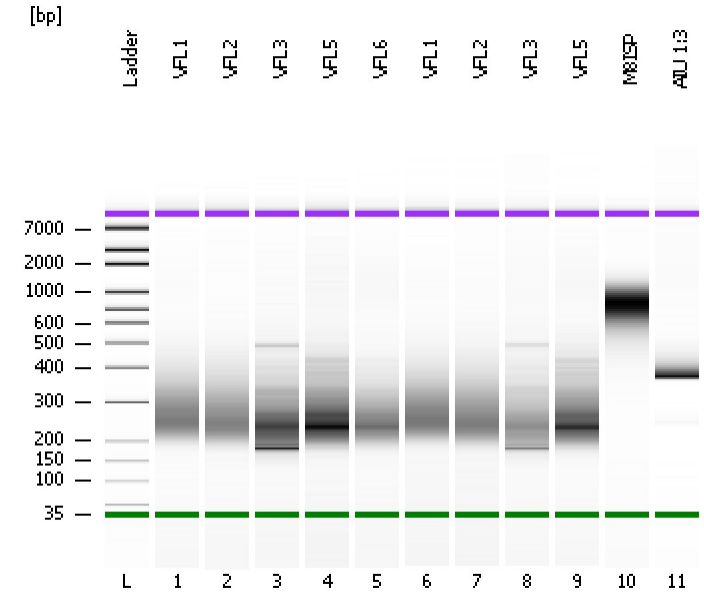
Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Electrophoresis File Run Summary



Instrument Information:

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

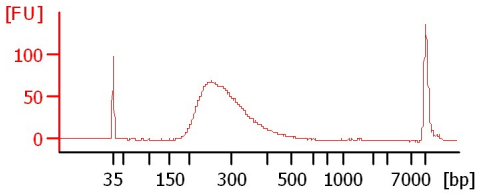
Assay Information:

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

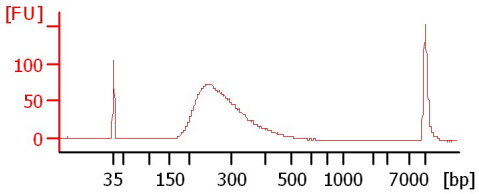
Chip Information:

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

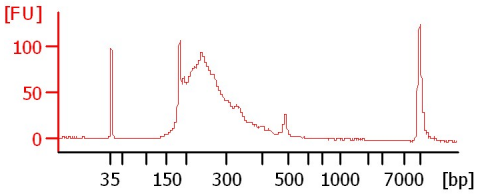
VFL1



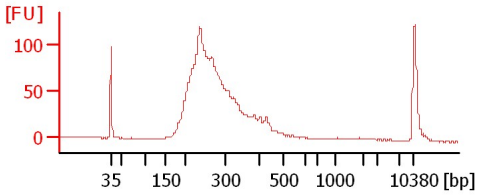
VFL2



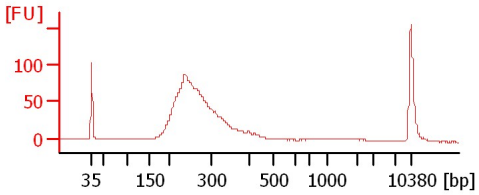
VFL3



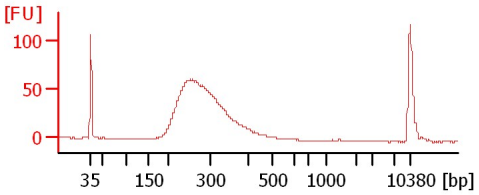
VFL5



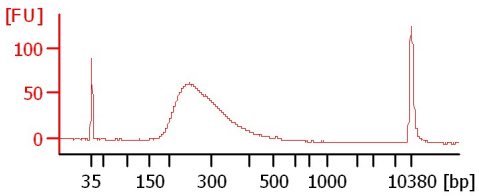
VFL6



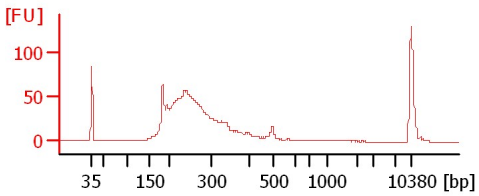
VFL1



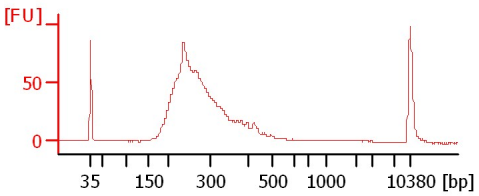
VFL2



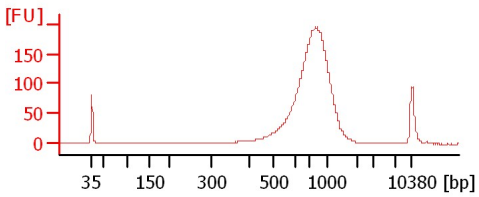
VFL3



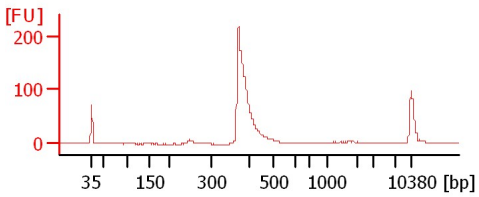
VFL5



M8ISP



AIU 1:3



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
VFL1		☐	✔			
VFL2		☐	✔			
VFL3		☐	✔			
VFL5		☐	✔			
VFL6		☐	✔			
VFL1		☐	✔			
VFL2		☐	✔			
VFL3		☐	✔			
VFL5		☐	✔			
M8ISP		☐	✔			
AIU 1:3		☐	✔			
Ladder		☐	✔			

