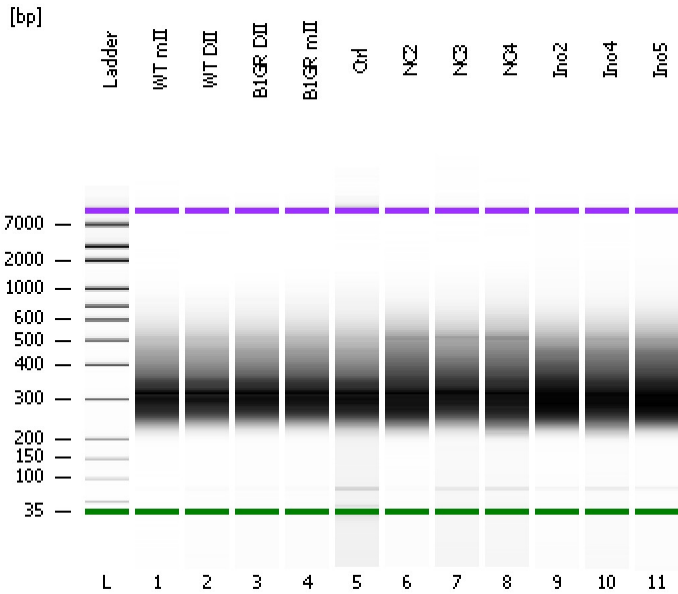


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
Modified: 7/12/2016 3:01:26 PM

Electrophoresis File Run Summary



Instrument Information:

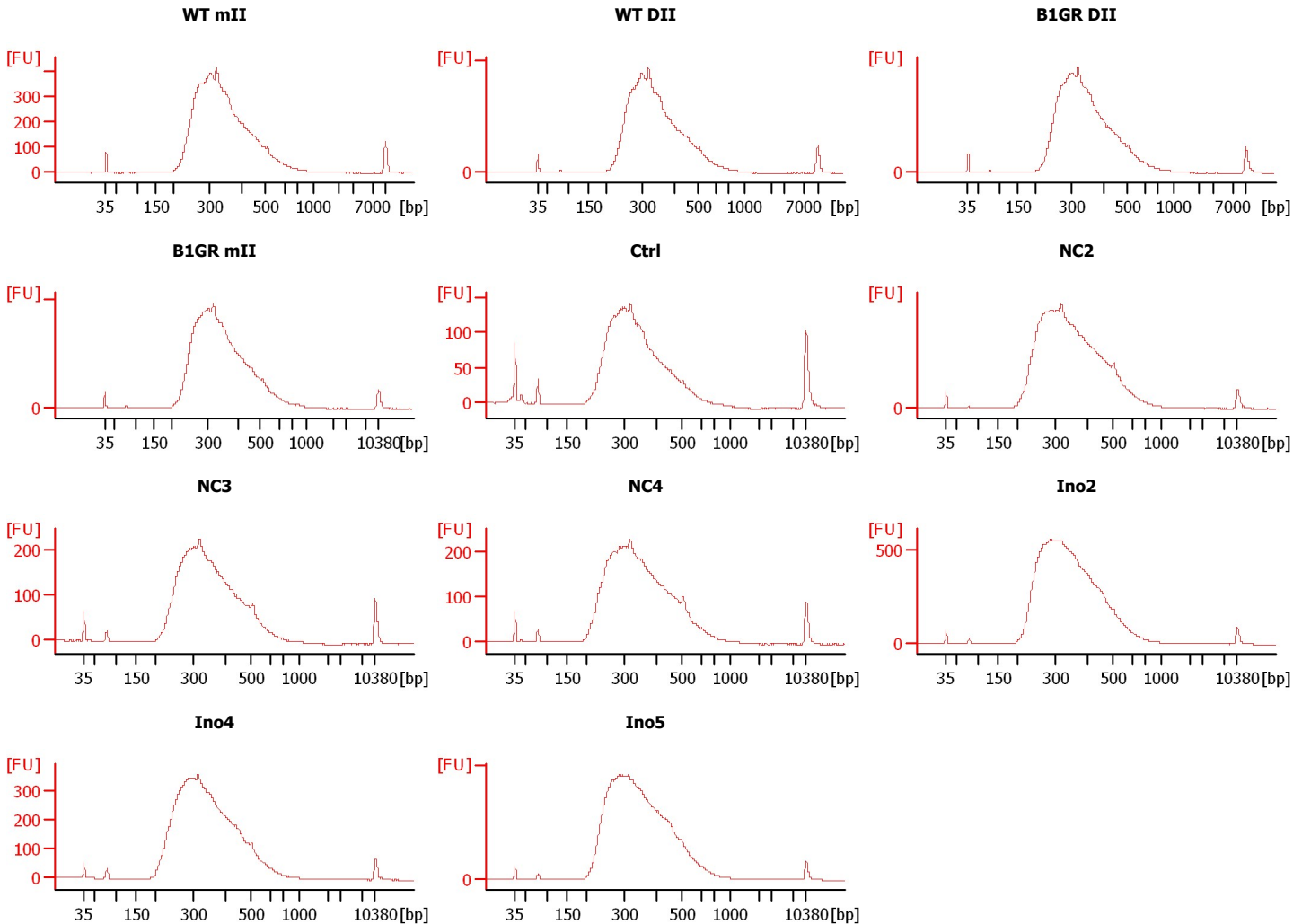
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
 Modified: 7/12/2016 3:01:26 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
WT mII		<input type="checkbox"/>	✓			
WT DII		<input type="checkbox"/>	✓			
B1GR DII		<input type="checkbox"/>	✓			
B1GR mII		<input type="checkbox"/>	✓			
Ctrl		<input type="checkbox"/>	✓			
NC2		<input type="checkbox"/>	✓			
NC3		<input type="checkbox"/>	✓			
NC4		<input type="checkbox"/>	✓			
Ino2		<input type="checkbox"/>	✓			
Ino4		<input type="checkbox"/>	✓			
Ino5		<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\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
Modified: 7/12/2016 3:01:26 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

