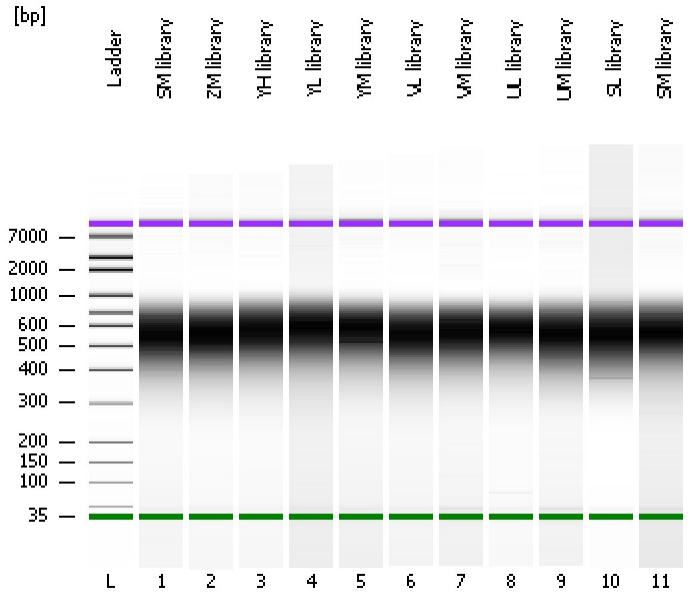
Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 PM

Electrophoresis File Run Summary



Instrument Information:

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

Assay Information:

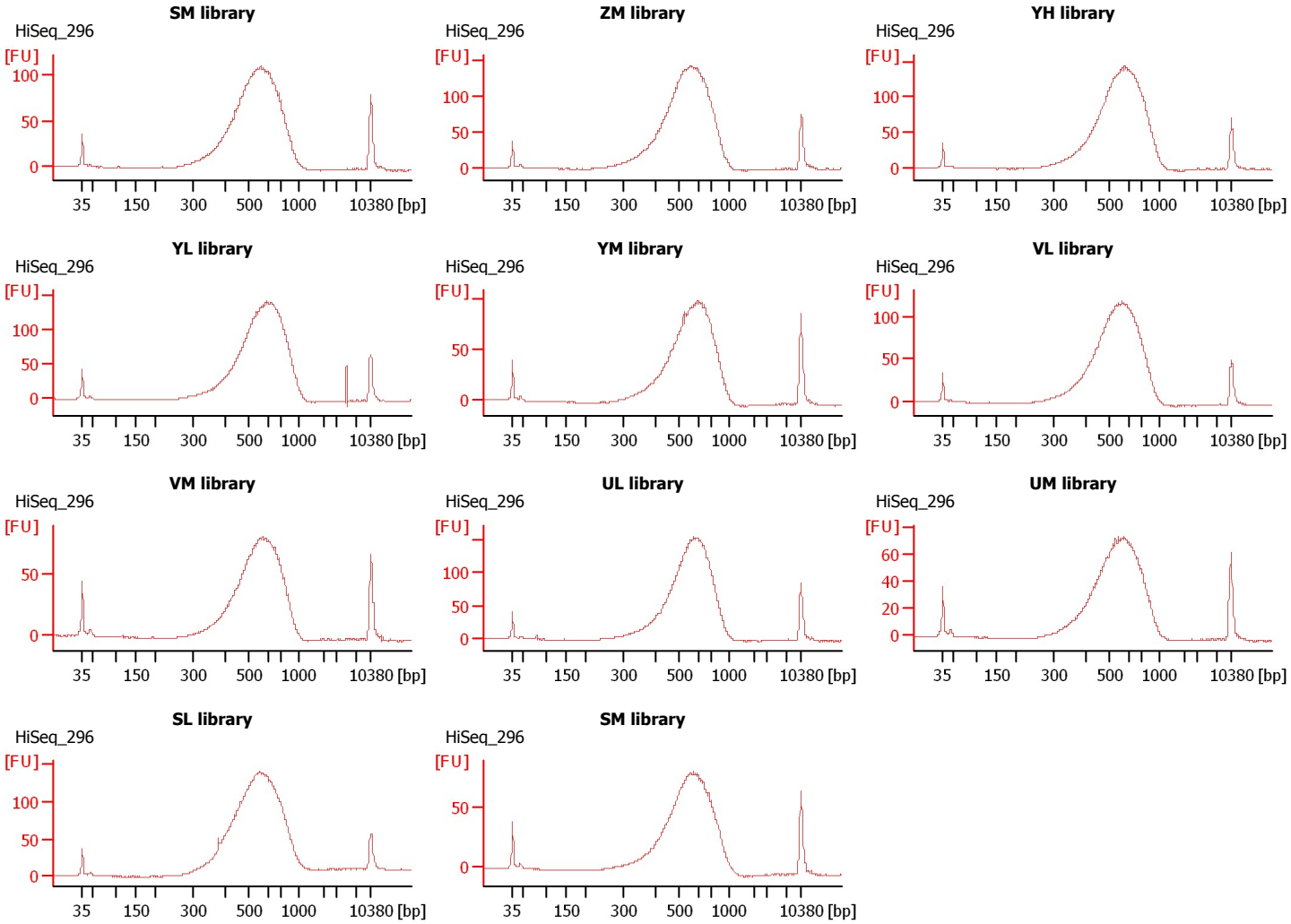
Assay Origin Path:	C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\dsDNA\High Sensitivity DNA.xsy
Assay Class:	High Sensitivity DNA Assay
Version:	1.03
Assay Comments:	Copyright © 2003-2010 Agilent Technologies

Chip Information:

Chip Lot #:

Reagent Kit Lot #:

Chip Comments:



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
SM library	HiSeq_296	☐	✔			
ZM library	HiSeq_296	☐	✔			
YH library	HiSeq_296	☐	✔			
YL library	HiSeq_296	☐	✔			
YM library	HiSeq_296	☐	✔			
VL library	HiSeq_296	☐	✔			
VM library	HiSeq_296	☐	✔			
UL library	HiSeq_296	☐	✔			
UM library	HiSeq_296	☐	✔			
SL library	HiSeq_296	☐	✔			
SM library	HiSeq_296	☐	✔			
Ladder		☐	✔			

Chip Lot # **Reagent Kit Lot #**

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 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

