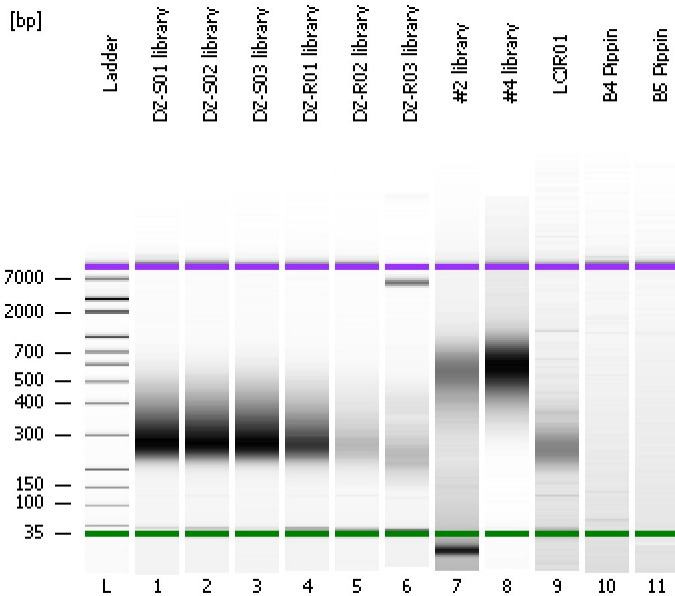


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
Modified: 4/7/2015 2:45:57 PM

Electrophoresis File Run Summary



Instrument Information:

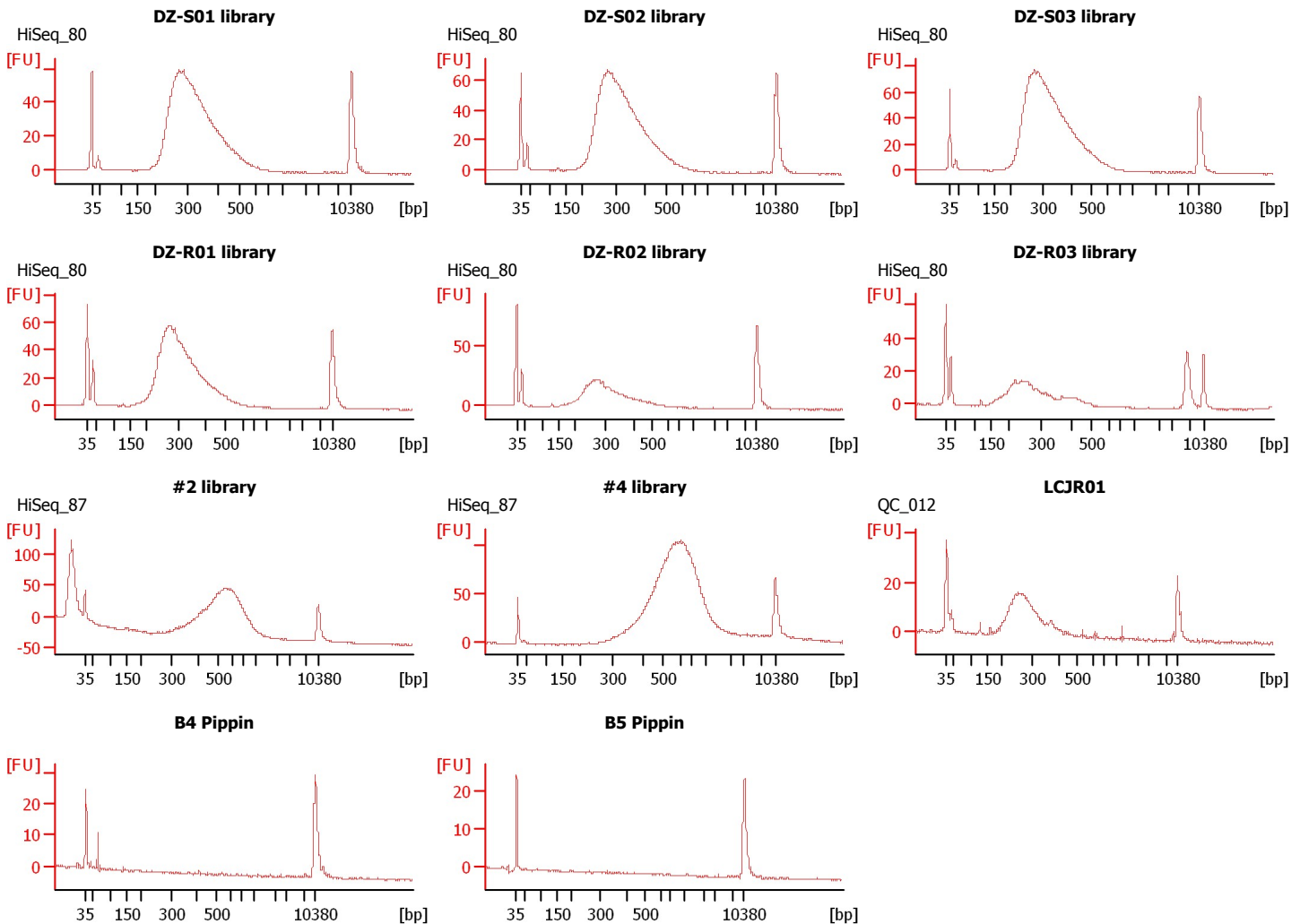
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
Modified: 4/7/2015 2:45:57 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
DZ-S01 library	HiSeq_80	<input type="checkbox"/>	✓			
DZ-S02 library	HiSeq_80	<input type="checkbox"/>	✓			
DZ-S03 library	HiSeq_80	<input type="checkbox"/>	✓			
DZ-R01 library	HiSeq_80	<input type="checkbox"/>	✓			
DZ-R02 library	HiSeq_80	<input type="checkbox"/>	✓			
DZ-R03 library	HiSeq_80	<input type="checkbox"/>	✓			
#2 library	HiSeq_87	<input type="checkbox"/>	✓			
#4 library	HiSeq_87	<input type="checkbox"/>	✓			
LCJR01	QC_012	<input type="checkbox"/>	✓			
B4 Pippin		<input type="checkbox"/>	✓			
B5 Pippin		<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\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
Modified: 4/7/2015 2:45:57 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