Chip Lot # **Reagent Kit Lot #**

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

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

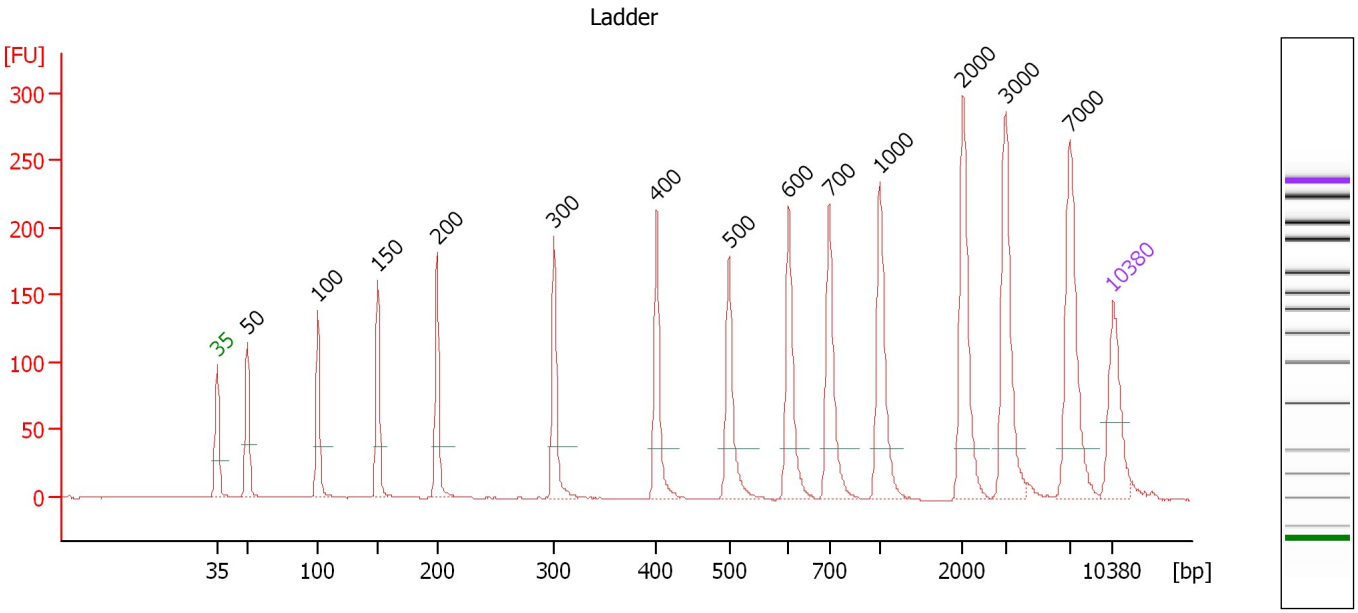
Ladder

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\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.3

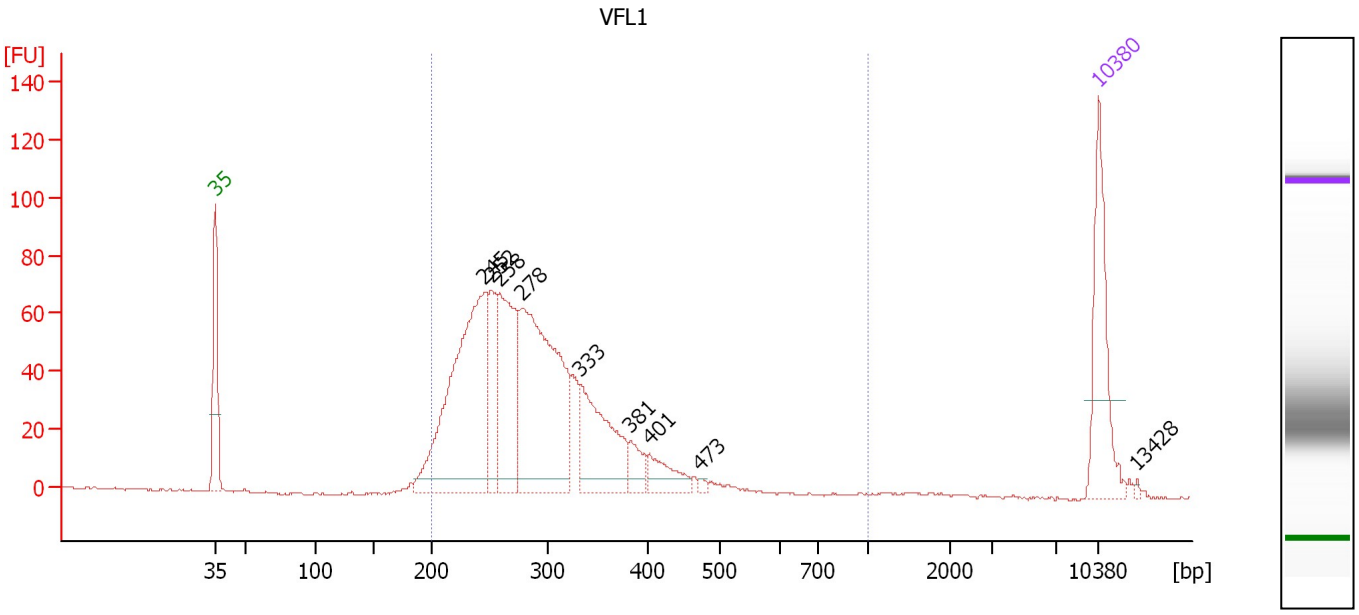
Peak table for Ladder

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	45.38
3		100	150.00	2,272.7	Ladder Peak	50.88
4		150	150.00	1,515.2	Ladder Peak	55.54
5		200	150.00	1,136.4	Ladder Peak	60.17
6		300	150.00	757.6	Ladder Peak	69.33
7		400	150.00	568.2	Ladder Peak	77.33
8		500	150.00	454.5	Ladder Peak	83.00
9		600	150.00	378.8	Ladder Peak	87.67
10		700	150.00	324.7	Ladder Peak	90.83
11		1,000	150.00	227.3	Ladder Peak	94.79
12		2,000	150.00	113.6	Ladder Peak	101.29
13		3,000	150.00	75.8	Ladder Peak	104.63
14		7,000	150.00	32.5	Ladder Peak	109.63
15		10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : VFL1

Number of peaks found:	9	Corr. Area 1:	1,242.7
Noise:	0.3		

Peak table for sample 1 : VFL1

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	245	339.88	2,100.7		64.30
3	252	68.68	413.6		64.90
4	258	156.52	919.0		65.49
5	278	305.31	1,662.0		67.35
6	333	118.11	537.8		71.96
7	381	22.51	89.4		75.84
8	401	31.72	119.8		77.41
9	473	3.07	9.8		81.47
10	10,380	75.00	10.9	Upper Marker	113.00
11	13,428	0.00	0.0		116.04

