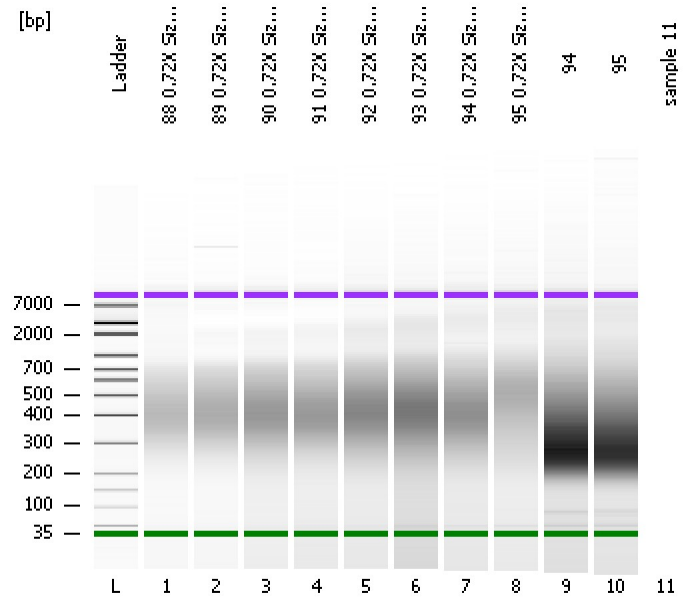
Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

Electrophoresis File Run Summary



Instrument Information:

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

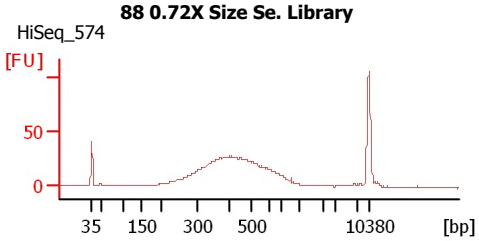
Assay Information:

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

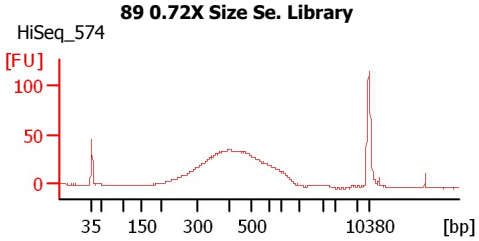
Chip Information:

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

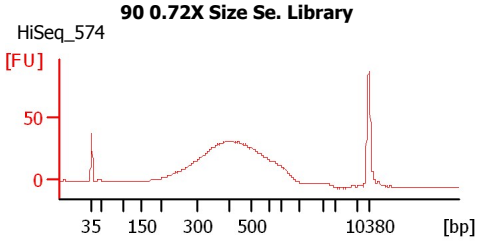
88 0.72X Size Se. Library



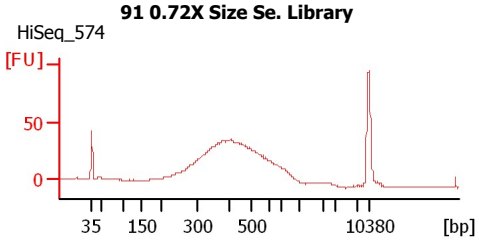
89 0.72X Size Se. Library



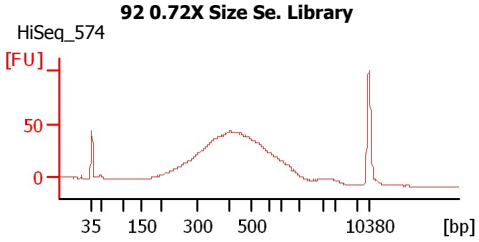
90 0.72X Size Se. Library



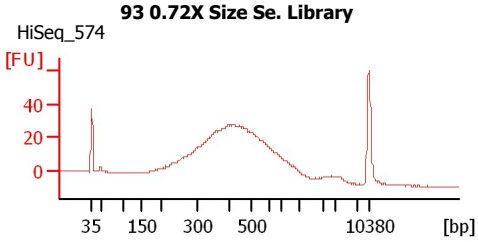
91 0.72X Size Se. Library



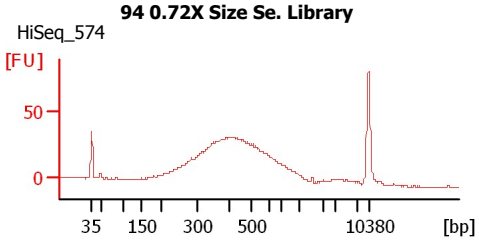
92 0.72X Size Se. Library



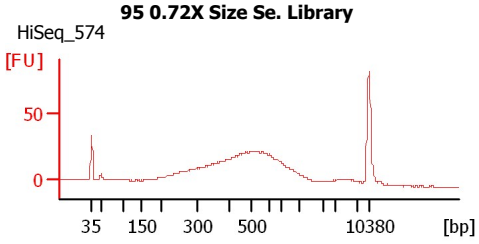
93 0.72X Size Se. Library



94 0.72X Size Se. Library



95 0.72X Size Se. Library



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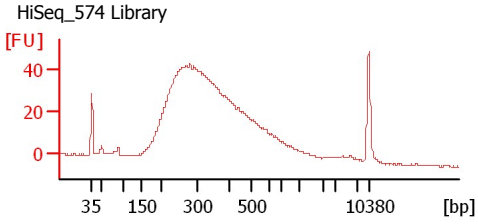

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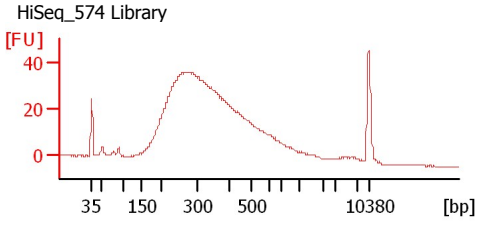