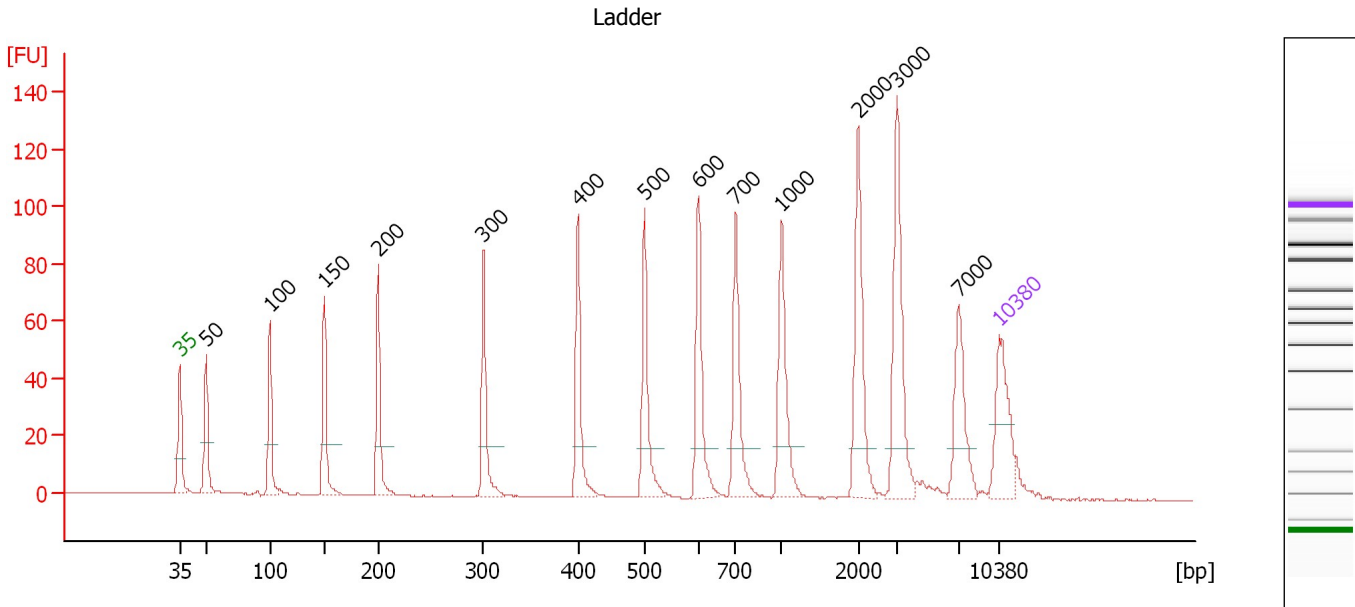
Ladder

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\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
 Modified: 4/7/2015 2:45:57 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

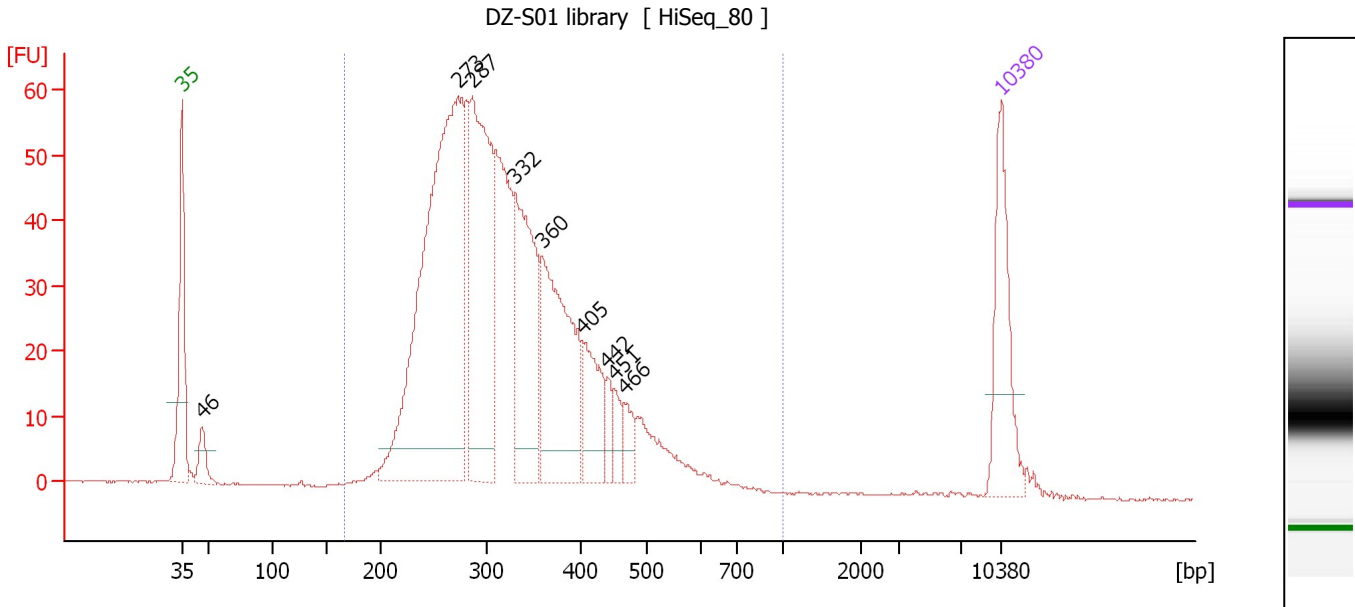
Peak table for Ladder

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	45.28
3	100	150.00	2,272.7	Ladder Peak	50.74
4	150	150.00	1,515.2	Ladder Peak	55.39
5	200	150.00	1,136.4	Ladder Peak	59.99
6	300	150.00	757.6	Ladder Peak	68.96
7	400	150.00	568.2	Ladder Peak	77.02
8	500	150.00	454.5	Ladder Peak	82.71
9	600	150.00	378.8	Ladder Peak	87.36
10	700	150.00	324.7	Ladder Peak	90.50
11	1,000	150.00	227.3	Ladder Peak	94.42
12	2,000	150.00	113.6	Ladder Peak	100.98
13	3,000	150.00	75.8	Ladder Peak	104.30
14	7,000	150.00	32.5	Ladder Peak	109.54
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
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Electropherogram Summary Continued ...



Overall Results for sample 1 : DZ-S01 library

Number of peaks found: 9 Corr. Area 1: 1,172.1
 Noise: 0.1

Peak table for sample 1 : DZ-S01 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	46	31.85	1,046.5		44.69
3	273	606.16	3,358.8		66.58
4	287	293.29	1,547.5		67.81
5	332	185.41	847.3		71.50
6	360	208.93	879.8		73.78
7	405	70.28	263.1		77.29
8	442	17.06	58.5		79.39
9	451	21.00	70.5		79.94
10	466	19.69	64.0		80.80
11	10,380	75.00	10.9	Upper Marker	113.00