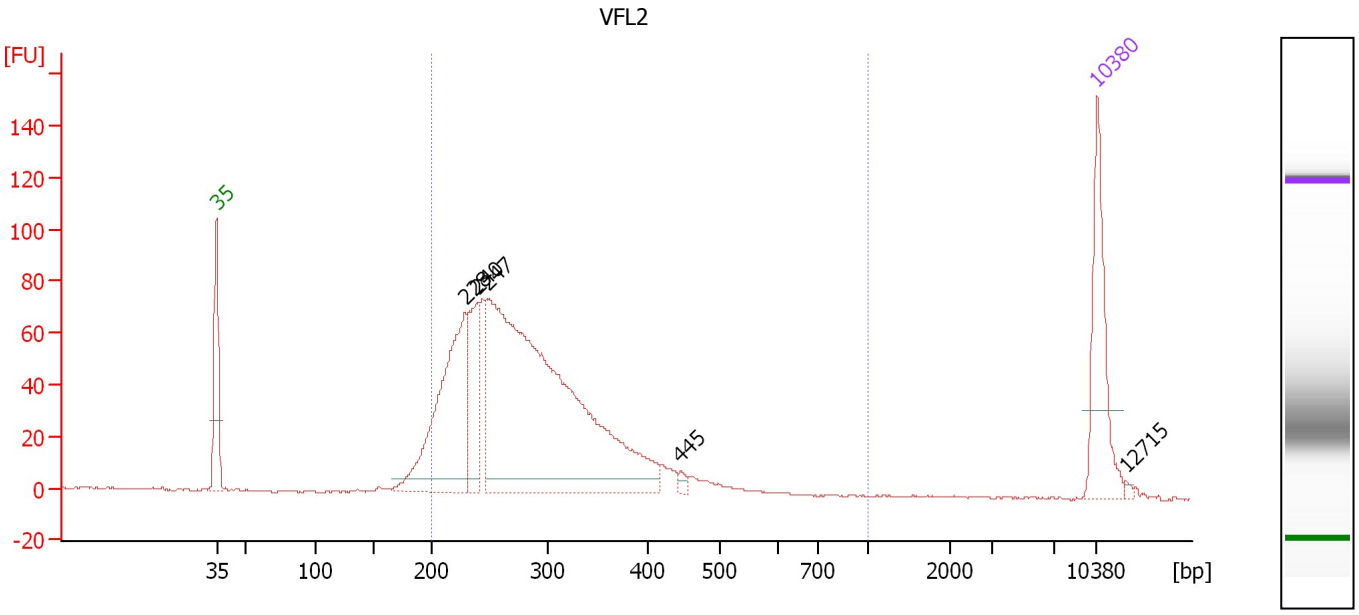
Region table for sample 1 : VFL1

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	294	1,073.09	1,242.7	5,829.4	97	23.7

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : VFL2

Number of peaks found:	5	Corr. Area 1:	1,323.3
Noise:	0.4		

Peak table for sample 2 : VFL2

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	228	248.34	1,648.4		62.76
3	240	95.44	602.9		63.82
4	247	744.90	4,565.1		64.50
5	445	5.07	17.2		79.89
6	10,380	75.00	10.9	Upper Marker	113.00
7	12,715	0.00	0.0		115.33

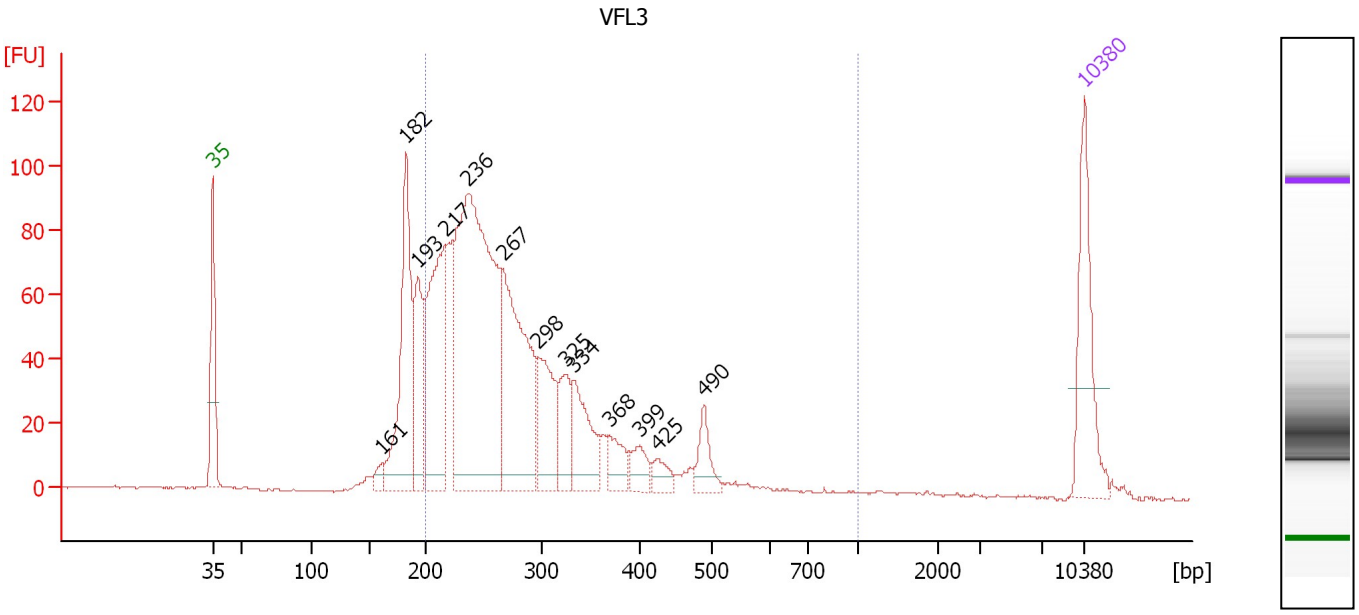
Region table for sample 2 : VFL2

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	290	1,046.81	1,323.3	5,787.2	95	23.7

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : VFL3

Number of peaks found:	13	Corr. Area 1:	1,454.8
Noise:	0.3		

Peak table for sample 3 : VFL3

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	161	13.07	122.9		56.57
3	182	197.37	1,643.4		58.50
4	193	104.26	820.2		59.48
5	217	205.14	1,433.4		61.71
6	236	514.90	3,306.0		63.46
7	267	231.58	1,315.1		66.29
8	298	89.88	457.5		69.12
9	325	47.80	222.7		71.34
10	334	71.98	326.8		72.03
11	368	30.21	124.2		74.81
12	399	23.62	89.7		77.25
13	425	16.74	59.7		78.75
14	490	29.15	90.2		82.43
15	10,380	75.00	10.9	Upper Marker	113.00

