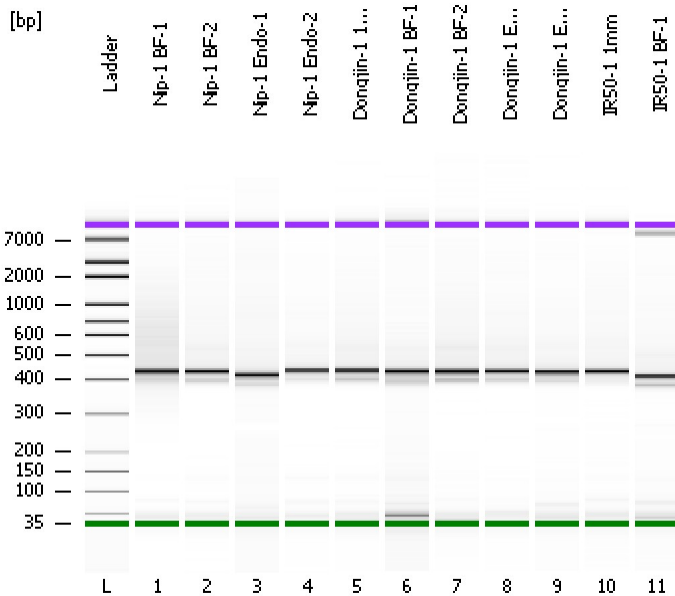


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
Modified: 7/12/2012 9:54:17 AM

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

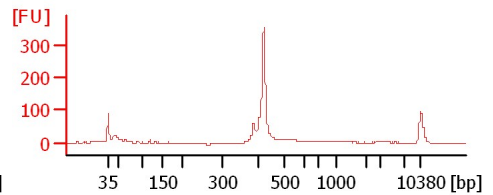
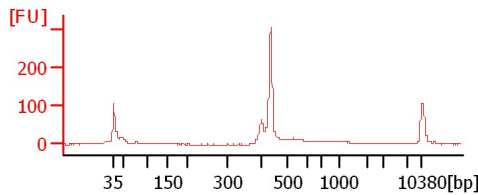
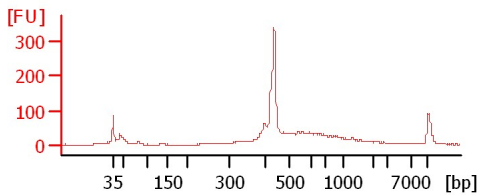
Chip Information:

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

Nip-1 BF-1

Nip-1 BF-2

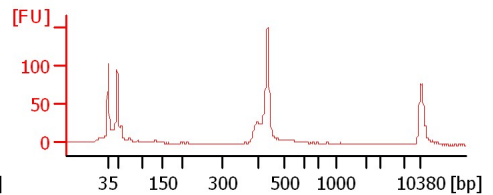
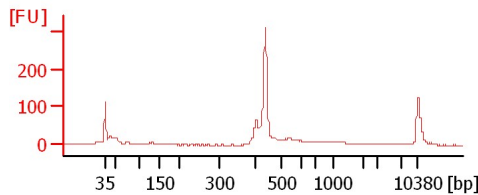
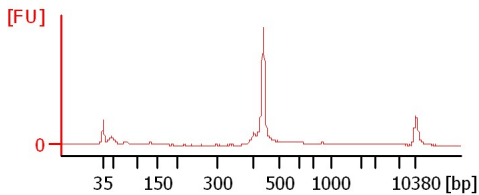
Nip-1 Endo-1



Nip-1 Endo-2

Dongjin-1 1mm

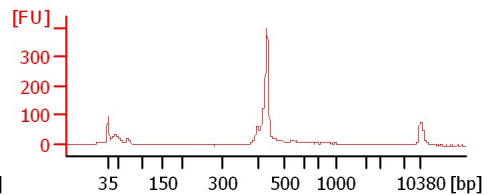
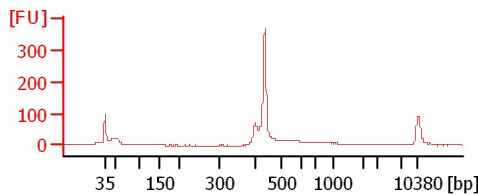
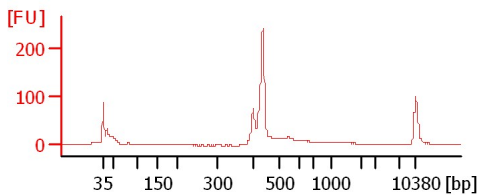
Dongjin-1 BF-1



Dongjin-1 BF-2

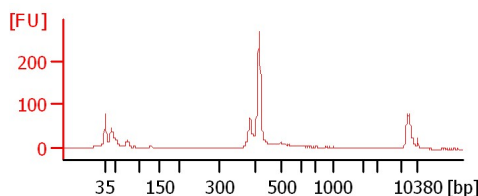
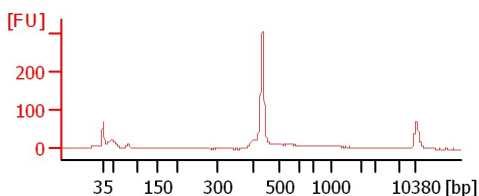
Dongjin-1 Endo-1

Dongjin-1 Endo2



IR50-1 1mm

IR50-1 BF-1



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
 Modified: 7/12/2012 9:54:17 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Nip-1 BF-1		<input type="checkbox"/>	✓			
Nip-1 BF-2		<input type="checkbox"/>	✓			
Nip-1 Endo-1		<input type="checkbox"/>	✓			
Nip-1 Endo-2		<input type="checkbox"/>	✓			
Dongjin-1 1mm		<input type="checkbox"/>	✓			
Dongjin-1 BF-1		<input type="checkbox"/>	✓			
Dongjin-1 BF-2		<input type="checkbox"/>	✓			
Dongjin-1 Endo-1		<input type="checkbox"/>	✓			
Dongjin-1 Endo2		<input type="checkbox"/>	✓			
IR50-1 1mm		<input type="checkbox"/>	✓			
IR50-1 BF-1		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
Modified: 7/12/2012 9:54:17 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

