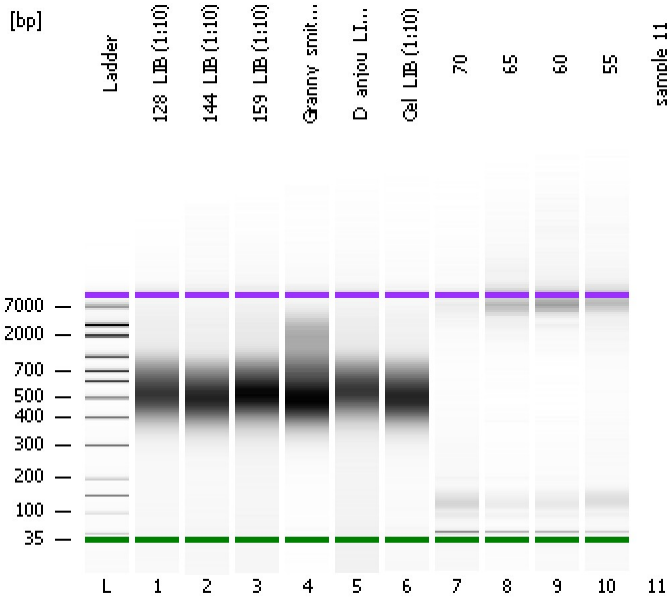


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-22\2019-07-22_001.xad

Created: 7/22/2019 11:36:35 AM
Modified: 7/22/2019 12:15:23 PM

Electrophoresis File Run Summary



Instrument Information:

Instrument Name: DE34903152 Firmware: C.01.069
Serial#: DE34903152 Type: G2938C

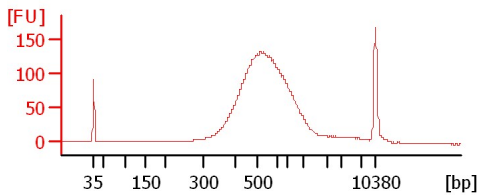
Assay Information:

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

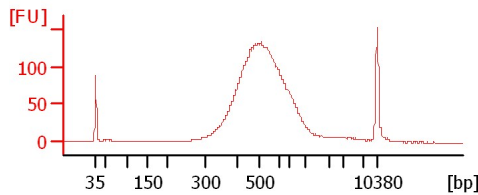
Chip Information:

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

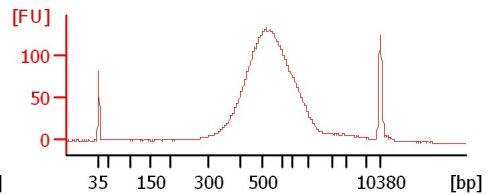
128_LIB (1:10)



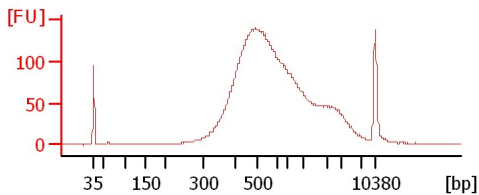
144_LIB (1:10)



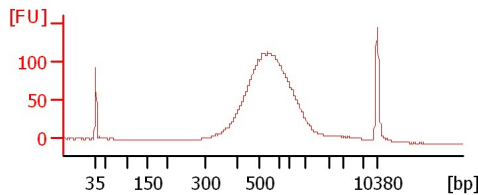
159_LIB (1:10)



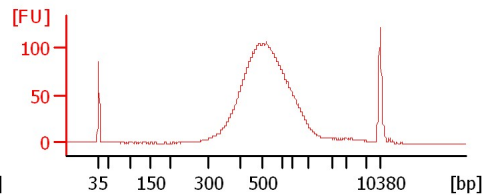
Granny smith_LIB (1:10)



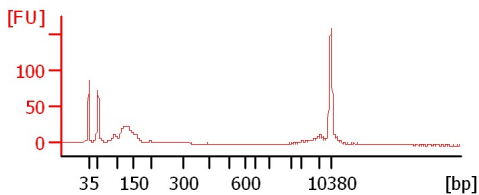
D_anjou_LIB (1:10)



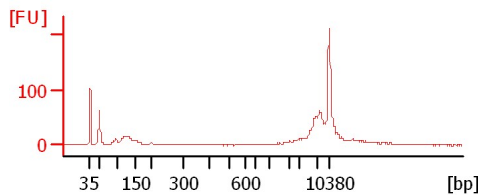
Cel_LIB (1:10)



