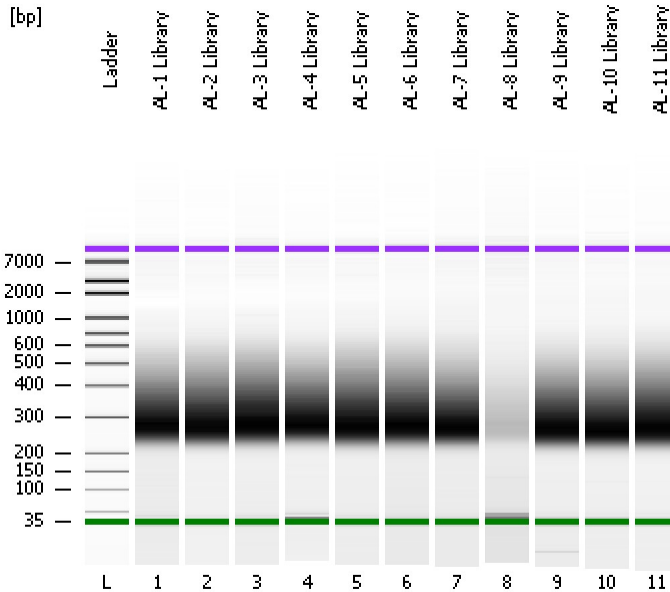


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
Modified: 2/14/2016 2:45:26 PM

Electrophoresis File Run Summary



Instrument Information:

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

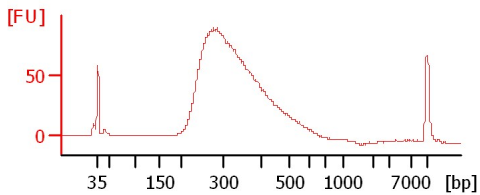
Assay Information:

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

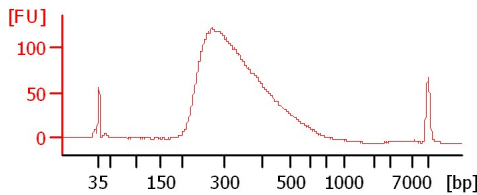
Chip Information:

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

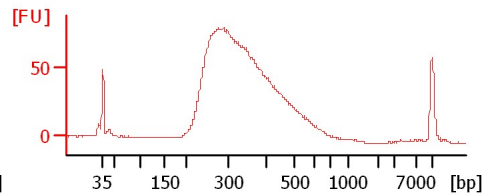
AL-1 Library



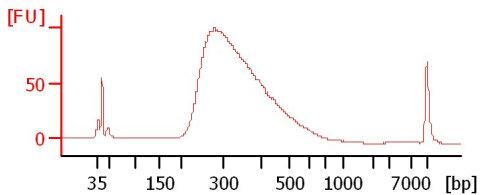
AL-2 Library



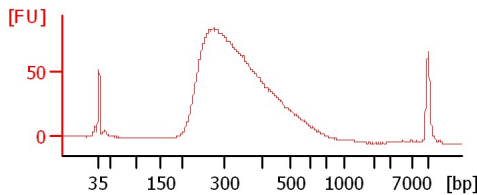
AL-3 Library



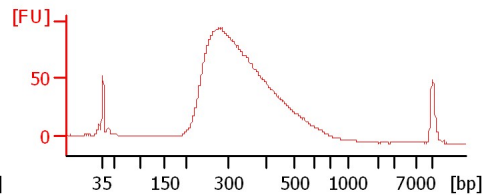
AL-4 Library



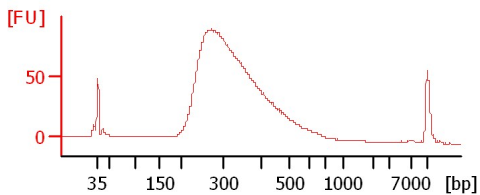
AL-5 Library



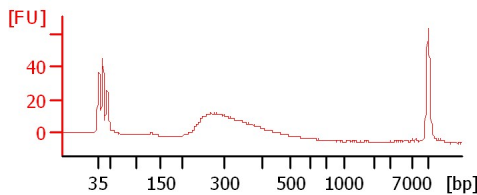
AL-6 Library



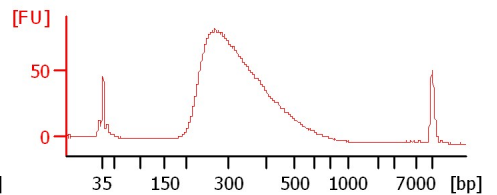
AL-7 Library



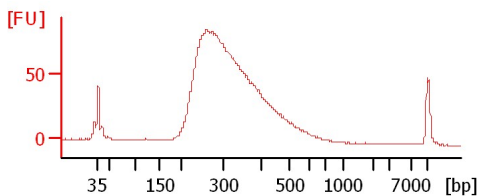
AL-8 Library



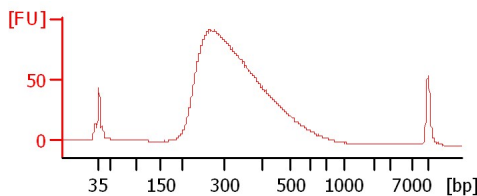
AL-9 Library



AL-10 Library



AL-11 Library



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
 Modified: 2/14/2016 2:45:26 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
AL-1 Library		<input type="checkbox"/>	✓			
AL-2 Library		<input type="checkbox"/>	✓			
AL-3 Library		<input type="checkbox"/>	✓			
AL-4 Library		<input type="checkbox"/>	✓			
AL-5 Library		<input type="checkbox"/>	✓			
AL-6 Library		<input type="checkbox"/>	✓			
AL-7 Library		<input type="checkbox"/>	✓			
AL-8 Library		<input type="checkbox"/>	✓			
AL-9 Library		<input type="checkbox"/>	✓			
AL-10 Library		<input type="checkbox"/>	✓			
AL-11 Library		<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\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
Modified: 2/14/2016 2:45:26 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

