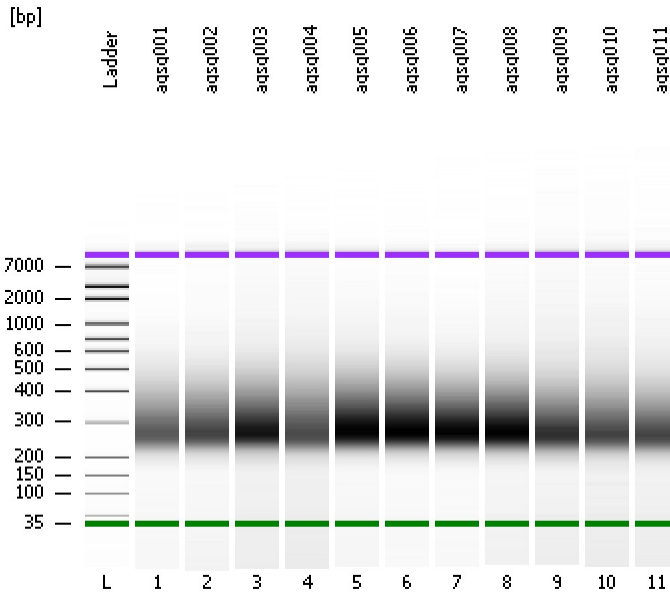


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
Modified: 6/1/2016 9:30:10 AM

Electrophoresis File Run Summary



Instrument Information:

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

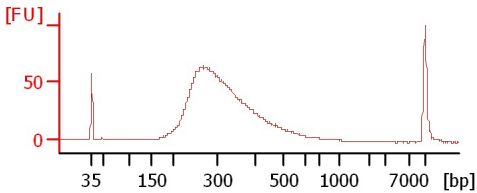
Assay Information:

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

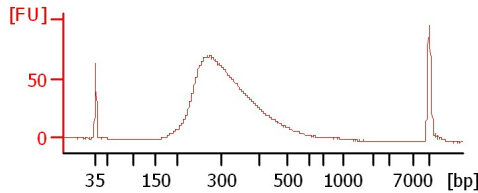
Chip Information:

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

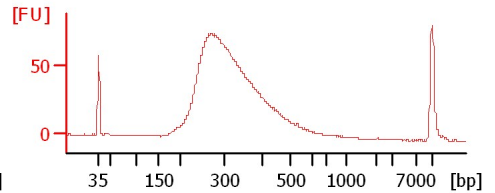
agsg001



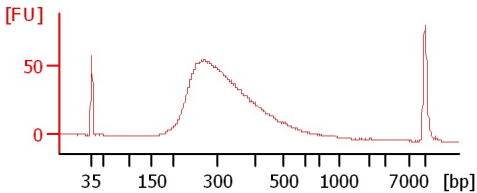
agsg002



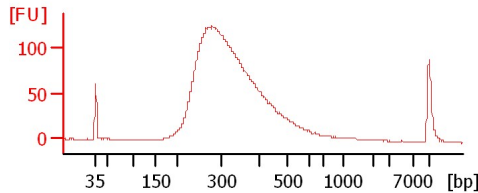
agsg003



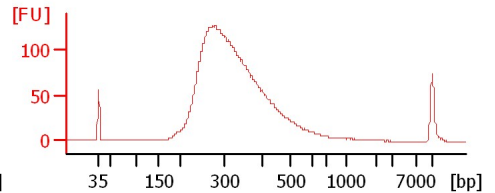
agsg004



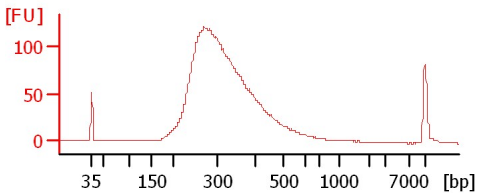
agsg005



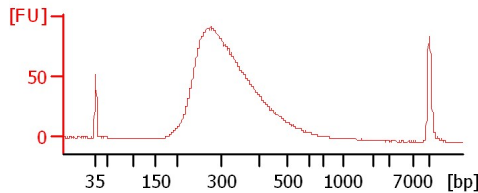
agsg006



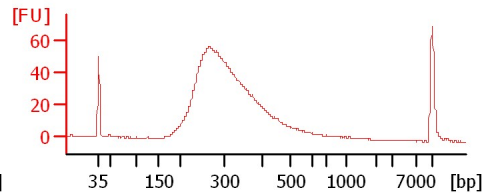
agsg007



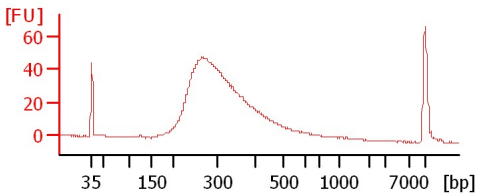
agsg008



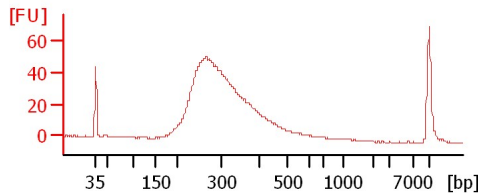
agsg009



agsg010



agsg011



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
 Modified: 6/1/2016 9:30:10 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
agsg001		<input type="checkbox"/>	✓			
agsg002		<input type="checkbox"/>	✓			
agsg003		<input type="checkbox"/>	✓			
agsg004		<input type="checkbox"/>	✓			
agsg005		<input type="checkbox"/>	✓			
agsg006		<input type="checkbox"/>	✓			
agsg007		<input type="checkbox"/>	✓			
agsg008		<input type="checkbox"/>	✓			
agsg009		<input type="checkbox"/>	✓			
agsg010		<input type="checkbox"/>	✓			
agsg011		<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\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
Modified: 6/1/2016 9:30:10 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

