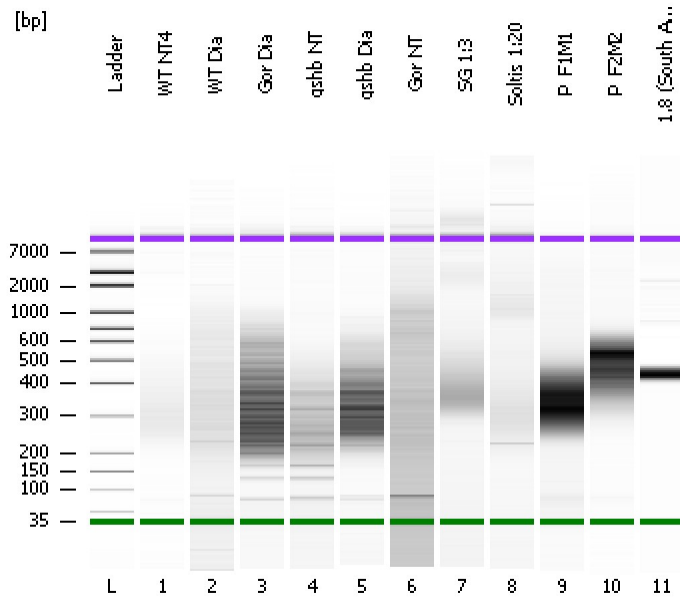


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
Modified: 9/23/2014 7:58:30 AM

Electrophoresis File Run Summary



Instrument Information:

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

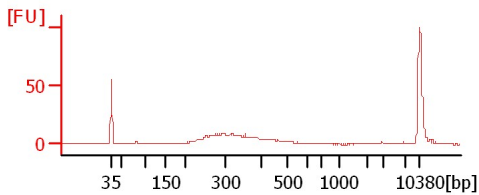
Assay Information:

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

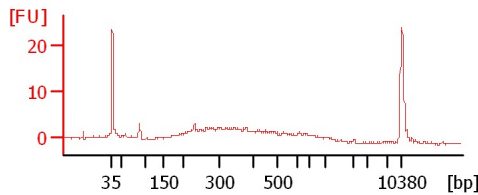
Chip Information:

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

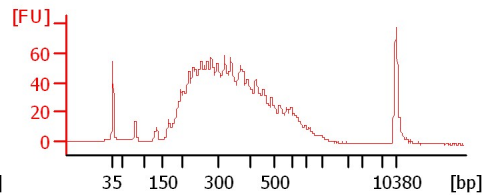
WT NT4



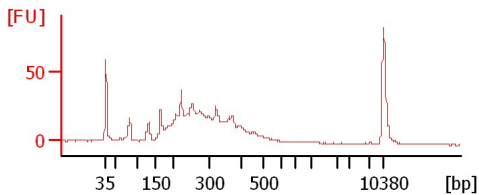
WT Dia



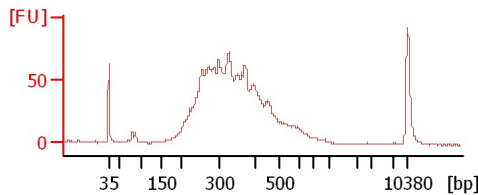
Gor Dia



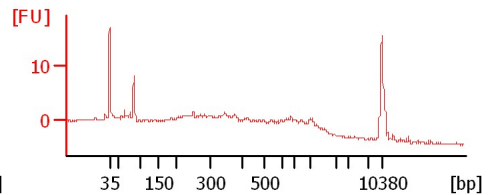
qshb NT



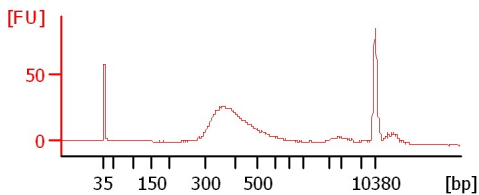
qshb Dia



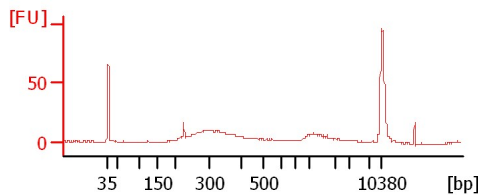
Gor NT



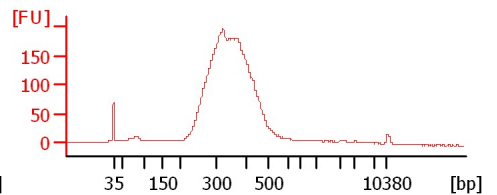
SG 1:3



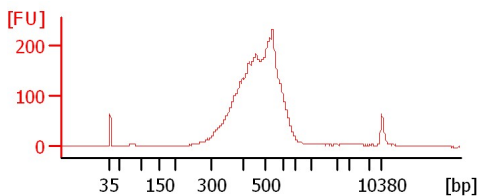
Soltis 1:20



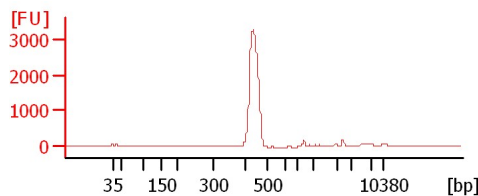
P_F1M1



P_F2M2



1.8 (South Africa)



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
Modified: 9/23/2014 7:58:30 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
WT NT4		<input type="checkbox"/>	✓			
WT Dia		<input type="checkbox"/>	✓			
Gor Dia		<input type="checkbox"/>	✓			
gshb NT		<input type="checkbox"/>	✓			
gshb Dia		<input type="checkbox"/>	✓			
Gor NT		<input type="checkbox"/>	✓			
SG 1:3		<input type="checkbox"/>	✓			
Soltis 1:20		<input type="checkbox"/>	✓			
P_F1M1		<input type="checkbox"/>	✓			
P_F2M2		<input type="checkbox"/>	✓			
1.8 (South Africa)		<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\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
Modified: 9/23/2014 7:58:30 AM

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/ μ l] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/ μ l] : 125
Upper Marker Concentration [pg/ μ l] : 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