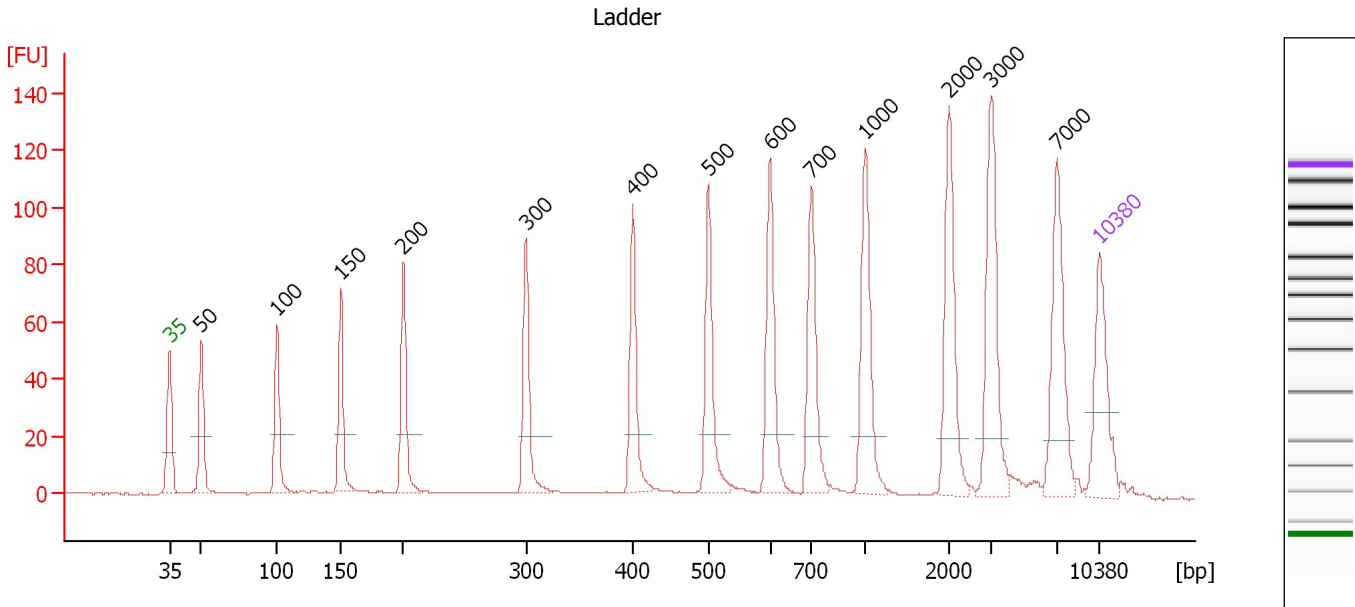
Ladder

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:\...ents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
 Modified: 2/14/2016 2:45:26 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

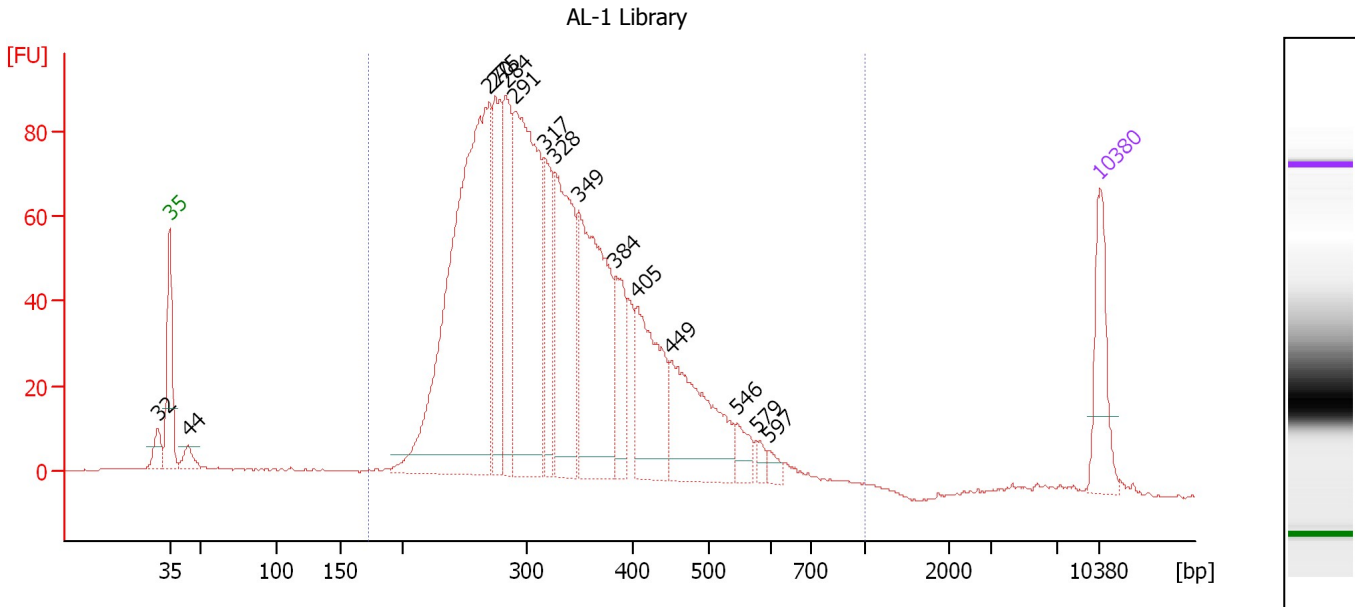
Peak table for Ladder

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	45.39
3	100	150.00	2,272.7	Ladder Peak	51.11
4	150	150.00	1,515.2	Ladder Peak	55.90
5	200	150.00	1,136.4	Ladder Peak	60.59
6	300	150.00	757.6	Ladder Peak	69.82
7	400	150.00	568.2	Ladder Peak	77.88
8	500	150.00	454.5	Ladder Peak	83.54
9	600	150.00	378.8	Ladder Peak	88.18
10	700	150.00	324.7	Ladder Peak	91.31
11	1,000	150.00	227.3	Ladder Peak	95.37
12	2,000	150.00	113.6	Ladder Peak	101.67
13	3,000	150.00	75.8	Ladder Peak	104.84
14	7,000	150.00	32.5	Ladder Peak	109.78
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
 Modified: 2/14/2016 2:45:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : AL-1 Library

Number of peaks found: 15 Corr. Area 1: 1,821.4
 Noise: 0.2

Peak table for sample 1 : AL-1 Library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.11
2	35	125.00	5,411.3	Lower Marker	43.00
3	44	25.02	867.3		44.39
4	270	844.95	4,742.4		67.04
5	275	195.33	1,077.0		67.49
6	284	190.21	1,015.1		68.33
7	291	474.24	2,465.6		69.03
8	317	128.71	614.7		71.21
9	328	260.96	1,206.6		72.05
10	349	350.35	1,520.0		73.79
11	384	93.48	369.2		76.56
12	405	183.08	685.3		78.15
13	449	201.25	678.5		80.68
14	546	30.40	84.3		85.68
15	579	11.67	30.5		87.22
16	597	12.39	31.4		88.06
17	10,380	75.00	10.9	Upper Marker	113.00