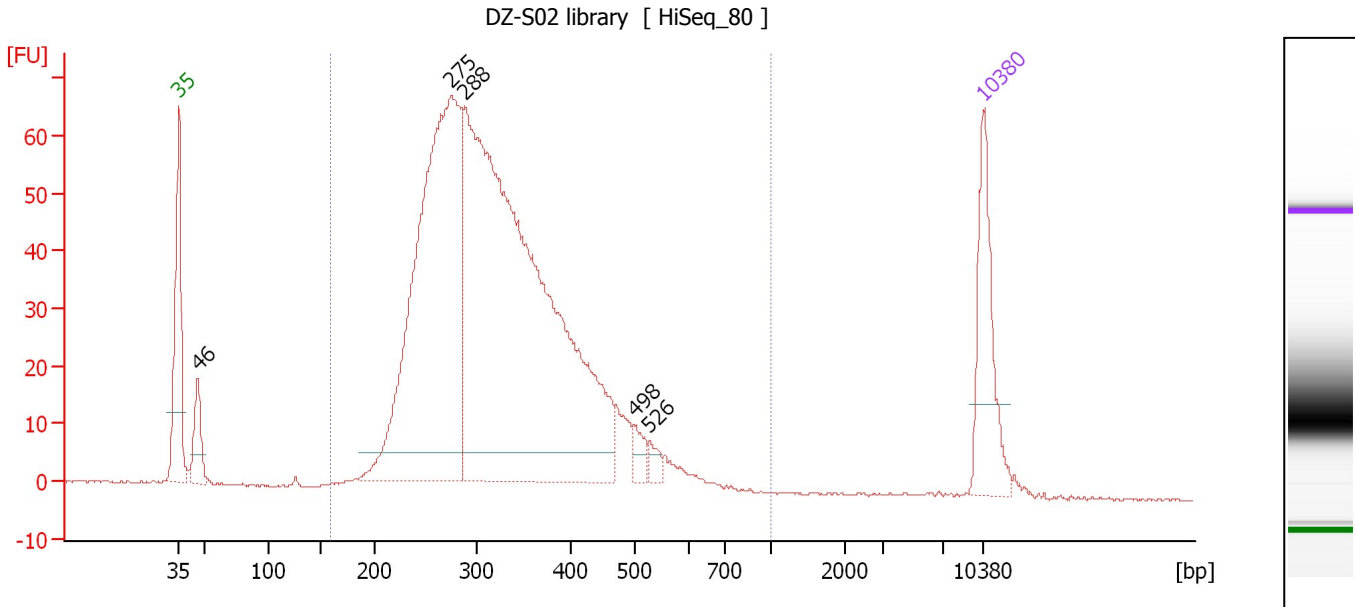
Region table for sample 1 : DZ-S01 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
166	329	1,000	1,172.1	9,012.9	98	25.0	1,820.04	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
 Modified: 4/7/2015 2:45:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : DZ-S02 library

Number of peaks found: 5 Corr. Area 1: 1,321.0
 Noise: 0.2

Peak table for sample 2 : DZ-S02 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	46	55.45	1,838.4		44.62
3	275	664.68	3,664.0		66.70
4	288	1,059.23	5,566.6		67.91
5	498	17.00	51.7		82.62
6	526	10.57	30.5		83.91
7	10,380	75.00	10.9	Upper Marker	113.00

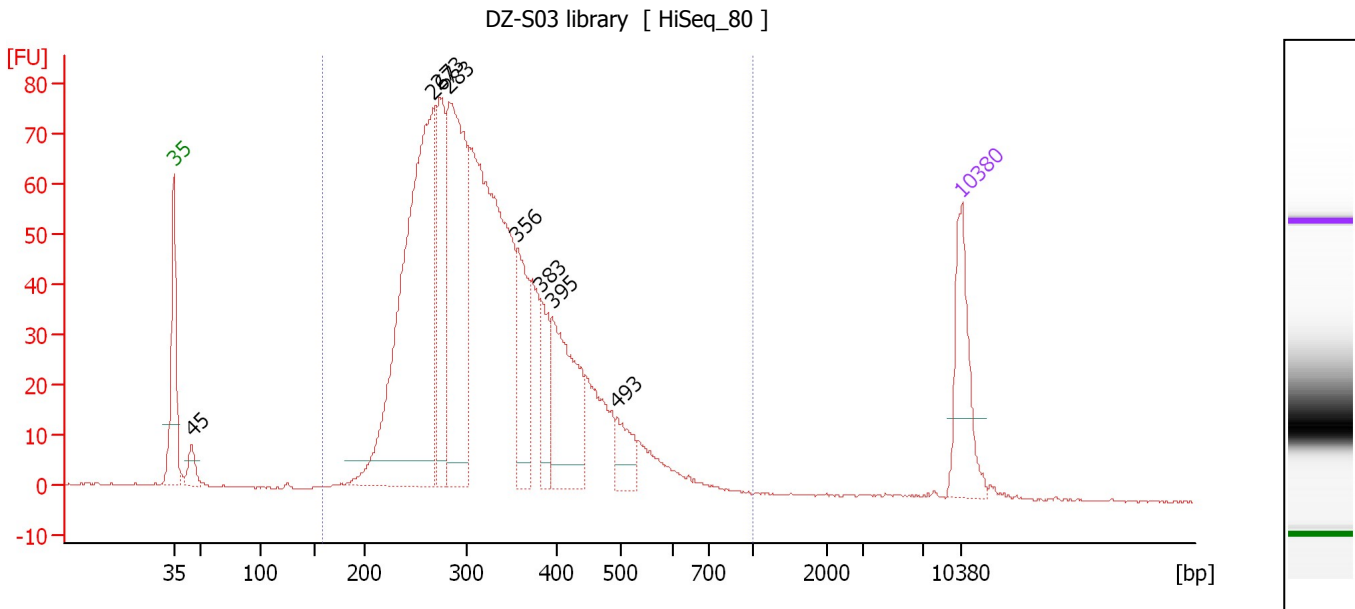
Region table for sample 2 : DZ-S02 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
159	329	1,000	1,321.0	8,811.0	97	25.2	1,776.65	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
 Modified: 4/7/2015 2:45:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : DZ-S03 library

Number of peaks found: 8 Corr. Area 1: 1,550.8
 Noise: 0.2

Peak table for sample 3 : DZ-S03 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	45	30.60	1,023.5		44.56
3	267	642.30	3,646.9		65.99
4	273	175.17	971.5		66.55
5	283	368.78	1,972.8		67.45
6	356	110.19	469.0		73.47
7	383	59.09	233.7		75.65
8	395	158.90	609.8		76.60
9	493	39.53	121.4		82.34
10	10,380	75.00	10.9	Upper Marker	113.00

