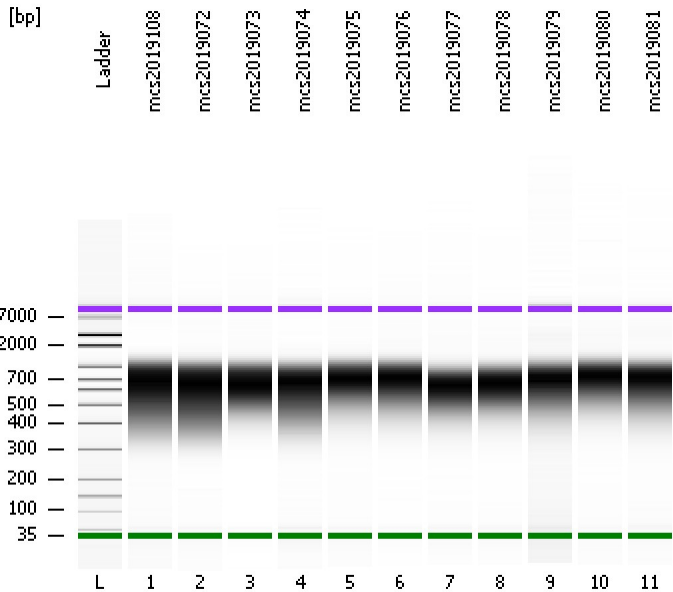


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
Modified: 5/28/2019 4:17:38 PM

Electrophoresis File Run Summary



Instrument Information:

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

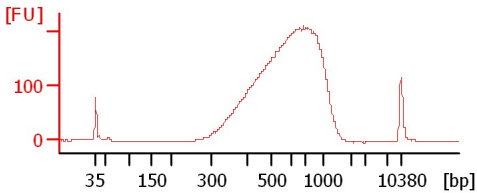
Assay Information:

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

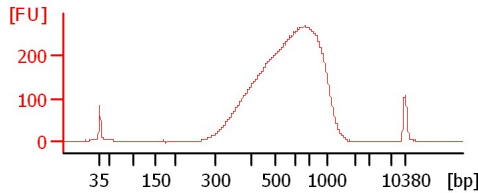
Chip Information:

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

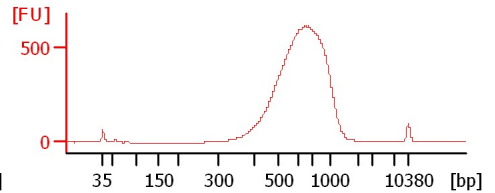
mcs2019108



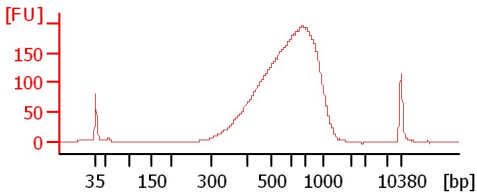
mcs2019072



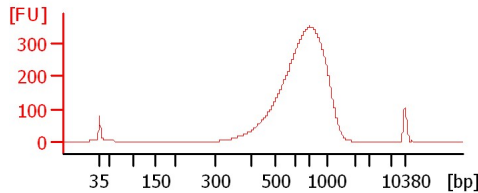
mcs2019073



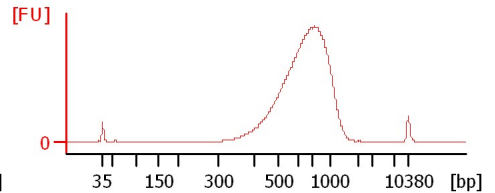
mcs2019074



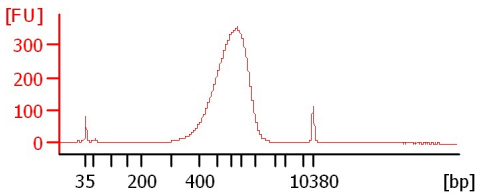
mcs2019075



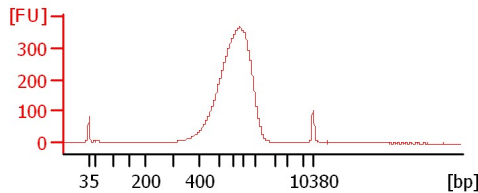
mcs2019076



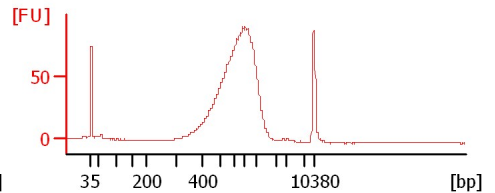
mcs2019077



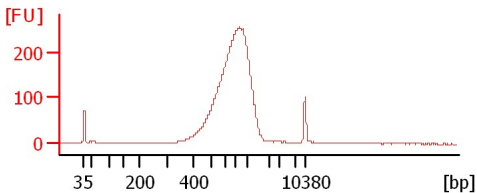
mcs2019078



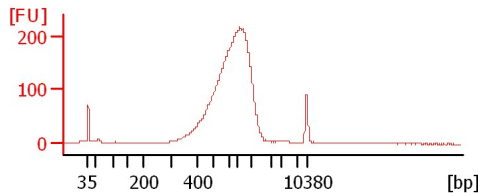
mcs2019079



mcs2019080



mcs2019081



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
Modified: 5/28/2019 4:17:38 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
mcs2019108		<input type="checkbox"/>	✓			
mcs2019072		<input type="checkbox"/>	✓			
mcs2019073		<input type="checkbox"/>	✓			
mcs2019074		<input type="checkbox"/>	✓			
mcs2019075		<input type="checkbox"/>	✓			
mcs2019076		<input type="checkbox"/>	✓			
mcs2019077		<input type="checkbox"/>	✓			
mcs2019078		<input type="checkbox"/>	✓			
mcs2019079		<input type="checkbox"/>	✓			
mcs2019080		<input type="checkbox"/>	✓			
mcs2019081		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
Modified: 5/28/2019 4:17:38 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