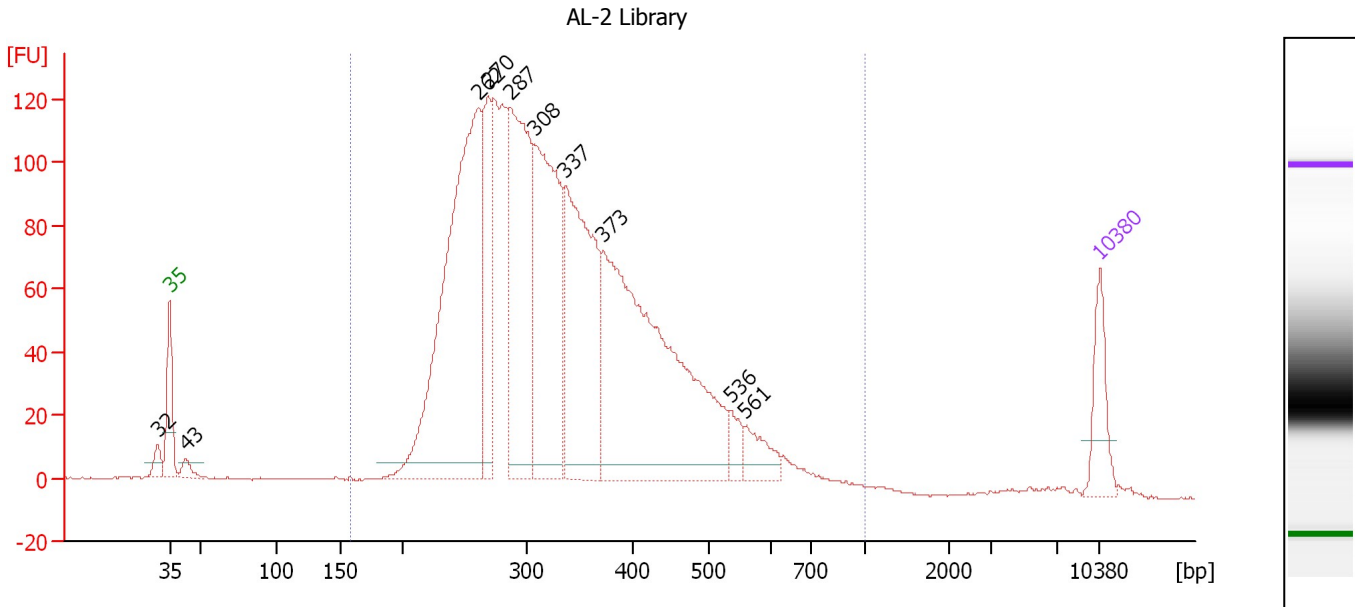
Region table for sample 1 : AL-1 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
173	1,000	340	1,821.4	15,861.4	3,259.53	94	28.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
 Modified: 2/14/2016 2:45:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : AL-2 Library

Number of peaks found: 10 Corr. Area 1: 2,593.2
 Noise: 0.2

Peak table for sample 2 : AL-2 Library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.11
2	35	125.00	5,411.3	Lower Marker	43.00
3	43	27.91	988.4		44.24
4	262	1,028.95	5,960.9		66.27
5	270	229.14	1,287.7		67.01
6	287	577.15	3,048.5		68.60
7	308	561.85	2,760.6		70.49
8	337	517.55	2,328.6		72.78
9	373	935.11	3,803.3		75.66
10	536	42.28	119.5		85.21
11	561	60.83	164.4		86.35
12	10,380	75.00	10.9	Upper Marker	113.00

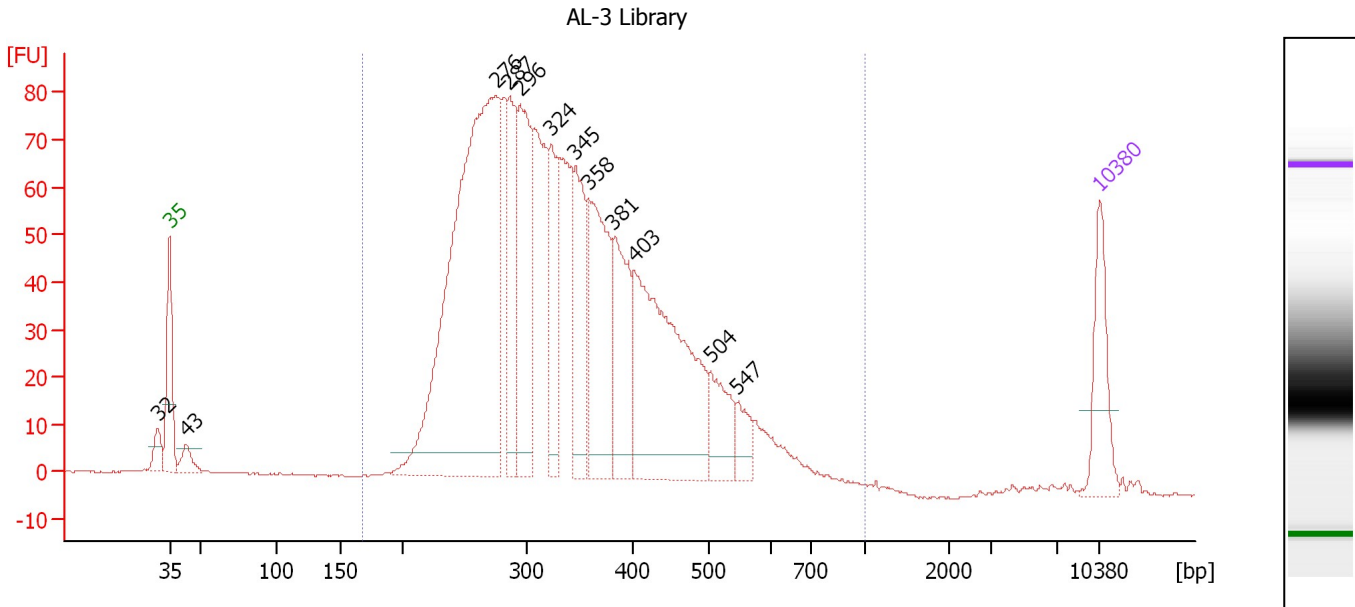
Region table for sample 2 : AL-2 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
158	1,000	343	2,593.2	22,002.9	4,526.60	97	29.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
 Modified: 2/14/2016 2:45:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : AL-3 Library