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
88 0.72X Size Se. Library	HiSeq_574	☐	✔			
89 0.72X Size Se. Library	HiSeq_574	☐	✔			
90 0.72X Size Se. Library	HiSeq_574	☐	✔			
91 0.72X Size Se. Library	HiSeq_574	☐	✔			
92 0.72X Size Se. Library	HiSeq_574	☐	✔			
93 0.72X Size Se. Library	HiSeq_574	☐	✔			
94 0.72X Size Se. Library	HiSeq_574	☐	✔			
95 0.72X Size Se. Library	HiSeq_574	☐	✔			
94	HiSeq_574 Library	☐	✔			
95	HiSeq_574 Library	☐	✔			
sample 11		☐				
Ladder		☐	✔			

Chip Lot # **Reagent Kit Lot #**

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 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

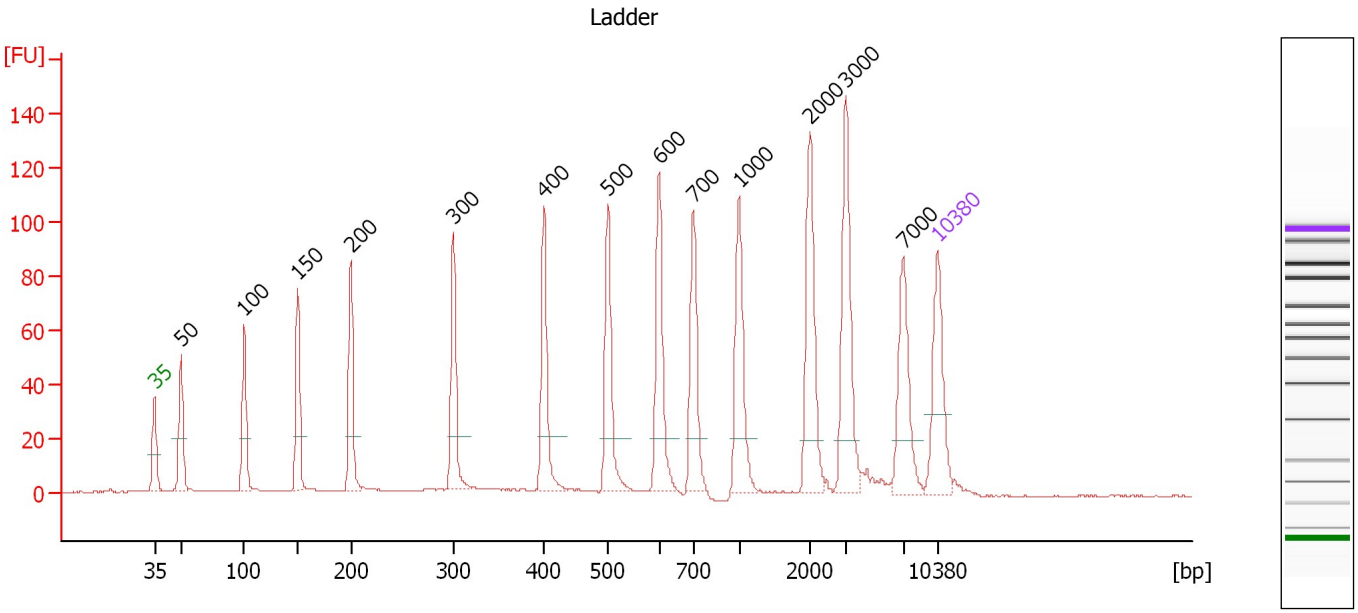
Ladder

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:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

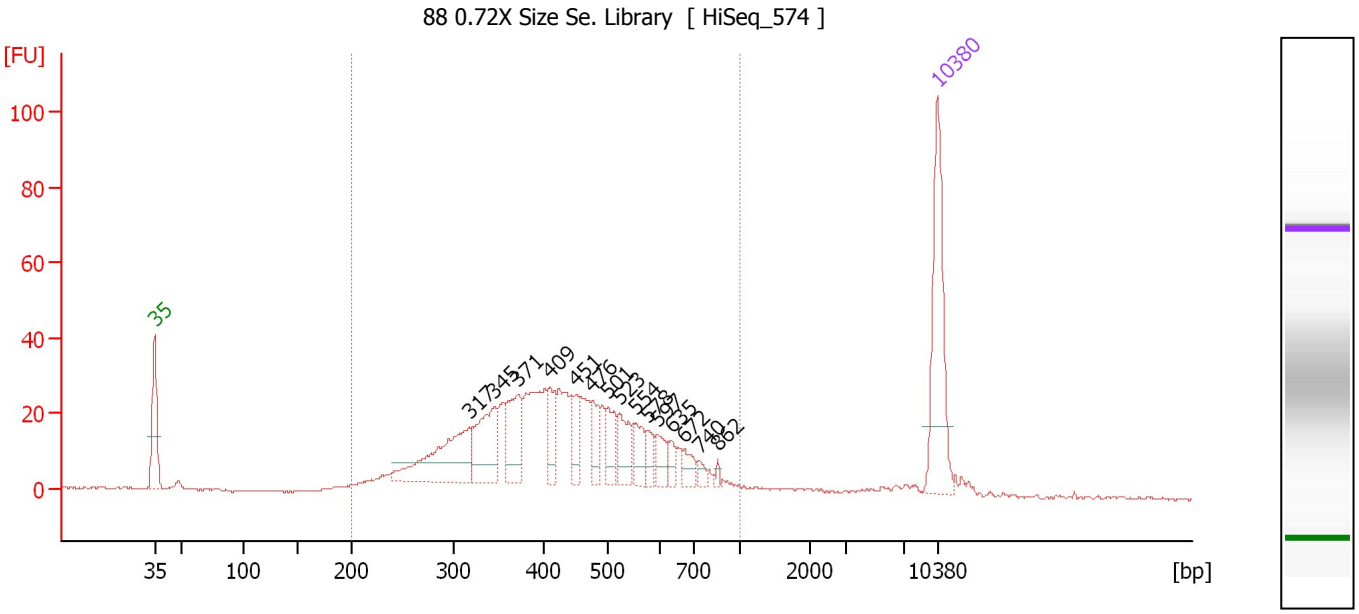
Peak table for Ladder

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	45.38
3		100	150.00	2,272.7	Ladder Peak	51.04
4		150	150.00	1,515.2	Ladder Peak	55.79
5		200	150.00	1,136.4	Ladder Peak	60.55
6		300	150.00	757.6	Ladder Peak	69.70
7		400	150.00	568.2	Ladder Peak	77.84
8		500	150.00	454.5	Ladder Peak	83.50
9		600	150.00	378.8	Ladder Peak	88.10
10		700	150.00	324.7	Ladder Peak	91.16
11		1,000	150.00	227.3	Ladder Peak	95.24
12		2,000	150.00	113.6	Ladder Peak	101.58
13		3,000	150.00	75.8	Ladder Peak	104.81
14		7,000	150.00	32.5	Ladder Peak	109.93
15		10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 88 0.72X Size Se. Library

