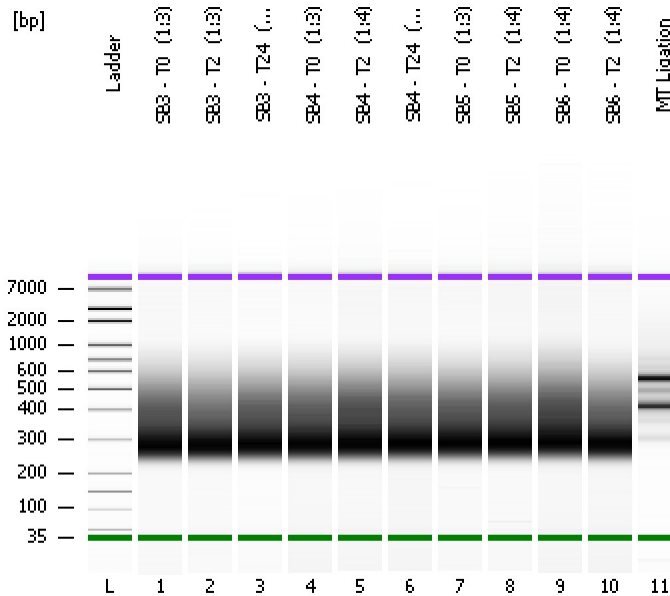


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
Modified: 3/18/2015 5:07:20 PM

Electrophoresis File Run Summary



Instrument Information:

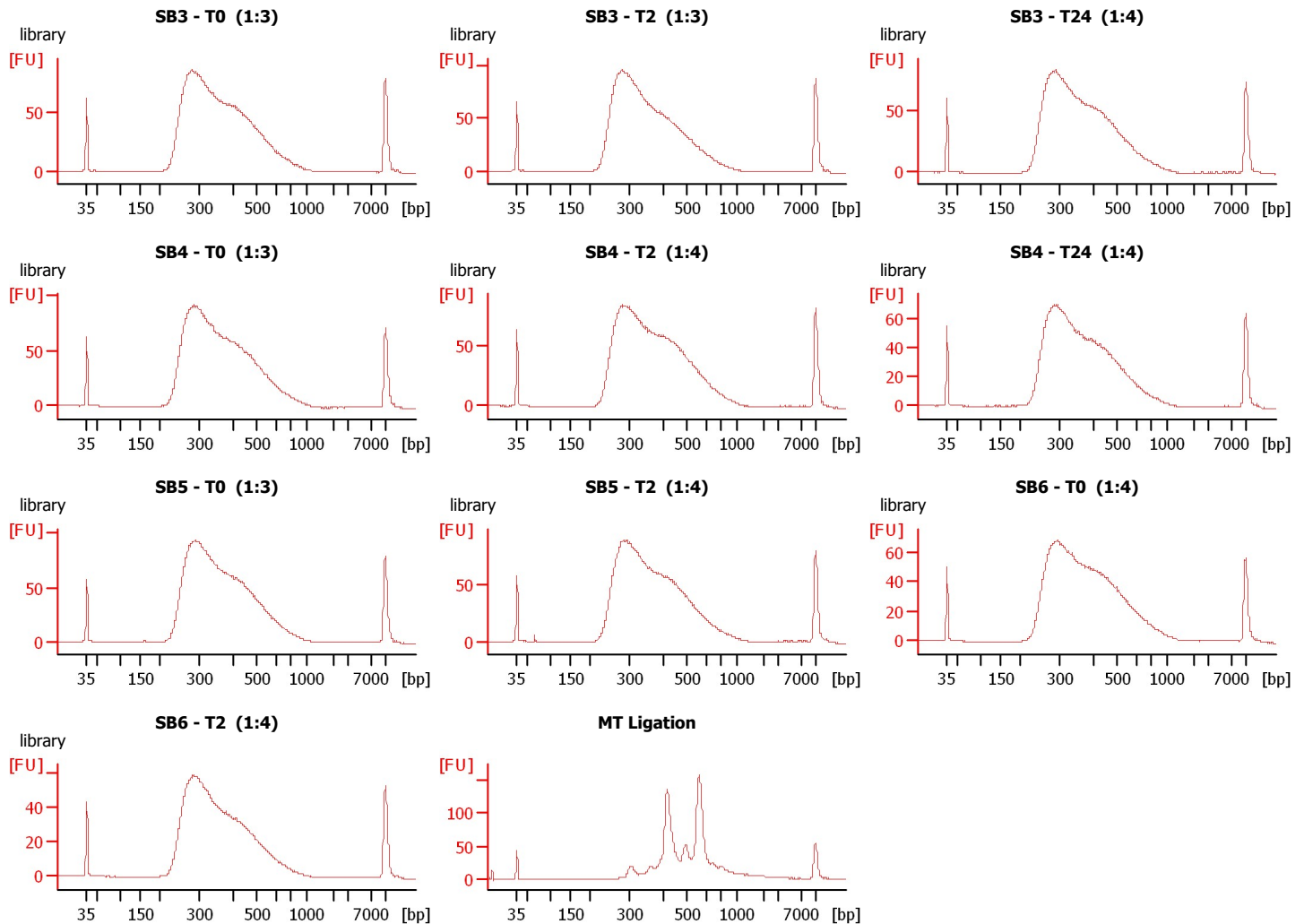
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
 Modified: 3/18/2015 5:07:20 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
SB3 - T0 (1:3)	library	<input type="checkbox"/>	✓			
SB3 - T2 (1:3)	library	<input type="checkbox"/>	✓			
SB3 - T24 (1:4)	library	<input type="checkbox"/>	✓			
SB4 - T0 (1:3)	library	<input type="checkbox"/>	✓			
SB4 - T2 (1:4)	library	<input type="checkbox"/>	✓			
SB4 - T24 (1:4)	library	<input type="checkbox"/>	✓			
SB5 - T0 (1:3)	library	<input type="checkbox"/>	✓			
SB5 - T2 (1:4)	library	<input type="checkbox"/>	✓			
SB6 - T0 (1:4)	library	<input type="checkbox"/>	✓			
SB6 - T2 (1:4)	library	<input type="checkbox"/>	✓			
MT Ligation		<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\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
Modified: 3/18/2015 5:07:20 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

