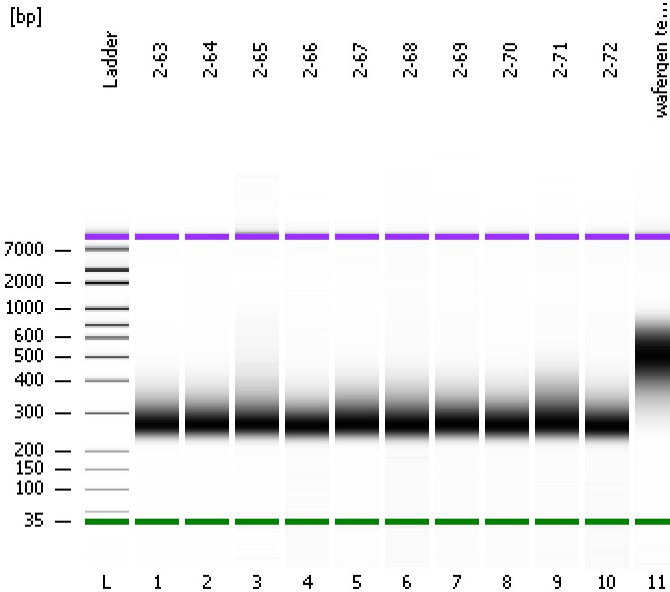


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
Modified: 9/24/2014 10:11:21 AM

Electrophoresis File Run Summary



Instrument Information:

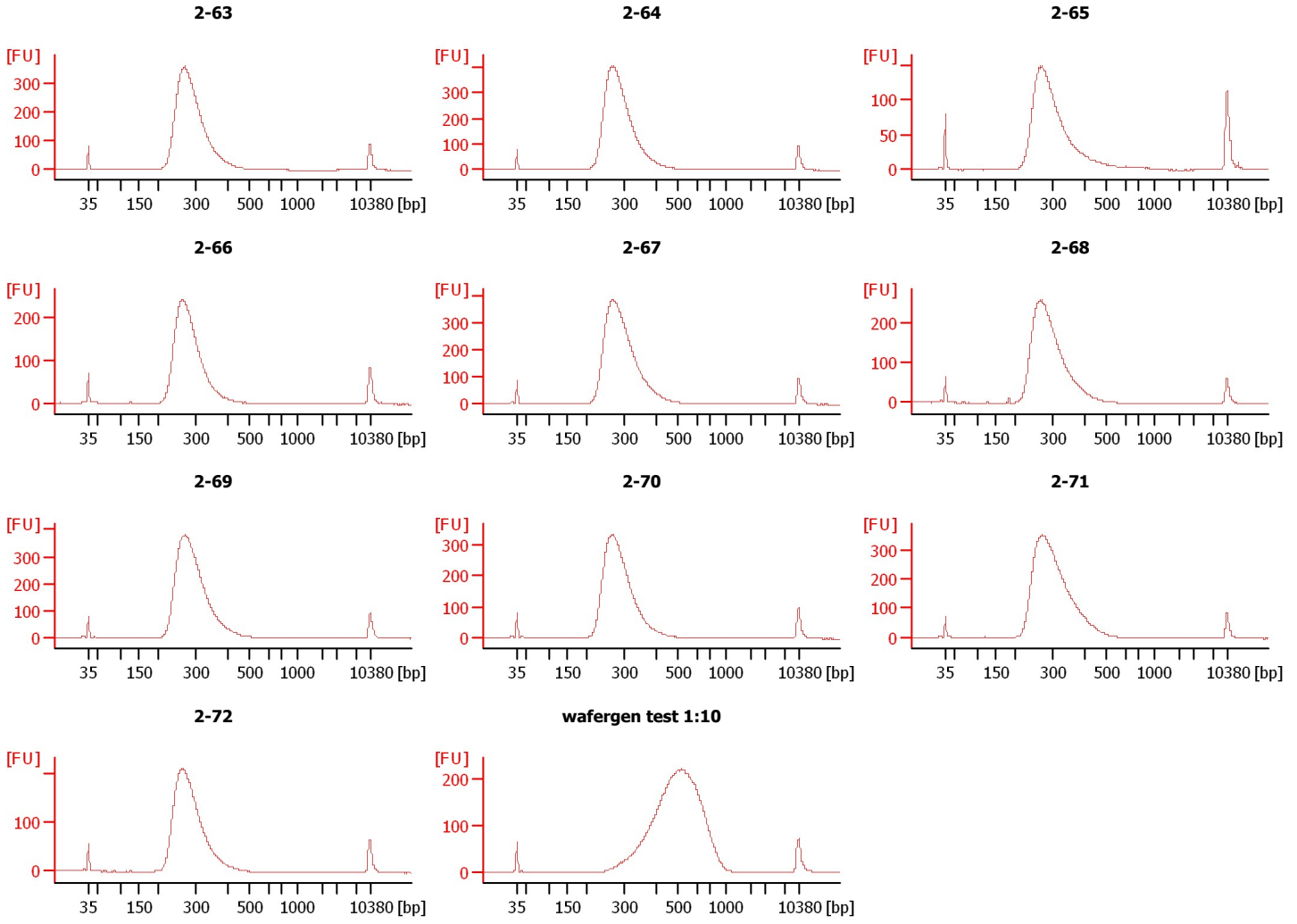
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
 Modified: 9/24/2014 10:11:21 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
2-63		<input type="checkbox"/>	✓			
2-64		<input type="checkbox"/>	✓			
2-65		<input type="checkbox"/>	✓			
2-66		<input type="checkbox"/>	✓			
2-67		<input type="checkbox"/>	✓			
2-68		<input type="checkbox"/>	✓			
2-69		<input type="checkbox"/>	✓			
2-70		<input type="checkbox"/>	✓			
2-71		<input type="checkbox"/>	✓			
2-72		<input type="checkbox"/>	✓			
wafergen test 1:10		<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\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
Modified: 9/24/2014 10:11:21 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/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