Number of peaks found: 12 Corr. Area 1: 1,785.2
 Noise: 0.2

Peak table for sample 3 : AL-3 Library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.10
2	35	125.00	5,411.3	Lower Marker	43.00
3	43	32.00	1,132.0		44.25
4	276	992.43	5,441.6		67.63
5	287	171.20	905.1		68.58
6	296	248.48	1,272.7		69.43
7	324	136.10	637.0		71.73
8	345	164.97	723.6		73.48
9	358	241.20	1,019.6		74.53
10	381	169.75	675.5		76.33
11	403	412.51	1,552.5		78.02
12	504	80.18	241.1		83.72
13	547	36.88	102.2		85.72
14	10,380	75.00	10.9	Upper Marker	113.00

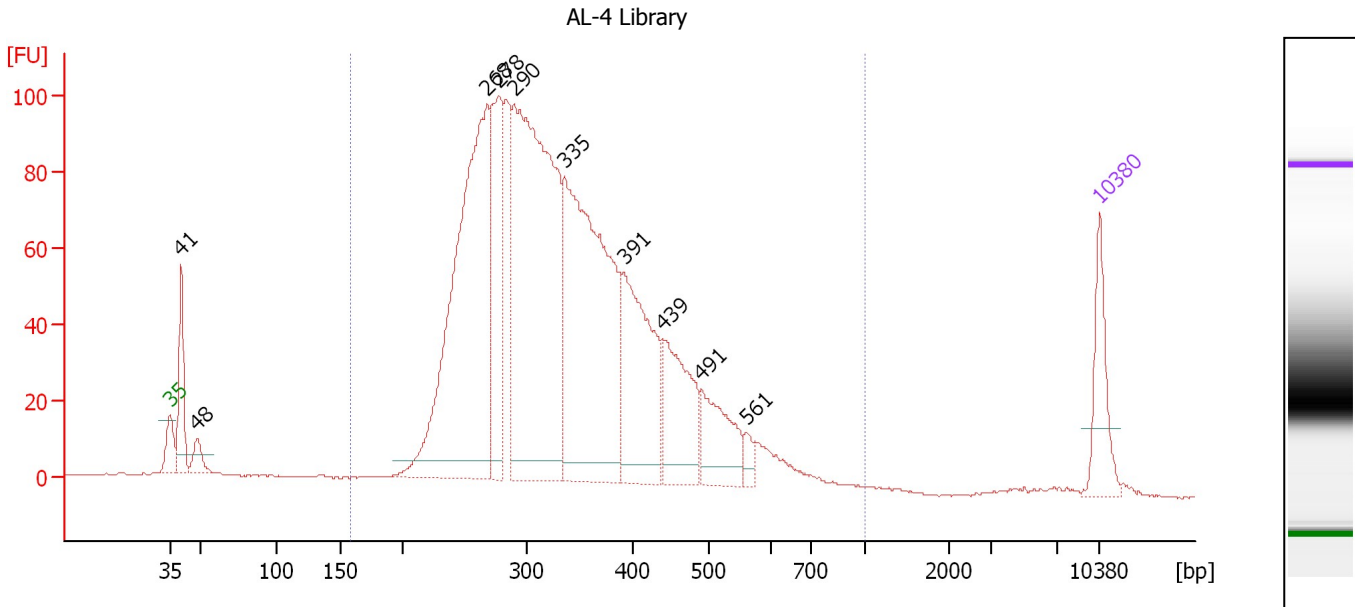
Region table for sample 3 : AL-3 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
167	1,000	349	1,785.2	16,149.6	3,388.84	97	28.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
 Modified: 2/14/2016 2:45:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : AL-4 Library

Number of peaks found: 10 Corr. Area 1: 2,073.7
 Noise: 0.2

Peak table for sample 4 : AL-4 Library

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	41	145.09	5,413.9		43.89
3	48	39.06	1,231.0		45.09
4	268	849.26	4,804.6		66.85
5	278	280.24	1,530.1		67.74
6	290	933.02	4,867.7		68.93
7	335	720.02	3,254.1		72.66
8	391	302.18	1,169.9		77.18
9	439	186.66	643.6		80.11
10	491	123.51	381.0		83.04
11	561	19.03	51.4		86.37
12	10,380	75.00	10.9	Upper Marker	113.00

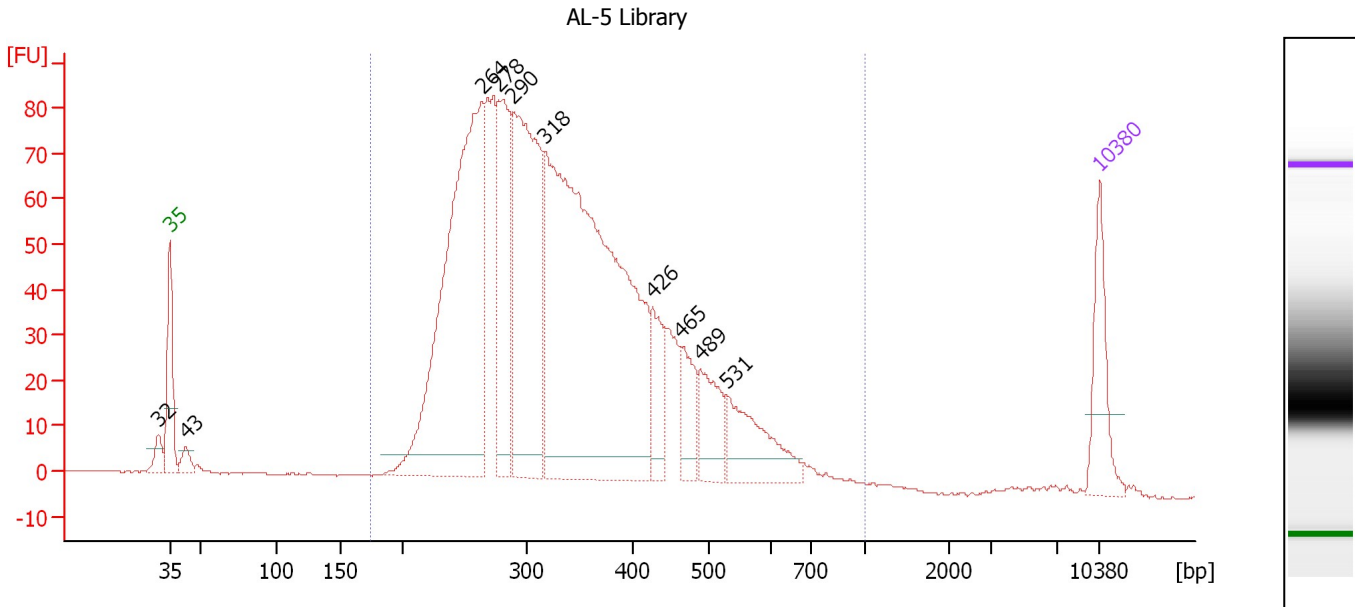
Region table for sample 4 : AL-4 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
159	1,000	344	2,073.7	17,790.5	3,710.52	94	27.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
 Modified: 2/14/2016 2:45:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : AL-5 Library