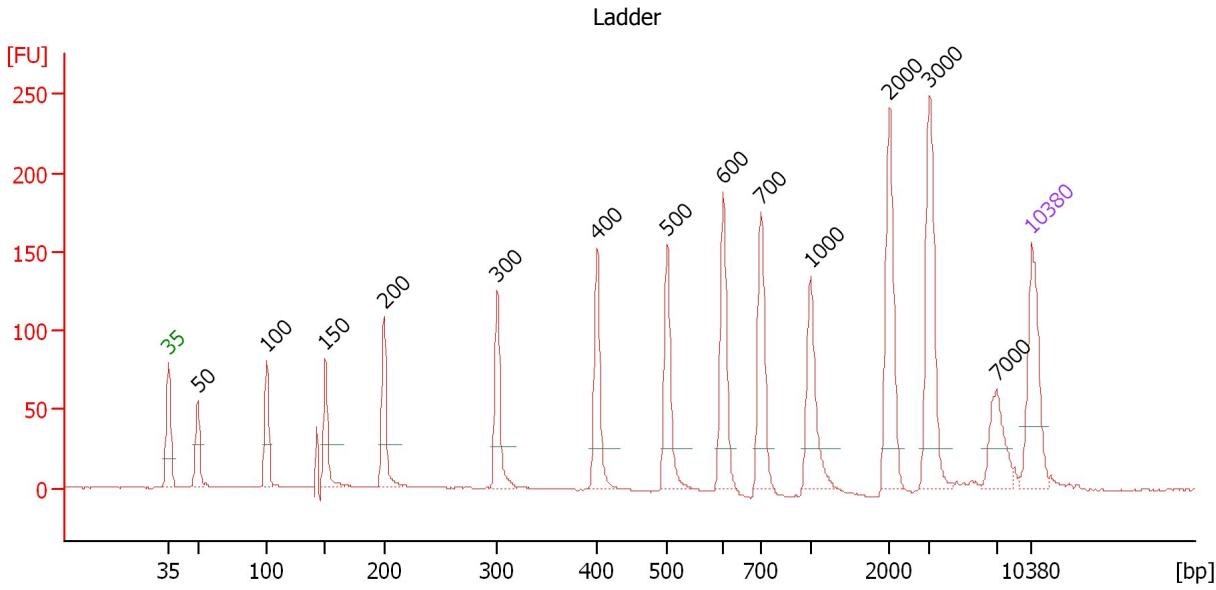
Ladder

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:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
 Modified: 5/28/2019 4:17:38 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.4

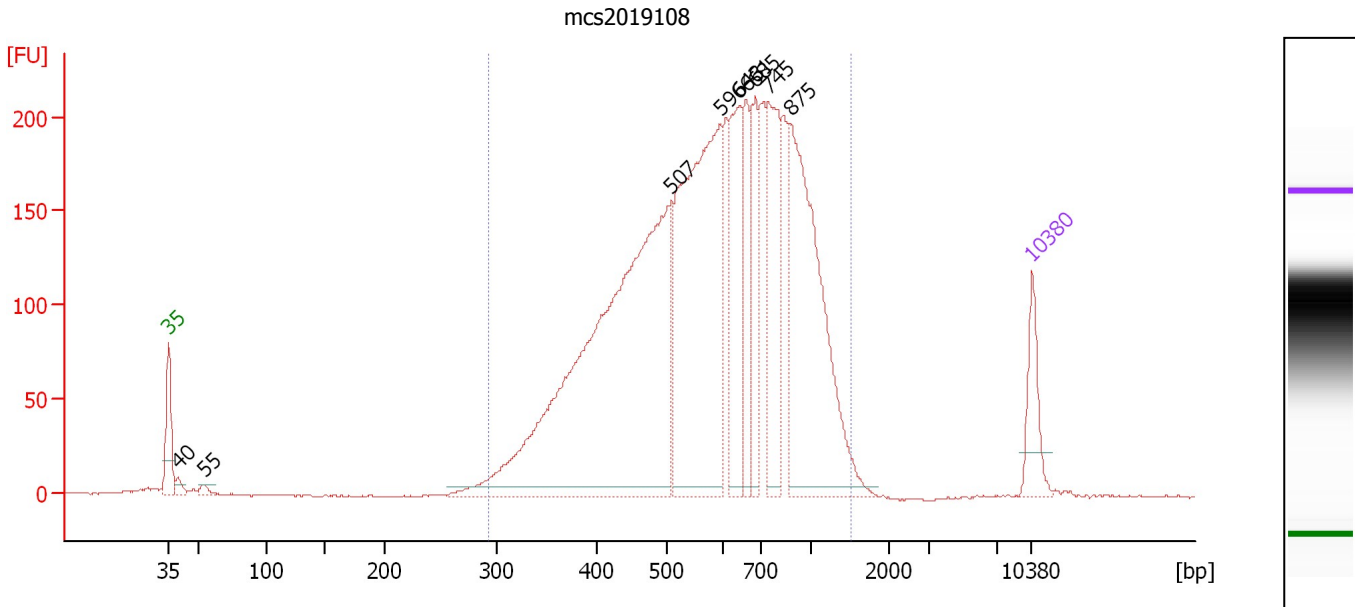
Peak table for Ladder

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	45.36
3	100	150.00	2,272.7	Ladder Peak	50.95
4	150	150.00	1,515.2	Ladder Peak	55.72
5	200	150.00	1,136.4	Ladder Peak	60.45
6	300	150.00	757.6	Ladder Peak	69.65
7	400	150.00	568.2	Ladder Peak	77.75
8	500	150.00	454.5	Ladder Peak	83.43
9	600	150.00	378.8	Ladder Peak	87.96
10	700	150.00	324.7	Ladder Peak	91.02
11	1,000	150.00	227.3	Ladder Peak	95.05
12	2,000	150.00	113.6	Ladder Peak	101.43
13	3,000	150.00	75.8	Ladder Peak	104.70
14	7,000	150.00	32.5	Ladder Peak	110.08
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
 Modified: 5/28/2019 4:17:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : mcs2019108

Number of peaks found: 9 Corr. Area 1: 4,139.5
 Noise: 0.4

Peak table for sample 1 : mcs2019108

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	40	19.36	735.5		43.77
3	55	15.22	422.8		45.87
4	507	1,440.31	4,305.9		83.74
5	596	784.24	1,992.8		87.79
6	643	250.93	591.3		89.27
7	661	151.07	346.1		89.84
8	685	163.88	362.7		90.55
9	745	270.17	549.3		91.63
10	875	600.46	1,039.6		93.37
11	10,380	75.00	10.9	Upper Marker	113.00

