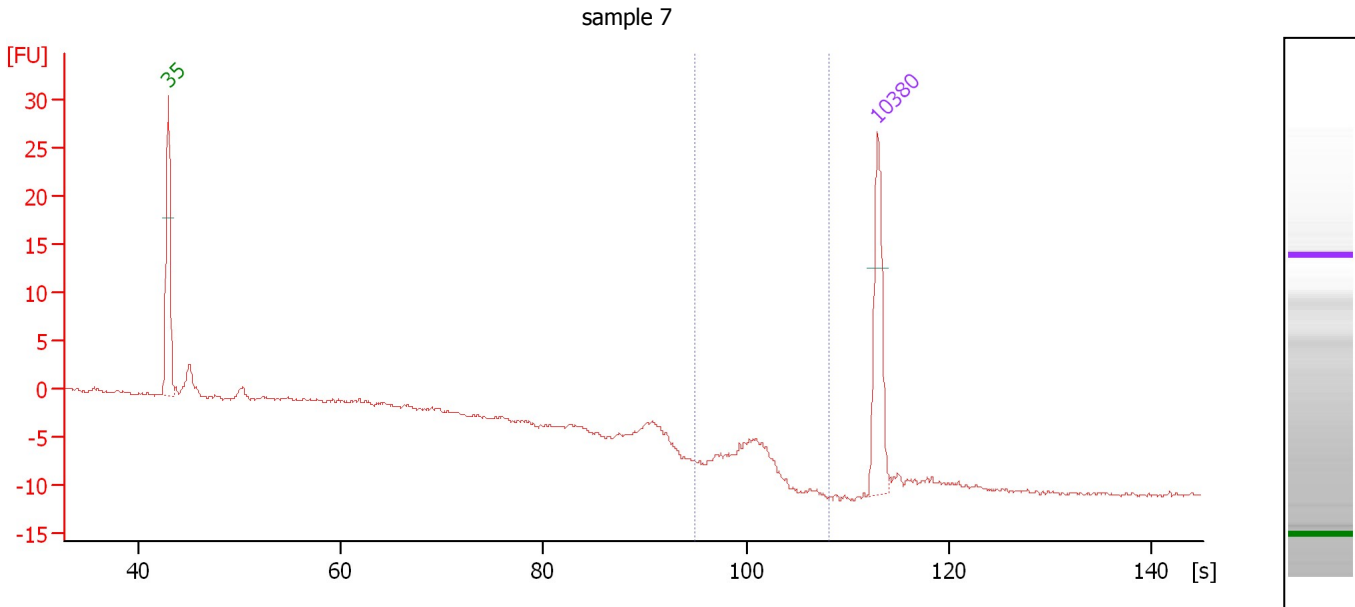
Region table for sample 6 : sample 6

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
93.79	106.85	1,757	2.3	5.4	6.27	1	4.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
 Modified: 5/5/2016 3:40:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 0 Corr. Area 1: 2.9
 Noise: 0.2

Peak table for sample 7 : sample 7

Pea k	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	10,380	75.00	10.9	Upper Marker	113.00