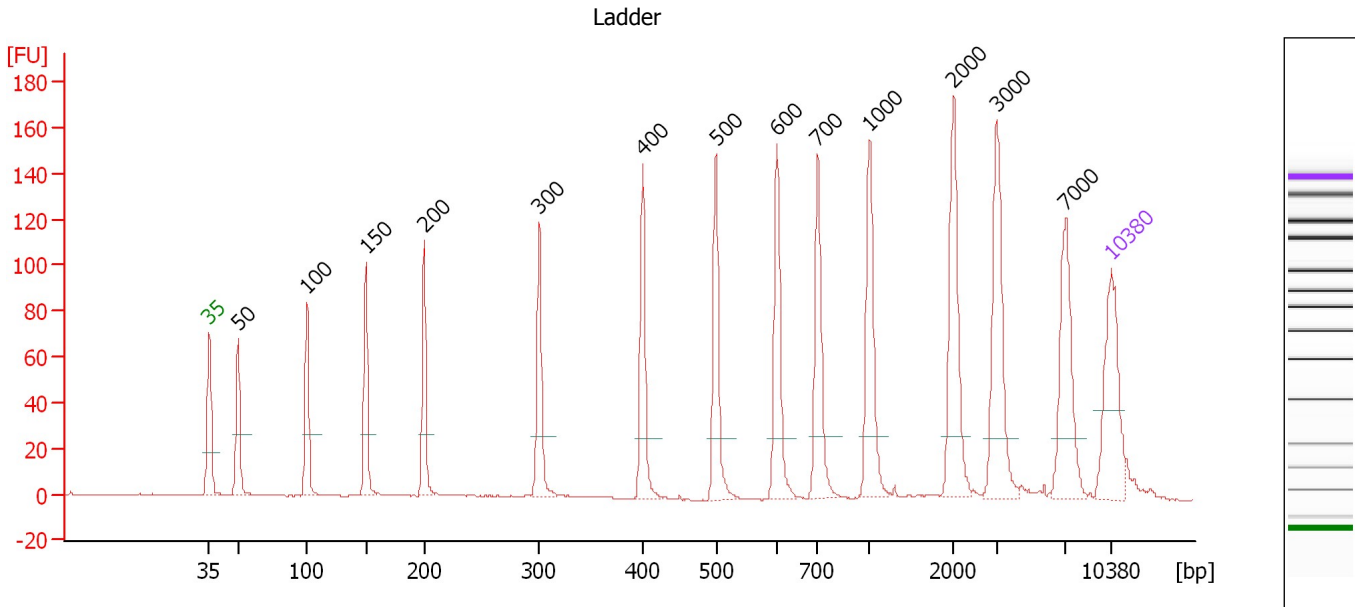
Ladder

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:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
 Modified: 7/12/2012 9:54:17 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

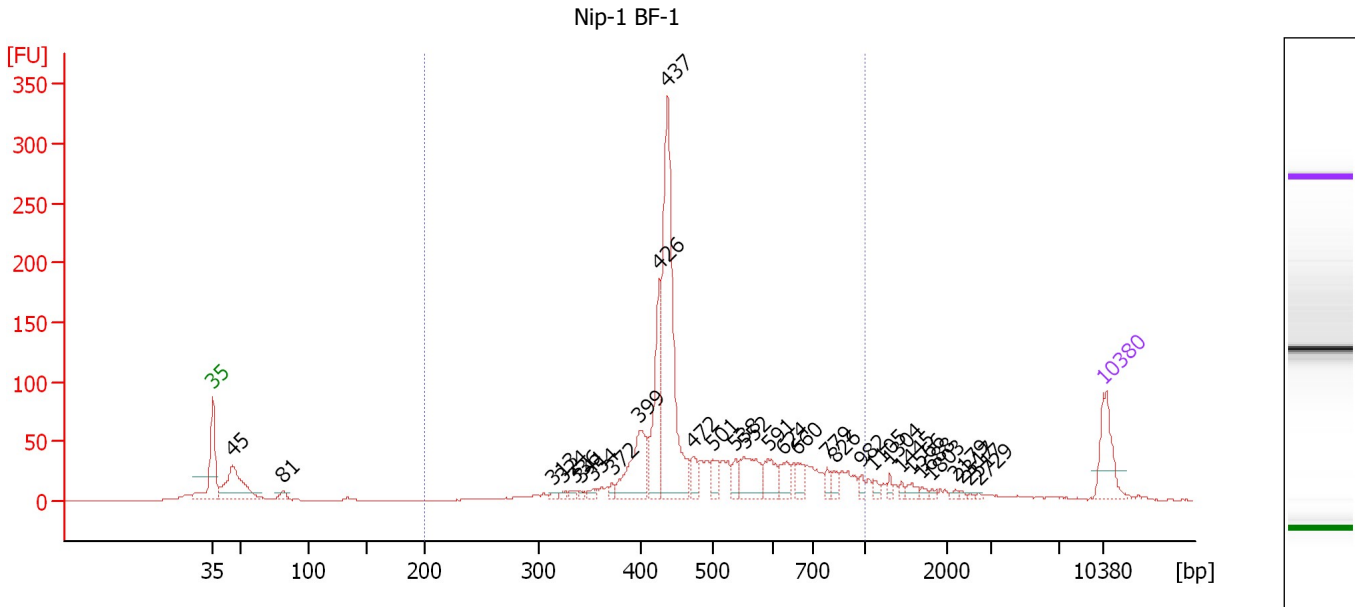
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
 Modified: 7/12/2012 9:54:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Nip-1 BF-1

Number of peaks found: 31 Corr. Area 1: 1,297.8
 Noise: 0.2

Peak table for sample 1 : Nip-1 BF-1


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	45	187.38	6,252.4	
3	81	15.69	293.9	
4	313	7.58	36.6	
5	324	6.27	29.4	
6	336	8.02	36.2	
7	341	6.65	29.6	
8	354	11.68	50.0	
9	372	11.34	46.2	
10	399	148.46	563.7	
11	426	176.55	628.0	
12	437	497.71	1,725.6	
13	472	37.30	119.8	
14	501	36.15	109.4	
15	538	28.73	81.0	
16	552	83.14	228.3	
17	591	49.70	127.3	
18	624	37.52	91.1	
19	660	27.65	63.4	
20	779	16.27	31.6	
21	826	17.62	32.3	
22	982	11.59	17.9	
23	1,105	9.84	13.5	
24	1,304	8.60	10.0	
25	1,445	6.75	7.1	
26	1,566	12.61	12.2	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad


Created: 7/12/2012 9:12:53 AM
 Modified: 7/12/2012 9:54:17 AM

Electropherogram Summary Continued ...