Number of peaks found:	15	Corr. Area 1:	659.0
Noise:	0.2		

Peak table for sample 1 : 88 0.72X Size Se. 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	317	91.50	436.9		71.11
3	345	58.98	259.0		73.36
4	371	48.63	198.4		75.51
5	409	23.53	87.2		78.35
6	451	24.72	83.1		80.71
7	476	20.70	65.8		82.16
8	501	23.91	72.3		83.55
9	523	28.35	82.1		84.57
10	554	20.58	56.3		85.97
11	578	12.97	34.0		87.09
12	597	15.78	40.1		87.95
13	635	9.43	22.5		89.18
14	672	11.57	26.1		90.31
15	740	5.93	12.1		91.70
16	862	2.64	4.6		93.37
17	10,380	75.00	10.9	Upper Marker	113.00

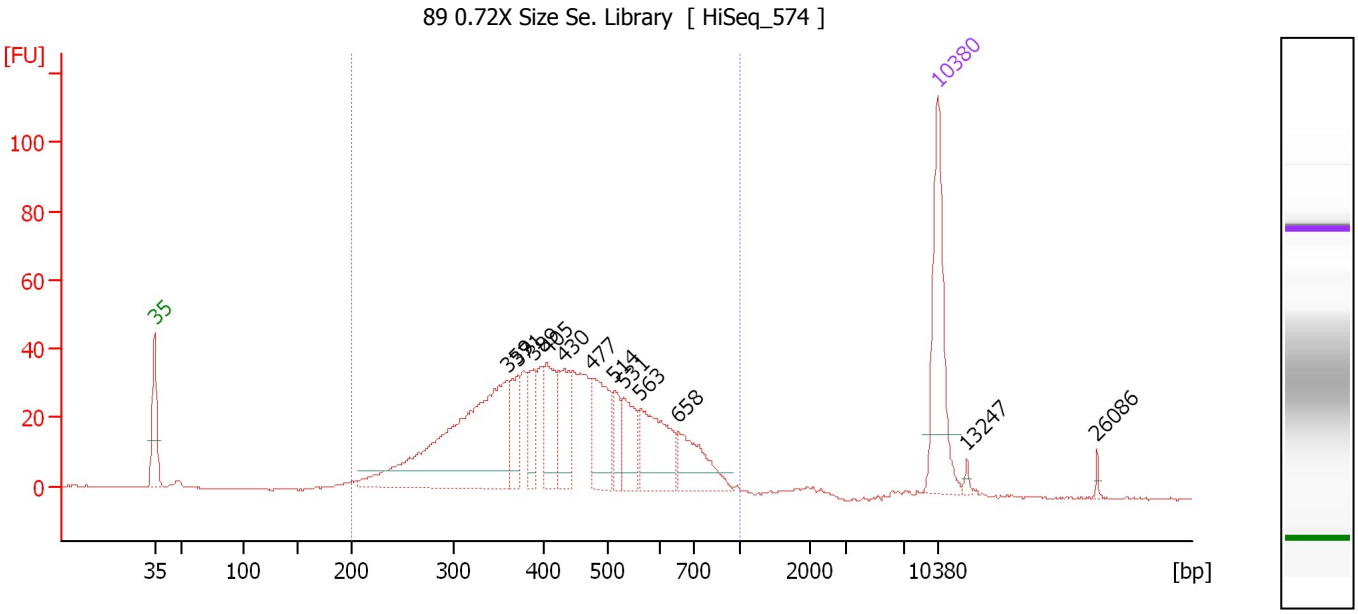
Region table for sample 1 : 88 0.72X Size Se. Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	442	659.0	2,813.8	729.13	94	30.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 89 0.72X Size Se. Library

Number of peaks found:	12	Corr. Area 1:	880.8
Noise:	0.2		

Peak table for sample 2 : 89 0.72X Size Se. 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	359	254.42	1,072.7		74.53
3	371	35.39	144.4		75.51
4	389	29.50	115.0		76.92
5	405	52.05	194.8		78.11
6	430	49.96	176.2		79.52
7	477	63.72	202.6		82.17
8	514	21.19	62.5		84.12
9	531	38.80	110.7		84.93
10	563	68.13	183.3		86.40
11	658	47.82	110.2		89.87
12	10,380	75.00	10.9	Upper Marker	113.00
13	13,247	0.00	0.0		115.60
14	26,086	0.00	0.0		127.25

