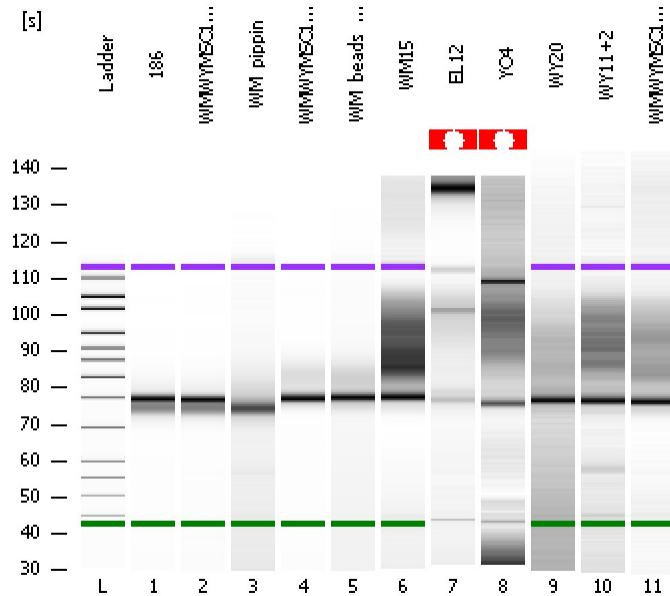


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
Modified: 4/6/2016 12:44:15 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

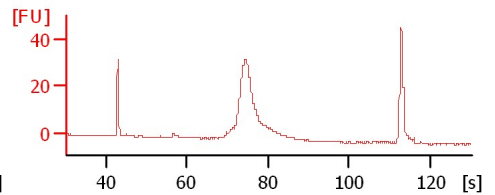
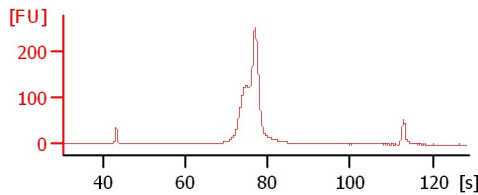
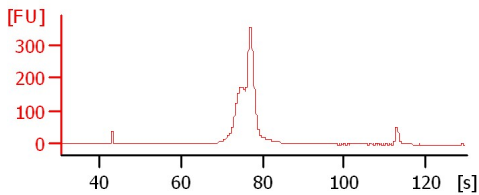
Chip Information:

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

186

WMWYMSC186_pippin_2

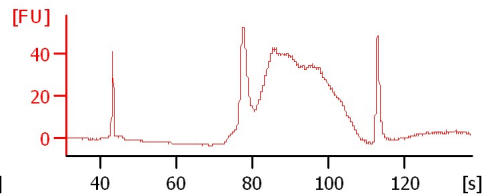
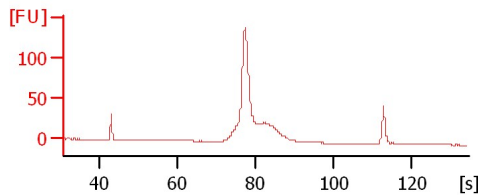
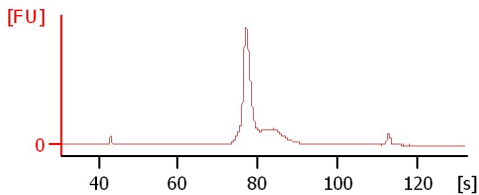
WM_pippin



WMWYMSC186_beads_pippin

WM_beads_pippin

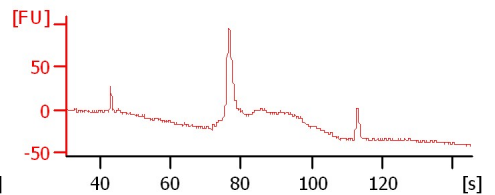
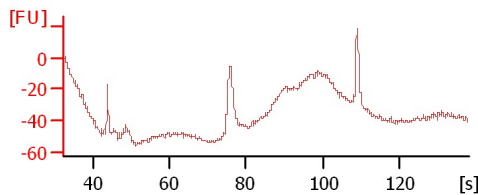
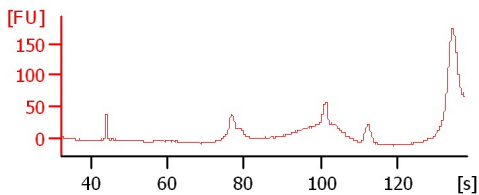
WM15



EL12

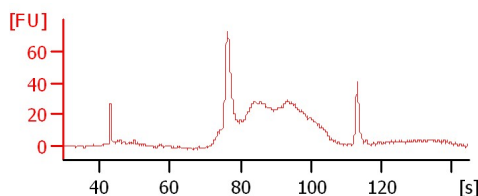
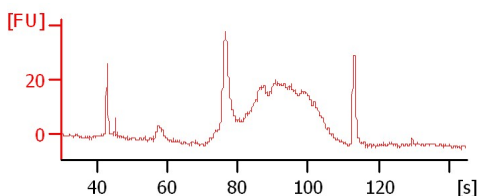
YO4

WY20



WY11+2

WMWYMSC186_raw



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
 Modified: 4/6/2016 12:44:15 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
186		<input type="checkbox"/>	✓			
WMWYMSC186_pippin_2		<input type="checkbox"/>	✓			
WM_pippin		<input type="checkbox"/>	✓			
WMWYMSC186_beads_pippin		<input type="checkbox"/>	✓			
WM_beads_pippin		<input type="checkbox"/>	✓			
WM15		<input type="checkbox"/>	✓			
EL12		<input type="checkbox"/>	✓			
YO4		<input type="checkbox"/>	✓			
WY20		<input type="checkbox"/>	✓			
WY11+2		<input type="checkbox"/>	✓			
WMWYMSC186_raw		<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\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
Modified: 4/6/2016 12:44:15 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