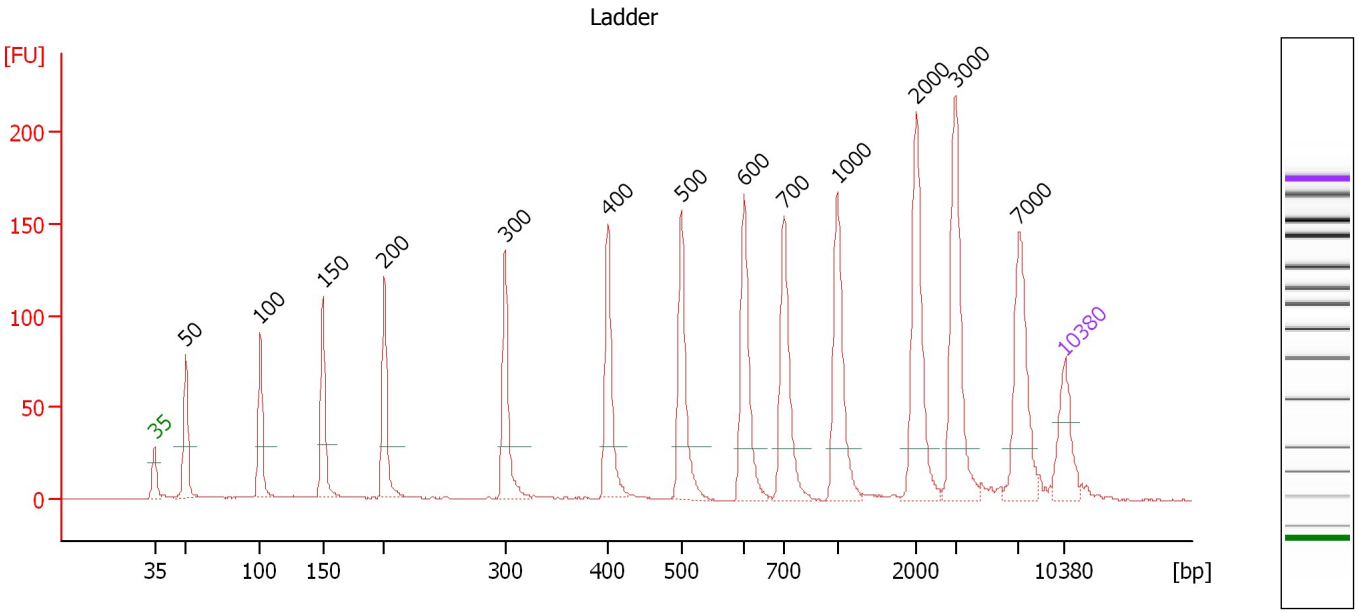
Ladder

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\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.3

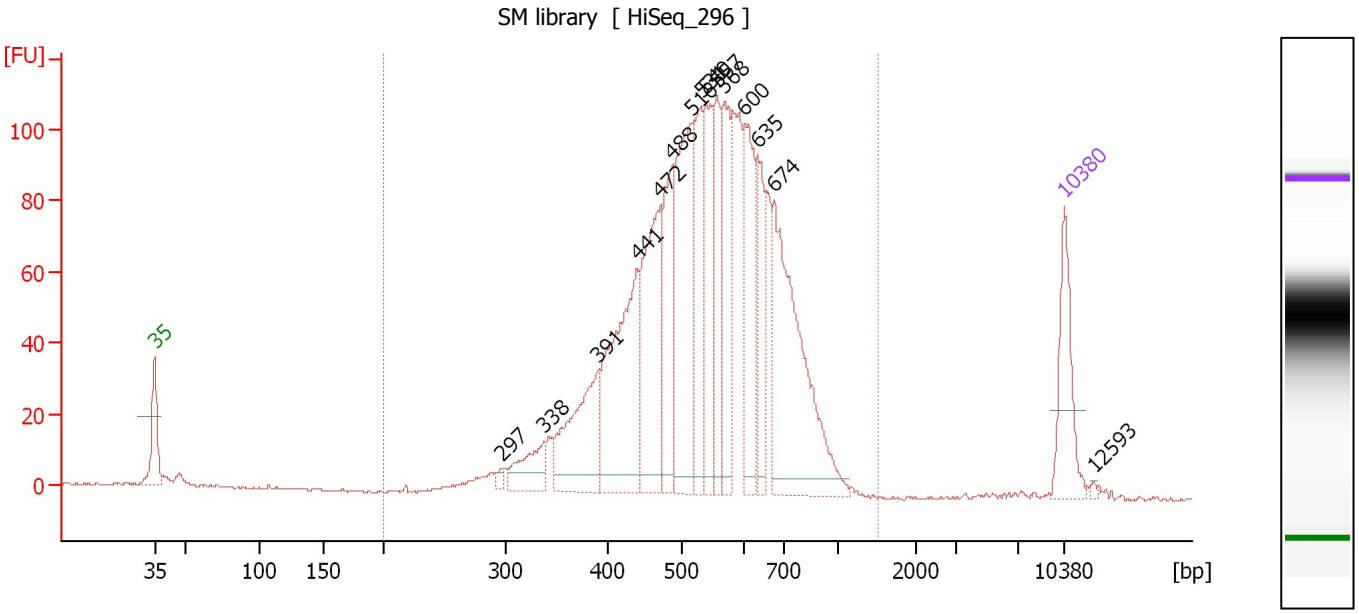
Peak table for Ladder

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	45.40
3		100	150.00	2,272.7	Ladder Peak	51.13
4		150	150.00	1,515.2	Ladder Peak	55.93
5		200	150.00	1,136.4	Ladder Peak	60.69
6		300	150.00	757.6	Ladder Peak	69.98
7		400	150.00	568.2	Ladder Peak	77.89
8		500	150.00	454.5	Ladder Peak	83.53
9		600	150.00	378.8	Ladder Peak	88.38
10		700	150.00	324.7	Ladder Peak	91.44
11		1,000	150.00	227.3	Ladder Peak	95.53
12		2,000	150.00	113.6	Ladder Peak	101.62
13		3,000	150.00	75.8	Ladder Peak	104.64
14		7,000	150.00	32.5	Ladder Peak	109.53
15		10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : SM library

Number of peaks found:	15	Corr. Area 1:	1,790.2
Noise:	0.3		

Peak table for sample 1 : SM 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	297	7.08	36.1		69.70
3	338	57.10	256.3		72.95
4	391	155.01	600.7		77.18
5	441	249.76	858.1		80.20
6	472	208.17	668.6		81.94
7	488	143.37	445.6		82.83
8	516	228.25	670.5		84.30
9	531	120.65	344.0		85.05
10	540	128.92	362.0		85.45
11	557	97.04	263.9		86.30
12	568	137.42	366.5		86.83
13	600	133.87	337.8		88.39
14	635	75.49	180.1		89.46
15	674	307.13	690.0		90.66
16	10,380	75.00	10.9	Upper Marker	113.00
17	12,593	0.00	0.0		115.27