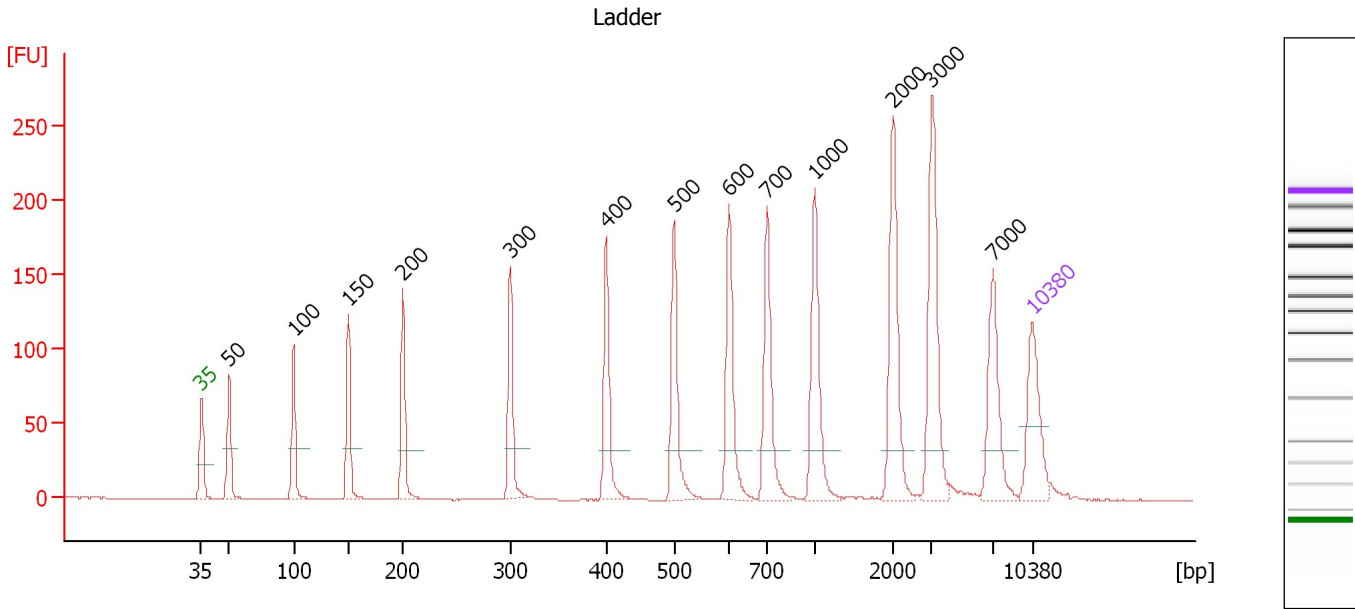
Ladder

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\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
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Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

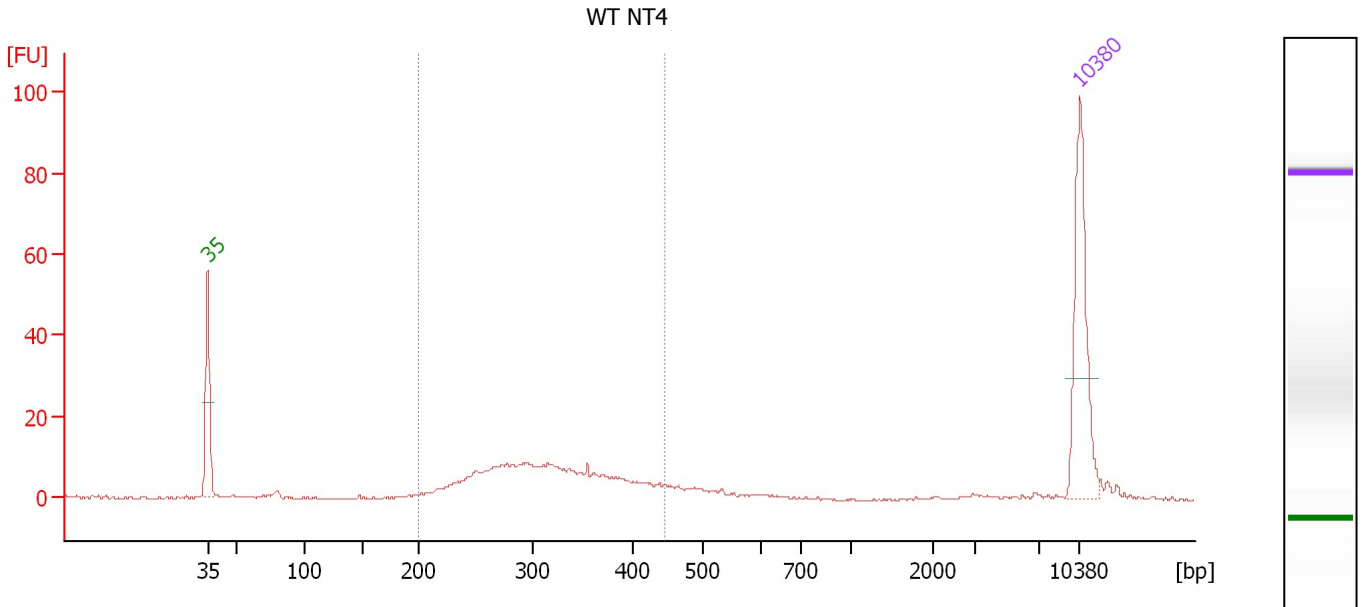
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
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Electropherogram Summary Continued ...



Overall Results for sample 1 : WT NT4

Number of peaks found: 0 Corr. Area 1: 165.0
 Noise: 0.2

Peak table for sample 1 : WT NT4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker