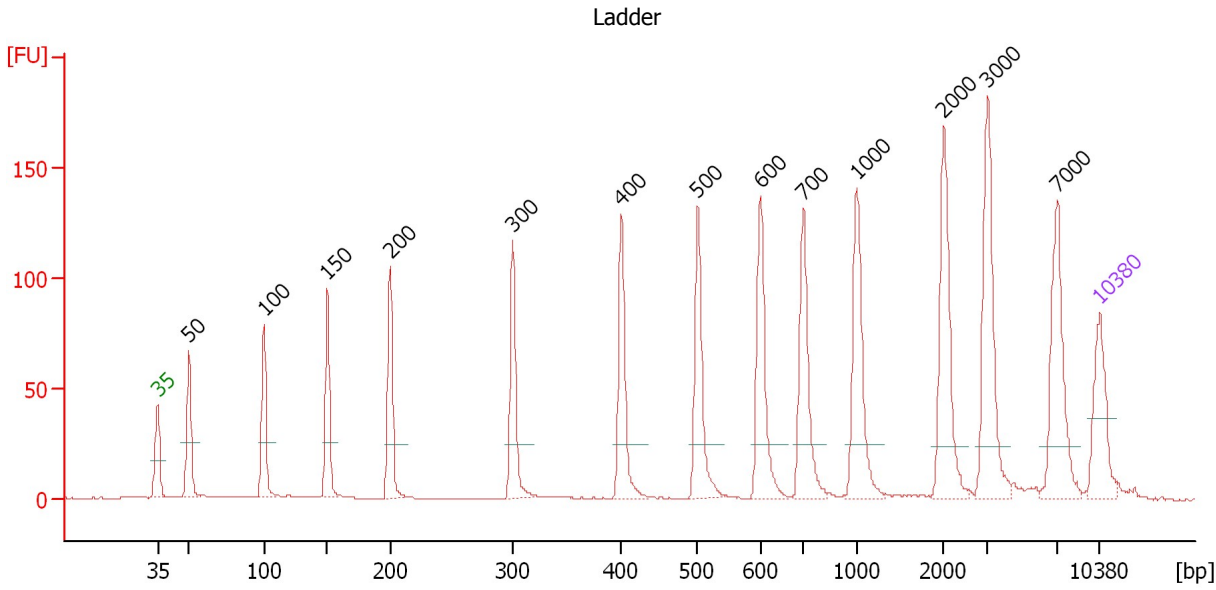
Ladder

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:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
 Modified: 6/1/2016 9:30:10 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

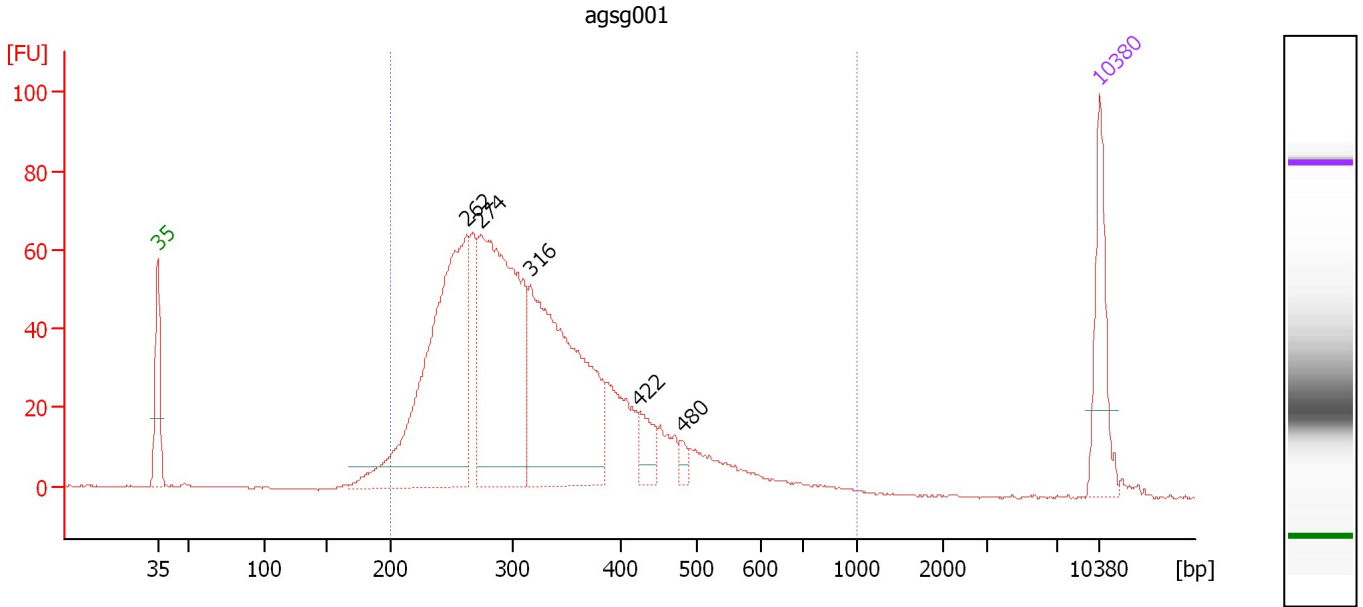
Peak table for Ladder

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	45.32
3	100	150.00	2,272.7	Ladder Peak	50.89
4	150	150.00	1,515.2	Ladder Peak	55.62
5	200	150.00	1,136.4	Ladder Peak	60.30
6	300	150.00	757.6	Ladder Peak	69.39
7	400	150.00	568.2	Ladder Peak	77.47
8	500	150.00	454.5	Ladder Peak	83.13
9	600	150.00	378.8	Ladder Peak	87.76
10	700	150.00	324.7	Ladder Peak	90.97
11	1,000	150.00	227.3	Ladder Peak	94.95
12	2,000	150.00	113.6	Ladder Peak	101.40
13	3,000	150.00	75.8	Ladder Peak	104.65
14	7,000	150.00	32.5	Ladder Peak	109.85
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
 Modified: 6/1/2016 9:30:10 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : agsg001

Number of peaks found: 5 Corr. Area 1: 1,269.7
 Noise: 0.2

Peak table for sample 1 : agsg001

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	262	532.40	3,080.2		65.93
3	274	493.28	2,731.1		67.00
4	316	438.39	2,099.1		70.72
5	422	39.53	141.9		78.72
6	480	10.78	34.1		81.98
7	10,380	75.00	10.9	Upper Marker	113.00