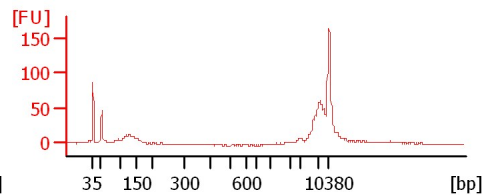
70



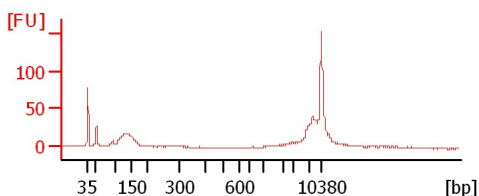
65



60



55



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-22\2019-07-22_001.xad

Created: 7/22/2019 11:36:35 AM
Modified: 7/22/2019 12:15:23 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
128_LIB (1:10)		<input type="checkbox"/>	✓			
144_LIB (1:10)		<input type="checkbox"/>	✓			
159_LIB (1:10)		<input type="checkbox"/>	✓			
Granny_smith_LIB (1:10)		<input type="checkbox"/>	✓			
D_anjou_LIB (1:10)		<input type="checkbox"/>	✓			
Cel_LIB (1:10)		<input type="checkbox"/>	✓			
70		<input type="checkbox"/>	✓			
65		<input type="checkbox"/>	✓			
60		<input type="checkbox"/>	✓			
55		<input type="checkbox"/>	✓			
sample 11		<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\2019-07-22\2019-07-22_001.xad

Created: 7/22/2019 11:36:35 AM
Modified: 7/22/2019 12:15:23 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

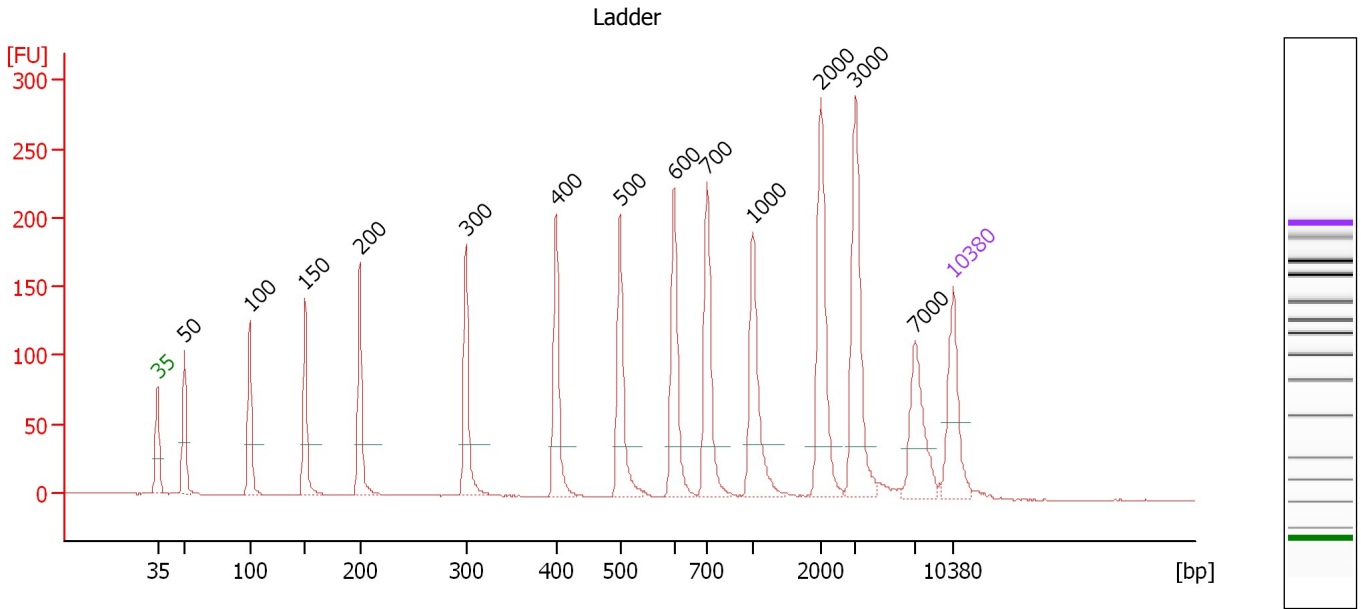
Ladder

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\2019-07-22\2019-07-22_001.xad

Created: 7/22/2019 11:36:35 AM
 Modified: 7/22/2019 12:15:23 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