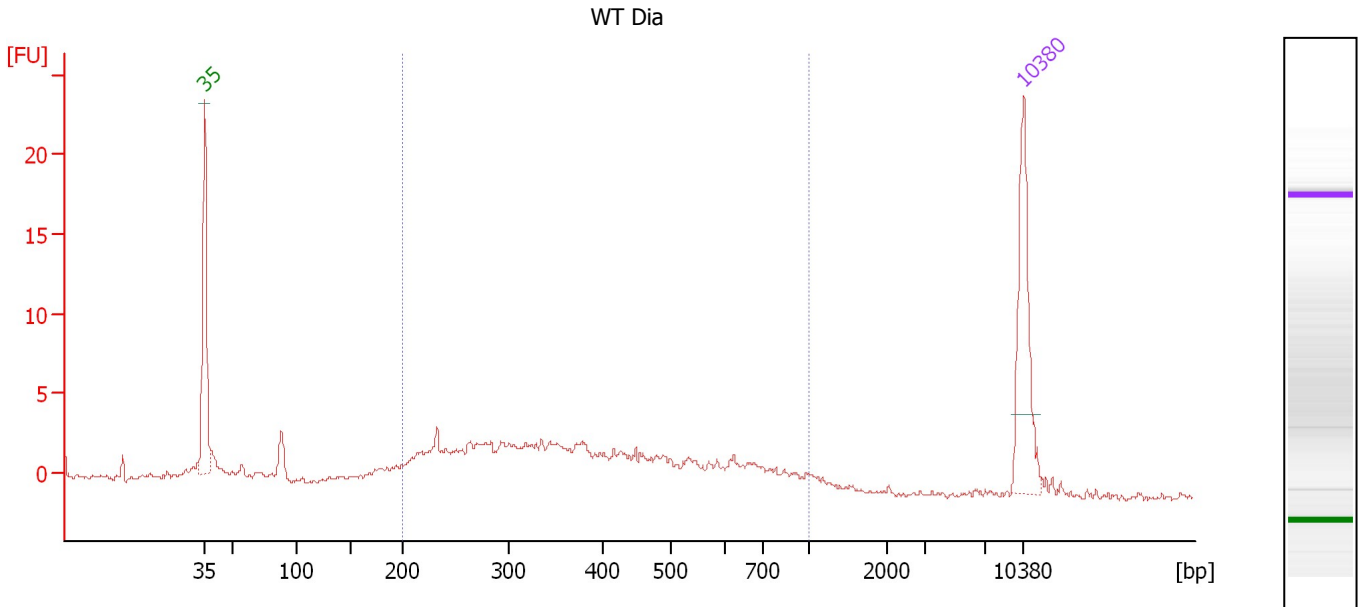
Region table for sample 1 : WT NT4

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	315	446	165.0	81	17.9	199.07	998.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
 Modified: 9/23/2014 7:58:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : WT Dia

Number of peaks found: 0 Corr. Area 1: 93.6
 Noise: 0.2

Peak table for sample 2 : WT Dia

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker

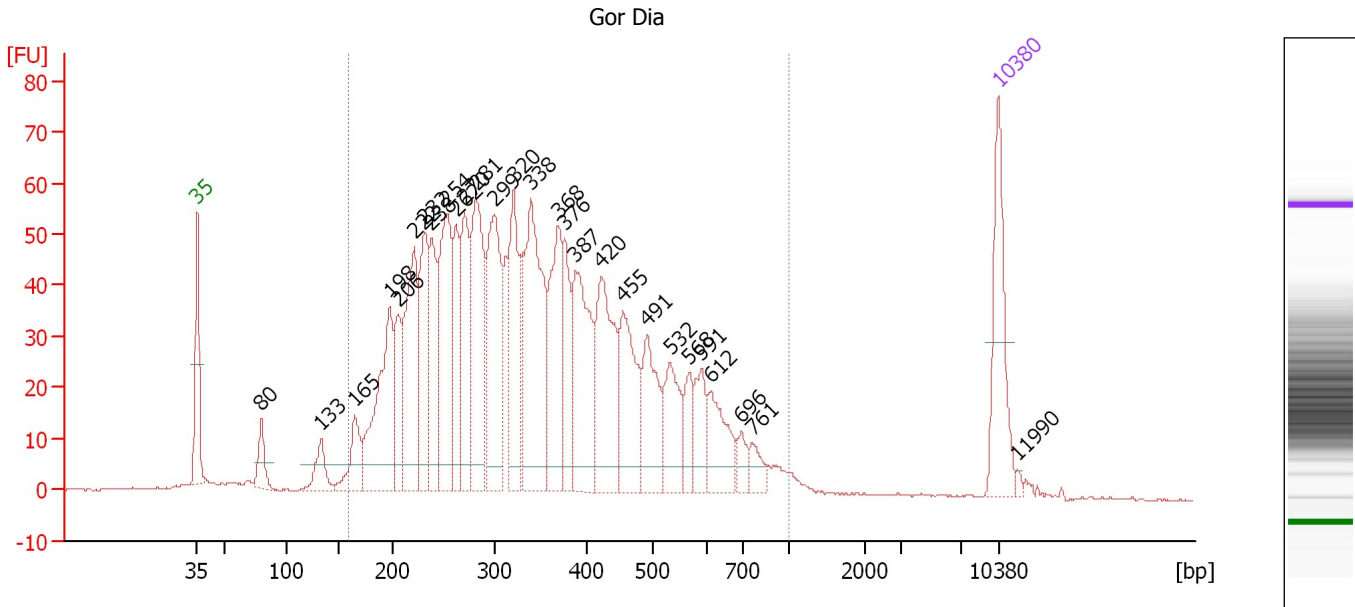
Region table for sample 2 : WT Dia

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	414	1,000	93.6	76	40.7	456.38	2,040.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
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Electropherogram Summary Continued ...



Overall Results for sample 3 : Gor Dia

Number of peaks found: 28 Corr. Area 1: 1,775.6
 Noise: 0.2

Peak table for sample 3 : Gor Dia

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	80	35.77	678.1	
3	133	36.83	418.7	
4	165	51.05	468.5	
5	198	173.87	1,329.5	
6	206	68.74	506.0	
7	222	159.80	1,092.0	
8	232	121.69	794.8	
9	238	95.68	608.8	
10	254	171.67	1,025.9	
11	262	77.98	450.5	
12	270	108.75	610.3	
13	281	171.92	926.2	
14	299	167.47	848.0	
15	320	116.61	552.2	
16	338	210.63	942.8	
17	368	124.25	511.5	
18	376	69.06	278.6	
19	387	142.38	557.2	
20	420	136.62	492.6	
21	455	102.53	341.8	
22	491	79.58	245.5	
23	532	61.60	175.4	
24	568	30.82	82.2	
25	591	38.31	98.2	
26	612	55.40	137.2	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad


Created: 9/23/2014 7:12:41 AM
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Electropherogram Summary Continued ...

... Peak table for sample 3 : Gor Dia

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	696	14.38	31.3	
28	761	16.67	33.2	
29	10,380	75.00	10.9	Upper Marker
30	11,990	0.00	0.0	