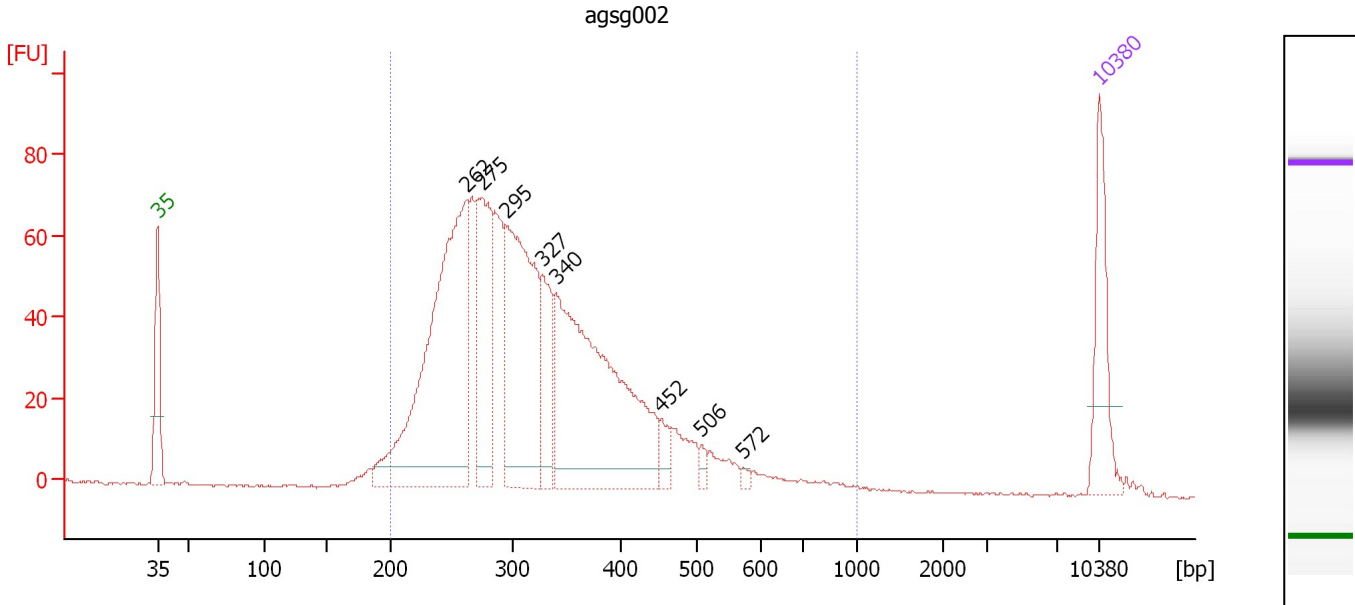
Region table for sample 1 : agsg001

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	328	1,269.7	9,043.1	1,799.40	97	28.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
 Modified: 6/1/2016 9:30:10 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : agsg002

Number of peaks found: 8 Corr. Area 1: 1,376.5
 Noise: 0.3

Peak table for sample 2 : agsg002

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	262	542.17	3,138.5		65.92
3	275	202.12	1,113.6		67.12
4	295	323.11	1,657.2		68.98
5	327	86.70	401.7		71.58
6	340	456.88	2,038.1		72.60
7	452	21.14	70.9		80.39
8	506	9.10	27.2		83.40
9	572	4.41	11.7		86.47
10	10,380	75.00	10.9	Upper Marker	113.00

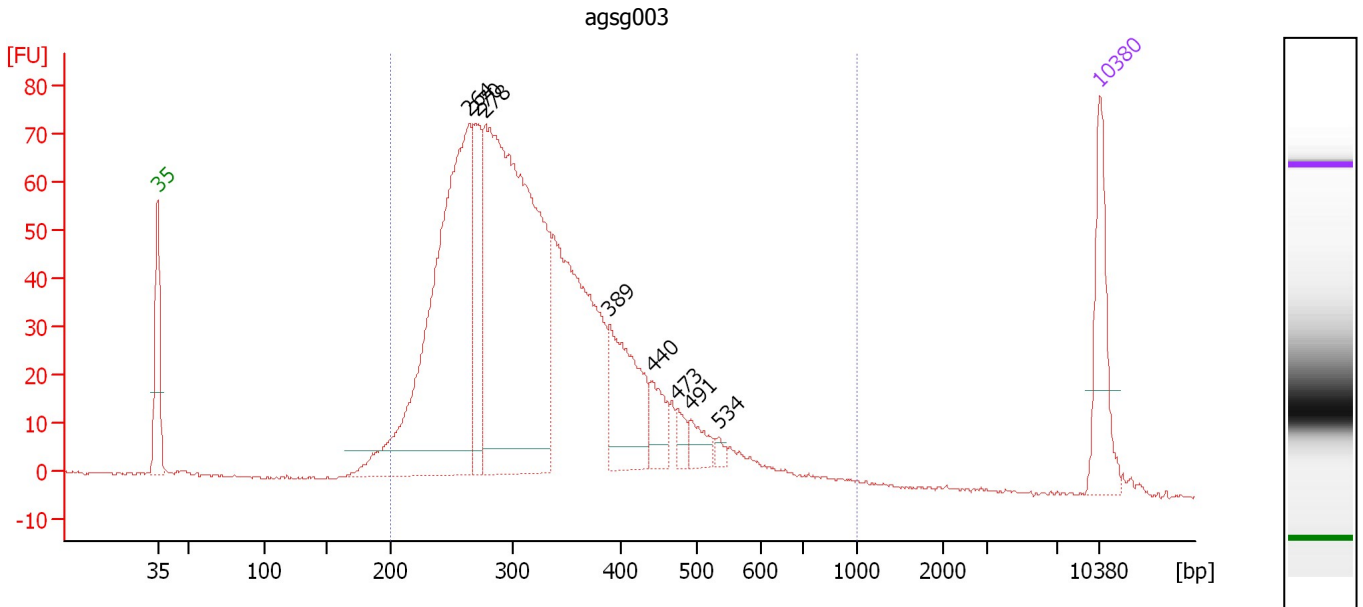
Region table for sample 2 : agsg002

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	329	1,376.5	9,645.6	1,928.08	98	28.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
 Modified: 6/1/2016 9:30:10 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : agsg003

Number of peaks found: 8 Corr. Area 1: 1,440.6
 Noise: 0.3

Peak table for sample 3 : agsg003

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	264	635.24	3,642.2		66.15
3	270	129.20	725.2		66.66
4	278	783.99	4,277.4		67.37
5	389	138.34	539.5		76.54
6	440	41.68	143.5		79.74
7	473	16.44	52.6		81.62
8	491	24.31	75.0		82.61
9	534	6.99	19.9		84.68
10	10,380	75.00	10.9	Upper Marker	113.00