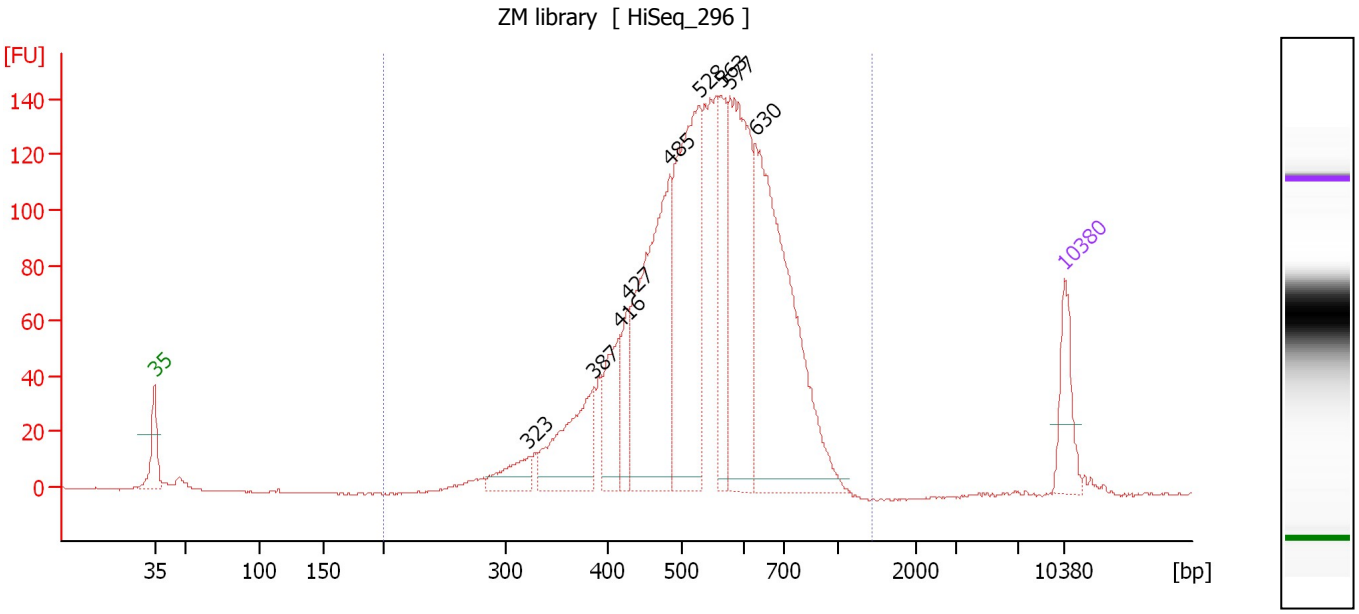
Region table for sample 1 : SM library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/µl]	% of Total	Size distribution in CV [%]
200	1,510	548	1,790.2	6,952.9	2,334.05	99	23.2

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : ZM library

Number of peaks found:	9	Corr. Area 1:	2,222.2
Noise:	0.3		

Peak table for sample 2 : ZM 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	323	68.30	320.4		71.79
3	387	208.92	818.8		76.83
4	416	130.17	474.5		78.77
5	427	88.28	312.9		79.44
6	485	533.32	1,667.8		82.66
7	528	511.06	1,465.3		84.91
8	563	164.11	441.6		86.59
9	577	431.44	1,133.4		87.25
10	630	653.54	1,572.9		89.28
11	10,380	75.00	10.9	Upper Marker	113.00

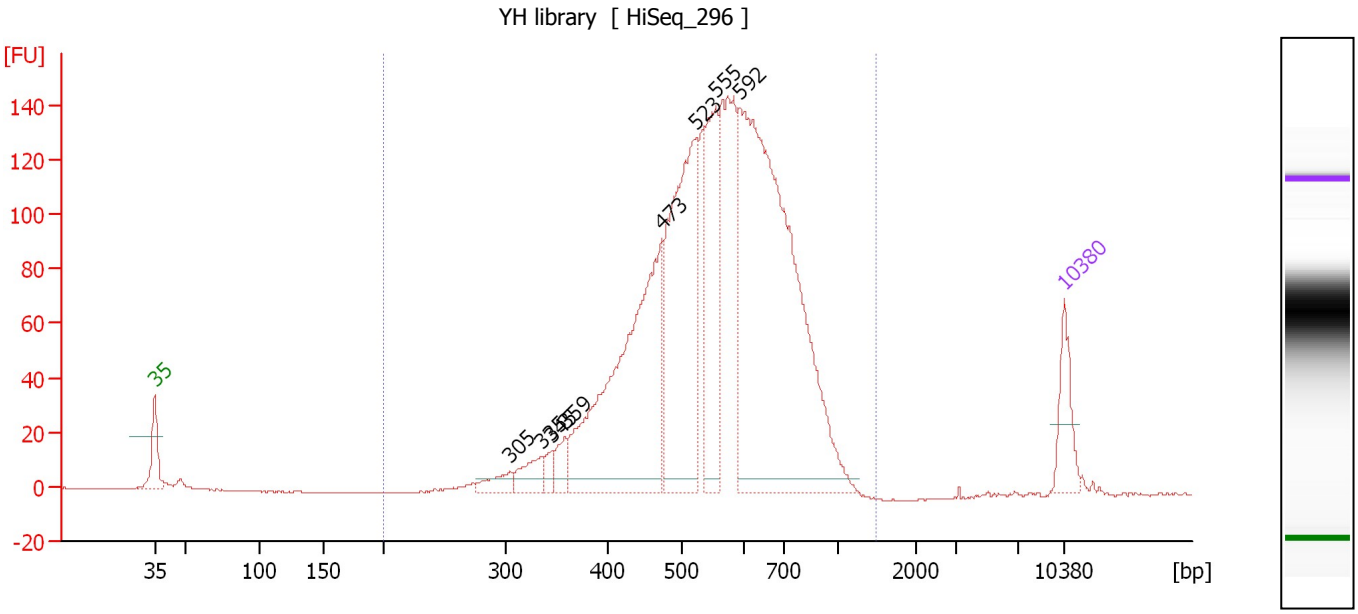
Region table for sample 2 : ZM library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,453	548	2,222.2	9,307.8	3,146.87	99	21.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : YH library