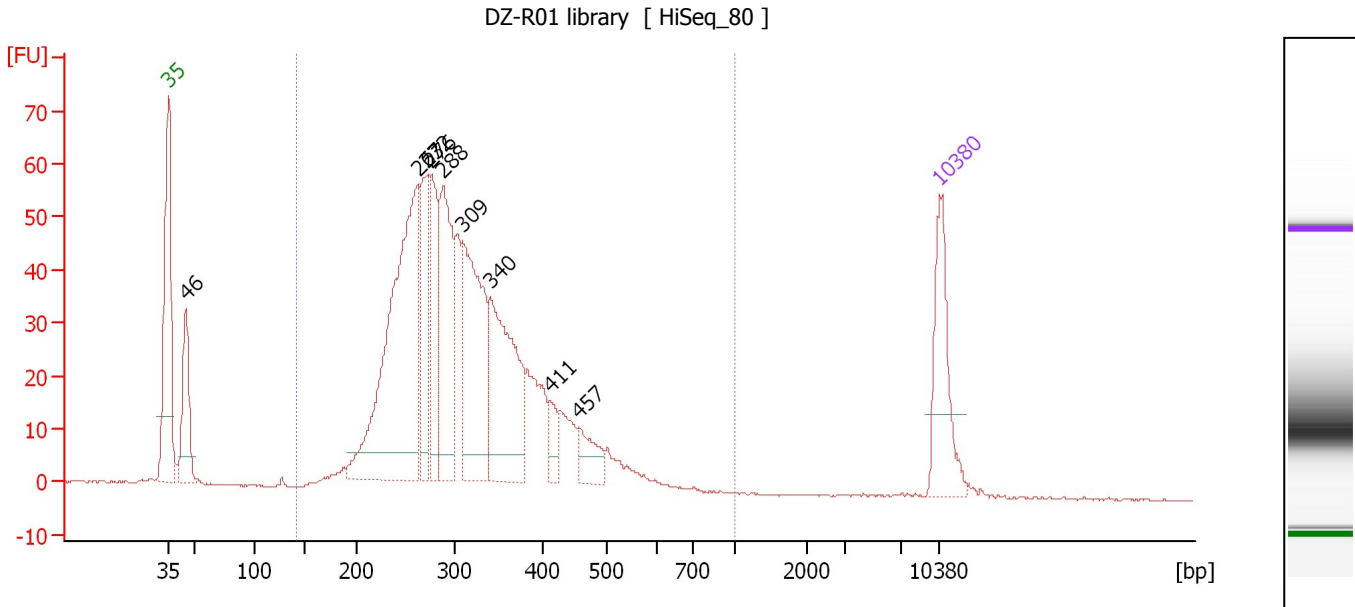
Region table for sample 3 : DZ-S03 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
158	332	1,000	1,550.8	11,820.1	98	26.3	2,395.08	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
 Modified: 4/7/2015 2:45:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : DZ-R01 library

Number of peaks found: 9 Corr. Area 1: 1,069.4
 Noise: 0.2

Peak table for sample 4 : DZ-R01 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	46	115.32	3,838.7		44.60
3	263	447.79	2,579.8		65.64
4	272	120.85	674.1		66.41
5	276	116.71	639.6		66.85
6	288	178.38	937.4		67.91
7	309	221.25	1,084.1		69.70
8	340	207.38	924.6		72.17
9	411	21.27	78.5		77.64
10	457	35.14	116.6		80.25
11	10,380	75.00	10.9	Upper Marker	113.00

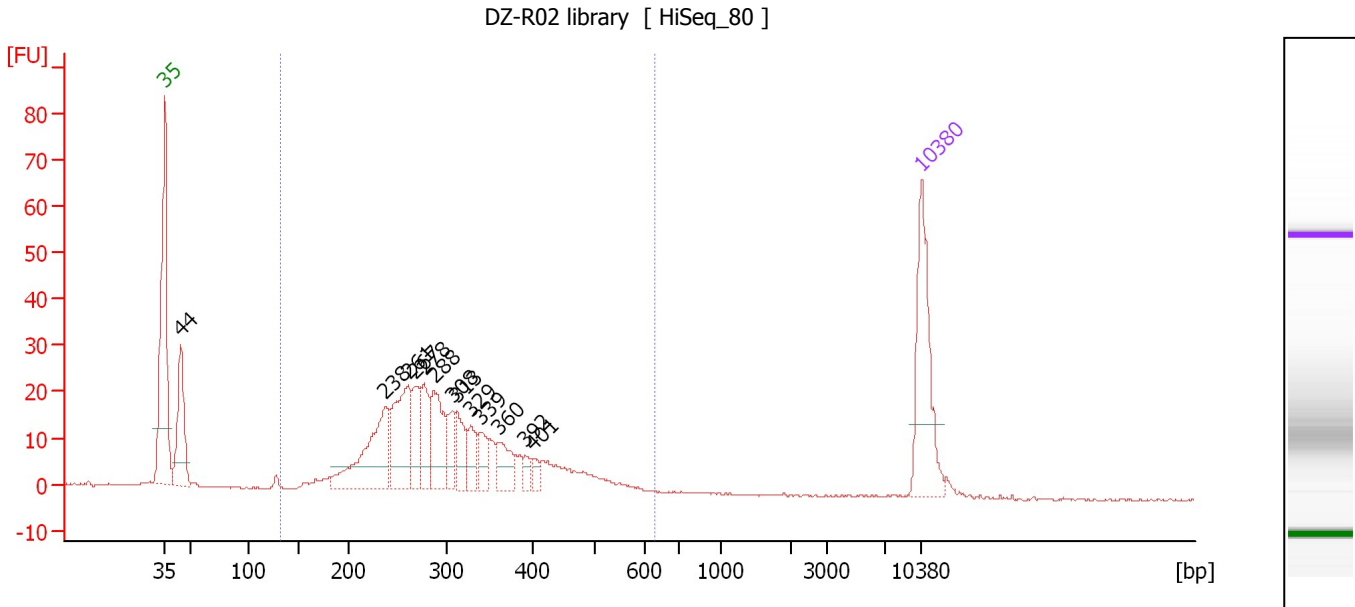
Region table for sample 4 : DZ-R01 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
142	318	1,000	1,069.4	8,691.0	94	24.6	1,698.09	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
 Modified: 4/7/2015 2:45:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : DZ-R02 library

Number of peaks found: 13 Corr. Area 1: 416.6
 Noise: 0.1

Peak table for sample 5 : DZ-R02 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	44	99.99	3,410.3		44.43
3	238	110.27	702.8		63.37
4	261	96.25	559.1		65.45
5	267	43.55	246.7		66.04
6	278	41.67	227.2		66.97
7	288	62.55	329.4		67.86
8	308	26.27	129.3		69.59
9	313	31.03	150.1		70.03
10	329	23.40	107.9		71.27
11	339	24.39	109.0		72.11
12	360	28.64	120.6		73.78
13	392	9.12	35.3		76.35
14	401	8.82	33.3		77.09
15	10,380	75.00	10.9	Upper Marker	113.00