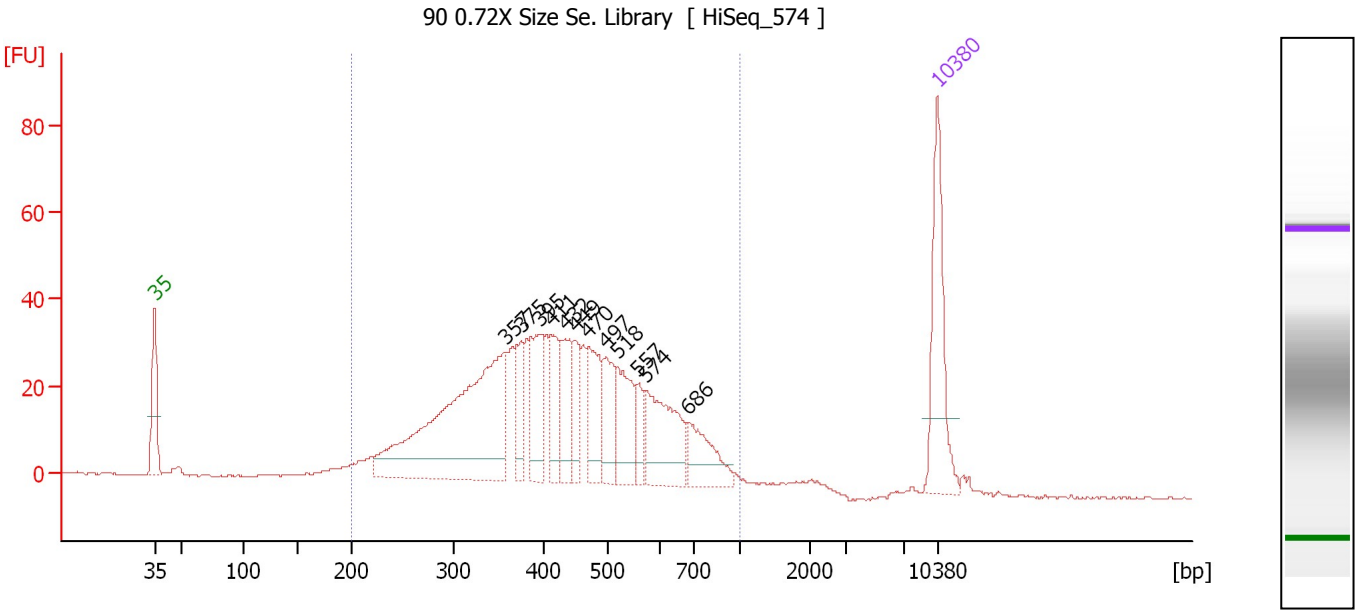
Region table for sample 2 : 89 0.72X Size Se. Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	443	880.8	3,292.9	855.59	97	29.7

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 90 0.72X Size Se. Library

Number of peaks found:	12	Corr. Area 1:	847.9
Noise:	0.3		

Peak table for sample 3 : 90 0.72X Size Se. 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	357	305.85	1,297.2		74.36
3	375	37.87	153.1		75.78
4	395	62.92	241.4		77.43
5	411	40.28	148.5		78.47
6	432	51.74	181.3		79.67
7	449	32.72	110.5		80.60
8	470	57.76	186.2		81.80
9	497	42.54	129.6		83.34
10	518	58.49	171.1		84.32
11	557	20.45	55.6		86.13
12	574	82.52	217.9		86.89
13	686	45.99	101.6		90.72
14	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 3 : 90 0.72X Size Se. Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	441	847.9	4,004.1	1,026.34	97	30.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

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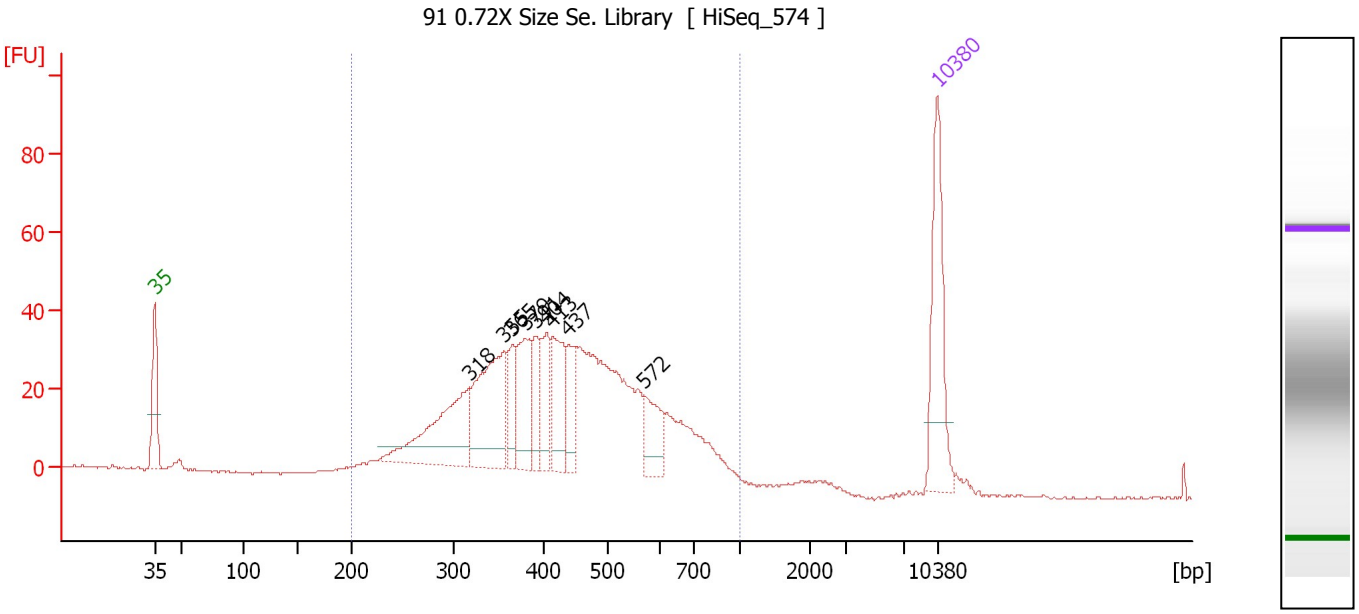

Overall Results for sample 4 : 91 0.72X Size Se. Library

Number of peaks found:	9	Corr. Area 1:	853.7
Noise:	0.2		

Peak table for sample 4 : 91 0.72X Size Se. 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	318	118.38	564.7		71.13
3	355	120.06	512.4		74.18
4	365	32.07	133.1		75.01
5	379	62.98	251.9		76.12
6	391	32.73	126.8		77.11
7	404	42.59	159.8		78.06
8	413	58.19	213.7		78.55
9	437	34.49	119.6		79.94
10	572	36.54	96.8		86.81
11	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 4 : 91 0.72X Size Se. Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	442	853.7	3,585.6	931.23	98	29.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