Number of peaks found:	8	Corr. Area 1:	2,217.3
Noise:	0.3		

Peak table for sample 3 : YH 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	305	44.53	221.4		70.35
3	335	64.88	293.5		72.75
4	345	26.21	115.1		73.54
5	359	45.19	191.0		74.61
6	473	757.63	2,426.7		82.01
7	523	588.78	1,707.1		84.63
8	555	288.45	788.0		86.18
9	592	1,244.73	3,185.0		88.00
10	10,380	75.00	10.9	Upper Marker	113.00

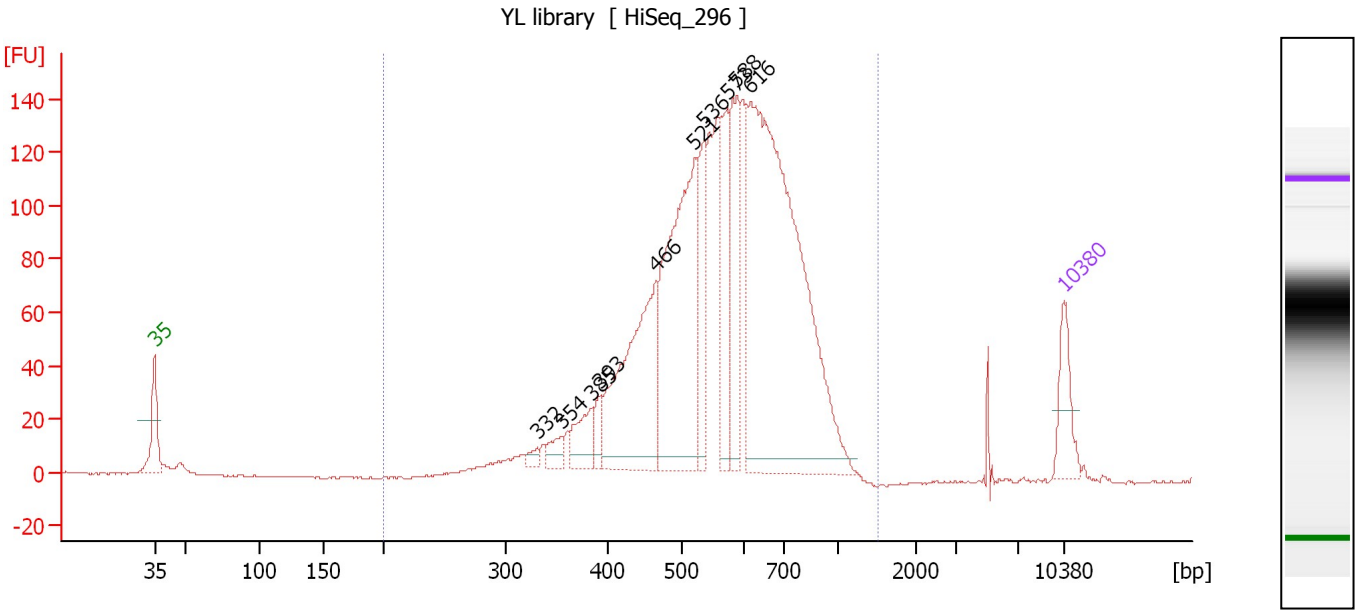
Region table for sample 3 : YH library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/µl]	% of Total	Size distribution in CV [%]
200	1,496	569	2,217.3	10,161.4	3,548.16	99	23.4

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : YL library

Number of peaks found:	10	Corr. Area 1:	2,154.6
Noise:	0.2		

Peak table for sample 4 : YL 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	332	17.18	78.5		72.47
3	354	36.04	154.1		74.28
4	385	79.65	313.8		76.67
5	393	34.69	133.9		77.30
6	466	438.95	1,426.2		81.63
7	521	605.06	1,758.5		84.57
8	536	154.59	436.8		85.29
9	573	184.58	488.4		87.05
10	588	220.87	568.7		87.82
11	616	1,170.82	2,882.0		88.85
12	10,380	75.00	10.9	Upper Marker	113.00

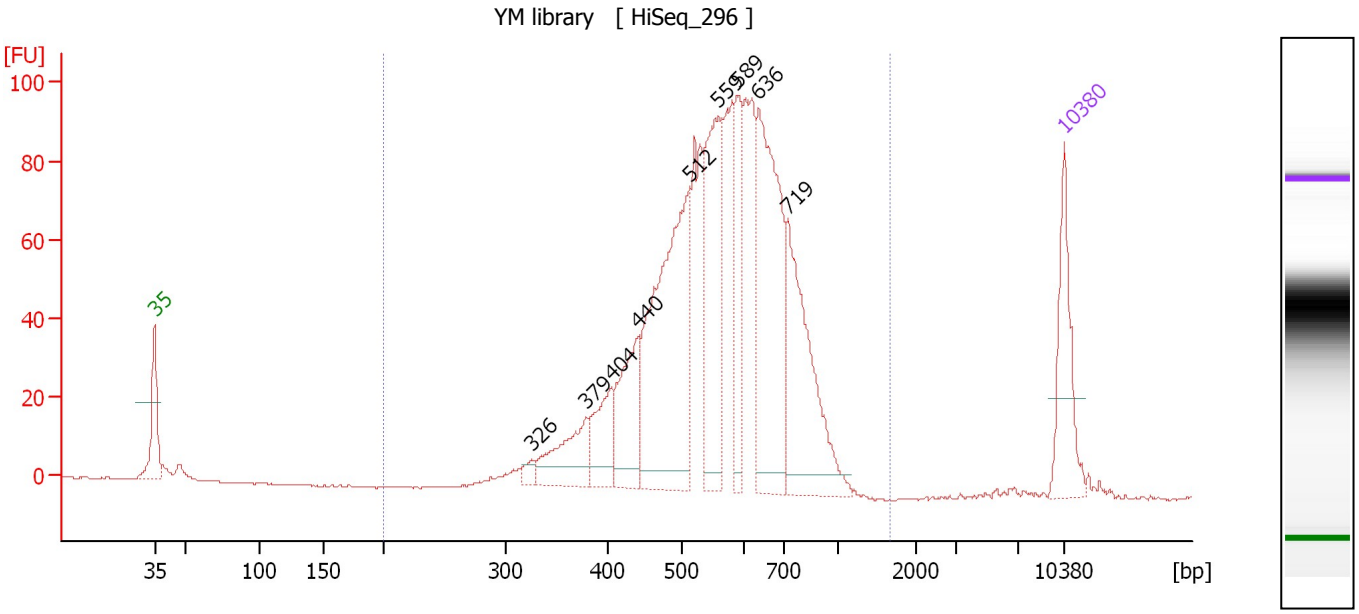
Region table for sample 4 : YL library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/µl]	% of Total	Size distribution in CV [%]
200	1,520	583	2,154.6	10,071.8	3,582.08	99	24.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : YM library