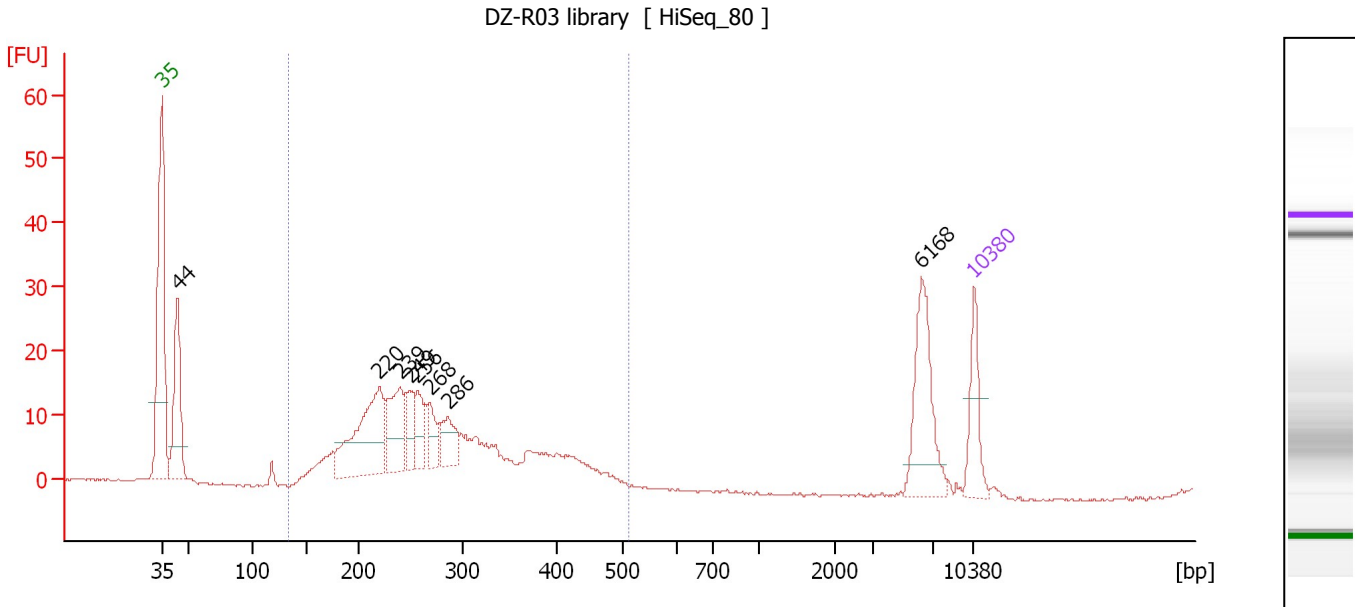
Region table for sample 5 : DZ-R02 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
131	310	628	416.6	3,207.3	88	25.4	606.34	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
 Modified: 4/7/2015 2:45:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : DZ-R03 library

Number of peaks found: 8 Corr. Area 1: 302.8
 Noise: 0.2

Peak table for sample 6 : DZ-R03 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	44	284.62	9,850.2		44.33
3	220	327.26	2,257.2		61.75
4	239	153.90	975.1		63.50
5	249	77.80	473.6		64.37
6	256	70.94	419.8		65.02
7	268	54.95	310.9		66.07
8	286	75.97	402.8		67.68
9	6,168	169.72	41.7		108.45
10	10,380	75.00	10.9	Upper Marker	113.00

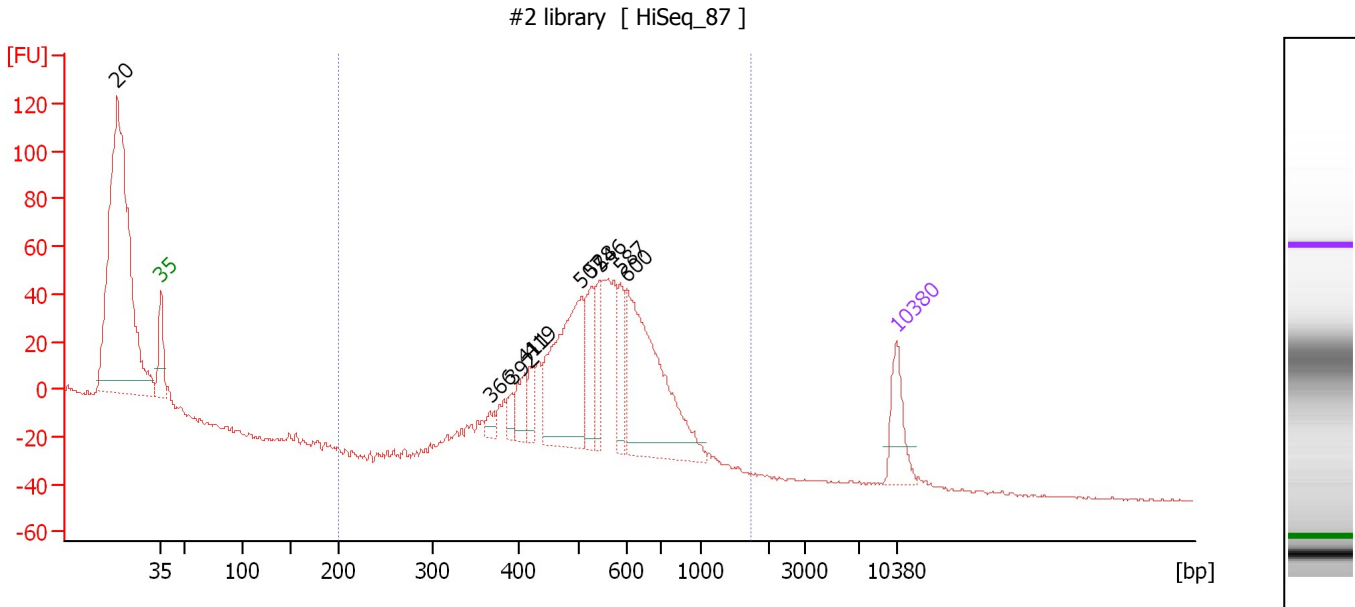
Region table for sample 6 : DZ-R03 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
134	277	511	302.8	8,593.4	75	26.8	1,434.96	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
 Modified: 4/7/2015 2:45:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : #2 library

Number of peaks found: 10 Corr. Area 1: 953.3
 Noise: 0.5

Peak table for sample 7 : #2 library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	20	0.00	0.0		38.84
2	35	125.00	5,411.3	Lower Marker	43.00
3	366	21.06	87.1		74.32
4	392	28.02	108.2		76.40
5	411	59.43	219.4		77.62
6	419	45.22	163.4		78.13
7	507	354.50	1,058.9		83.05
8	528	99.11	284.4		84.02
9	546	78.00	216.7		84.83
10	587	84.43	217.9		86.76
11	600	407.61	1,029.0		87.37
12	10,380	75.00	10.9	Upper Marker	113.00