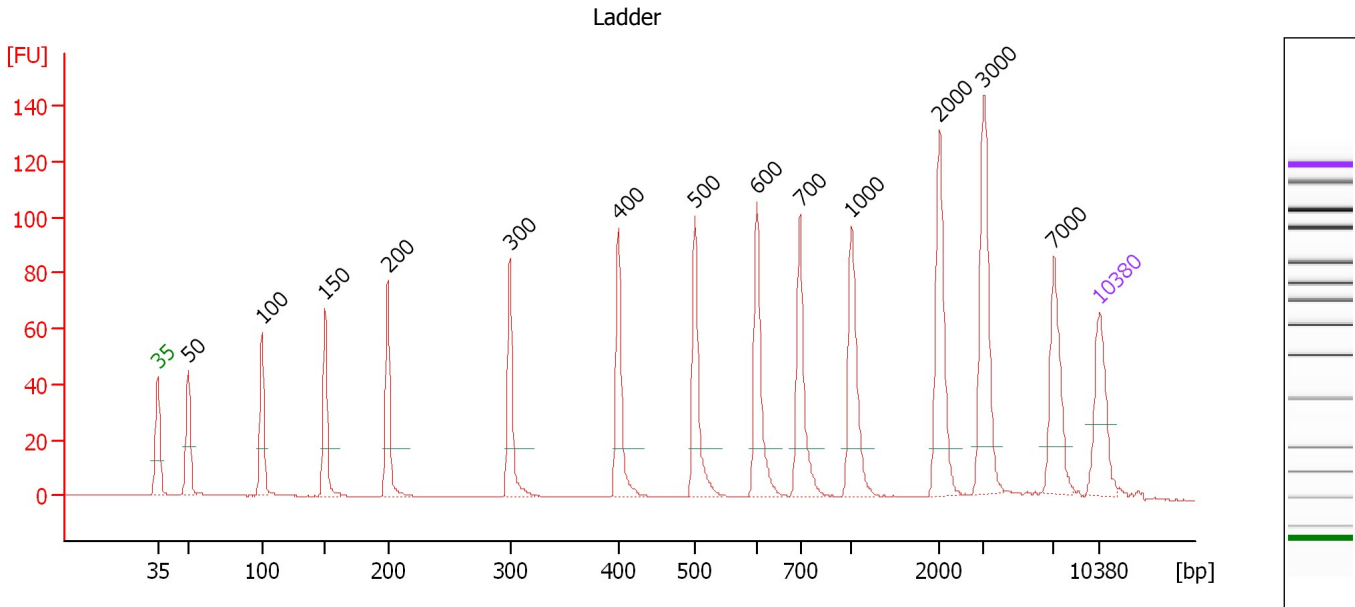
Ladder

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\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
 Modified: 3/18/2015 5:07:20 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

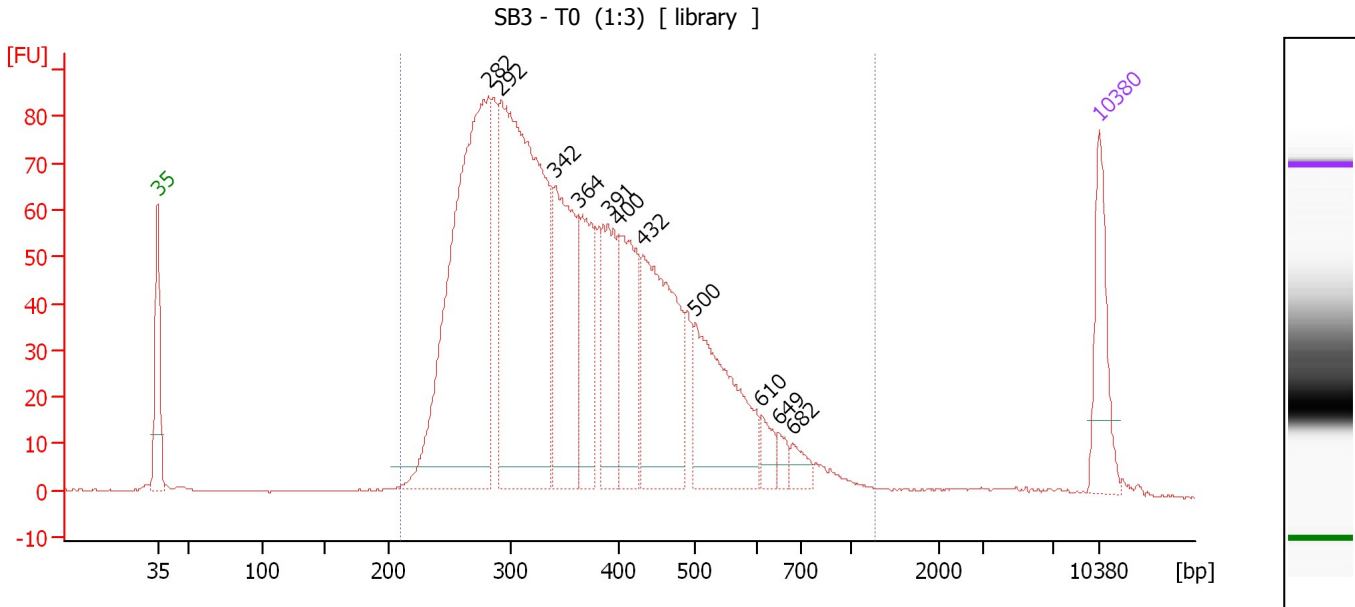
Peak table for Ladder

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	50.75
4	150	150.00	1,515.2	Ladder Peak	55.45
5	200	150.00	1,136.4	Ladder Peak	60.11
6	300	150.00	757.6	Ladder Peak	69.18
7	400	150.00	568.2	Ladder Peak	77.22
8	500	150.00	454.5	Ladder Peak	82.92
9	600	150.00	378.8	Ladder Peak	87.53
10	700	150.00	324.7	Ladder Peak	90.71
11	1,000	150.00	227.3	Ladder Peak	94.56
12	2,000	150.00	113.6	Ladder Peak	101.07
13	3,000	150.00	75.8	Ladder Peak	104.35
14	7,000	150.00	32.5	Ladder Peak	109.58
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
 Modified: 3/18/2015 5:07:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : SB3 - T0 (1:3)

Number of peaks found: 11 Corr. Area 1: 1,953.6
 Noise: 0.2

Peak table for sample 1 : SB3 - T0 (1:3)

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	282	741.23	3,978.5		67.58
3	292	737.40	3,822.4		68.48
4	342	254.95	1,129.9		72.55
5	364	151.81	632.0		74.32
6	391	148.30	575.1		76.47
7	400	167.88	635.4		77.23
8	432	277.09	971.4		79.05
9	500	221.31	670.4		82.92
10	610	25.50	63.3		87.85
11	649	16.30	38.0		89.09
12	682	21.11	46.9		90.14
13	10,380	75.00	10.9	Upper Marker	113.00