Number of peaks found:	9	Corr. Area 1:	1,416.3
Noise:	0.2		

Peak table for sample 5 : YM 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	326	11.06	51.4		72.05
3	379	78.81	315.4		76.20
4	404	64.38	241.5		78.11
5	440	101.20	348.2		80.17
6	512	341.07	1,008.6		84.13
7	559	189.87	514.2		86.41
8	589	80.36	206.8		87.83
9	636	250.33	596.7		89.47
10	719	201.26	424.1		91.70
11	10,380	75.00	10.9	Upper Marker	113.00

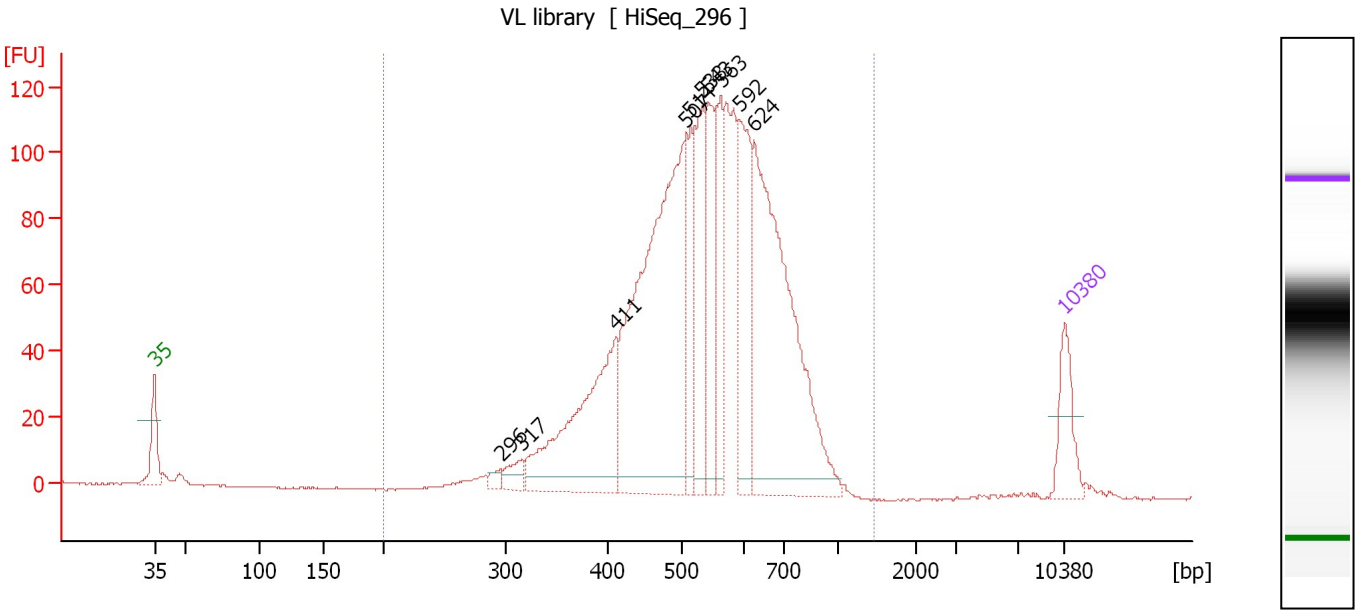
Region table for sample 5 : YM library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,660	574	1,416.3	4,832.9	1,716.29	99	22.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : VL library

Number of peaks found:	10	Corr. Area 1:	1,833.3
Noise:	0.2		

Peak table for sample 6 : VL 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	296	18.59	95.0		69.64
3	317	37.44	179.1		71.30
4	411	420.07	1,548.7		78.51
5	507	929.93	2,780.0		83.86
6	514	147.25	433.7		84.23
7	533	207.42	590.1		85.11
8	543	186.17	519.4		85.62
9	563	181.79	489.2		86.59
10	592	224.54	575.0		87.97
11	624	719.31	1,745.3		89.13
12	10,380	75.00	10.9	Upper Marker	113.00

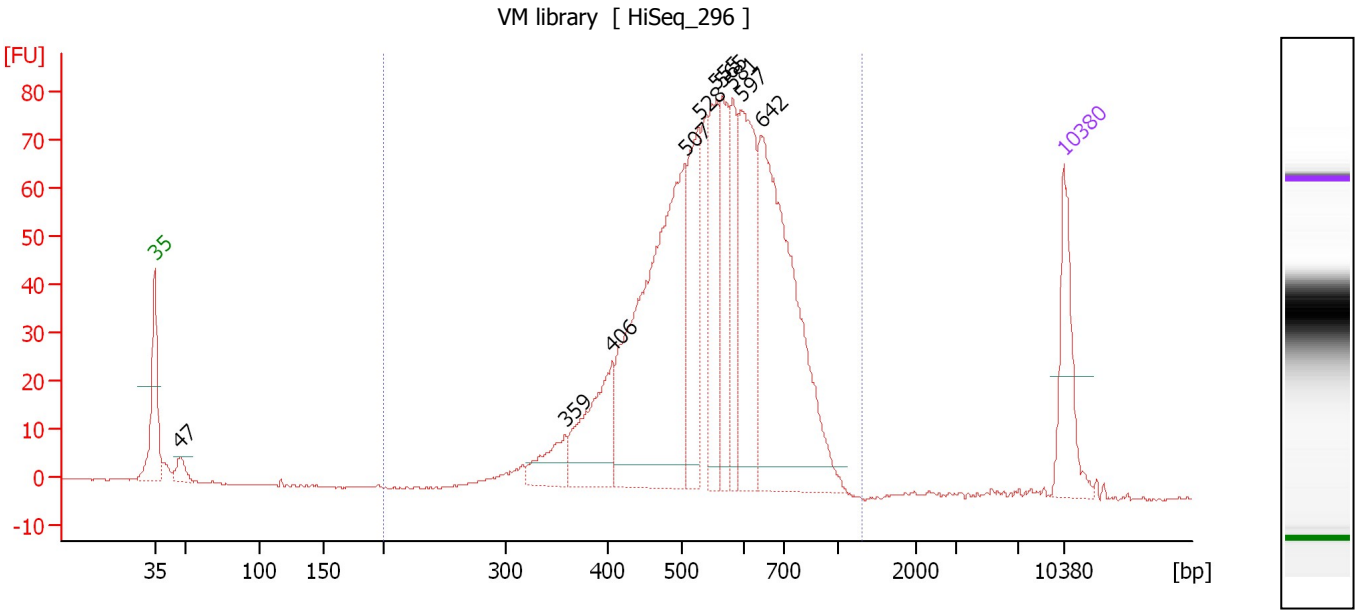
Region table for sample 6 : VL library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/µl]	% of Total	Size distribution in CV [%]
200	1,473	546	1,833.3	9,891.8	3,329.57	99	22.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : VM library