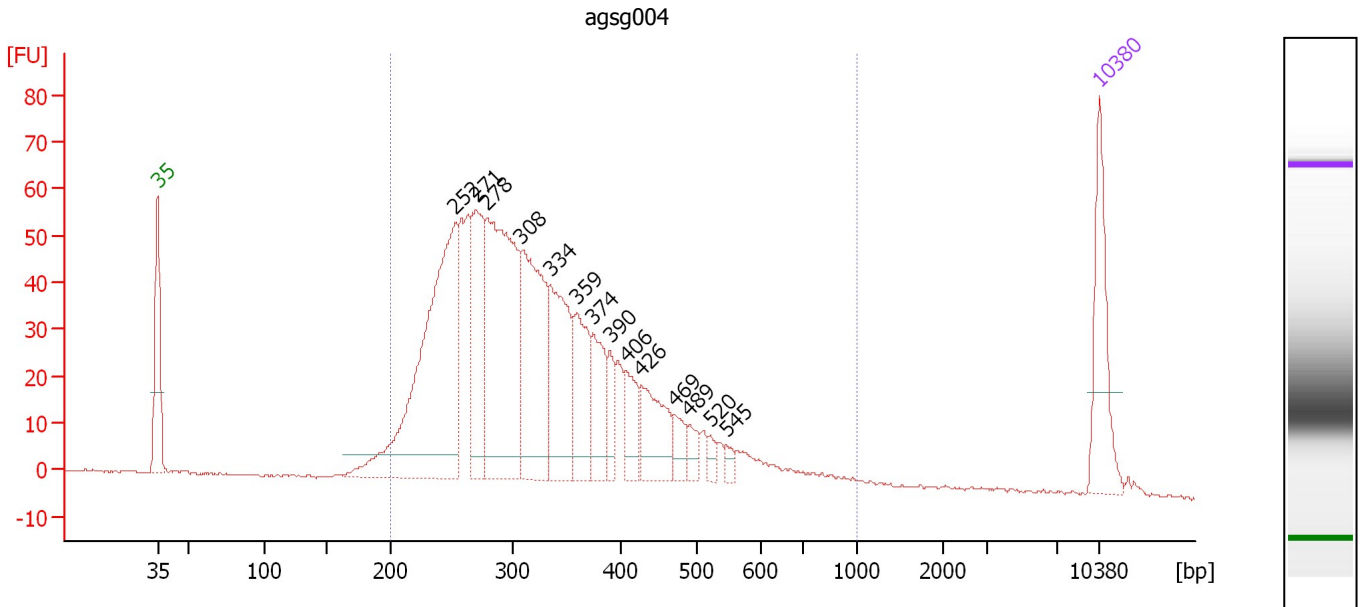
Region table for sample 3 : agsg003

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	332	1,440.6	11,268.8	2,271.16	97	28.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
 Modified: 6/1/2016 9:30:10 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : agsg004

Number of peaks found: 14 Corr. Area 1: 1,205.6
 Noise: 0.3

Peak table for sample 4 : agsg004

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	252	436.84	2,625.5		65.04
3	271	142.78	799.6		66.72
4	278	340.82	1,854.5		67.44
5	308	214.95	1,058.2		70.02
6	334	147.16	666.6		72.18
7	359	88.24	372.0		74.19
8	374	66.41	269.3		75.34
9	390	31.41	122.1		76.63
10	406	42.42	158.5		77.78
11	426	73.77	262.4		78.93
12	469	23.50	75.9		81.38
13	489	18.75	58.1		82.48
14	520	10.97	32.0		84.06
15	545	8.40	23.3		85.21
16	10,380	75.00	10.9	Upper Marker	113.00

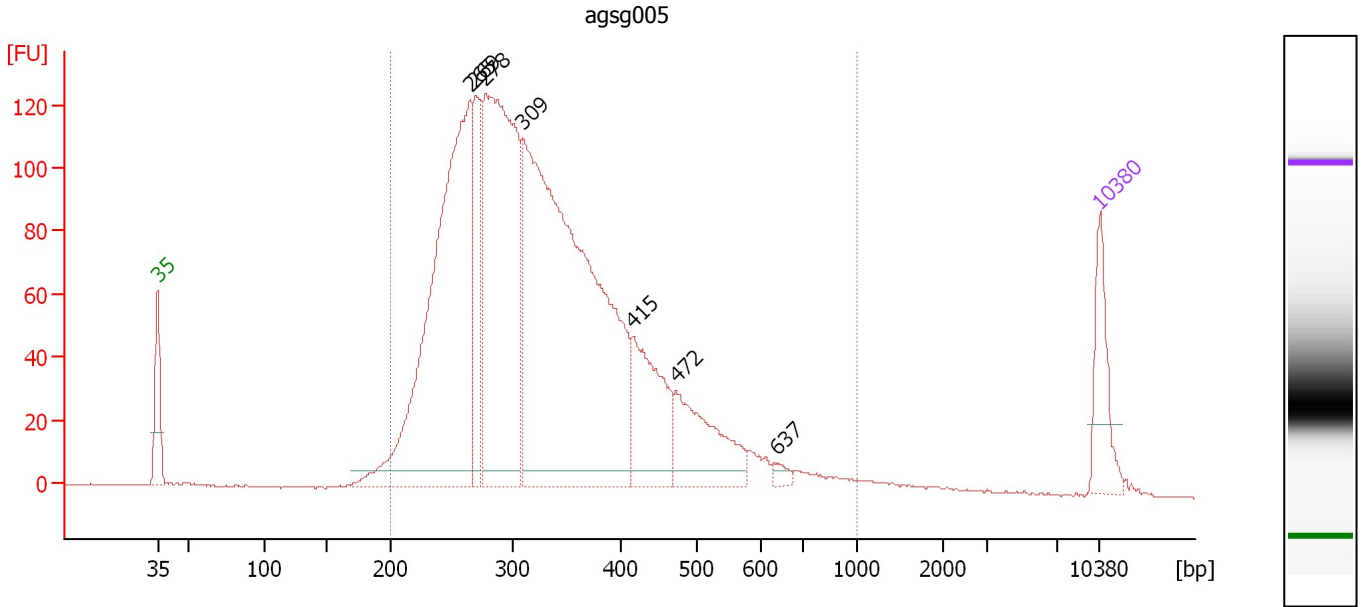
Region table for sample 4 : agsg004

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	337	1,205.6	9,339.5	1,886.12	96	31.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
 Modified: 6/1/2016 9:30:10 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : agsg005