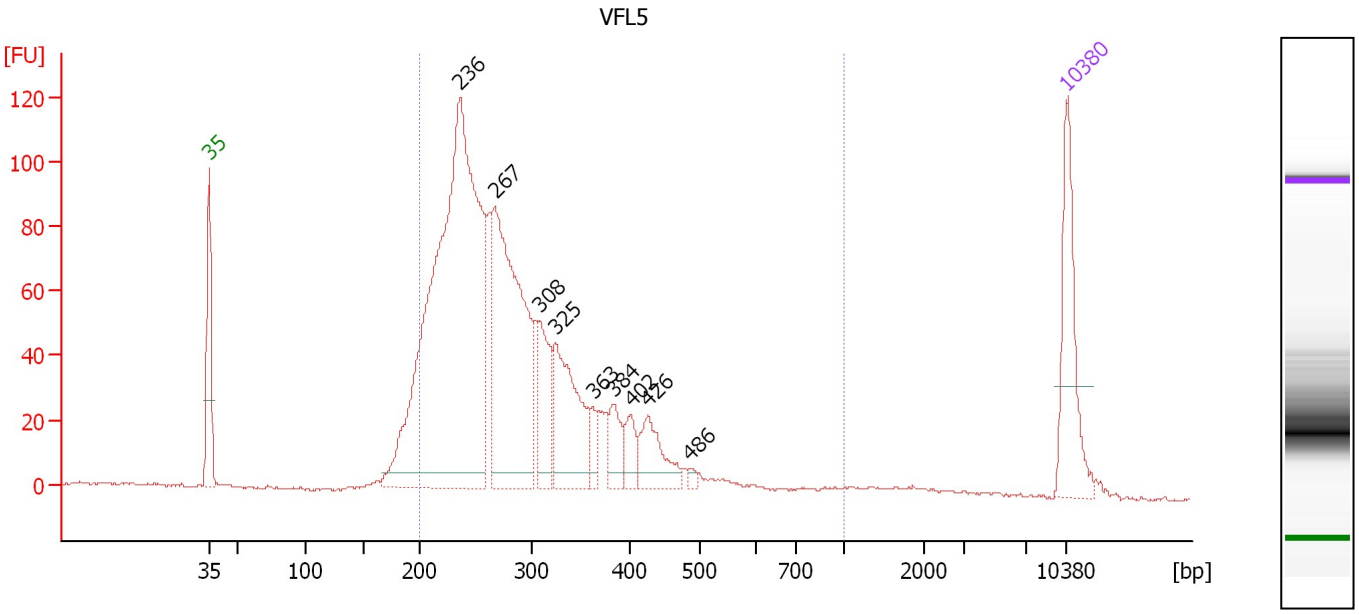
Region table for sample 3 : VFL3

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	291	1,374.02	1,454.8	7,761.6	80	30.7

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : VFL5

Number of peaks found:	9	Corr. Area 1:	1,715.9
Noise:	0.5		

Peak table for sample 4 : VFL5

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	236	825.76	5,292.4		63.50
3	267	341.42	1,935.5		66.33
4	308	77.23	379.7		69.99
5	325	130.70	610.2		71.30
6	363	17.47	73.0		74.34
7	384	31.42	124.0		76.04
8	402	24.47	92.3		77.43
9	426	49.92	177.4		78.83
10	486	4.56	14.2		82.22
11	10,380	75.00	10.9	Upper Marker	113.00

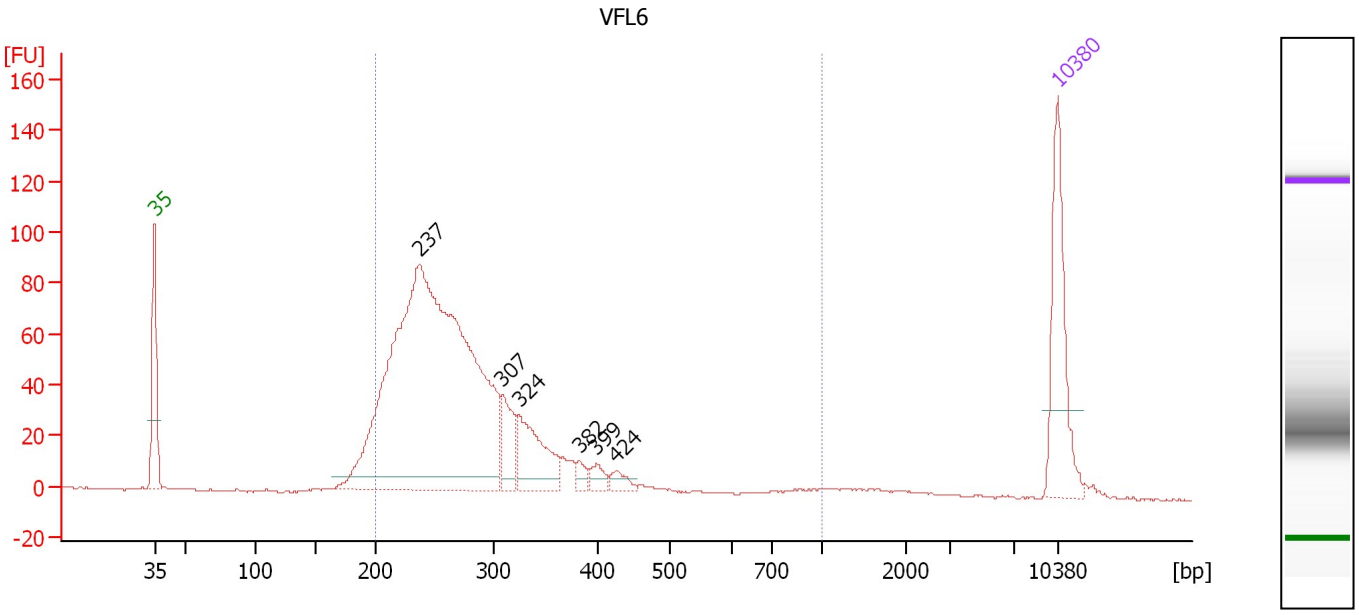
Region table for sample 4 : VFL5

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	294	1,575.07	1,715.9	8,738.5	93	29.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : VFL6

Number of peaks found:	6	Corr. Area 1:	1,223.6
Noise:	0.3		

Peak table for sample 5 : VFL6

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	237	825.28	5,275.1		63.56
3	307	42.29	208.4		69.93
4	324	72.69	339.9		71.26
5	382	8.99	35.6		75.90
6	399	11.38	43.2		77.27
7	424	10.79	38.6		78.69
8	10,380	75.00	10.9	Upper Marker	113.00