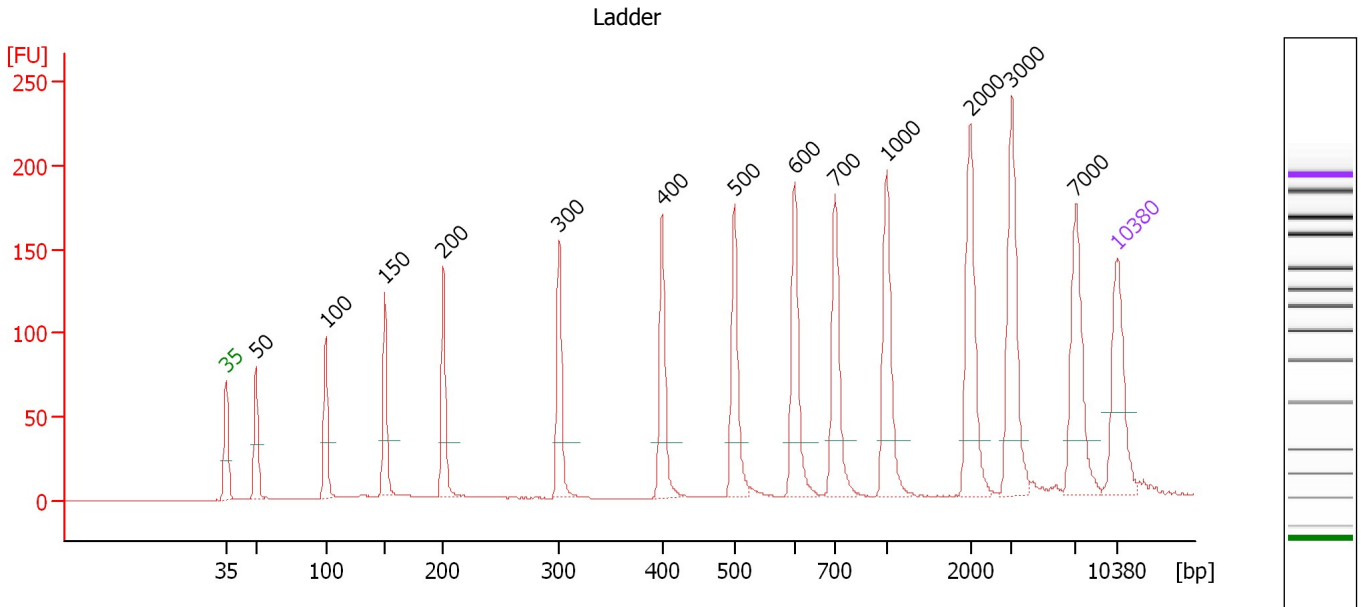
Ladder

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\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
 Modified: 7/12/2016 3:01:26 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

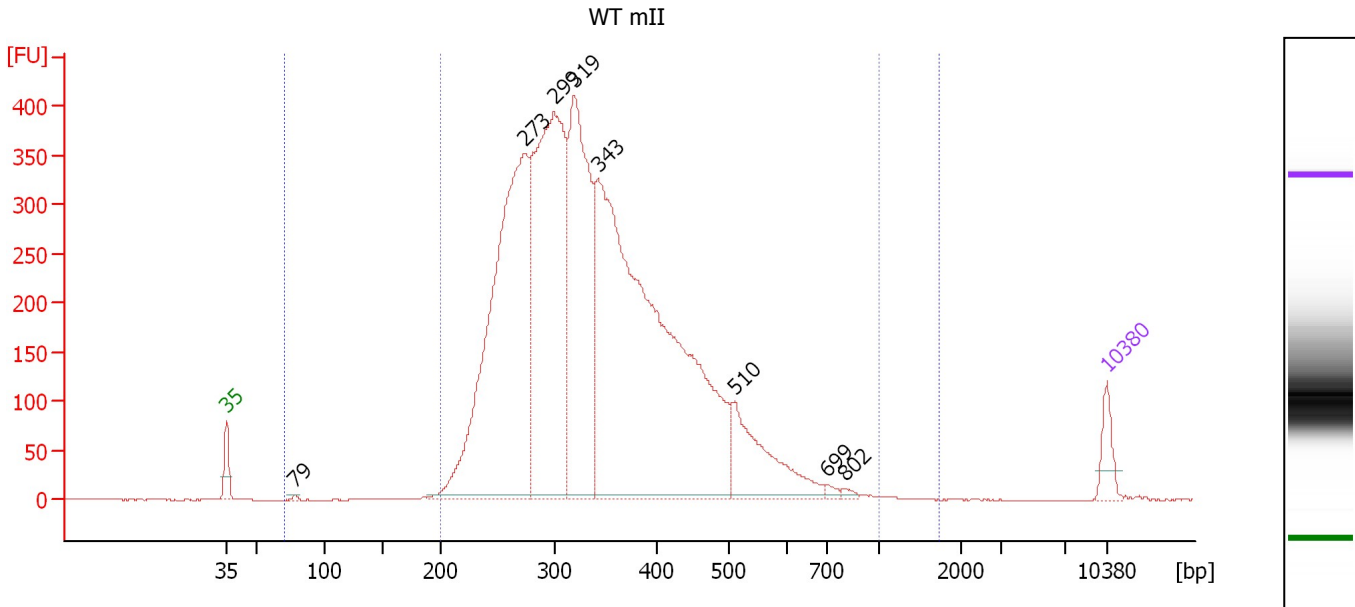
Peak table for Ladder

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	45.34
3	100	150.00	2,272.7	Ladder Peak	50.79
4	150	150.00	1,515.2	Ladder Peak	55.43
5	200	150.00	1,136.4	Ladder Peak	60.04
6	300	150.00	757.6	Ladder Peak	69.12
7	400	150.00	568.2	Ladder Peak	77.20
8	500	150.00	454.5	Ladder Peak	82.90
9	600	150.00	378.8	Ladder Peak	87.63
10	700	150.00	324.7	Ladder Peak	90.81
11	1,000	150.00	227.3	Ladder Peak	94.83
12	2,000	150.00	113.6	Ladder Peak	101.40
13	3,000	150.00	75.8	Ladder Peak	104.67
14	7,000	150.00	32.5	Ladder Peak	109.69
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
 Modified: 7/12/2016 3:01:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : WT mII

Number of peaks found: 8 Corr. Area 1: 8,115.7
 Noise: 0.3 Corr. Area 2: 8,139.8

Peak table for sample 1 : WT mII

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	79	9.66	186.0		48.47
3	273	2,430.17	13,494.5		66.66
4	299	2,060.99	10,444.2		69.03
5	319	1,334.69	6,332.8		70.69
6	343	3,460.46	15,288.6		72.59
7	510	439.12	1,305.0		83.36
8	699	17.98	39.0		90.78
9	802	15.45	29.2		92.18
10	10,380	75.00	10.9	Upper Marker	113.00