Number of peaks found: 7 Corr. Area 1: 2,523.9
 Noise: 0.2

Peak table for sample 5 : agsg005

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	265	937.76	5,367.4		66.19
3	269	189.18	1,065.5		66.58
4	278	755.42	4,123.4		67.36
5	309	1,285.69	6,301.3		70.13
6	415	192.71	703.5		78.32
7	472	169.58	544.6		81.53
8	637	12.31	29.3		88.94
9	10,380	75.00	10.9	Upper Marker	113.00

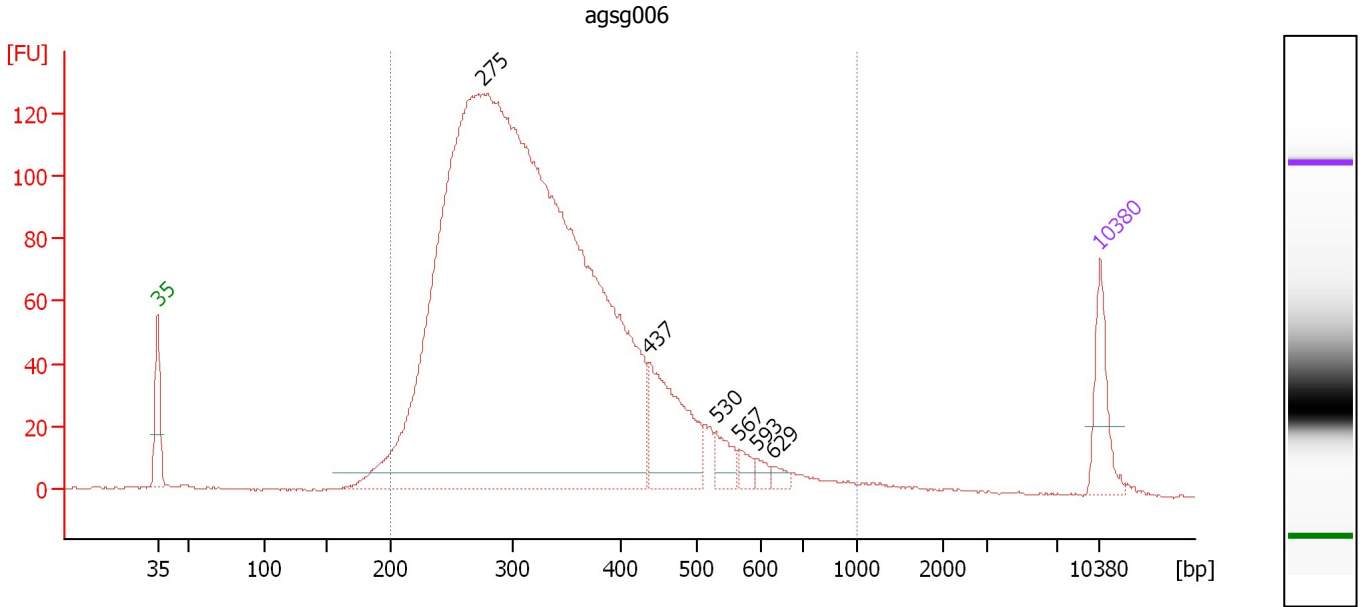
Region table for sample 5 : agsg005

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	339	2,523.9	17,354.4	3,545.44	98	30.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
 Modified: 6/1/2016 9:30:10 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : agsg006

Number of peaks found: 6 Corr. Area 1: 2,554.4
 Noise: 0.3

Peak table for sample 6 : agsg006

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	275	4,201.01	23,159.6		67.11
3	437	233.55	809.9		79.56
4	530	44.37	126.9		84.50
5	567	21.75	58.1		86.23
6	593	14.56	37.2		87.46
7	629	13.80	33.2		88.70
8	10,380	75.00	10.9	Upper Marker	113.00

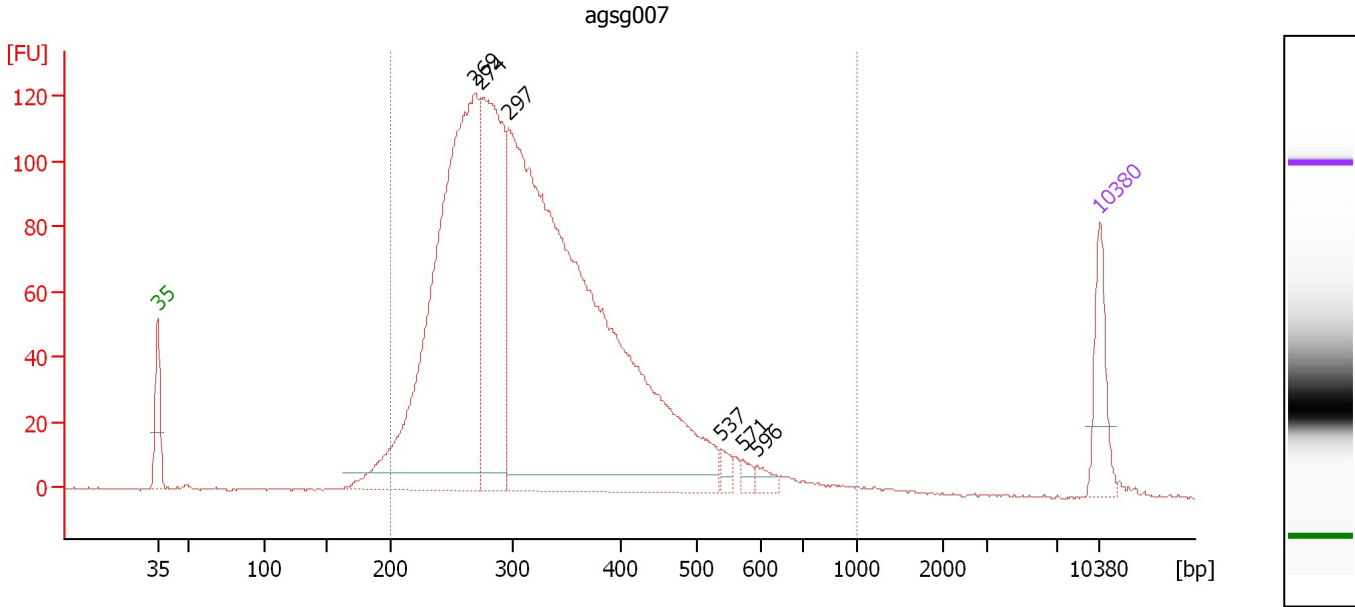
Region table for sample 6 : agsg006

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	338	2,554.4	21,383.3	4,362.54	97	29.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
 Modified: 6/1/2016 9:30:10 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : agsg007