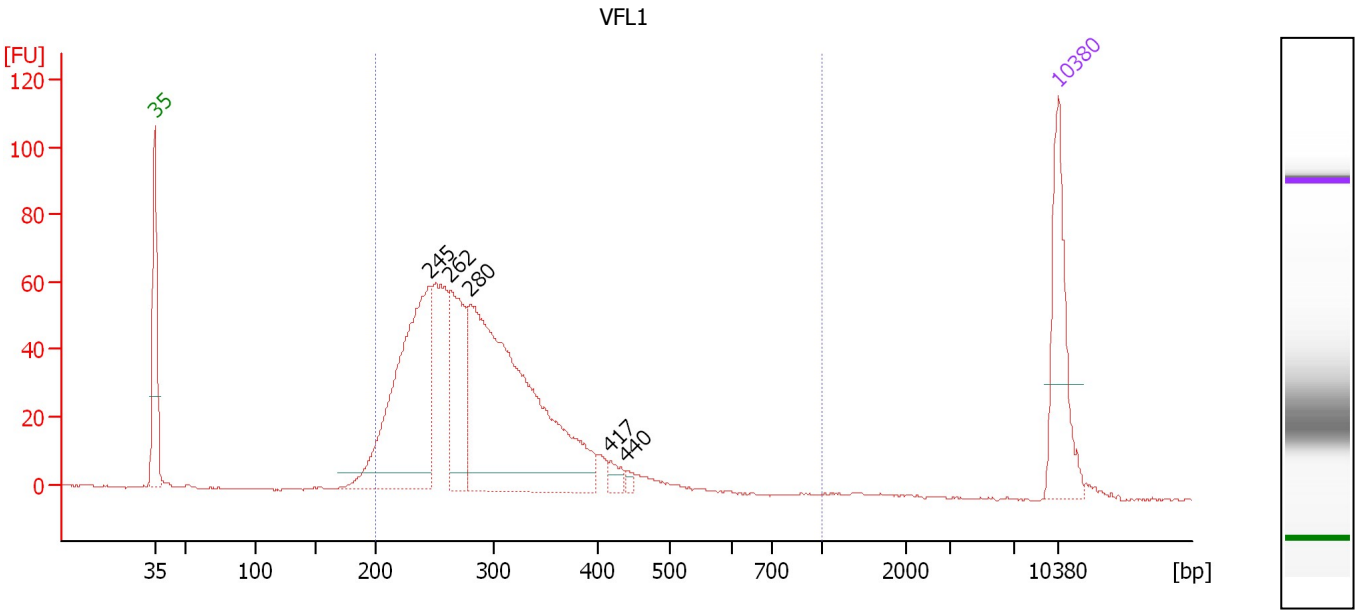
Region table for sample 5 : VFL6

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of Total	Size distribution in CV [%]
200	1,000	282	943.03	1,223.6	5,372.5	93	29.5

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : VFL1

Number of peaks found:	5	Corr. Area 1:	1,059.8
Noise:	0.3		

Peak table for sample 6 : VFL1

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		245	304.55	1,882.2		64.31
3		262	121.24	700.2		65.88
4		280	458.85	2,486.9		67.46
5		417	10.58	38.4		78.32
6		440	4.45	15.3		79.58
7	▶	10,380	75.00	10.9	Upper Marker	113.00

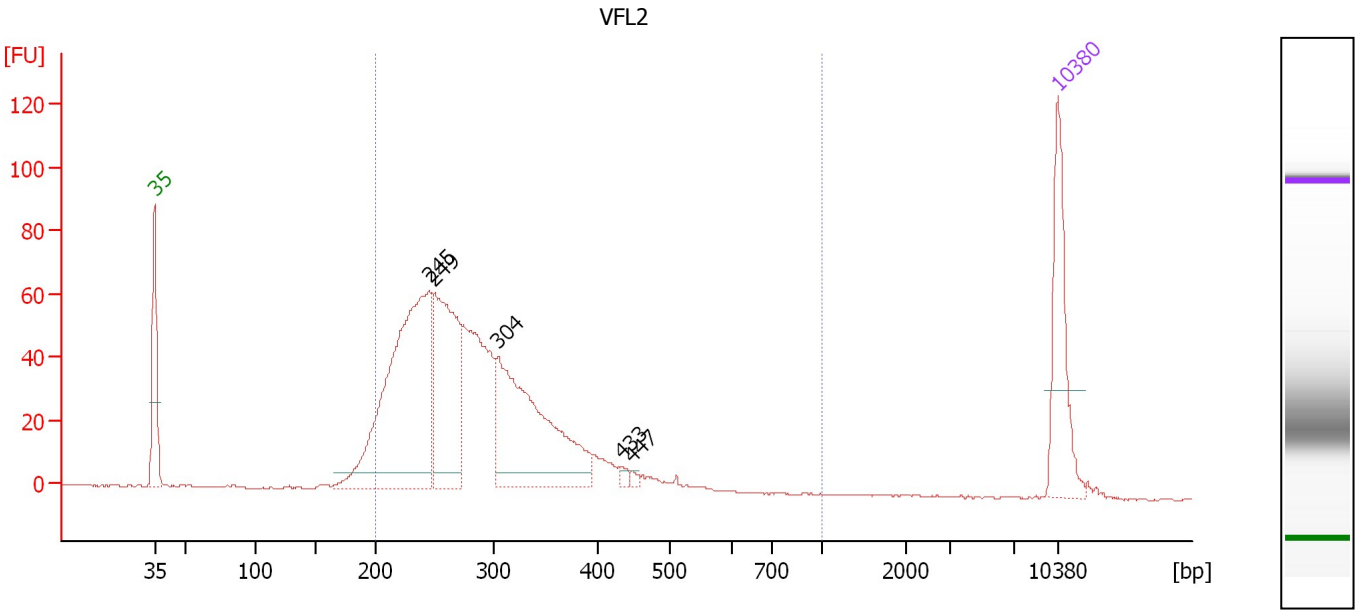
Region table for sample 6 : VFL1

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	292	1,000.43	1,059.8	5,445.8	97	22.3

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : VFL2

Number of peaks found:	5	Corr. Area 1:	1,056.0
Noise:	0.3		

Peak table for sample 7 : VFL2

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	245	392.63	2,432.6		64.25
3	249	204.61	1,244.9		64.66
4	304	255.62	1,275.1		69.63
5	433	5.64	19.7		79.21
6	447	3.37	11.4		79.98
7	10,380	75.00	10.9	Upper Marker	113.00