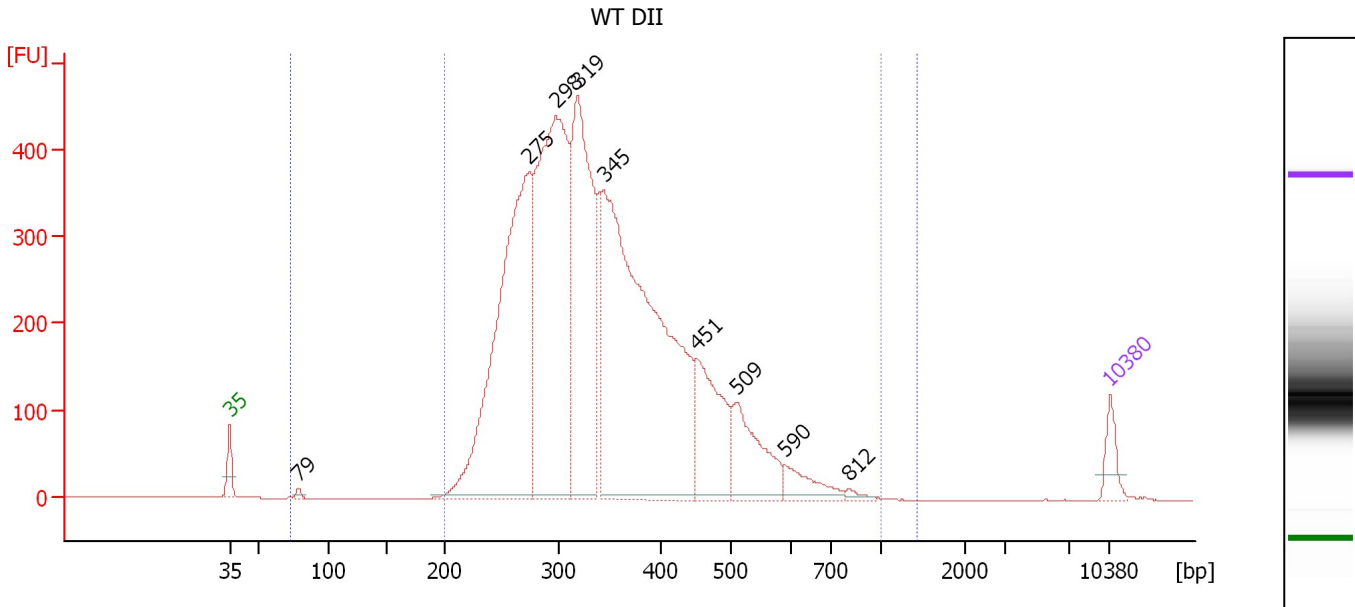
Region table for sample 1 : WT mII

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
71	1,737	348	8,139.8	45,304.6	9,566.03	100	27.5
200	1,000	348	8,115.7	44,997.5	9,534.50	100	26.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
 Modified: 7/12/2016 3:01:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : WT DII

Number of peaks found: 9 Corr. Area 1: 8,648.1
 Noise: 0.3 Corr. Area 2: 8,662.5

Peak table for sample 2 : WT DII

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	79	19.35	372.5		48.47
3	275	2,285.29	12,603.8		66.83
4	298	2,181.53	11,089.6		68.95
5	319	1,434.19	6,804.9		70.69
6	345	2,834.37	12,446.3		72.76
7	451	526.63	1,769.9		80.10
8	509	378.73	1,127.5		83.32
9	590	131.09	336.9		87.14
10	812	19.57	36.5		92.31
11	10,380	75.00	10.9	Upper Marker	113.00

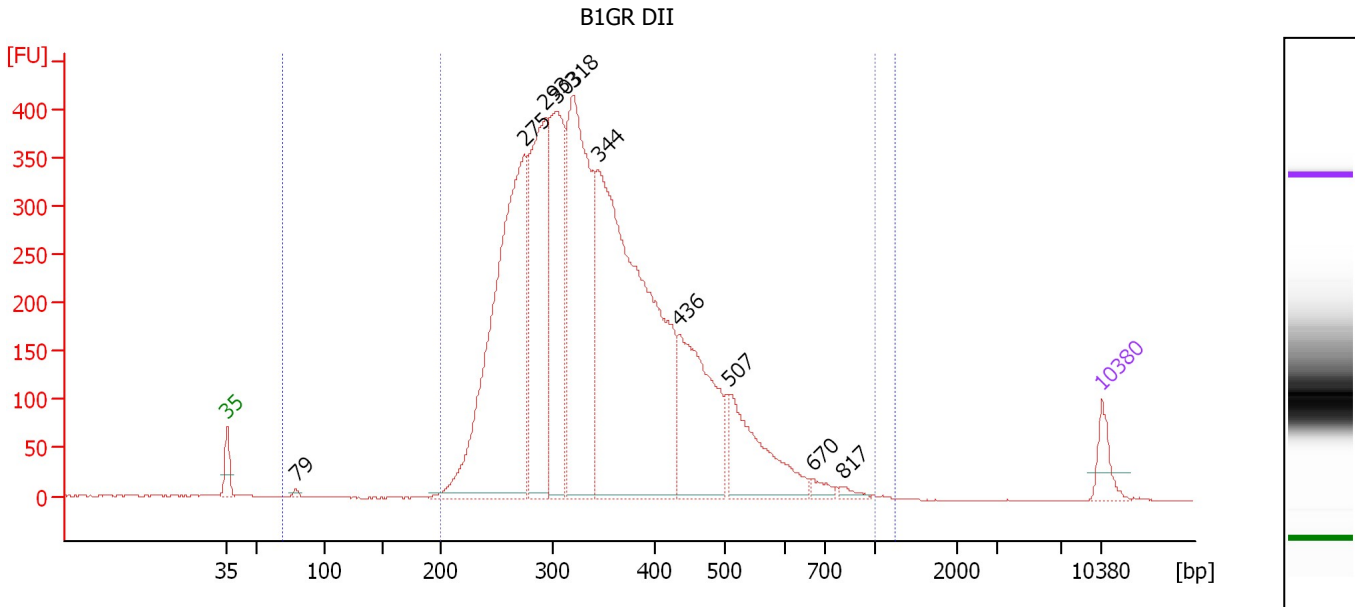
Region table for sample 2 : WT DII

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
72	1,430	350	8,662.5	46,078.7	9,804.60	100	26.1
200	1,000	350	8,648.1	45,737.4	9,784.07	100	25.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
 Modified: 7/12/2016 3:01:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : B1GR DII

Number of peaks found: 10 Corr. Area 1: 8,281.7
 Noise: 0.5 Corr. Area 2: 8,299.7

Peak table for sample 3 : B1GR DII

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	79	13.99	266.8		48.55
3	275	2,092.32	11,544.6		66.82
4	293	1,164.47	6,023.2		68.48
5	303	977.57	4,894.6		69.34
6	318	1,512.93	7,198.2		70.62
7	344	2,654.30	11,679.3		72.71
8	436	746.91	2,597.3		79.24
9	507	455.35	1,359.6		83.25
10	670	36.13	81.7		89.87
11	817	22.82	42.3		92.38
12	10,380	75.00	10.9	Upper Marker	113.00