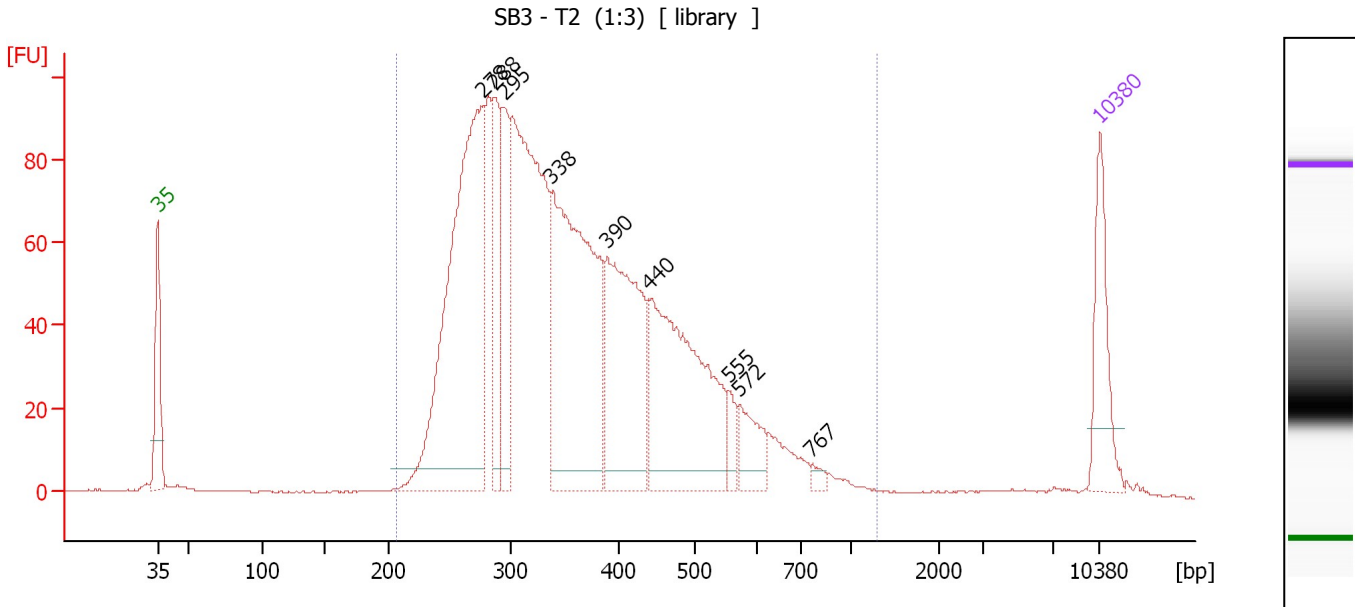
Region table for sample 1 : SB3 - T0 (1:3)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
210	380	1,272	1,953.6	13,602.5	97	32.0	3,053.83	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
 Modified: 3/18/2015 5:07:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : SB3 - T2 (1:3)

Number of peaks found: 9 Corr. Area 1: 2,061.4
 Noise: 0.2

Peak table for sample 2 : SB3 - T2 (1:3)

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	278	627.92	3,422.0		67.19
3	288	142.83	752.4		68.06
4	295	127.23	653.2		68.74
5	338	490.07	2,197.2		72.23
6	390	295.01	1,146.6		76.40
7	440	343.30	1,181.9		79.50
8	555	25.59	69.8		85.47
9	572	49.95	132.3		86.24
10	767	9.07	17.9		91.57
11	10,380	75.00	10.9	Upper Marker	113.00

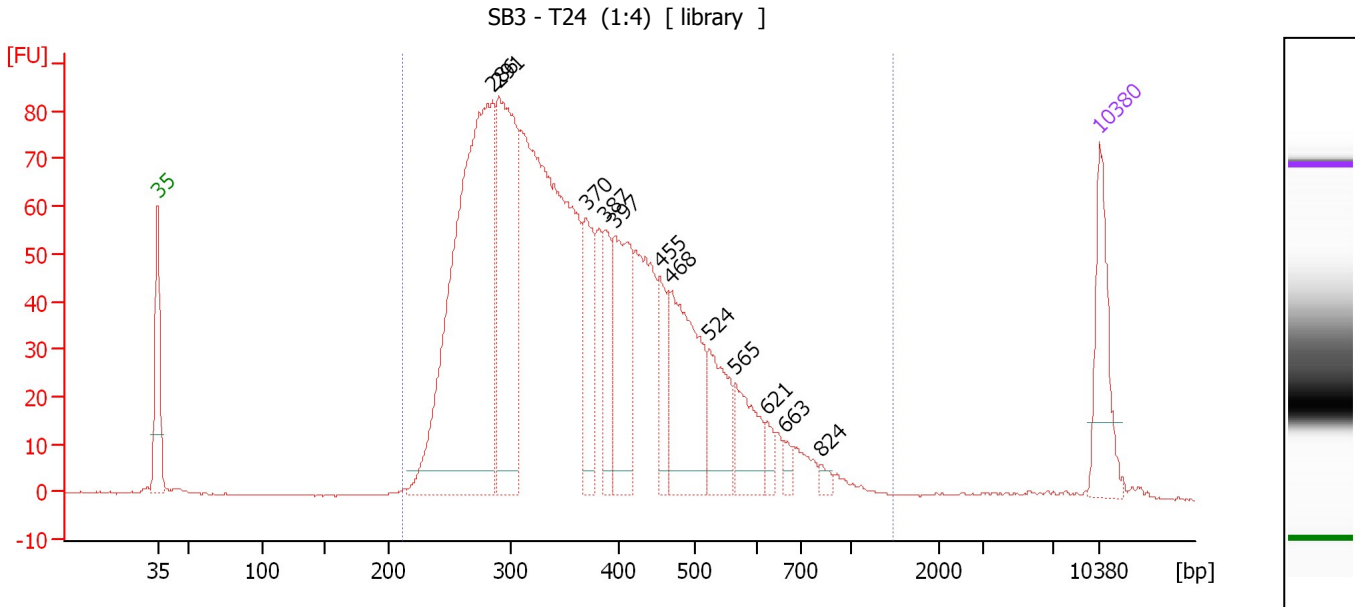
Region table for sample 2 : SB3 - T2 (1:3)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
208	374	1,295	2,061.4	12,908.8	97	32.3	2,858.65	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
 Modified: 3/18/2015 5:07:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : SB3 - T24 (1:4)