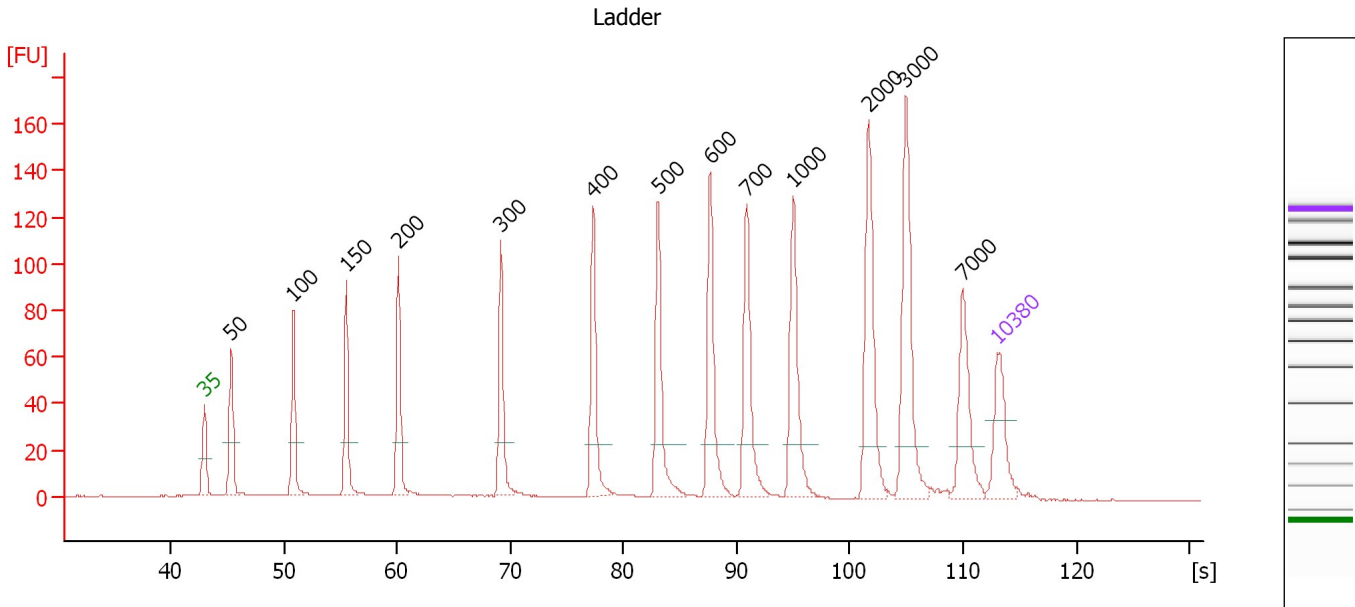
Ladder

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\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
 Modified: 4/6/2016 12:44:15 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

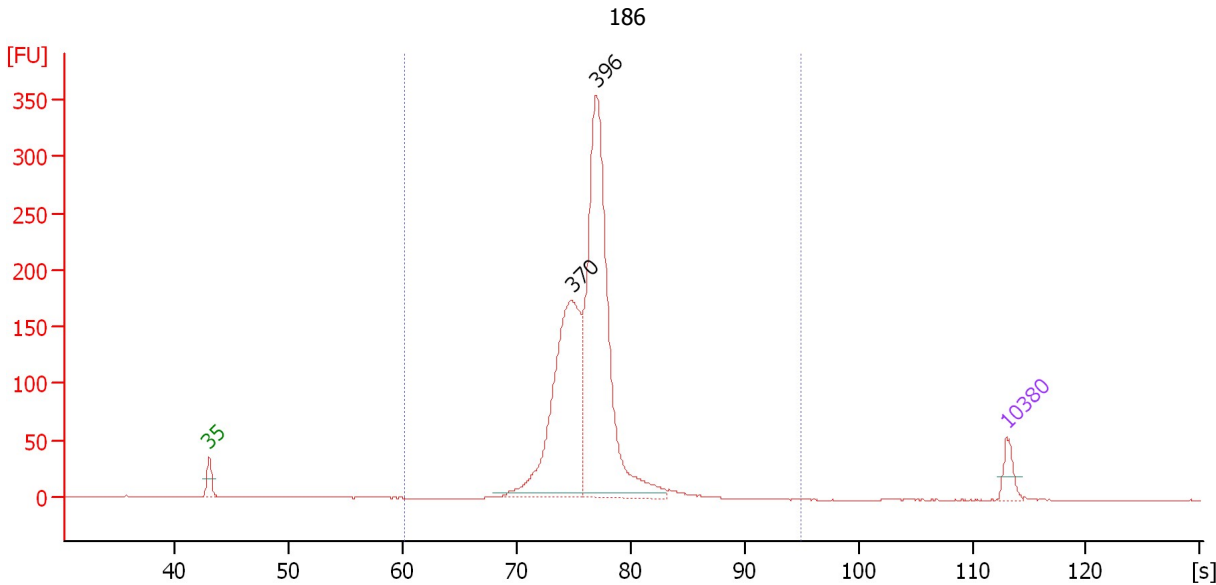
Peak table for Ladder

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	45.37
3	100	150.00	2,272.7	Ladder Peak	50.83
4	150	150.00	1,515.2	Ladder Peak	55.52
5	200	150.00	1,136.4	Ladder Peak	60.12
6	300	150.00	757.6	Ladder Peak	69.18
7	400	150.00	568.2	Ladder Peak	77.34
8	500	150.00	454.5	Ladder Peak	83.07
9	600	150.00	378.8	Ladder Peak	87.67
10	700	150.00	324.7	Ladder Peak	90.90
11	1,000	150.00	227.3	Ladder Peak	94.98
12	2,000	150.00	113.6	Ladder Peak	101.67
13	3,000	150.00	75.8	Ladder Peak	104.94
14	7,000	150.00	32.5	Ladder Peak	109.92
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
 Modified: 4/6/2016 12:44:15 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 186

Number of peaks found: 2 Corr. Area 1: 1,691.5
 Noise: 0.2

Peak table for sample 1 : 186

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	370	1,543.93	6,327.3		74.87
3	396	2,144.70	8,211.8		76.99
4	10,380	75.00	10.9	Upper Marker	113.00