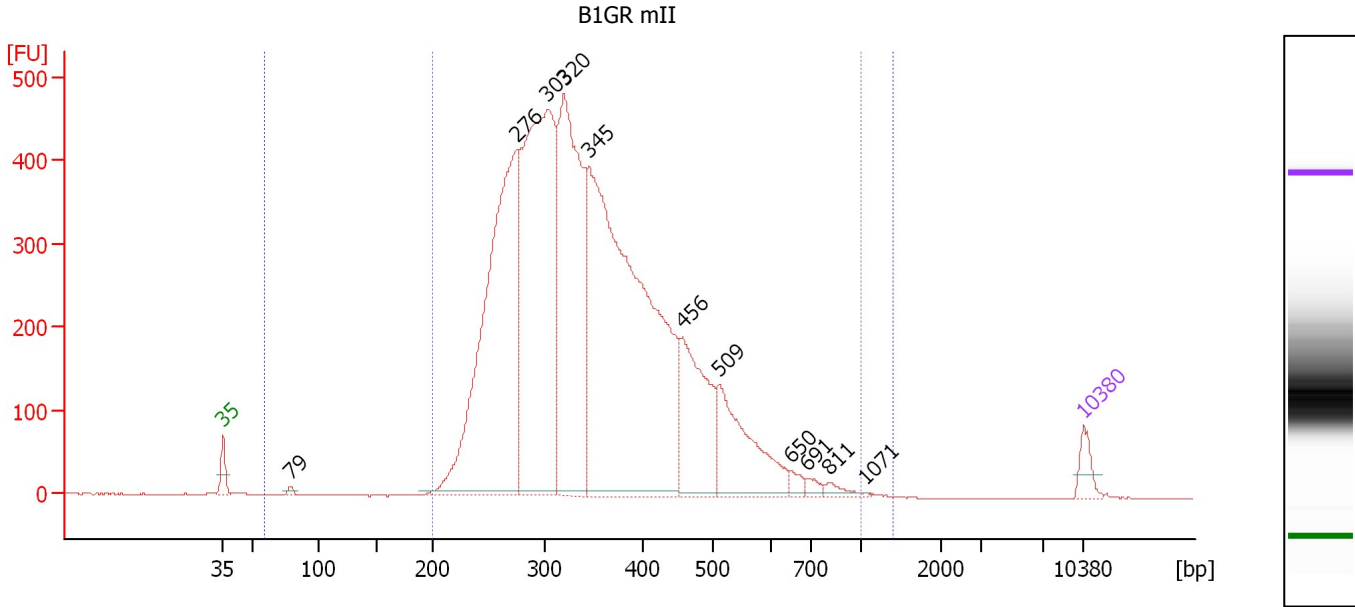
Region table for sample 3 : B1GR DII

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
70	1,248	353	8,299.7	45,260.7	9,686.19	100	27.3
200	1,000	353	8,281.7	44,943.7	9,662.36	99	26.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
 Modified: 7/12/2016 3:01:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : B1GR mII

Number of peaks found: 11 Corr. Area 1: 9,711.9
 Noise: 0.3 Corr. Area 2: 9,734.5

Peak table for sample 4 : B1GR mII

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	79	21.43	410.6		48.51
3	276	2,894.04	15,907.6		66.91
4	303	2,866.07	14,320.8		69.39
5	320	2,152.66	10,196.3		70.73
6	345	4,040.15	17,736.8		72.77
7	456	754.64	2,510.2		80.37
8	509	672.08	2,001.3		83.32
9	650	46.15	107.6		89.22
10	691	37.82	82.9		90.52
11	811	41.88	78.2		92.30
12	1,071	3.43	4.9		95.29
13	10,380	75.00	10.9	Upper Marker	113.00

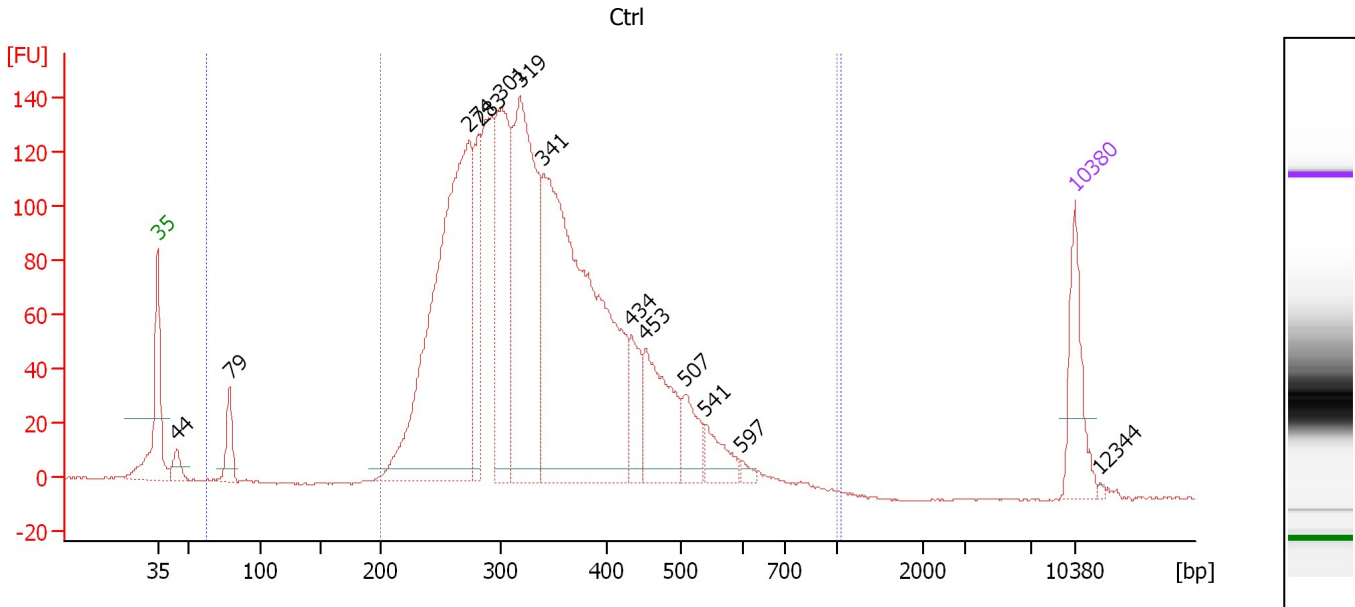
Region table for sample 4 : B1GR mII

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
60	1,403	356	9,734.5	62,377.3	13,419.91	100	28.1
200	1,000	356	9,711.9	61,953.3	13,386.03	100	27.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
 Modified: 7/12/2016 3:01:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Ctrl

Number of peaks found: 13 Corr. Area 1: 2,837.3
 Noise: 0.2 Corr. Area 2: 2,879.3