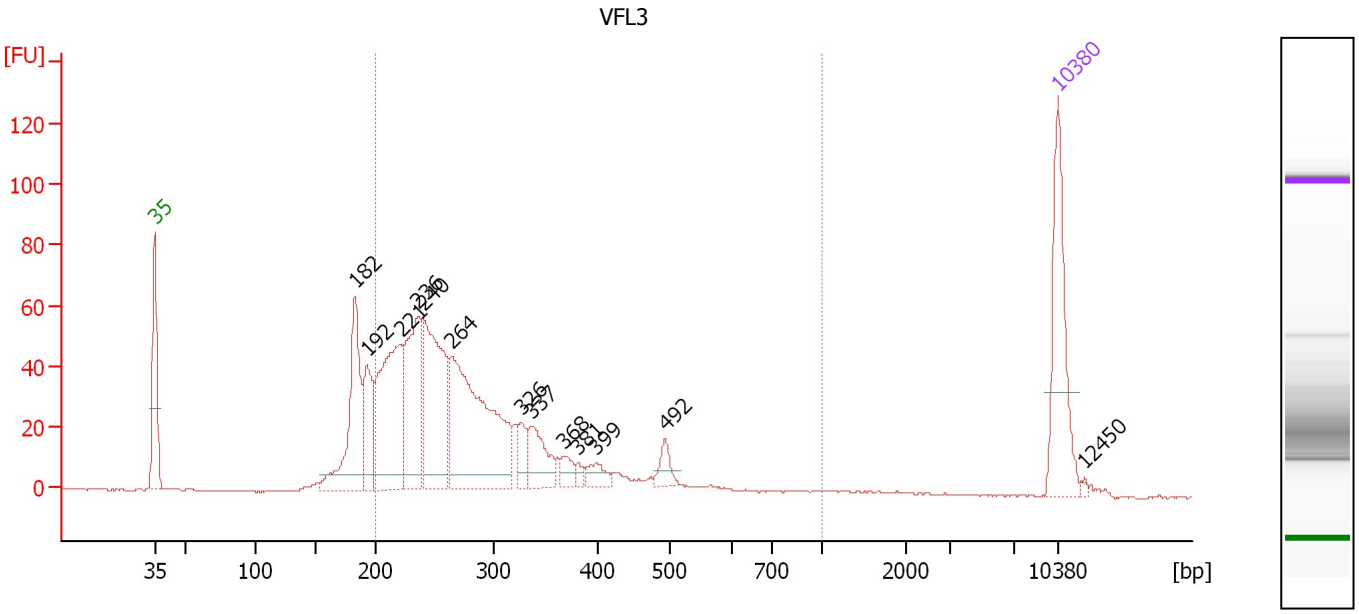
Region table for sample 7 : VFL2

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	287	1,043.22	1,056.0	5,782.6	96	22.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : VFL3

Number of peaks found:	13	Corr. Area 1:	900.4
Noise:	0.3		

Peak table for sample 8 : VFL3

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		182	127.04	1,056.2		58.52
3		192	65.57	516.9		59.44
4		221	164.76	1,128.7		62.11
5		236	127.95	822.5		63.44
6		240	156.17	985.0		63.85
7		264	224.37	1,288.9		66.01
8		326	20.25	94.2		71.39
9		337	41.50	186.5		72.30
10		368	12.83	52.8		74.78
11		381	5.48	21.8		75.84
12		399	14.49	55.1		77.22
13		492	15.08	46.4		82.55
14	▶	10,380	75.00	10.9	Upper Marker	113.00
15		12,450	0.00	0.0		115.07

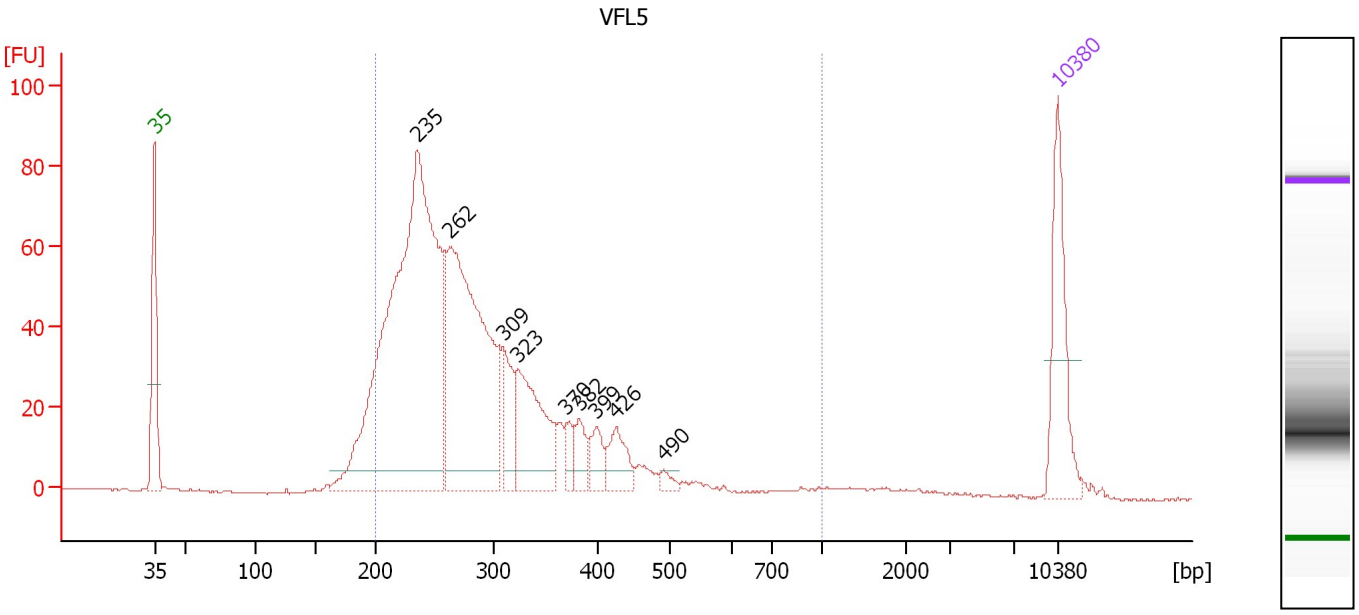
Region table for sample 8 : VFL3

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	297	879.20	900.4	4,924.7	80	33.7

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : VFL5

Number of peaks found:	9	Corr. Area 1:	1,162.5
Noise:	0.2		

Peak table for sample 9 : VFL5

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	235	736.37	4,744.5		63.39
3	262	395.50	2,288.1		65.84
4	309	51.27	251.5		70.05
5	323	119.47	560.7		71.16
6	370	16.19	66.4		74.90
7	382	23.64	93.7		75.92
8	399	23.29	88.4		77.26
9	426	35.18	125.2		78.79
10	490	7.28	22.5		82.44
11	10,380	75.00	10.9	Upper Marker	113.00

