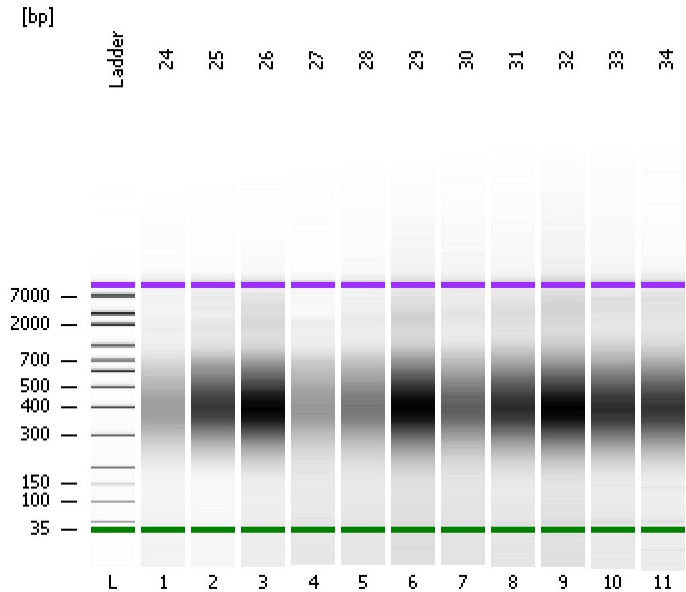


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

Created: 8/25/2016 10:11:54 AM
Modified: 8/25/2016 4:28:08 PM

Electrophoresis File Run Summary



Instrument Information:

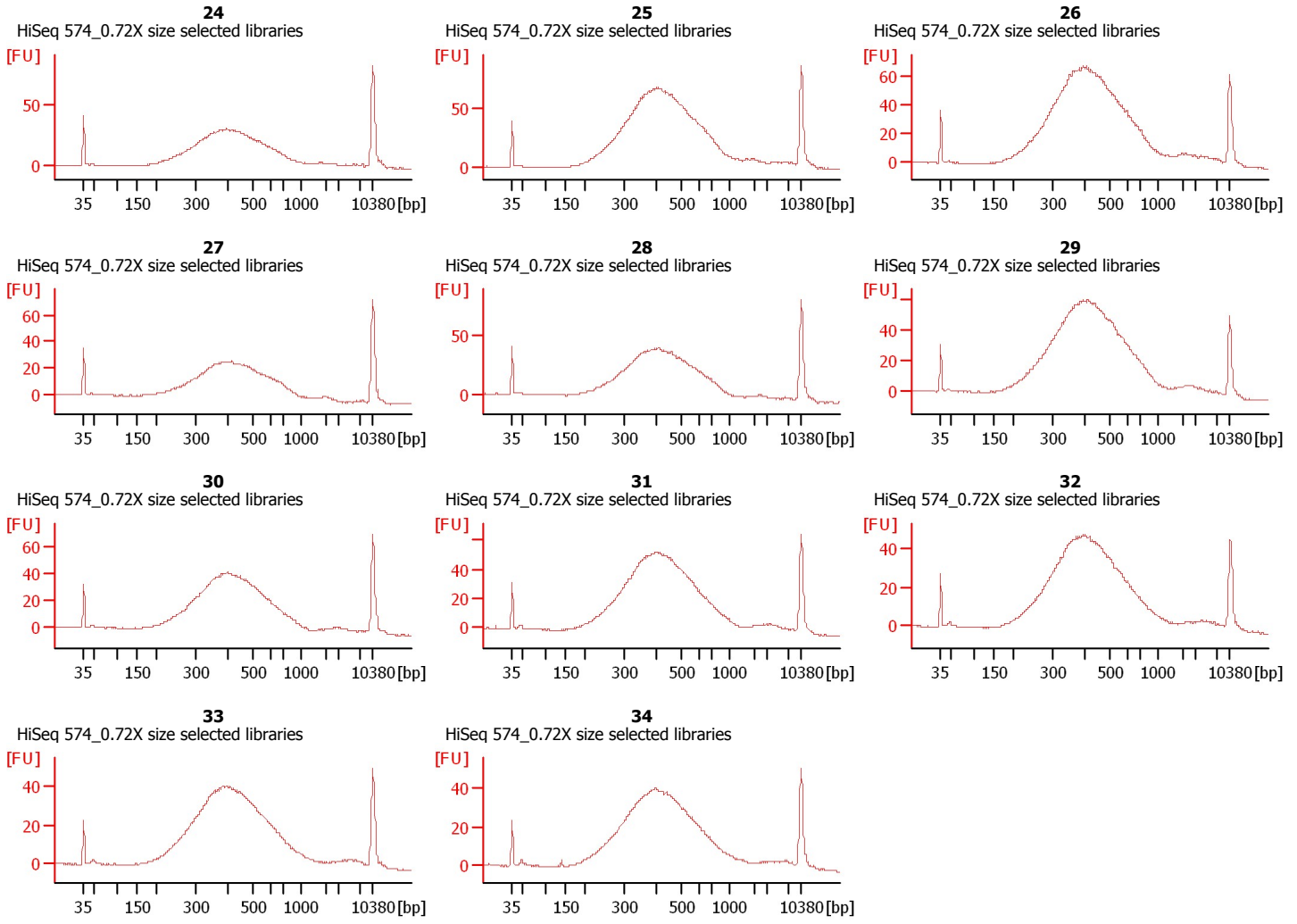
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

Created: 8/25/2016 10:11:54 AM
Modified: 8/25/2016 4:28:08 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
24	HiSeq 574_0.72X size selected libraries	<input type="checkbox"/>	✓			
25	HiSeq 574_0.72X size selected libraries	<input type="checkbox"/>	✓			
26	HiSeq 574_0.72X size selected libraries	<input type="checkbox"/>	✓			
27	HiSeq 574_0.72X size selected libraries	<input type="checkbox"/>	✓			
28	HiSeq 574_0.72X size selected libraries	<input type="checkbox"/>	✓			
29	HiSeq 574_0.72X size selected libraries	<input type="checkbox"/>	✓			
30	HiSeq 574_0.72X size selected libraries	<input type="checkbox"/>	✓			
31	HiSeq 574_0.72X size selected libraries	<input type="checkbox"/>	✓			
32	HiSeq 574_0.72X size selected libraries	<input type="checkbox"/>	✓			
33	HiSeq 574_0.72X size selected libraries	<input type="checkbox"/>	✓			
34	HiSeq 574_0.72X size selected libraries	<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			
Chip Lot #				Reagent Kit Lot #		

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

Created: 8/25/2016 10:11:54 AM
Modified: 8/25/2016 4:28:08 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/ μ l] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/ μ l] : 125
Upper Marker Concentration [pg/ μ l] : 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