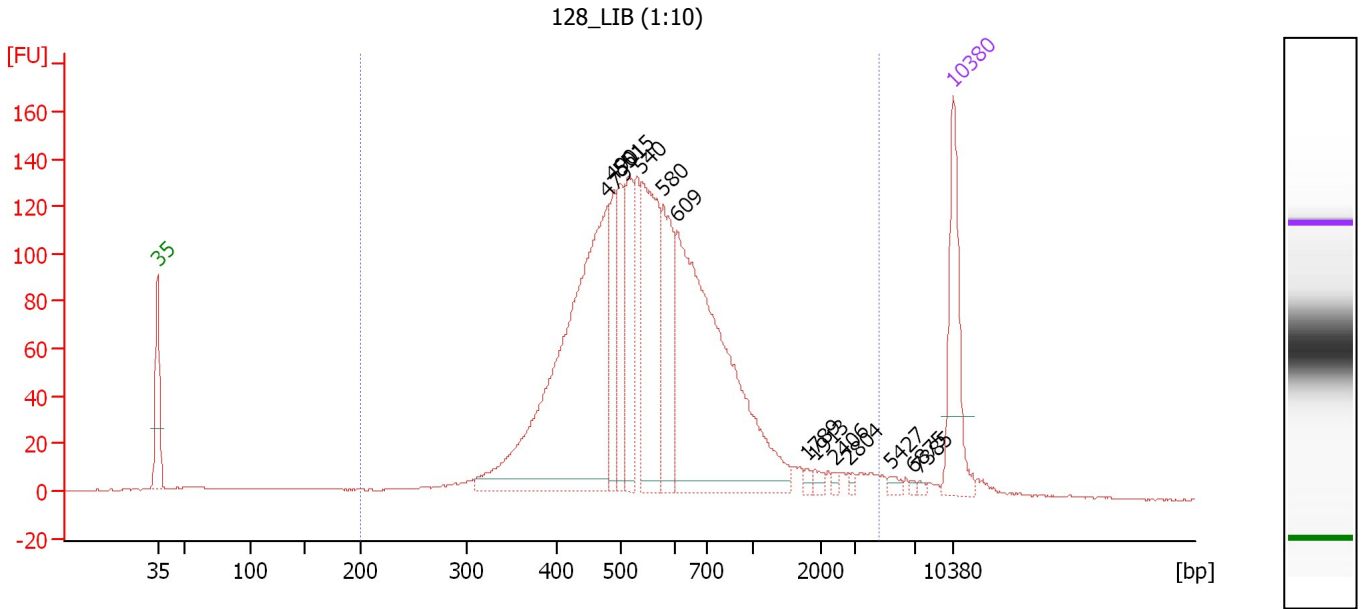
Peak table for Ladder

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	51.10
4	150	150.00	1,515.2	Ladder Peak	56.00
5	200	150.00	1,136.4	Ladder Peak	60.80
6	300	150.00	757.6	Ladder Peak	70.17
7	400	150.00	568.2	Ladder Peak	78.07
8	500	150.00	454.5	Ladder Peak	83.70
9	600	150.00	378.8	Ladder Peak	88.45
10	700	150.00	324.7	Ladder Peak	91.36
11	1,000	150.00	227.3	Ladder Peak	95.39
12	2,000	150.00	113.6	Ladder Peak	101.36
13	3,000	150.00	75.8	Ladder Peak	104.46
14	7,000	150.00	32.5	Ladder Peak	109.65
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-22\2019-07-22_001.xad

Created: 7/22/2019 11:36:35 AM
 Modified: 7/22/2019 12:15:23 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 128_LIB (1:10)

Number of peaks found: 14 Corr. Area 1: 2,437.3
 Noise: 0.2

Peak table for sample 1 : 128_LIB (1:10)

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	479	472.61	1,496.0		82.50
3	490	64.91	200.7		83.14
4	501	66.54	201.3		83.73
5	515	86.68	254.9		84.43
6	540	174.51	489.4		85.61
7	580	97.64	255.2		87.49
8	609	393.12	977.4		88.73
9	1,789	3.88	3.3		100.10
10	1,913	5.45	4.3		100.84
11	2,406	2.83	1.8		102.62
12	2,804	2.74	1.5		103.85
13	5,427	4.69	1.3		107.61
14	6,875	1.79	0.4		109.49
15	7,385	2.19	0.4		110.03
16	10,380	75.00	10.9	Upper Marker	113.00