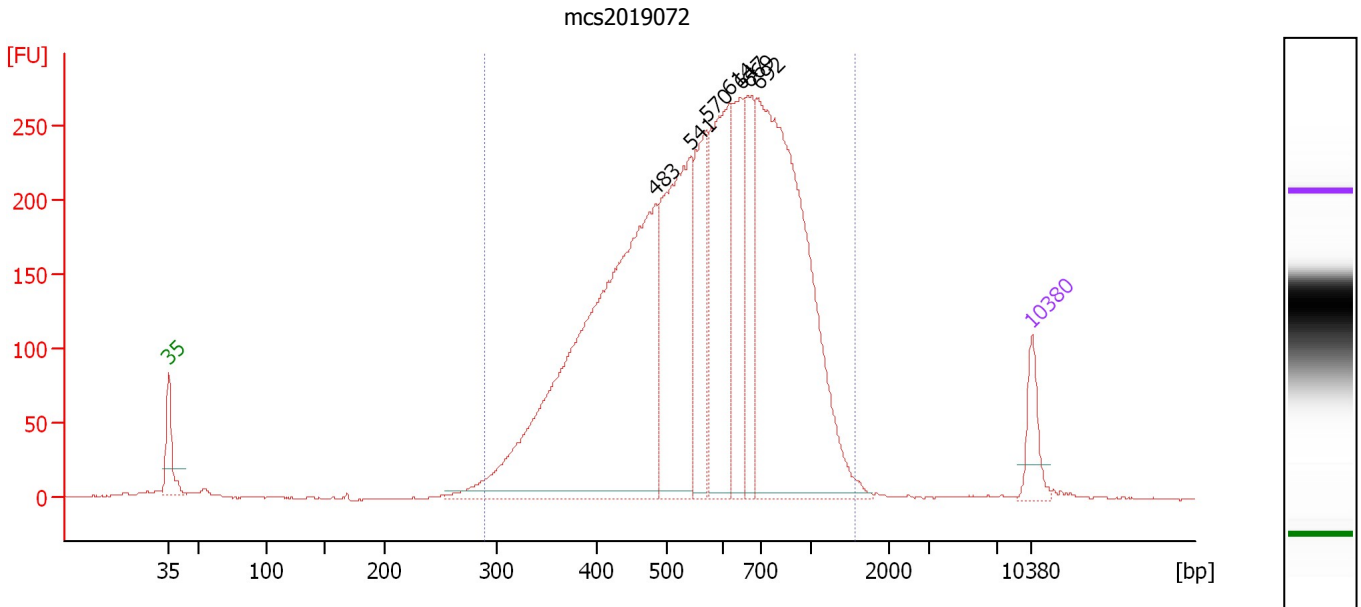
Region table for sample 1 : mcs2019108

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
293	1,513	640	4,094.09	4,139.5	11,221.2	98	35.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
 Modified: 5/28/2019 4:17:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : mcs2019072

Number of peaks found: 7 Corr. Area 1: 5,402.4
 Noise: 0.4

Peak table for sample 2 : mcs2019072

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	483	1,824.11	5,720.6		82.47
3	541	706.46	1,979.0		85.28
4	570	321.59	855.4		86.58
5	614	533.13	1,314.6		88.40
6	647	287.04	672.5		89.39
7	669	259.44	587.8		90.07
8	692	1,420.91	3,109.0		90.79
9	10,380	75.00	10.9	Upper Marker	113.00

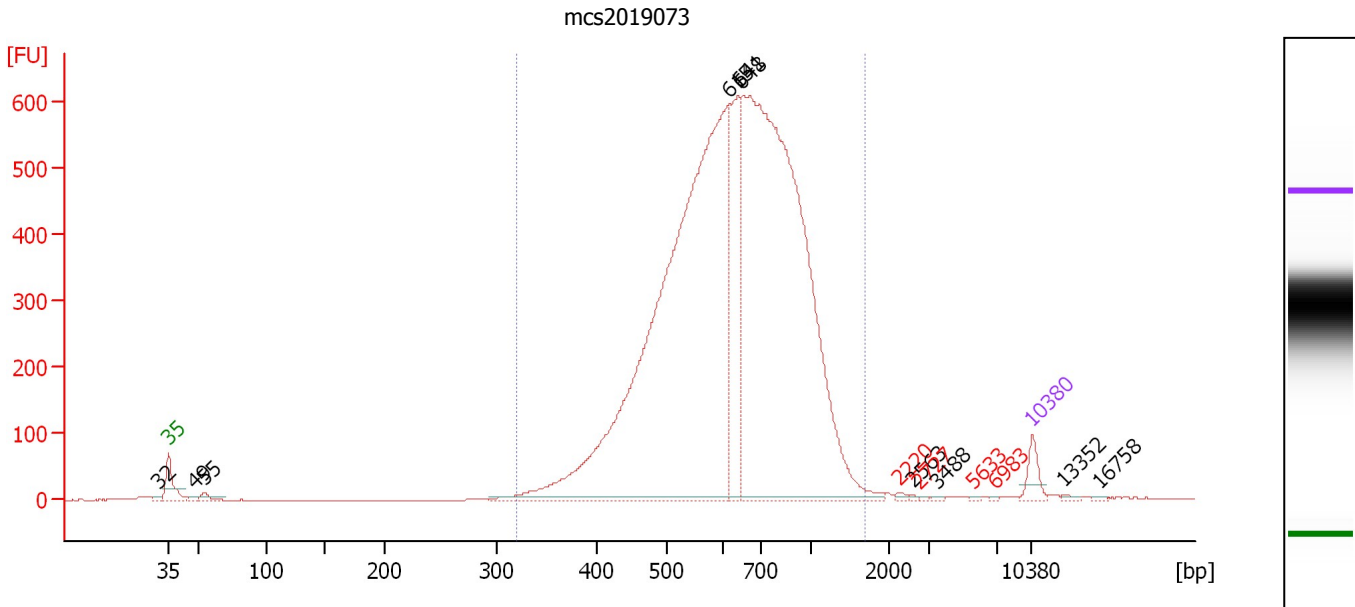
Region table for sample 2 : mcs2019072

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
289	1,557	615	5,370.43	5,402.4	15,187.9	98	34.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
 Modified: 5/28/2019 4:17:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : mcs2019073