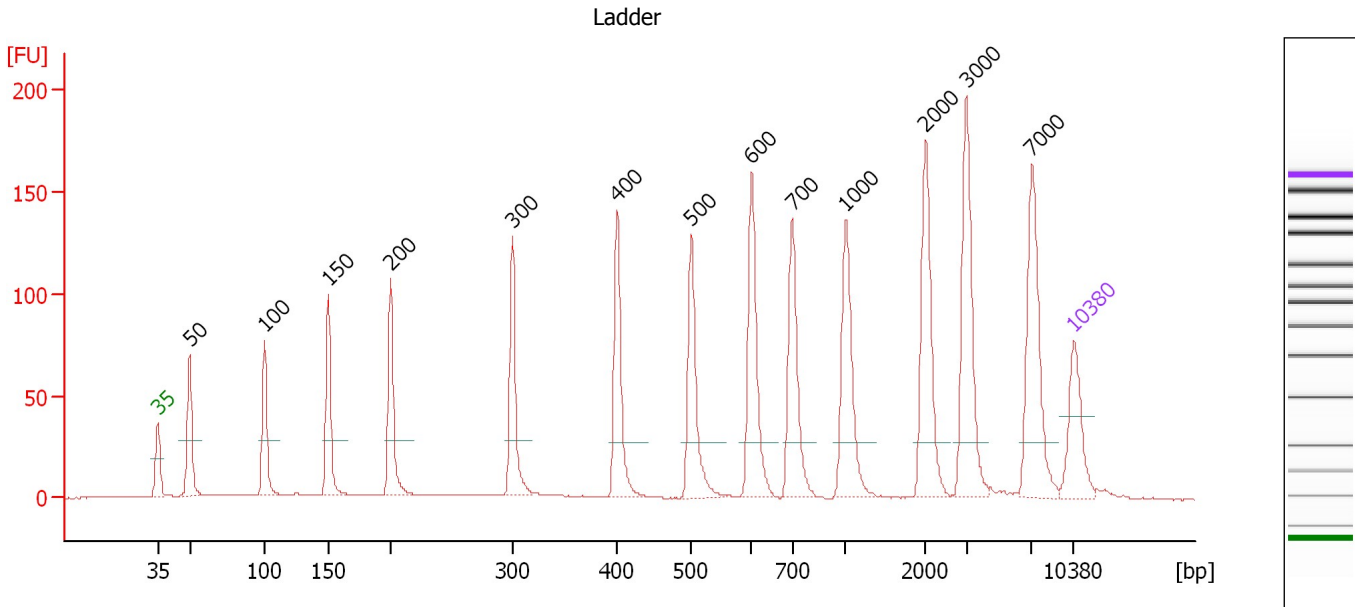
Ladder

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\2016-08-25\2016-08-25_001.xad

Created: 8/25/2016 10:11:54 AM
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Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

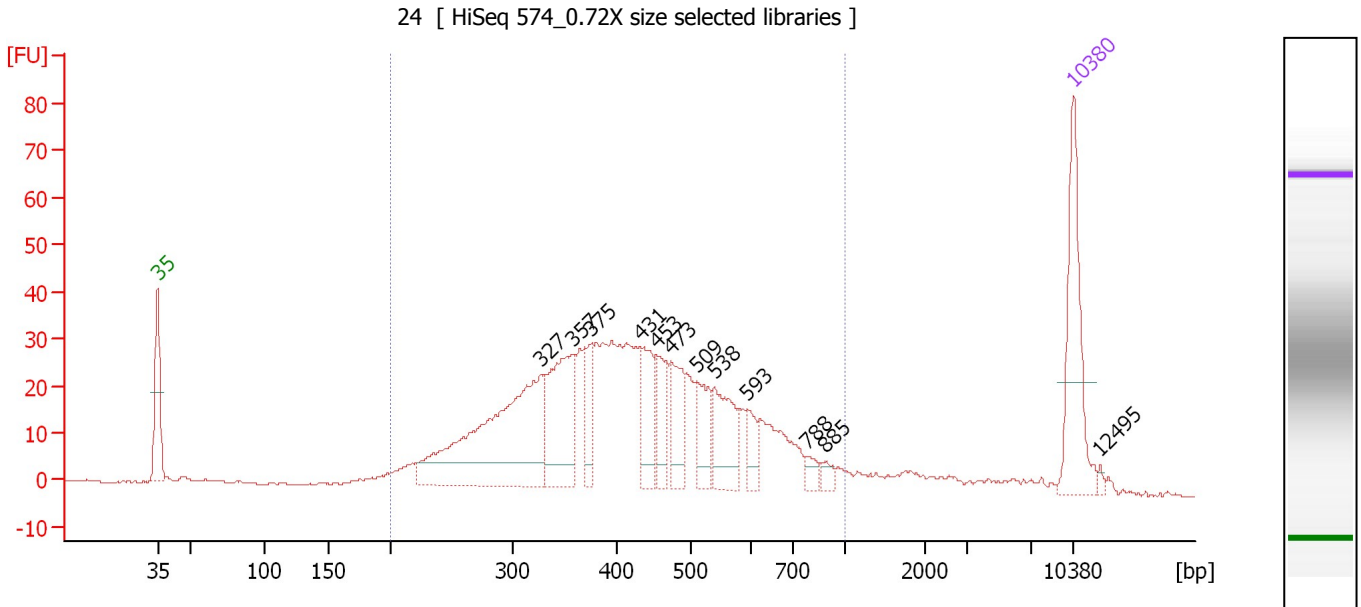
Peak table for Ladder

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	45.44
3	100	150.00	2,272.7	Ladder Peak	51.17
4	150	150.00	1,515.2	Ladder Peak	56.05
5	200	150.00	1,136.4	Ladder Peak	60.82
6	300	150.00	757.6	Ladder Peak	70.11
7	400	150.00	568.2	Ladder Peak	78.13
8	500	150.00	454.5	Ladder Peak	83.81
9	600	150.00	378.8	Ladder Peak	88.38
10	700	150.00	324.7	Ladder Peak	91.48
11	1,000	150.00	227.3	Ladder Peak	95.59
12	2,000	150.00	113.6	Ladder Peak	101.68
13	3,000	150.00	75.8	Ladder Peak	104.78
14	7,000	150.00	32.5	Ladder Peak	109.80
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 1 : 24