Number of peaks found: 12 Corr. Area 1: 1,864.6
 Noise: 0.2

Peak table for sample 3 : SB3 - T24 (1:4)

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	286	730.20	3,870.8		67.90
3	291	345.84	1,799.1		68.39
4	370	115.10	471.2		74.81
5	387	75.02	293.5		76.20
6	397	167.13	637.6		76.99
7	455	60.02	199.9		80.35
8	468	191.34	619.6		81.09
9	524	88.33	255.7		84.00
10	565	66.41	178.0		85.93
11	621	16.39	40.0		88.20
12	663	11.43	26.1		89.53
13	824	7.90	14.5		92.30
14	10,380	75.00	10.9	Upper Marker	113.00

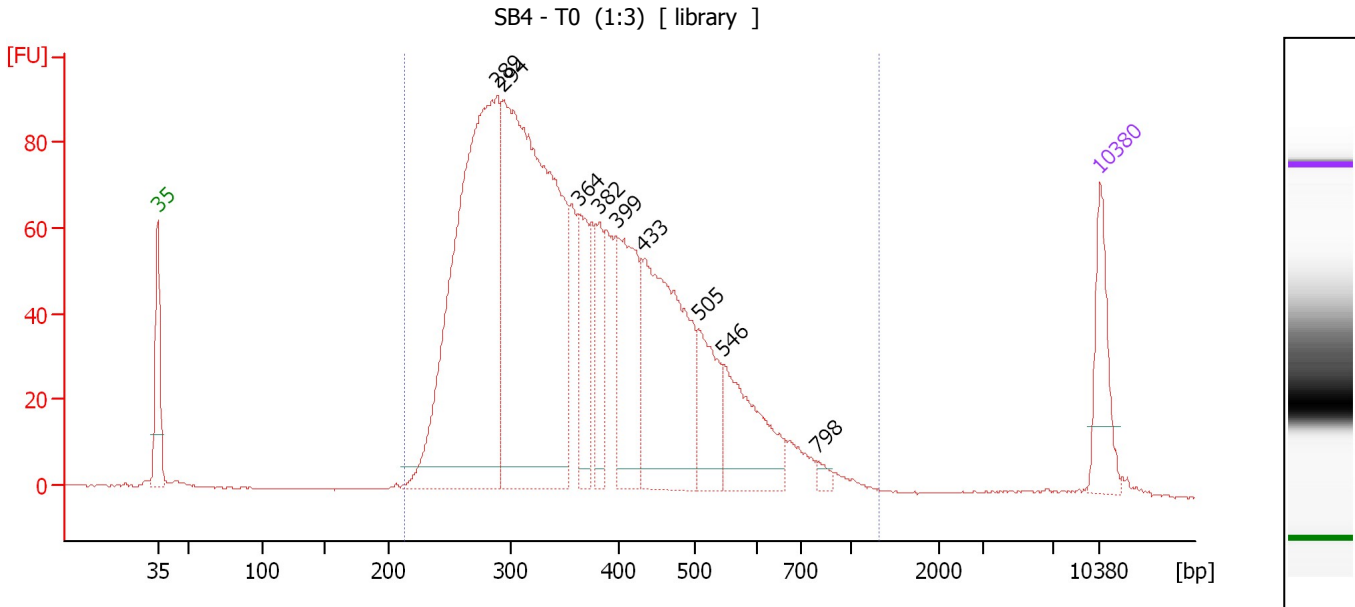
Region table for sample 3 : SB3 - T24 (1:4)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
213	382	1,471	1,864.6	12,816.6	99	32.4	2,894.26	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
 Modified: 3/18/2015 5:07:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : SB4 - T0 (1:3)

Number of peaks found: 9 Corr. Area 1: 2,045.6
 Noise: 0.2

Peak table for sample 4 : SB4 - T0 (1:3)

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	289	929.73	4,869.5		68.21
3	294	1,034.38	5,335.8		68.61
4	364	110.78	460.7		74.35
5	382	84.34	334.6		75.76
6	399	207.60	788.7		77.12
7	433	375.30	1,314.1		79.08
8	505	111.50	334.4		83.16
9	546	159.50	442.9		85.02
10	798	10.85	20.6		91.96
11	10,380	75.00	10.9	Upper Marker	113.00

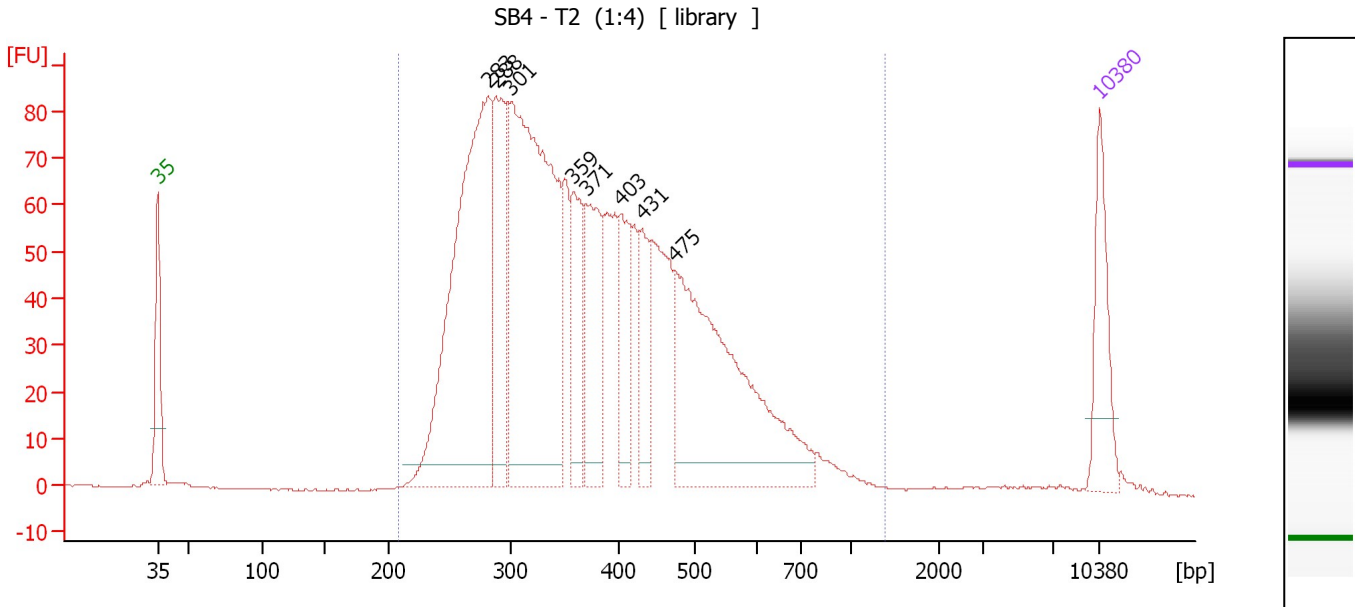
Region table for sample 4 : SB4 - T0 (1:3)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
214	381	1,320	2,045.6	14,741.1	99	31.6	3,326.87	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
 Modified: 3/18/2015 5:07:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : SB4 - T2 (1:4)