... Peak table for sample 1 : Nip-1 BF-1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	1,688	6.30	5.7	
28	1,803	4.63	3.9	
29	2,179	4.64	3.2	
30	2,317	3.77	2.5	
31	2,517	2.26	1.4	
32	2,729	2.31	1.3	
33	 10,380	75.00	10.9	Upper Marker

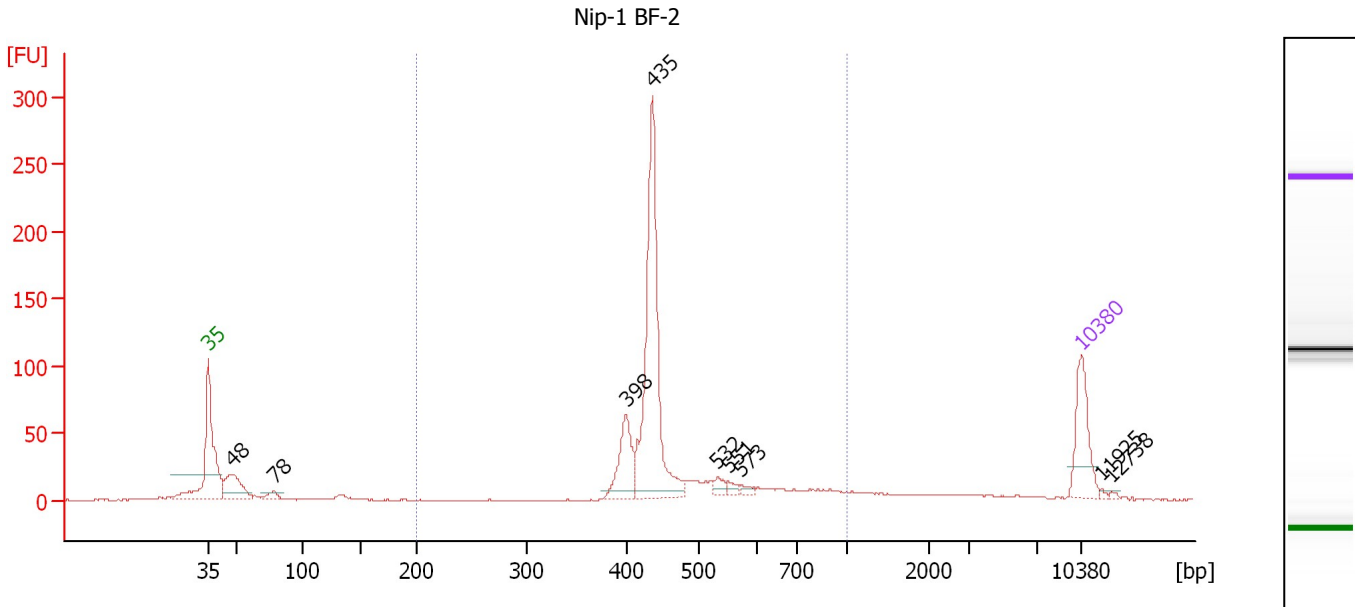
Region table for sample 1 : Nip-1 BF-1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	504	4,904.1	1,503.56	1,297.8	81	27.4	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
 Modified: 7/12/2012 9:54:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : Nip-1 BF-2

Number of peaks found: 9 Corr. Area 1: 698.1
 Noise: 0.4

Peak table for sample 2 : Nip-1 BF-2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	100.48	3,195.5	
3	78	17.81	344.2	
4	398	95.95	364.9	
5	435	407.82	1,419.1	
6	532	13.53	38.5	
7	551	10.08	27.7	
8	573	7.54	19.9	
9	10,380	75.00	10.9	Upper Marker
10	11,925	0.00	0.0	
11	12,738	0.00	0.0	

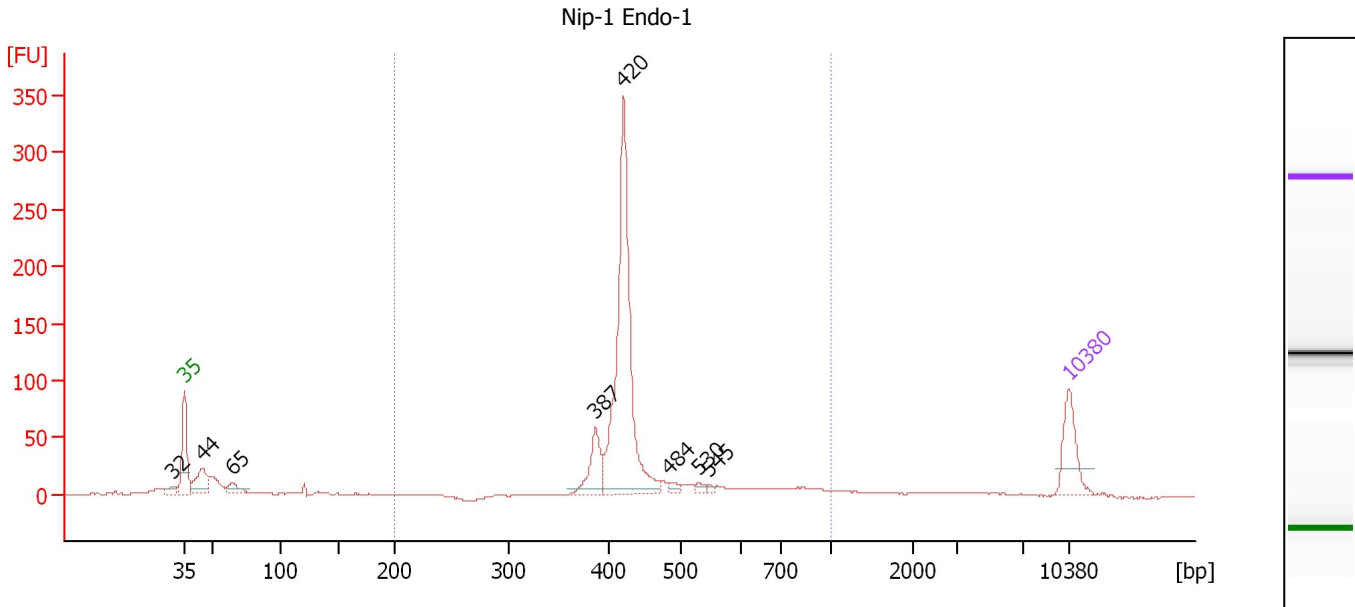
Region table for sample 2 : Nip-1 BF-2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	475	2,173.4	652.09	698.1	78	22.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
 Modified: 7/12/2012 9:54:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : Nip-1 Endo-1