Number of peaks found: 10 Corr. Area 1: 8,890.0
 Noise: 0.4

Peak table for sample 3 : mcs2019073

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.20
2	35	125.00	5,411.3	Lower Marker	43.00
3	49	18.10	564.7		45.14
4	55	41.11	1,129.3		45.94
5	615	4,696.95	11,569.9		88.42
6	641	681.58	1,610.5		89.22
7	648	4,488.31	10,491.5		89.44
8	2,220	9.96	6.8	excluded peak	102.15
9	2,563	5.29	3.1		103.27
10	2,727	5.60	3.1	excluded peak	103.81
11	3,488	7.01	3.0		105.36
12	5,633	5.71	1.5	excluded peak	108.24
13	6,983	3.48	0.8	excluded peak	110.06
14	10,380	75.00	10.9	Upper Marker	113.00
15	13,352	0.00	0.0		115.56
16	16,758	0.00	0.0		118.50

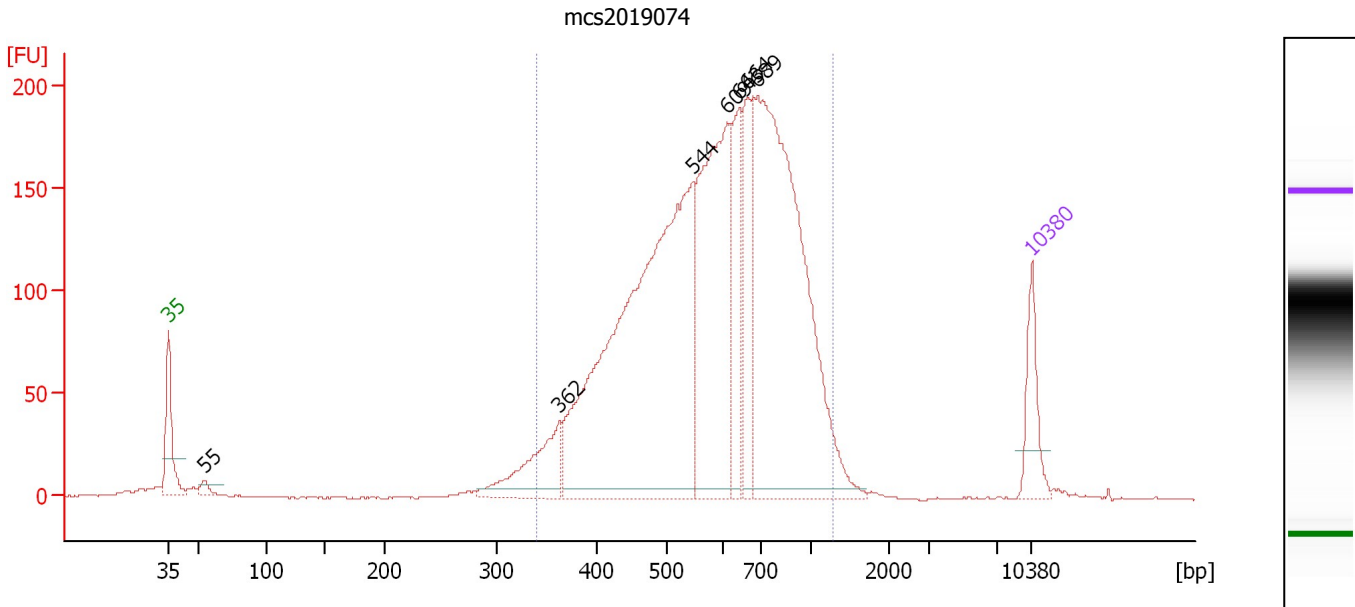
Region table for sample 3 : mcs2019073

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
320	1,692	677	10,008.24	8,890.0	24,770.2	97	30.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
 Modified: 5/28/2019 4:17:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : mcs2019074

Number of peaks found: 7 Corr. Area 1: 3,200.6
 Noise: 0.5

Peak table for sample 4 : mcs2019074

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	55	22.84	628.8		45.93
3	362	168.12	703.1		74.70
4	544	1,244.99	3,467.5		85.42
5	609	556.94	1,385.1		88.24
6	643	182.80	430.9		89.27
7	664	190.24	434.1		89.92
8	689	1,042.89	2,294.4		90.68
9	10,380	75.00	10.9	Upper Marker	113.00

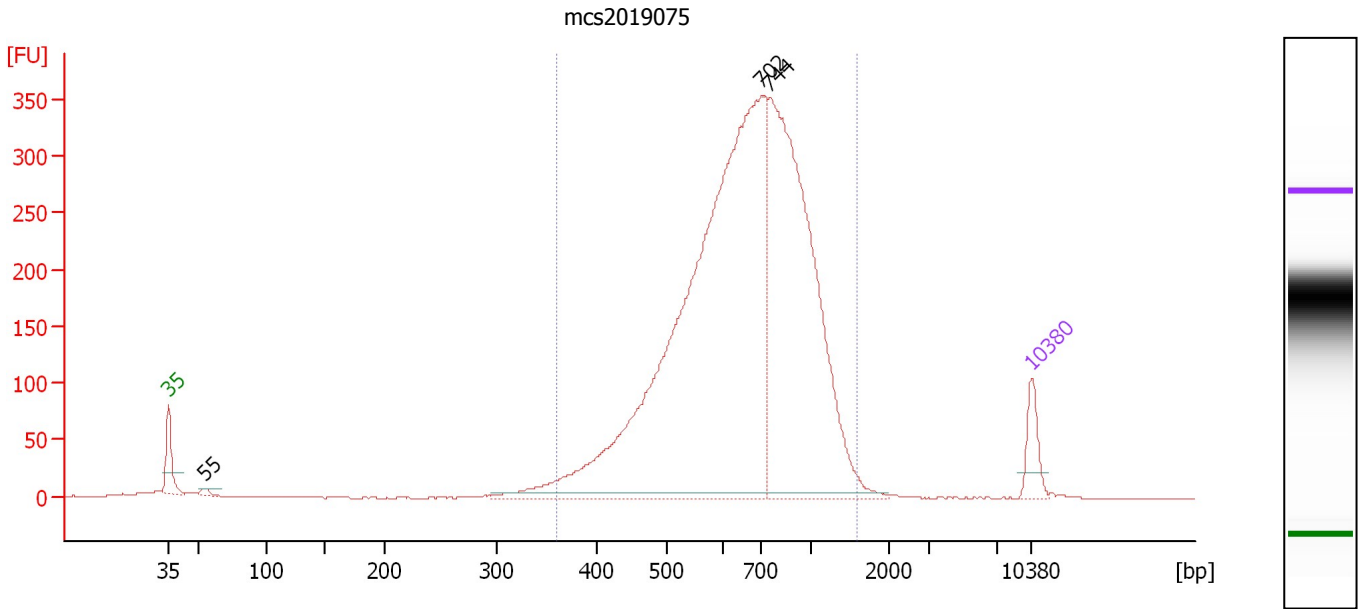
Region table for sample 4 : mcs2019074

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
339	1,286	627	3,338.68	3,200.6	8,950.7	94	29.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
 Modified: 5/28/2019 4:17:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : mcs2019075