Peak table for sample 5 : Ctrl

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	44	29.30	1,003.9		44.44
3	79	57.71	1,106.7		48.50
4	274	763.60	4,223.7		66.76
5	283	135.57	725.7		67.59
6	301	288.19	1,448.3		69.24
7	319	467.20	2,216.8		70.69
8	341	816.62	3,629.1		72.43
9	434	68.74	239.8		79.16
10	453	144.27	482.0		80.25
11	507	56.51	168.9		83.22
12	541	44.29	124.0		84.83
13	597	8.42	21.4		87.50
14	10,380	75.00	10.9	Upper Marker	113.00
15	12,344	0.00	0.0		114.92

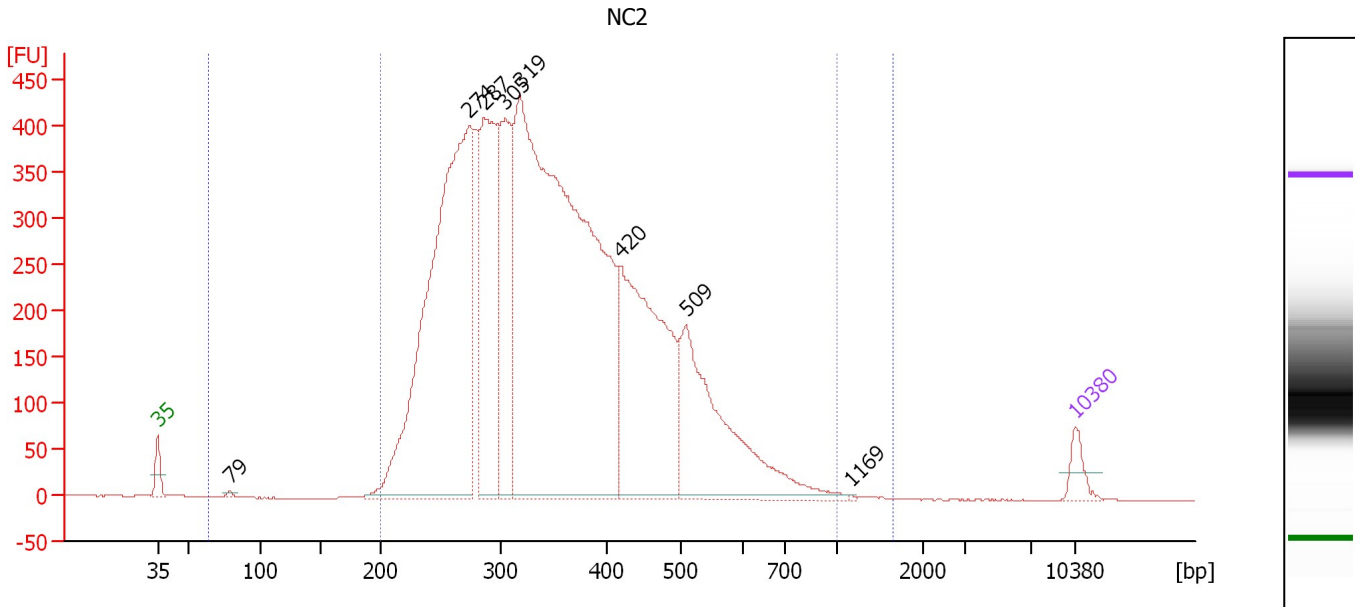
Region table for sample 5 : Ctrl

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
62	1,053	343	2,879.3	15,797.9	3,163.06	99	27.0
200	1,000	346	2,837.3	14,675.1	3,102.41	98	25.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
 Modified: 7/12/2016 3:01:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : NC2

Number of peaks found: 8 Corr. Area 1: 10,083.4
 Noise: 0.3 Corr. Area 2: 10,114.4

Peak table for sample 6 : NC2

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	79	14.26	273.3		48.51
3	274	3,548.10	19,619.8		66.76
4	287	1,280.45	6,766.5		67.92
5	305	918.66	4,557.6		69.56
6	319	5,441.74	25,834.8		70.67
7	420	1,570.88	5,664.1		78.36
8	509	1,202.85	3,579.7		83.33
9	1,169	3.05	4.0		95.94
10	10,380	75.00	10.9	Upper Marker	113.00

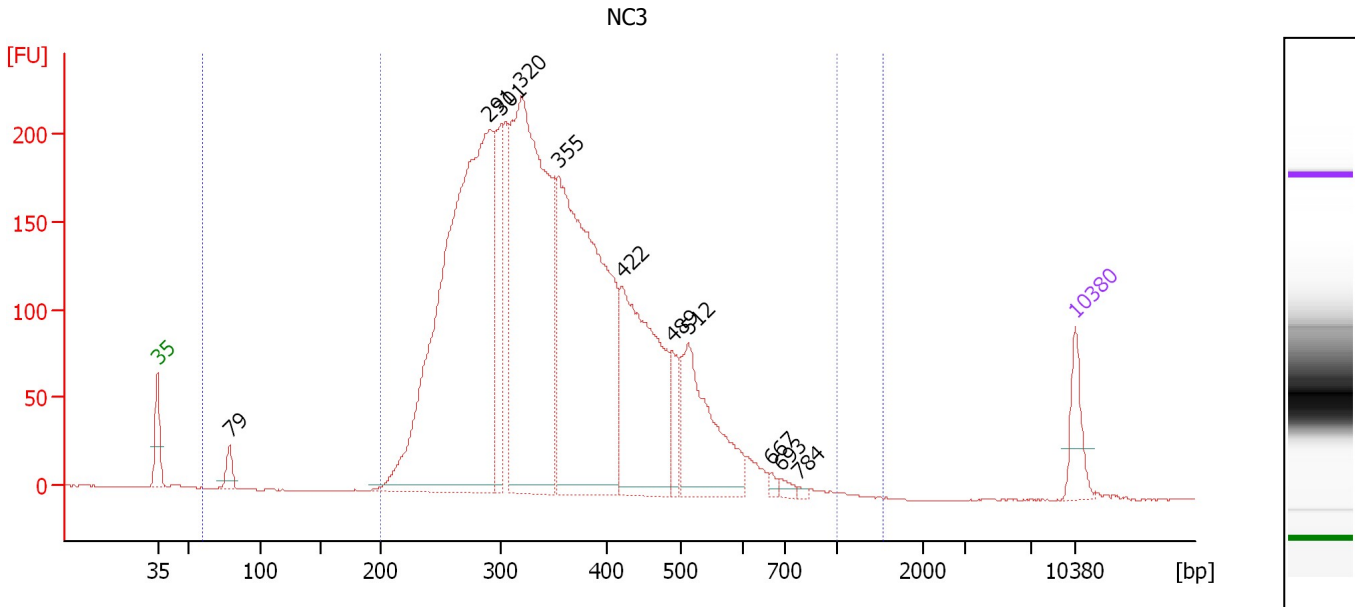
Region table for sample 6 : NC2

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
64	1,651	362	10,114.3	64,916.2	13,991.35	100	30.6
200	1,000	361	10,083.4	64,581.7	13,948.84	100	28.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
 Modified: 7/12/2016 3:01:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : NC3