Number of peaks found: 10 Corr. Area 1: 1,832.3
 Noise: 0.2

Peak table for sample 5 : AL-5 Library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.14
2	35	125.00	5,411.3	Lower Marker	43.00
3	43	24.76	880.8		44.21
4	264	786.67	4,516.6		66.48
5	278	244.74	1,335.9		67.75
6	290	485.97	2,542.5		68.86
7	318	1,114.64	5,307.9		71.28
8	426	86.13	306.2		79.36
9	465	66.43	216.7		81.54
10	489	90.07	279.3		82.90
11	531	121.94	348.1		84.97
12	10,380	75.00	10.9	Upper Marker	113.00

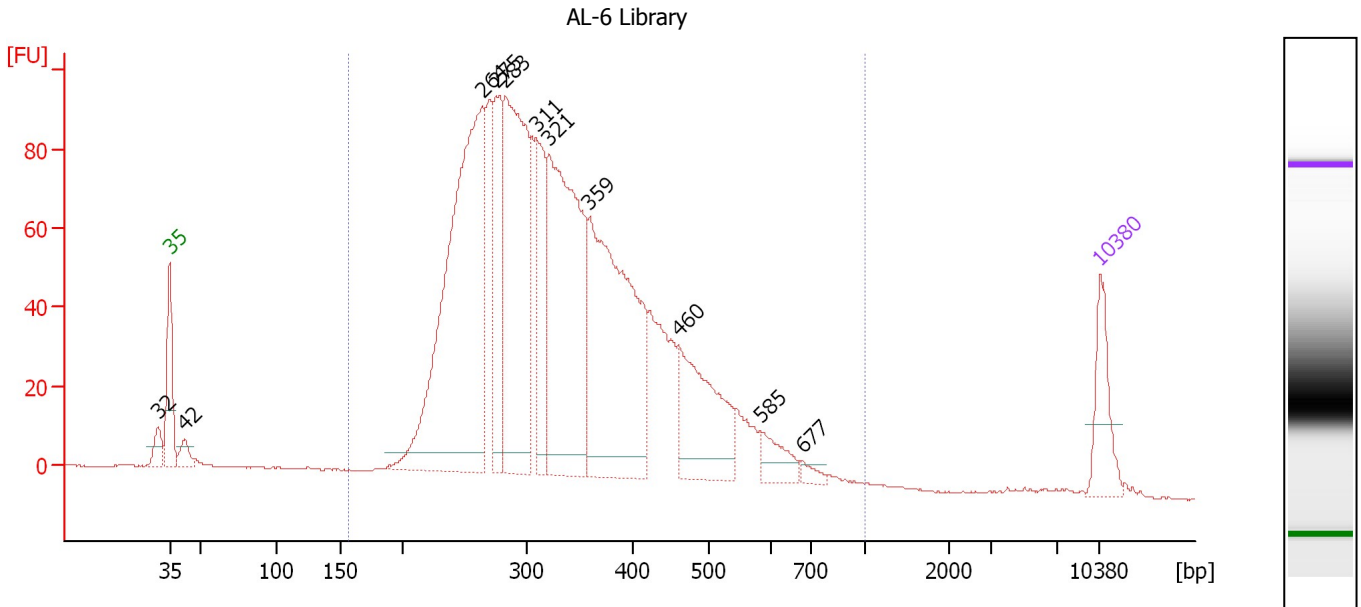
Region table for sample 5 : AL-5 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
173	1,000	346	1,832.3	16,040.6	3,327.70	97	29.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
 Modified: 2/14/2016 2:45:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : AL-6 Library

Number of peaks found: 11 Corr. Area 1: 2,023.5
 Noise: 0.2

Peak table for sample 6 : AL-6 Library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.14
2	35	125.00	5,411.3	Lower Marker	43.00
3	42	33.53	1,200.8		44.17
4	264	937.65	5,383.3		66.49
5	275	228.01	1,254.2		67.55
6	283	599.08	3,205.8		68.26
7	311	170.27	829.8		70.70
8	321	621.66	2,934.7		71.51
9	359	625.18	2,636.0		74.60
10	460	241.97	796.4		81.30
11	585	53.07	137.5		87.49
12	677	15.34	34.3		90.58
13	10,380	75.00	10.9	Upper Marker	113.00

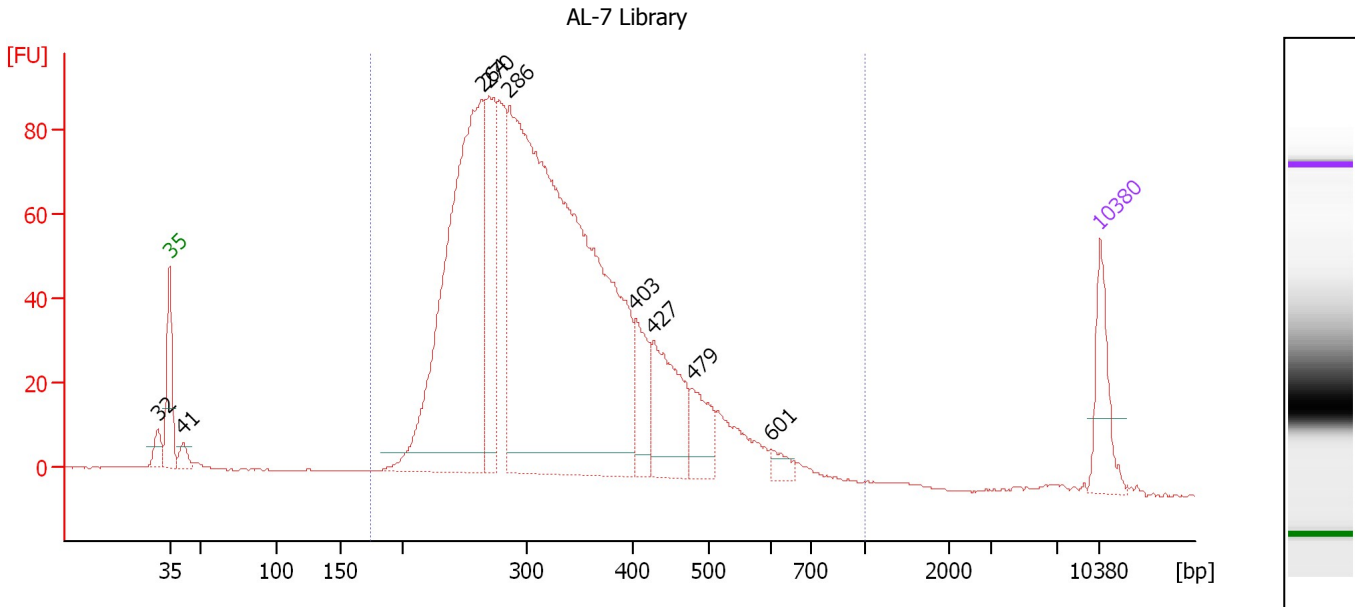
Region table for sample 6 : AL-6 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
156	1,000	344	2,023.5	20,057.2	4,147.95	97	28.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
 Modified: 2/14/2016 2:45:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : AL-7 Library