Number of peaks found: 12 Corr. Area 1: 790.6
 Noise: 0.3

Peak table for sample 1 : 24

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	327	254.87	1,179.5		72.30
3	357	111.00	471.3		74.66
4	375	37.77	152.5		76.15
5	431	53.32	187.4		79.90
6	453	38.19	127.8		81.13
7	473	45.37	145.4		82.26
8	509	39.03	116.3		84.21
9	538	57.27	161.3		85.54
10	593	18.65	47.7		88.06
11	788	9.37	18.0		92.68
12	885	7.43	12.7		94.01
13	10,380	75.00	10.9	Upper Marker	113.00
14	12,495	0.00	0.0		115.00

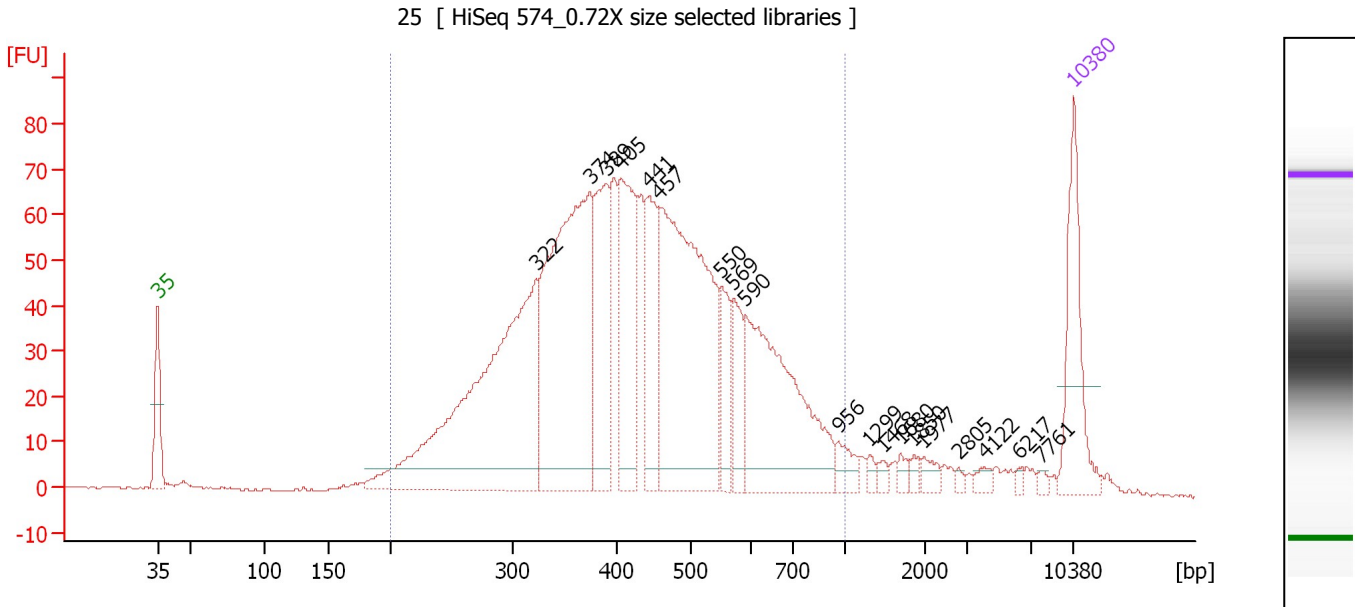
Region table for sample 1 : 24

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	435	790.6	4,196.2	1,056.38	91	31.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 2 : 25

Number of peaks found: 19 Corr. Area 1: 1,697.7
 Noise: 0.2

Peak table for sample 2 : 25

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	322	462.07	2,171.1		71.91
3	374	390.19	1,580.9		76.04
4	389	133.63	519.9		77.28
5	405	146.69	548.7		78.41
6	441	97.21	333.7		80.48
7	457	368.03	1,220.7		81.36
8	550	44.35	122.1		86.10
9	569	48.15	128.1		86.98
10	590	215.94	554.8		87.91
11	956	17.84	28.3		94.98
12	1,299	5.72	6.7		97.41
13	1,468	5.23	5.4		98.44
14	1,680	6.82	6.2		99.73
15	1,850	4.69	3.8		100.77
16	1,977	9.08	7.0		101.54
17	2,805	3.20	1.7		104.17
18	4,122	6.53	2.4		106.19
19	6,217	3.09	0.8		108.82
20	7,761	3.53	0.7		110.52
21	10,380	75.00	10.9	Upper Marker	113.00

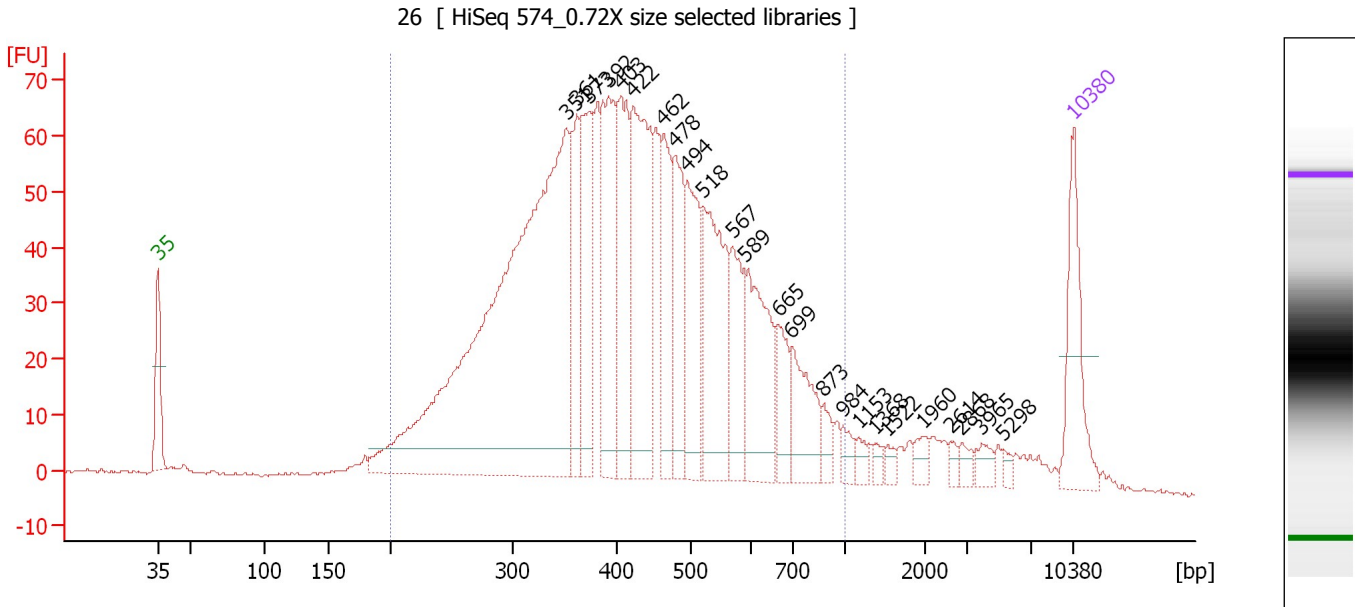
Region table for sample 2 : 25

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	443	1,697.7	8,114.9	2,084.90	94	31.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 3 : 26