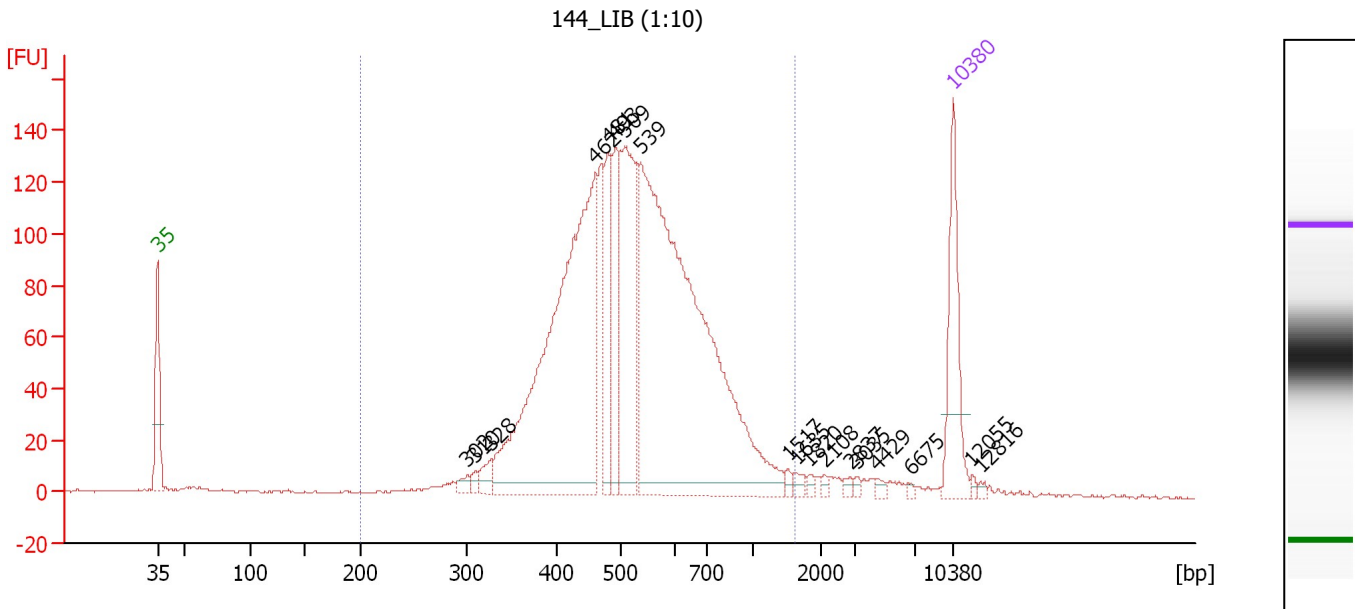
Region table for sample 1 : 128_LIB (1:10)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	4,555	657	1,537.48	2,437.3	4,438.9	95	70.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-22\2019-07-22_001.xad

Created: 7/22/2019 11:36:35 AM
 Modified: 7/22/2019 12:15:23 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 144 LIB (1:10)

Number of peaks found: 18 Corr. Area 1: 2,336.7
 Noise: 0.4

Peak table for sample 2 : 144 LIB (1:10)

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	302	9.29	46.7		70.29
3	310	6.84	33.4		70.99
4	328	16.43	76.0		72.35
5	462	565.66	1,856.5		81.54
6	481	83.77	263.7		82.65
7	493	97.50	299.7		83.30
8	509	202.67	603.9		84.11
9	539	715.86	2,011.6		85.56
10	1,517	4.51	4.5		98.48
11	1,635	6.06	5.6		99.18
12	1,820	4.08	3.4		100.29
13	2,108	3.17	2.3		101.69
14	2,837	3.88	2.1		103.95
15	3,035	2.84	1.4		104.51
16	4,429	3.68	1.3		106.32
17	6,675	1.94	0.4		109.23
18	10,380	75.00	10.9	Upper Marker	113.00
19	12,055	0.00	0.0		114.66
20	12,816	0.00	0.0		115.41