Number of peaks found: 8 Corr. Area 1: 777.3
 Noise: 0.3

Peak table for sample 3 : Nip-1 Endo-1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	32	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	44	93.58	3,195.1	
4	65	36.25	849.6	
5	387	89.46	350.7	
6	420	583.10	2,102.3	
7	484	12.11	37.9	
8	530	10.02	28.7	
9	545	4.82	13.4	
10	10,380	75.00	10.9	Upper Marker

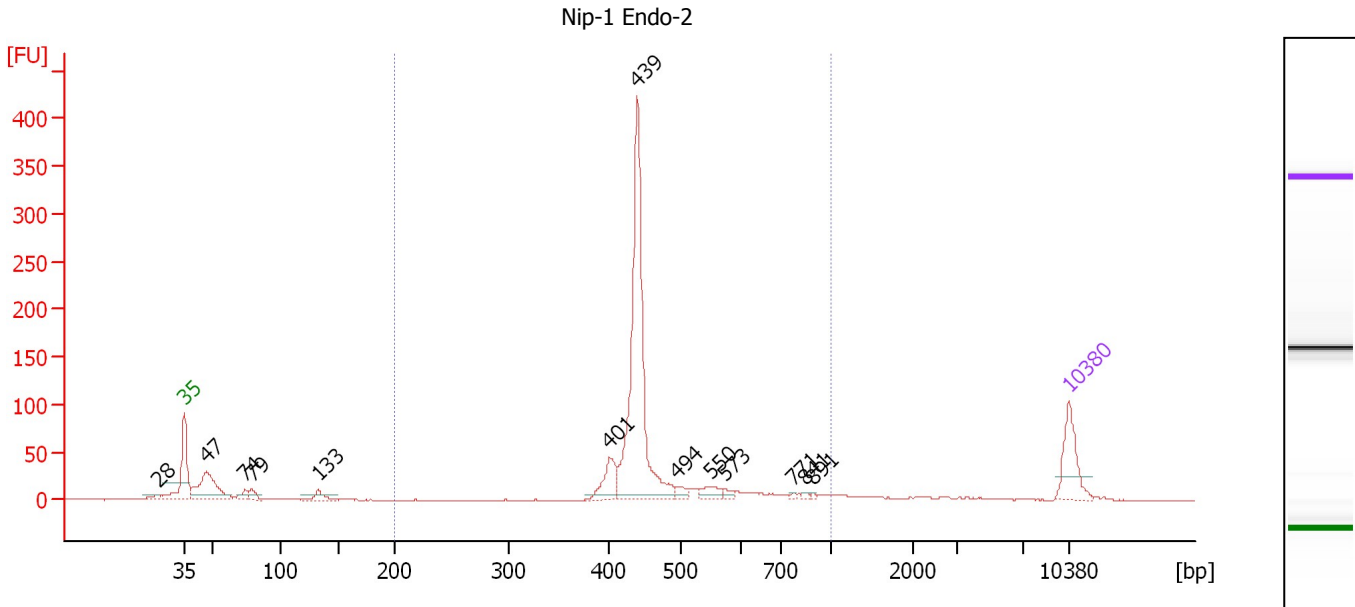
Region table for sample 3 : Nip-1 Endo-1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	454	2,892.2	827.89	777.3	75	22.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
 Modified: 7/12/2012 9:54:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Nip-1 Endo-2

Number of peaks found: 13 Corr. Area 1: 799.1
 Noise: 0.3

Peak table for sample 4 : Nip-1 Endo-2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	28	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	47	175.21	5,660.5	
4	74	23.24	476.6	
5	79	22.77	435.2	
6	133	26.70	304.5	
7	401	70.60	267.0	
8	439	573.41	1,979.3	
9	494	17.08	52.3	
10	550	24.84	68.4	
11	573	9.24	24.5	
12	771	2.93	5.8	
13	841	3.78	6.8	
14	891	2.53	4.3	
15	10,380	75.00	10.9	Upper Marker

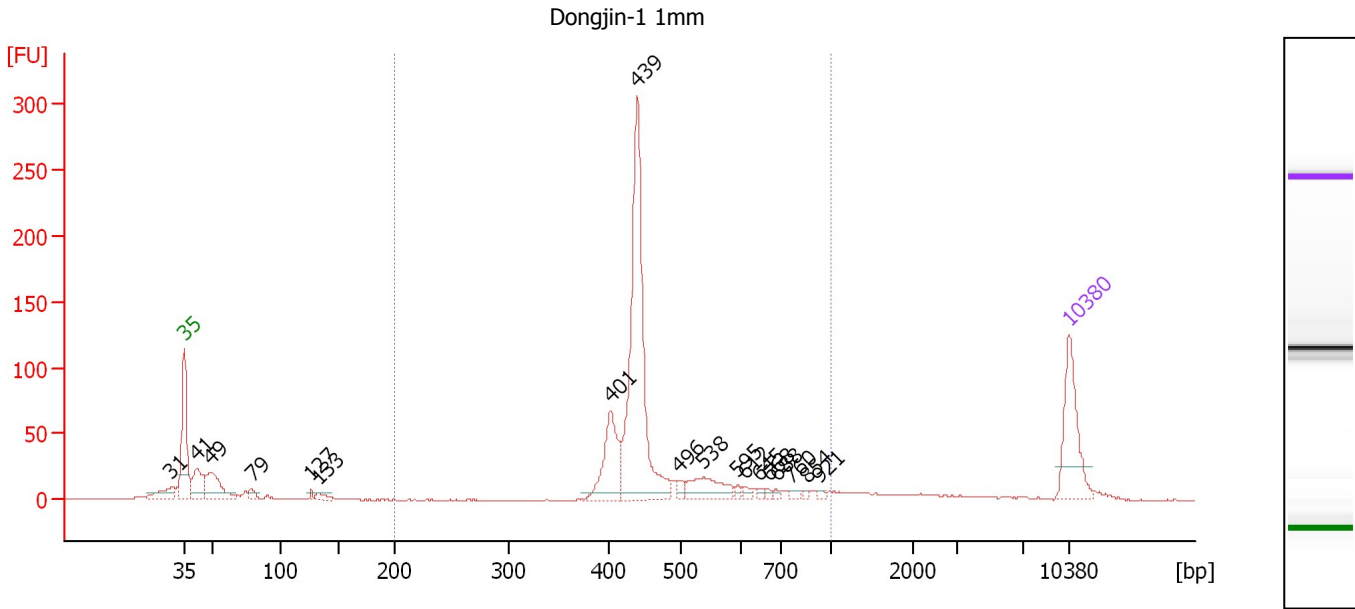
Region table for sample 4 : Nip-1 Endo-2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	473	2,606.7	784.85	799.1	73	20.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
 Modified: 7/12/2012 9:54:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Dongjin-1 1mm