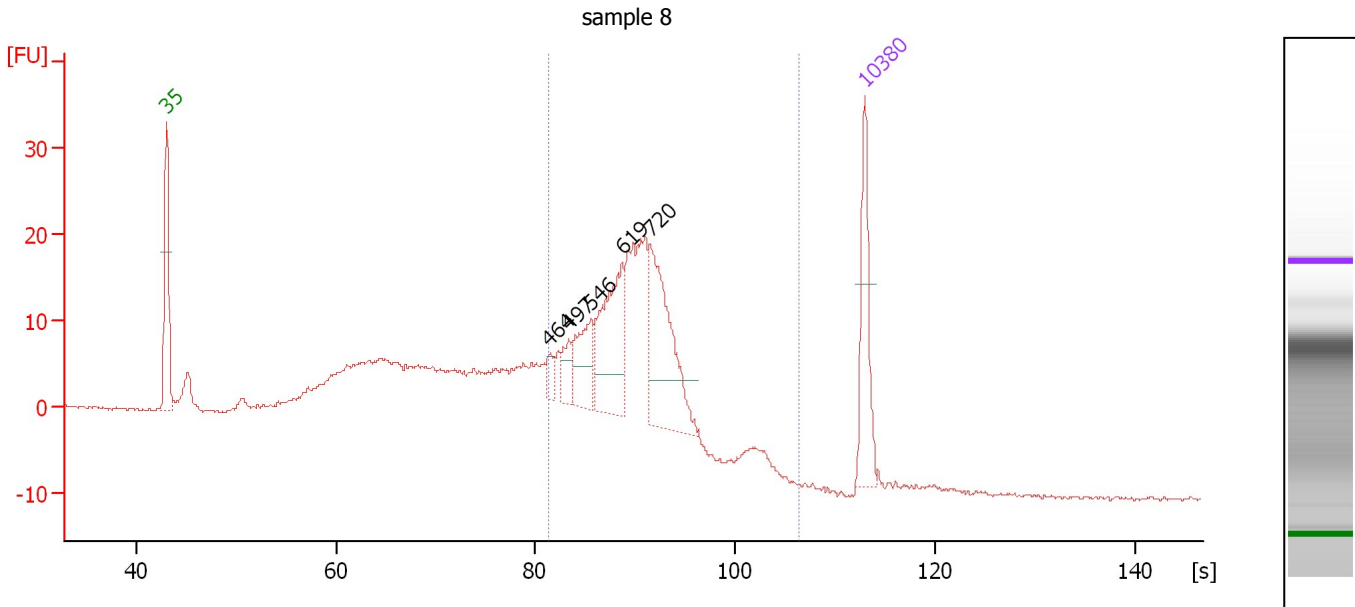
Region table for sample 7 : sample 7

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
95.00	108.13	1,864	2.9	5.9	7.27	3	6.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
 Modified: 5/5/2016 3:40:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 5 Corr. Area 1: 267.9
 Noise: 0.2

Peak table for sample 8 : sample 8

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	464	14.21	46.4		81.36
3	497	25.37	77.3		83.30
4	546	61.14	169.6		85.56
5	619	123.76	303.0		88.63
6	720	152.04	320.1		91.48
7	10,380	75.00	10.9	Upper Marker	113.00

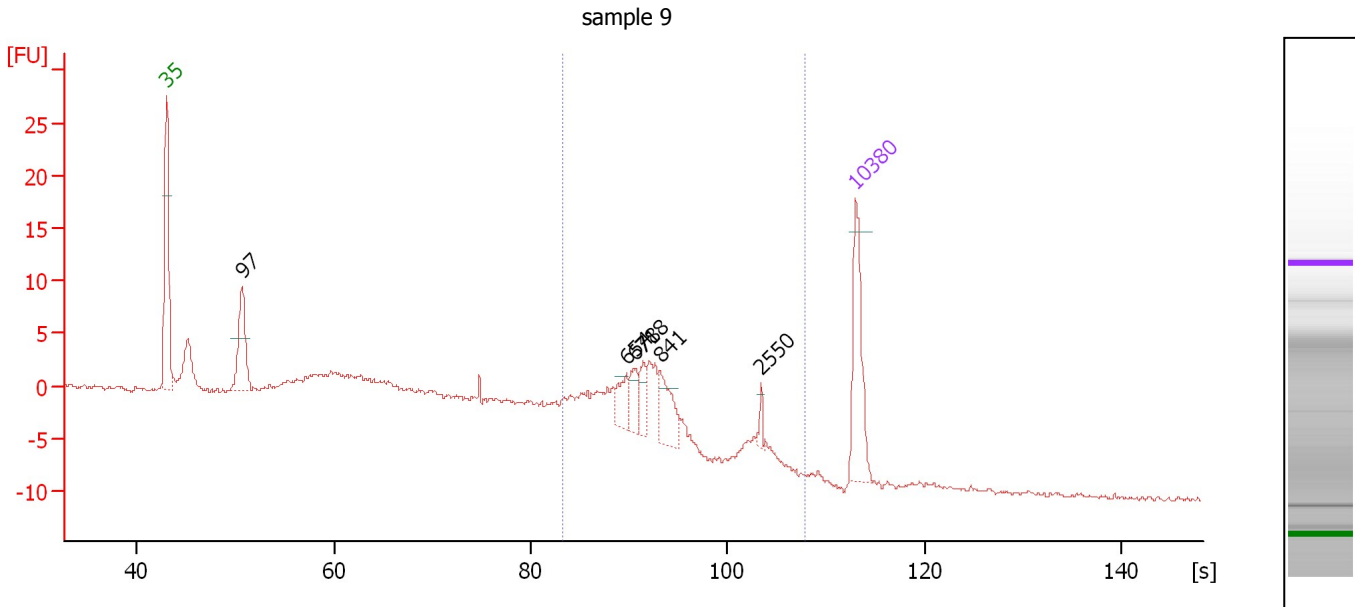
Region table for sample 8 : sample 8

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
81.30	106.40	686	267.9	1,768.8	741.55	46	33.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
 Modified: 5/5/2016 3:40:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 6 Corr. Area 1: 78.0
 Noise: 0.3

Peak table for sample 9 : sample 9

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	97	98.40	1,533.1		50.69
3	654	24.97	57.8		89.76
4	678	23.98	53.6		90.52
5	718	20.92	44.2		91.45
6	841	43.10	77.6		93.14
7	2,550	5.86	3.5		103.40
8	10,380	75.00	10.9	Upper Marker	113.00