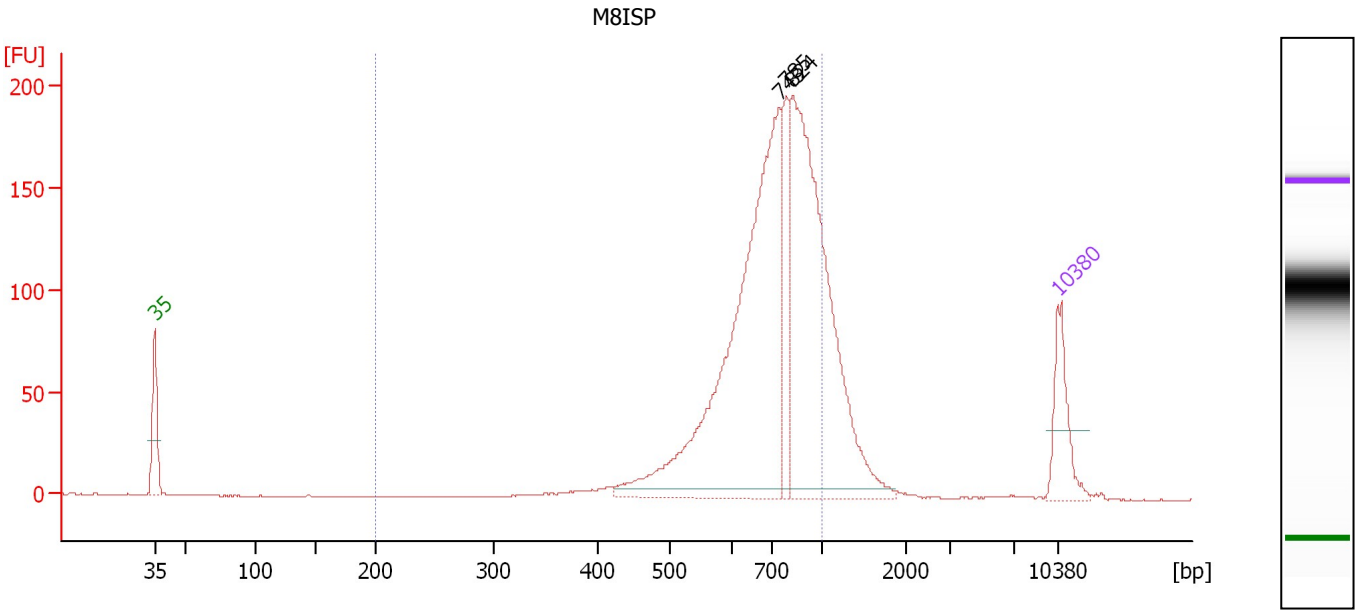
Region table for sample 9 : VFL5

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	294	1,418.55	1,162.5	7,885.7	92	30.4

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : M8ISP

Number of peaks found:	3	Corr. Area 1:	1,528.8
Noise:	0.2		

Peak table for sample 10 : M8ISP

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	743	831.91	1,697.0		91.40
3	785	130.48	251.9		91.95
4	824	662.74	1,219.3		92.46
5	10,380	75.00	10.9	Upper Marker	113.00

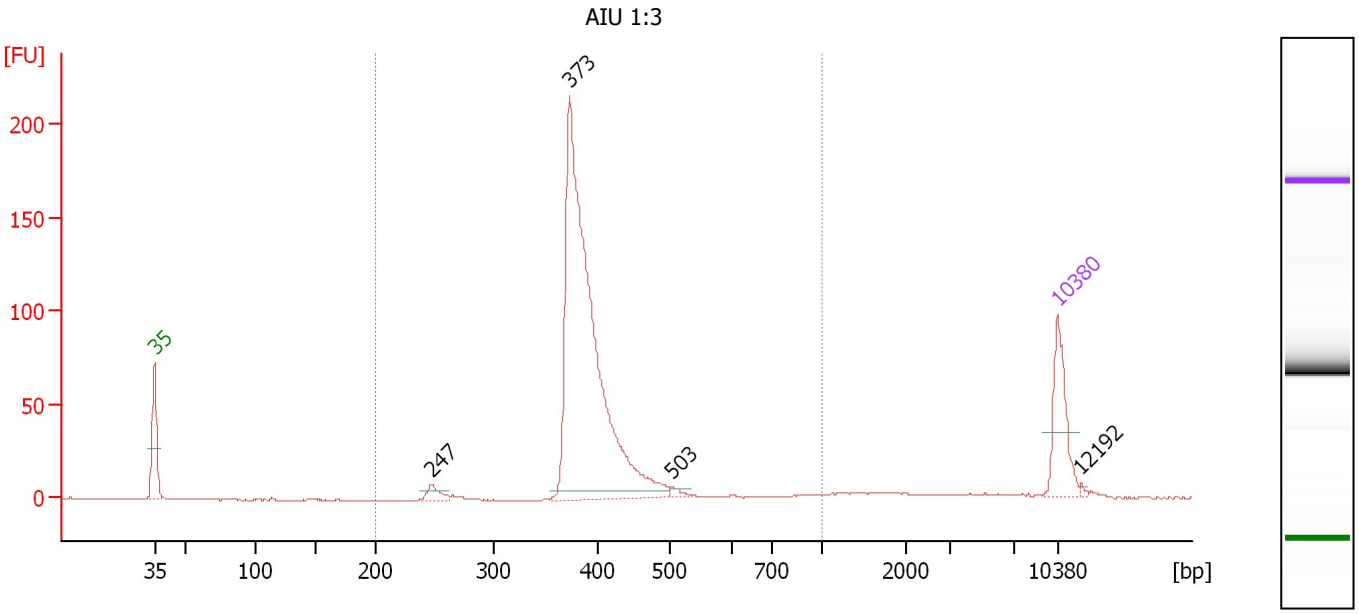
Region table for sample 10 : M8ISP

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	730	1,429.43	1,528.8	3,117.8	85	19.2

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : AIU 1:3

Number of peaks found:	4	Corr. Area 1:	710.2
Noise:	0.2		

Peak table for sample 11 : AIU 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	247	19.85	121.7		64.48
3	373	798.19	3,245.1		75.15
4	503	7.18	21.6		83.13
5	10,380	75.00	10.9	Upper Marker	113.00
6	12,192	0.00	0.0		114.81