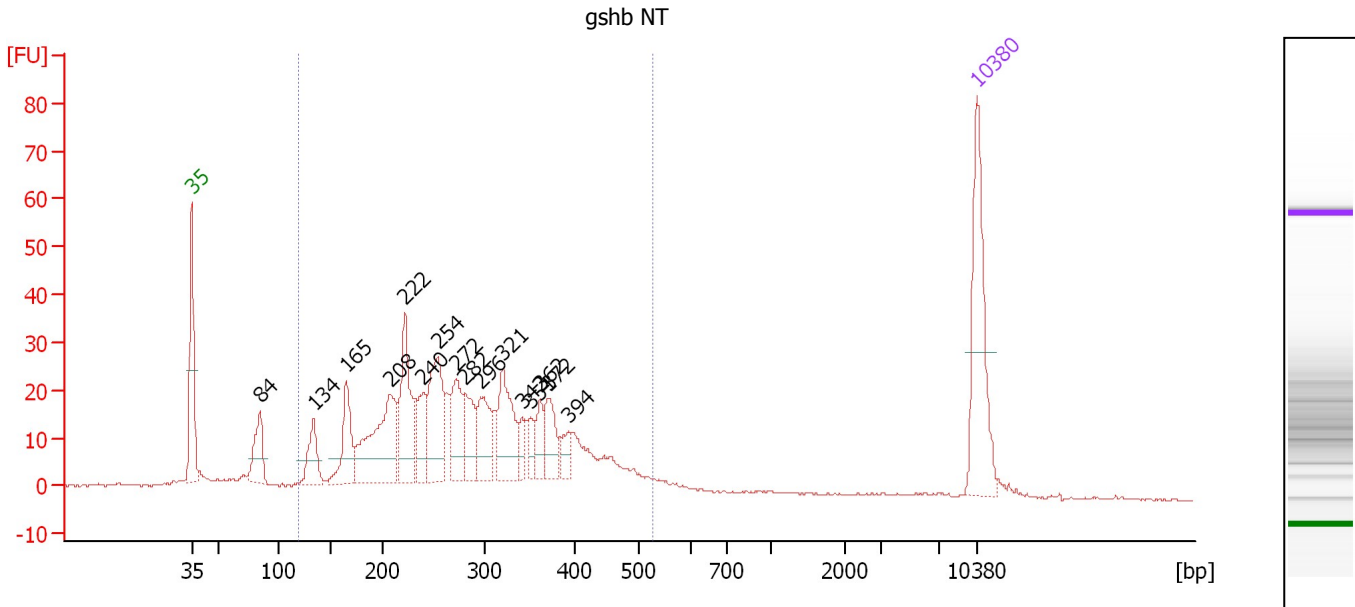
Region table for sample 3 : Gor Dia

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
160	362	1,000	1,775.6	95	38.1	2,719.47	13,630.4	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
 Modified: 9/23/2014 7:58:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : gshb NT

Number of peaks found: 16 Corr. Area 1: 662.9
 Noise: 0.2

Peak table for sample 4 : gshb NT

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	84	46.48	833.5	
3	134	39.37	446.2	
4	165	56.40	517.4	
5	208	116.35	848.4	
6	222	82.53	562.1	
7	240	34.27	216.6	
8	254	83.98	500.1	
9	272	48.23	268.4	
10	282	38.82	208.8	
11	296	46.74	239.0	
12	321	62.44	295.0	
13	342	14.10	62.5	
14	351	13.92	60.0	
15	362	19.61	82.1	
16	372	32.88	134.1	
17	394	14.25	54.8	
18	10,380	75.00	10.9	Upper Marker

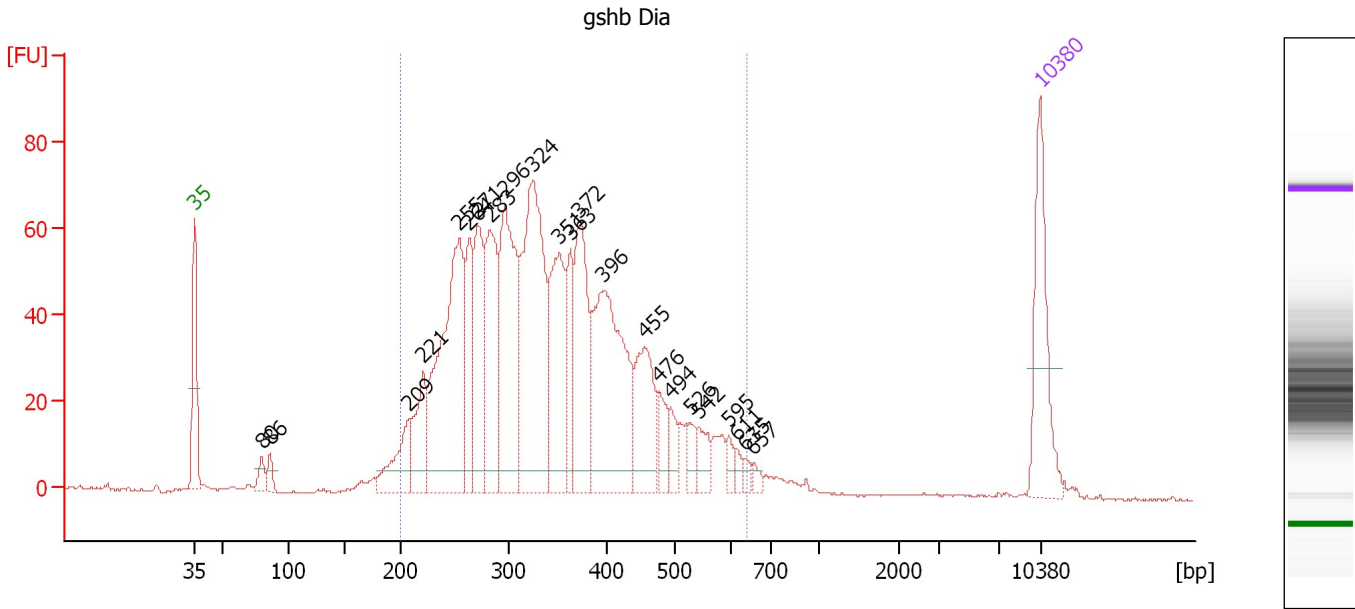
Region table for sample 4 : gshb NT

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
118	288	528	662.9	88	29.9	934.83	5,684.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
 Modified: 9/23/2014 7:58:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : gshb Dia

Number of peaks found: 23 Corr. Area 1: 1,596.8
 Noise: 0.2

Peak table for sample 5 : gshb Dia


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	80	16.09	306.1	
3	86	15.47	272.0	
4	209	63.54	460.9	
5	221	66.03	452.7	
6	255	279.53	1,663.7	
7	264	78.97	453.5	
8	271	113.55	634.6	
9	283	139.79	749.0	
10	296	189.48	970.2	
11	324	265.38	1,239.2	
12	351	133.98	577.8	
13	363	54.86	229.1	
14	372	128.08	522.1	
15	396	209.77	803.0	
16	455	85.88	285.9	
17	476	27.23	86.7	
18	494	19.86	60.9	
19	526	16.88	48.7	
20	542	20.34	56.9	
21	595	9.68	24.6	
22	611	7.96	19.7	
23	635	6.05	14.4	
24	657	5.86	13.5	
25	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
Modified: 9/23/2014 7:58:30 AM

Electropherogram Summary Continued ...