Number of peaks found: 24 Corr. Area 1: 1,728.0
 Noise: 0.3

Peak table for sample 3 : 26

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	351	934.68	4,029.5		74.23
3	361	95.99	402.6		75.02
4	373	132.85	539.7		75.96
5	392	168.44	651.2		77.48
6	403	135.53	509.2		78.31
7	422	229.27	823.8		79.36
8	462	97.32	319.0		81.66
9	478	106.91	339.0		82.55
10	494	112.31	344.2		83.49
11	518	174.34	509.7		84.64
12	567	78.71	210.2		86.89
13	589	126.60	325.6		87.89
14	665	42.93	97.8		90.40
15	699	74.47	161.4		91.45
16	873	16.80	29.1		93.85
17	984	12.81	19.7		95.37
18	1,153	10.33	13.6		96.52
19	1,368	6.72	7.5		97.83
20	1,522	7.96	7.9		98.77
21	1,960	11.40	8.8		101.44
22	2,614	6.05	3.5		103.58
23	2,868	8.44	4.5		104.37
24	3,965	11.61	4.4		105.99
25	5,298	4.80	1.4		107.66

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

Created: 8/25/2016 10:11:54 AM
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Electropherogram Summary Continued ...

... Peak table for sample 3 : 26

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	10,380	75.00	10.9	Upper Marker	113.00

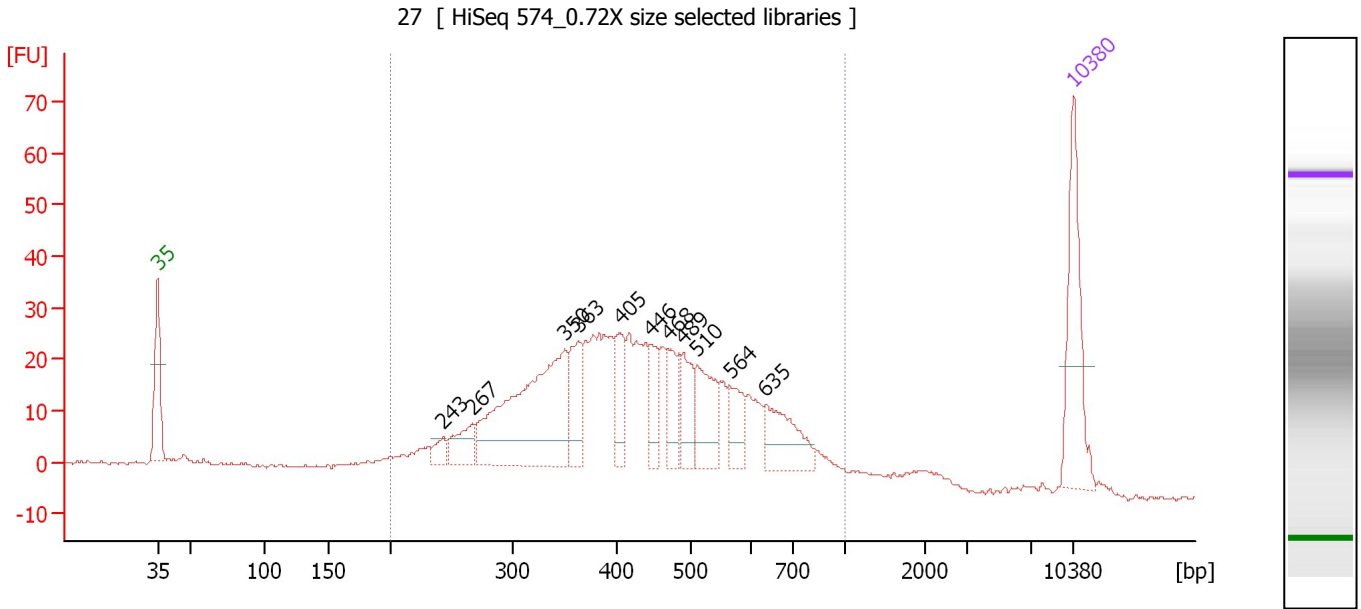
Region table for sample 3 : 26

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/ μ l]	% of Total	Size distribution in CV [%]
200	1,000	437	1,728.0	11,325.6	2,867.40	92	31.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 4 : 27

Number of peaks found: 11 Corr. Area 1: 697.2
 Noise: 0.3

Peak table for sample 4 : 27

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	243	15.22	94.9		64.83
3	267	33.57	190.4		67.06
4	350	222.29	963.3		74.09
5	363	48.97	204.4		75.15
6	405	36.18	135.4		78.40
7	446	29.99	101.9		80.74
8	468	36.77	118.9		82.02
9	489	41.45	128.4		83.19
10	510	57.31	170.4		84.25
11	564	29.89	80.2		86.76
12	635	53.03	126.5		89.47
13	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 4 : 27

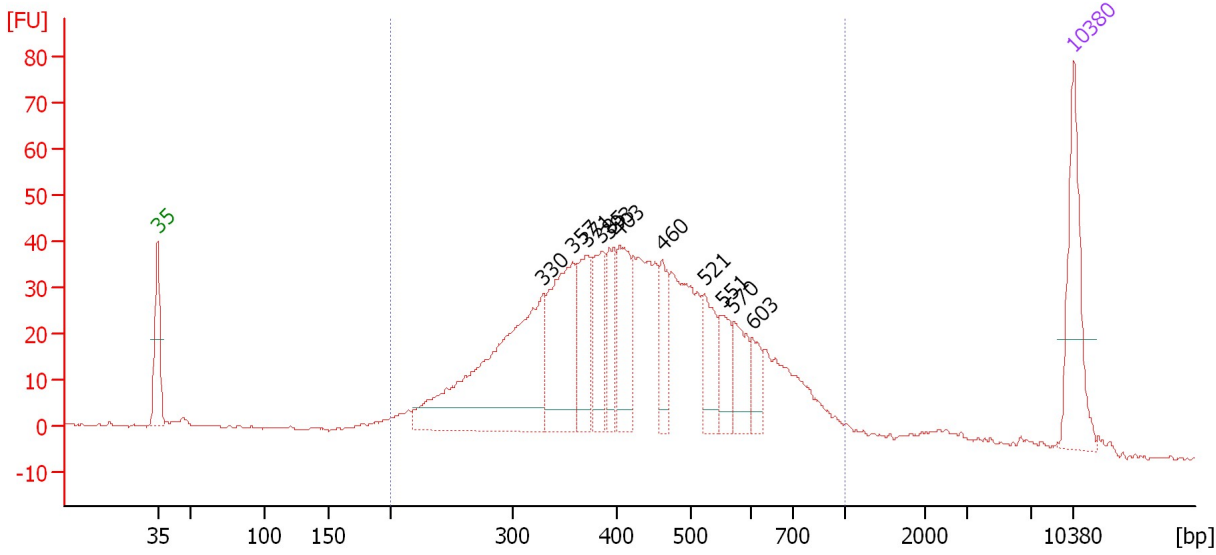
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	442	697.2	4,195.6	1,074.71	93	31.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

Created: 8/25/2016 10:11:54 AM
 Modified: 8/25/2016 4:28:08 PM

Electropherogram Summary Continued ...