Number of peaks found: 18 Corr. Area 1: 738.7
 Noise: 0.3

Peak table for sample 5 : Dongjin-1 1mm

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	41	61.34	2,247.4	
4	49	81.99	2,523.6	
5	79	13.39	257.1	
6	127	5.13	61.4	
7	133	11.20	127.7	
8	401	97.70	368.8	
9	439	366.85	1,266.7	
10	496	8.43	25.7	
11	538	48.80	137.4	
12	595	4.95	12.6	
13	612	6.24	15.5	
14	645	4.40	10.3	
15	668	3.49	7.9	
16	688	3.56	7.8	
17	760	4.60	9.2	
18	854	2.74	4.9	
19	921	3.09	5.1	
20	10,380	75.00	10.9	Upper Marker

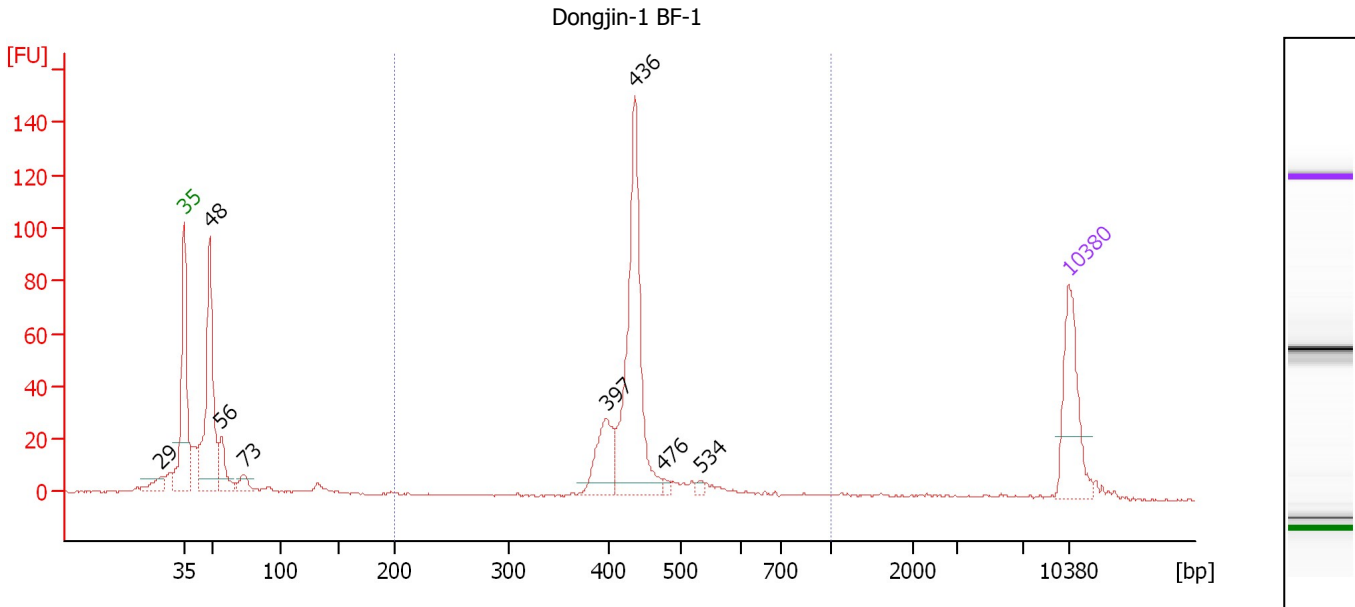
Region table for sample 5 : Dongjin-1 1mm

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	478	1,947.7	588.53	738.7	71	22.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
 Modified: 7/12/2012 9:54:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Dongjin-1 BF-1

Number of peaks found: 8 Corr. Area 1: 344.0
 Noise: 0.4

Peak table for sample 6 : Dongjin-1 BF-1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	29	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	48	241.03	7,536.7	
4	56	48.28	1,297.6	
5	73	19.14	397.1	
6	397	71.32	272.3	
7	436	255.70	889.1	
8	476	4.75	15.1	
9	534	5.04	14.3	
10	10,380	75.00	10.9	Upper Marker

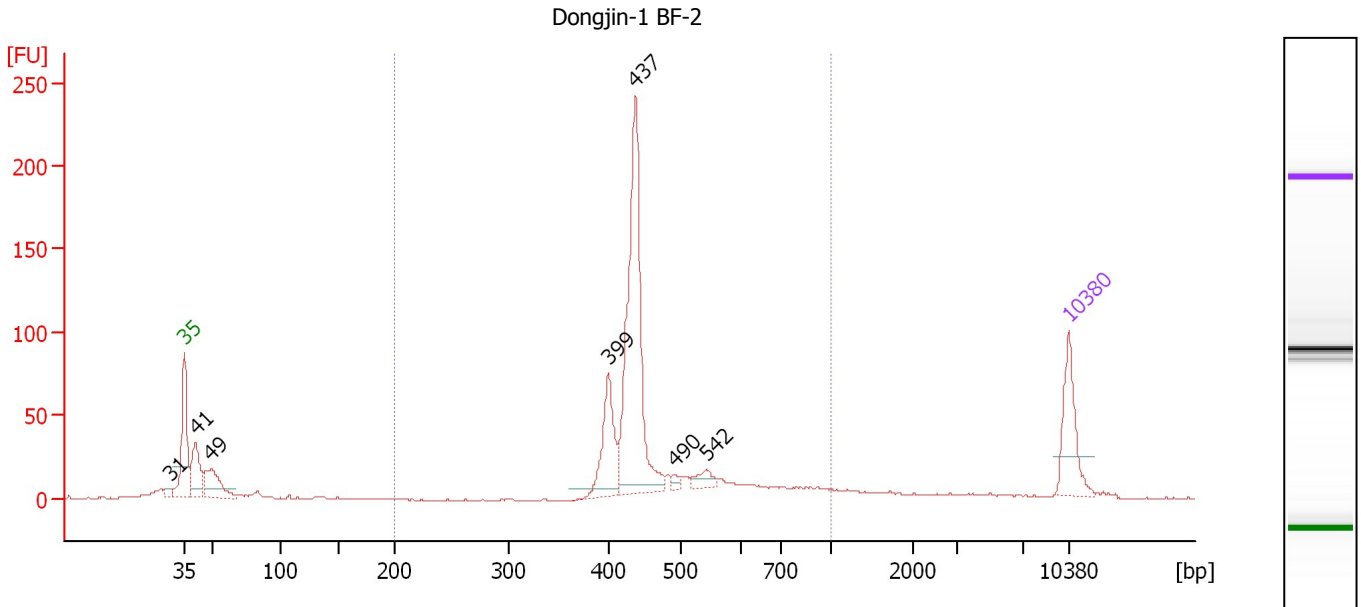
Region table for sample 6 : Dongjin-1 BF-1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	445	1,297.9	373.46	344.0	53	14.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
 Modified: 7/12/2012 9:54:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : Dongjin-1 BF-2