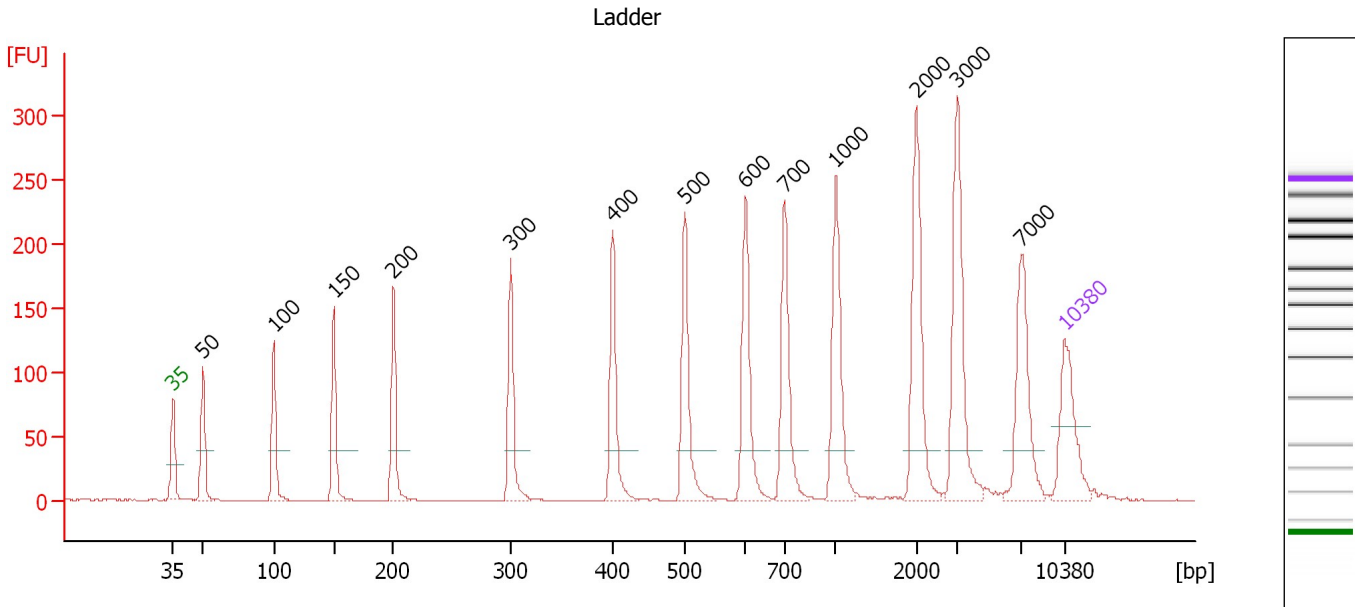
Ladder

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\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
 Modified: 9/24/2014 10:11:21 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

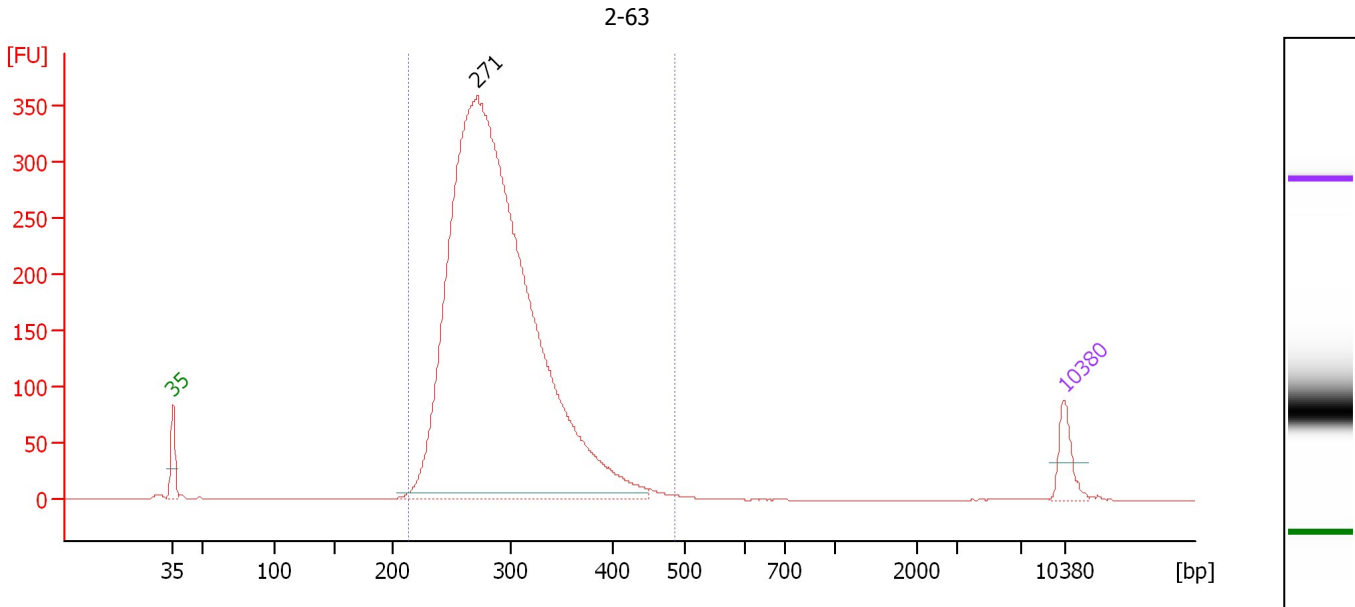
Peak table for Ladder

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\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
 Modified: 9/24/2014 10:11:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 2-63

Number of peaks found: 1 Corr. Area 1: 4,101.0
 Noise: 0.2

Peak table for sample 1 : 2-63

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	271	5,356.73	29,911.9	
3	10,380	75.00	10.9	Upper Marker