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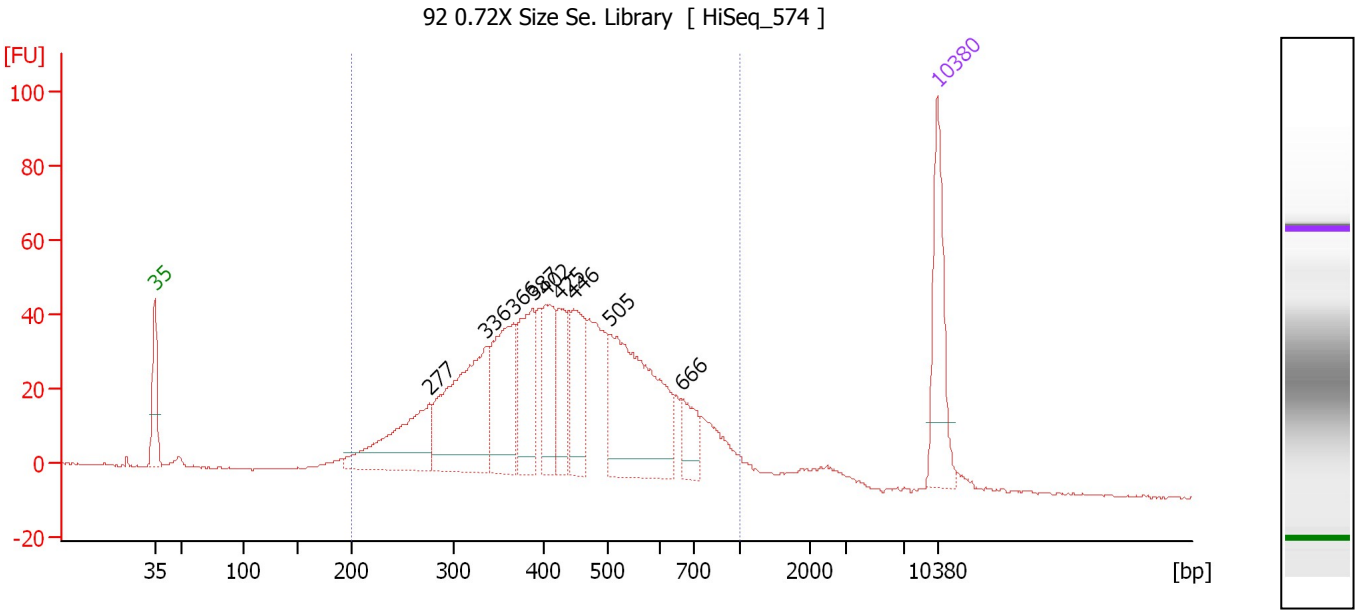


Overall Results for sample 5 : 92 0.72X Size Se. Library

Number of peaks found:	9	Corr. Area 1:	1,168.4
Noise:	0.2		

Peak table for sample 5 : 92 0.72X Size Se. 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	277	129.44	707.7		67.61
3	336	197.38	890.8		72.61
4	366	128.77	533.0		75.08
5	387	92.92	363.4		76.82
6	402	72.83	274.6		77.94
7	425	60.78	216.9		79.24
8	446	80.33	272.6		80.47
9	505	216.93	650.8		83.73
10	666	35.83	81.5		90.13
11	10,380	75.00	10.9	Upper Marker	113.00

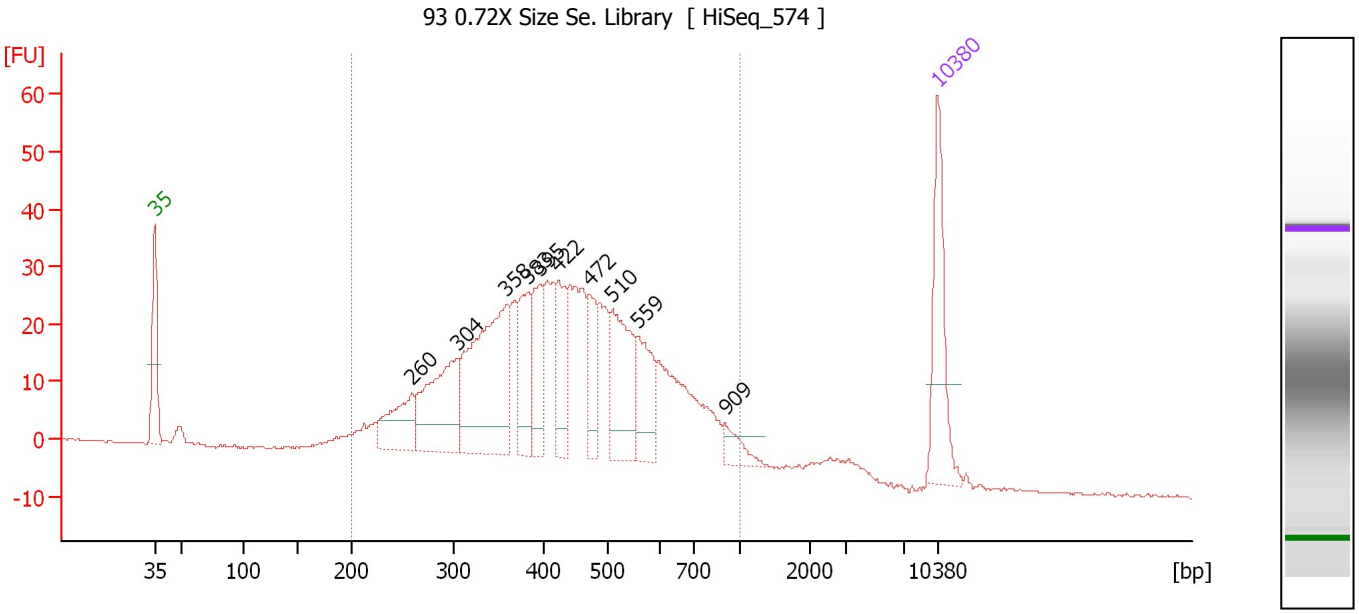
Region table for sample 5 : 92 0.72X Size Se. Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	448	1,168.4	4,894.2	1,261.23	95	32.5

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 93 0.72X Size Se. Library

Number of peaks found:	10	Corr. Area 1:	777.3
Noise:	0.2		

Peak table for sample 6 : 93 0.72X Size Se. 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	260	65.82	383.7		66.03
3	304	124.74	622.1		70.01
4	358	207.88	879.1		74.45
5	383	65.68	260.0		76.44
6	395	60.61	232.3		77.46
7	422	56.84	203.9		79.11
8	472	48.23	154.9		81.90
9	510	96.88	288.0		83.94
10	559	63.62	172.4		86.22
11	909	19.62	32.7		94.01
12	10,380	75.00	10.9	Upper Marker	113.00