Number of peaks found: 7 Corr. Area 1: 652.8
 Noise: 0.2

Peak table for sample 7 : Dongjin-1 BF-2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	41	99.47	3,687.5	
4	49	96.33	2,965.6	
5	399	119.29	453.0	
6	437	414.42	1,438.0	
7	490	8.76	27.1	
8	542	20.62	57.7	
9	10,380	75.00	10.9	Upper Marker

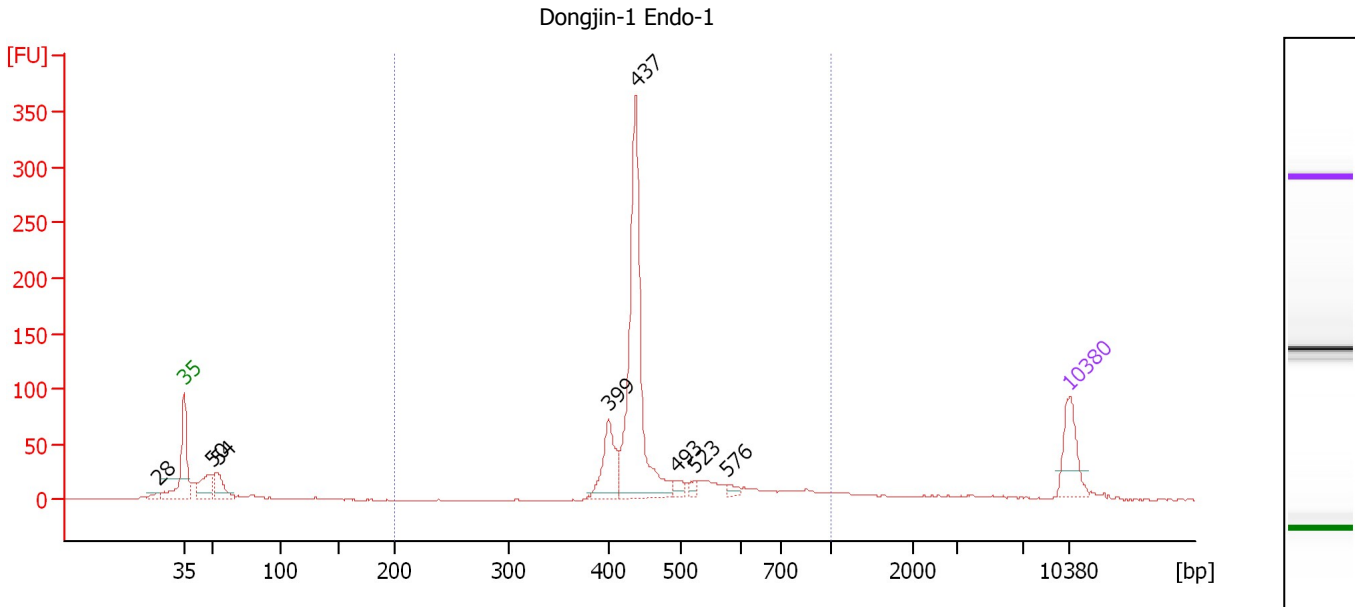
Region table for sample 7 : Dongjin-1 BF-2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	476	2,373.4	713.61	652.8	73	22.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
 Modified: 7/12/2012 9:54:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : Dongjin-1 Endo-1

Number of peaks found: 8 Corr. Area 1: 794.3
 Noise: 0.4

Peak table for sample 8 : Dongjin-1 Endo-1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	28	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	50	89.20	2,726.4	
4	54	75.85	2,139.1	
5	399	120.02	455.6	
6	437	525.86	1,822.7	
7	493	18.45	56.7	
8	523	13.03	37.8	
9	576	11.82	31.1	
10	10,380	75.00	10.9	Upper Marker

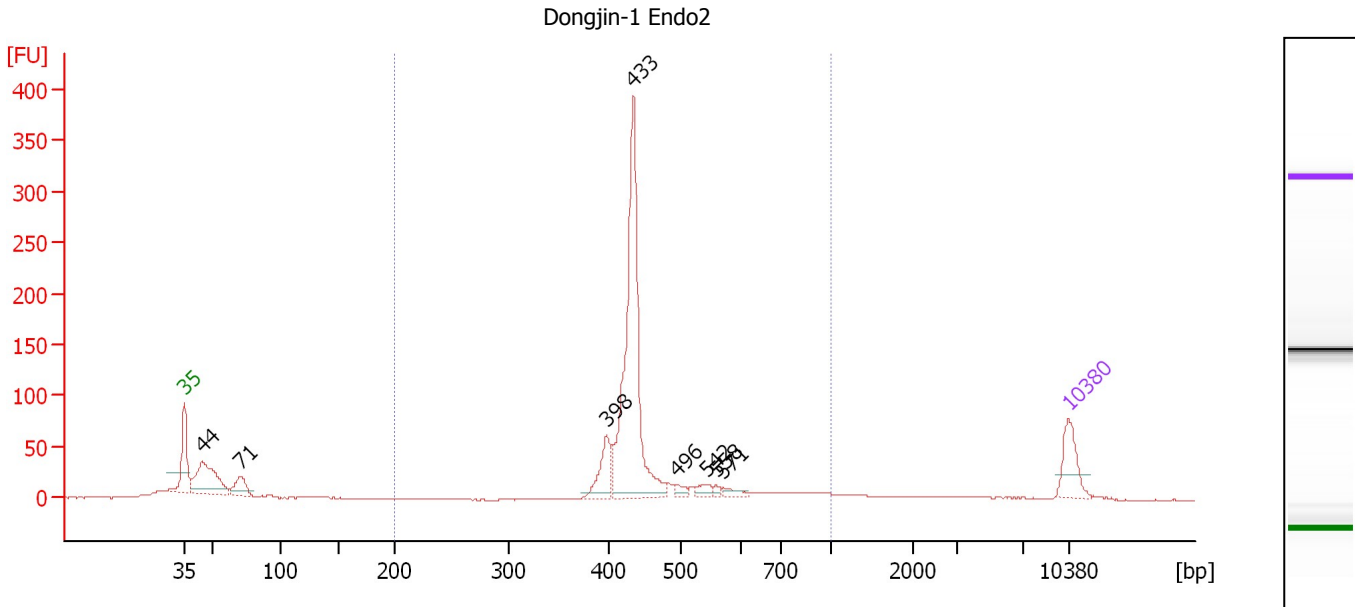
Region table for sample 8 : Dongjin-1 Endo-1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	477	2,767.8	835.60	794.3	75	22.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
 Modified: 7/12/2012 9:54:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : Dongjin-1 Endo2