Number of peaks found: 8 Corr. Area 1: 1,975.8
 Noise: 0.1

Peak table for sample 5 : SB4 - T2 (1:4)

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	283	634.83	3,402.7		67.61
3	288	198.26	1,041.9		68.12
4	301	658.23	3,315.4		69.25
5	359	112.69	475.9		73.91
6	371	146.75	599.5		74.88
7	403	99.80	375.2		77.39
8	431	82.34	289.6		78.97
9	475	436.44	1,392.8		81.48
10	10,380	75.00	10.9	Upper Marker	113.00

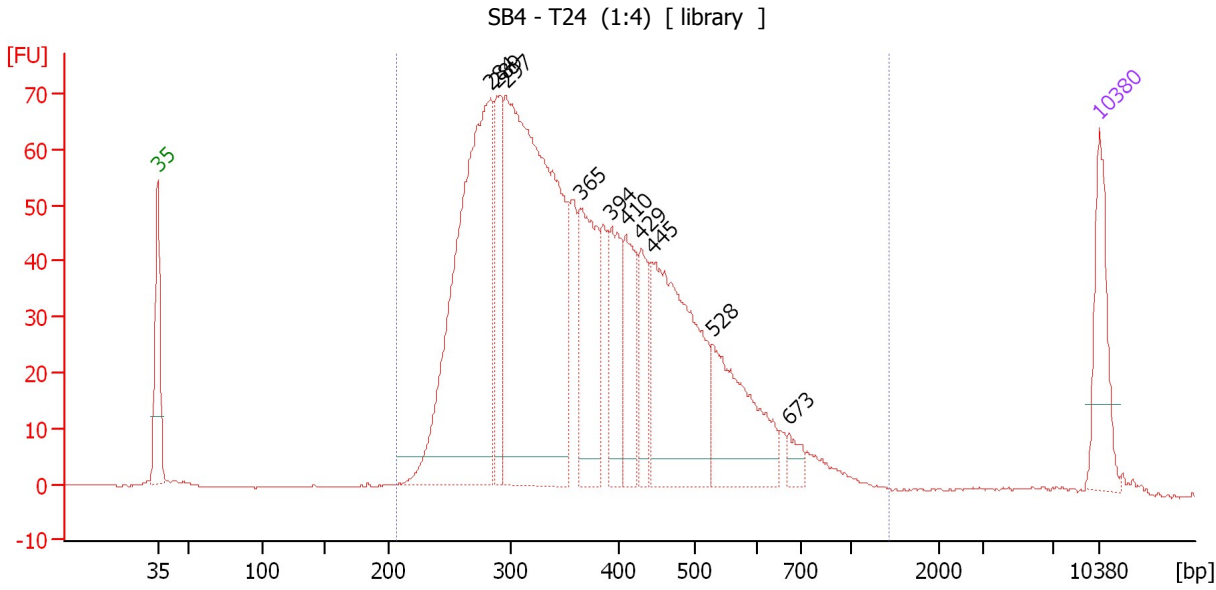
Region table for sample 5 : SB4 - T2 (1:4)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
208	390	1,368	1,975.8	12,563.8	98	32.9	2,880.77	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
 Modified: 3/18/2015 5:07:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : SB4 - T24 (1:4)

Number of peaks found: 10 Corr. Area 1: 1,560.6
 Noise: 0.1

Peak table for sample 6 : SB4 - T24 (1:4)

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	284	636.37	3,390.9		67.76
3	289	134.45	705.1		68.18
4	297	823.59	4,203.3		68.90
5	365	183.95	764.2		74.38
6	394	110.64	425.8		76.71
7	410	103.62	382.8		77.79
8	429	74.28	262.2		78.88
9	445	309.98	1,056.4		79.76
10	528	174.97	502.2		84.20
11	673	20.67	46.6		89.84
12	10,380	75.00	10.9	Upper Marker	113.00

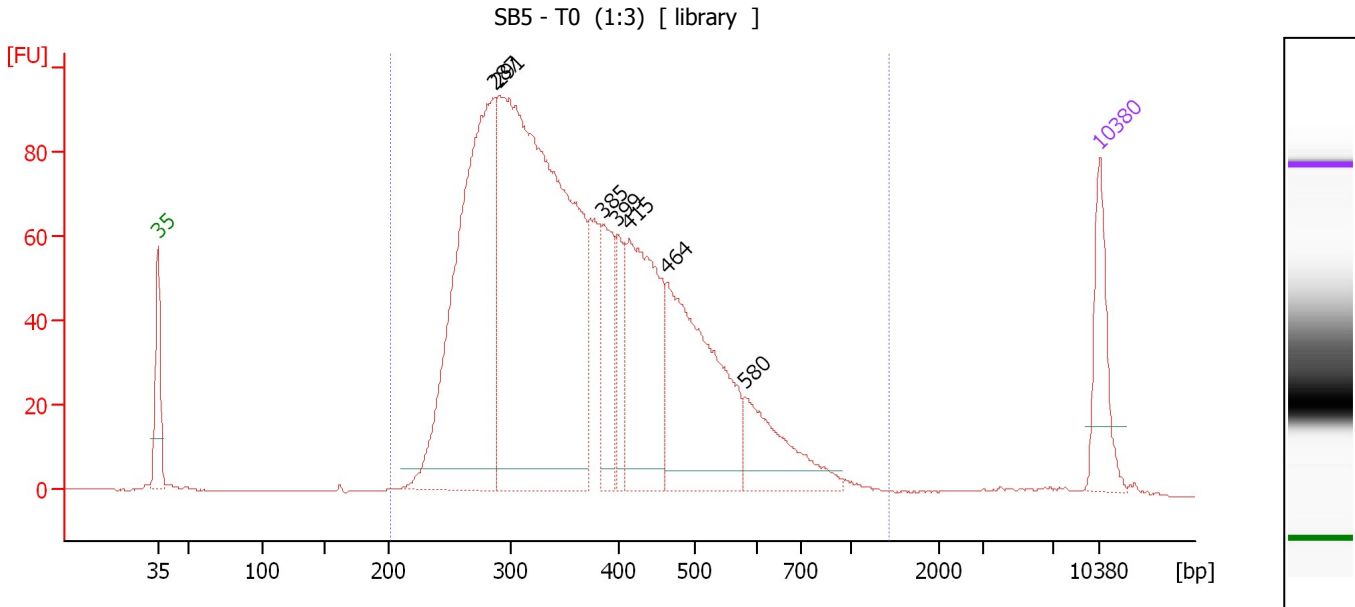
Region table for sample 6 : SB4 - T24 (1:4)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
208	385	1,417	1,560.6	12,413.3	99	32.6	2,822.45	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
 Modified: 3/18/2015 5:07:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : SB5 - T0 (1:3)