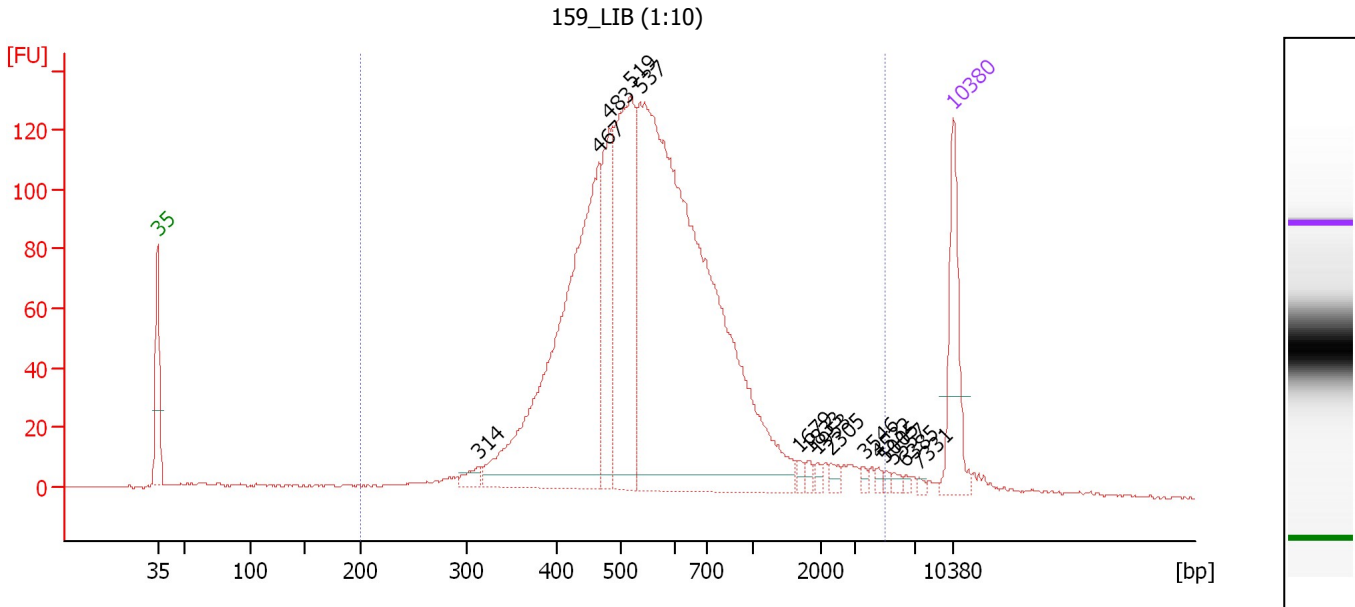
Region table for sample 2 : 144 LIB (1:10)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,616	547	1,807.71	2,336.7	5,549.6	92	32.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-22\2019-07-22_001.xad

Created: 7/22/2019 11:36:35 AM
 Modified: 7/22/2019 12:15:23 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 159_LIB (1:10)

Number of peaks found: 15 Corr. Area 1: 2,308.9
 Noise: 0.3

Peak table for sample 3 : 159_LIB (1:10)

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	314	15.59	75.2		71.30
3	467	543.04	1,762.2		81.84
4	483	143.91	451.2		82.76
5	519	295.28	862.1		84.60
6	537	1,003.13	2,829.0		85.47
7	1,679	5.86	5.3		99.44
8	1,833	4.72	3.9		100.36
9	1,953	4.79	3.7		101.08
10	2,305	7.10	4.7		102.31
11	3,546	3.79	1.6		105.17
12	4,532	3.54	1.2		106.45
13	5,005	3.44	1.0		107.06
14	5,557	4.14	1.1		107.78
15	6,385	2.62	0.6		108.86
16	7,331	2.41	0.5		109.98
17	10,380	75.00	10.9	Upper Marker	113.00

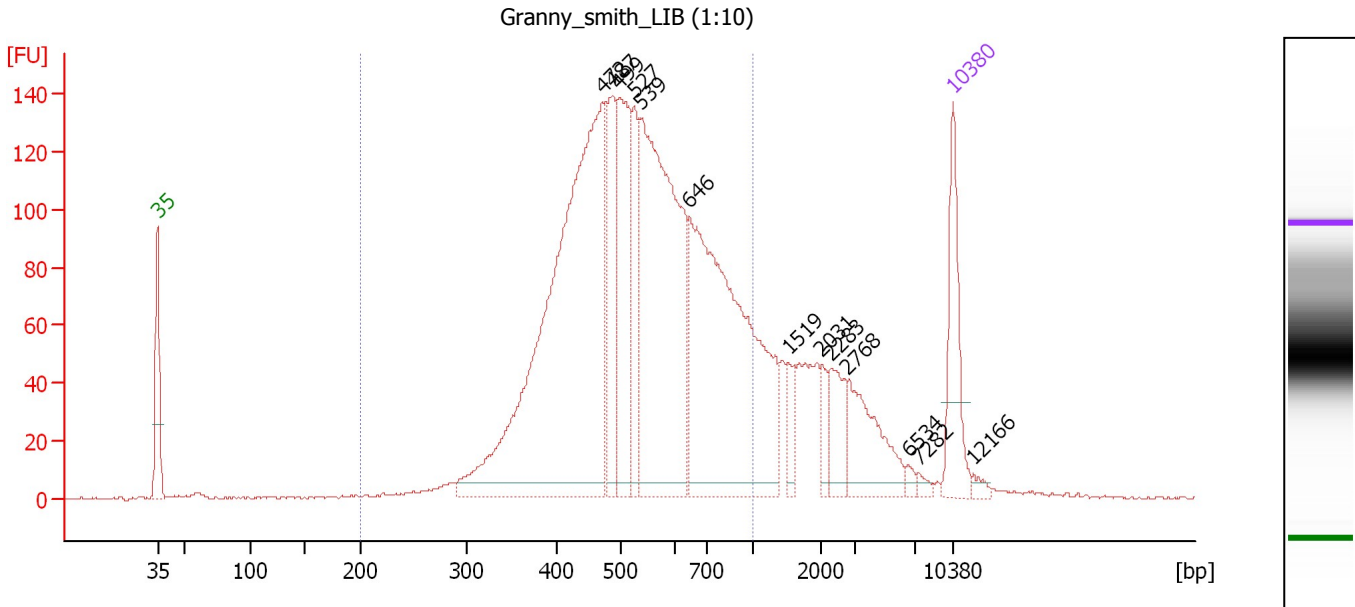
Region table for sample 3 : 159_LIB (1:10)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	4,996	662	2,070.65	2,308.9	5,979.4	96	75.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-22\2019-07-22_001.xad