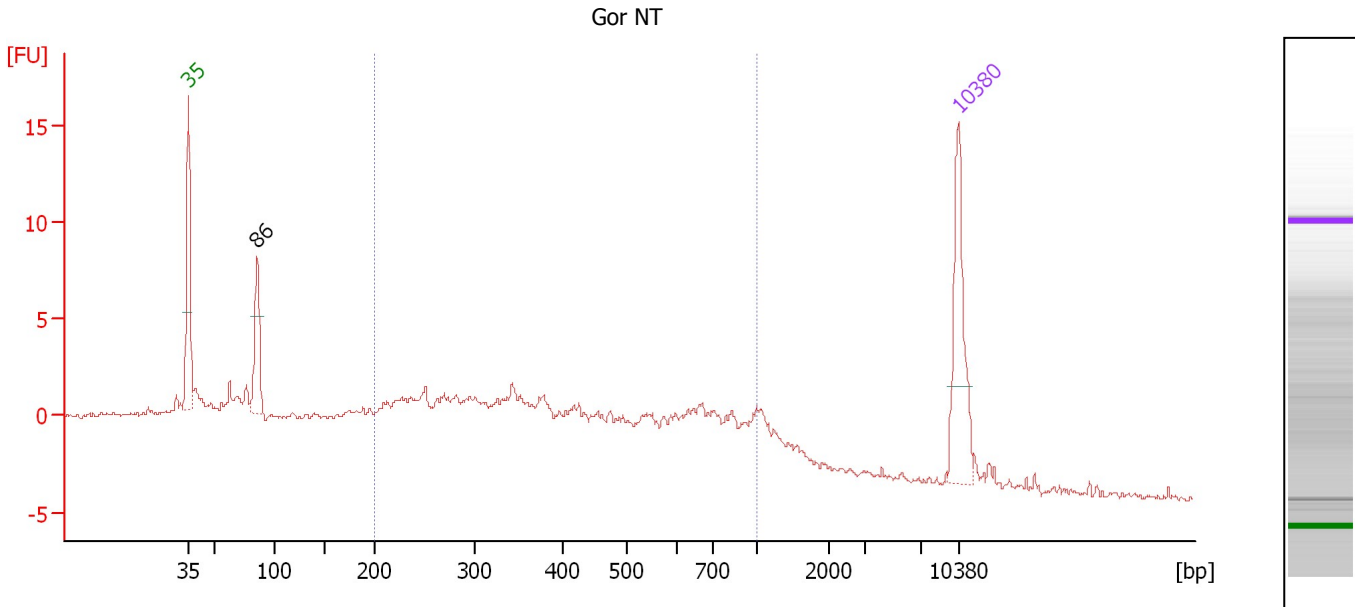
... Region table for sample 5 : gshb Dia

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/ μ l]	Molarity [pmol/l]	Color
200	348	639	1,596.8	95	26.0	1,932.51	9,198.8	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
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Electropherogram Summary Continued ...



Overall Results for sample 6 : Gor NT

Number of peaks found: 1 Corr. Area 1: 106.1
 Noise: 0.1

Peak table for sample 6 : Gor NT

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	86	75.41	1,321.9	
3	10,380	75.00	10.9	Upper Marker

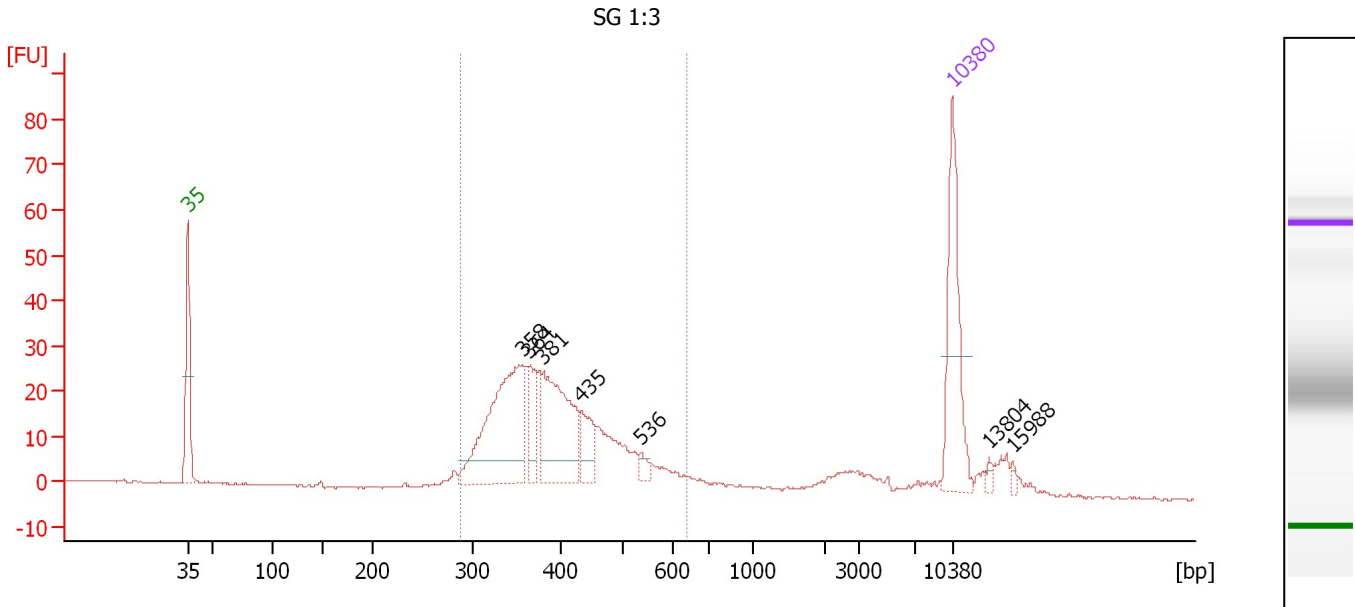
Region table for sample 6 : Gor NT

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	458	1,000	106.1	60	43.1	672.52	2,840.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 7 : SG 1:3

Number of peaks found: 7 Corr. Area 1: 402.7
 Noise: 0.2

Peak table for sample 7 : SG 1:3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	358	169.05	715.9	
3	364	35.45	147.6	
4	381	113.53	451.7	
5	435	30.58	106.6	
6	536	7.40	20.9	
7	10,380	75.00	10.9	Upper Marker
8	13,804	0.00	0.0	
9	15,988	0.00	0.0	