Number of peaks found: 6 Corr. Area 1: 2,273.7
 Noise: 0.4

Peak table for sample 7 : agsg007

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	269	1,215.33	6,843.2		66.58
3	274	574.21	3,174.6		67.04
4	297	2,018.77	10,309.8		69.09
5	537	19.01	53.6		84.85
6	571	14.15	37.6		86.41
7	596	18.10	46.0		87.56
8	10,380	75.00	10.9	Upper Marker	113.00

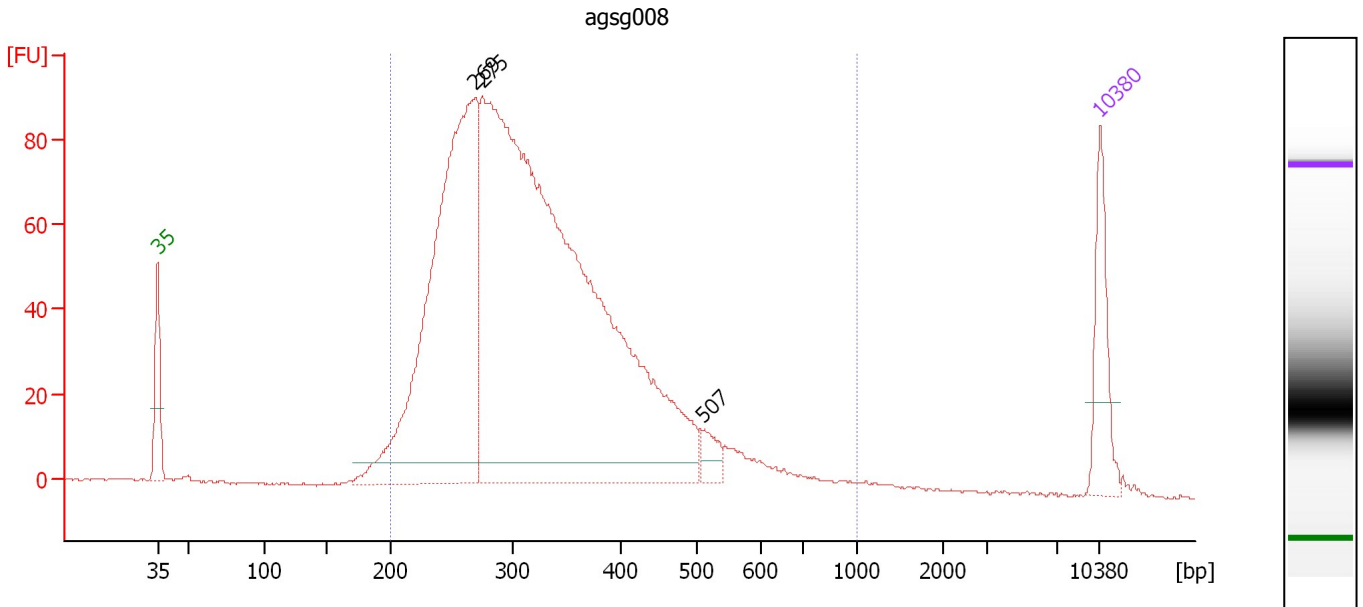
Region table for sample 7 : agsg007

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	329	2,273.7	18,283.9	3,670.99	98	28.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
 Modified: 6/1/2016 9:30:10 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : agsg008

Number of peaks found: 3 Corr. Area 1: 1,757.1
 Noise: 0.3

Peak table for sample 8 : agsg008

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	269	889.95	5,017.4		66.55
3	275	1,918.02	10,571.9		67.11
4	507	28.98	86.6		83.46
5	10,380	75.00	10.9	Upper Marker	113.00

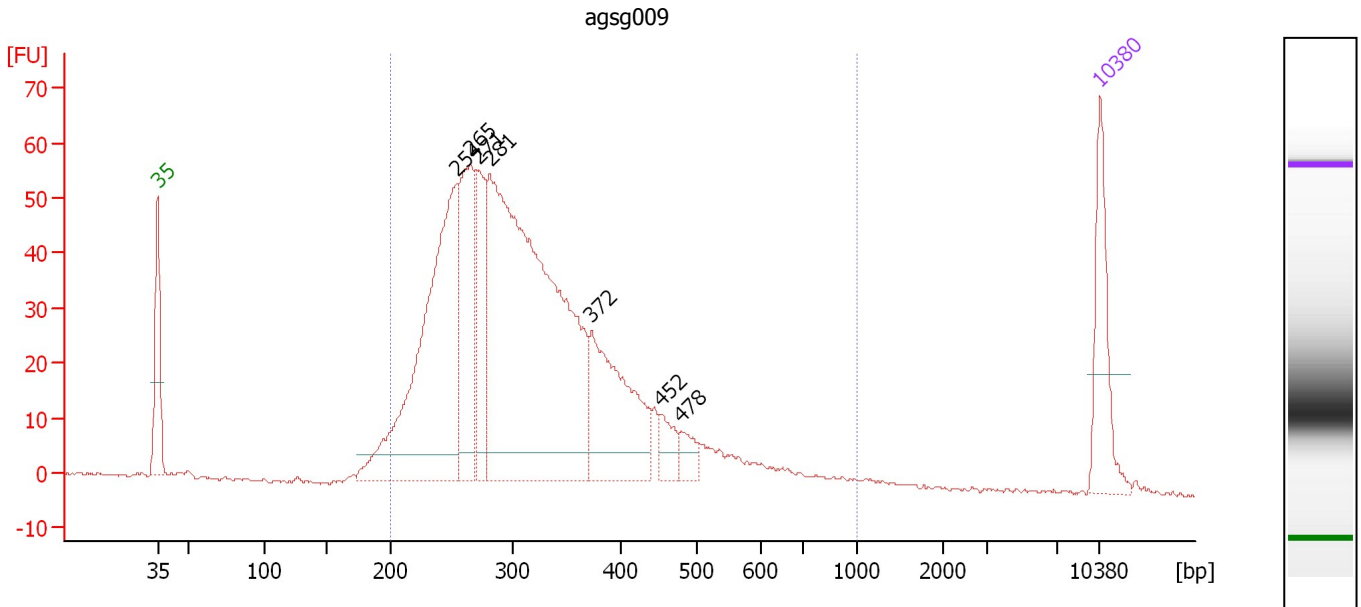
Region table for sample 8 : agsg008

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	331	1,757.1	13,402.9	2,693.14	98	28.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
 Modified: 6/1/2016 9:30:10 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : agsg009