Created: 7/22/2019 11:36:35 AM
 Modified: 7/22/2019 12:15:23 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Granny smith LIB (1:10)

Number of peaks found: 13 Corr. Area 1: 2,540.7
 Noise: 0.5

Peak table for sample 4 : Granny smith LIB (1:10)

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	472	802.98	2,579.2		82.11
3	487	127.89	397.5		82.99
4	499	192.33	583.5		83.67
5	527	90.12	259.2		84.97
6	539	475.21	1,336.5		85.54
7	646	507.18	1,188.8		89.81
8	1,519	21.57	21.5		98.49
9	2,031	20.82	15.5		101.45
10	2,283	43.55	28.9		102.23
11	2,768	80.88	44.3		103.74
12	6,534	6.47	1.5		109.05
13	7,282	5.72	1.2		109.93
14	10,380	75.00	10.9	Upper Marker	113.00
15	12,166	0.00	0.0		114.77

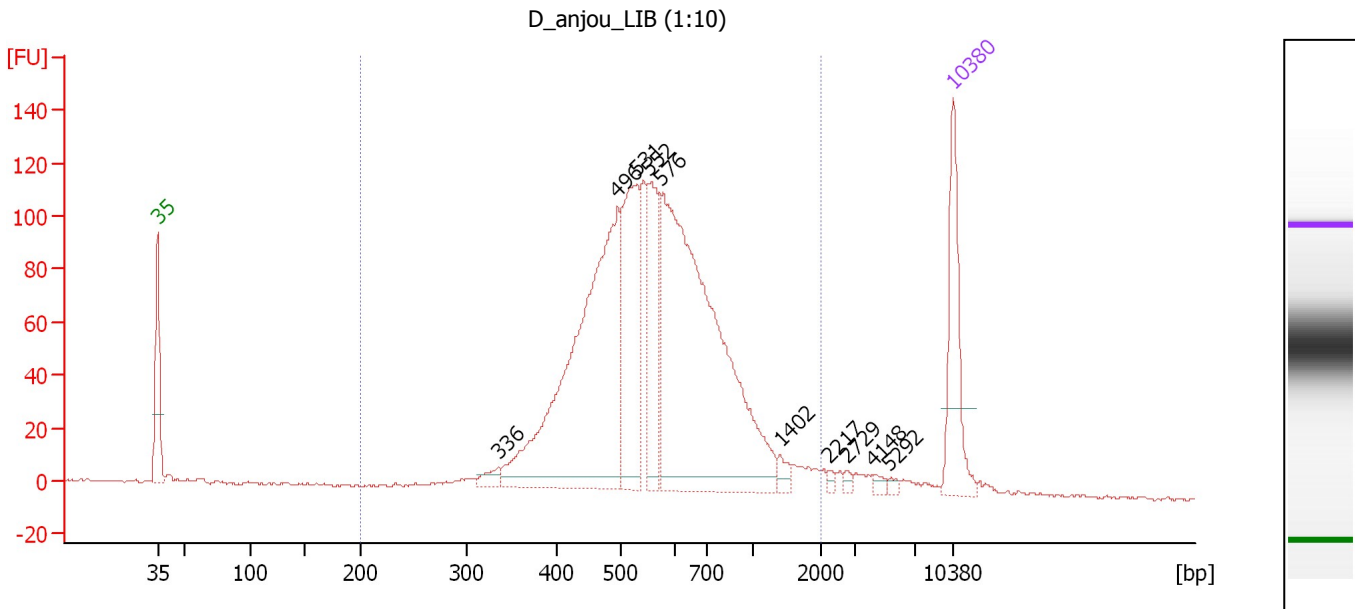
Region table for sample 4 : Granny smith LIB (1:10)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	545	2,143.20	2,540.7	6,539.0	81	27.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-22\2019-07-22_001.xad