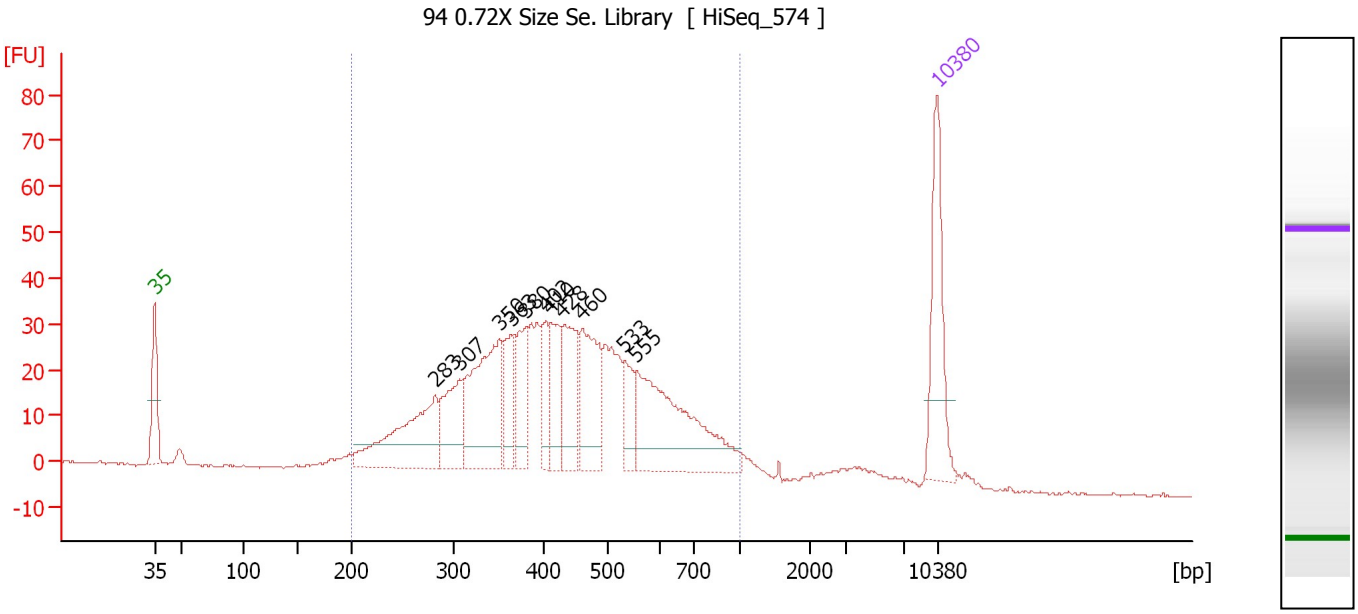
Region table for sample 6 : 93 0.72X Size Se. Library

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	448	777.3	5,023.6	1,294.13	95	32.4

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 94 0.72X Size Se. Library

Number of peaks found:	11	Corr. Area 1:	843.5
Noise:	0.2		

Peak table for sample 7 : 94 0.72X Size Se. 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	283	129.71	695.3		68.11
3	307	71.71	353.5		70.30
4	350	147.22	636.6		73.80
5	363	48.45	202.2		74.84
6	380	55.03	219.4		76.22
7	402	37.85	142.7		77.94
8	410	48.90	180.7		78.40
9	428	72.20	255.5		79.44
10	460	88.51	291.7		81.22
11	533	33.49	95.2		85.01
12	555	165.21	450.7		86.05
13	10,380	75.00	10.9	Upper Marker	113.00

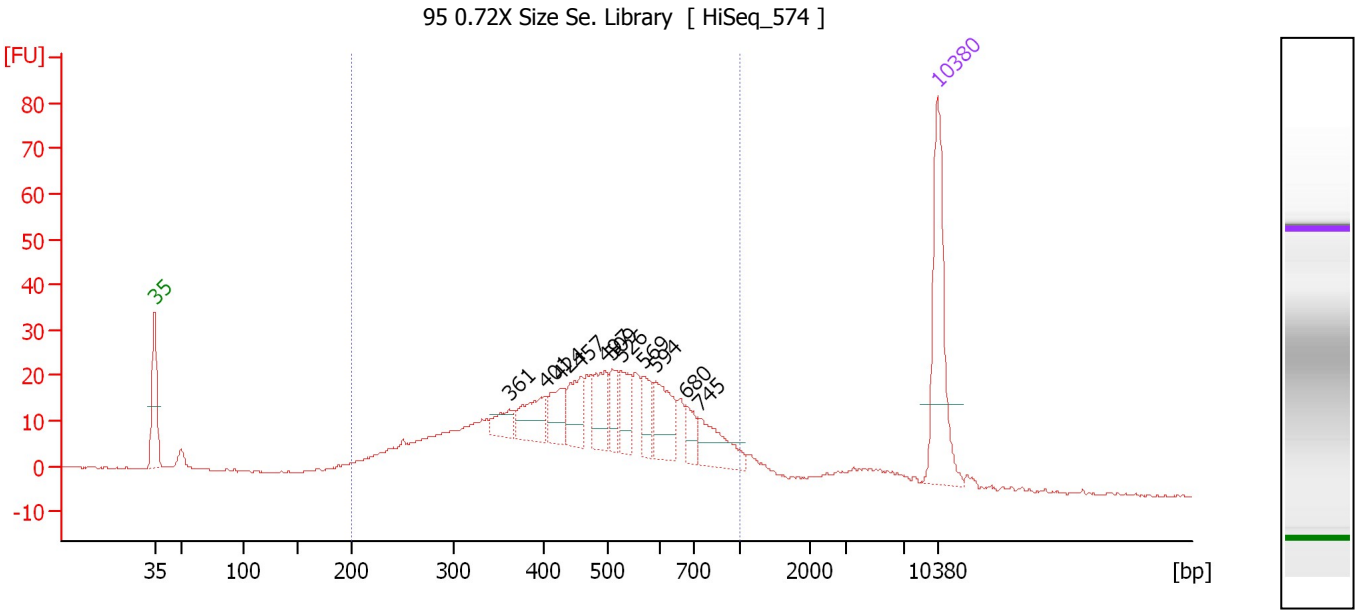
Region table for sample 7 : 94 0.72X Size Se. Library