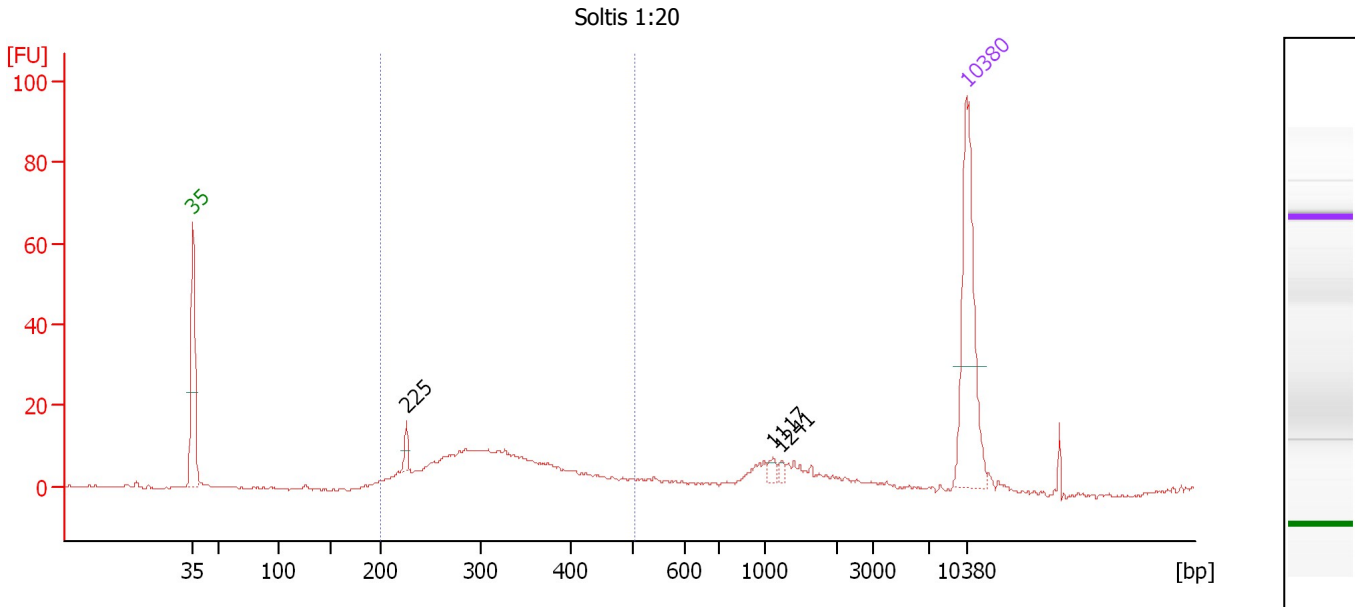
Region table for sample 7 : SG 1:3

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
288	402	640	402.7	81	18.3	494.08	1,933.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
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Electropherogram Summary Continued ...



Overall Results for sample 8 : Soltis 1:20

Number of peaks found: 3 Corr. Area 1: 188.4
 Noise: 0.3

Peak table for sample 8 : Soltis 1:20

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	225	8.11	54.5	
3	1,117	4.11	5.6	
4	1,241	2.52	3.1	
5	10,380	75.00	10.9	Upper Marker

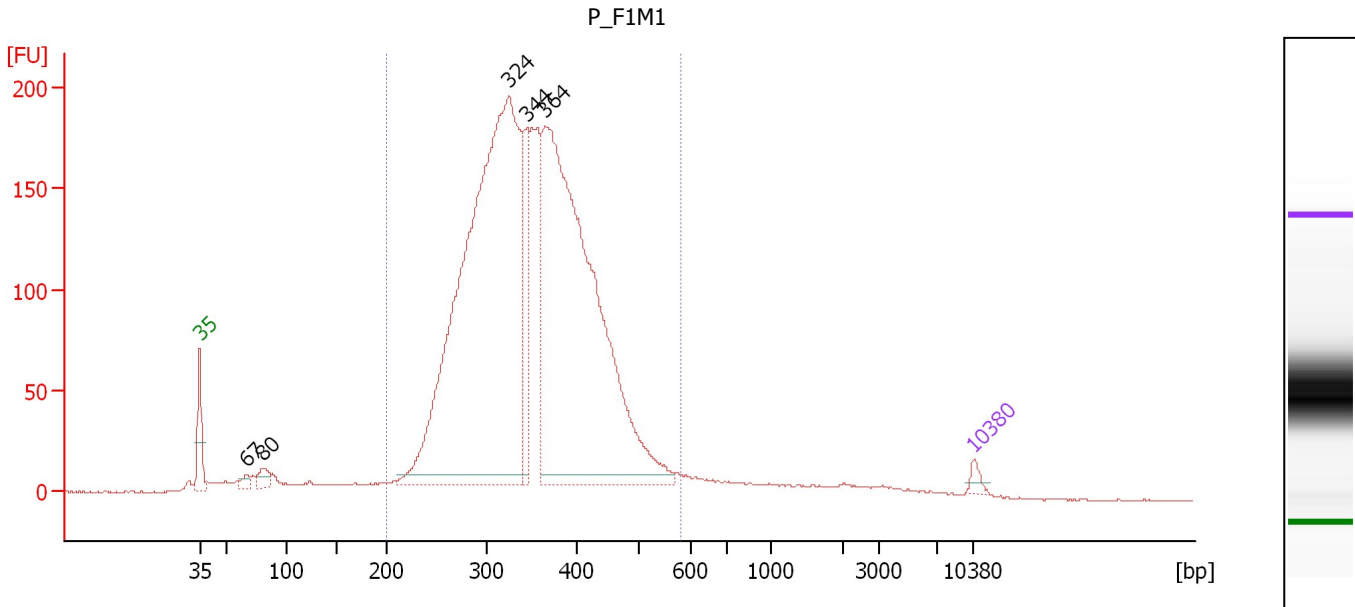
Region table for sample 8 : Soltis 1:20

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	320	504	188.4	70	21.3	209.62	1,053.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 9 : P_F1M1

Number of peaks found: 5 Corr. Area 1: 3,495.9
 Noise: 0.4

Peak table for sample 9 : P_F1M1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	67	117.84	2,659.3	
3	80	216.25	4,072.1	
4	324	11,795.60	55,138.0	
5	344	1,115.55	4,914.2	
6	364	9,420.53	39,175.1	
7	10,380	75.00	10.9	Upper Marker