Number of peaks found: 11 Corr. Area 1: 4,621.0
 Noise: 0.2 Corr. Area 2: 4,647.6

Peak table for sample 7 : NC3

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	79	52.72	1,012.3		48.49
3	291	2,037.15	10,591.9		68.34
4	301	283.31	1,423.8		69.24
5	320	1,459.29	6,912.3		70.73
6	355	1,357.02	5,792.3		73.57
7	422	653.54	2,345.0		78.47
8	489	87.25	270.5		82.25
9	512	383.80	1,135.6		83.47
10	667	11.39	25.9		89.77
11	693	15.82	34.6		90.58
12	784	6.50	12.6		91.93
13	10,380	75.00	10.9	Upper Marker	113.00

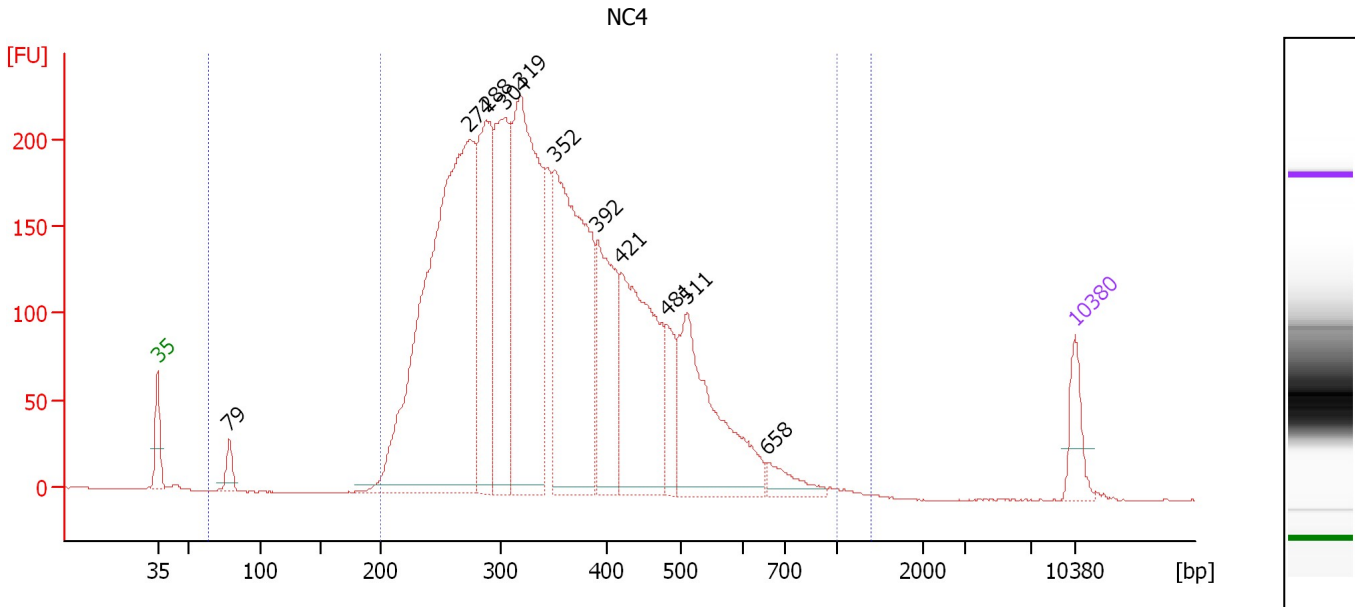
Region table for sample 7 : NC3

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
60	1,530	358	4,647.6	30,706.1	6,544.56	100	26.4
200	1,000	358	4,621.0	29,776.6	6,494.96	99	25.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
 Modified: 7/12/2016 3:01:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : NC4

Number of peaks found: 11 Corr. Area 1: 5,260.8
 Noise: 0.3 Corr. Area 2: 5,303.2

Peak table for sample 8 : NC4

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	79	59.31	1,139.6		48.49
3	274	1,932.01	10,666.6		66.80
4	288	582.42	3,059.8		68.07
5	304	571.53	2,845.2		69.48
6	319	1,033.85	4,911.3		70.66
7	352	995.23	4,283.2		73.33
8	392	396.41	1,532.6		76.55
9	421	610.84	2,197.7		78.41
10	481	131.77	415.2		81.81
11	511	530.97	1,572.9		83.44
12	658	70.82	163.1		89.47
13	10,380	75.00	10.9	Upper Marker	113.00