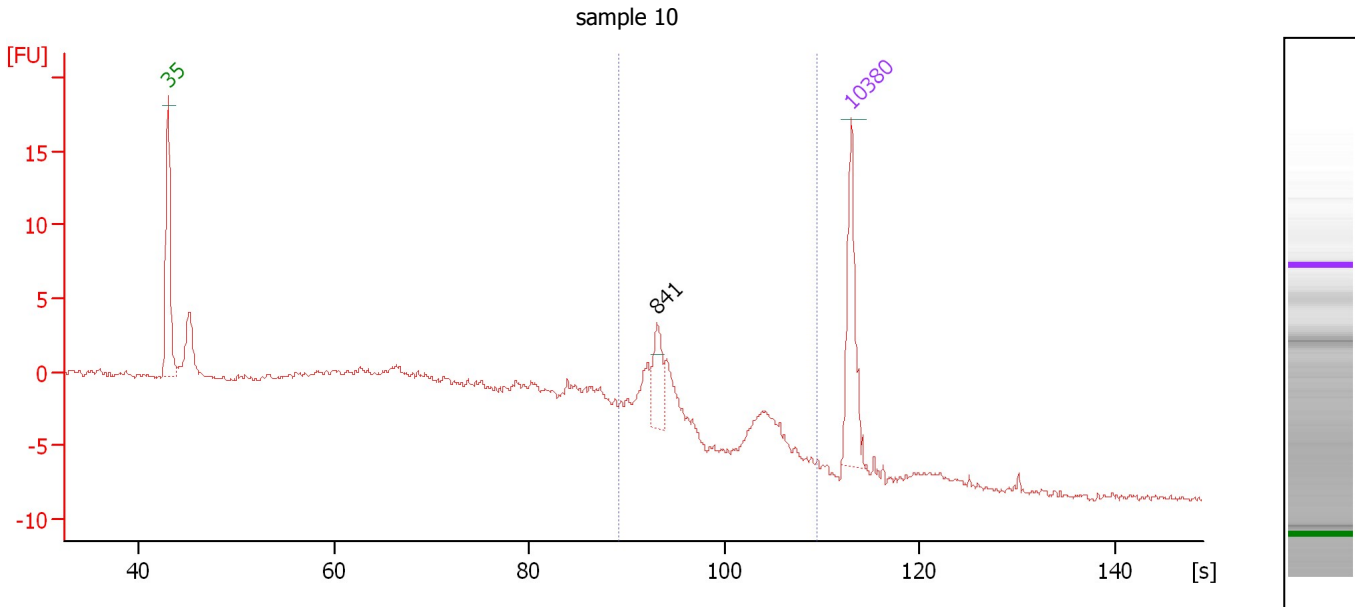
Region table for sample 9 : sample 9

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
83.23	107.88	844	78.0	678.1	313.28	30	59.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
 Modified: 5/5/2016 3:40:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 1 Corr. Area 1: 35.8
 Noise: 0.2

Peak table for sample 10 : sample 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	841	38.64	69.6		93.13
3	10,380	75.00	10.9	Upper Marker	113.00