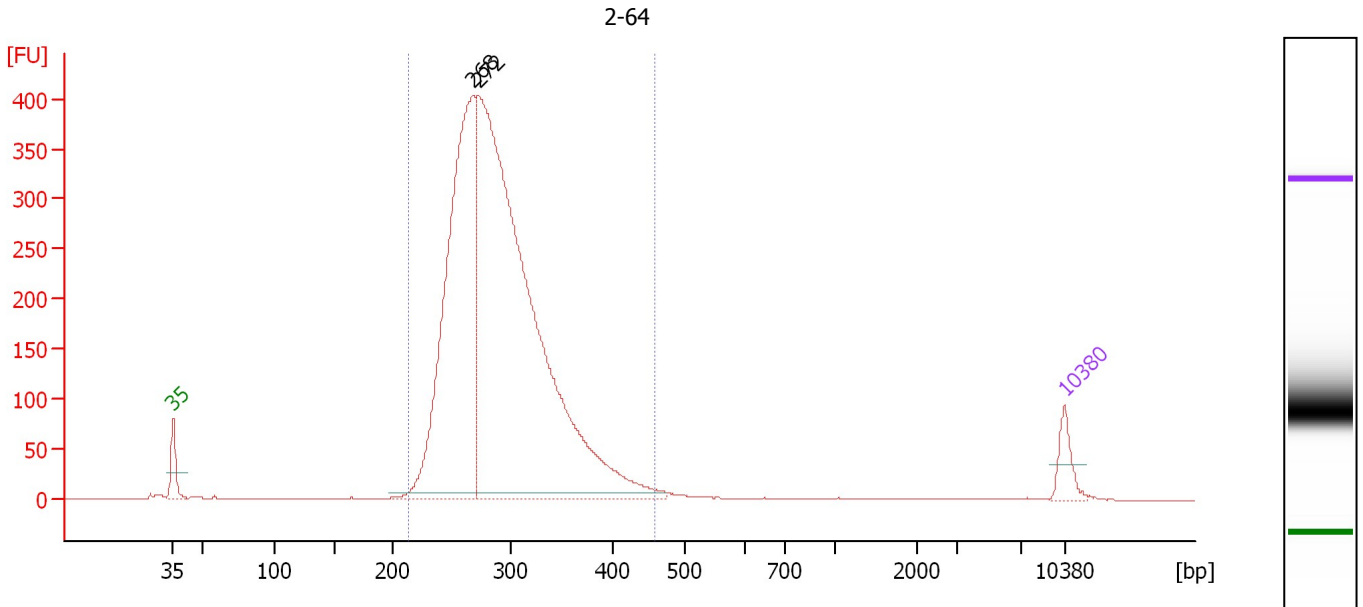
Region table for sample 1 : 2-63

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
213	292	485	4,101.0	98	14.4	5,193.72	27,547.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
 Modified: 9/24/2014 10:11:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 2-64

Number of peaks found: 2 Corr. Area 1: 4,658.4
 Noise: 0.2

Peak table for sample 2 : 2-64

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	268	2,171.75	12,286.1	
3	272	4,068.70	22,687.9	
4	10,380	75.00	10.9	Upper Marker

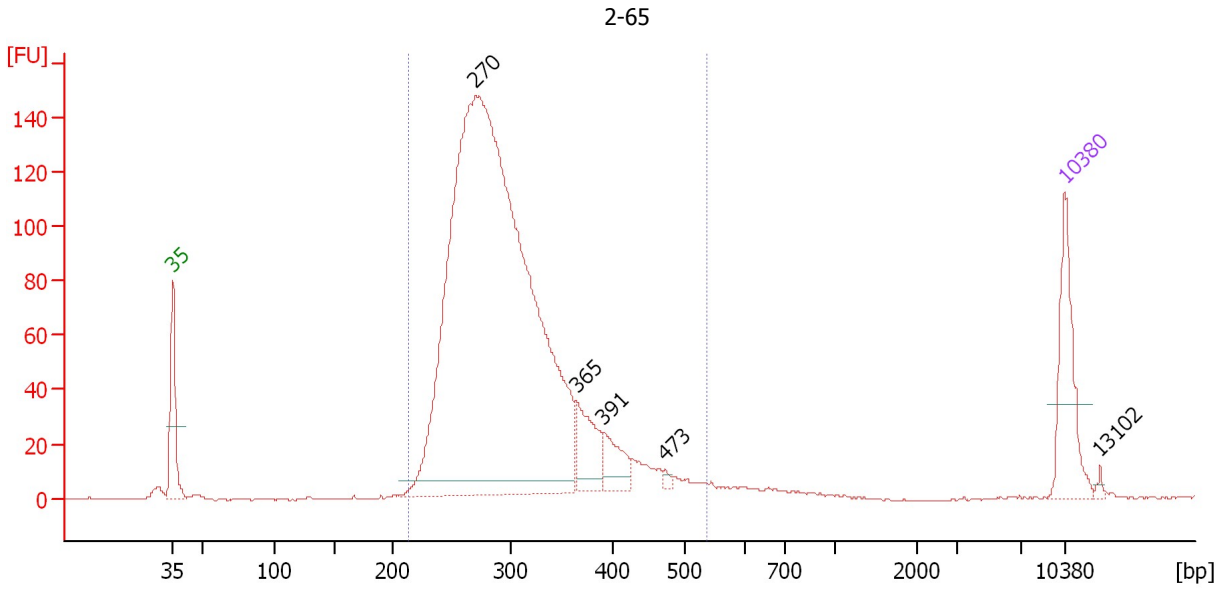
Region table for sample 2 : 2-64

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
213	292	458	4,658.4	98	14.0	5,980.00	31,731.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
 Modified: 9/24/2014 10:11:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 2-65

Number of peaks found: 5 Corr. Area 1: 1,860.3
 Noise: 0.2

Peak table for sample 3 : 2-65

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	270	1,626.92	9,141.0	
3	365	66.33	275.7	
4	391	42.07	163.1	
5	473	4.10	13.1	
6	10,380	75.00	10.9	Upper Marker
7	13,102	0.00	0.0	