Number of peaks found: 3 Corr. Area 1: 4,521.3
 Noise: 0.4

Peak table for sample 5 : mcs2019075

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	55	18.03	495.0		45.94
3	702	3,082.75	6,650.6		91.06
4	744	1,697.69	3,458.5		91.61
5	10,380	75.00	10.9	Upper Marker	113.00

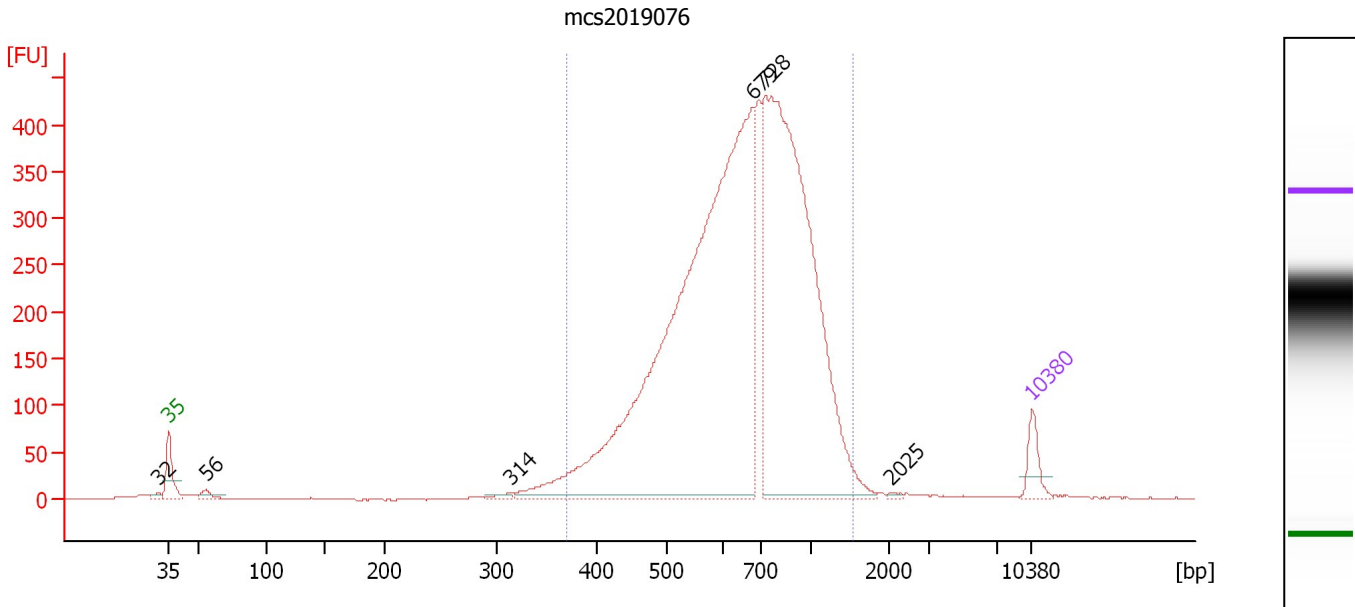
Region table for sample 5 : mcs2019075

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
360	1,596	716	4,708.93	4,521.3	11,049.6	96	30.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
 Modified: 5/28/2019 4:17:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : mcs2019076

Number of peaks found: 6 Corr. Area 1: 5,622.1
 Noise: 0.4

Peak table for sample 6 : mcs2019076

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.20
2	35	125.00	5,411.3	Lower Marker	43.00
3	56	37.09	1,004.3		46.03
4	314	19.13	92.4		70.77
5	679	3,751.36	8,374.5		90.37
6	728	2,571.86	5,352.6		91.40
7	2,025	7.87	5.9		101.51
8	10,380	75.00	10.9	Upper Marker	113.00