Number of peaks found: 8 Corr. Area 1: 810.7
 Noise: 0.3

Peak table for sample 9 : Dongjin-1 Endo2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	44	244.48	8,353.5	
3	71	74.09	1,585.8	
4	398	104.01	396.3	
5	433	699.07	2,443.4	
6	496	17.78	54.3	
7	542	23.49	65.7	
8	558	8.91	24.2	
9	571	16.68	44.3	
10	10,380	75.00	10.9	Upper Marker

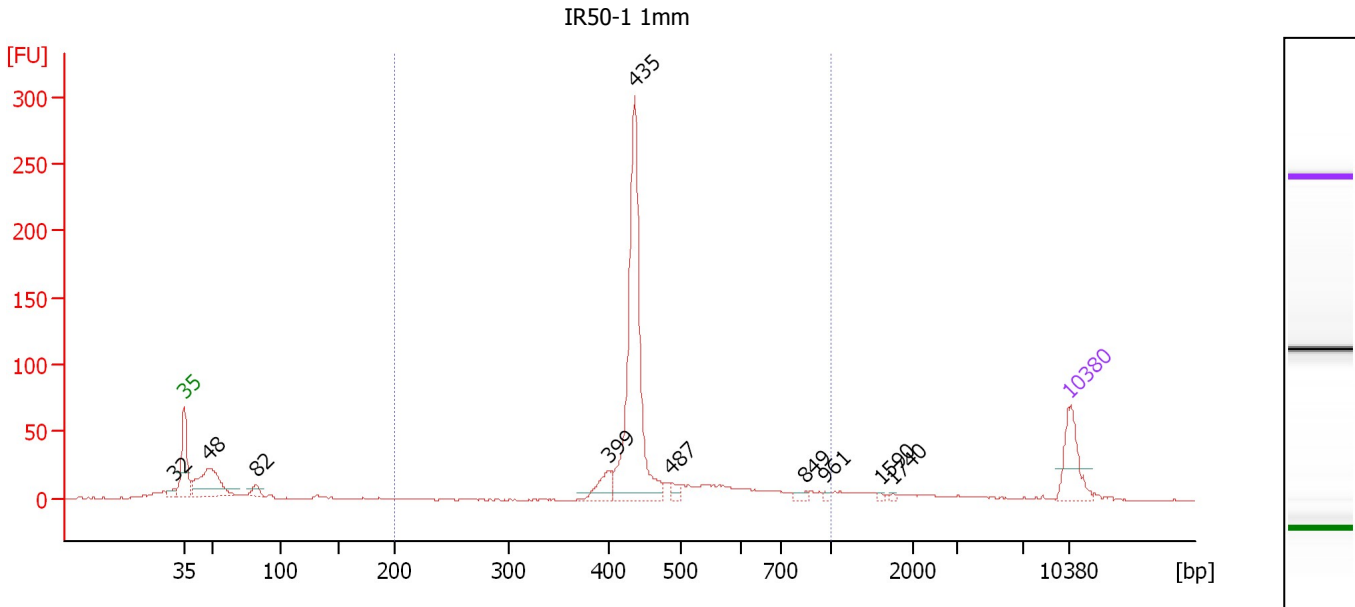
Region table for sample 9 : Dongjin-1 Endo2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	463	3,282.2	967.83	810.7	71	20.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
 Modified: 7/12/2012 9:54:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : IR50-1 1mm

Number of peaks found: 10 Corr. Area 1: 582.5
 Noise: 0.3

Peak table for sample 10 : IR50-1 1mm

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	32	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	48	188.25	5,923.5	
4	82	24.53	453.7	
5	399	48.73	184.9	
6	435	547.71	1,906.9	
7	487	15.64	48.6	
8	849	9.11	16.2	
9	961	4.66	7.4	
10	1,590	3.34	3.2	
11	1,740	2.92	2.5	
12	10,380	75.00	10.9	Upper Marker