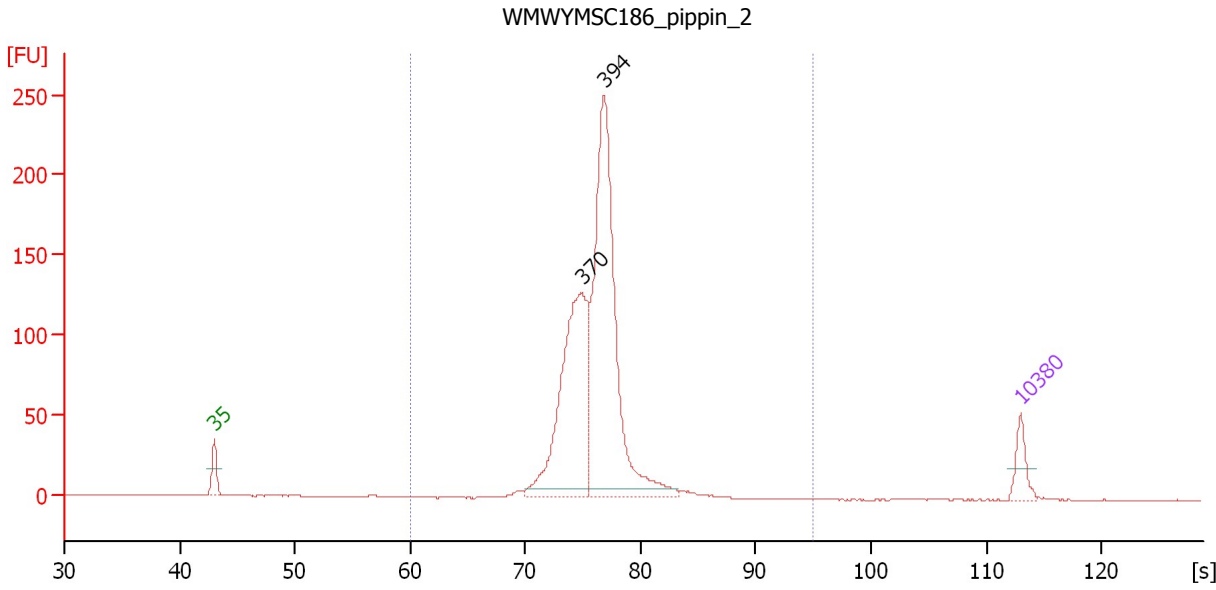
Region table for sample 1 : 186

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	389	1,691.5	14,839.0	3,780.75	99	9.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
 Modified: 4/6/2016 12:44:15 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : WMWYMSC186_pippin_2

Number of peaks found: 2 Corr. Area 1: 1,190.5
 Noise: 0.2

Peak table for sample 2 : WMWYMSC186_pippin_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	370	1,096.49	4,484.9		74.92
3	394	1,577.36	6,059.2		76.88
4	10,380	75.00	10.9	Upper Marker	113.00

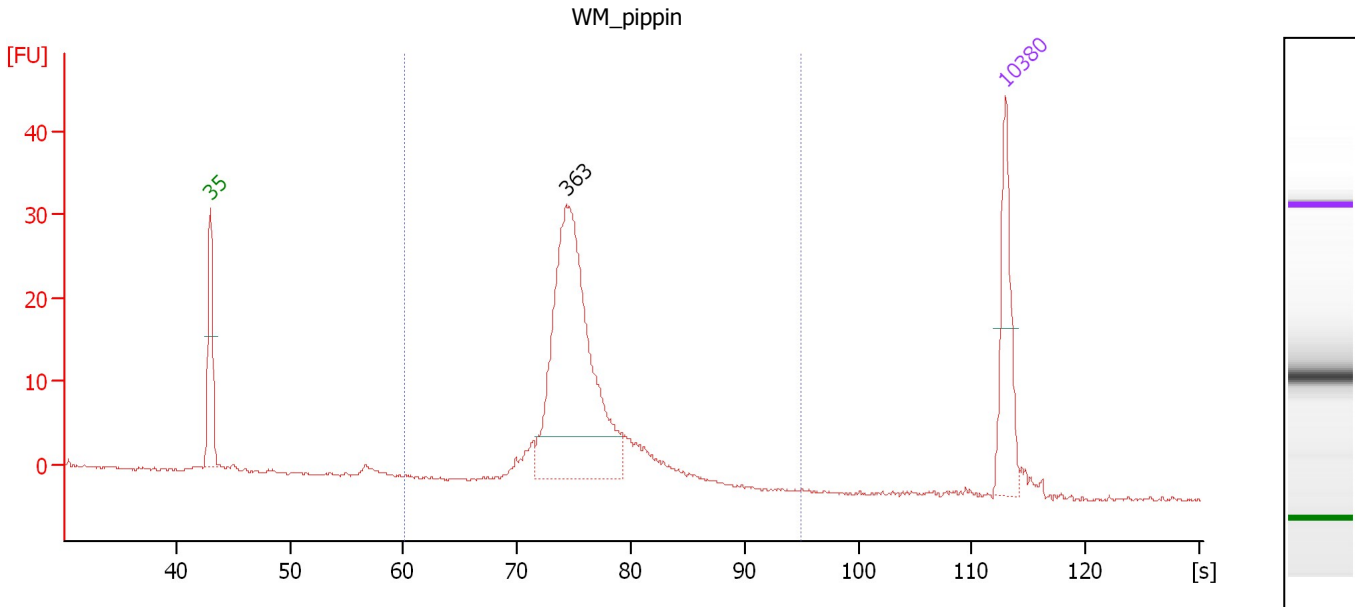
Region table for sample 2 : WMWYMSC186_pippin_2

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	386	1,190.5	10,956.1	2,772.33	99	8.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
 Modified: 4/6/2016 12:44:15 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : WM_pippin

Number of peaks found: 1 Corr. Area 1: 205.8
 Noise: 0.2

Peak table for sample 3 : WM_pippin

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	363	439.11	1,831.6		74.34
3	10,380	75.00	10.9	Upper Marker	113.00