Number of peaks found: 7 Corr. Area 1: 2,060.0
 Noise: 0.1

Peak table for sample 7 : SB5 - T0 (1:3)

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	287	718.43	3,796.7		67.98
3	291	1,251.78	6,510.4		68.40
4	385	120.00	472.3		76.01
5	399	72.94	276.8		77.16
6	415	290.79	1,062.5		78.05
7	464	352.86	1,151.3		80.89
8	580	123.91	323.7		86.61
9	10,380	75.00	10.9	Upper Marker	113.00

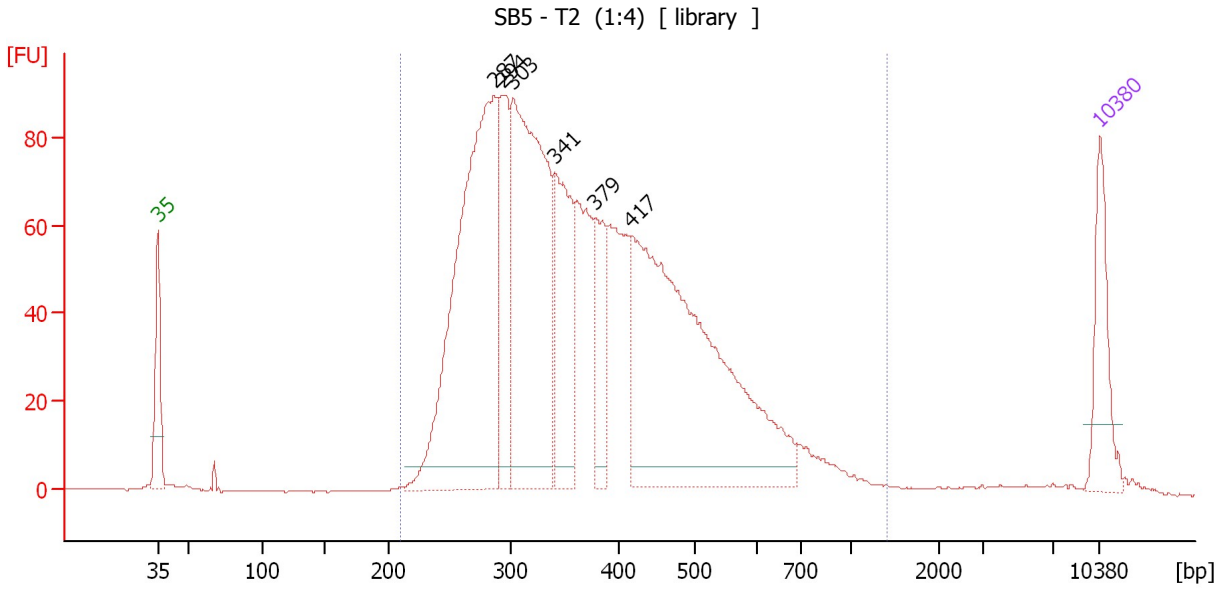
Region table for sample 7 : SB5 - T0 (1:3)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
202	384	1,435	2,060.0	13,282.3	98	32.2	3,016.66	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
 Modified: 3/18/2015 5:07:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : SB5 - T2 (1:4)

Number of peaks found: 6 Corr. Area 1: 2,014.9
 Noise: 0.1

Peak table for sample 8 : SB5 - T2 (1:4)

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	287	696.87	3,681.3		67.99
3	294	166.71	858.0		68.68
4	303	555.33	2,778.1		69.42
5	341	214.84	954.5		72.48
6	379	104.81	418.8		75.54
7	417	694.38	2,523.0		78.18
8	10,380	75.00	10.9	Upper Marker	113.00

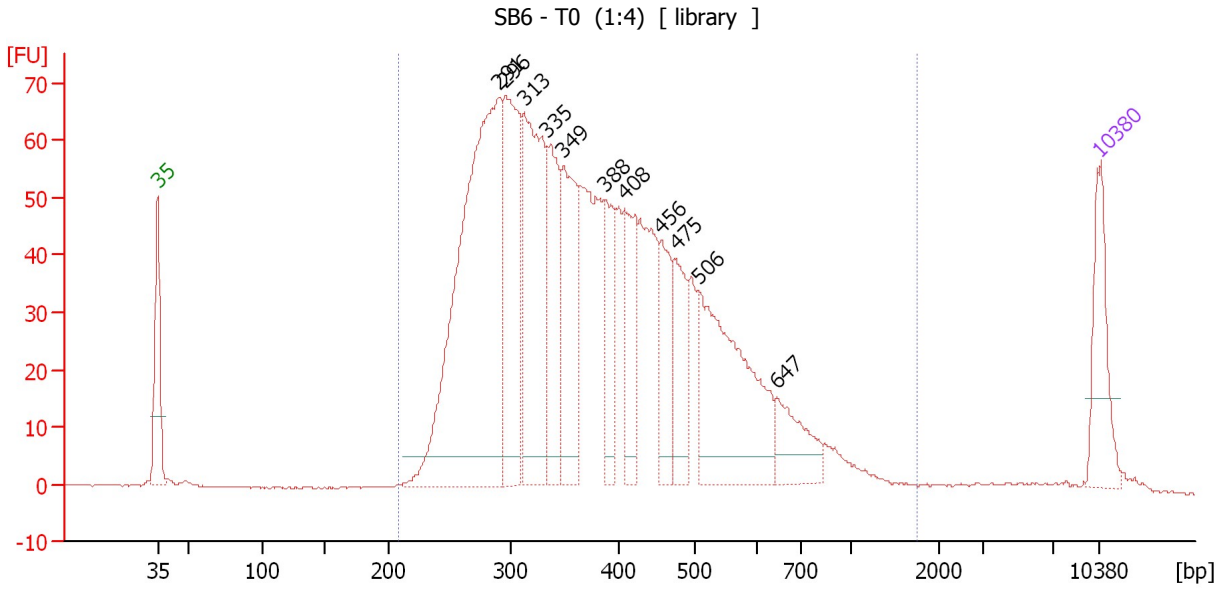
Region table for sample 8 : SB5 - T2 (1:4)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
210	389	1,413	2,014.9	12,481.9	98	33.8	2,856.05	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
 Modified: 3/18/2015 5:07:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : SB6 - T0 (1:4)