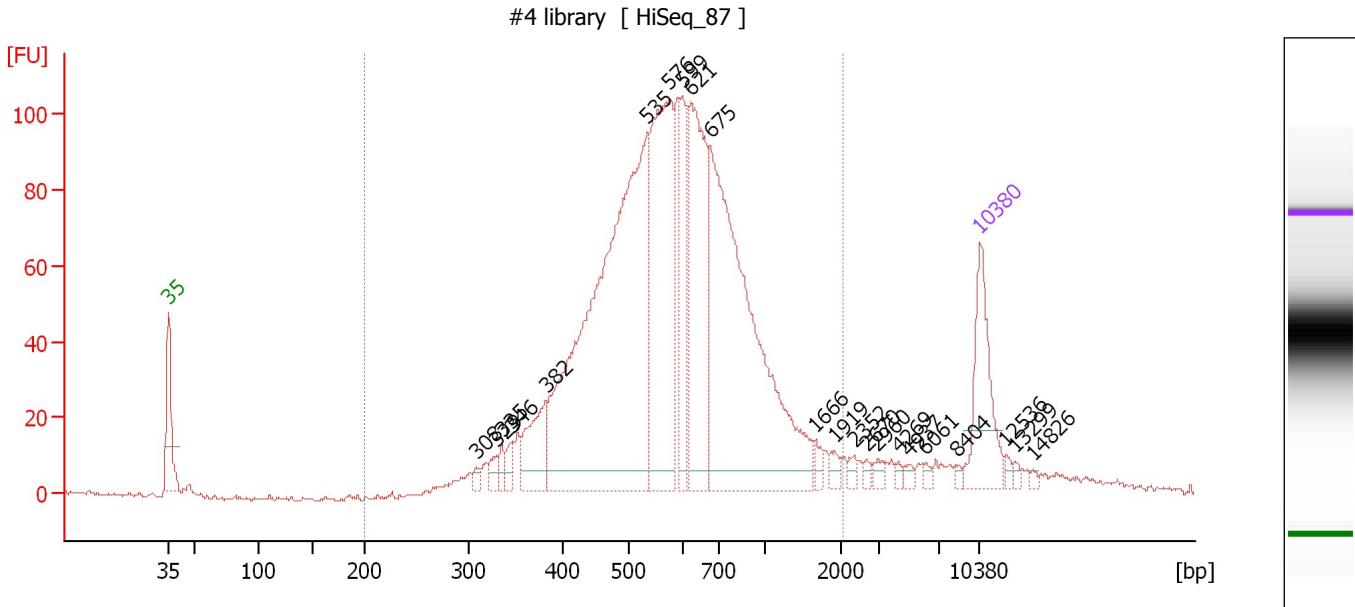
Region table for sample 7 : #2 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	558	1,722	953.3	3,854.1	56	20.1	1,350.01	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
 Modified: 4/7/2015 2:45:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : #4 library

Number of peaks found: 22 Corr. Area 1: 1,907.0
 Noise: 0.4

Peak table for sample 8 : #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	308	7.34	36.1		69.58
3	329	14.02	64.6		71.29
4	335	11.63	52.6		71.79
5	346	15.00	65.7		72.66
6	382	69.31	275.0		75.56
7	535	691.76	1,958.5		84.35
8	576	290.78	765.2		86.23
9	599	90.28	228.5		87.29
10	621	209.78	511.6		88.03
11	675	496.85	1,114.6		89.73
12	1,666	9.11	8.3		98.79
13	1,919	8.24	6.5		100.44
14	2,352	6.32	4.1		102.15
15	2,670	4.42	2.5		103.20
16	2,960	6.70	3.4		104.17
17	4,269	3.47	1.2		105.96
18	4,937	5.62	1.7		106.84
19	6,061	4.21	1.1		108.31
20	8,404	3.37	0.6		110.98
21	10,380	75.00	10.9	Upper Marker	113.00
22	12,536	0.00	0.0		115.21
23	13,299	0.00	0.0		115.99
24	14,826	0.00	0.0		117.55

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
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Electropherogram Summary Continued ...

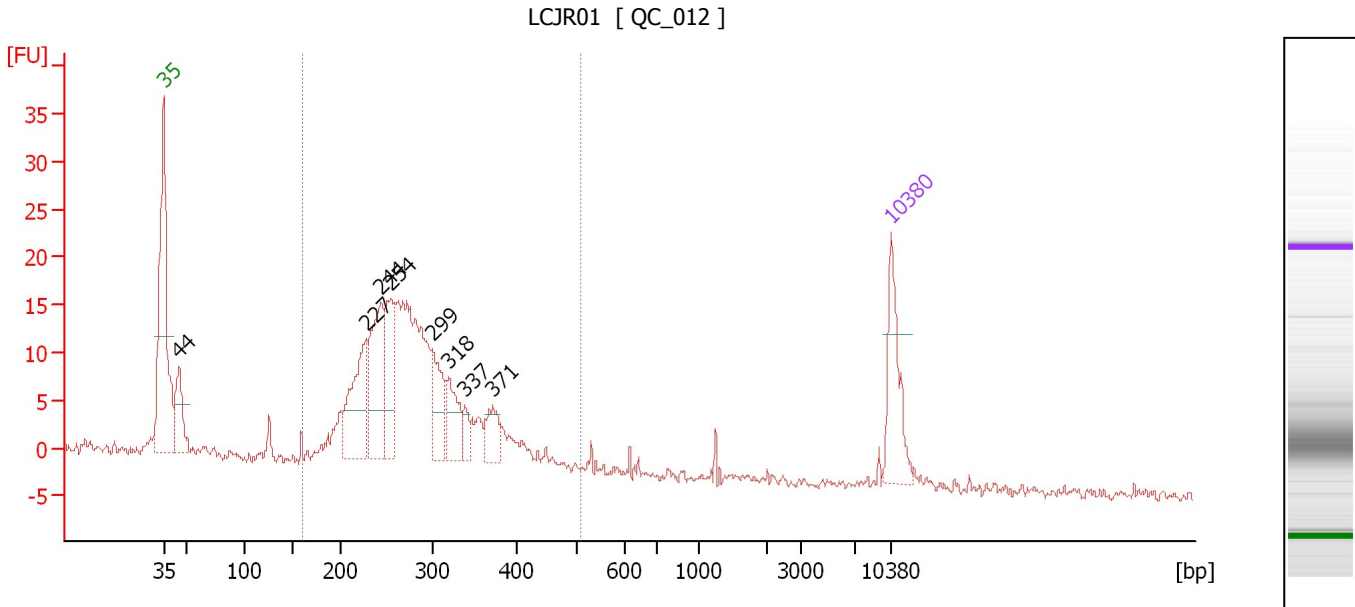
... Region table for sample 8 : #4 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	642	2,070	1,907.0	5,775.8	94	42.5	2,095.47	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
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Electropherogram Summary Continued ...