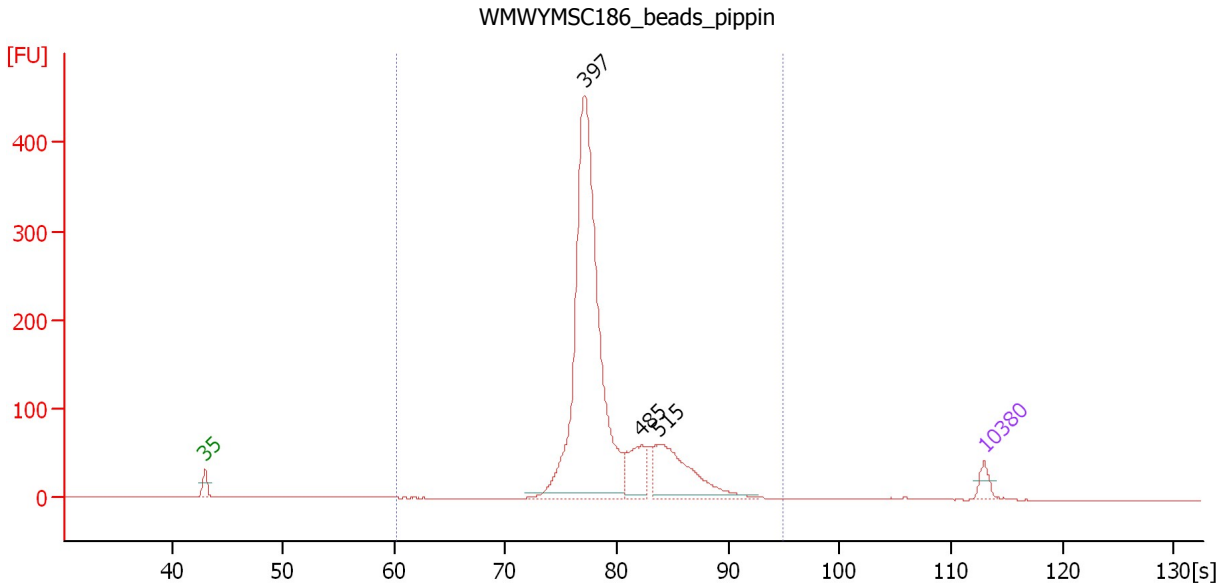
Region table for sample 3 : WM_pippin

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	385	205.8	2,124.4	531.21	95	12.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

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 Modified: 4/6/2016 12:44:15 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : WMWYMSC186_beads_pippin

Number of peaks found: 3 Corr. Area 1: 1,898.9
 Noise: 0.1

Peak table for sample 4 : WMWYMSC186_beads_pippin

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	397	4,147.44	15,844.4		77.06
3	485	376.08	1,174.6		82.22
4	515	835.19	2,457.1		83.76
5	10,380	75.00	10.9	Upper Marker	113.00

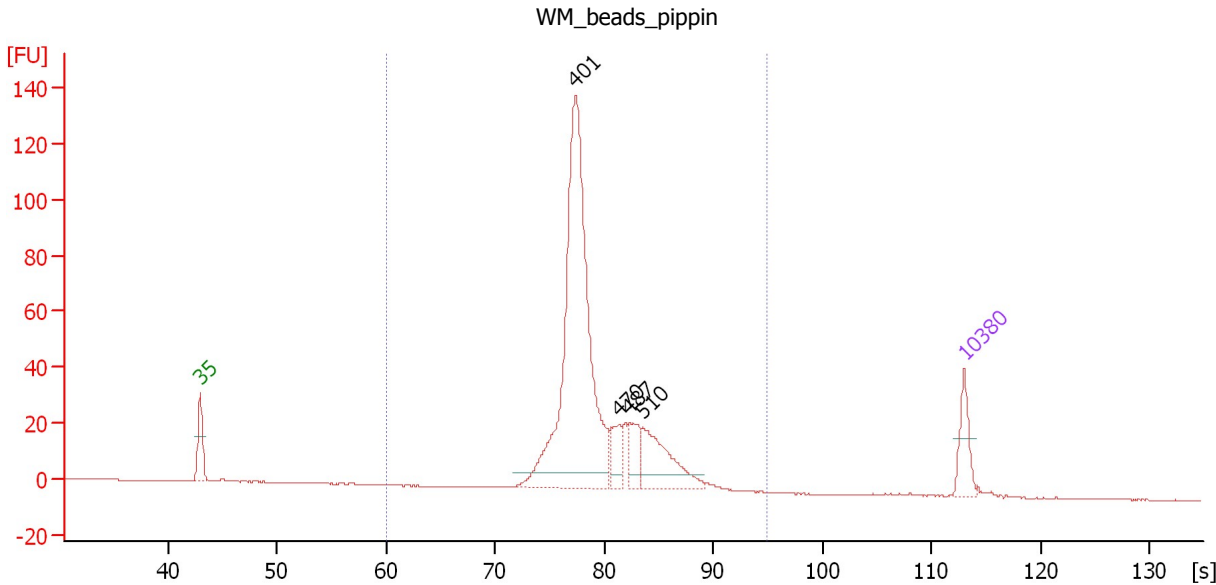
Region table for sample 4 : WMWYMSC186_beads_pippin

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	438	1,898.9	19,414.6	5,475.19	98	16.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
 Modified: 4/6/2016 12:44:15 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : WM_beads_pippin

Number of peaks found: 4 Corr. Area 1: 620.4
 Noise: 0.1

Peak table for sample 5 : WM_beads_pippin

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	401	1,244.77	4,705.0		77.39
3	470	73.94	238.2		81.37
4	487	86.17	268.3		82.30
5	510	216.59	643.5		83.53
6	10,380	75.00	10.9	Upper Marker	113.00

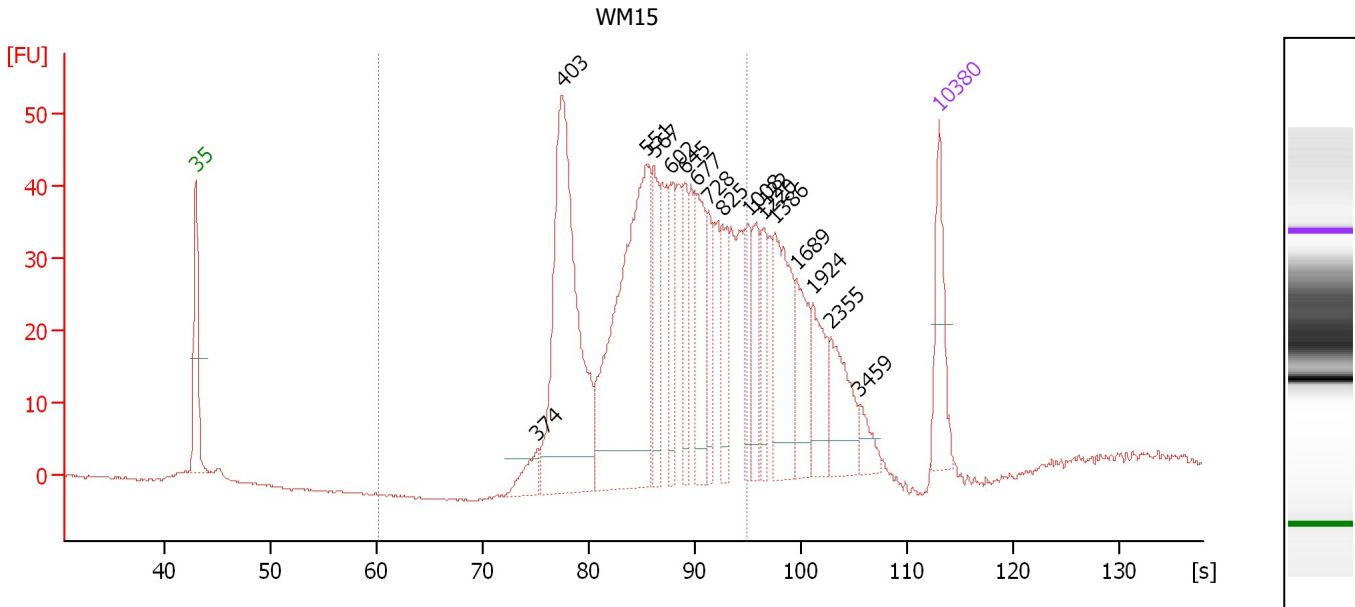
Region table for sample 5 : WM_beads_pippin