Number of peaks found:	10	Corr. Area 1:	1,195.6
Noise:	0.2		

Peak table for sample 7 : VM 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	47	24.24	776.8		44.96
3	359	50.67	214.1		74.61
4	406	132.21	493.8		78.21
5	507	496.00	1,482.5		83.87
6	528	150.89	432.9		84.90
7	555	120.88	329.9		86.21
8	565	107.09	287.3		86.67
9	581	90.68	236.4		87.47
10	597	200.00	507.9		88.22
11	642	413.34	975.5		89.67
12	10,380	75.00	10.9	Upper Marker	113.00

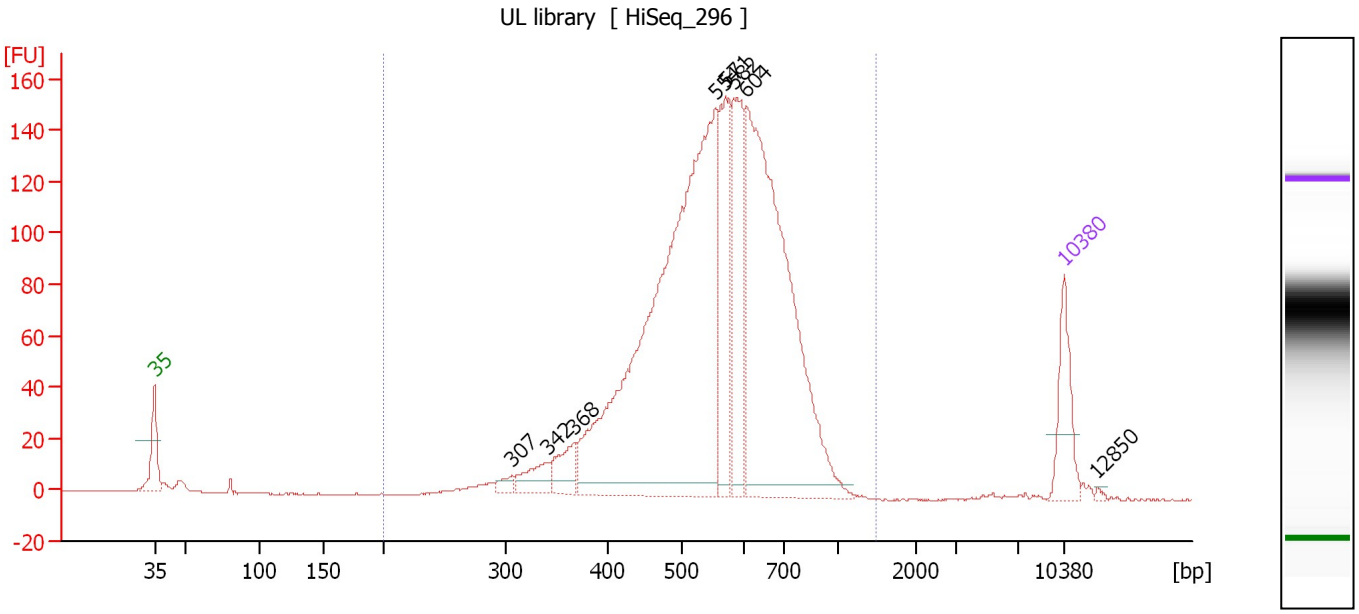
Region table for sample 7 : VM library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/µl]	% of Total	Size distribution in CV [%]
200	1,319	561	1,195.6	5,342.5	1,859.56	99	21.5

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : UL library

Number of peaks found:	8	Corr. Area 1:	2,129.2
Noise:	0.2		

Peak table for sample 8 : UL 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	307	15.83	78.1		70.54
3	342	50.52	224.2		73.26
4	368	59.02	243.3		75.33
5	554	1,202.91	3,288.1		86.16
6	571	216.19	573.9		86.96
7	582	213.58	555.7		87.52
8	604	793.15	1,988.7		88.51
9	10,380	75.00	10.9	Upper Marker	113.00
10	12,850	0.00	0.0		115.53

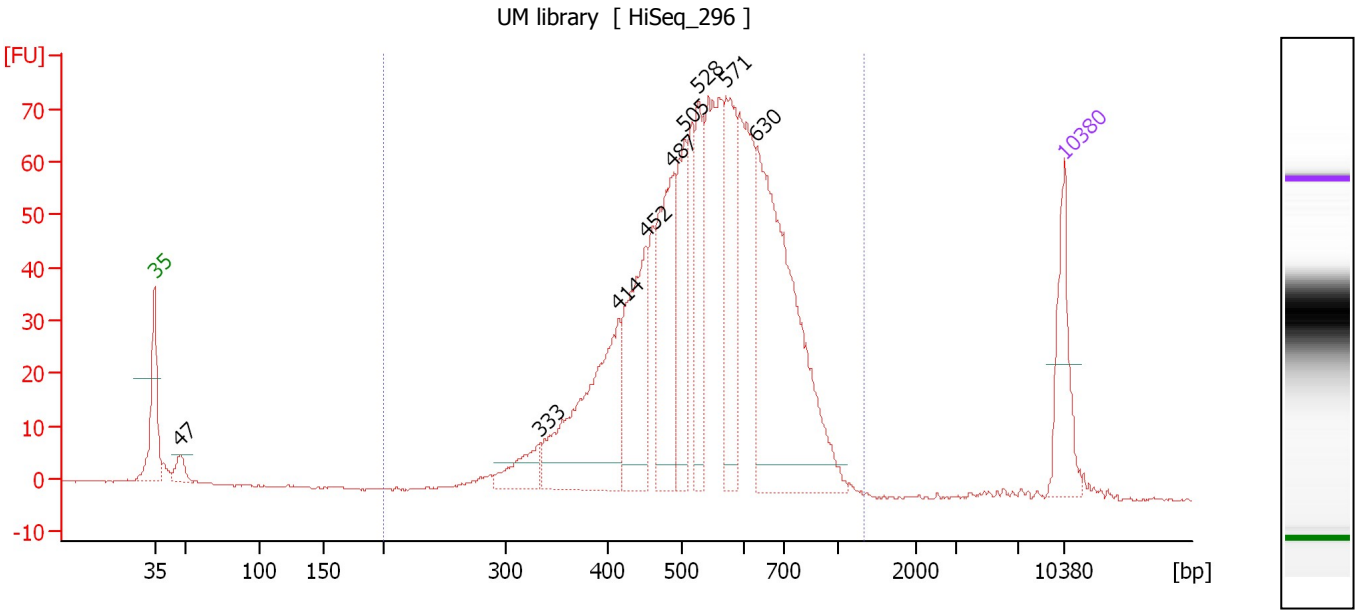
Region table for sample 8 : UL library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,504	564	2,129.2	7,716.4	2,690.70	99	21.5