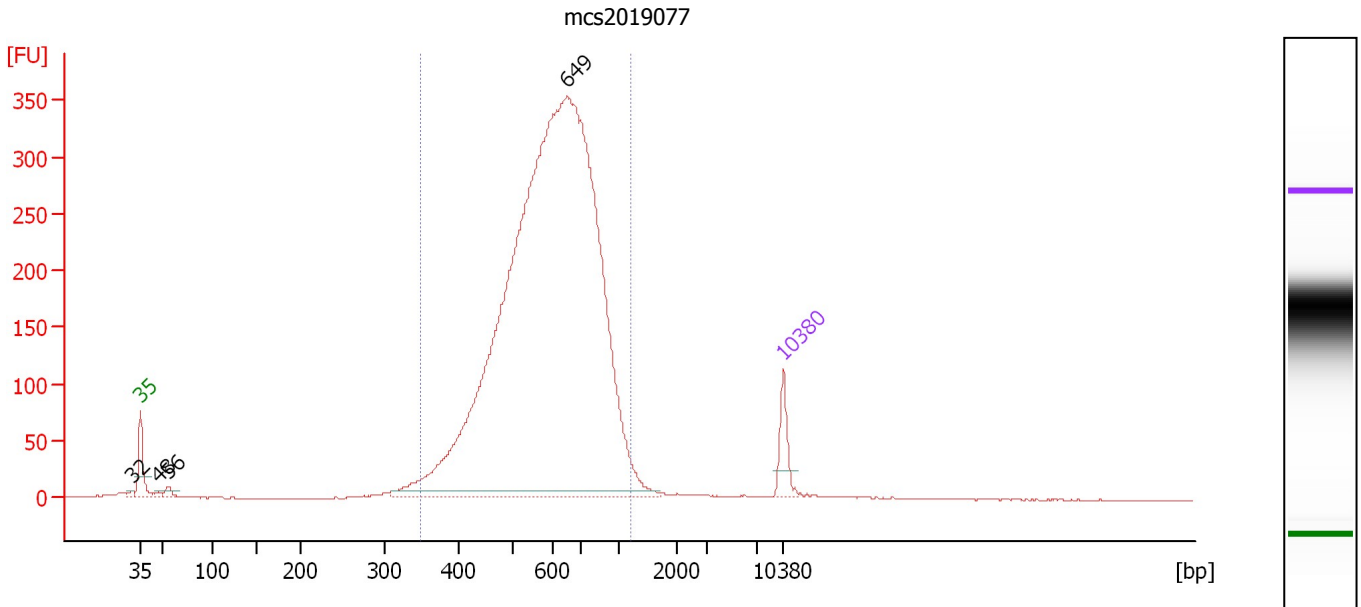
Region table for sample 6 : mcs2019076

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
370	1,539	709	6,568.58	5,622.1	15,544.2	95	30.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
 Modified: 5/28/2019 4:17:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : mcs2019077

Number of peaks found: 4 Corr. Area 1: 4,584.4
 Noise: 0.4

Peak table for sample 7 : mcs2019077

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.19
2	35	125.00	5,411.3	Lower Marker	43.00
3	48	12.54	396.9		45.03
4	56	32.60	876.3		46.07
5	649	4,831.06	11,281.9		89.45
6	10,380	75.00	10.9	Upper Marker	113.00

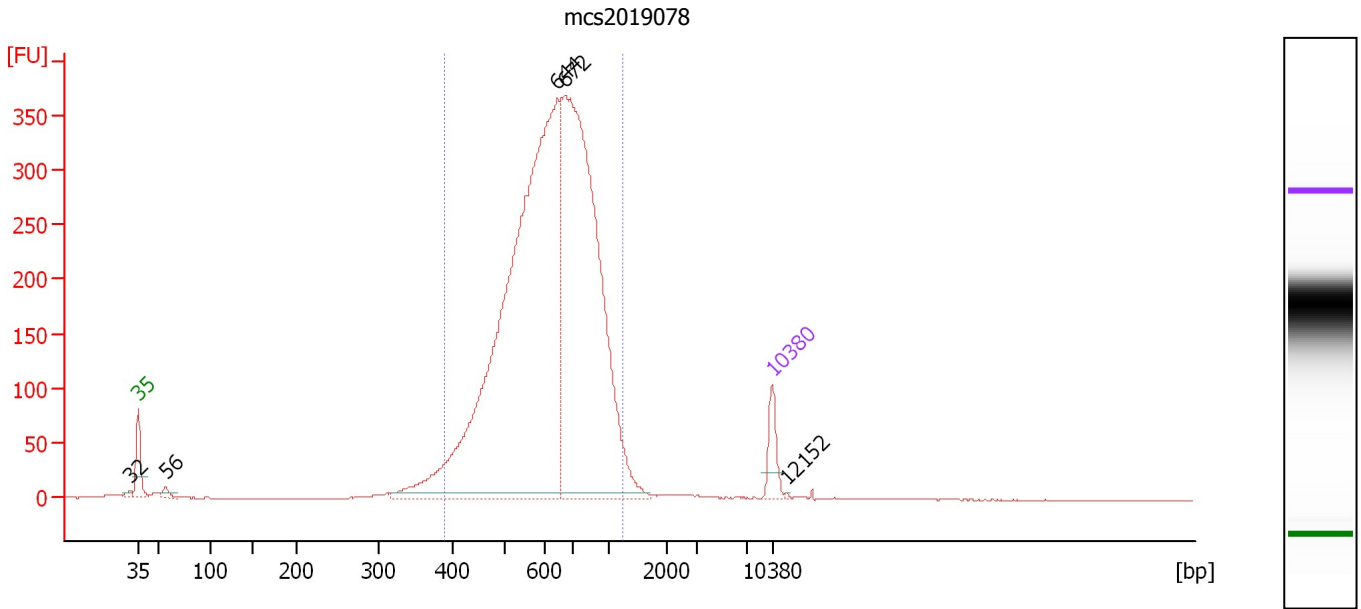
Region table for sample 7 : mcs2019077

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
348	1,207	623	5,015.82	4,584.4	13,070.2	95	23.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
 Modified: 5/28/2019 4:17:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : mcs2019078

Number of peaks found: 5 Corr. Area 1: 4,538.7
 Noise: 0.3

Peak table for sample 8 : mcs2019078

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.12
2	35	125.00	5,411.3	Lower Marker	43.00
3	56	31.88	859.1		46.06
4	644	2,880.23	6,780.7		89.29
5	672	2,112.05	4,759.5		90.18
6	10,380	75.00	10.9	Upper Marker	113.00
7	12,152	0.00	0.0		114.53