28 [HiSeq 574_0.72X size selected libraries]



Overall Results for sample 5 : 28

Number of peaks found: 11 Corr. Area 1: 1,046.2
 Noise: 0.3

Peak table for sample 5 : 28

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	330	300.63	1,382.2		72.48
3	357	148.13	628.5		74.69
4	371	72.96	298.3		75.76
5	385	65.38	257.5		76.90
6	393	47.37	182.8		77.54
7	403	82.37	309.7		78.30
8	460	40.86	134.6		81.53
9	521	54.50	158.5		84.76
10	551	37.36	102.7		86.16
11	570	41.00	108.9		87.03
12	603	21.65	54.4		88.48
13	10,380	75.00	10.9	Upper Marker	113.00

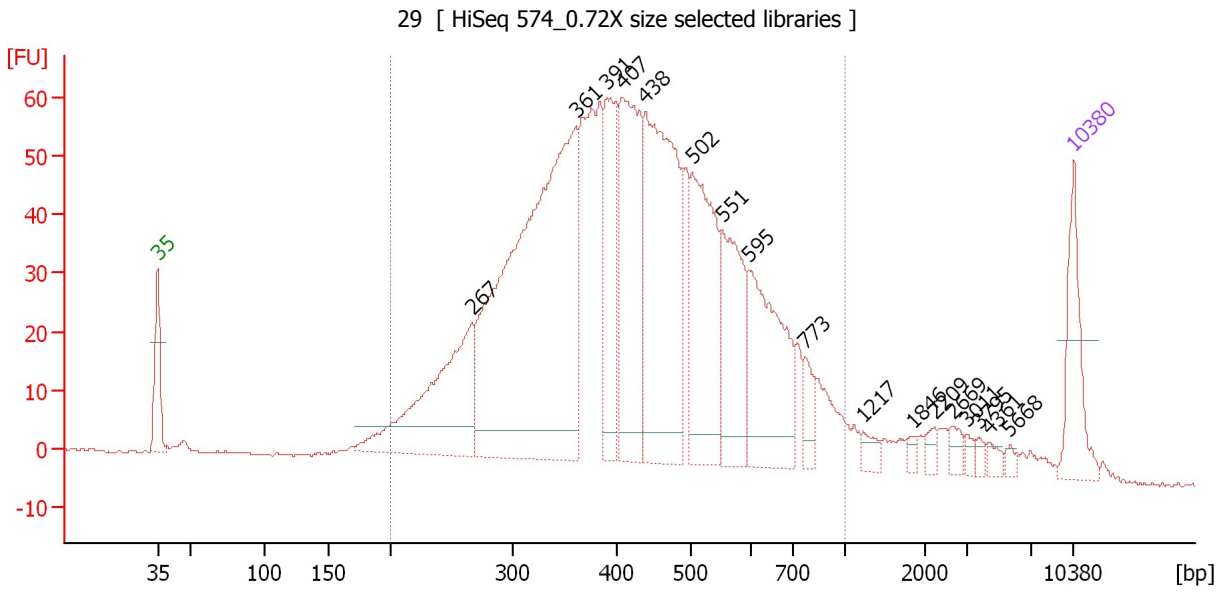
Region table for sample 5 : 28

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	441	1,046.2	5,663.6	1,445.84	91	31.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 6 : 29

Number of peaks found: 17 Corr. Area 1: 1,605.2
 Noise: 0.3

Peak table for sample 6 : 29

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	267	298.95	1,697.5		67.03
3	361	861.35	3,619.7		74.96
4	391	163.71	635.1		77.37
5	407	274.21	1,021.0		78.52
6	438	410.03	1,419.3		80.27
7	502	245.00	740.1		83.88
8	551	163.76	450.6		86.13
9	595	200.52	510.6		88.15
10	773	28.23	55.3		92.48
11	1,217	15.07	18.8		96.91
12	1,846	6.98	5.7		100.74
13	2,209	8.67	5.9		102.33
14	2,669	12.10	6.9		103.75
15	3,011	7.53	3.8		104.79
16	3,795	6.53	2.6		105.78
17	4,361	7.99	2.8		106.49
18	5,668	6.04	1.6		108.13
19	10,380	75.00	10.9	Upper Marker	113.00