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : UM library

Number of peaks found:	9	Corr. Area 1:	1,173.4
Noise:	0.2		

Peak table for sample 9 : UM 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	47	26.62	851.9		44.98
3	333	51.29	233.4		72.59
4	414	265.03	968.8		78.71
5	452	181.97	610.0		80.82
6	487	193.10	600.8		82.80
7	505	138.13	414.2		83.79
8	528	114.11	327.7		84.87
9	571	164.18	435.5		86.99
10	630	432.99	1,041.7		89.29
11	10,380	75.00	10.9	Upper Marker	113.00

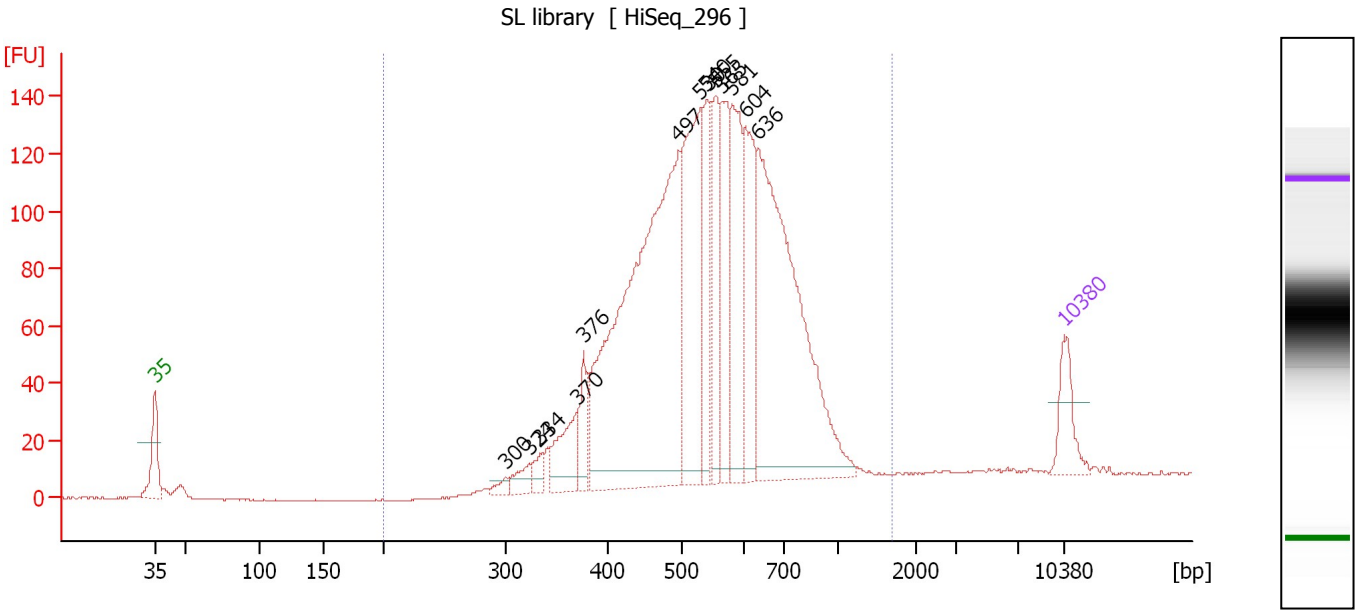
Region table for sample 9 : UM library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,342	552	1,173.4	6,101.9	2,071.51	98	23.2

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : SL library

Number of peaks found:	13	Corr. Area 1:	2,185.5
Noise:	0.2		

Peak table for sample 10 : SL 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	300	22.12	111.6		70.01
3	324	45.10	210.7		71.90
4	334	31.71	143.7		72.70
5	370	132.58	542.4		75.54
6	376	77.79	313.2		76.01
7	497	1,347.13	4,109.7		83.34
8	530	485.44	1,387.0		85.00
9	540	189.27	531.0		85.47
10	555	200.65	548.1		86.18
11	565	209.49	561.4		86.70
12	581	278.31	725.7		87.46
13	604	253.83	636.8		88.50
14	636	889.38	2,117.5		89.49
15	10,380	75.00	10.9	Upper Marker	113.00