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	438	620.4	6,144.6	1,737.52	97	15.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
 Modified: 4/6/2016 12:44:15 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : WM15

Number of peaks found: 17 Corr. Area 1: 689.9
 Noise: 0.2

Peak table for sample 6 : WM15

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	374	36.85	149.4		75.19
3	403	475.18	1,785.7		77.52
4	551	465.62	1,280.7		85.42
5	567	92.40	246.7		86.17
6	602	74.21	186.7		87.74
7	645	74.00	174.0		89.11
8	677	113.43	253.7		90.17
9	728	65.31	135.8		91.29
10	825	63.50	116.6		92.60
11	1,008	52.96	79.6		95.03
12	1,122	59.86	80.9		95.79
13	1,220	53.73	66.7		96.45
14	1,386	134.66	147.2		97.56
15	1,689	75.24	67.5		99.59
16	1,924	66.08	52.0		101.16
17	2,355	76.82	49.4		102.83
18	3,459	24.35	10.7		105.51
19	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 6 : WM15

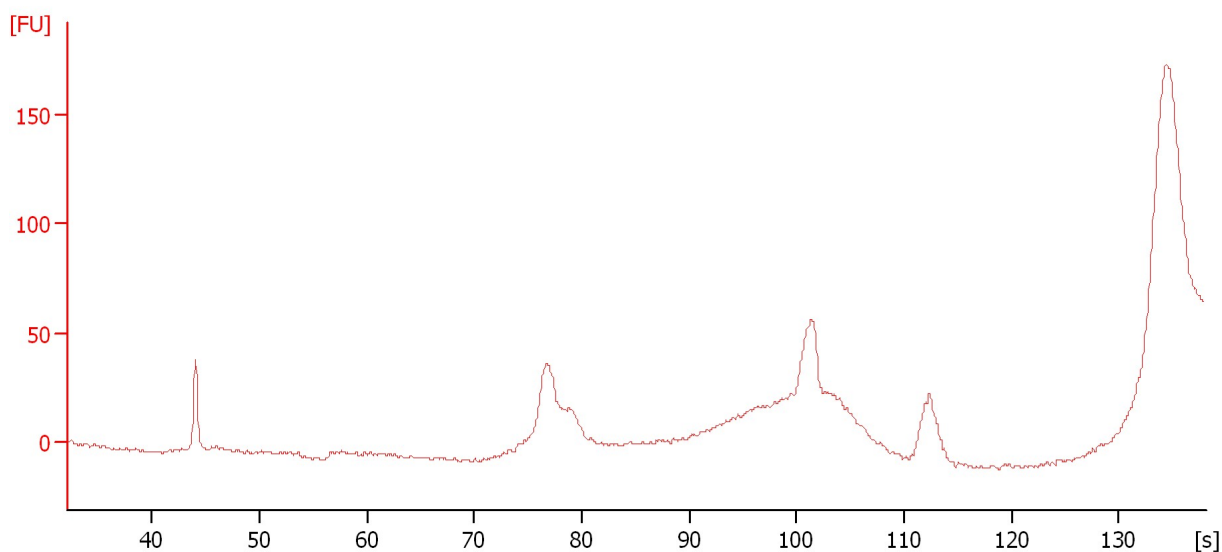
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	603	689.9	4,795.1	1,748.95	72	26.5

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
Modified: 4/6/2016 12:44:15 PM

Electropherogram Summary Continued ...

EL12



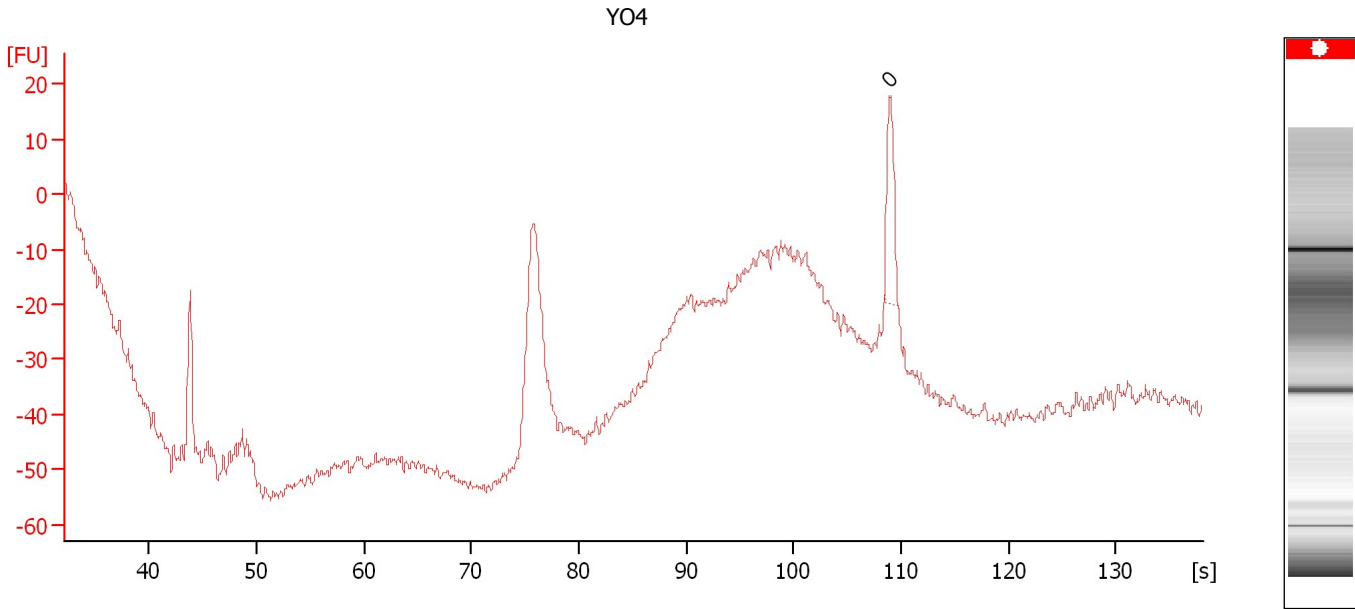
Overall Results for sample 7 : EL12

Noise: 1.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
Modified: 4/6/2016 12:44:15 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : YO4