Created: 7/22/2019 11:36:35 AM
 Modified: 7/22/2019 12:15:23 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : D anjou LIB (1:10)

Number of peaks found: 10 Corr. Area 1: 1,867.6
 Noise: 0.6

Peak table for sample 5 : D anjou LIB (1:10)

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	336	13.43	60.6		72.99
3	496	455.40	1,390.6		83.48
4	531	161.92	461.9		85.18
5	552	102.94	282.4		86.19
6	576	522.06	1,373.9		87.30
7	1,402	9.49	10.3		97.79
8	2,217	3.13	2.1		102.03
9	2,729	3.82	2.1		103.62
10	4,148	4.61	1.7		105.95
11	5,292	3.13	0.9		107.44
12	10,380	75.00	10.9	Upper Marker	113.00

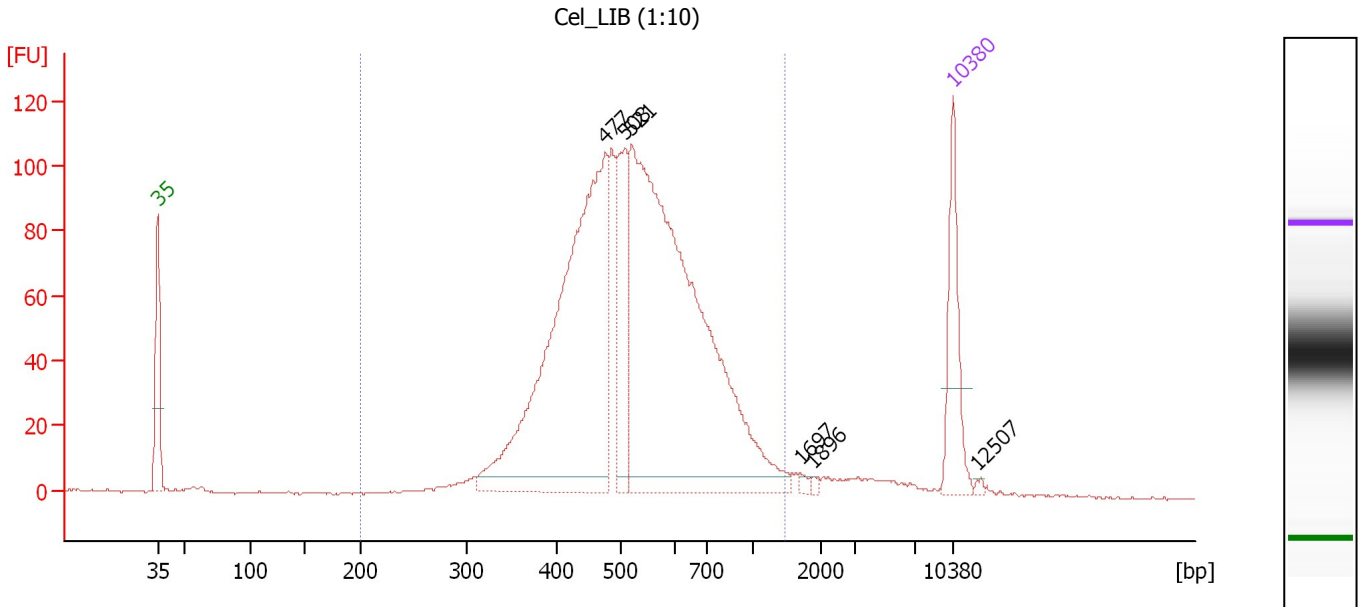
Region table for sample 5 : D anjou LIB (1:10)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,991	608	1,367.77	1,867.6	3,844.1	95	38.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-22\2019-07-22_001.xad

Created: 7/22/2019 11:36:35 AM
 Modified: 7/22/2019 12:15:23 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Cel_LIB (1:10)

Number of peaks found: 6 Corr. Area 1: 1,759.7
 Noise: 0.3

Peak table for sample 6 : Cel_LIB (1:10)

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	477	642.70	2,039.7		82.43
3	508	130.38	388.5		84.10
4	521	833.38	2,423.7		84.70
5	1,697	3.85	3.4		99.55
6	1,896	3.00	2.4		100.74
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,507	0.00	0.0		115.11