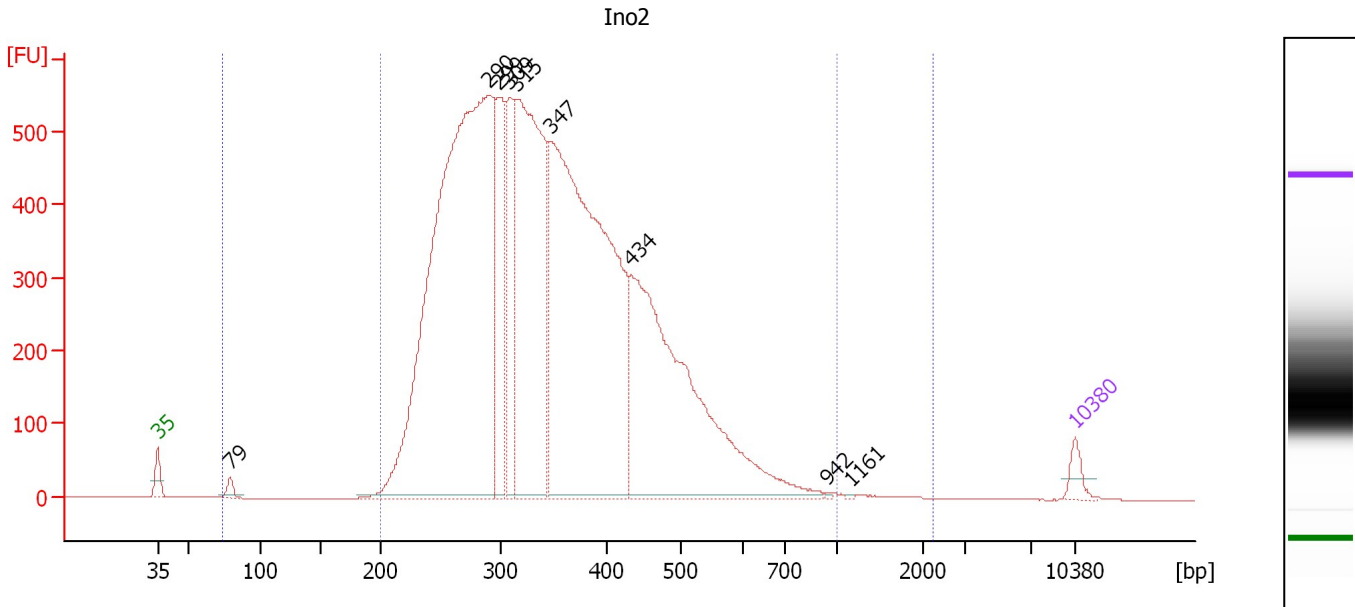
Region table for sample 8 : NC4

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
64	1,403	359	5,303.2	33,947.1	7,117.73	100	30.7
200	1,000	359	5,260.8	32,832.3	7,048.31	99	28.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
 Modified: 7/12/2016 3:01:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : Ino2

Number of peaks found: 9 Corr. Area 1: 12,881.4
 Noise: 0.2 Corr. Area 2: 12,952.1

Peak table for sample 9 : Ino2

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	79	64.02	1,225.2		48.52
3	290	6,830.51	35,703.6		68.20
4	299	919.73	4,661.0		69.03
5	309	784.33	3,844.7		69.86
6	315	2,783.82	13,375.0		70.37
7	347	4,962.64	21,654.5		72.94
8	434	3,004.36	10,484.6		79.15
9	942	7.36	11.8		94.05
10	1,161	6.25	8.2		95.89
11	10,380	75.00	10.9	Upper Marker	113.00

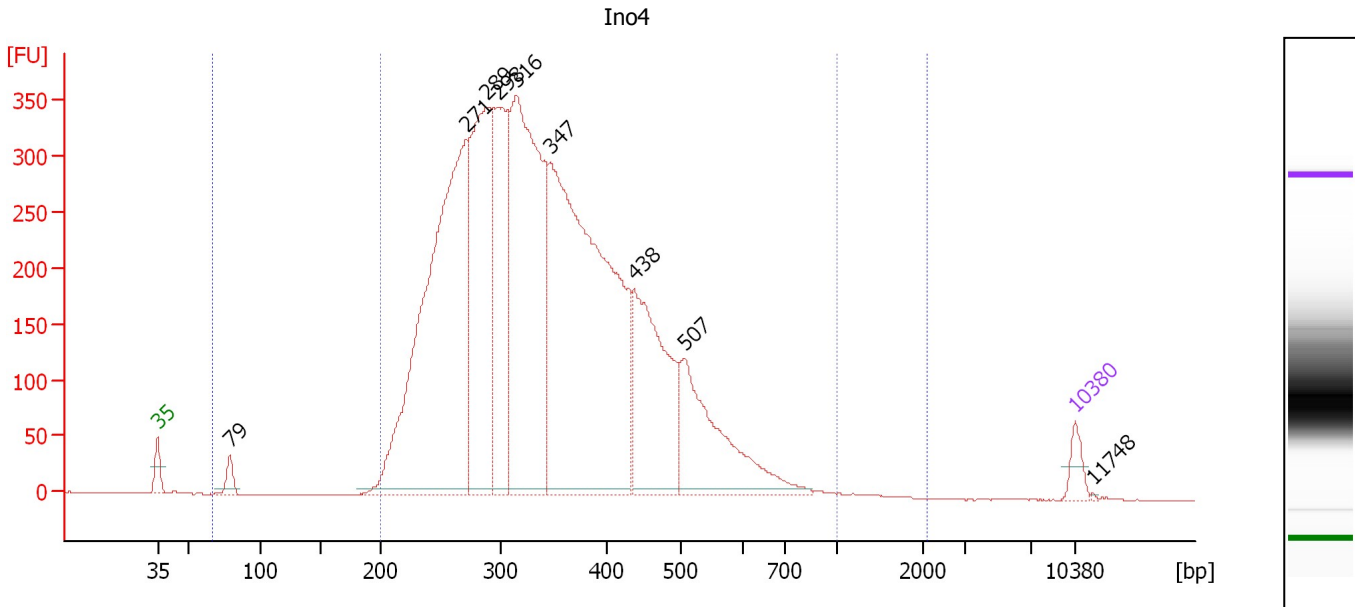
Region table for sample 9 : Ino2

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
74	2,226	358	12,952.1	91,356.2	19,447.01	100	33.0
200	1,000	355	12,881.4	90,095.4	19,338.22	99	27.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
 Modified: 7/12/2016 3:01:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : Ino4

Number of peaks found: 9 Corr. Area 1: 7,963.2
 Noise: 0.3 Corr. Area 2: 8,026.7

Peak table for sample 10 : Ino4

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	79	99.78	1,905.6		48.54
3	271	3,449.55	19,252.3		66.53
4	289	1,810.14	9,498.3		68.10
5	298	1,197.61	6,081.0		68.98
6	316	2,527.41	12,122.1		70.41
7	347	3,715.31	16,208.0		72.95
8	438	1,127.17	3,900.2		79.36
9	507	897.39	2,680.9		83.24
10	10,380	75.00	10.9	Upper Marker	113.00
11	11,748	0.00	0.0		114.34