Number of peaks found: 0 Noise: 1.3

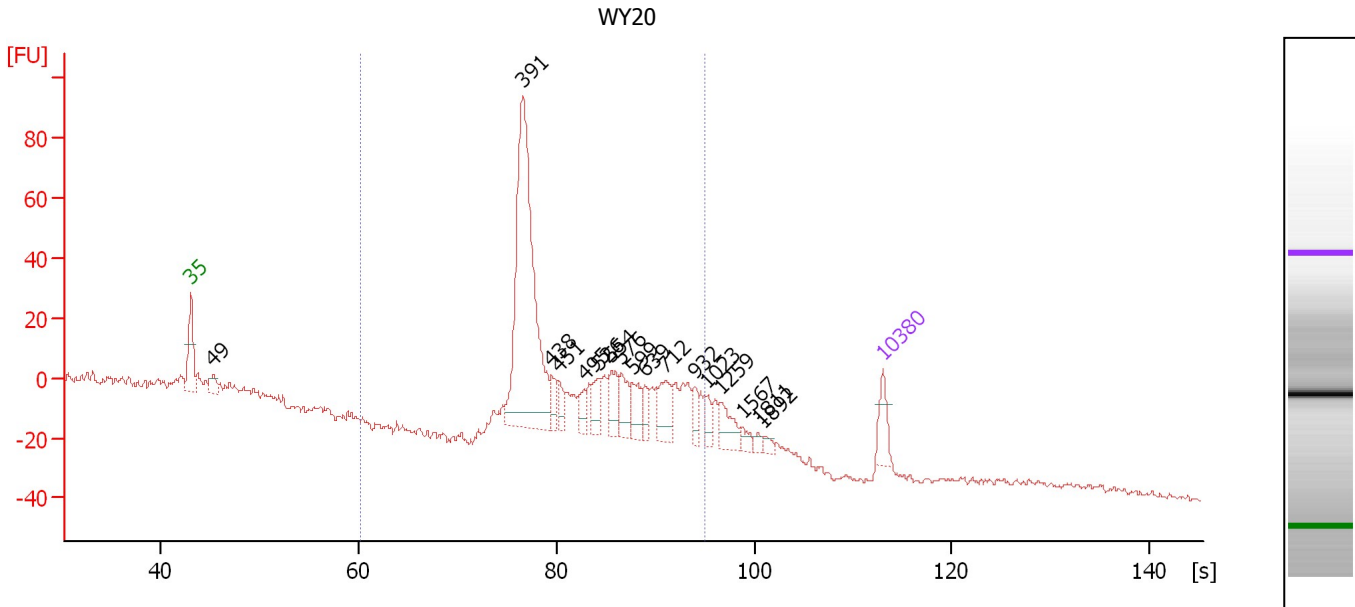
Peak table for sample 8 : YO4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0		108.90

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
 Modified: 4/6/2016 12:44:15 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : WY20

Number of peaks found: 17 Corr. Area 1: 585.5
 Noise: 1.1

Peak table for sample 9 : WY20

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	49	59.69	1,829.6		45.28
3	391	1,194.47	4,626.7		76.62
4	438	61.83	214.1		79.49
5	451	52.35	175.9		80.25
6	495	53.81	164.6		82.81
7	526	74.02	213.2		84.27
8	554	102.11	279.1		85.58
9	576	102.24	269.1		86.55
10	599	86.31	218.2		87.64
11	639	52.20	123.7		88.94
12	712	121.34	258.3		91.06
13	932	48.95	79.6		94.05
14	1,023	40.21	59.5		95.13
15	1,259	81.92	98.6		96.71
16	1,567	27.55	26.6		98.77
17	1,811	14.32	12.0		100.40
18	1,892	17.99	14.4		100.94
19	10,380	75.00	10.9	Upper Marker	113.00

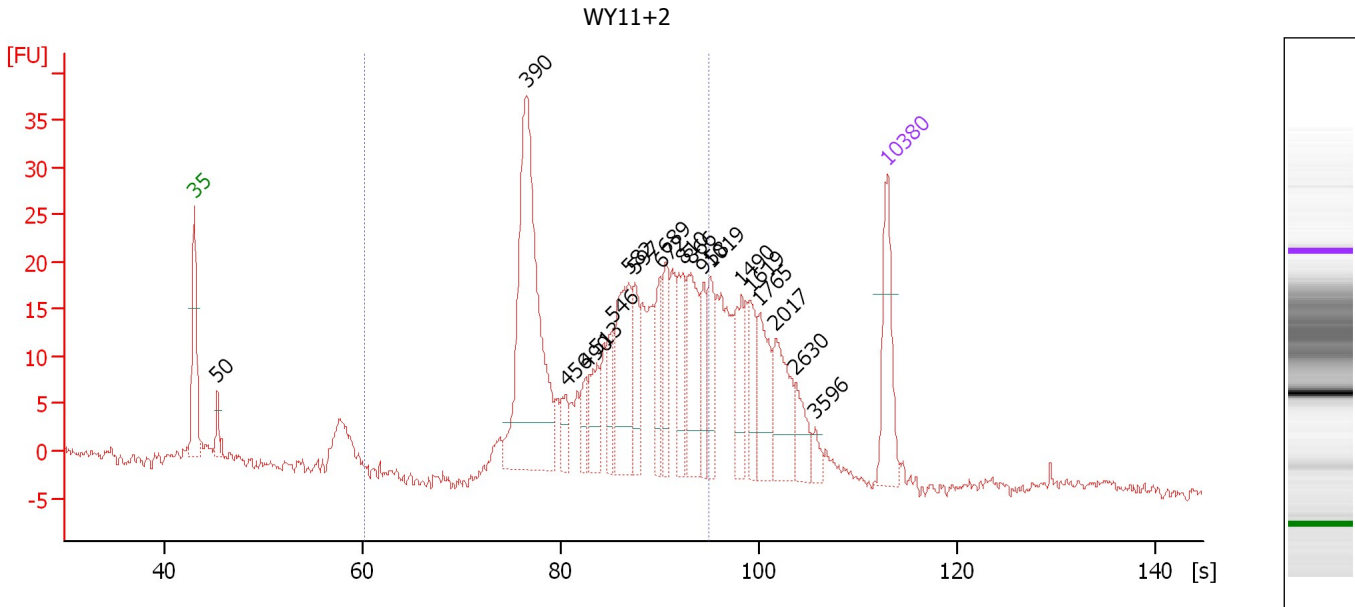
Region table for sample 9 : WY20

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	528	585.5	7,780.4	2,442.44	78	31.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
 Modified: 4/6/2016 12:44:15 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : WY11+2