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	445	843.5	4,434.0	1,133.20	93	32.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 95 0.72X Size Se. Library

Number of peaks found:	11	Corr. Area 1:	591.6
Noise:	0.2		

Peak table for sample 8 : 95 0.72X Size Se. 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	361	16.52	69.3		74.69
3	401	34.82	131.6		77.88
4	424	27.01	96.4		79.22
5	457	32.29	107.0		81.08
6	497	34.68	105.7		83.35
7	509	18.76	55.8		83.93
8	526	23.88	68.8		84.69
9	569	20.30	54.1		86.66
10	594	36.78	93.8		87.83
11	680	14.65	32.6		90.56
12	745	34.99	71.1		91.78
13	10,380	75.00	10.9	Upper Marker	113.00

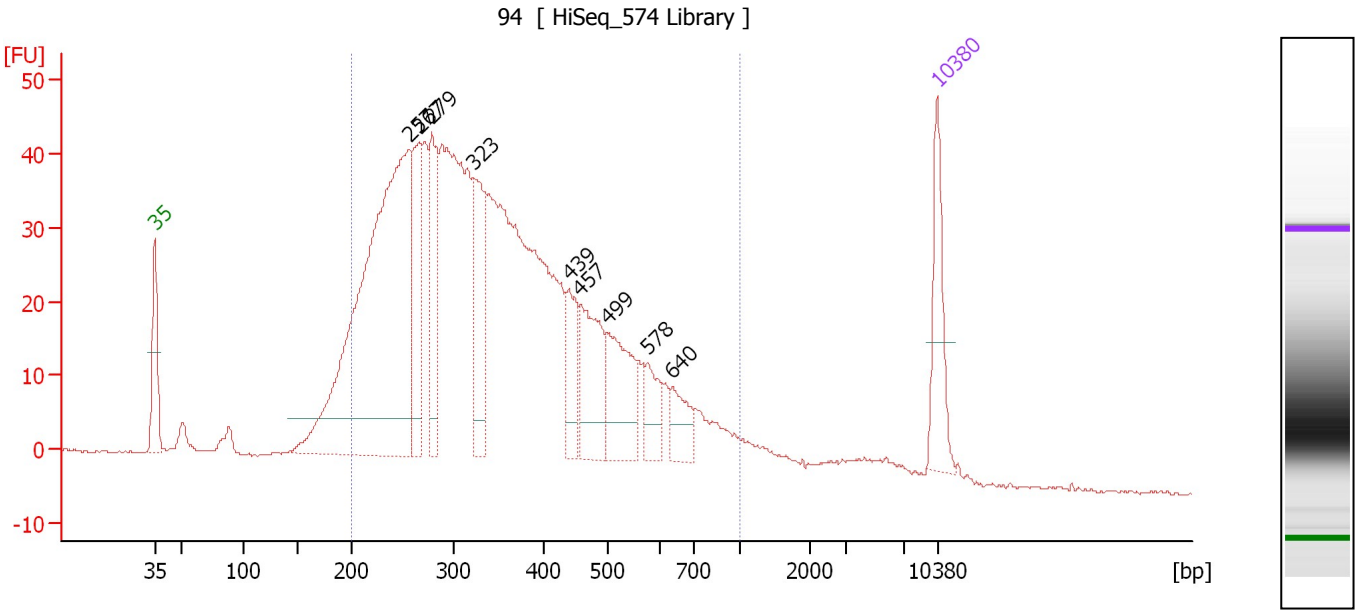
Region table for sample 8 : 95 0.72X Size Se. Library

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	485	591.6	2,757.9	749.27	89	33.4

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 94

Number of peaks found:	9	Corr. Area 1:	1,120.6
Noise:	0.2		

Peak table for sample 9 : 94

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	847.43	4,999.5		65.75
3	267	135.12	766.7		66.68
4	279	132.46	719.0		67.79
5	323	141.78	664.8		71.58
6	439	72.87	251.6		80.04
7	457	125.74	416.5		81.09
8	499	117.69	357.6		83.43
9	578	45.42	119.0		87.10
10	640	43.66	103.4		89.32
11	10,380	75.00	10.9	Upper Marker	113.00