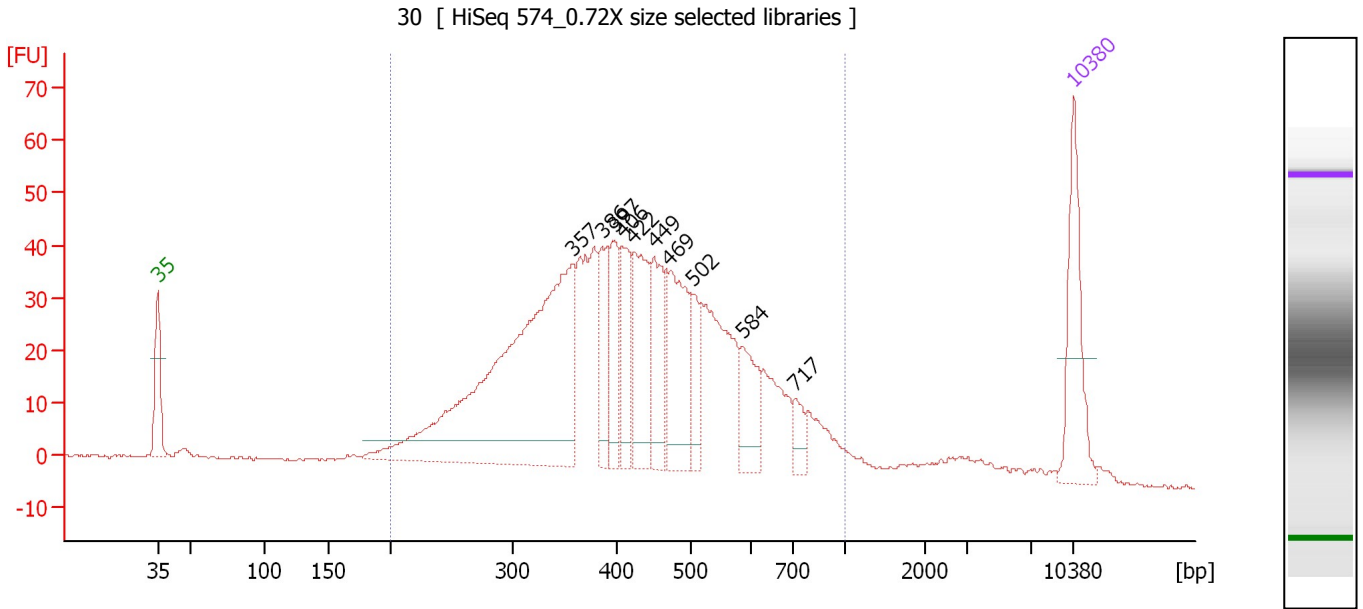
Region table for sample 6 : 29

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	439	1,605.2	13,169.9	3,335.09	90	32.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 7 : 30

Number of peaks found: 10 Corr. Area 1: 1,059.2
 Noise: 0.3

Peak table for sample 7 : 30

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	533.00	2,261.0		74.69
3	386	59.33	233.1		76.97
4	397	68.04	259.9		77.86
5	406	66.07	246.5		78.47
6	422	105.02	377.3		79.36
7	449	83.54	281.8		80.92
8	469	115.20	372.4		82.03
9	502	41.85	126.2		83.92
10	584	57.00	147.9		87.65
11	717	20.39	43.1		91.71
12	10,380	75.00	10.9	Upper Marker	113.00

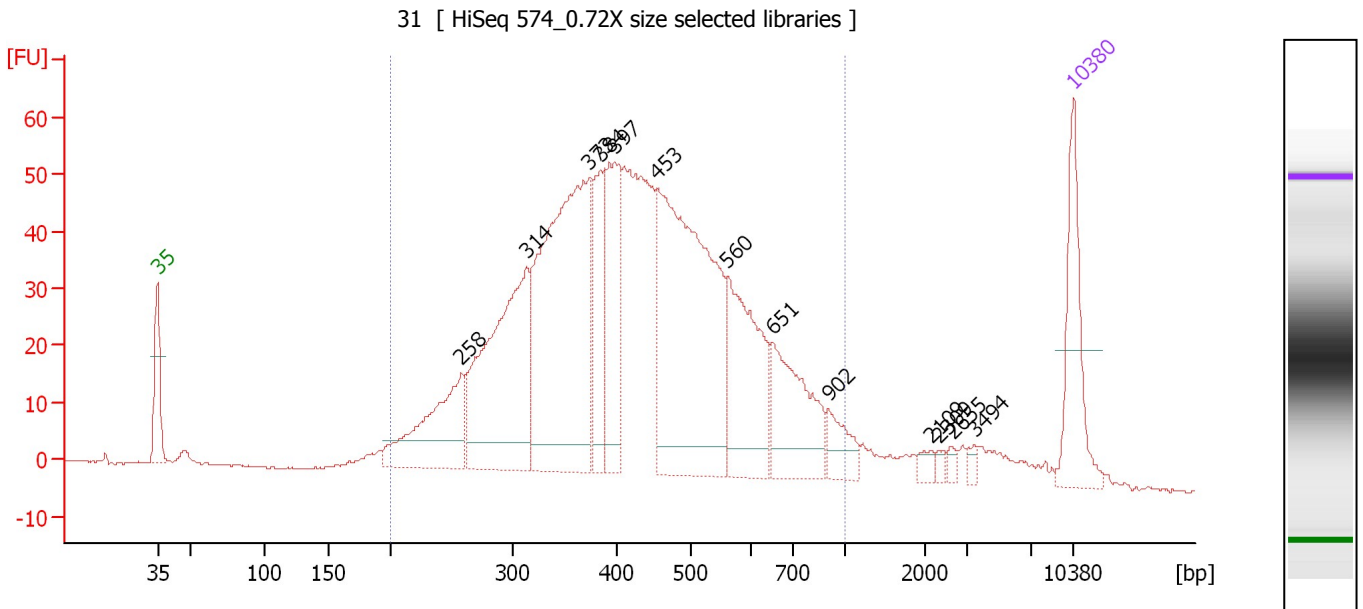
Region table for sample 7 : 30

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	439	1,059.2	6,568.7	1,673.77	91	31.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 8 : 31

Number of peaks found: 13 Corr. Area 1: 1,323.0
 Noise: 0.3

Peak table for sample 8 : 31

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	258	148.30	871.0		66.20
3	314	299.26	1,444.9		71.21
4	373	424.61	1,722.5		76.00
5	384	99.81	393.8		76.85
6	397	129.20	492.6		77.92
7	453	423.67	1,417.8		81.13
8	560	158.60	429.5		86.53
9	651	117.09	272.4		89.97
10	902	33.05	55.5		94.25
11	2,109	7.60	5.5		102.02
12	2,309	4.49	2.9		102.64
13	2,655	5.20	3.0		103.71
14	3,494	5.52	2.4		105.40
15	10,380	75.00	10.9	Upper Marker	113.00