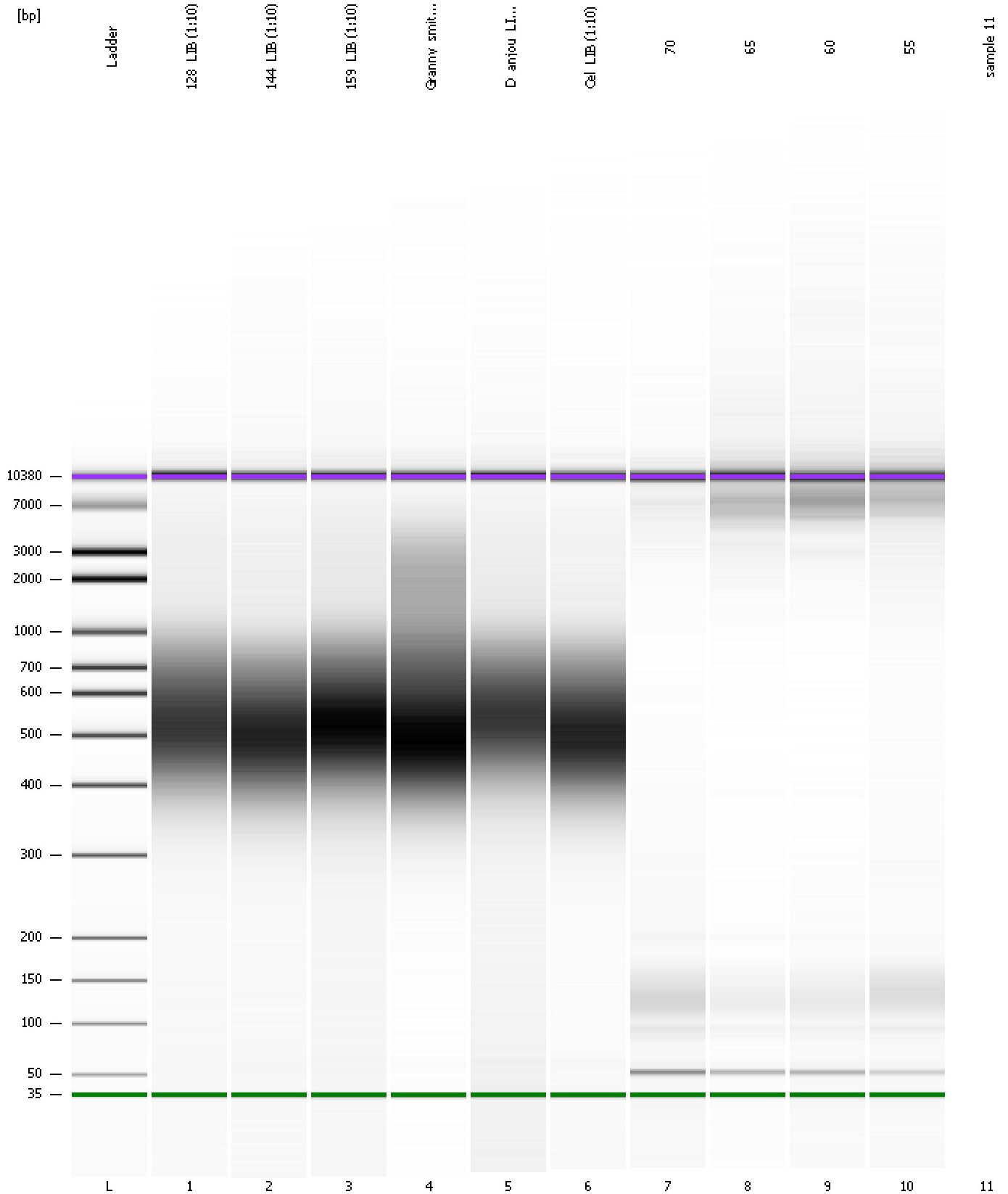
Region table for sample 6 : Cel_LIB (1:10)

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,459	548	1,671.41	1,759.7	5,042.7	96	29.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-22\2019-07-22_001.xad

Created: 7/22/2019 11:36:35 AM
Modified: 7/22/2019 12:15:23 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-07-22\2019-07-22_001.xad

Created: 7/22/2019 11:36:35 AM
 Modified: 7/22/2019 12:15:23 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		7/22/2019 12:15:02 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\2019-07-22\2019-07-22_001.xad)		Instrument	Run		7/22/2019 11:36:40 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		7/22/2019 11:36:40 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/22/2019 11:36:40 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/22/2019 11:36:40 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		7/22/2019 11:36:40 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/22/2019 11:36:40 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/22/2019 11:36:40 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1