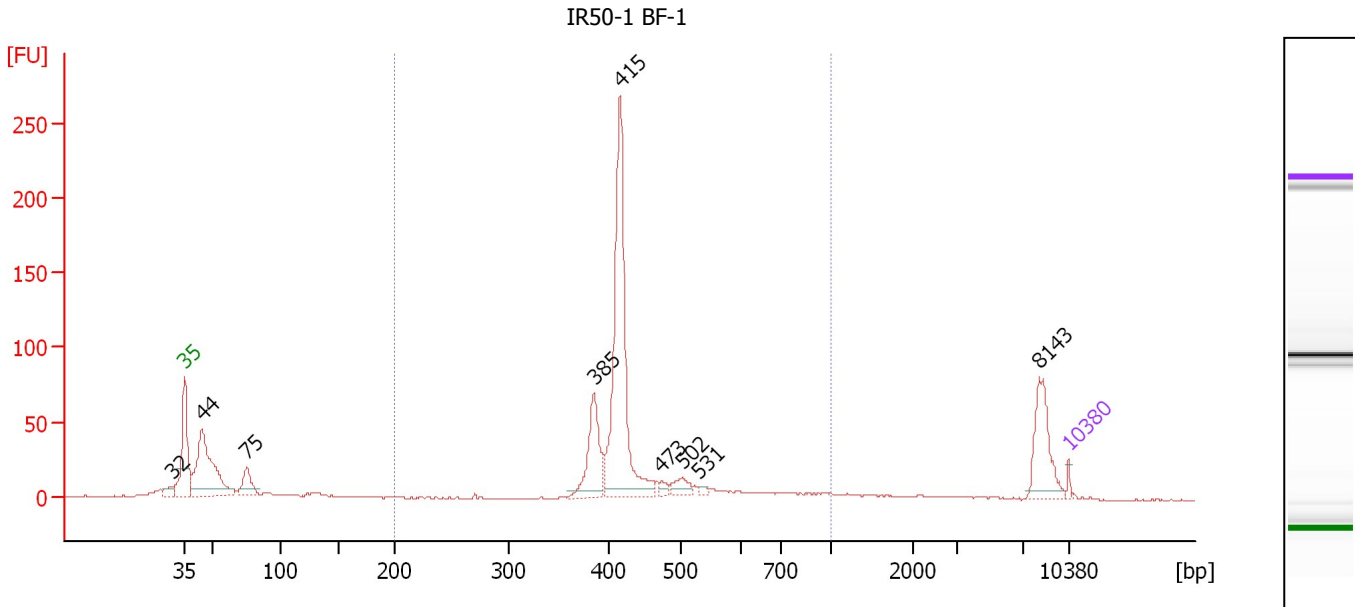
Region table for sample 10 : IR50-1 1mm

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	478	2,499.4	755.78	582.5	69	22.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
 Modified: 7/12/2012 9:54:17 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : IR50-1 BF-1

Number of peaks found: 9 Corr. Area 1: 565.3
 Noise: 0.3

Peak table for sample 11 : IR50-1 BF-1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	32	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	44	3,945.40	134,563.0	
4	75	819.49	16,487.7	
5	385	1,722.18	6,780.1	
6	415	5,955.19	21,726.5	
7	473	152.37	488.3	
8	502	351.69	1,061.7	
9	531	95.26	271.6	
10	8,143	1,258.41	234.1	
11	10,380	75.00	10.9	Upper Marker

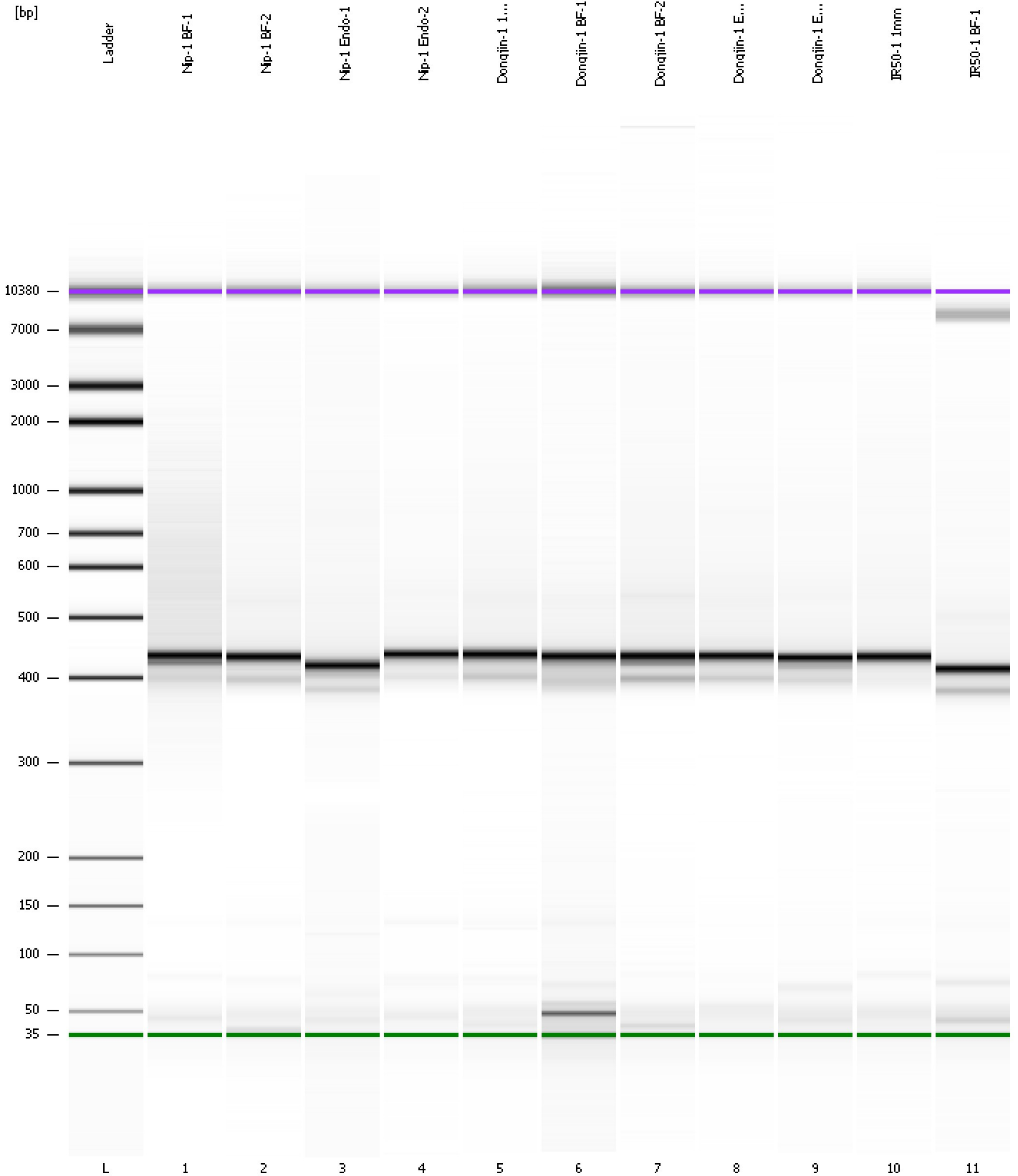
Region table for sample 11 : IR50-1 BF-1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	444	33,267.2	9,408.51	565.3	60	21.3	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
Modified: 7/12/2012 9:54:17 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad

Created: 7/12/2012 9:12:53 AM
 Modified: 7/12/2012 9:54:17 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		7/12/2012 9:54:12 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-07-12\2012-07-12_001.xad)		Instrument	Run		7/12/2012 9:12:59 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		7/12/2012 9:12:59 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/12/2012 9:12:59 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/12/2012 9:12:59 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		7/12/2012 9:12:59 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/12/2012 9:12:59 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/12/2012 9:12:59 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1