Overall Results for sample 9 : LCJR01

Number of peaks found: 8 Corr. Area 1: 274.9
 Noise: 0.5

Peak table for sample 9 : LCJR01

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	44	94.04	3,204.9		44.44
3	227	150.78	1,005.1		62.44
4	244	164.40	1,021.4		63.92
5	254	107.55	641.2		64.85
6	299	83.56	423.8		68.85
7	318	68.16	324.4		70.44
8	337	22.93	103.2		71.92
9	371	43.21	176.4		74.69
10	10,380	75.00	10.9	Upper Marker	113.00

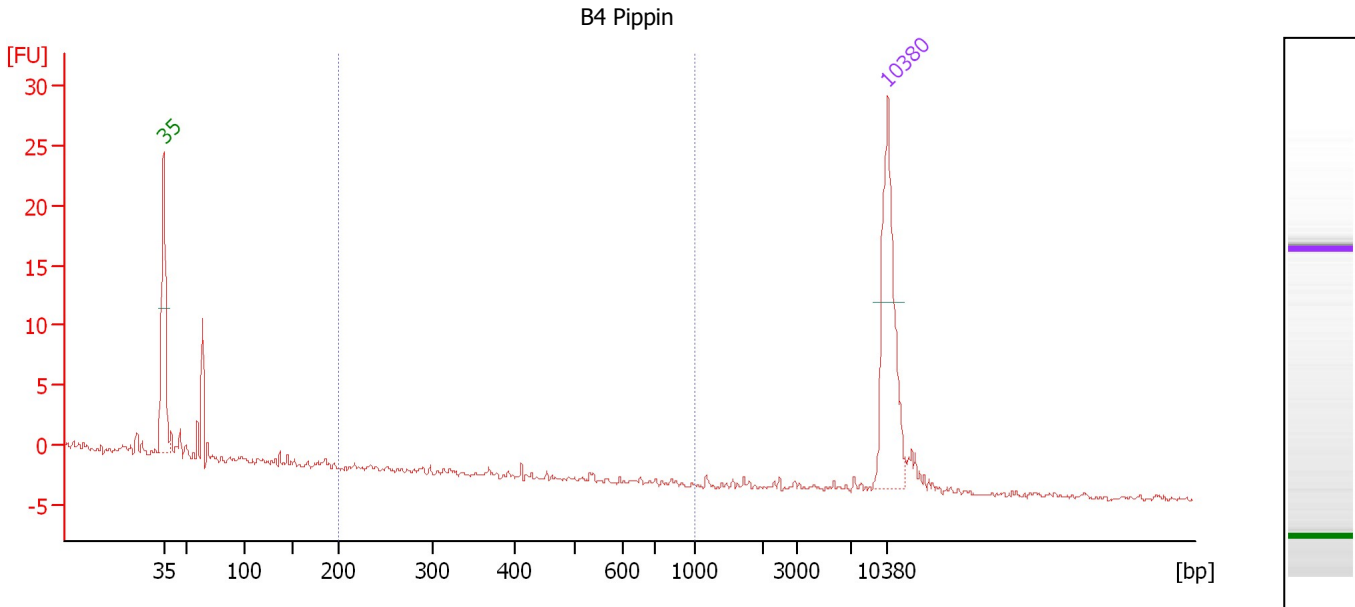
Region table for sample 9 : LCJR01

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
161	283	508	274.9	6,865.9	85	20.5	1,221.41	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
 Modified: 4/7/2015 2:45:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : B4 Pippin

Number of peaks found: 0 Corr. Area 1: 0.0
 Noise: 0.2

Peak table for sample 10 : B4 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	10,380	75.00	10.9	Upper Marker	113.00

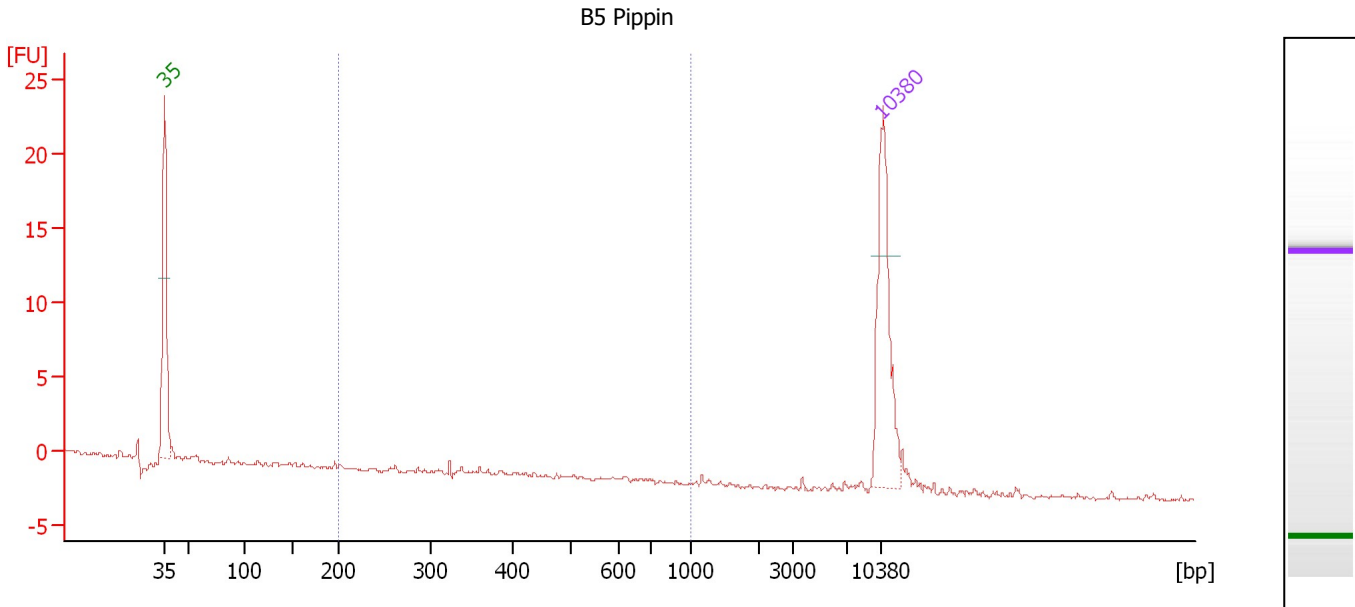
Region table for sample 10 : B4 Pippin

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	410	1,000	0.0	0.0	0	0.0	0.01	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
 Modified: 4/7/2015 2:45:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : B5 Pippin

Number of peaks found: 0 Corr. Area 1: 0.2
 Noise: 0.1

Peak table for sample 11 : B5 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	10,380	75.00	10.9	Upper Marker	113.00