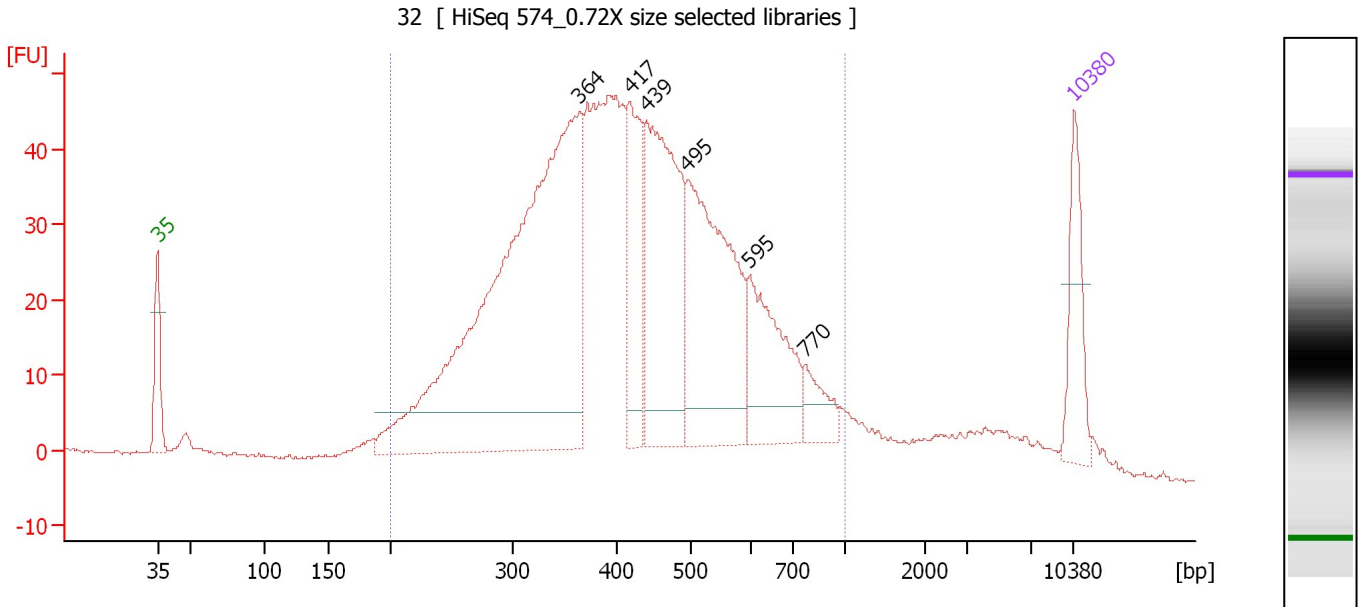
Region table for sample 8 : 31

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	441	1,323.0	8,364.1	2,135.79	93	32.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

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 Modified: 8/25/2016 4:28:08 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 32

Number of peaks found: 6 Corr. Area 1: 1,207.0
 Noise: 0.3

Peak table for sample 9 : 32

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	364	1,046.81	4,360.9		75.22
3	417	160.88	584.9		79.08
4	439	347.30	1,199.4		80.33
5	495	368.69	1,129.2		83.51
6	595	164.56	418.8		88.17
7	770	47.13	92.8		92.43
8	10,380	75.00	10.9	Upper Marker	113.00

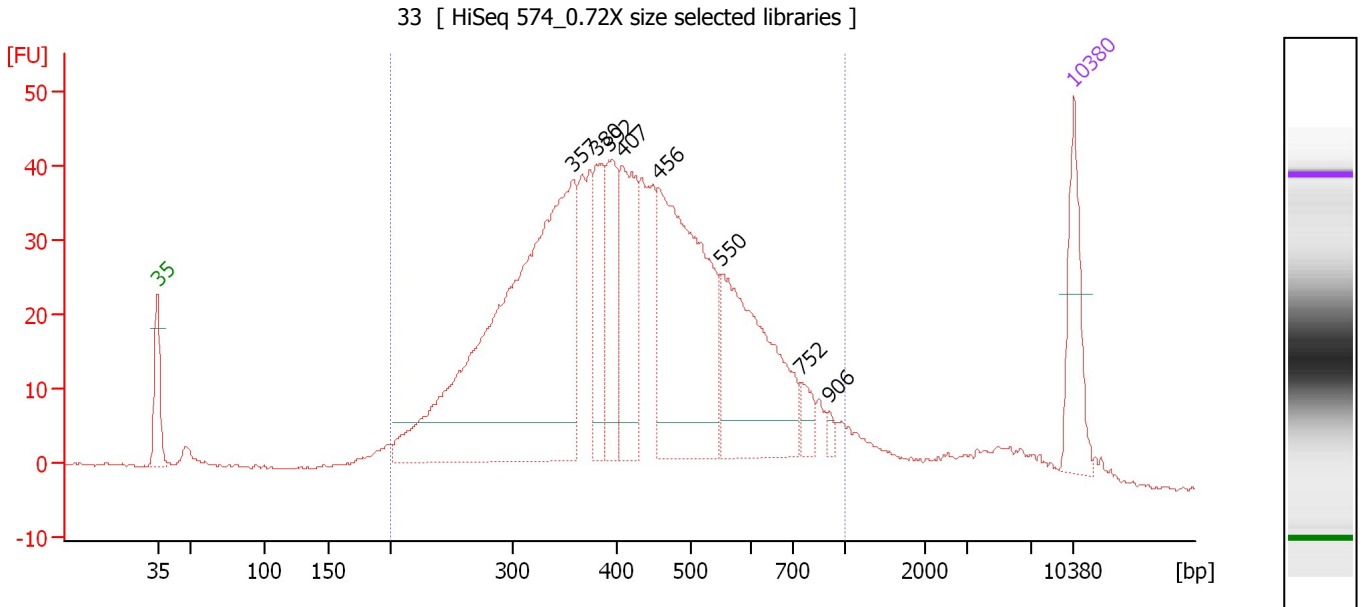
Region table for sample 9 : 32

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	436	1,207.0	11,885.1	2,994.37	90	32.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

Created: 8/25/2016 10:11:54 AM
 Modified: 8/25/2016 4:28:08 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 33

Number of peaks found: 8 Corr. Area 1: 1,039.6
 Noise: 0.2

Peak table for sample 10 : 33

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	804.40	3,412.1		74.69
3	380	106.07	423.0		76.52
4	392	117.17	452.9		77.49
5	407	160.13	596.4		78.51
6	456	392.57	1,304.6		81.31
7	550	260.17	716.8		86.09
8	752	22.98	46.3		92.19
9	906	8.36	14.0		94.30
10	10,380	75.00	10.9	Upper Marker	113.00