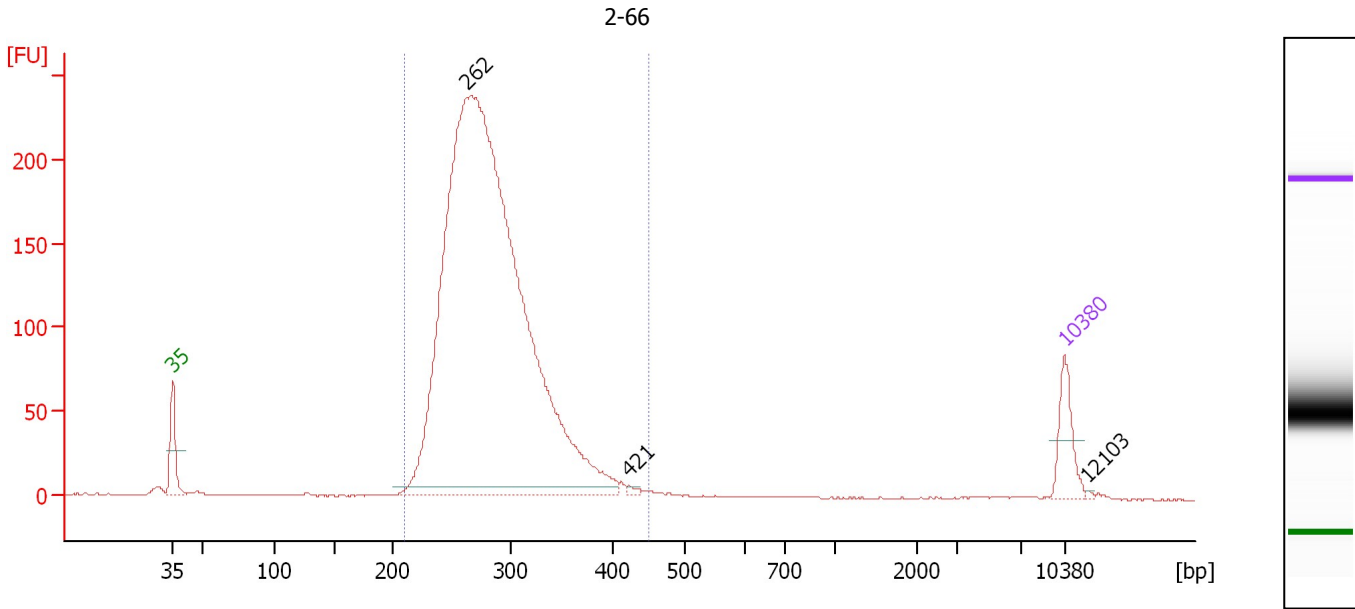
Region table for sample 3 : 2-65

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
214	303	537	1,860.3	97	18.2	1,772.10	9,188.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
 Modified: 9/24/2014 10:11:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 2-66

Number of peaks found: 3 Corr. Area 1: 2,618.2
 Noise: 0.4

Peak table for sample 4 : 2-66

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	262	3,589.23	20,738.5	
3	421	7.42	26.7	
4	10,380	75.00	10.9	Upper Marker
5	12,103	0.00	0.0	

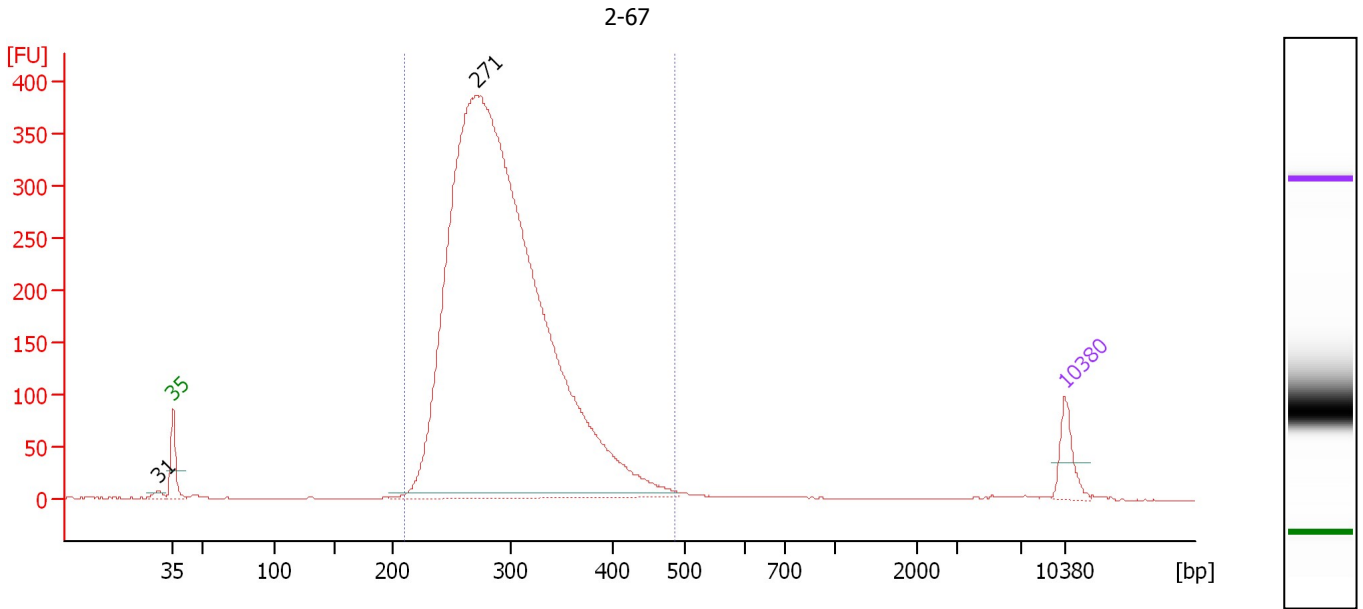
Region table for sample 4 : 2-66

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
210	284	449	2,618.2	98	13.2	3,453.34	18,717.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
 Modified: 9/24/2014 10:11:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 2-67

Number of peaks found: 2 Corr. Area 1: 4,849.9
 Noise: 0.1

Peak table for sample 5 : 2-67

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	271	5,957.57	33,310.0	
4	10,380	75.00	10.9	Upper Marker