Number of peaks found: 7 Corr. Area 1: 1,078.5
 Noise: 0.3

Peak table for sample 9 : agsg009

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	254	497.33	2,969.0		65.19
3	265	201.29	1,150.8		66.21
4	271	106.35	594.2		66.78
5	281	873.91	4,707.2		67.69
6	372	201.31	818.9		75.24
7	452	29.20	97.9		80.40
8	478	23.07	73.1		81.88
9	10,380	75.00	10.9	Upper Marker	113.00

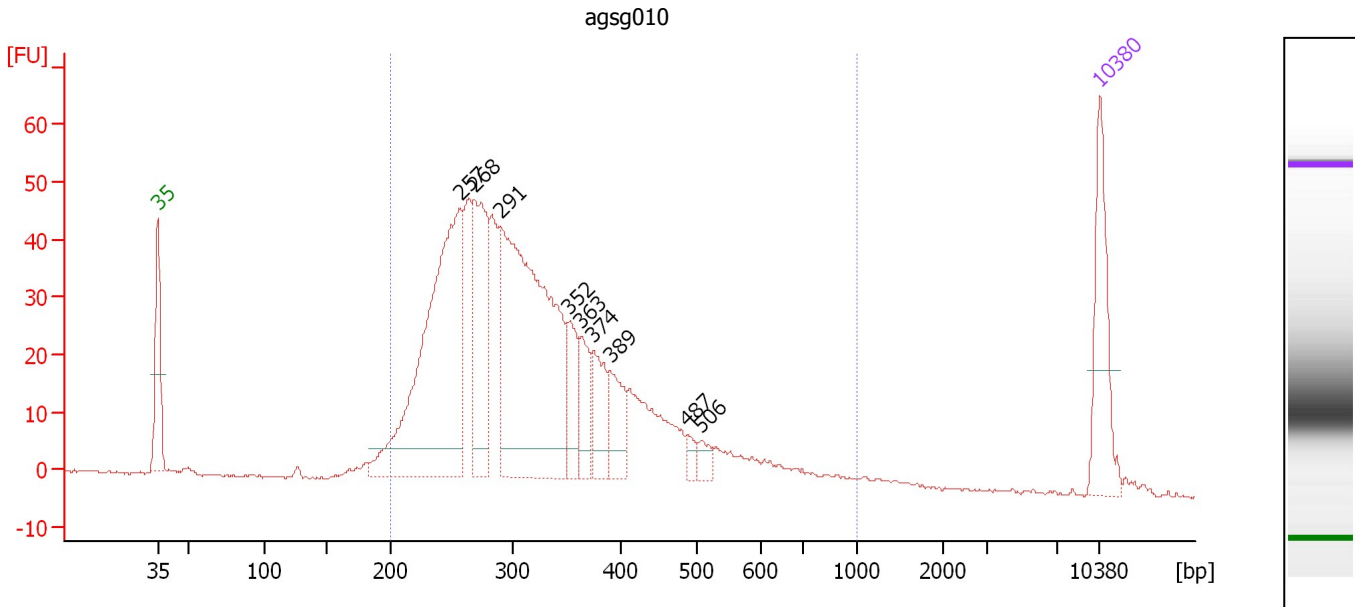
Region table for sample 9 : agsg009

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	329	1,078.5	10,053.0	1,991.53	96	30.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
 Modified: 6/1/2016 9:30:10 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : agsg010

Number of peaks found: 9 Corr. Area 1: 924.5
 Noise: 0.3

Peak table for sample 10 : agsg010

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	257	436.64	2,576.9		65.46
3	268	160.43	907.0		66.49
4	291	472.51	2,463.8		68.54
5	352	54.14	233.3		73.56
6	363	47.18	196.9		74.49
7	374	56.92	230.7		75.36
8	389	48.11	187.3		76.59
9	487	10.28	32.0		82.38
10	506	13.97	41.8		83.41
11	10,380	75.00	10.9	Upper Marker	113.00