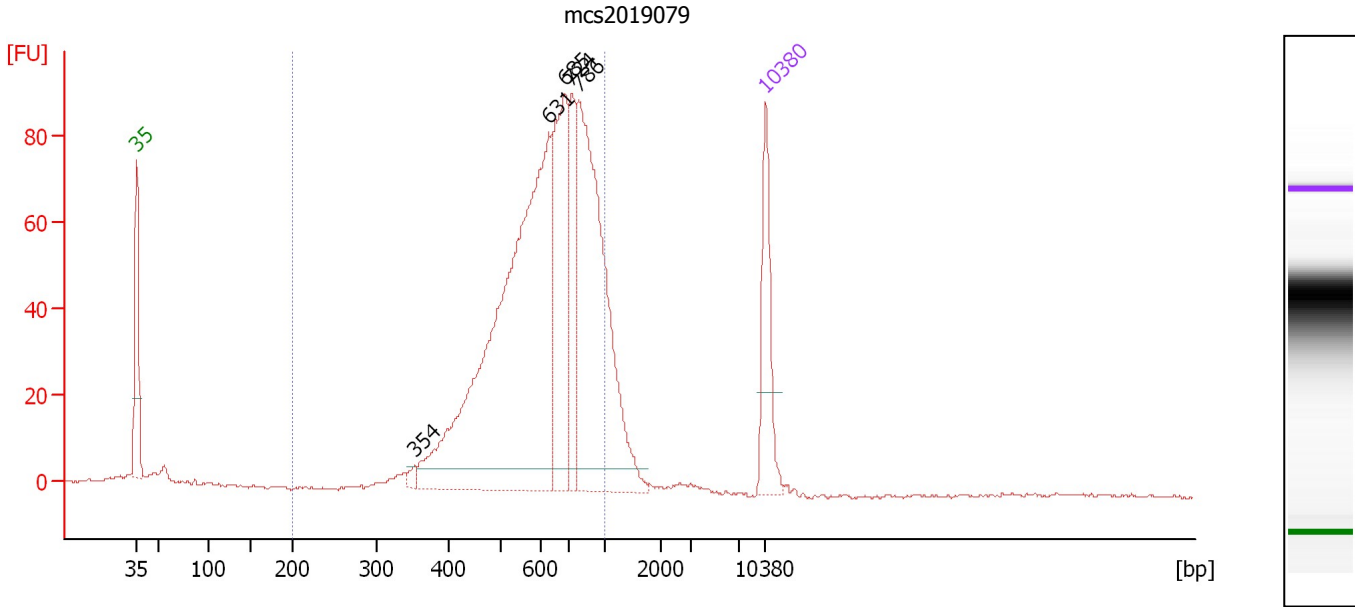
Region table for sample 8 : mcs2019078

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
387	1,223	655	4,942.10	4,538.7	12,220.1	94	24.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
 Modified: 5/28/2019 4:17:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : mcs2019079

Number of peaks found: 5 Corr. Area 1: 1,131.2
 Noise: 0.3

Peak table for sample 9 : mcs2019079

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	354	8.31	35.6		74.03
3	631	685.56	1,645.5		88.92
4	685	204.55	452.2		90.58
5	724	107.70	225.4		91.35
6	786	386.50	745.0		92.18
7	10,380	75.00	10.9	Upper Marker	113.00

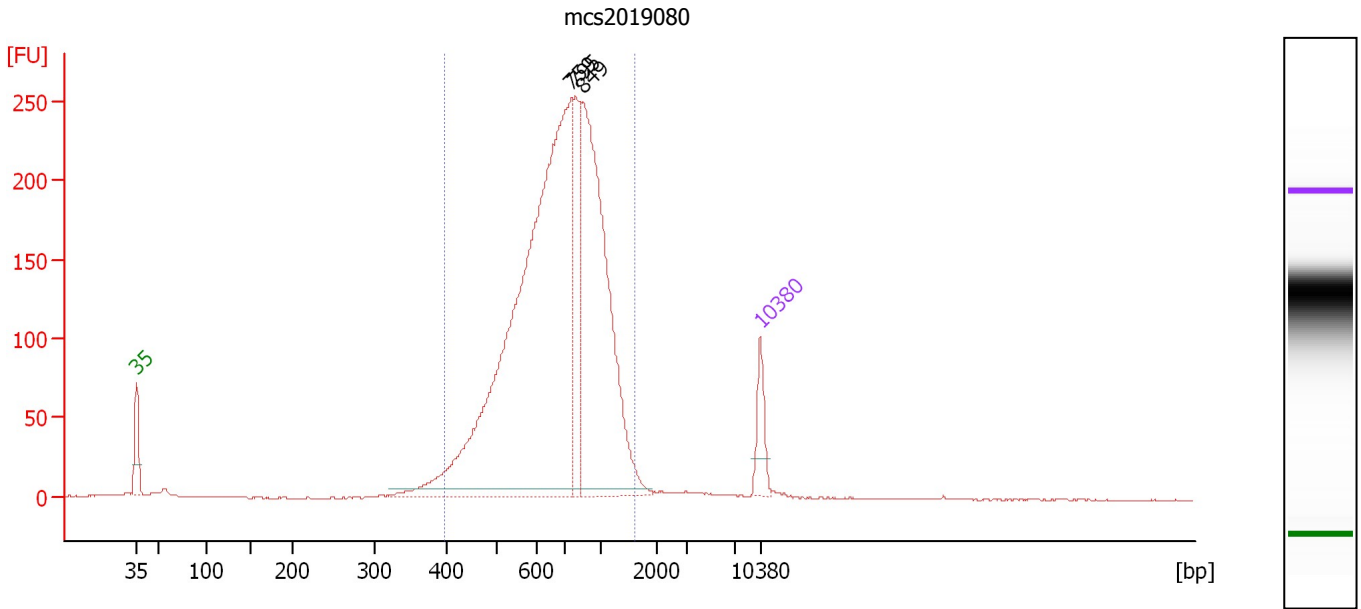
Region table for sample 9 : mcs2019079

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	645	1,339.40	1,131.2	3,406.9	89	24.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
 Modified: 5/28/2019 4:17:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : mcs2019080

Number of peaks found: 3 Corr. Area 1: 2,995.3
 Noise: 0.3

Peak table for sample 10 : mcs2019080

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	759	2,190.35	4,370.4		91.82
3	795	260.21	495.9		92.30
4	849	998.66	1,783.1		93.02
5	10,380	75.00	10.9	Upper Marker	113.00