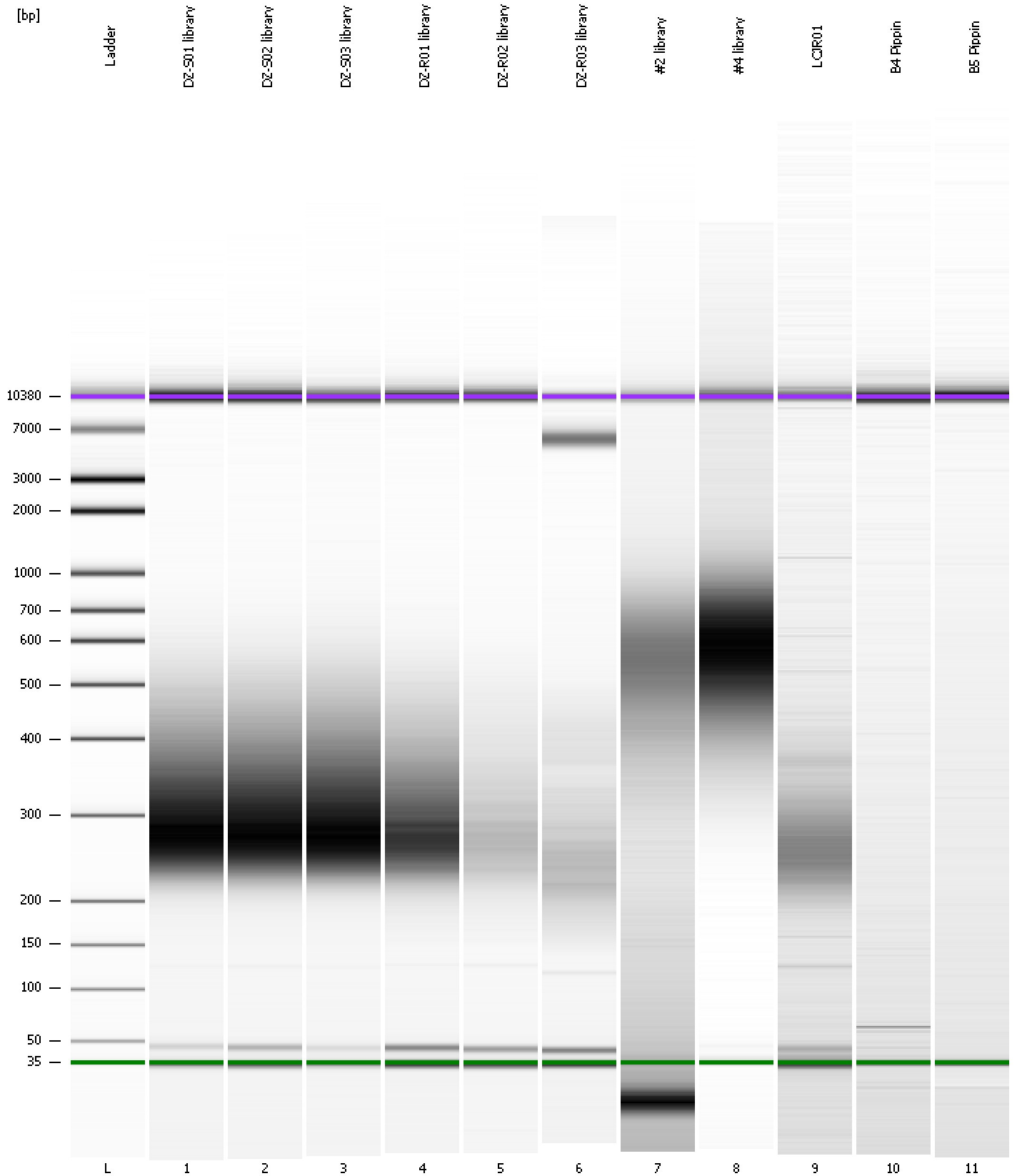
Region table for sample 11 : B5 Pippin

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	332	1,000	0.2	3.1	4	6.1	0.68	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
Modified: 4/7/2015 2:45:57 PM

Gel Image

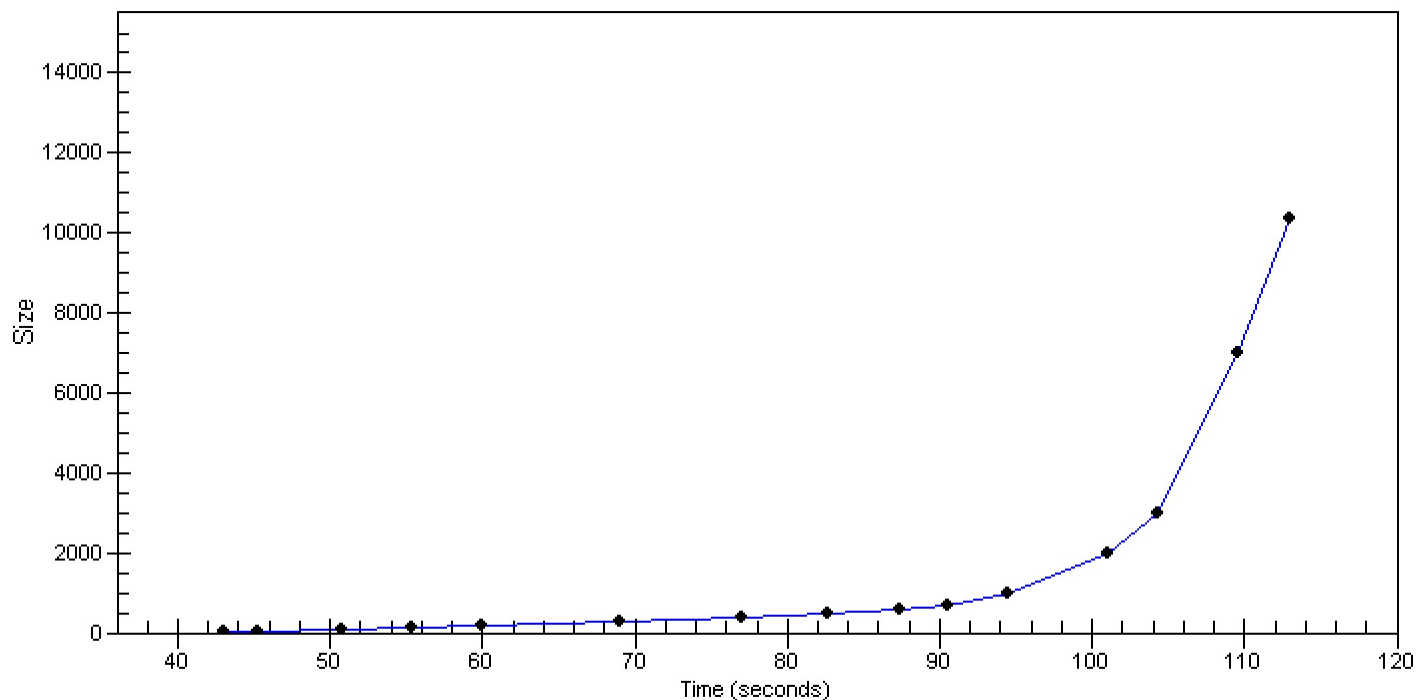


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
Modified: 4/7/2015 2:45:57 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad

Created: 4/7/2015 1:58:55 PM
 Modified: 4/7/2015 2:45:57 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		4/7/2015 2:40:12 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-04-07\2015-04-07_001.xad)		Instrument	Run		4/7/2015 1:59:00 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/7/2015 1:59:00 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/7/2015 1:59:00 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/7/2015 1:59:00 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/7/2015 1:59:00 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/7/2015 1:59:00 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/7/2015 1:59:00 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1