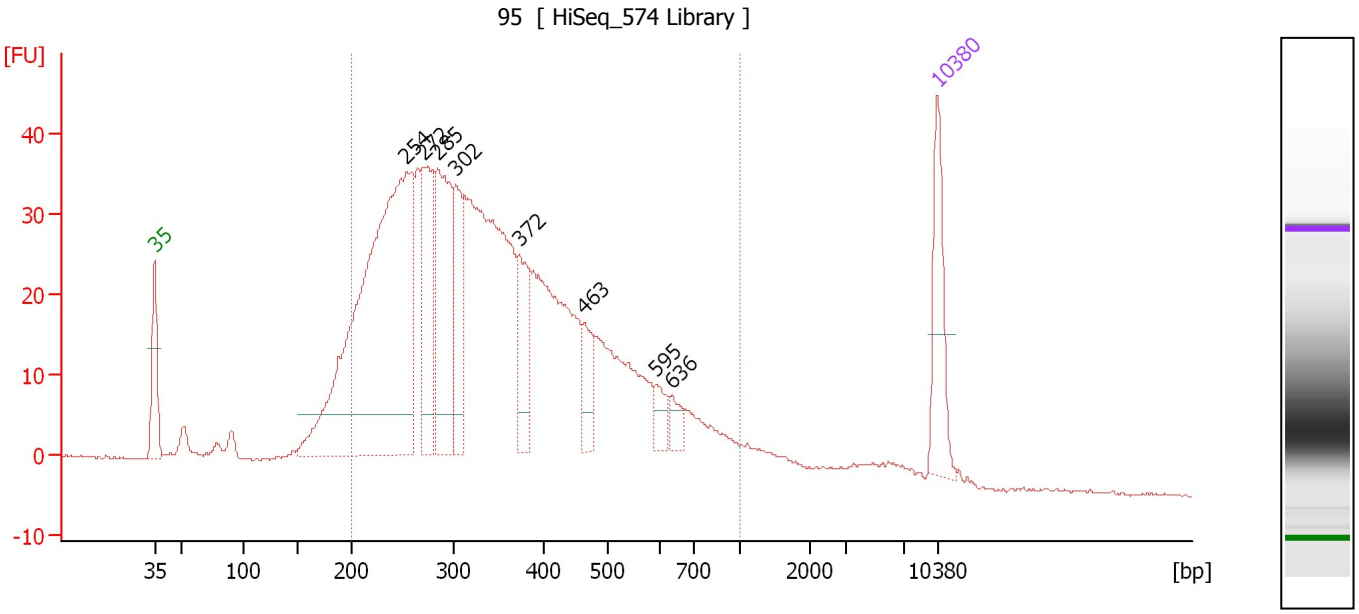
Region table for sample 9 : 94

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	368	1,120.6	14,236.5	2,981.33	90	37.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 95

Number of peaks found:	8	Corr. Area 1:	957.3
Noise:	0.2		

Peak table for sample 10 : 95

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	795.55	4,745.6		65.49
3	272	149.17	831.0		67.14
4	285	194.03	1,032.2		68.31
5	302	106.82	535.2		69.90
6	372	88.15	358.7		75.59
7	463	46.03	150.6		81.41
8	595	22.46	57.2		87.87
9	636	18.32	43.6		89.22
10	10,380	75.00	10.9	Upper Marker	113.00

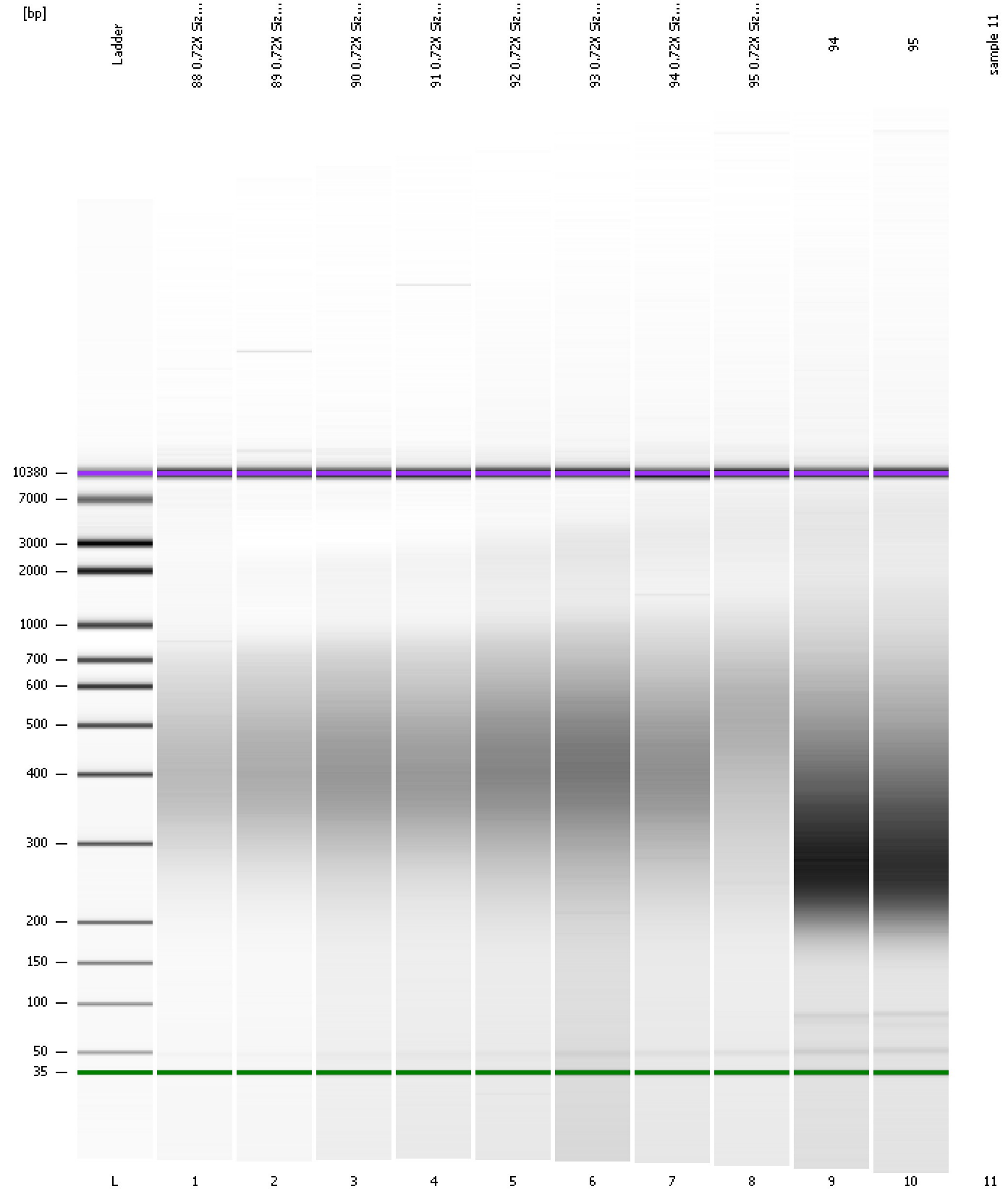
Region table for sample 10 : 95

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	366	957.3	12,527.6	2,610.44	89	37.7

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

Invalid Samples

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad

Created: 9/9/2016 2:02:42 PM
Modified: 9/9/2016 2:41:09 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 11)		Instrument	Run		9/9/2016 2:41:09 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-09-09\2016-09-09_003.xad)		Instrument	Run		9/9/2016 2:02:47 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/9/2016 2:02:47 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/9/2016 2:02:47 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/9/2016 2:02:47 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/9/2016 2:02:47 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/9/2016 2:02:47 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/9/2016 2:02:47 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1