Number of peaks found: 20 Corr. Area 1: 377.5
 Noise: 0.6

Peak table for sample 10 : WY11+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	50	24.70	752.3		45.33
3	390	395.65	1,537.6		76.51
4	456	30.59	101.8		80.52
5	490	26.19	80.9		82.53
6	513	49.67	146.7		83.67
7	546	41.16	114.3		85.18
8	582	118.30	307.8		86.87
9	597	50.33	127.8		87.52
10	672	51.50	116.1		90.01
11	689	53.34	117.3		90.55
12	810	59.82	111.9		92.40
13	866	83.94	146.9		93.15
14	958	41.76	66.1		94.40
15	1,019	47.95	71.3		95.11
16	1,490	49.98	50.8		98.25
17	1,619	43.71	40.9		99.12
18	1,765	57.92	49.7		100.10
19	2,017	68.58	51.5		101.72
20	2,630	31.11	17.9		103.73
21	3,596	12.01	5.1		105.68
22	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
Modified: 4/6/2016 12:44:15 PM

Electropherogram Summary Continued ...

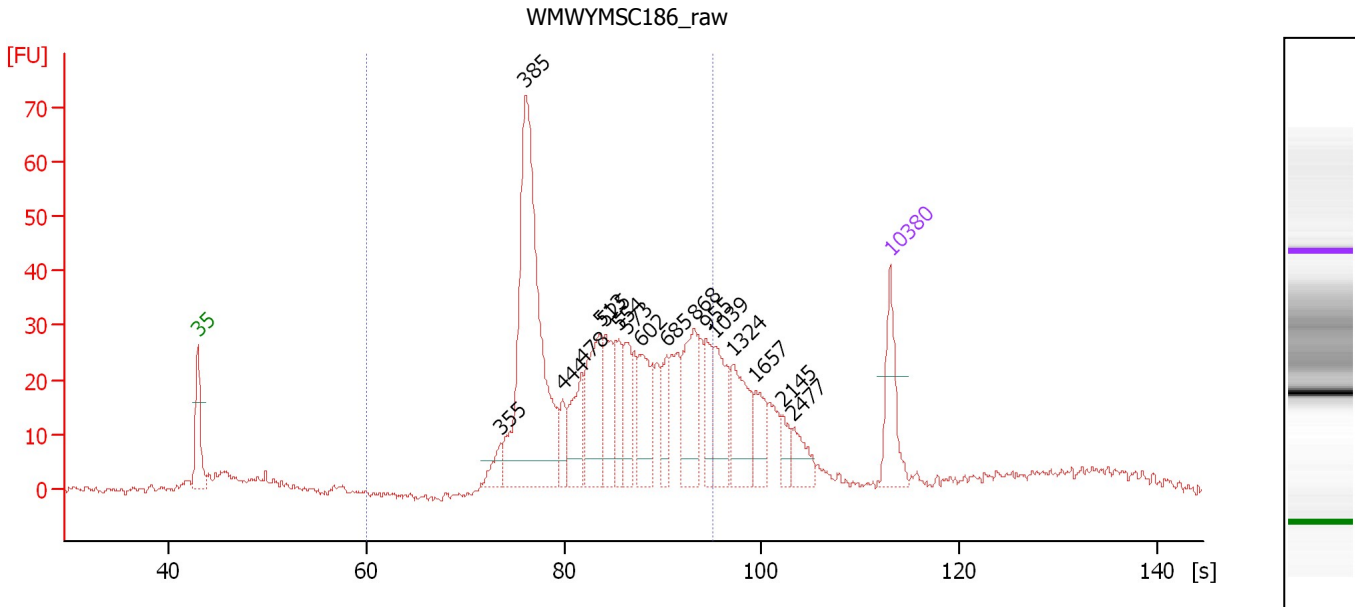
... Region table for sample 10 : WY11+2

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	592	377.5	3,604.3	1,255.00	67	29.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
 Modified: 4/6/2016 12:44:15 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : WMWYMSC186_raw

Number of peaks found: 17 Corr. Area 1: 637.8
 Noise: 0.6

Peak table for sample 11 : WMWYMSC186_raw

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	355	33.63	143.7		73.63
3	385	618.23	2,431.9		76.13
4	444	34.99	119.4		79.87
5	478	96.51	305.7		81.83
6	513	149.81	442.4		83.67
7	525	94.15	271.8		84.22
8	554	59.16	161.7		85.58
9	573	72.24	190.9		86.44
10	602	105.15	264.5		87.75
11	685	59.04	130.6		90.41
12	868	117.64	205.4		93.18
13	955	58.58	92.9		94.37
14	1,039	89.69	130.7		95.24
15	1,324	96.38	110.3		97.14
16	1,657	46.84	42.8		99.37
17	2,145	23.53	16.6		102.14
18	2,477	36.79	22.5		103.22
19	10,380	75.00	10.9	Upper Marker	113.00