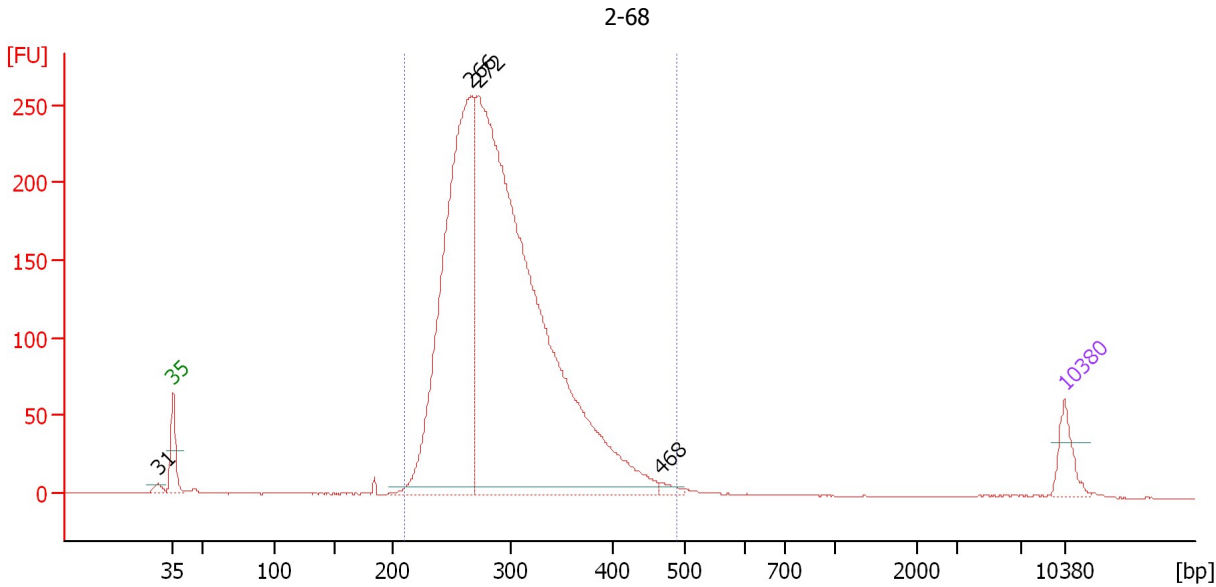
Region table for sample 5 : 2-67

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
210	297	485	4,849.9	97	15.3	5,696.21	29,849.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
 Modified: 9/24/2014 10:11:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 2-68

Number of peaks found: 4 Corr. Area 1: 3,253.4
 Noise: 0.1

Peak table for sample 6 : 2-68

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	266	2,047.90	11,676.2	
4	272	3,900.84	21,697.7	
5	468	20.41	66.1	
6	10,380	75.00	10.9	Upper Marker

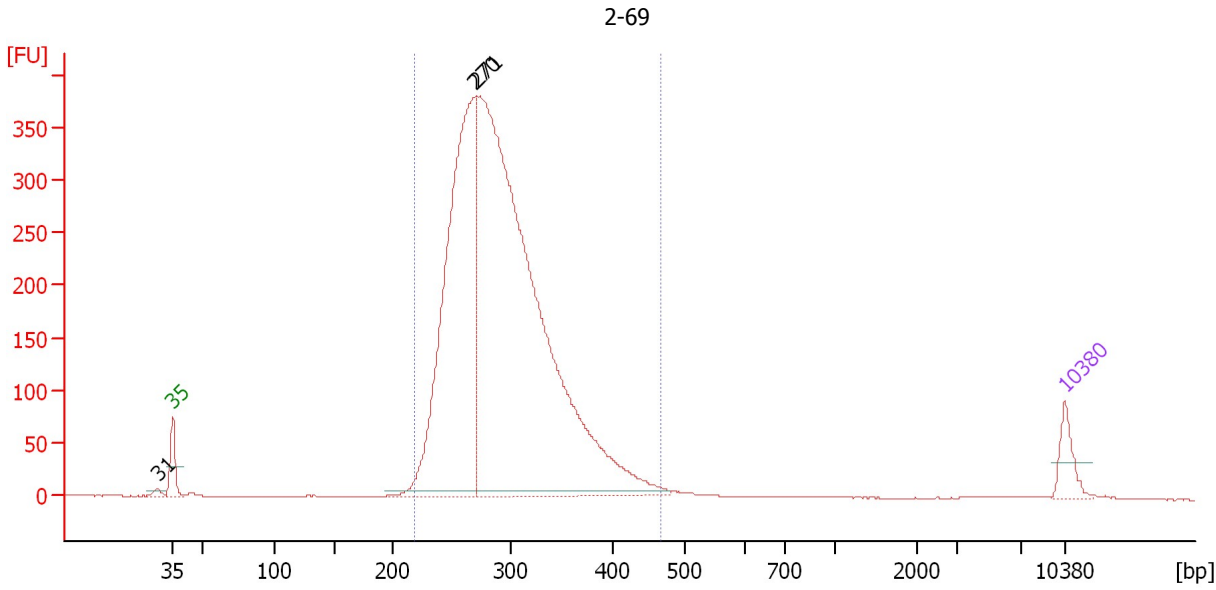
Region table for sample 6 : 2-68

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
209	295	488	3,253.4	97	15.8	5,741.04	30,289.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
 Modified: 9/24/2014 10:11:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 2-69

Number of peaks found: 3 Corr. Area 1: 4,603.3
 Noise: 0.2

Peak table for sample 7 : 2-69

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	270	2,037.66	11,446.6	
4	271	3,989.62	22,283.5	
5	10,380	75.00	10.9	Upper Marker