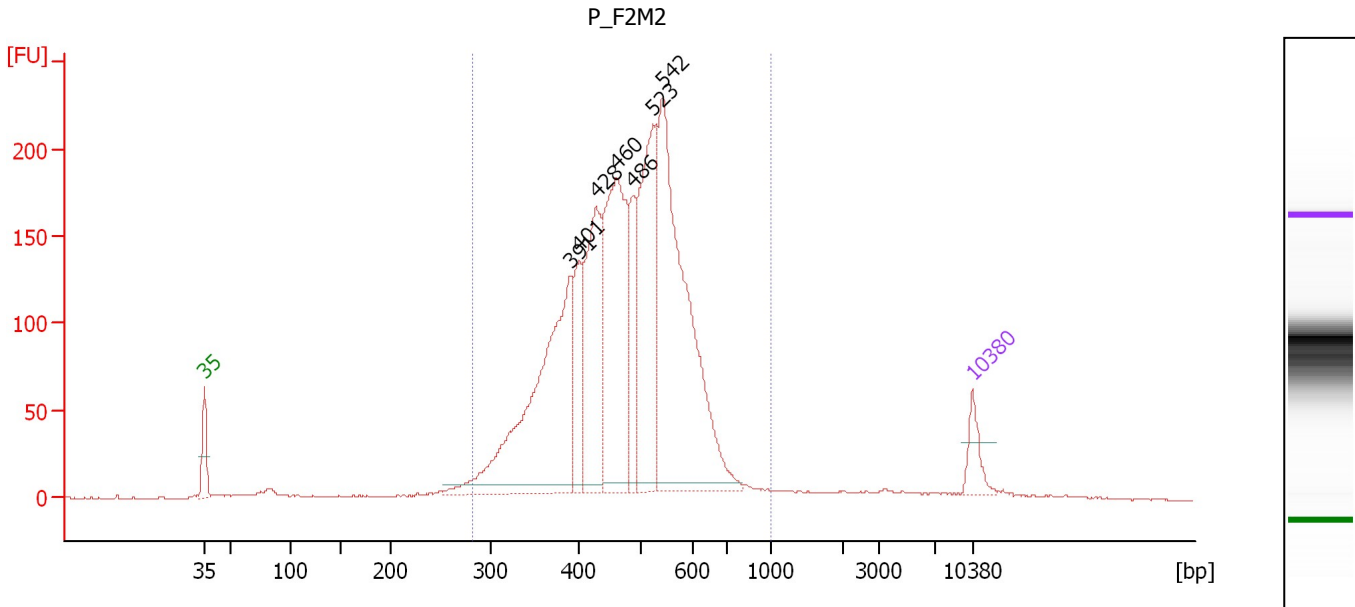
Region table for sample 9 : P_F1M1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	351	580	3,495.9	90	18.8	25,964.84	117,417.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
 Modified: 9/23/2014 7:58:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : P_F2M2

Number of peaks found: 7 Corr. Area 1: 3,136.2
 Noise: 0.4

Peak table for sample 10 : P_F2M2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	391	1,216.93	4,720.2	
3	401	281.83	1,064.2	
4	428	605.65	2,145.7	
5	460	930.46	3,064.4	
6	486	252.30	785.8	
7	523	749.08	2,170.1	
8	542	1,382.31	3,866.2	
9	10,380	75.00	10.9	Upper Marker

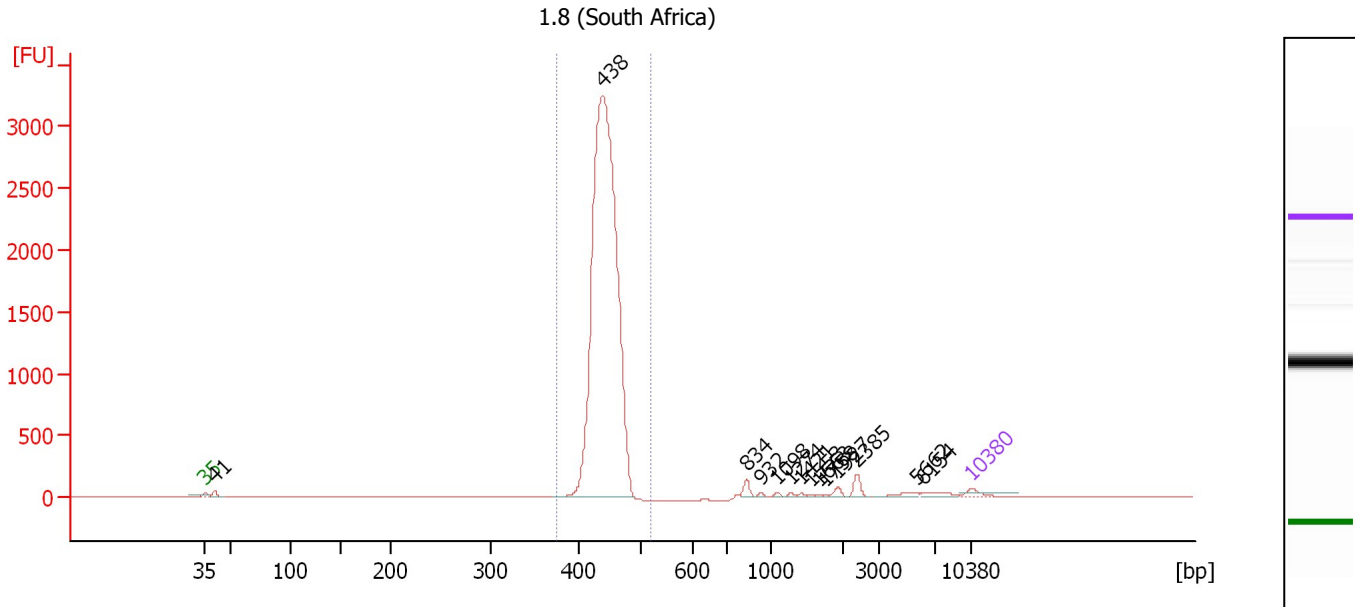
Region table for sample 10 : P_F2M2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
282	478	1,000	3,136.2	94	19.7	5,705.17	19,061.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
 Modified: 9/23/2014 7:58:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 1.8 (South Africa)

Number of peaks found: 14 Corr. Area 1: 10,650.0
 Noise: 0.3

Peak table for sample 11 : 1.8 (South Africa)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	41	105.12	3,923.0	
3	438	10,407.63	35,982.3	
4	834	87.44	158.8	
5	932	17.49	28.4	
6	1,098	18.90	26.1	
7	1,274	17.61	20.9	
8	1,421	16.35	17.4	
9	1,553	12.88	12.6	
10	1,663	11.15	10.2	
11	1,758	9.80	8.4	
12	1,927	45.00	35.4	
13	2,385	95.55	60.7	
14	5,662	60.29	16.1	
15	6,154	81.11	20.0	
16	10,380	75.00	10.9	Upper Marker