Number of peaks found: 9 Corr. Area 1: 1,799.6
 Noise: 0.2

Peak table for sample 7 : AL-7 Library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.13
2	35	125.00	5,411.3	Lower Marker	43.00
3	41	28.39	1,038.9		44.02
4	264	949.07	5,444.8		66.50
5	270	261.08	1,464.1		67.07
6	286	1,844.21	9,762.0		68.55
7	403	100.33	377.1		78.05
8	427	185.10	657.6		79.38
9	479	81.43	257.7		82.34
10	601	20.60	51.9		88.22
11	10,380	75.00	10.9	Upper Marker	113.00

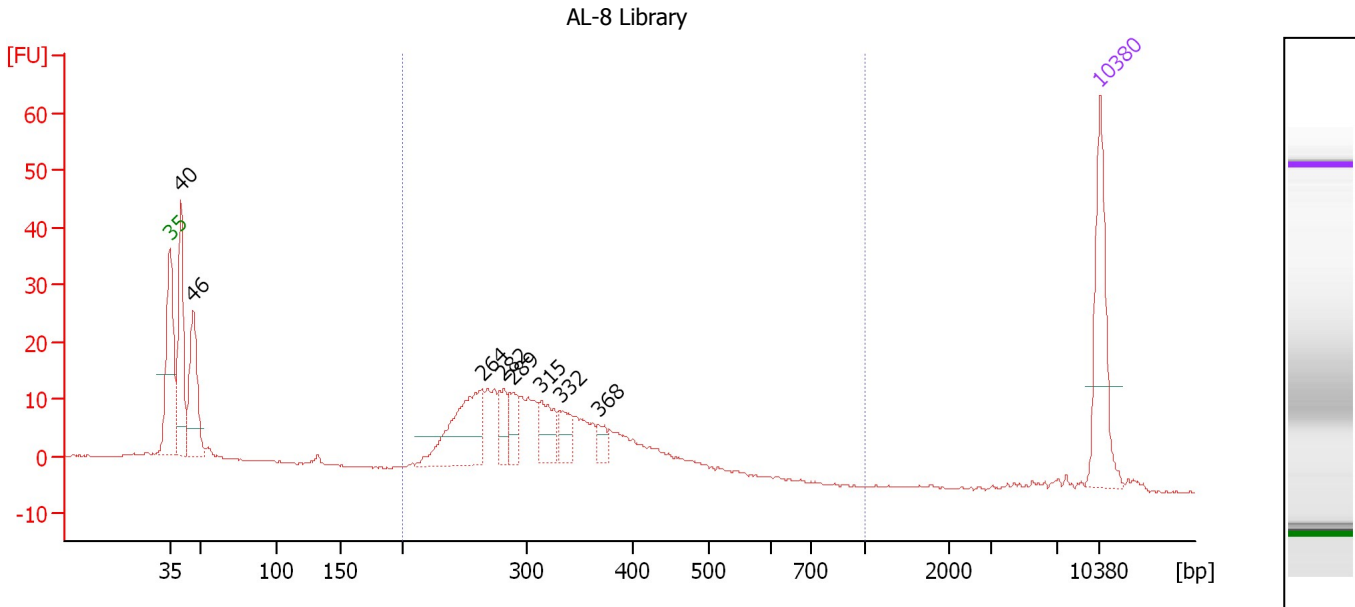
Region table for sample 7 : AL-7 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
173	1,000	337	1,799.6	18,278.9	3,715.61	96	28.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
 Modified: 2/14/2016 2:45:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : AL-8 Library

Number of peaks found: 8 Corr. Area 1: 264.3
 Noise: 0.1

Peak table for sample 8 : AL-8 Library

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	40	132.27	4,964.1		43.86
3	46	108.20	3,559.3		44.77
4	264	116.56	668.8		66.50
5	282	28.24	152.0		68.12
6	289	24.88	130.6		68.77
7	315	38.13	183.7		70.99
8	332	23.59	107.6		72.40
9	368	13.57	55.9		75.28
10	10,380	75.00	10.9	Upper Marker	113.00

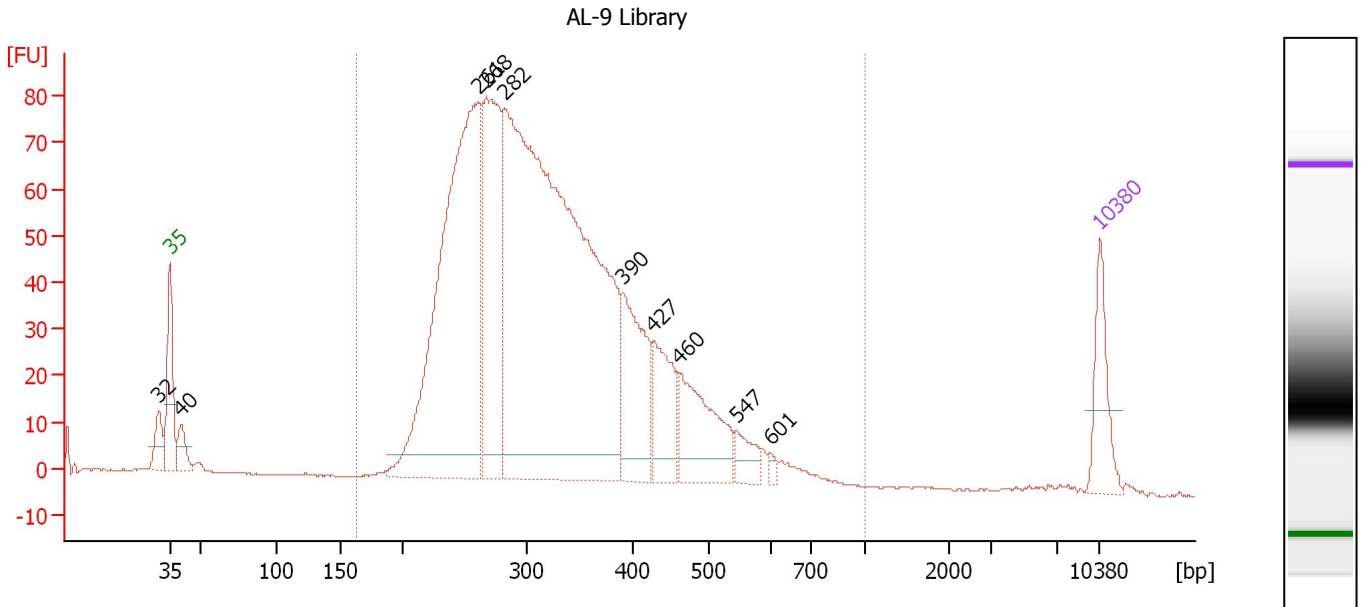
Region table for sample 8 : AL-8 Library