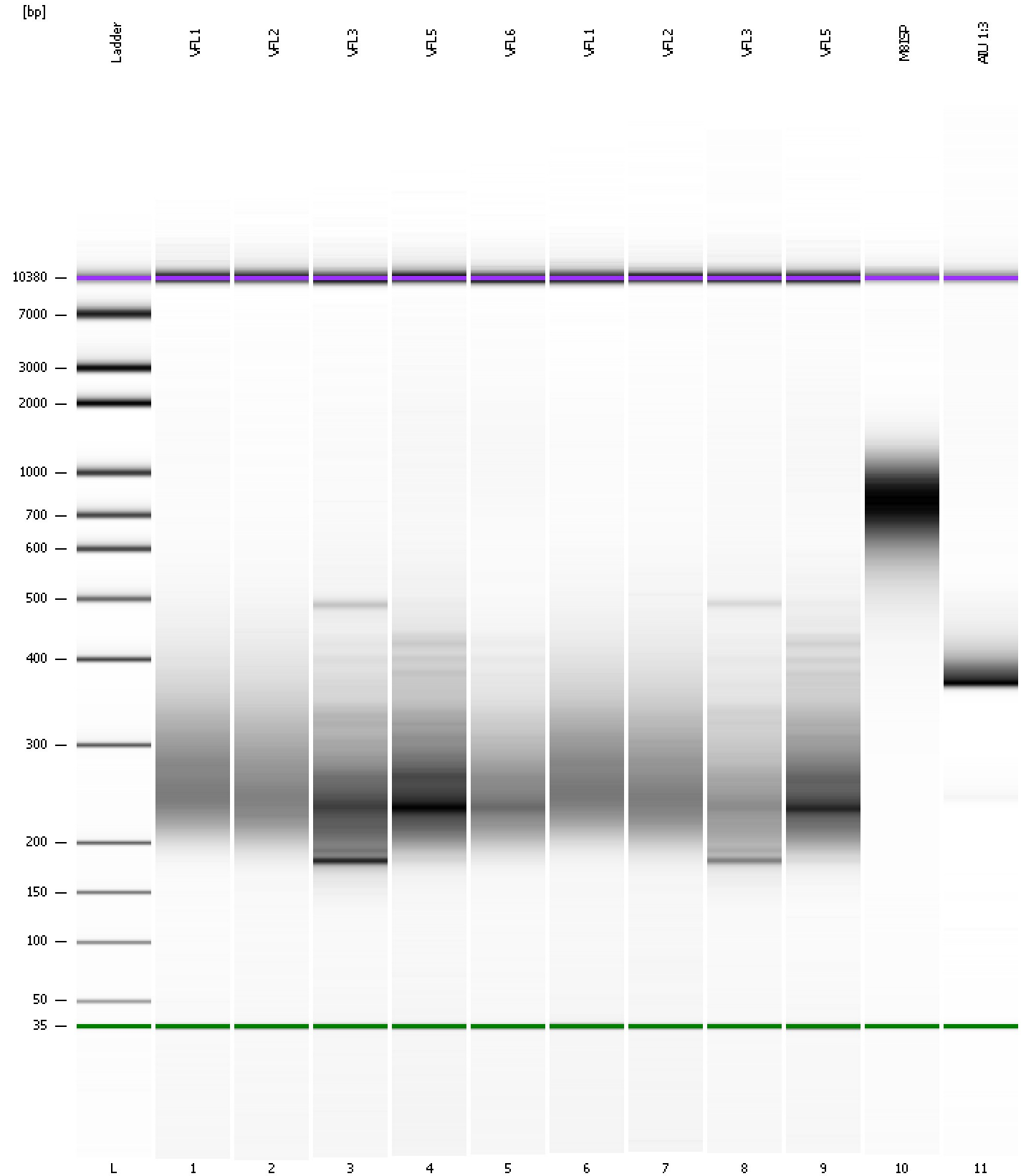
Region table for sample 11 : AIU 1:3

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/µl]	Corr. Area	Molarity [pmol/l]	Co % of Total	Size distribution in CV [%]
200	1,000	399	796.21	710.2	3,086.9	94	14.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Gel Image

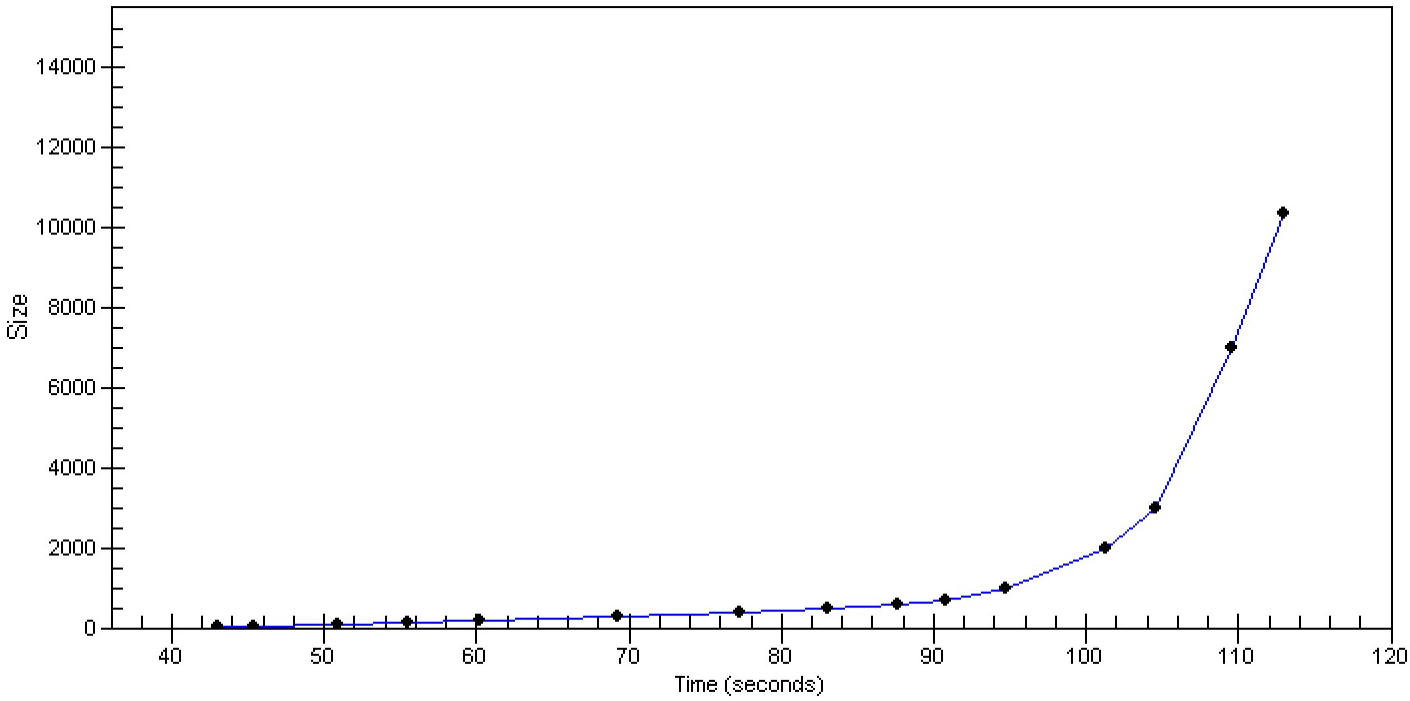


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-21\2019-03-21_001.xad

Created: 3/21/2019 10:21:50 AM
Modified: 3/21/2019 11:09:24 AM

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		3/21/2019 11:03:06 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\2019-03-21\2019-03-21_001.xad)		Instrument	Run		3/21/2019 10:21:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		3/21/2019 10:21:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/21/2019 10:21:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/21/2019 10:21:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		3/21/2019 10:21:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/21/2019 10:21:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/21/2019 10:21:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1