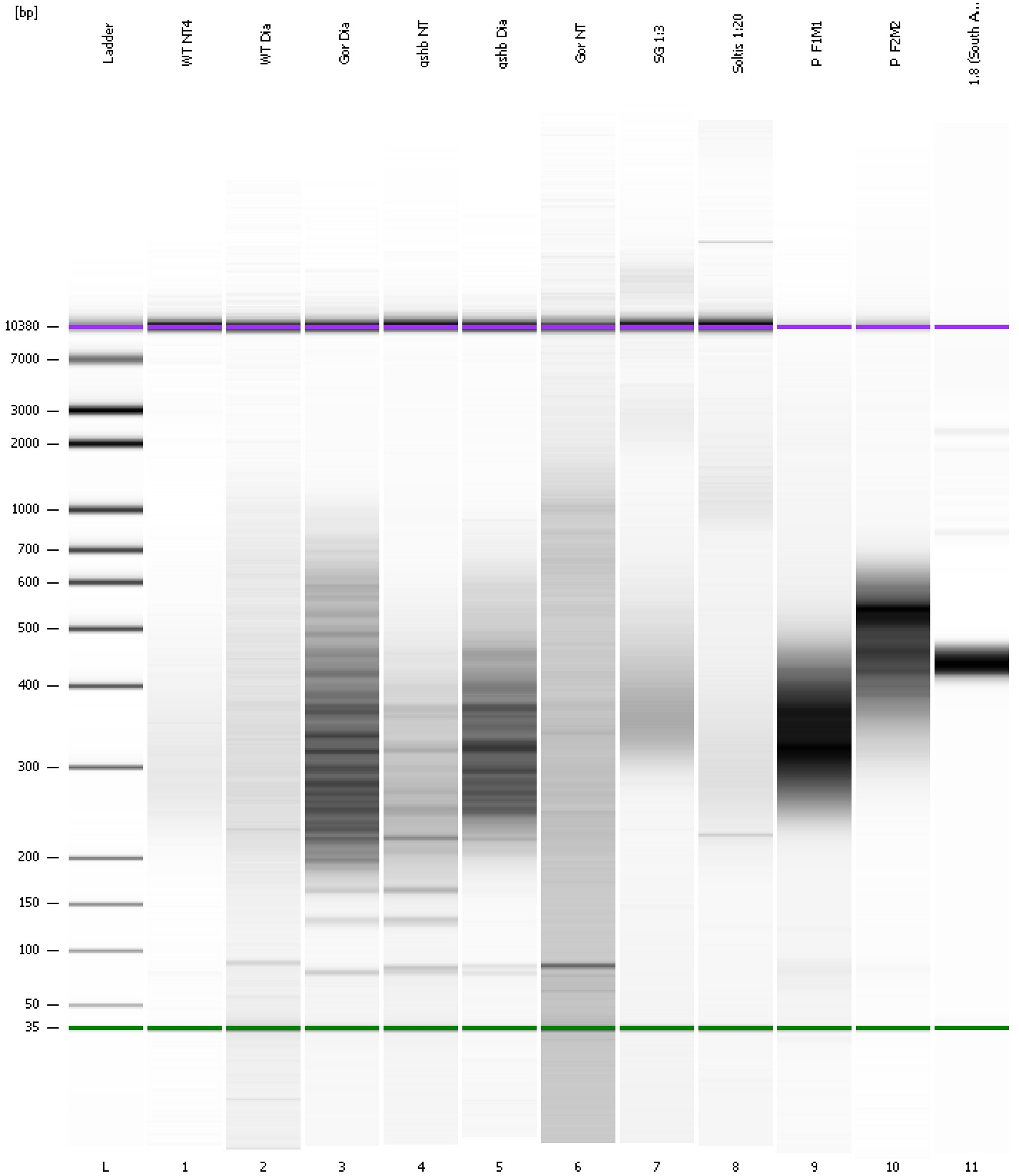
Region table for sample 11 : 1.8 (South Africa)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
376	442	517	10,650.0	93	3.8	10,393.18	35,610.0	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
Modified: 9/23/2014 7:58:30 AM

Gel Image

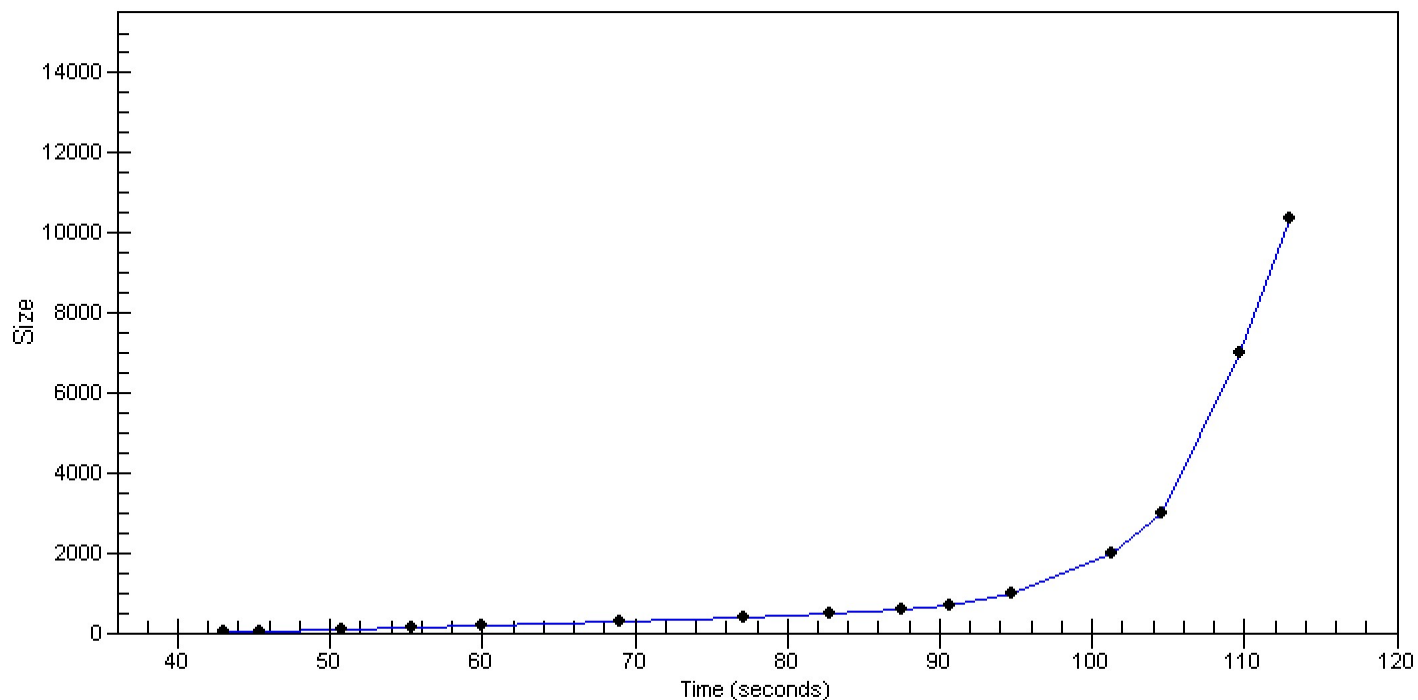


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
Modified: 9/23/2014 7:58:30 AM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad

Created: 9/23/2014 7:12:41 AM
 Modified: 9/23/2014 7:58:30 AM

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		9/23/2014 7:54:00 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-09-23\2014-09-23_001.xad)		Instrument	Run		9/23/2014 7:12:47 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/23/2014 7:12:47 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/23/2014 7:12:47 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/23/2014 7:12:47 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/23/2014 7:12:47 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/23/2014 7:12:47 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/23/2014 7:12:47 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1