Number of peaks found: 11 Corr. Area 1: 1,615.5
 Noise: 0.1

Peak table for sample 9 : SB6 - T0 (1:4)

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	291	731.95	3,811.7		68.36
3	296	251.75	1,287.8		68.84
4	313	328.04	1,588.7		70.22
5	335	157.39	712.7		71.96
6	349	187.03	811.7		73.13
7	388	99.70	389.3		76.25
8	408	110.14	408.8		77.68
9	456	87.88	292.3		80.38
10	475	97.39	310.6		81.49
11	506	292.01	874.6		83.19
12	647	72.10	168.9		89.01
13	10,380	75.00	10.9	Upper Marker	113.00

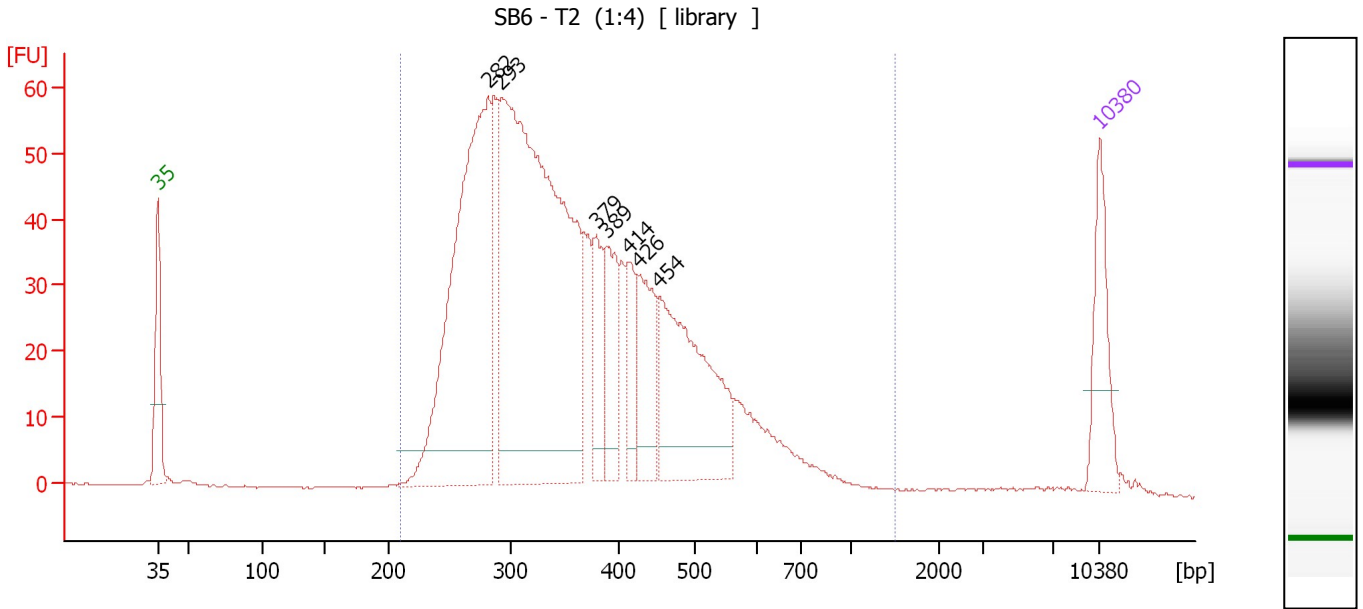
Region table for sample 9 : SB6 - T0 (1:4)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
209	406	1,752	1,615.5	13,211.6	98	38.4	3,094.43	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
 Modified: 3/18/2015 5:07:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : SB6 - T2 (1:4)

Number of peaks found: 7 Corr. Area 1: 1,224.9
 Noise: 0.1

Peak table for sample 10 : SB6 - T2 (1:4)

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	282	626.51	3,365.1		67.56
3	293	992.74	5,139.7		68.52
4	379	92.70	370.4		75.55
5	389	96.24	374.7		76.35
6	414	61.16	224.0		78.00
7	426	106.82	380.0		78.69
8	454	274.75	917.1		80.29
9	10,380	75.00	10.9	Upper Marker	113.00