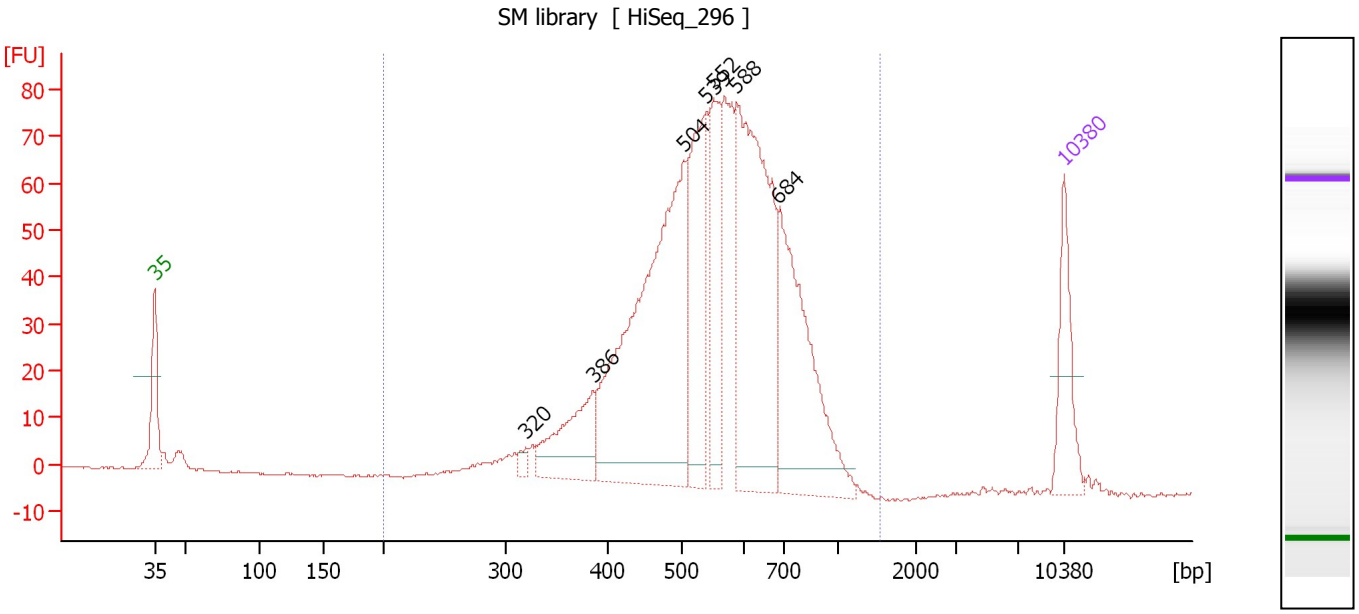
Region table for sample 10 : SL library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,687	564	2,185.5	12,446.6	4,287.10	97	26.3

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : SM library

Number of peaks found:	7	Corr. Area 1:	1,222.6
Noise:	0.2		

Peak table for sample 11 : SM 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	320	12.14	57.4		71.59
3	386	130.99	514.5		76.77
4	504	615.35	1,848.5		83.75
5	539	218.61	614.9		85.41
6	552	143.40	393.3		86.07
7	588	433.20	1,116.8		87.78
8	684	310.74	688.0		90.96
9	10,380	75.00	10.9	Upper Marker	113.00

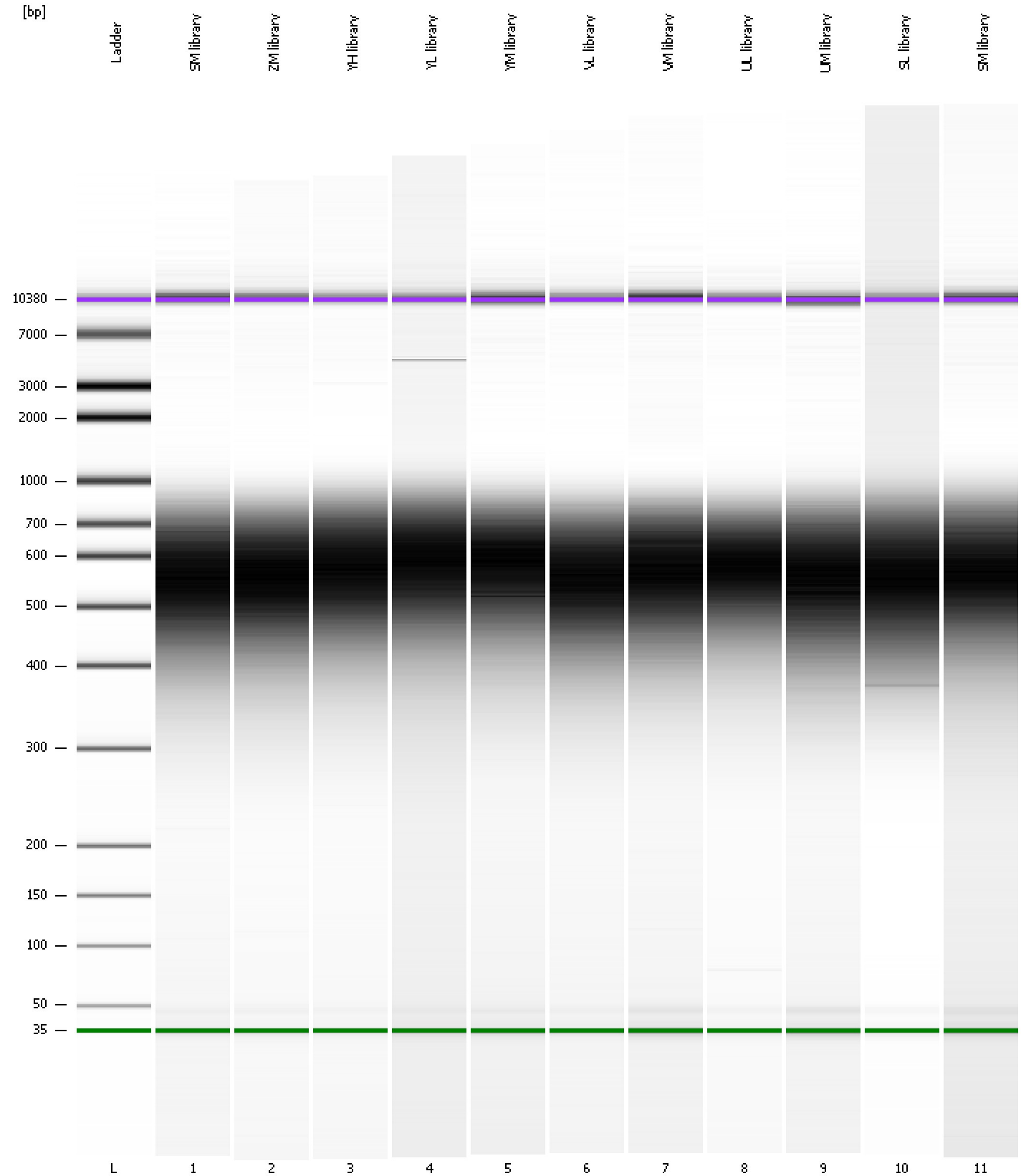
Region table for sample 11 : SM library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/µl]	% of Total	Size distribution in CV [%]
200	1,537	563	1,222.6	5,943.1	2,048.98	99	23.3

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad

Created: 12/30/2015 11:41:38 AM
Modified: 12/30/2015 12:38:07 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		12/30/2015 12:22:01 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-12-30\2015-12-30_002.xad)		Instrument	Run		12/30/2015 11:41:38 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		12/30/2015 11:41:38 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		12/30/2015 11:41:38 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		12/30/2015 11:41:38 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		12/30/2015 11:41:38 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		12/30/2015 11:41:38 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		12/30/2015 11:41:38 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1