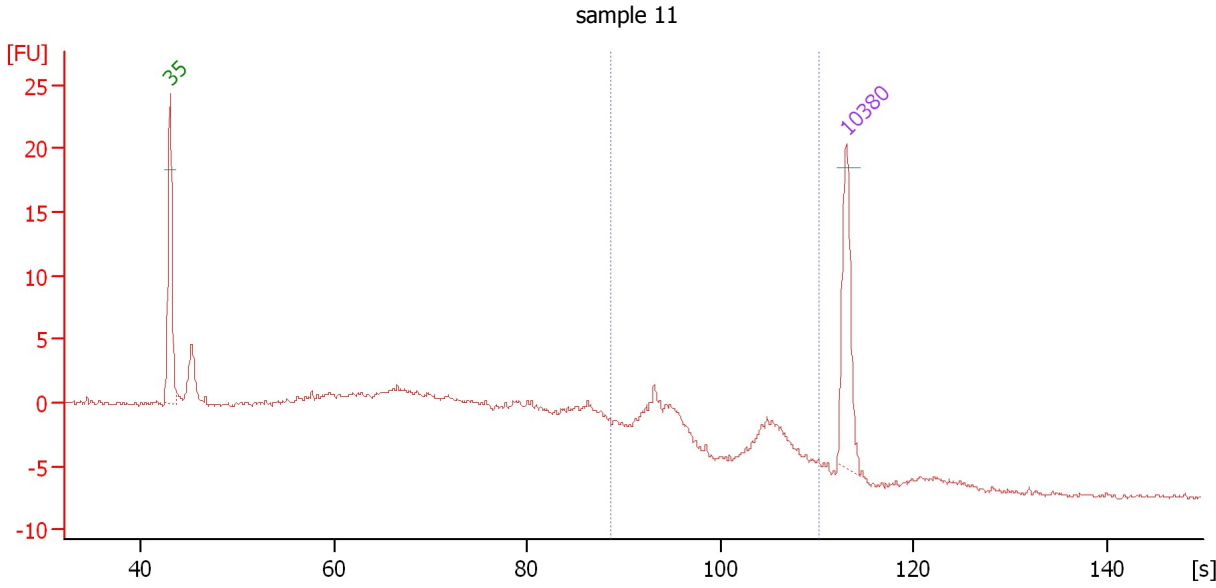
Region table for sample 10 : sample 10

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
89.23	109.48	1,324	35.8	271.2	170.34	22	69.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
 Modified: 5/5/2016 3:40:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found: 0 Corr. Area 1: 37.7
 Noise: 0.2

Peak table for sample 11 : sample 11

Pea k	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	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 11 : sample 11

From [s]	To [s]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
88.67	110.15	1,839	37.7	212.7	150.16	20	81.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
Modified: 5/5/2016 3:40:09 PM

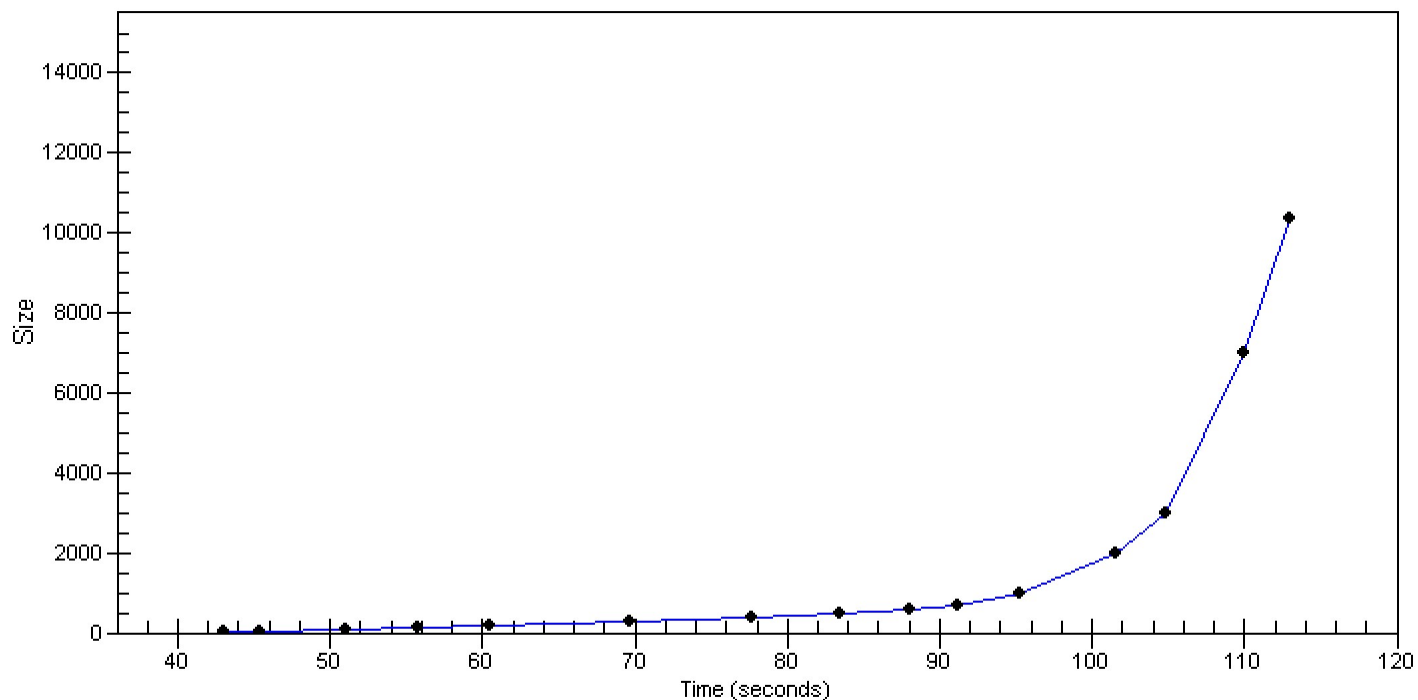
Gel Image

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad

Created: 5/5/2016 2:46:38 PM
Modified: 5/5/2016 3:40:09 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay Created: 5/5/2016 2:46:38 PM
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad Modified: 5/5/2016 3:40:09 PM

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		5/5/2016 3:26:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-05-05\2016-05-05_003.xad)		Instrument	Run		5/5/2016 2:46:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		5/5/2016 2:46:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/5/2016 2:46:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/5/2016 2:46:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		5/5/2016 2:46:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/5/2016 2:46:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/5/2016 2:46:38 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1