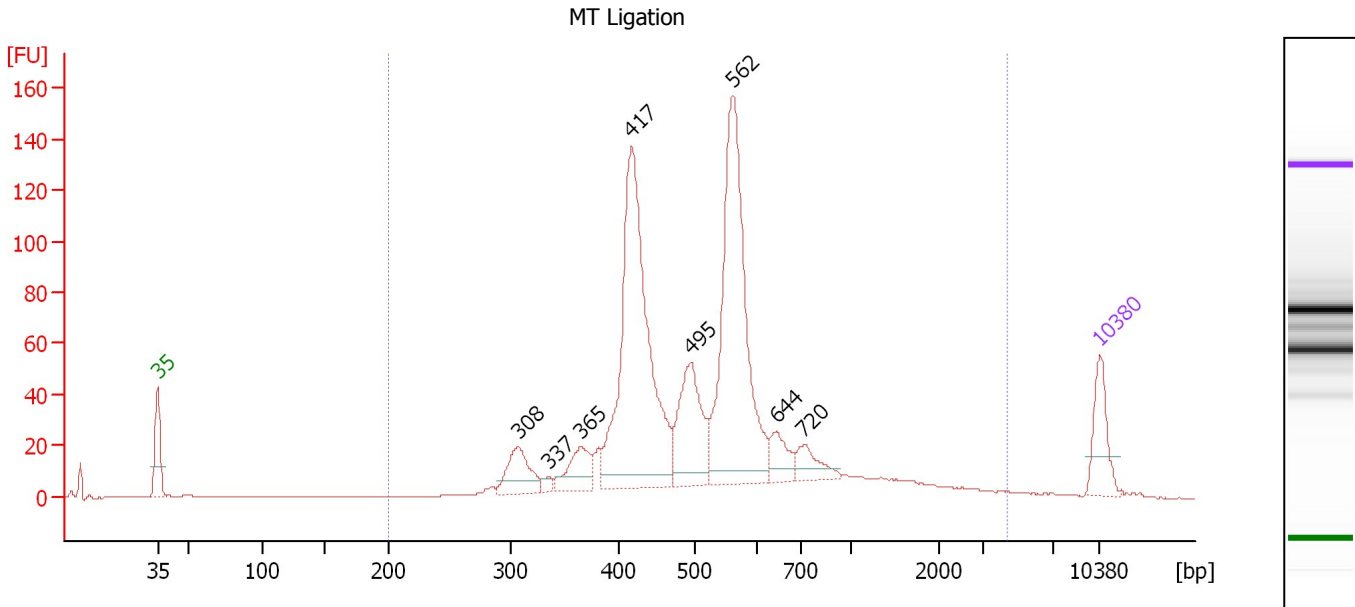
Region table for sample 10 : SB6 - T2 (1:4)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
210	375	1,486	1,224.9	11,677.5	98	31.6	2,607.07	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
 Modified: 3/18/2015 5:07:20 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : MT Ligation

Number of peaks found: 8 Corr. Area 1: 1,248.4
 Noise: 0.1

Peak table for sample 11 : MT Ligation

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	106.03	522.0		69.81
3	337	12.43	56.0		72.12
4	365	87.32	362.2		74.43
5	417	744.77	2,705.8		78.19
6	495	215.32	658.8		82.65
7	562	630.85	1,701.7		85.76
8	644	57.18	134.5		88.93
9	720	56.07	117.9		90.97
10	10,380	75.00	10.9	Upper Marker	113.00

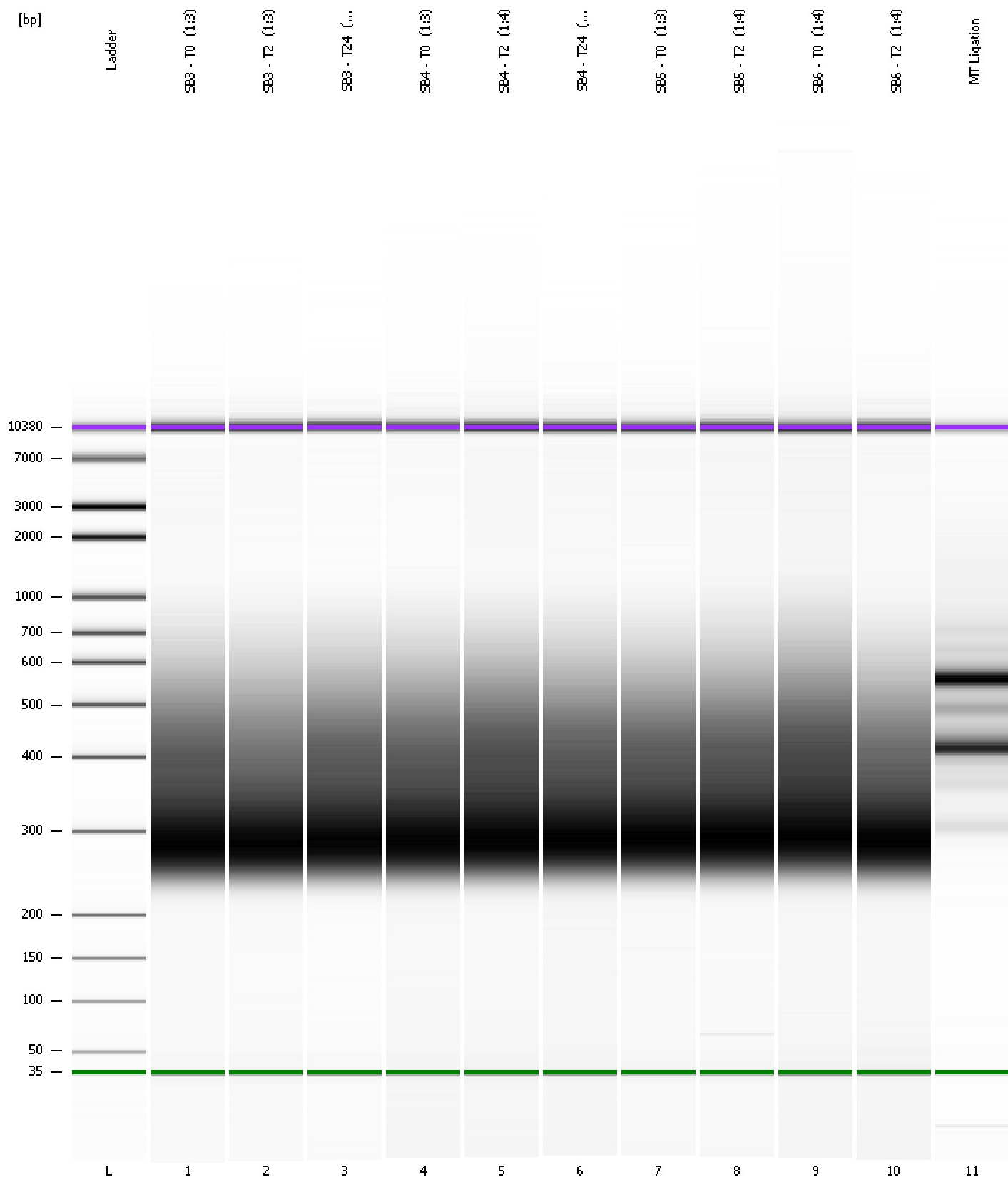
Region table for sample 11 : MT Ligation

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	588	4,337	1,248.4	7,309.4	98	66.6	2,326.29	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
Modified: 3/18/2015 5:07:20 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-03-18\2015-03-18_001.xad

Created: 3/18/2015 4:25:15 PM
 Modified: 3/18/2015 5:07:20 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		3/18/2015 5:06:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-03-18\2015-03-18_001.xad)		Instrument	Run		3/18/2015 4:25:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/18/2015 4:25:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/18/2015 4:25:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/18/2015 4:25:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/18/2015 4:25:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/18/2015 4:25:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/18/2015 4:25:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1