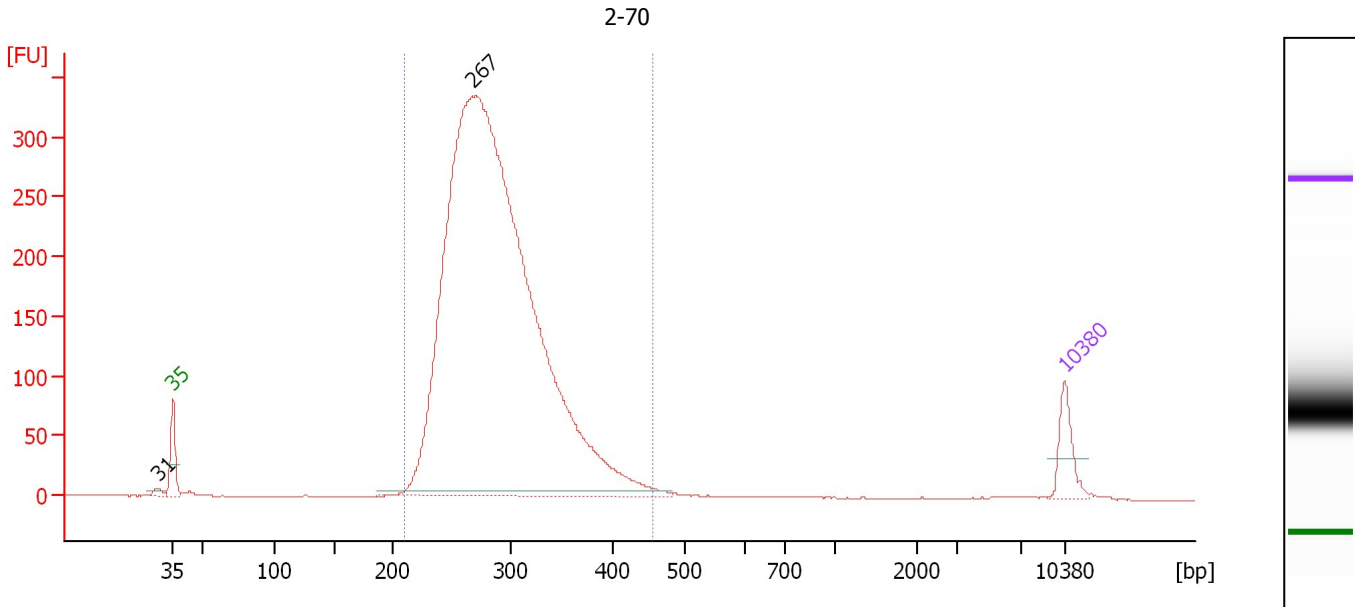
Region table for sample 7 : 2-69

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
218	294	467	4,603.3	97	14.6	5,772.97	30,408.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
 Modified: 9/24/2014 10:11:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 2-70

Number of peaks found: 2 Corr. Area 1: 3,947.8
 Noise: 0.2

Peak table for sample 8 : 2-70

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	267	4,790.69	27,171.4	
4	10,380	75.00	10.9	Upper Marker

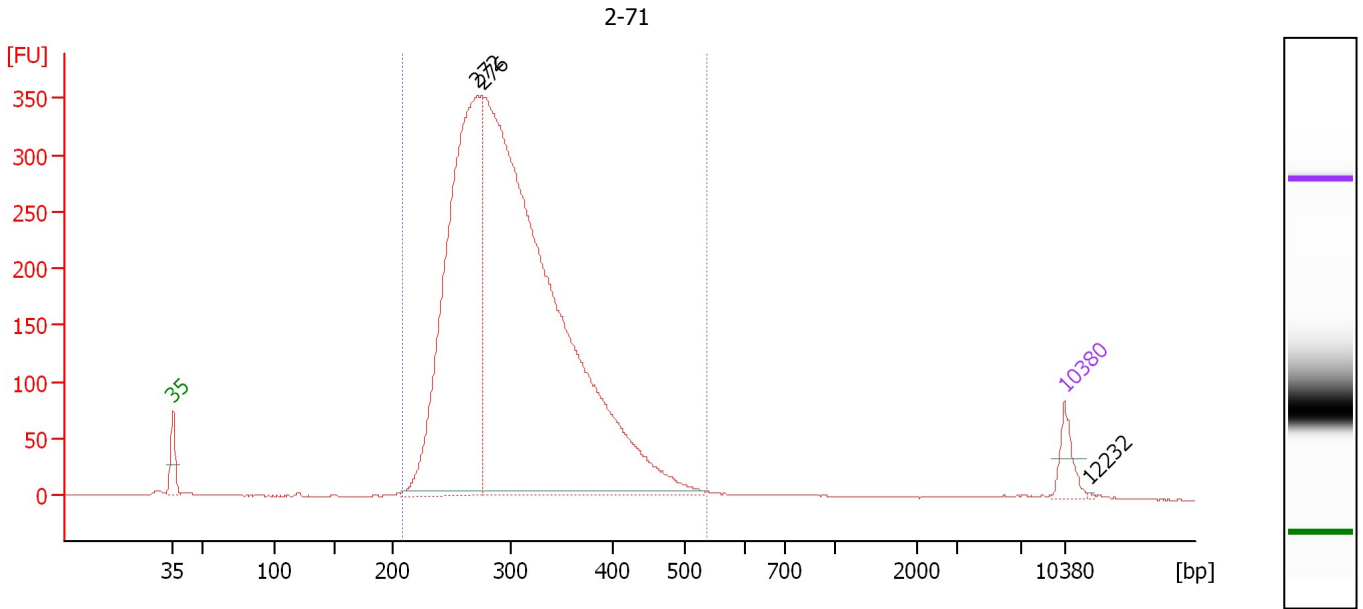
Region table for sample 8 : 2-70

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
209	290	456	3,947.8	98	14.2	4,582.23	24,473.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
 Modified: 9/24/2014 10:11:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 2-71

Number of peaks found: 3 Corr. Area 1: 5,008.6
 Noise: 0.1

Peak table for sample 9 : 2-71

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	272	2,544.44	14,198.4	
3	276	5,071.90	27,818.4	
4	10,380	75.00	10.9	Upper Marker
5	12,232	0.00	0.0	