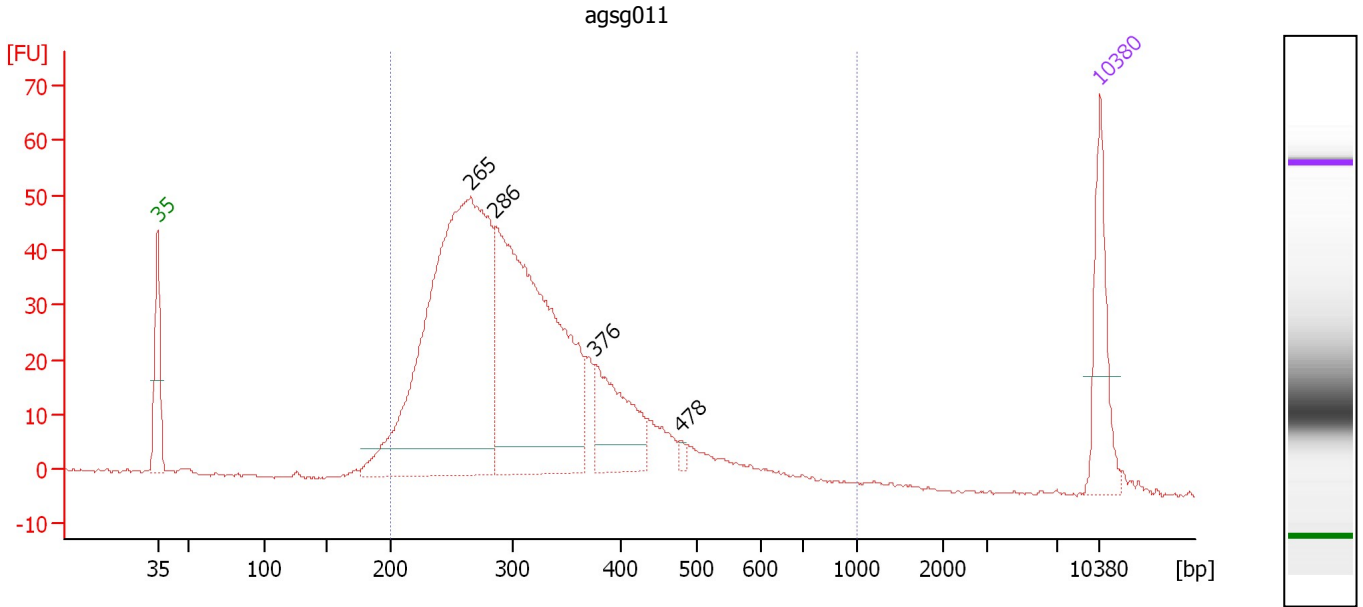
Region table for sample 10 : agsg010

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	333	924.5	8,574.3	1,709.96	96	31.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
 Modified: 6/1/2016 9:30:10 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : agsg011

Number of peaks found: 4 Corr. Area 1: 899.2
 Noise: 0.2

Peak table for sample 11 : agsg011

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	265	787.07	4,496.8		66.23
3	286	599.43	3,179.7		68.09
4	376	120.74	486.6		75.52
5	478	6.88	21.8		81.87
6	10,380	75.00	10.9	Upper Marker	113.00

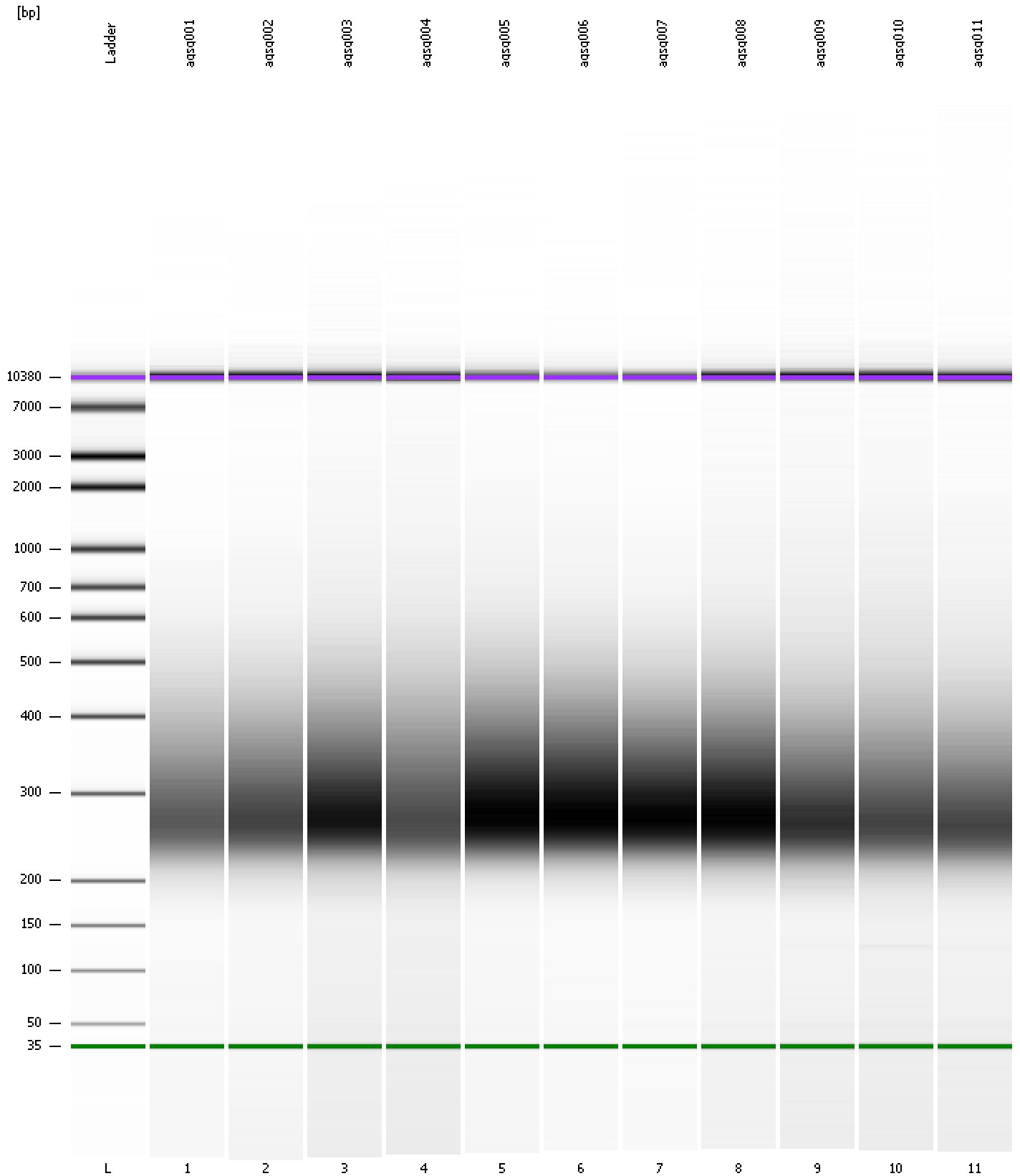
Region table for sample 11 : agsg011

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	317	899.2	8,371.1	1,628.86	98	26.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad

Created: 6/1/2016 8:48:52 AM
Modified: 6/1/2016 9:30:10 AM

Gel Image



Assay Class: High Sensitivity DNA Assay Created: 6/1/2016 8:48:52 AM
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad Modified: 6/1/2016 9:30:10 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		6/1/2016 9:30:09 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-06-01\2016-06-01_001.xad)		Instrument	Run		6/1/2016 8:48:57 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		6/1/2016 8:48:57 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/1/2016 8:48:57 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/1/2016 8:48:57 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		6/1/2016 8:48:57 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/1/2016 8:48:57 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/1/2016 8:48:57 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1