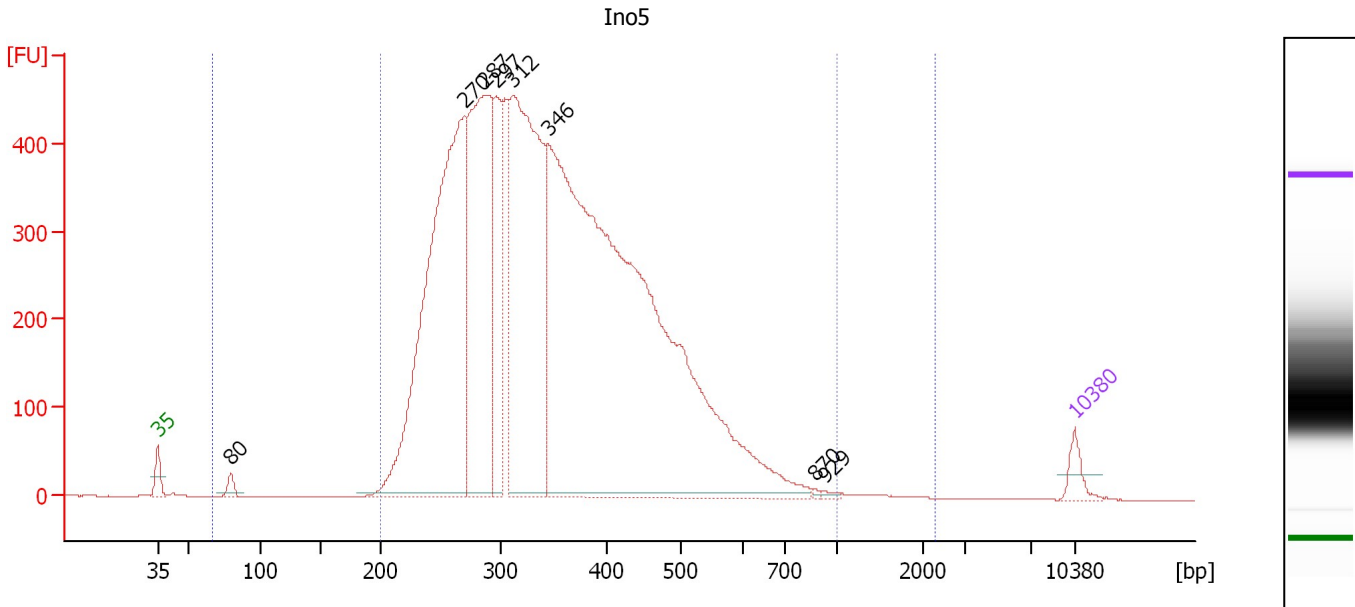
Region table for sample 10 : Ino4

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
67	2,081	354	8,026.7	70,930.6	14,799.72	100	31.3
200	1,000	353	7,963.2	68,939.7	14,663.19	99	27.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
 Modified: 7/12/2016 3:01:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : Ino5

Number of peaks found: 8 Corr. Area 1: 10,709.7
 Noise: 0.2 Corr. Area 2: 10,777.6

Peak table for sample 11 : Ino5

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	80	66.43	1,262.3		48.58
3	270	3,725.08	20,907.0		66.40
4	287	2,164.50	11,432.7		67.93
5	297	695.49	3,553.1		68.81
6	312	2,769.28	13,461.3		70.07
7	346	7,551.02	33,098.6		72.81
8	870	10.12	17.6		93.09
9	929	12.99	21.2		93.88
10	10,380	75.00	10.9	Upper Marker	113.00

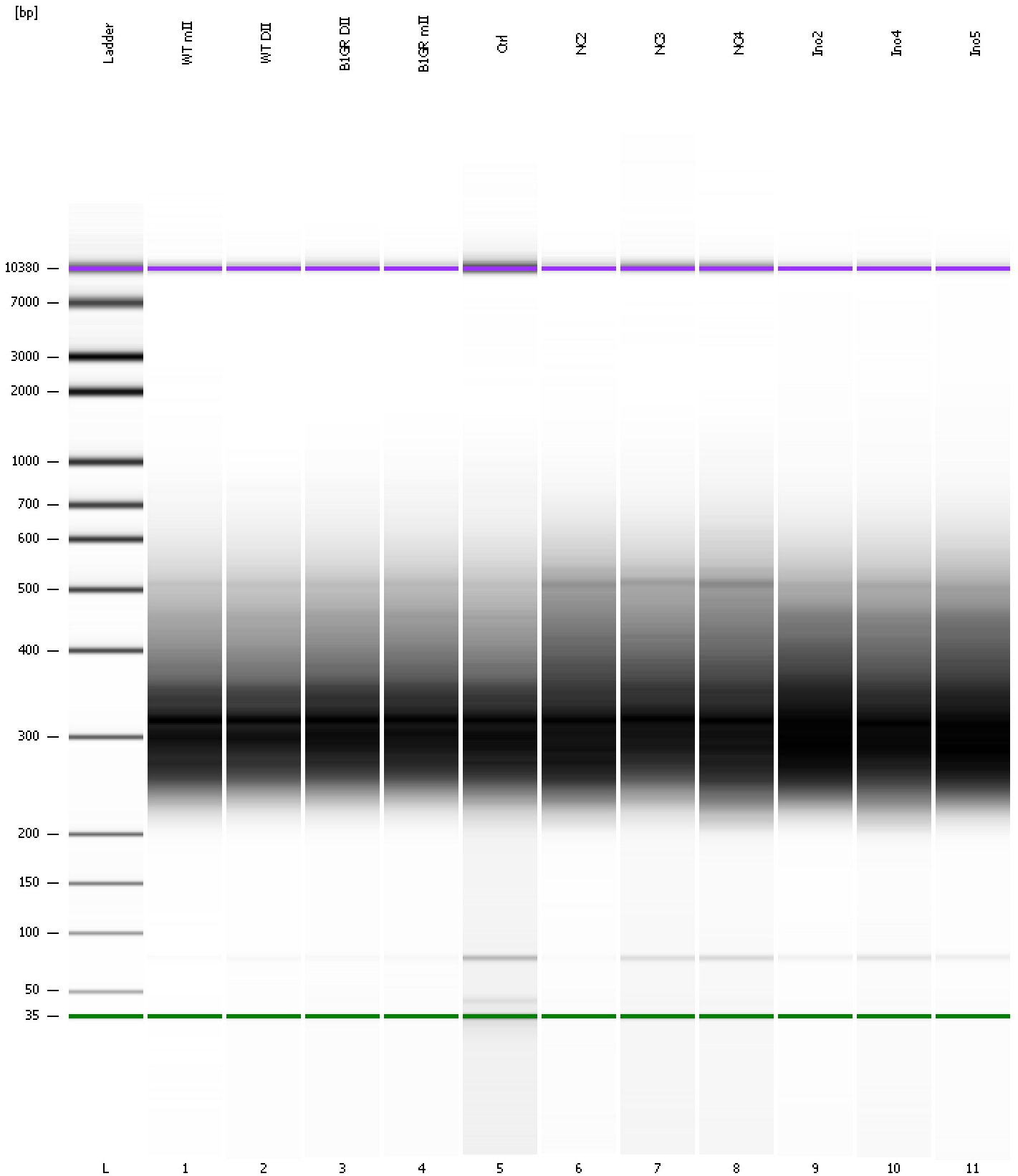
Region table for sample 11 : Ino5

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
67	2,297	361	10,777.6	78,598.0	16,735.96	100	34.2
200	1,000	357	10,709.7	77,298.8	16,626.19	99	27.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
Modified: 7/12/2016 3:01:26 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-07-12\2016-07-12_003.xad

Created: 7/12/2016 2:19:00 PM
 Modified: 7/12/2016 3:01:26 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		7/12/2016 2:59:28 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\2016-07-12\2016-07-12_003.xad)		Instrument	Run		7/12/2016 2:19:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		7/12/2016 2:19:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/12/2016 2:19:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/12/2016 2:19:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		7/12/2016 2:19:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/12/2016 2:19:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/12/2016 2:19:05 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1