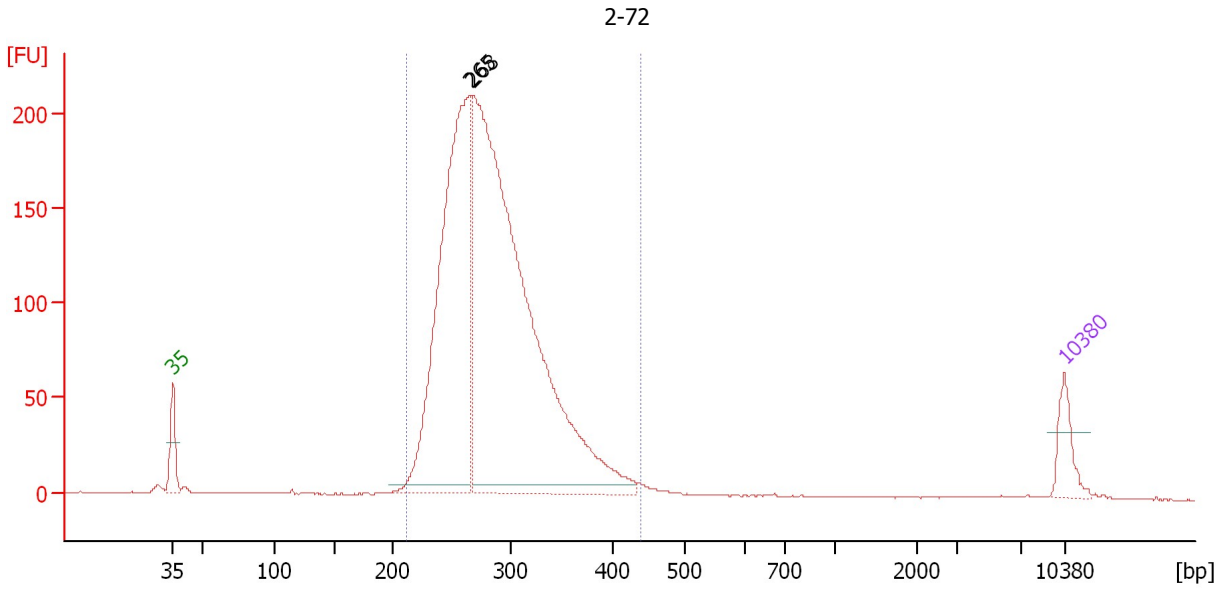
Region table for sample 9 : 2-71

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
207	307	537	5,008.6	98	17.6	7,258.29	37,174.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
 Modified: 9/24/2014 10:11:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 2-72

Number of peaks found: 2 Corr. Area 1: 2,403.2
 Noise: 0.1

Peak table for sample 10 : 2-72

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	265	1,542.43	8,817.1	
3	268	2,668.11	15,072.3	
4	10,380	75.00	10.9	Upper Marker

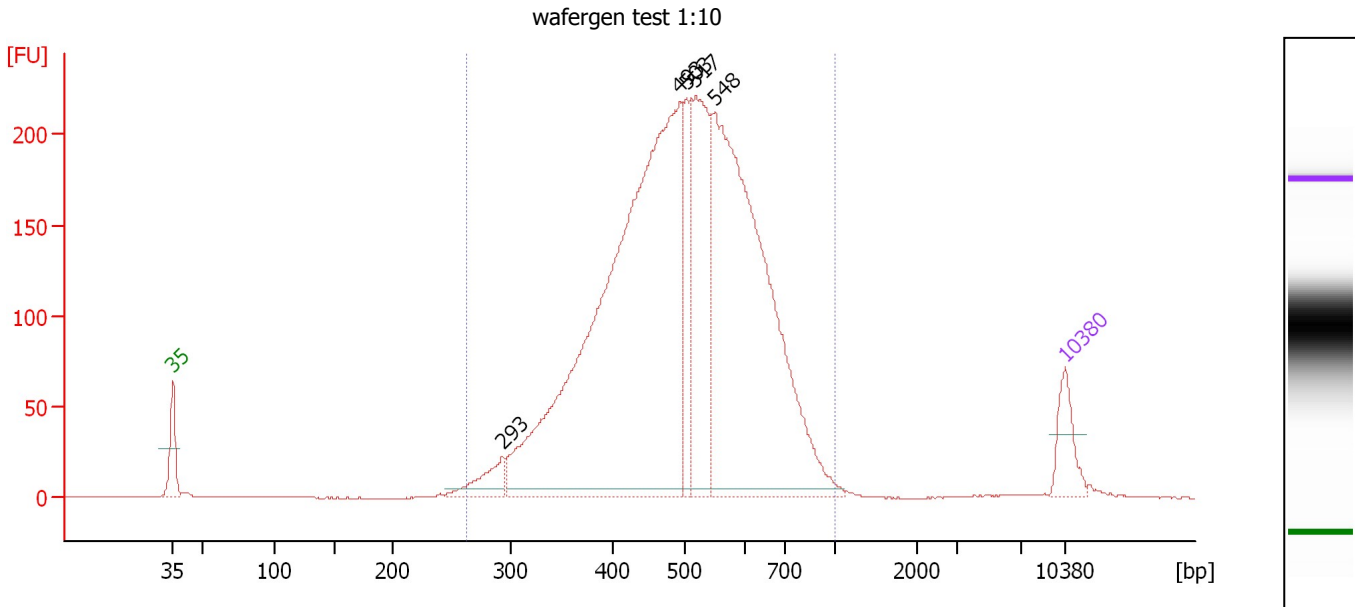
Region table for sample 10 : 2-72

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
211	286	437	2,403.2	98	13.9	4,144.72	22,396.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
 Modified: 9/24/2014 10:11:21 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : wafergen test 1:10

Number of peaks found: 5 Corr. Area 1: 3,813.1
 Noise: 0.1

Peak table for sample 11 : wafergen test 1:10

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	293	96.82	500.6	
3	493	2,233.72	6,867.6	
4	503	203.45	613.1	
5	517	485.90	1,423.5	
6	548	1,456.00	4,025.4	
7	10,380	75.00	10.9	Upper Marker