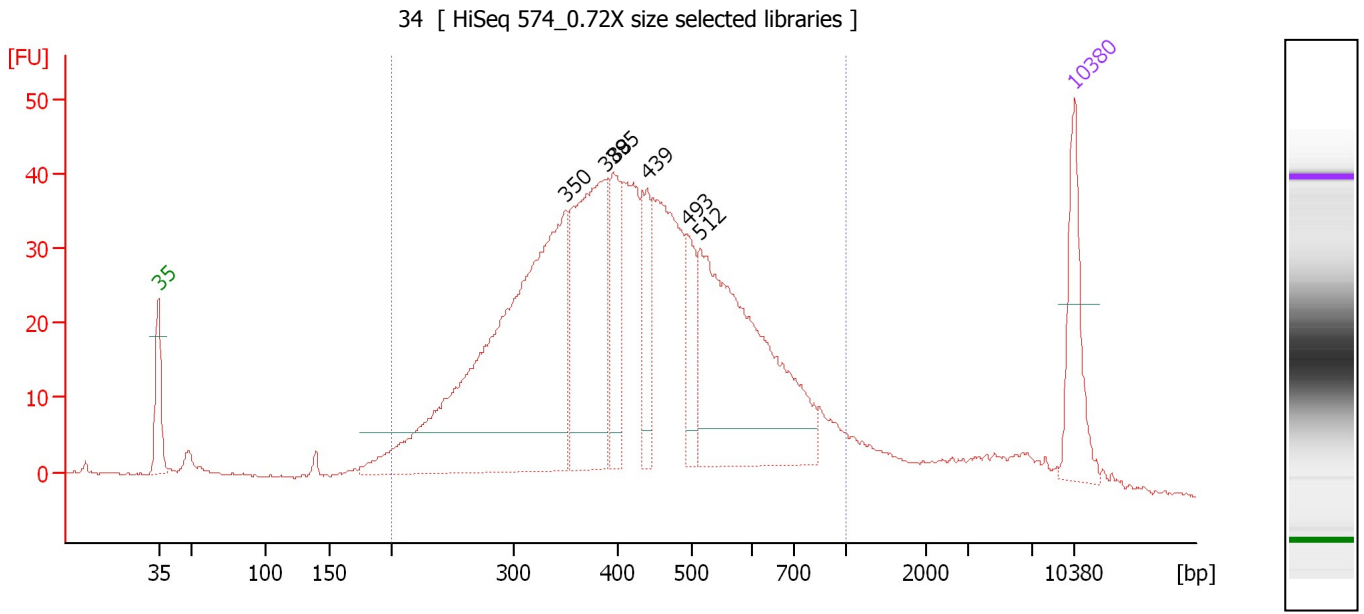
Region table for sample 10 : 33

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	438	1,039.6	9,880.0	2,497.15	91	32.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

Created: 8/25/2016 10:11:54 AM
 Modified: 8/25/2016 4:28:08 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 34

Number of peaks found: 6 Corr. Area 1: 1,003.2
 Noise: 0.2

Peak table for sample 11 : 34

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	350	670.79	2,907.7		74.08
3	388	288.18	1,125.1		77.17
4	395	94.22	361.2		77.74
5	439	74.63	257.8		80.32
6	493	58.52	179.9		83.41
7	512	397.97	1,176.6		84.38
8	10,380	75.00	10.9	Upper Marker	113.00

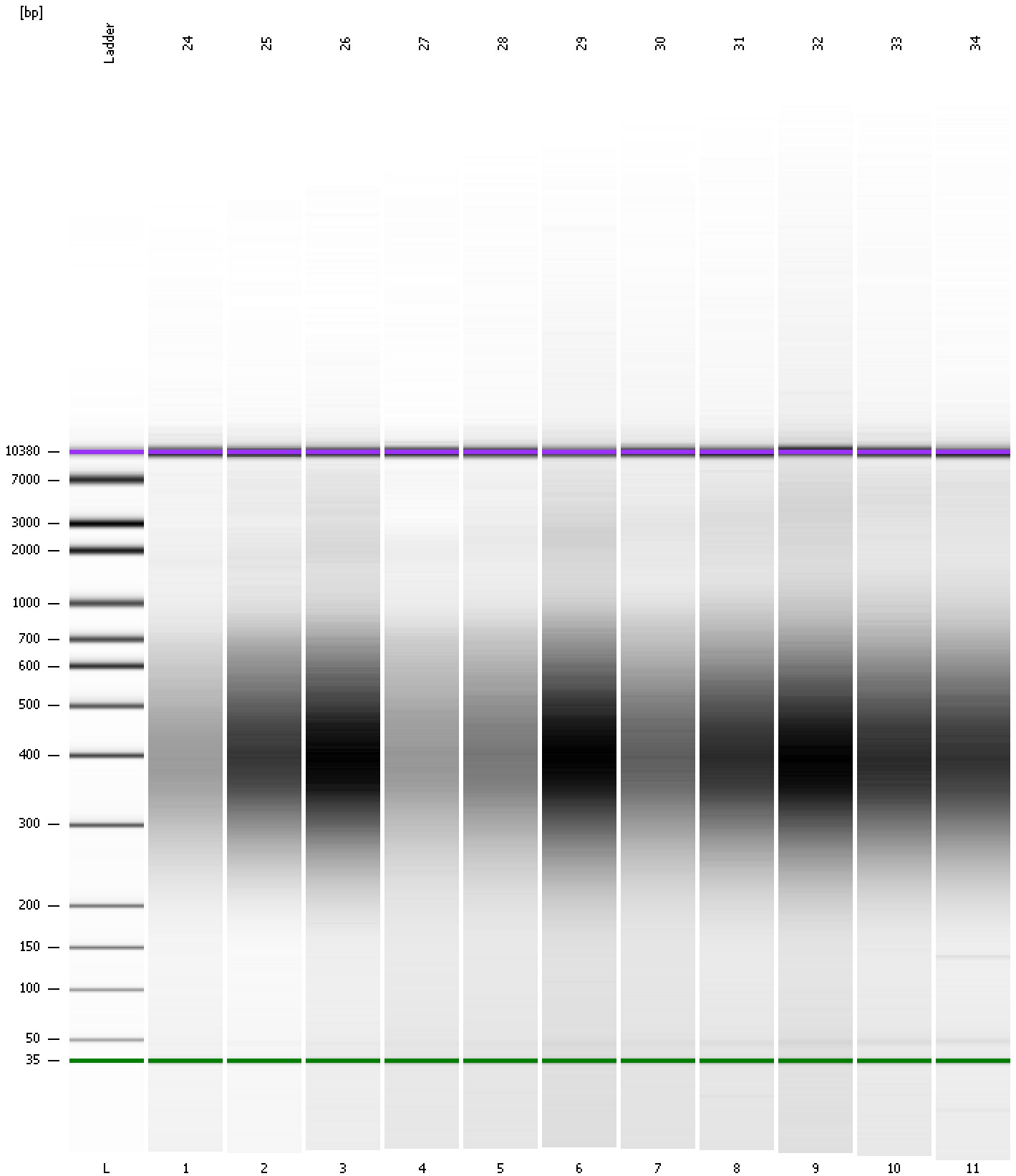
Region table for sample 11 : 34

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	438	1,003.2	8,847.3	2,237.82	91	32.7

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

Created: 8/25/2016 10:11:54 AM
Modified: 8/25/2016 4:28:08 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad

Created: 8/25/2016 10:11:54 AM
 Modified: 8/25/2016 4:28:08 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		8/25/2016 10:53:13 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-08-25\2016-08-25_001.xad)		Instrument	Run		8/25/2016 10:12:00 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		8/25/2016 10:12:00 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/25/2016 10:12:00 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/25/2016 10:12:00 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		8/25/2016 10:12:00 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/25/2016 10:12:00 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/25/2016 10:12:00 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1