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	326	264.3	2,684.2	543.62	68	22.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
 Modified: 2/14/2016 2:45:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : AL-9 Library

Number of peaks found: 10 Corr. Area 1: 1,649.2
 Noise: 0.2

Peak table for sample 9 : AL-9 Library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.18
2	35	125.00	5,411.3	Lower Marker	43.00
3	40	50.83	1,904.1		43.87
4	261	1,027.03	5,962.9		66.21
5	268	431.07	2,435.6		66.88
6	282	1,867.45	10,033.2		68.16
7	390	213.46	829.8		77.05
8	427	134.28	476.5		79.41
9	460	183.33	603.4		81.30
10	547	40.78	112.9		85.75
11	601	8.56	21.6		88.20
12	10,380	75.00	10.9	Upper Marker	113.00

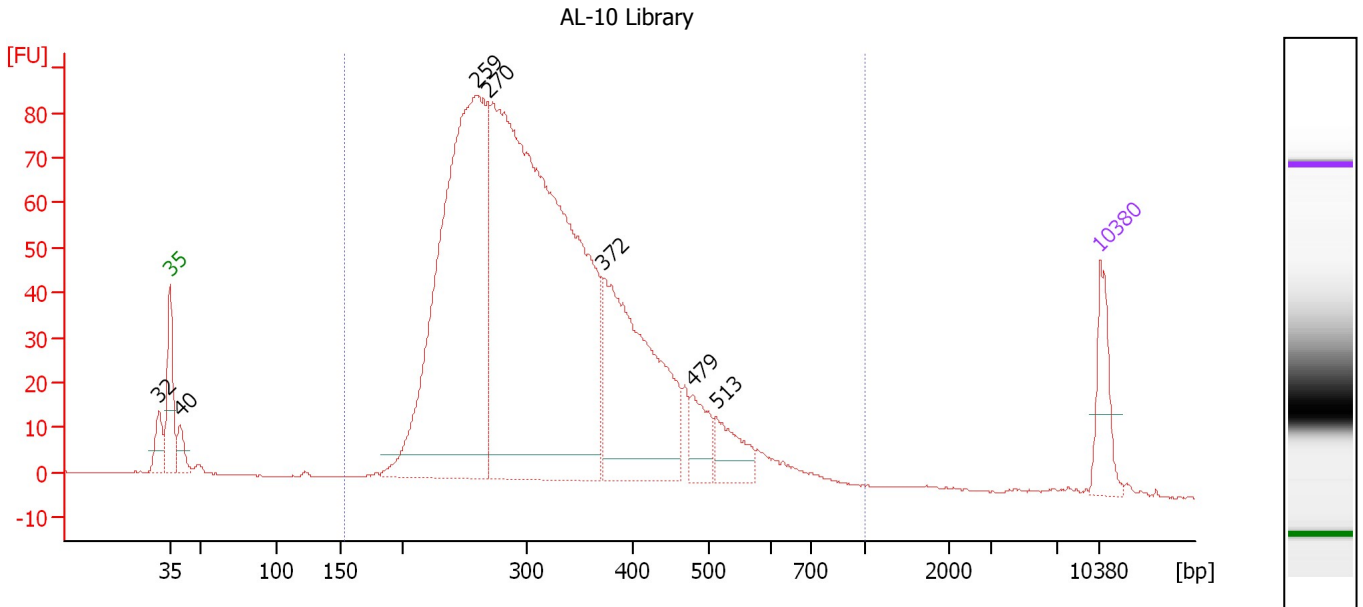
Region table for sample 9 : AL-9 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
162	1,000	332	1,649.2	19,189.6	3,861.69	96	27.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
 Modified: 2/14/2016 2:45:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : AL-10 Library

Number of peaks found: 7 Corr. Area 1: 1,695.1
 Noise: 0.1

Peak table for sample 10 : AL-10 Library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.23
2	35	125.00	5,411.3	Lower Marker	43.00
3	40	51.10	1,943.8		43.77
4	259	1,355.66	7,927.5		66.04
5	270	2,087.41	11,703.4		67.07
6	372	576.41	2,344.7		75.66
7	479	79.78	252.4		82.35
8	513	84.03	248.2		84.15
9	10,380	75.00	10.9	Upper Marker	113.00

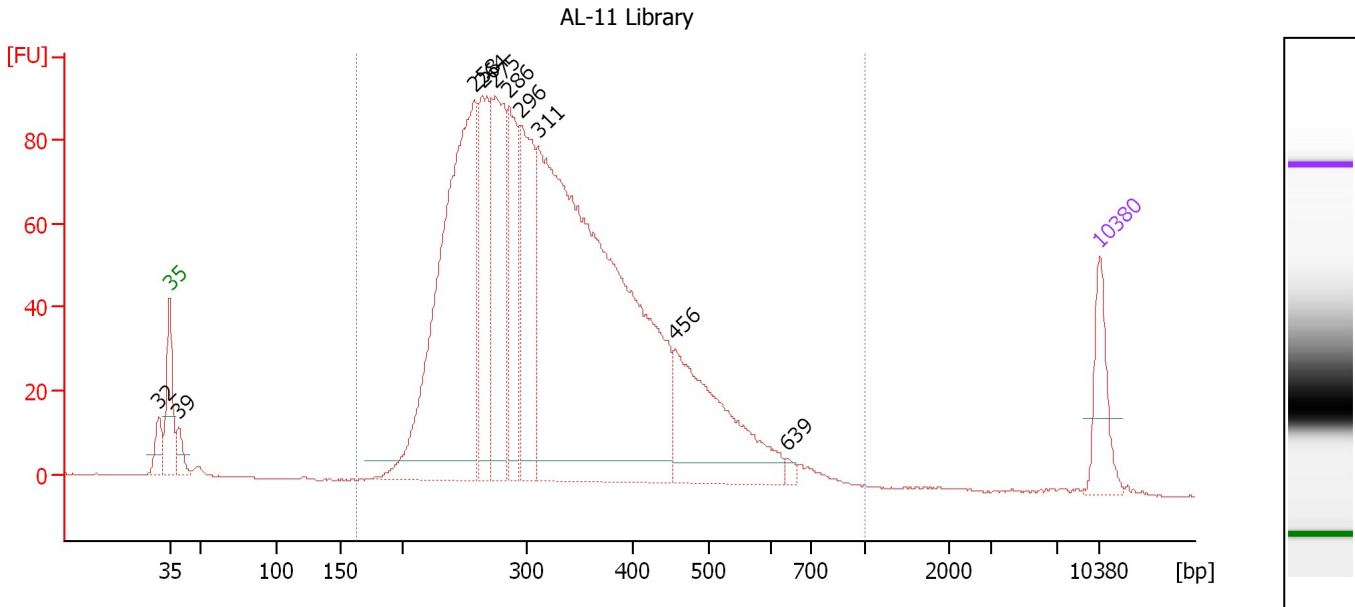
Region table for sample 10 : AL-10 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
153	1,000	329	1,695.1	21,107.0	4,196.99	96	28.5