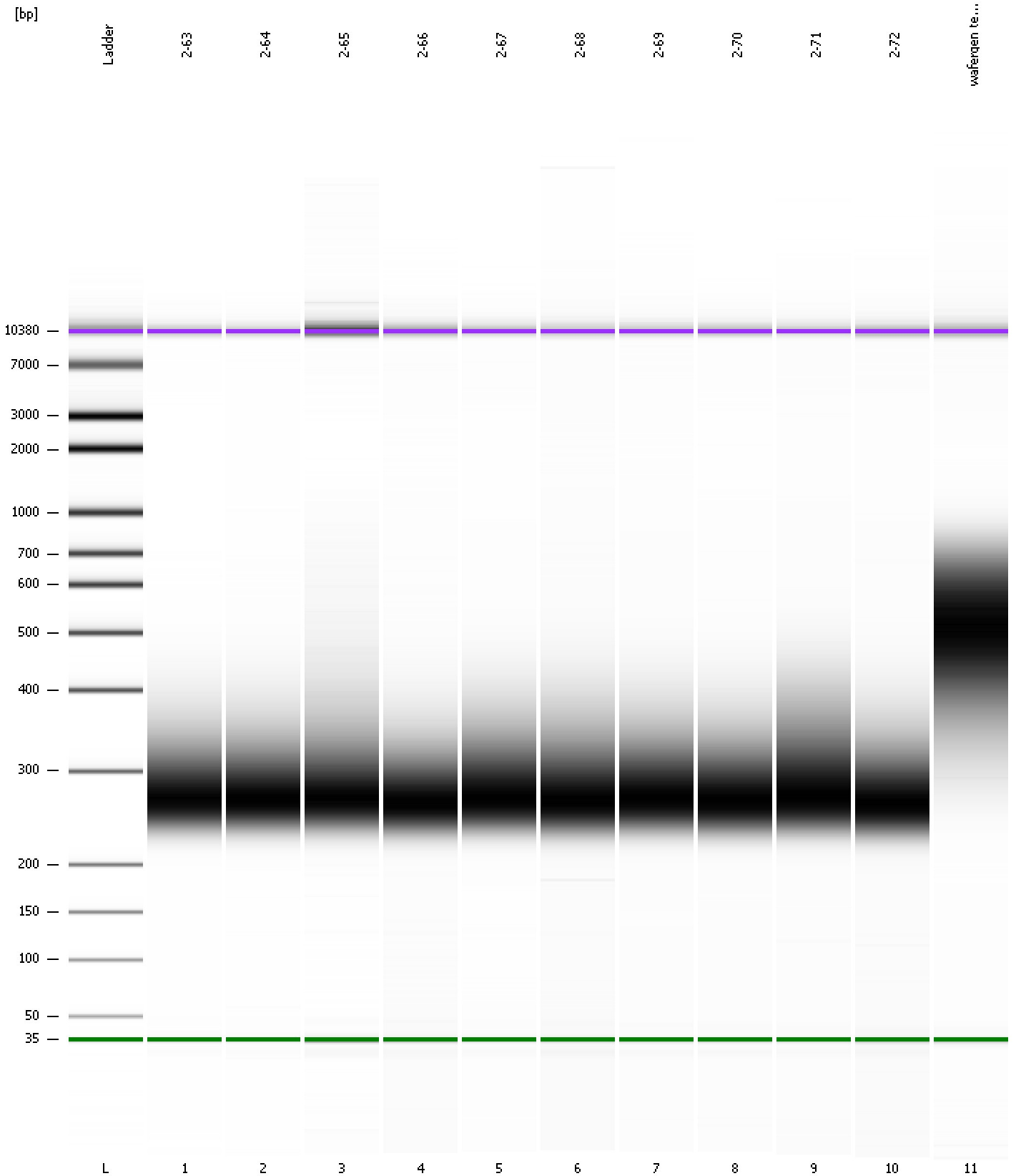
Region table for sample 11 : wafergen test 1:10

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
263	506	1,000	3,813.1	98	22.8	4,582.95	14,745.1	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
Modified: 9/24/2014 10:11:21 AM

Gel Image

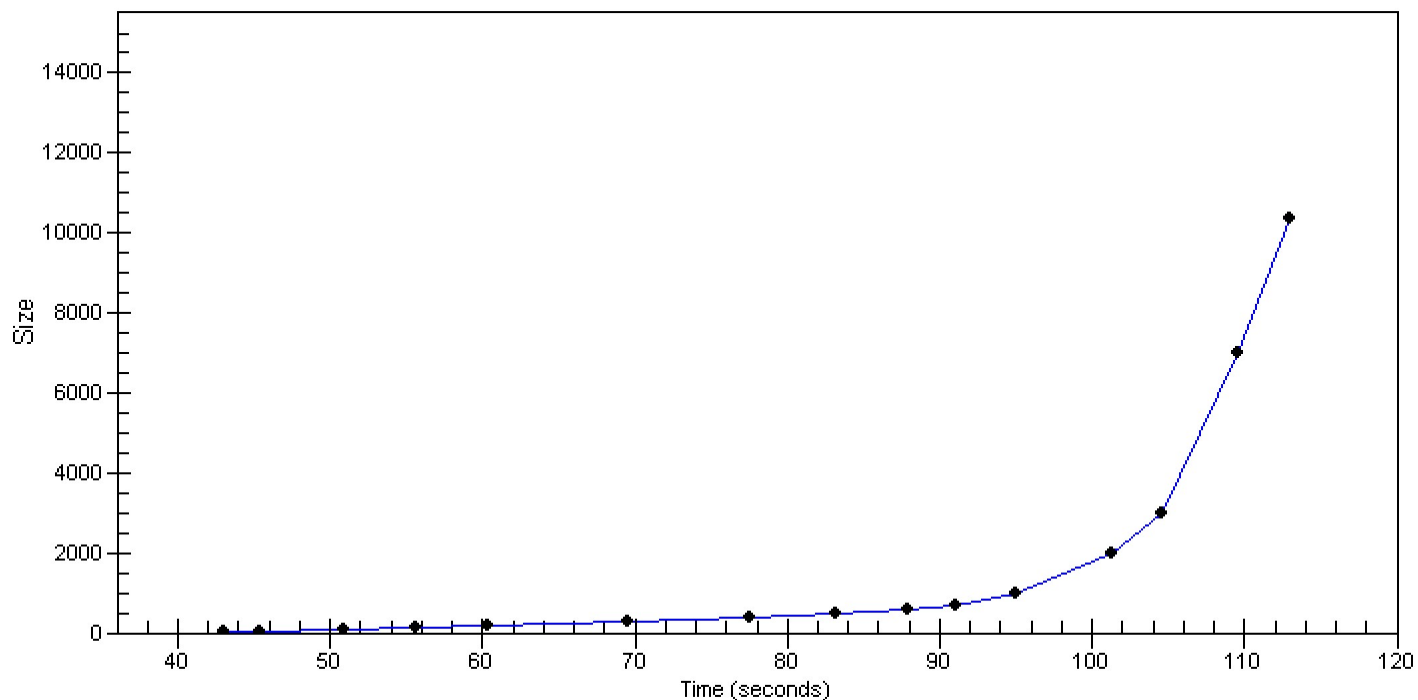


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
Modified: 9/24/2014 10:11:21 AM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad

Created: 9/24/2014 9:30:10 AM
 Modified: 9/24/2014 10:11:21 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		9/24/2014 10:10:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-09-24\2014-09-24_002.xad)		Instrument	Run		9/24/2014 9:30:15 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/24/2014 9:30:15 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/24/2014 9:30:15 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/24/2014 9:30:15 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/24/2014 9:30:15 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/24/2014 9:30:15 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/24/2014 9:30:15 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1