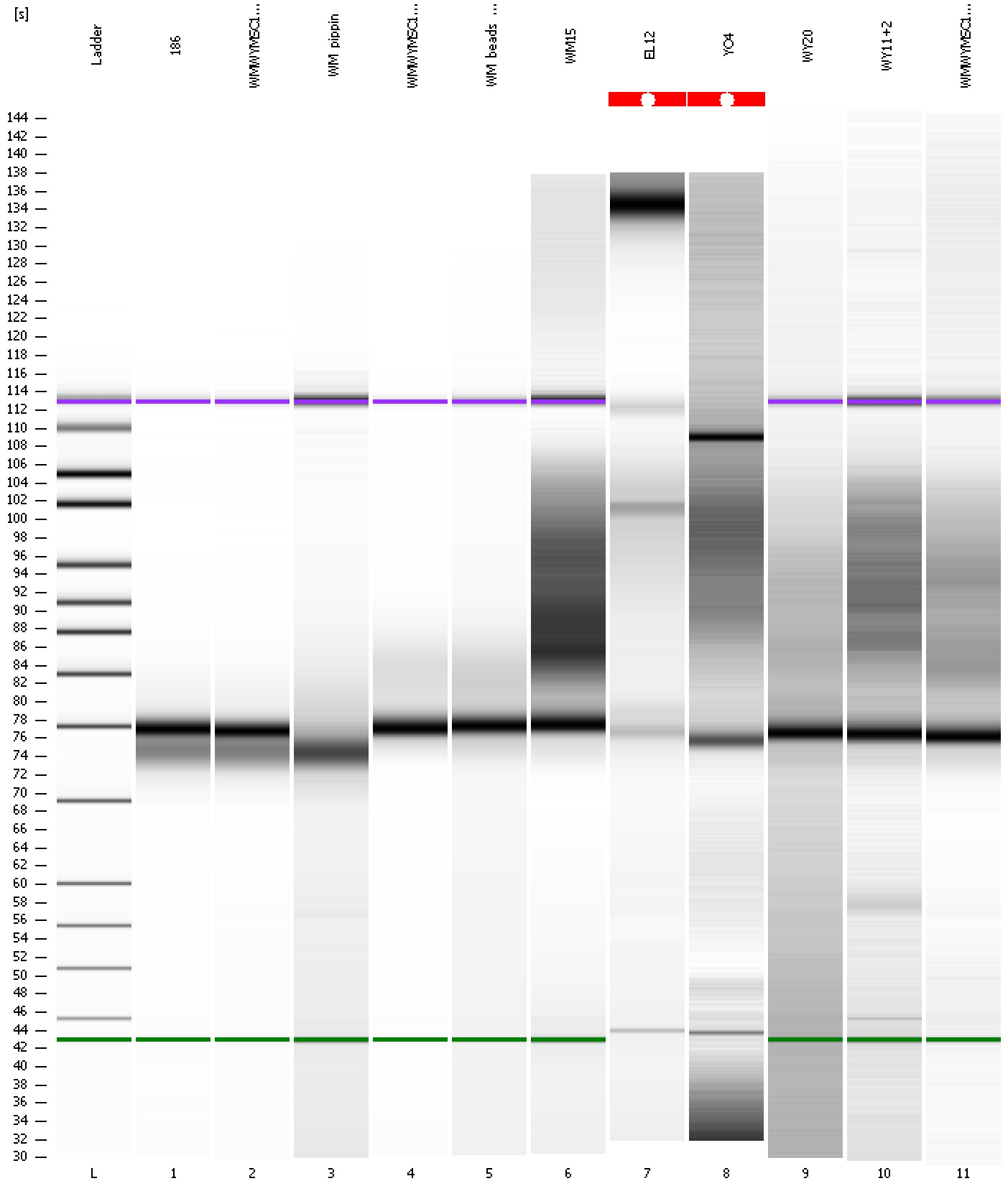
Region table for sample 11 : WMWYMSC186_raw

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	559	637.8	5,282.2	1,740.40	70	30.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
Modified: 4/6/2016 12:44:15 PM

Gel Image

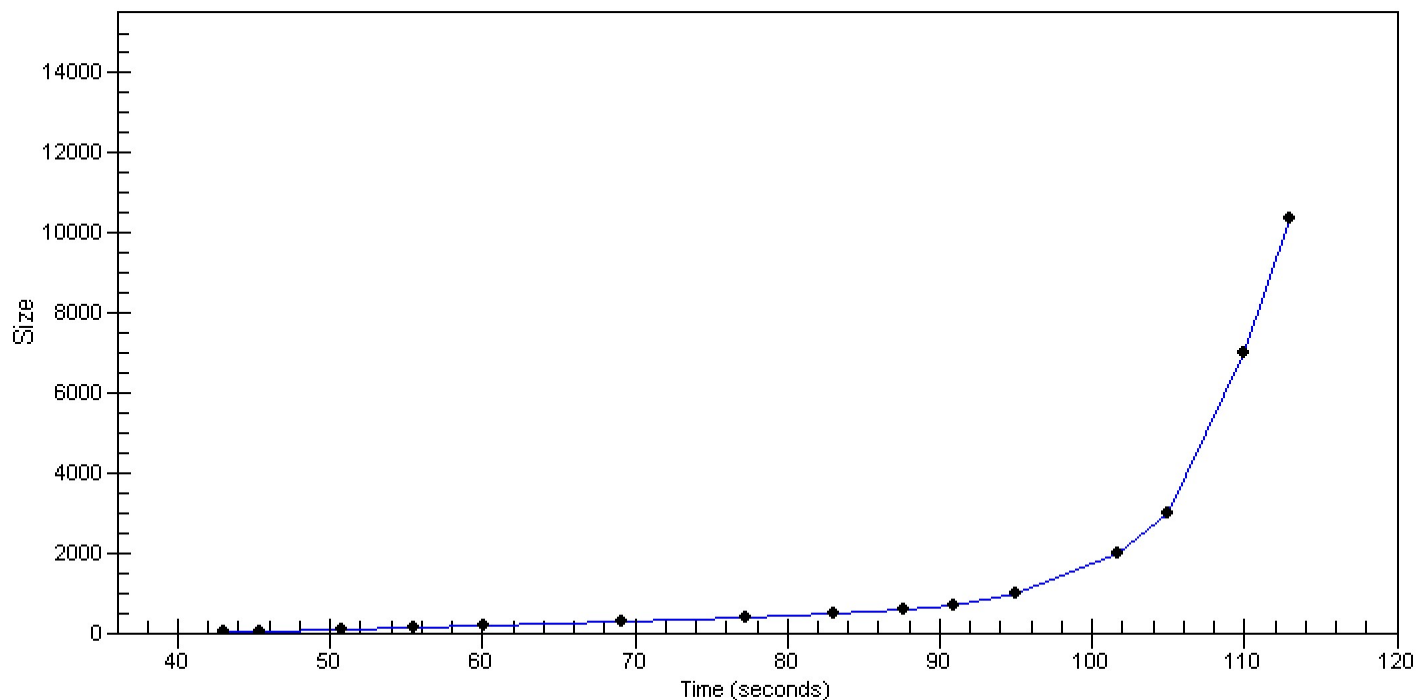


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
Modified: 4/6/2016 12:44:15 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-04-06\2016-04-06_001.xad

Created: 4/6/2016 12:02:54 PM
 Modified: 4/6/2016 12:44:15 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		4/6/2016 12:44:13 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\2016-04-06\2016-04-06_001.xad)		Instrument	Run		4/6/2016 12:02:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/6/2016 12:02:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/6/2016 12:02:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/6/2016 12:02:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/6/2016 12:02:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/6/2016 12:02:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/6/2016 12:02:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1