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Created: 2/14/2016 2:03:42 PM
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Electropherogram Summary Continued ...



Overall Results for sample 11 : AL-11 Library

Number of peaks found: 10 Corr. Area 1: 1,949.0
 Noise: 0.2

Peak table for sample 11 : AL-11 Library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.23
2	35	125.00	5,411.3	Lower Marker	43.00
3	39	41.73	1,613.0		43.67
4	258	981.05	5,753.6		65.97
5	264	295.40	1,695.8		66.49
6	275	316.22	1,741.7		67.52
7	286	210.57	1,114.6		68.55
8	296	311.71	1,597.0		69.42
9	311	1,662.51	8,097.2		70.71
10	456	345.71	1,148.1		81.06
11	639	9.99	23.7		89.41
12	10,380	75.00	10.9	Upper Marker	113.00

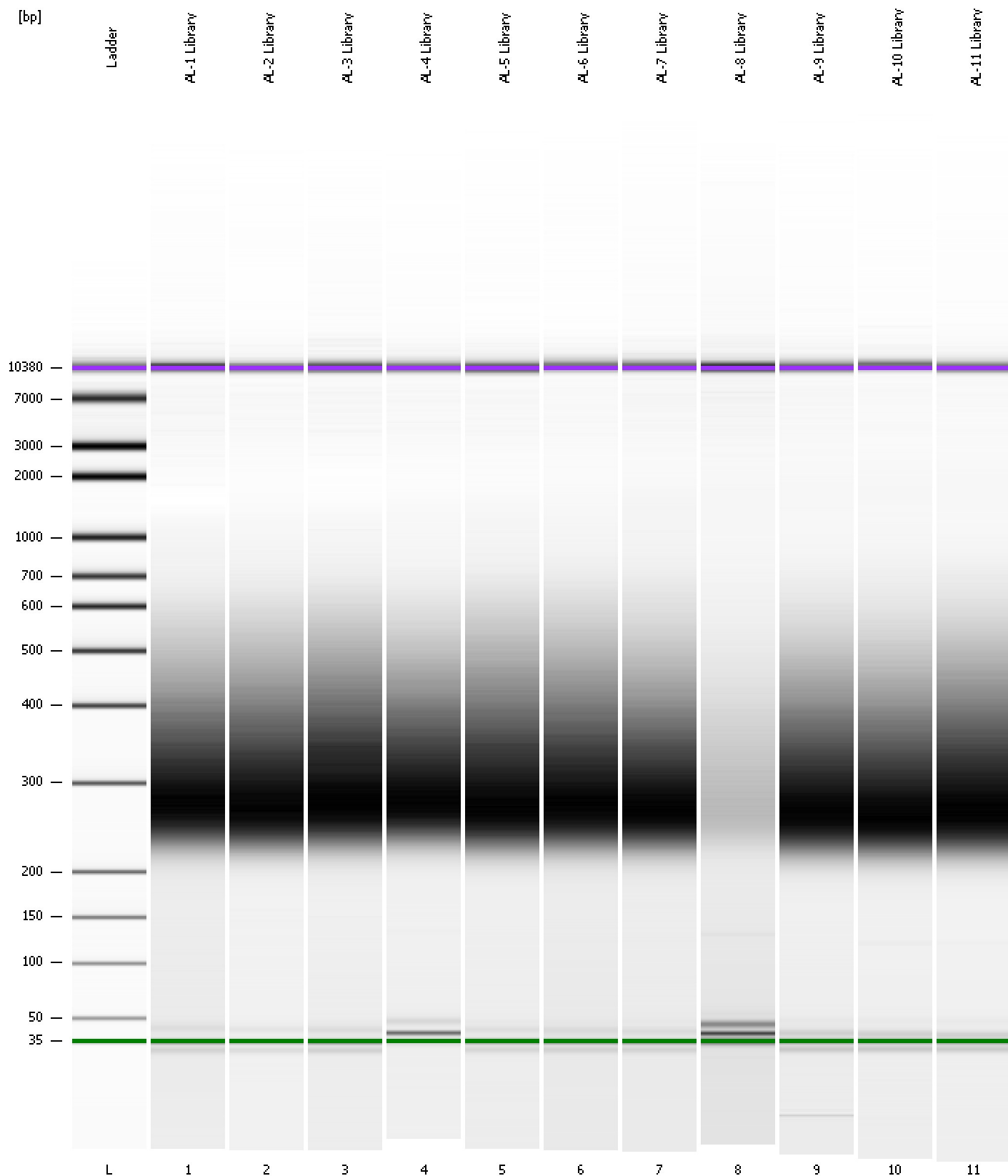
Region table for sample 11 : AL-11 Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
163	1,000	339	1,949.0	20,448.7	4,163.95	97	29.2

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
Modified: 2/14/2016 2:45:26 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad

Created: 2/14/2016 2:03:42 PM
 Modified: 2/14/2016 2:45:26 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		2/14/2016 2:45:00 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2016-02-14\2016-02-14_001.xad)		Instrument	Run		2/14/2016 2:03:48 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		2/14/2016 2:03:48 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		2/14/2016 2:03:48 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		2/14/2016 2:03:48 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		2/14/2016 2:03:48 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		2/14/2016 2:03:48 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		2/14/2016 2:03:48 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1