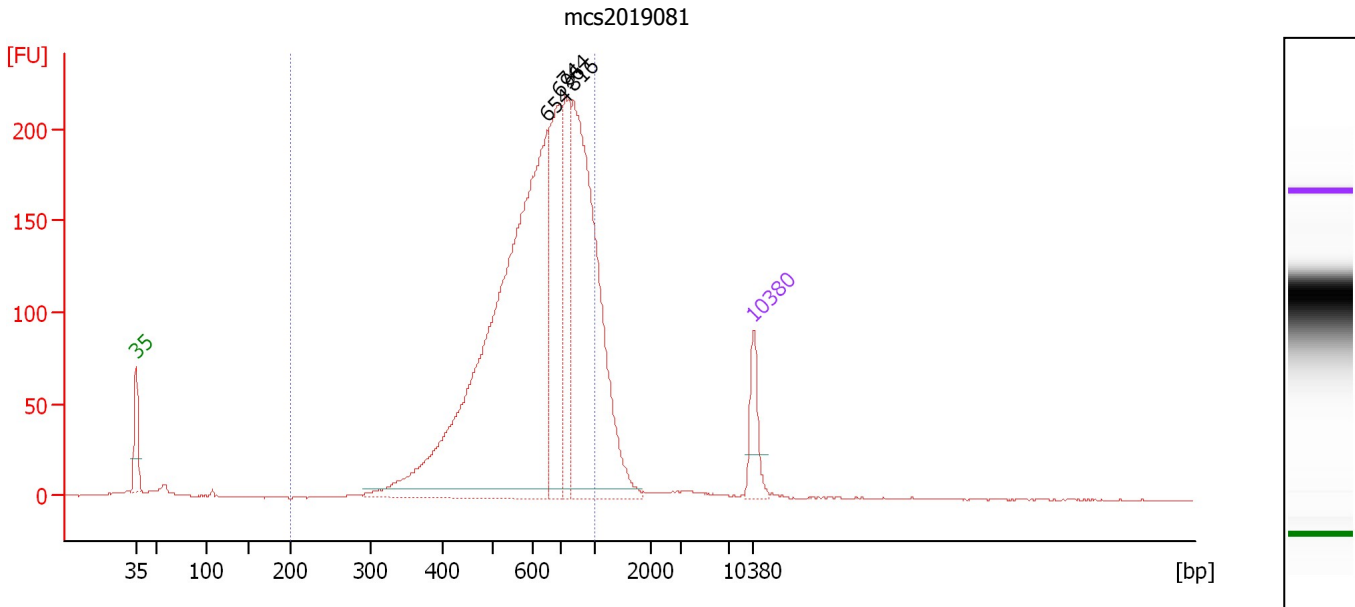
Region table for sample 10 : mcs2019080

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
397	1,609	751	3,558.38	2,995.3	7,945.9	95	30.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
 Modified: 5/28/2019 4:17:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : mcs2019081

Number of peaks found: 4 Corr. Area 1: 2,691.7
 Noise: 0.4

Peak table for sample 11 : mcs2019081

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	654	1,771.30	4,101.0		89.63
3	696	380.29	828.1		90.89
4	744	270.47	550.5		91.62
5	816	880.07	1,633.2		92.59
6	10,380	75.00	10.9	Upper Marker	113.00

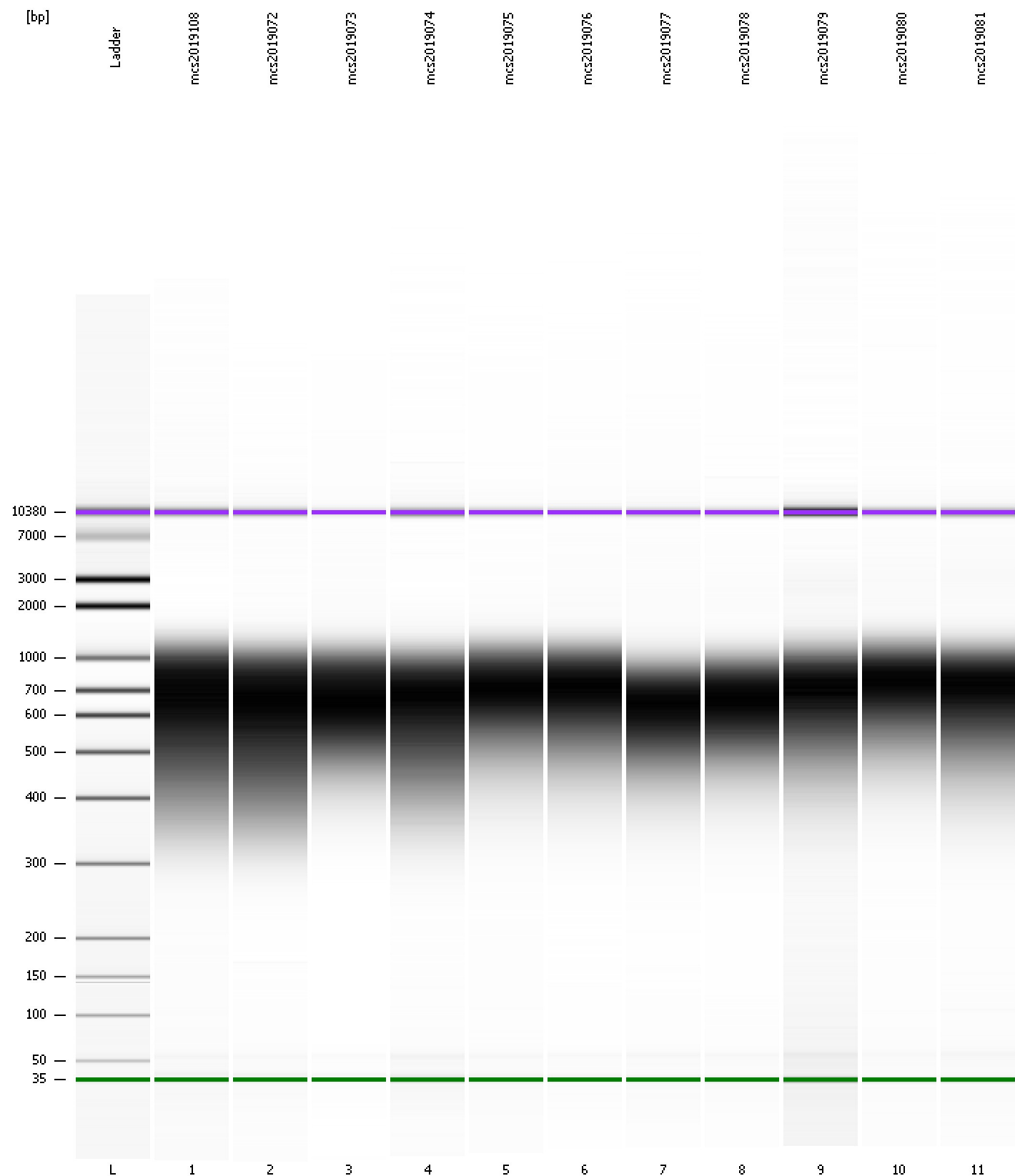
Region table for sample 11 : mcs2019081

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	649	3,149.17	2,691.7	7,996.0	90	24.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
Modified: 5/28/2019 4:17:38 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ioanalyzer\2100 expert\data\2019-05-28\2019-05-28_001.1.xad

Created: 5/28/2019 3:23:53 PM
 Modified: 5/28/2019 4:17:38 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		5/28/2019 4:05:11 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\2019-05-28\2019-05-28_001.xad)		Instrument	Run		5/28/2019 3:23:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		5/28/2019 3:23:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/28/2019 3:23:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/28/2019 3:23:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		5/28/2019 3:23:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/28/2019 3:23:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/28/2019 3:23:59 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1